

Headphone Measurement Datasheets

All Headphones November 2016

Those wishing to get headphones measured
should send all inquiries by email to:

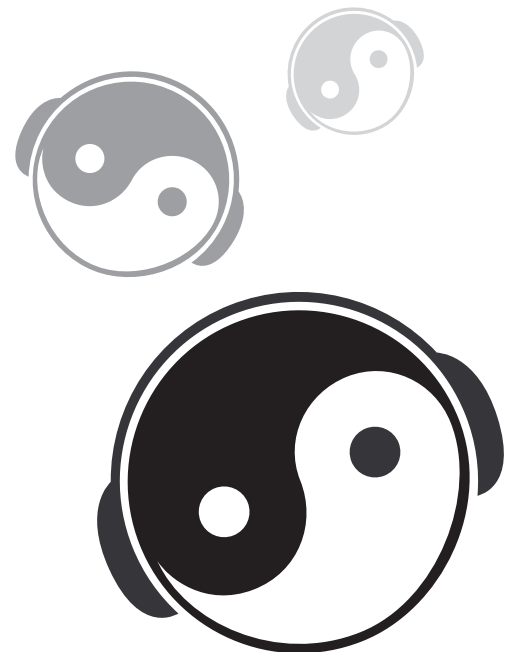
Tyll Hertsens
InnerFidelity, Editor-in-Chief
tyll@innerfidelity. com

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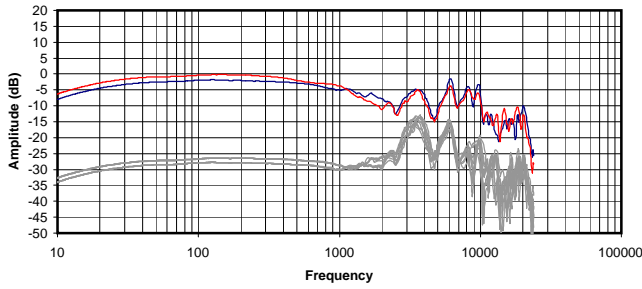


Headphone Measurement Datasheets

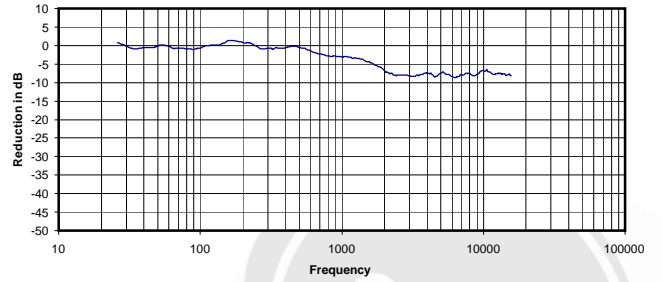
Full-Size Open



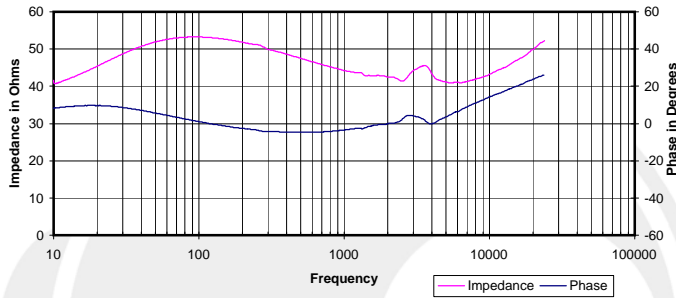
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



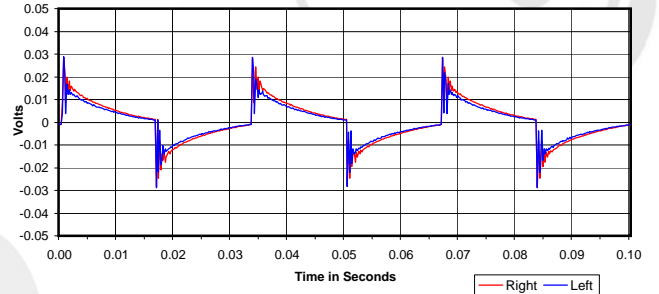
Isolation
 Attenuation of External Sound vs. Frequency



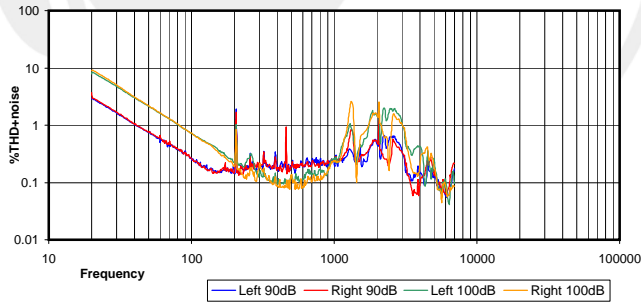
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



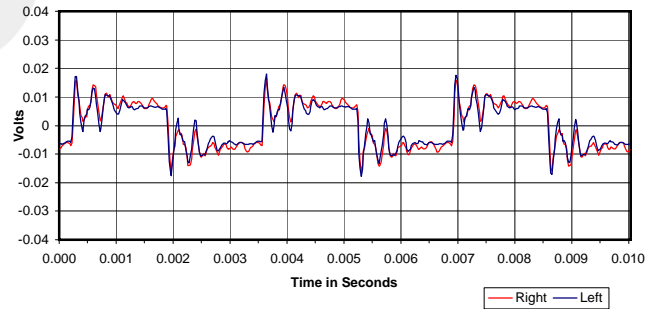
30 Hz Square Wave



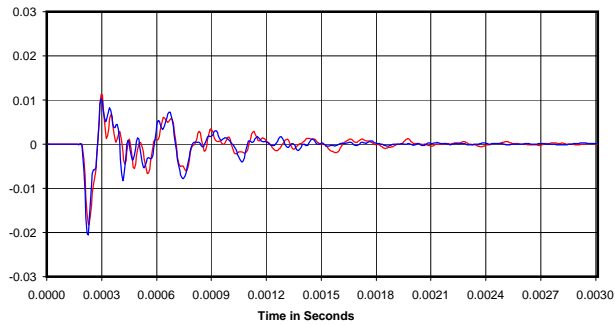
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

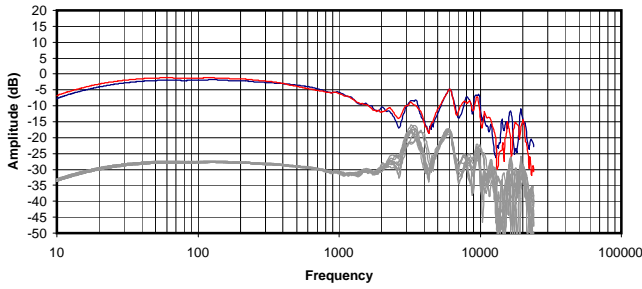


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

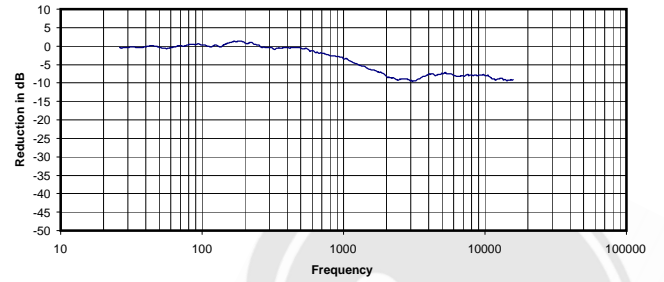
0.191 Vrms
 44 Ohms
 0.83 mW
 -3 dB



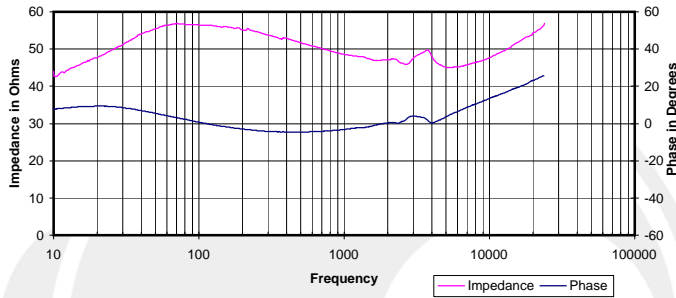
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



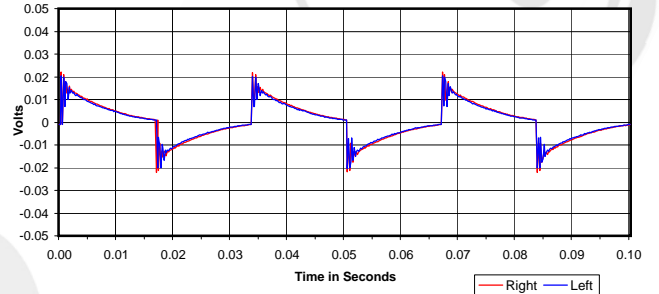
Isolation
 Attenuation of External Sound vs. Frequency



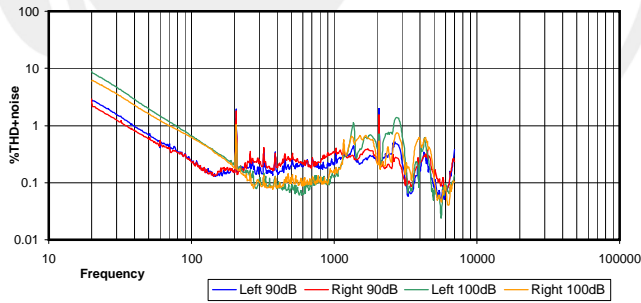
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



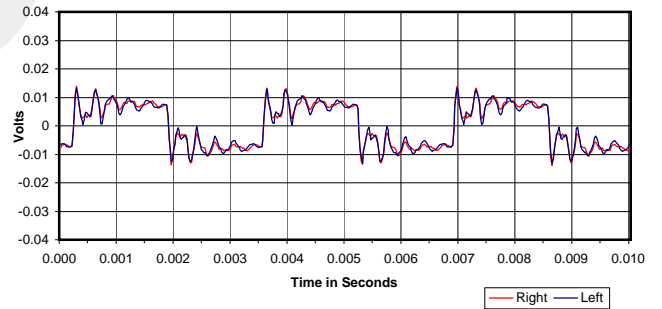
30 Hz Square Wave



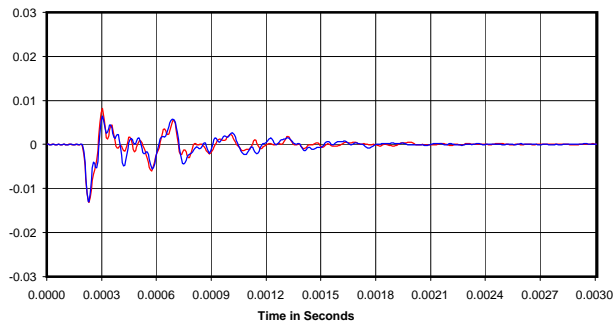
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



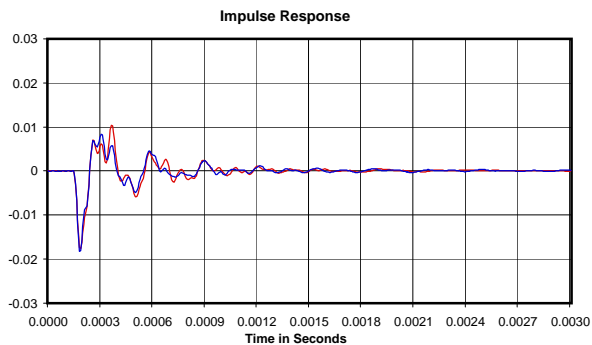
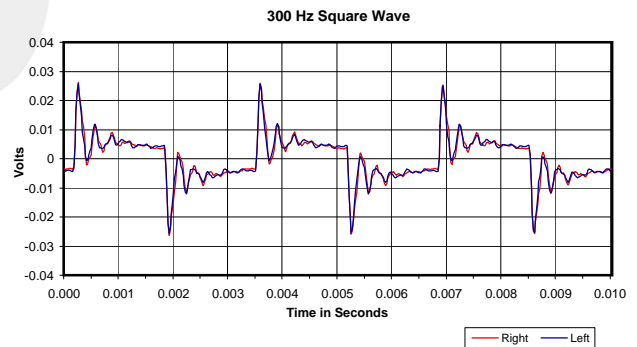
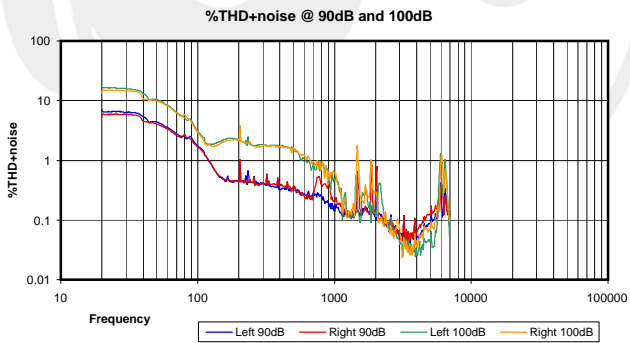
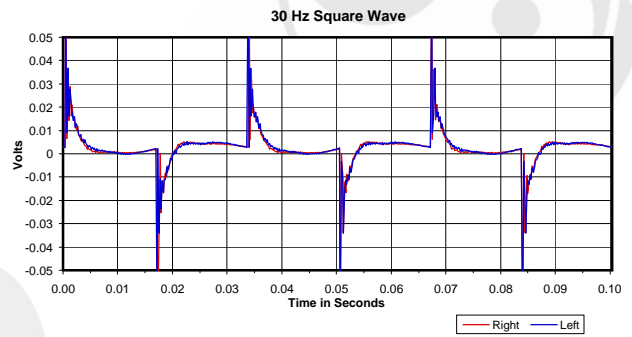
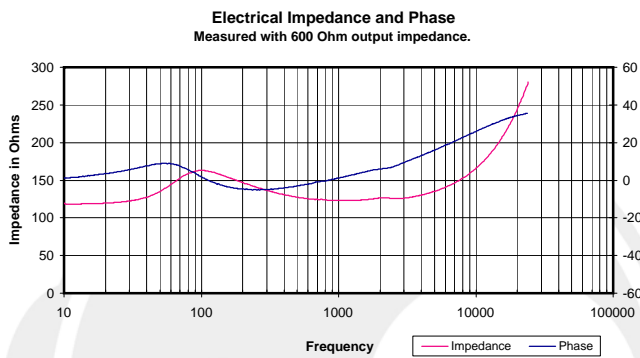
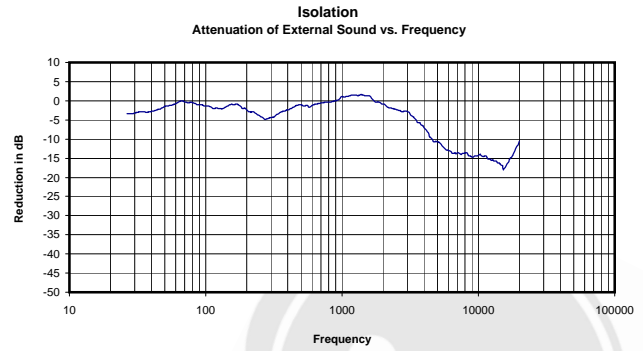
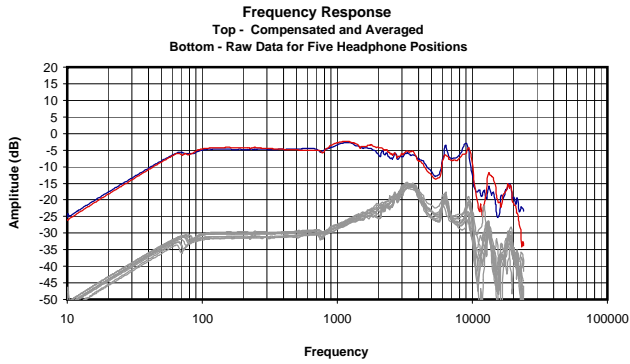
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.174 Vrms
 49 Ohms
 0.63 mW
 -3 dB



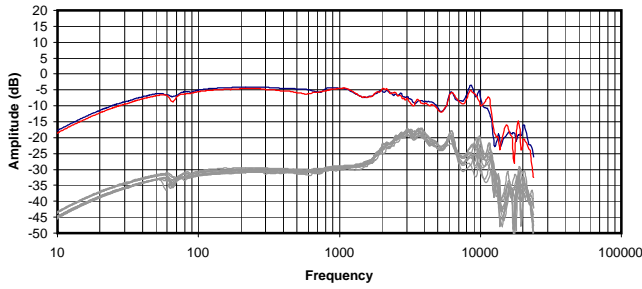


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

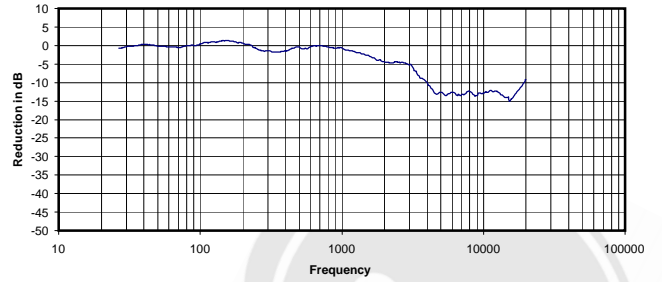
0.390 Vrms
123 Ohms
1.24 mW
-4 dBr



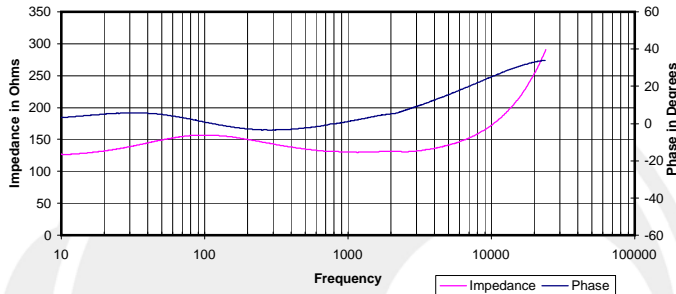
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



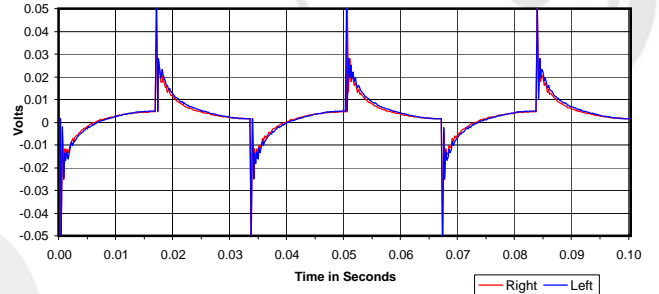
Isolation
 Attenuation of External Sound vs. Frequency



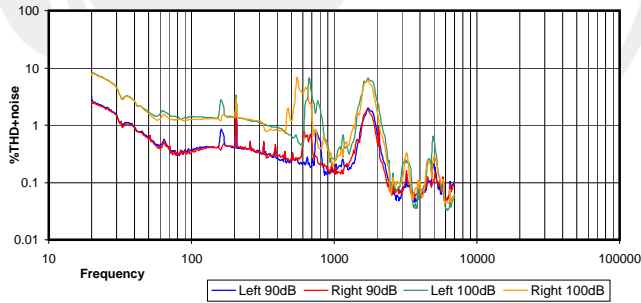
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



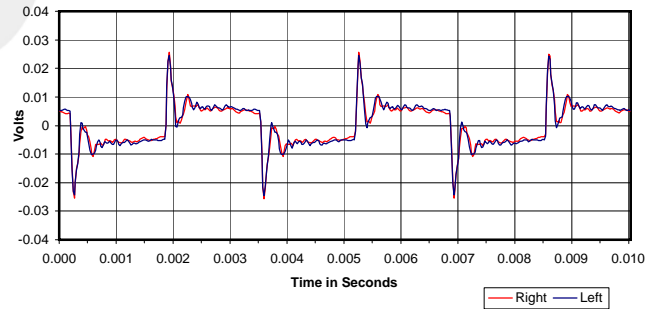
30 Hz Square Wave



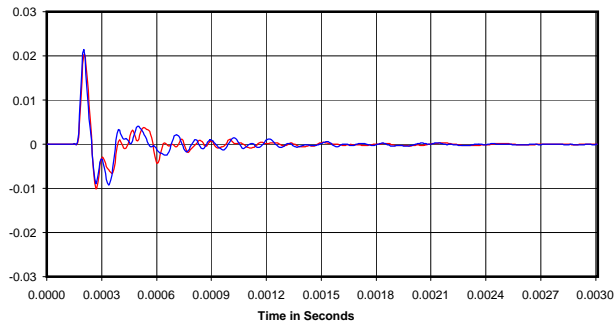
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



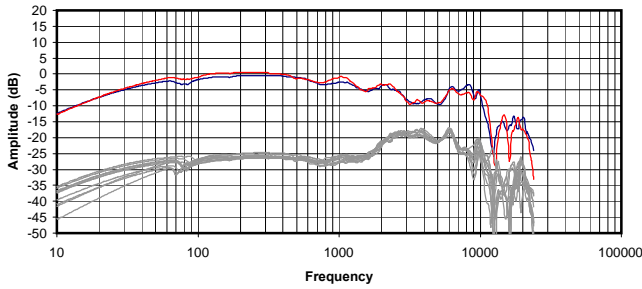
Impulse Response



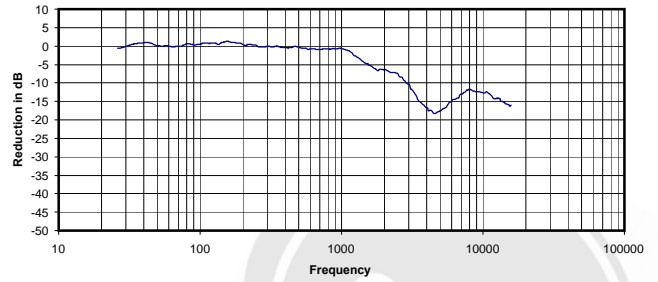
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.481 Vrms
 130 Ohms
 1.78 mW
 -4 dB

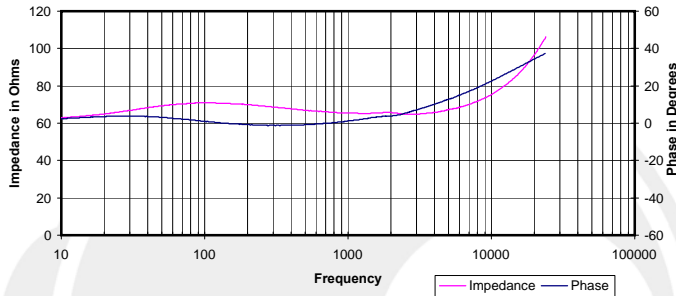
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



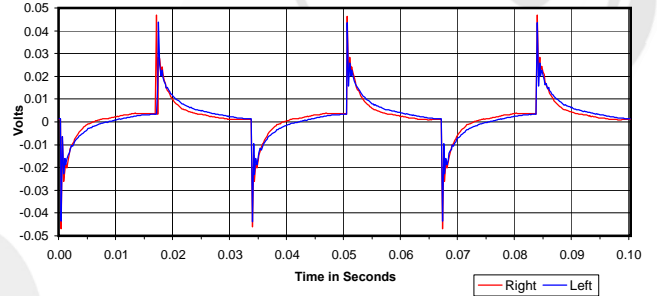
Isolation
 Attenuation of External Sound vs. Frequency



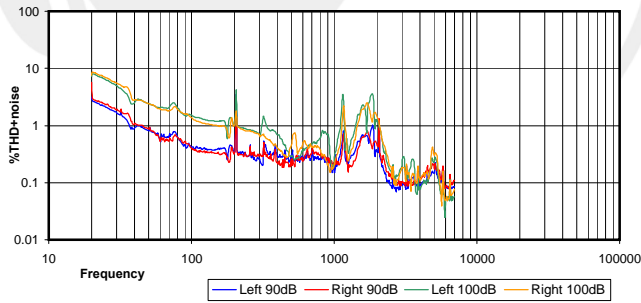
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



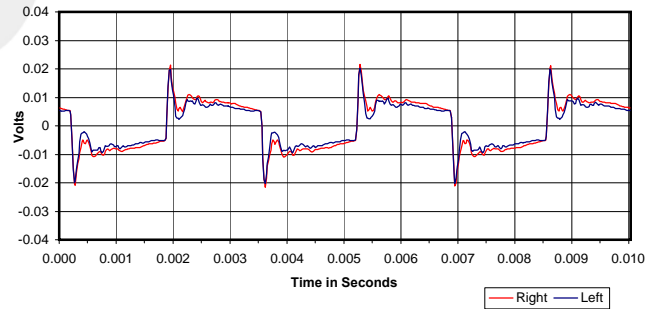
30 Hz Square Wave



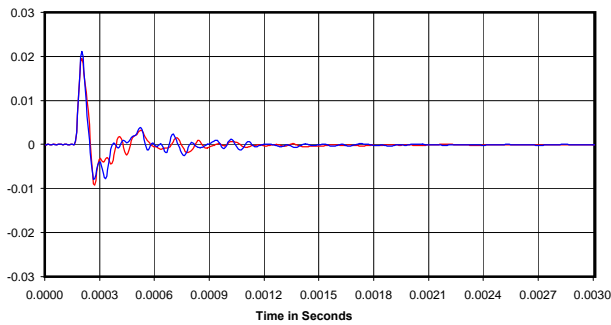
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

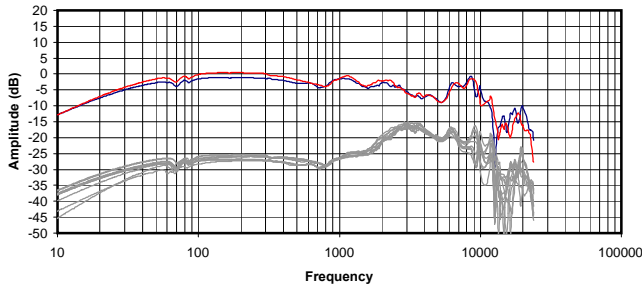


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

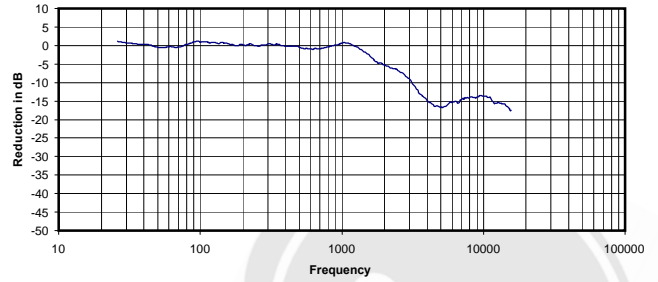
0.320 Vrms
 65 Ohms
 1.57 mW
 -4 dB



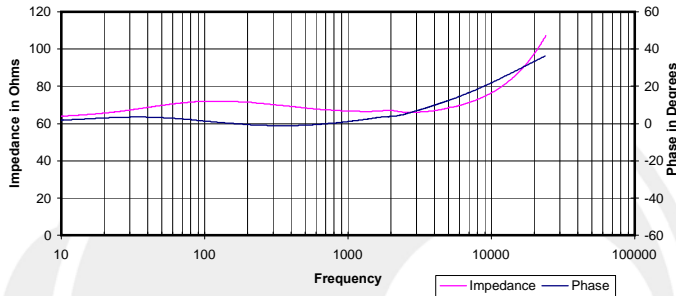
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



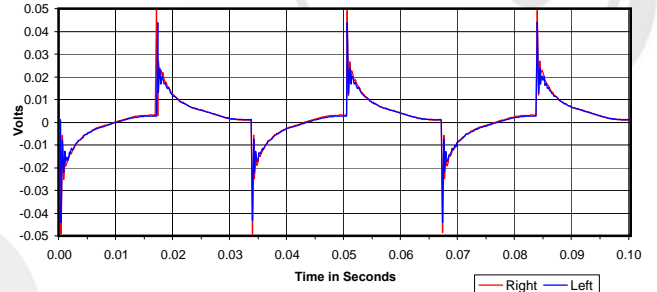
Isolation
 Attenuation of External Sound vs. Frequency



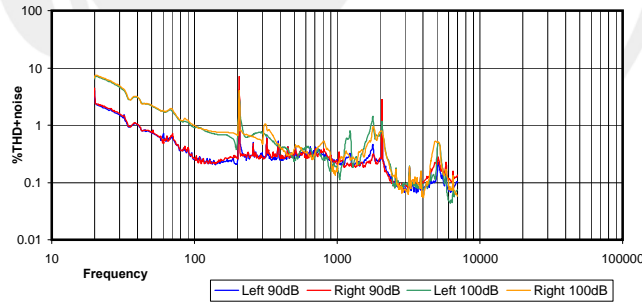
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



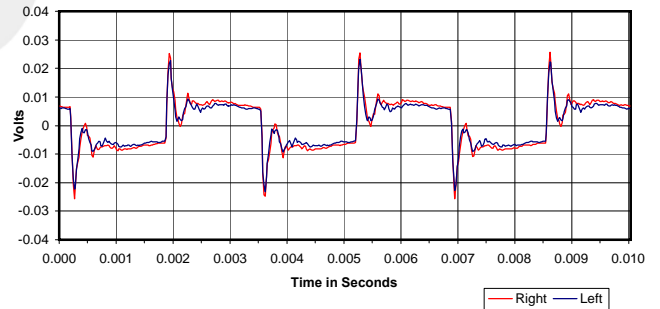
30 Hz Square Wave



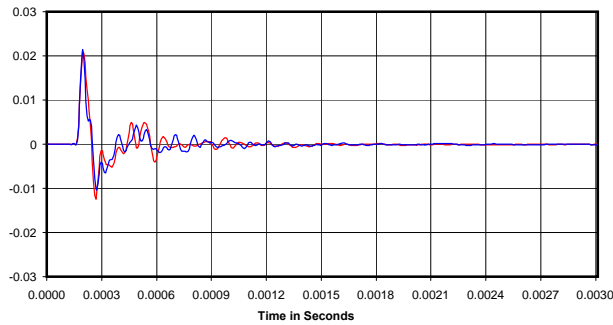
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

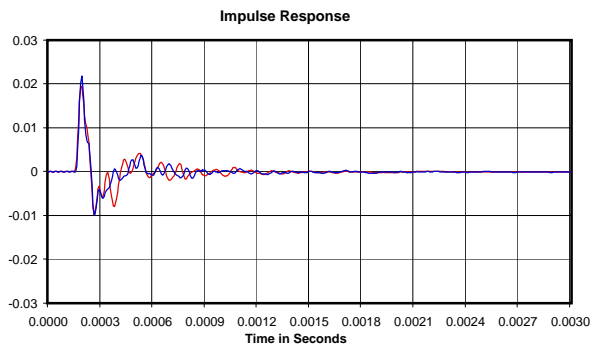
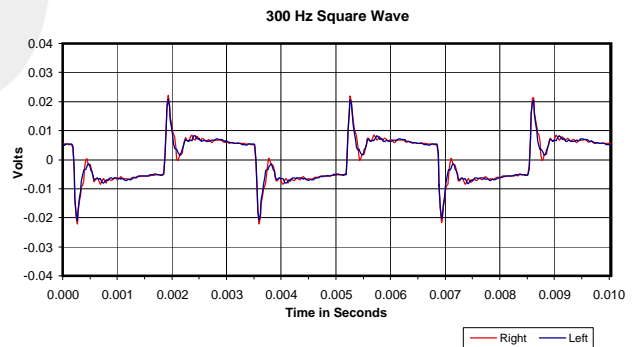
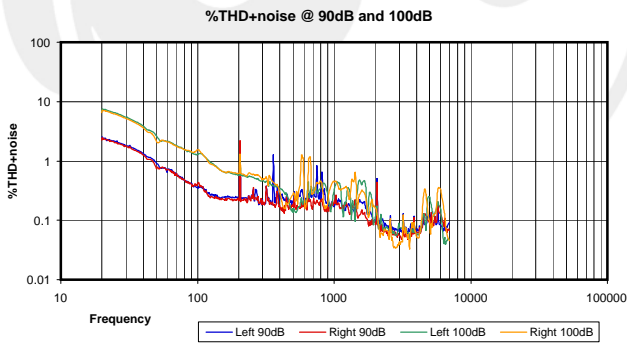
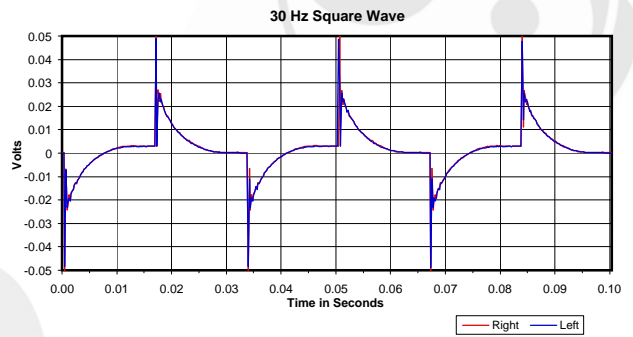
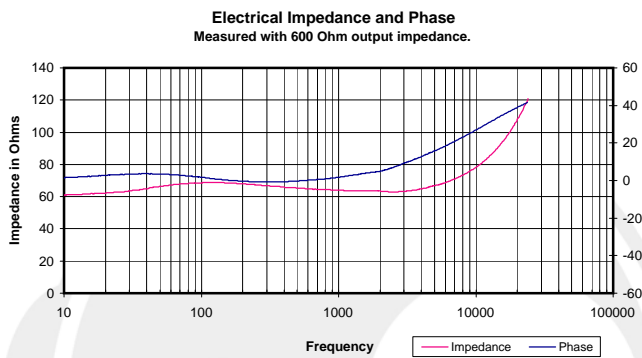
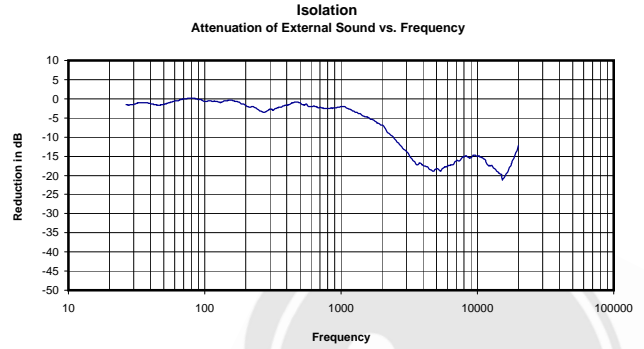
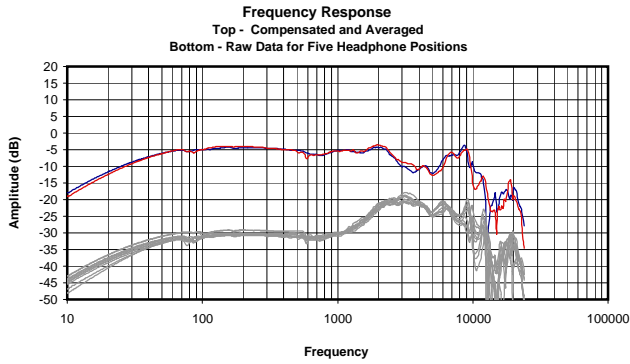


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.283 Vrms
 67 Ohms
 1.20 mW
 -4 dB

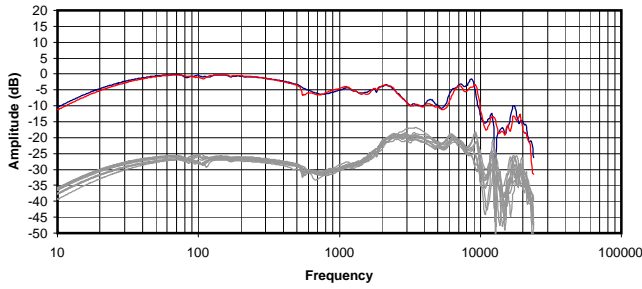


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

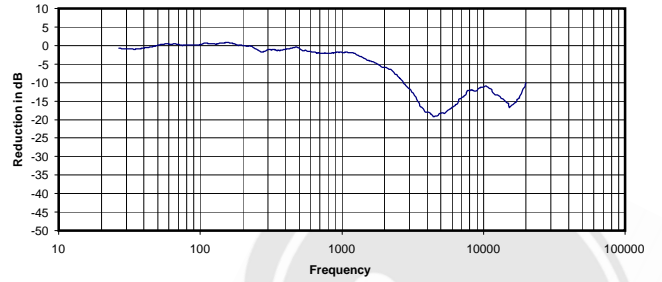
0.301 Vrms
64 Ohms
1.42 mW
-7 dB



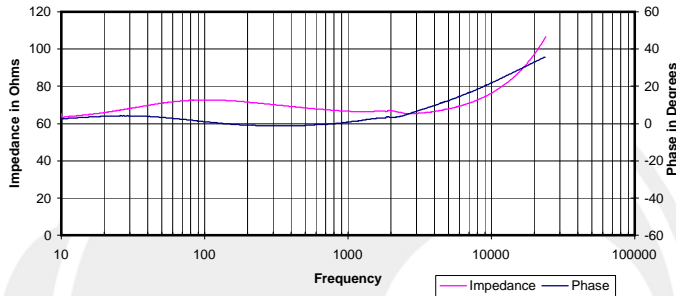
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



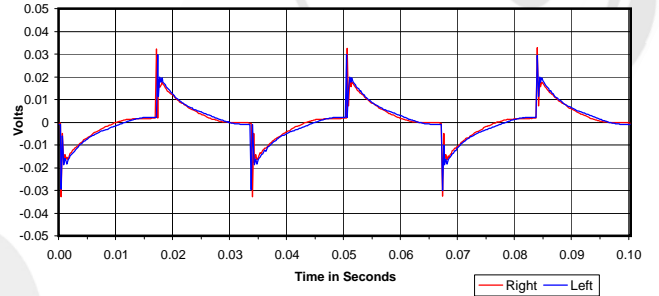
Isolation
 Attenuation of External Sound vs. Frequency



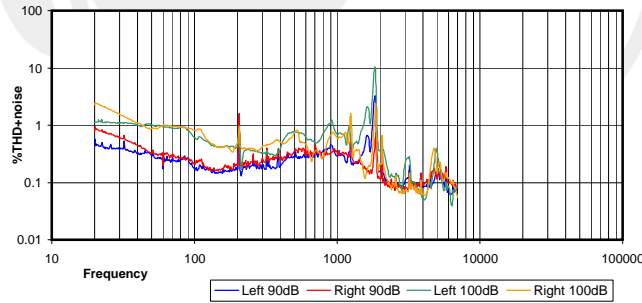
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



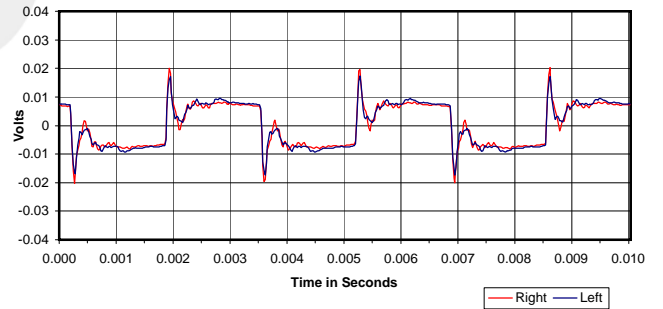
30 Hz Square Wave



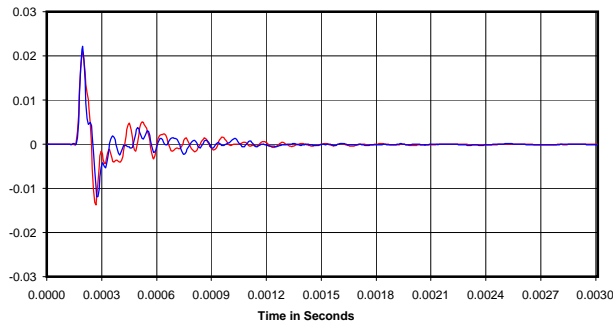
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

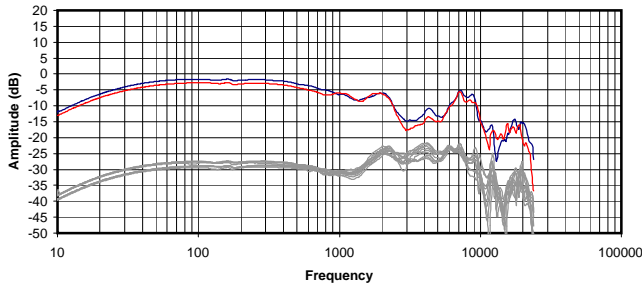


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

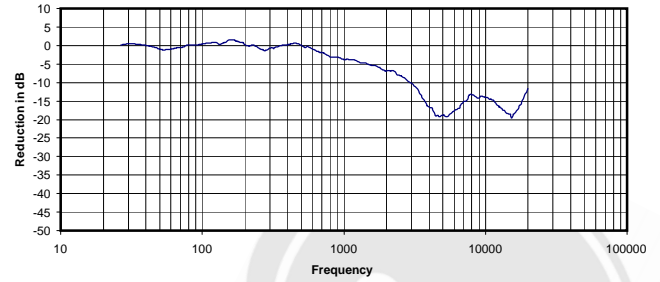
0.322 Vrms
 67 Ohms
 1.56 mW
 -6 dBr



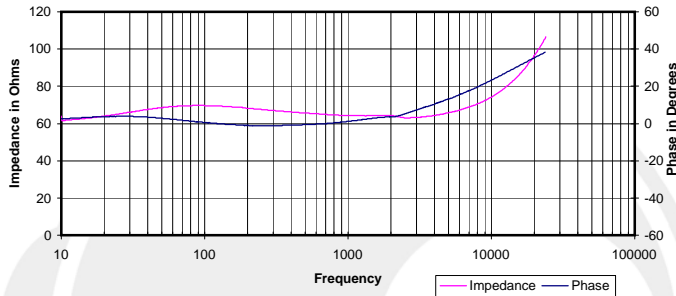
Frequency Response
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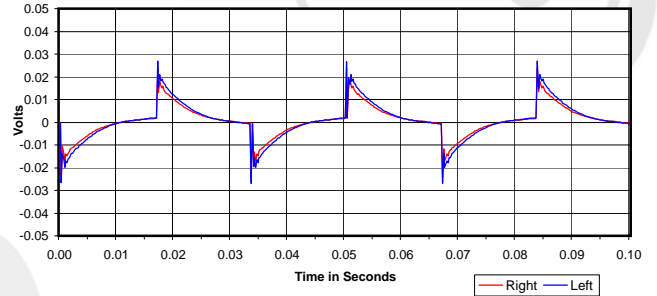
Isolation
 Attenuation of External Sound vs. Frequency



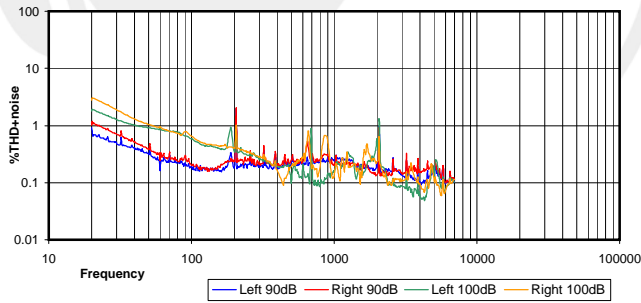
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



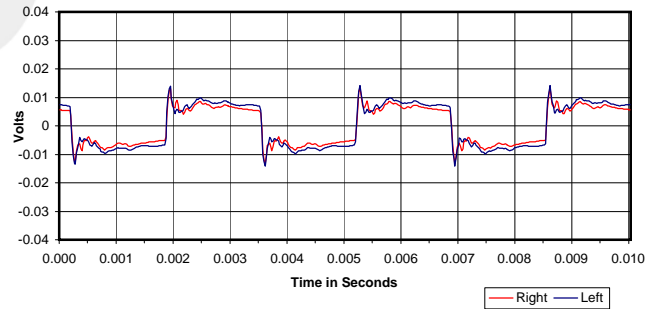
30 Hz Square Wave



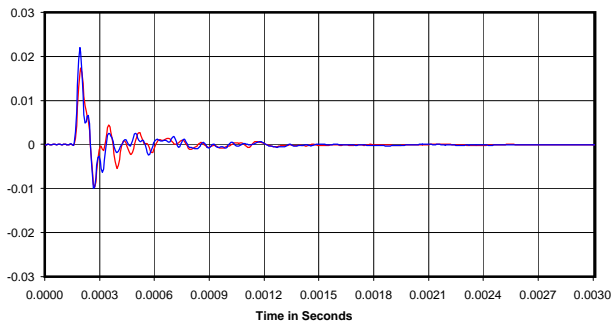
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

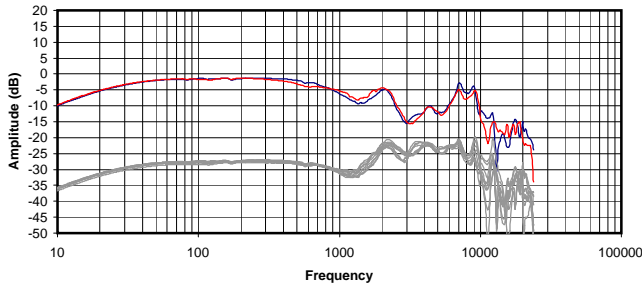


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

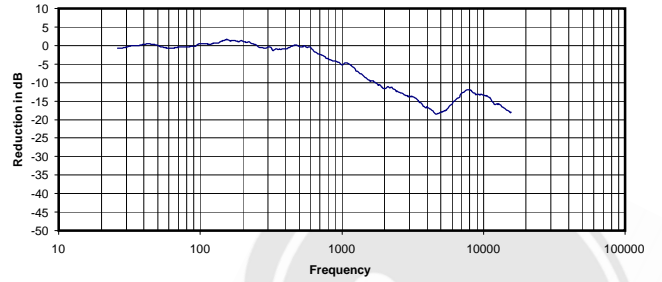
0.270 Vrms
 64 Ohms
 1.13 mW
 -6 dB



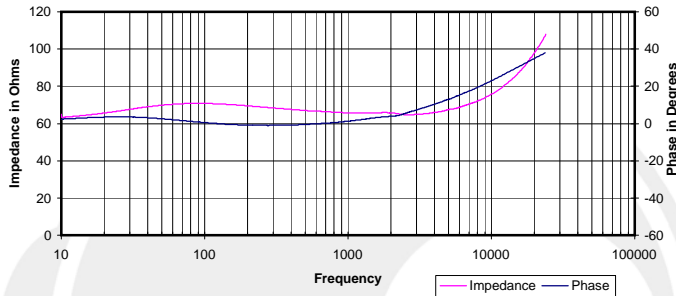
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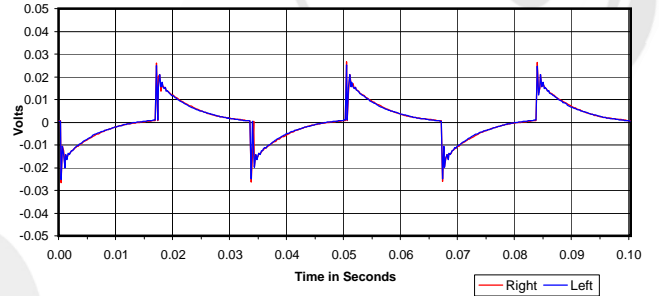
Isolation
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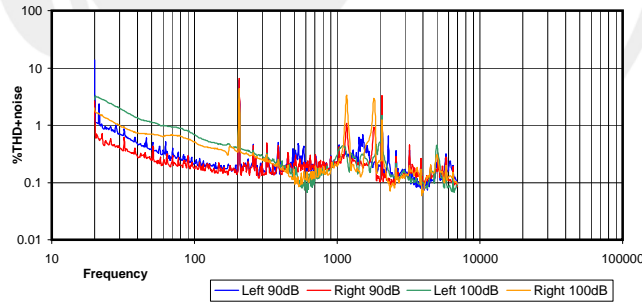
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



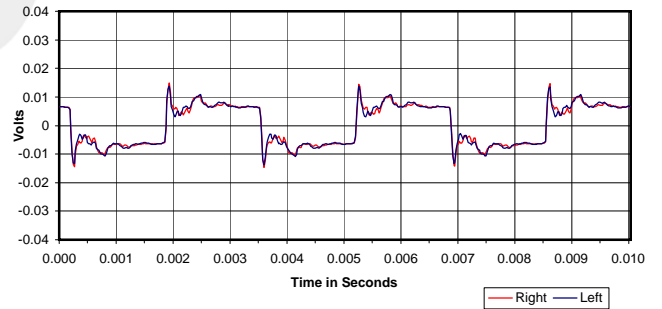
30 Hz Square Wave



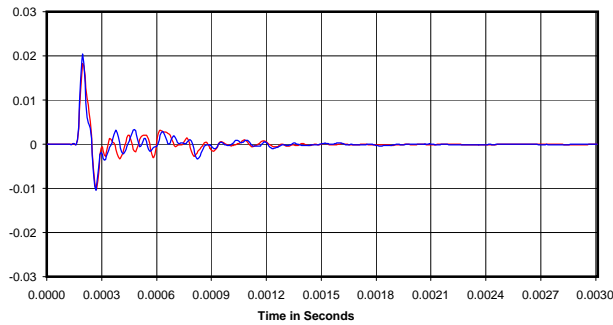
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

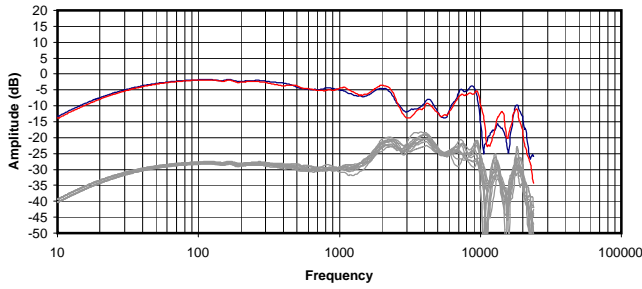


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

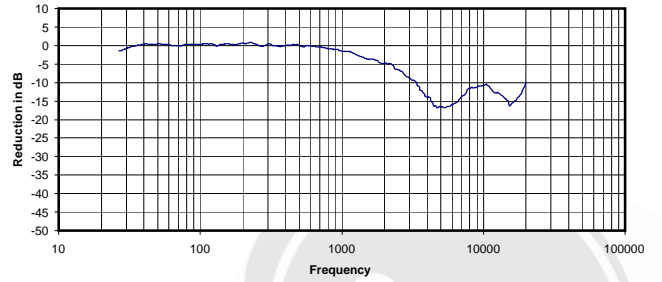
0.327 Vrms
 66 Ohms
 1.62 mW
 -6 dBr



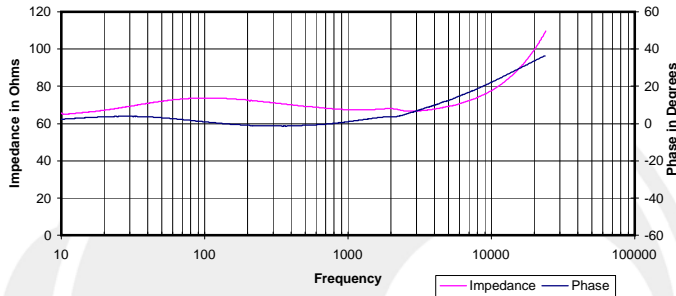
Frequency Response
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 Bottom - Raw Data for Five Headphone Positions



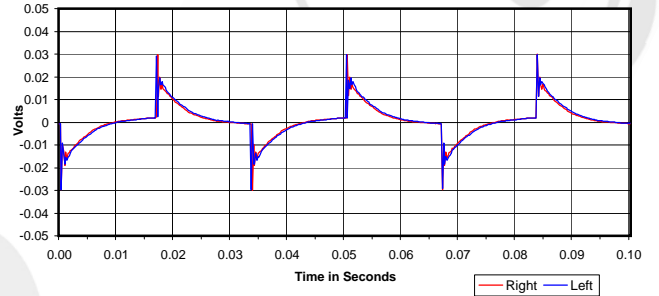
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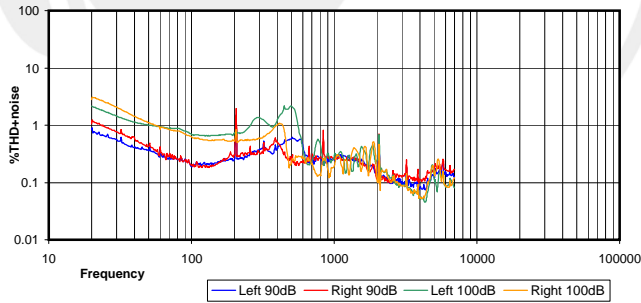
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



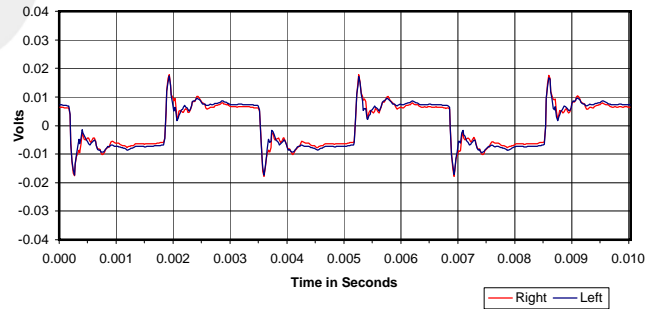
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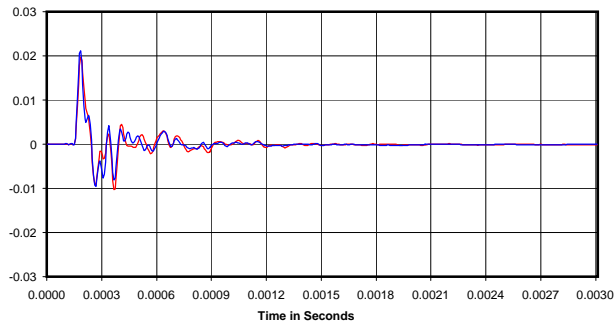
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

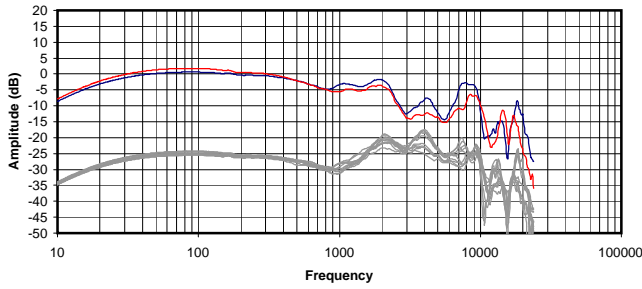


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

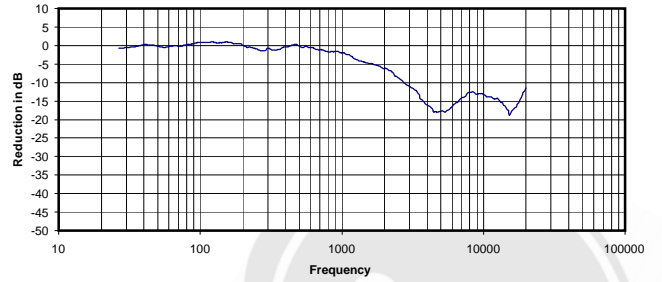
0.237 Vrms
 67 Ohms
 0.84 mW
 -5 dBr



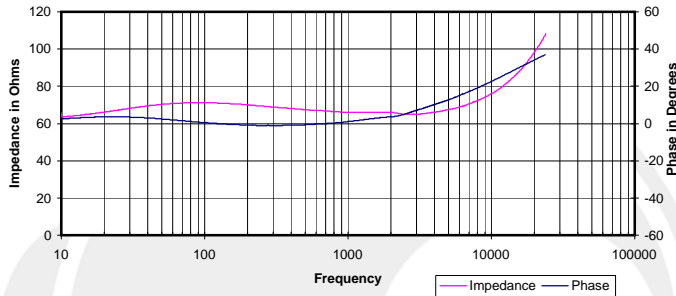
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



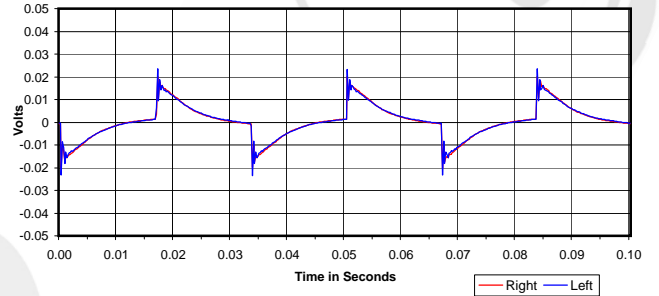
Isolation
 Attenuation of External Sound vs. Frequency



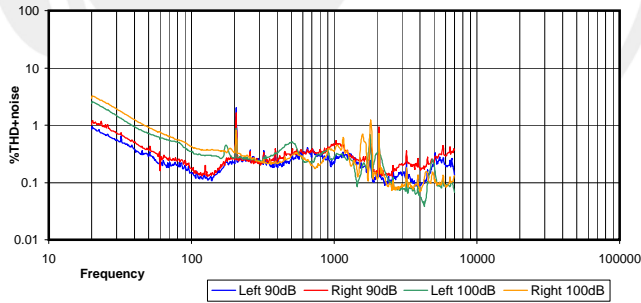
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



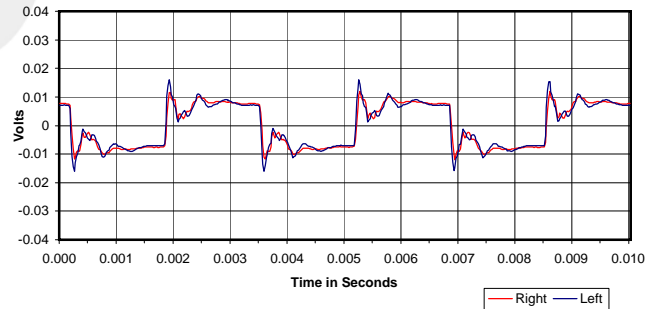
30 Hz Square Wave



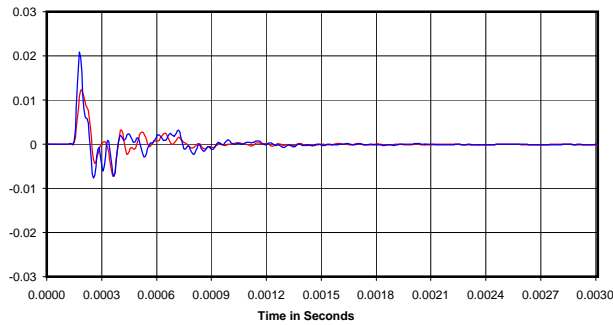
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



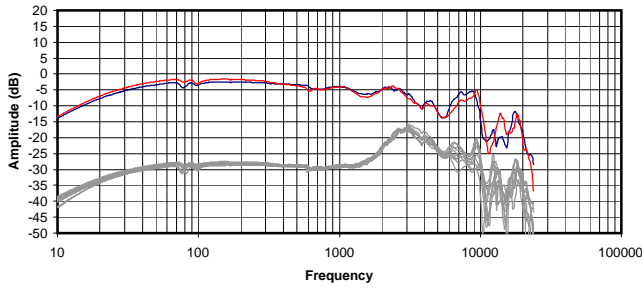
Impulse Response



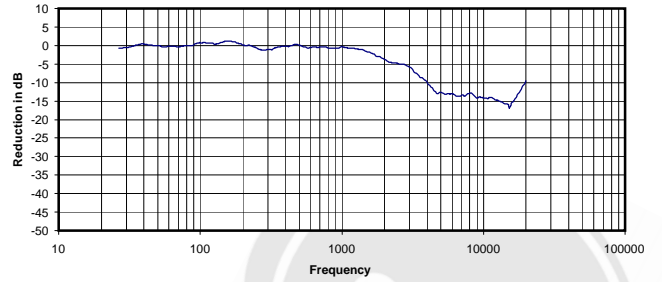
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.206 Vrms
 66 Ohms
 0.64 mW
 -6 dBr

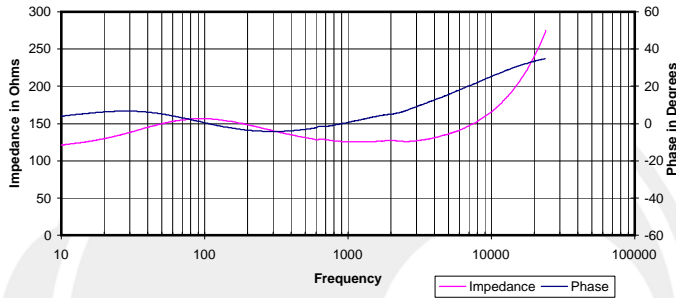
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



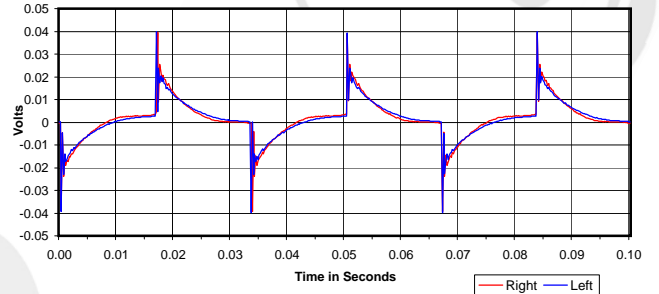
Isolation
 Attenuation of External Sound vs. Frequency



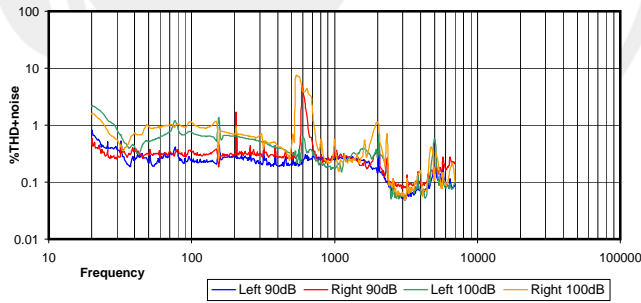
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



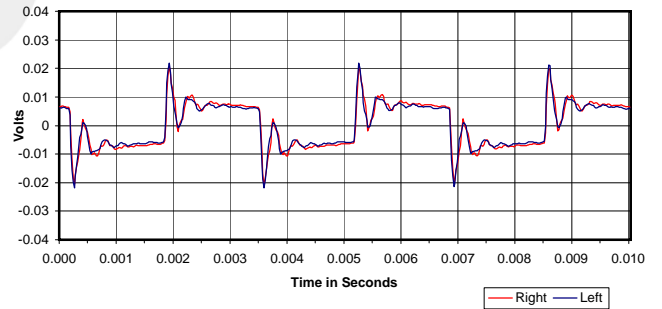
30 Hz Square Wave



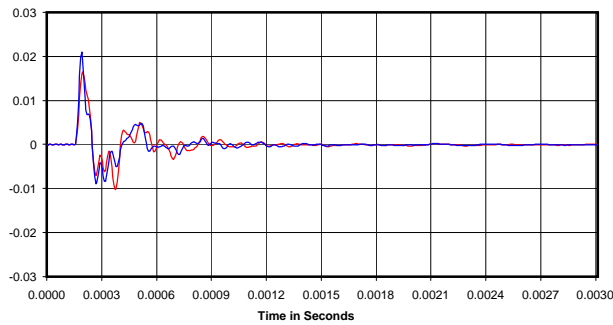
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



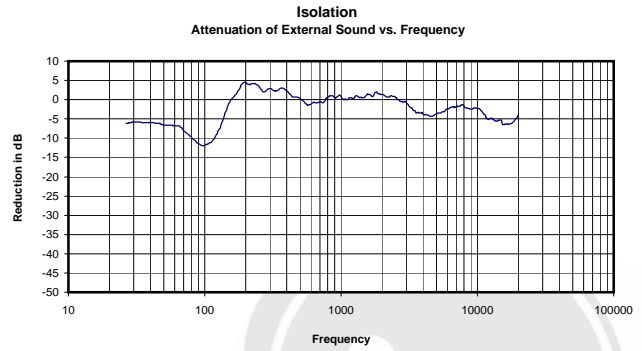
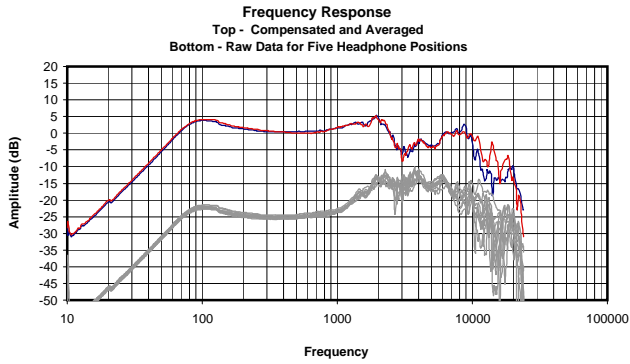
Impulse Response



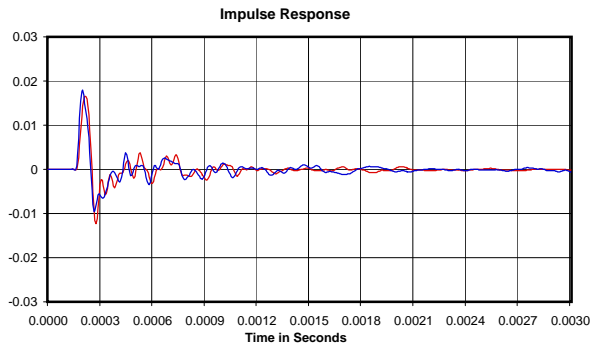
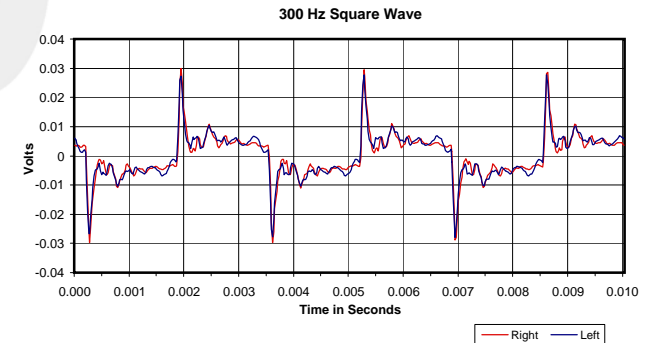
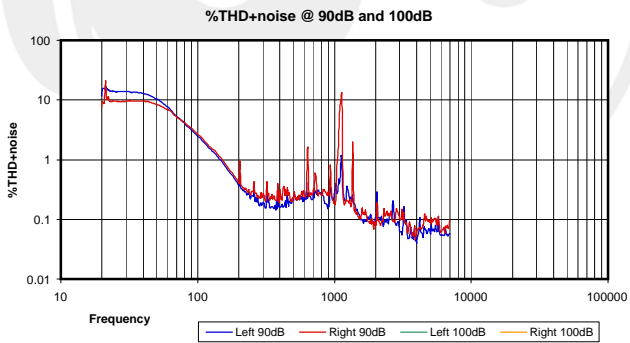
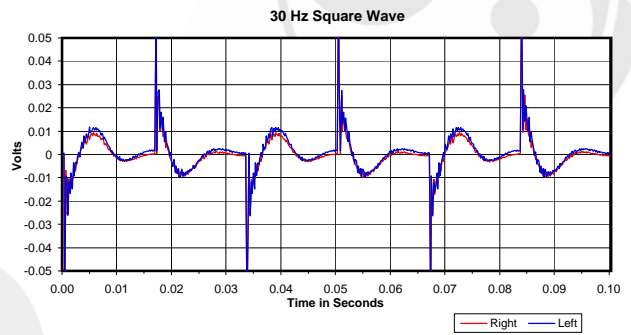
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.352 Vrms
 125 Ohms
 0.99 mW
 -4 dB



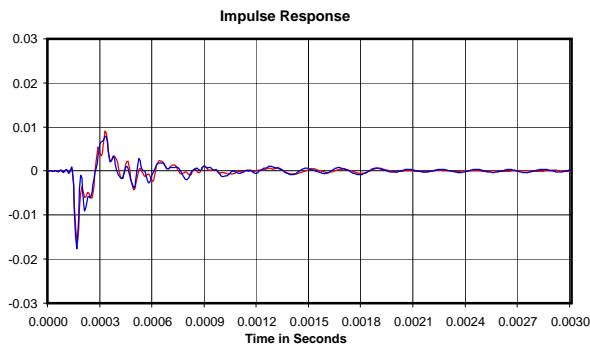
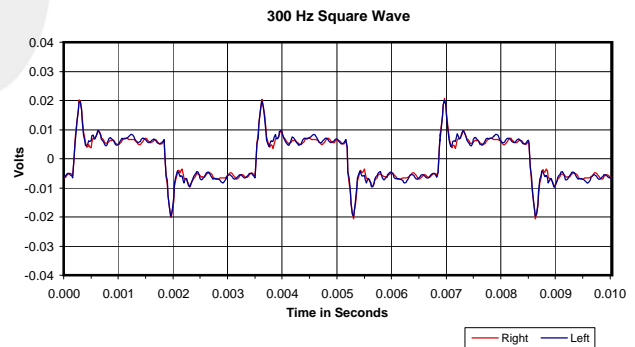
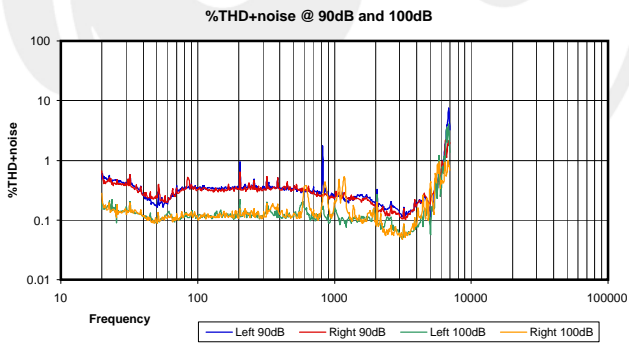
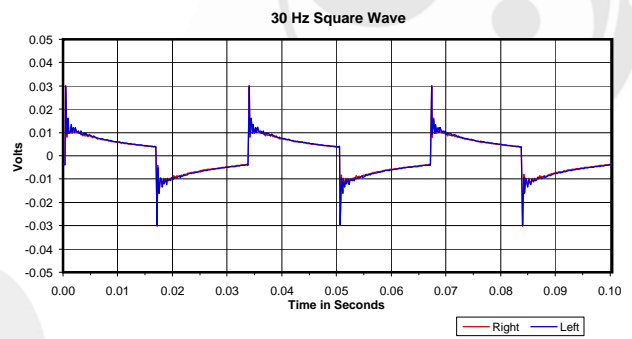
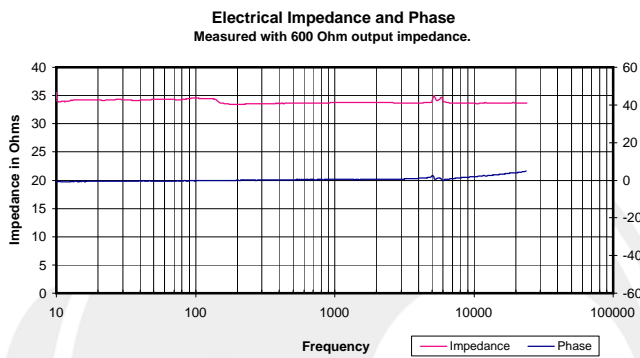
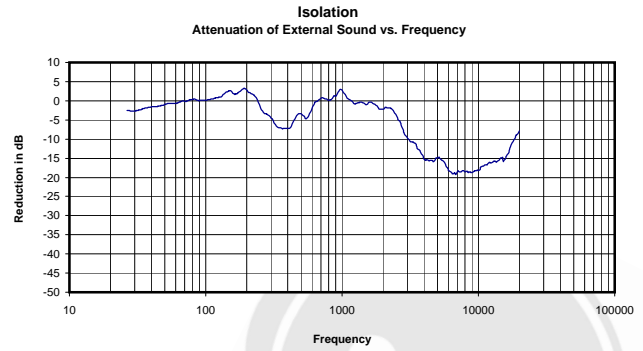
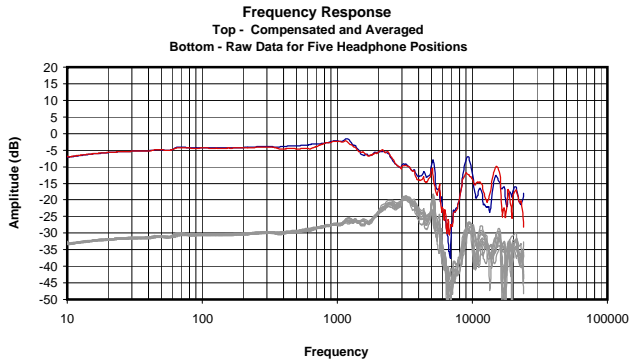


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones



Broadband Isolation in dB (100Hz to 10kHz):

-1 dBr

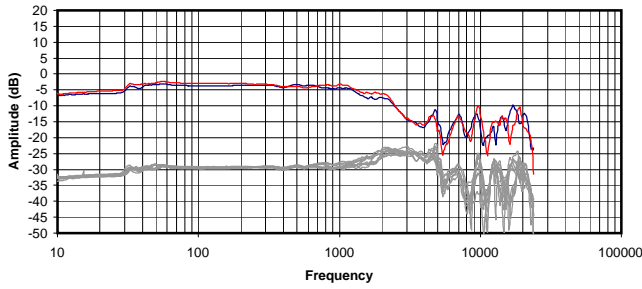


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

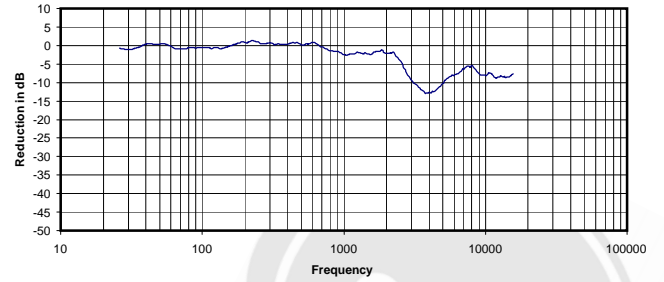
0.068 Vrms
34 Ohms
0.14 mW
-5 dBr



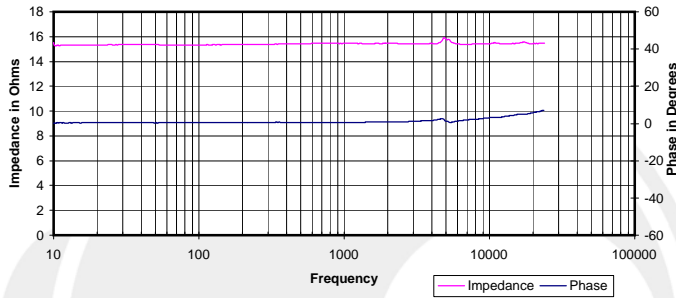
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



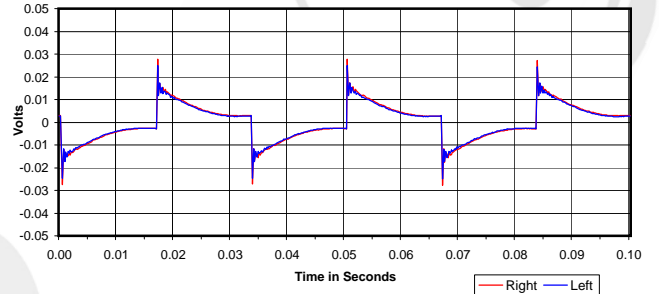
Isolation
 Attenuation of External Sound vs. Frequency



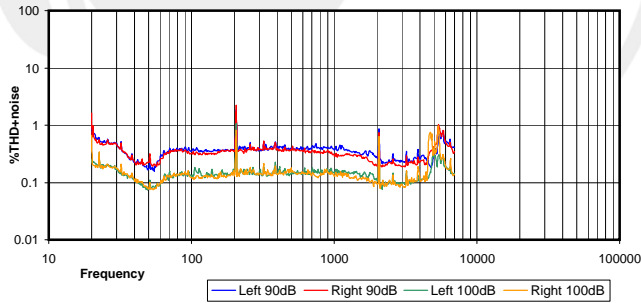
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



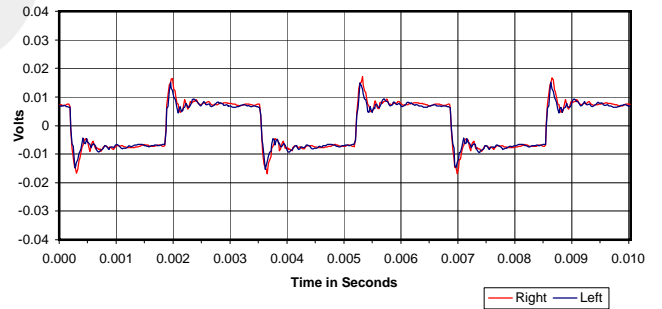
30 Hz Square Wave



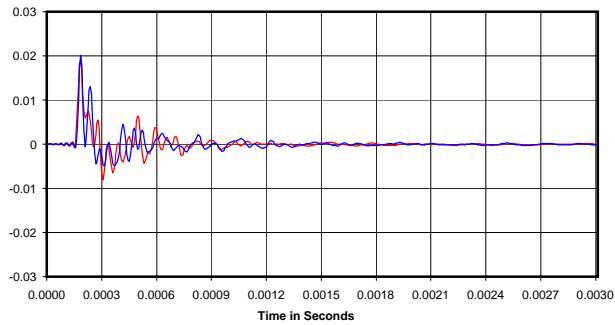
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

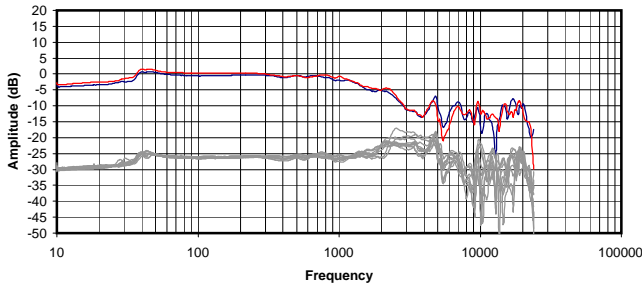


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

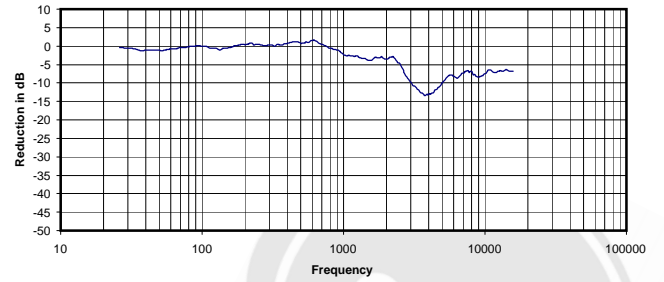
0.065 Vrms
 15 Ohms
 0.28 mW
 -3 dB



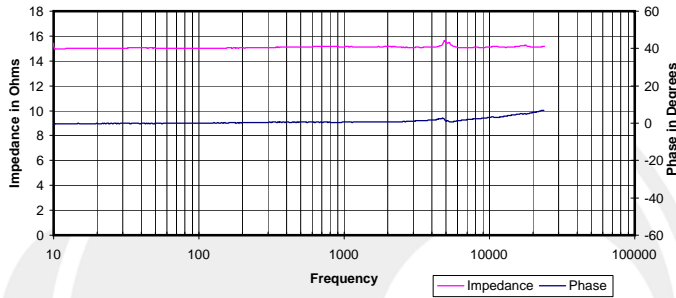
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



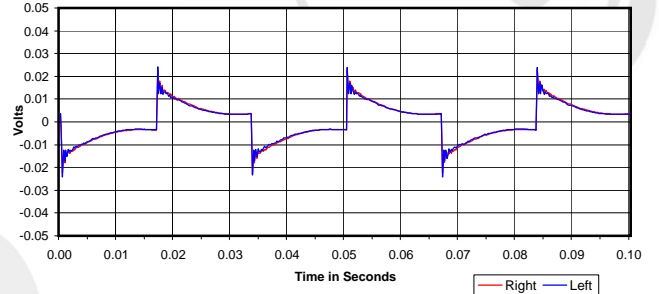
Isolation
 Attenuation of External Sound vs. Frequency



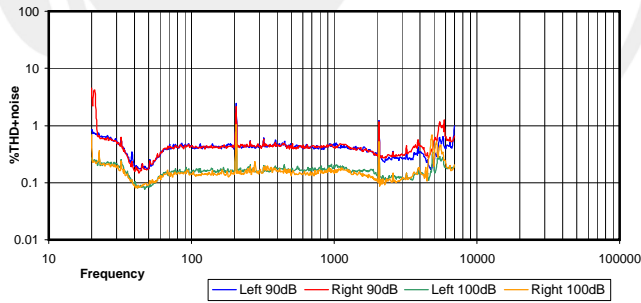
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



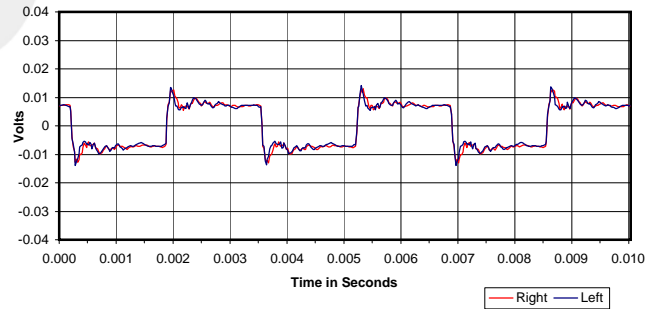
30 Hz Square Wave



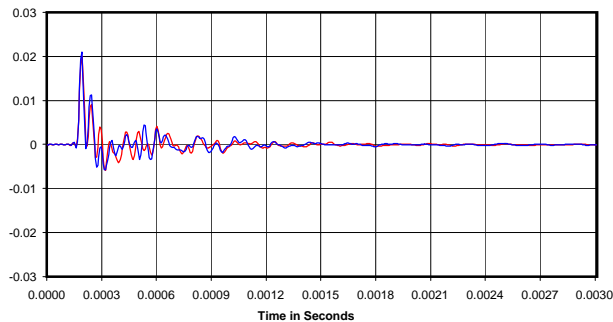
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

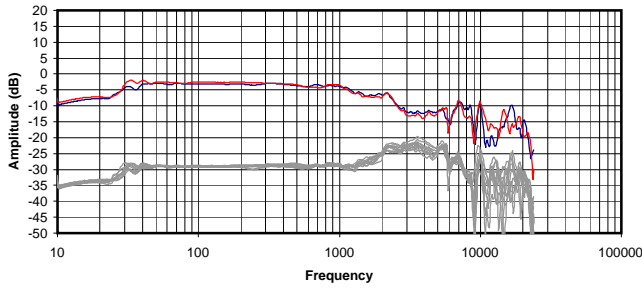


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

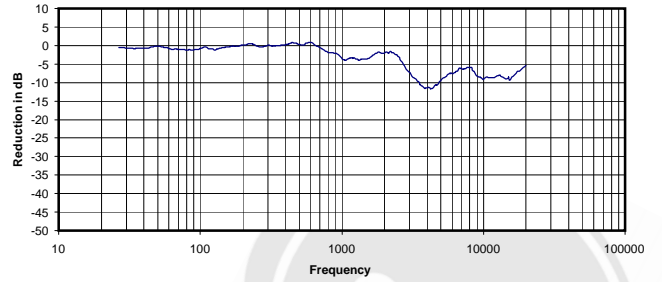
0.070 Vrms
 15 Ohms
 0.32 mW
 -3 dBr



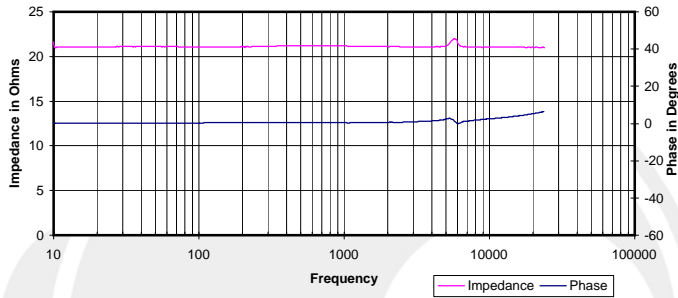
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



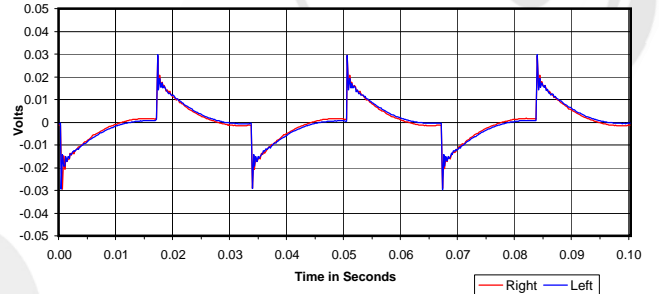
Isolation
 Attenuation of External Sound vs. Frequency



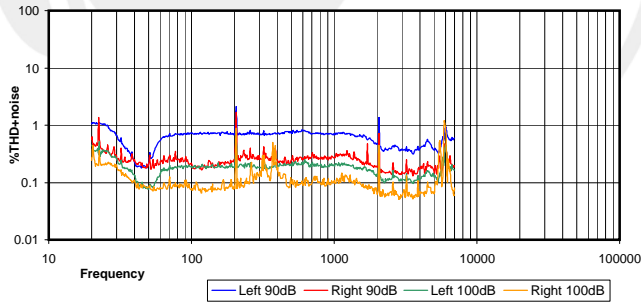
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



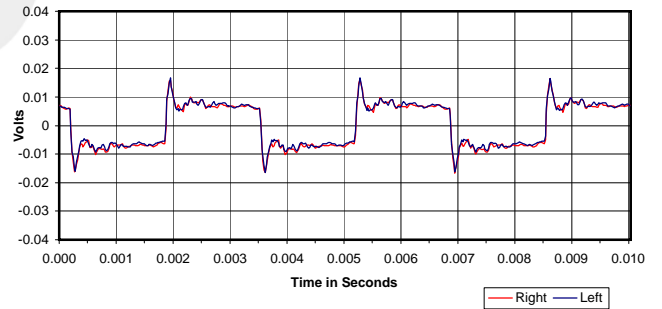
30 Hz Square Wave



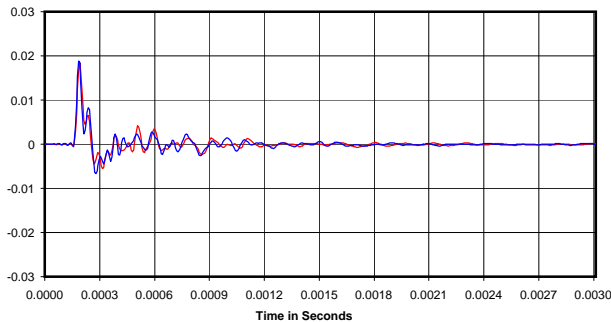
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

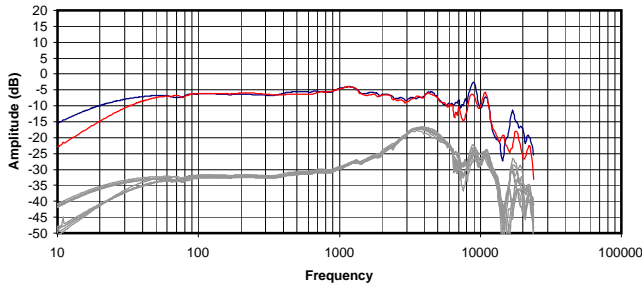


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

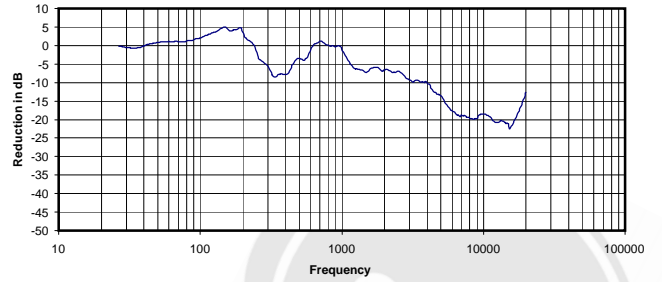
0.072 Vrms
 21 Ohms
 0.24 mW
 -3 dBr



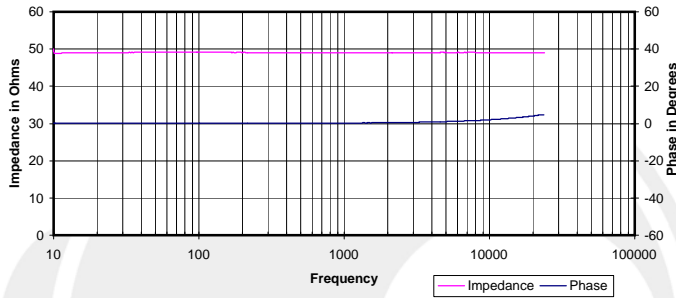
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



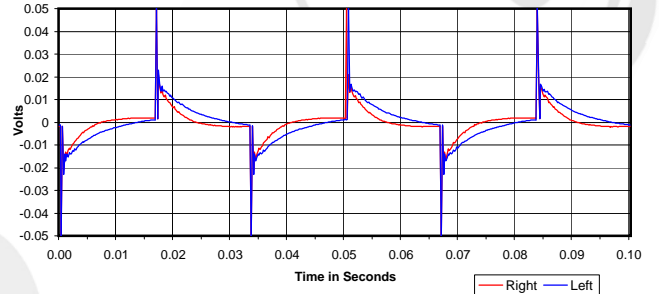
Isolation
 Attenuation of External Sound vs. Frequency



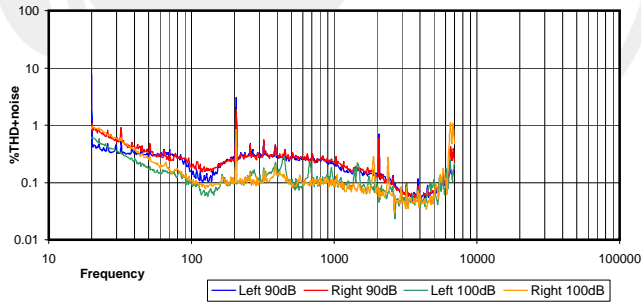
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



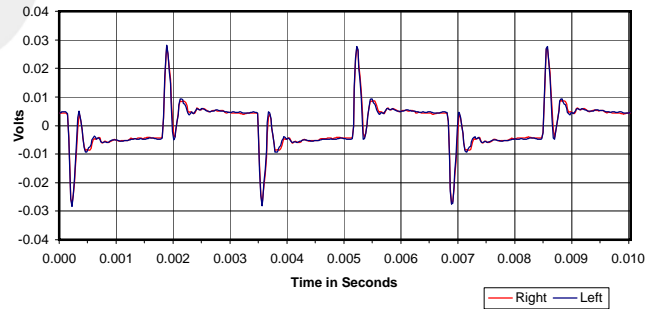
30 Hz Square Wave



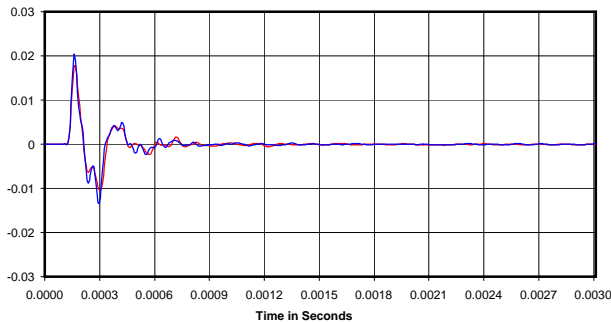
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

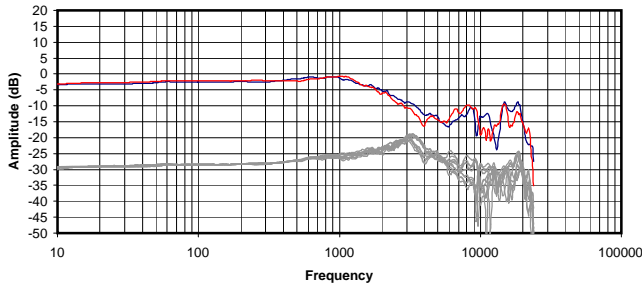


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

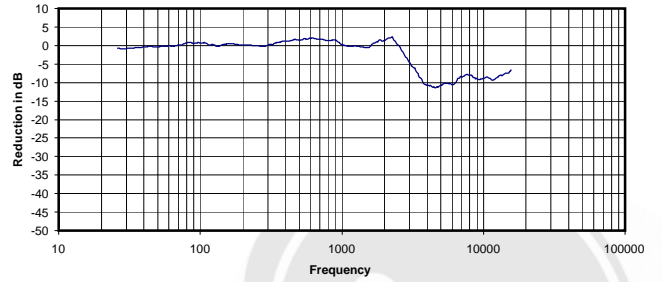
0.310 Vrms
 49 Ohms
 1.96 mW
 -6 dBr



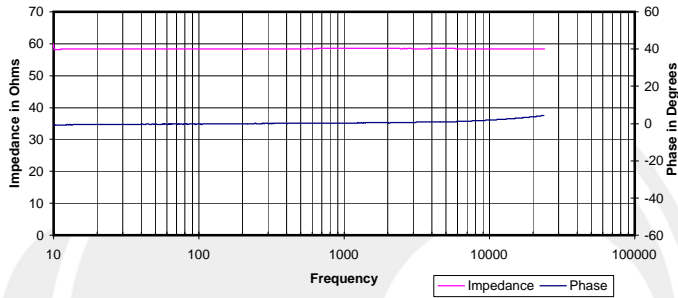
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



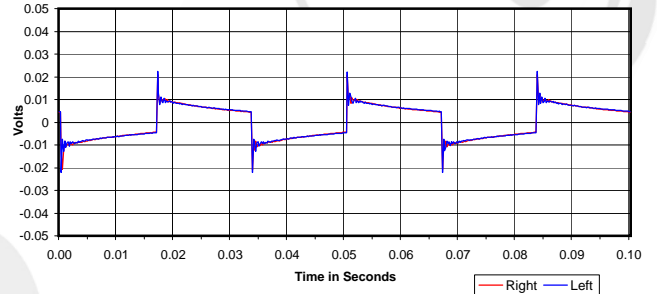
Isolation
 Attenuation of External Sound vs. Frequency



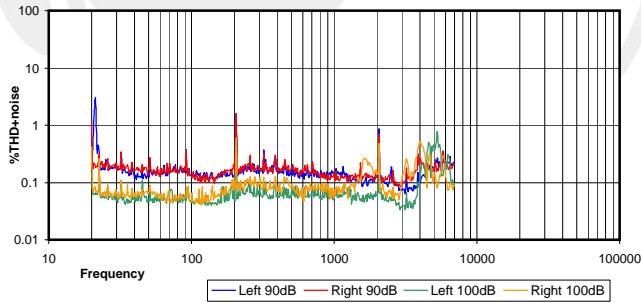
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



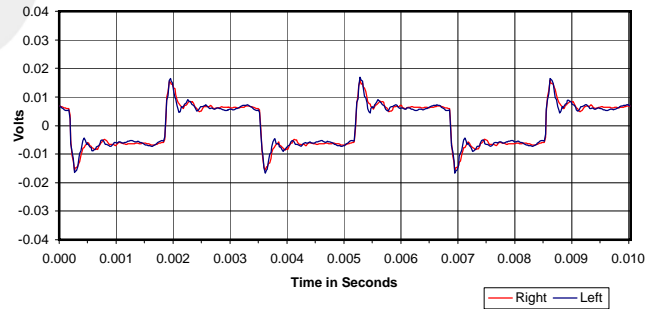
30 Hz Square Wave



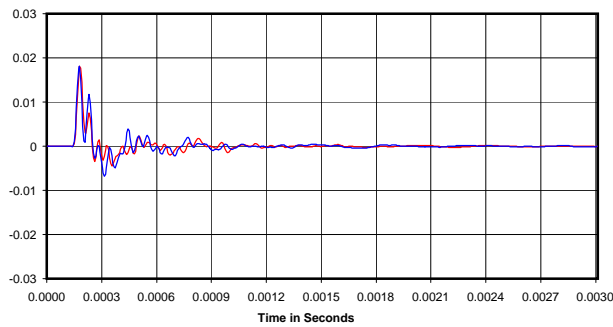
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

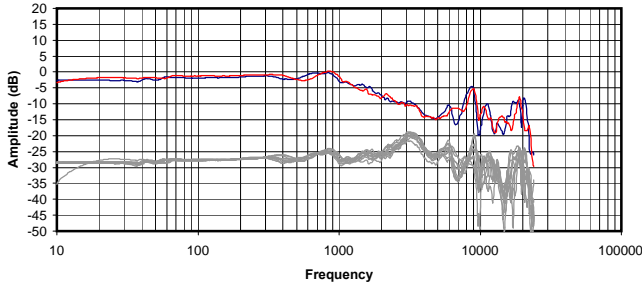


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

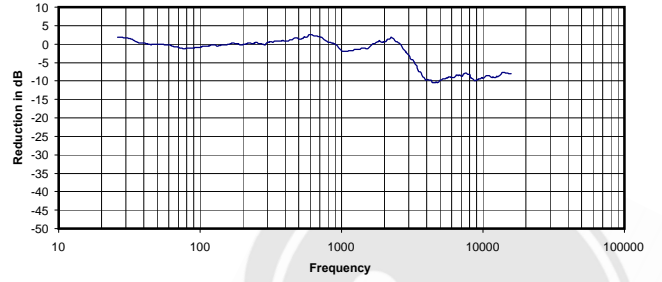
0.170 Vrms
 59 Ohms
 0.50 mW
 -1 dB



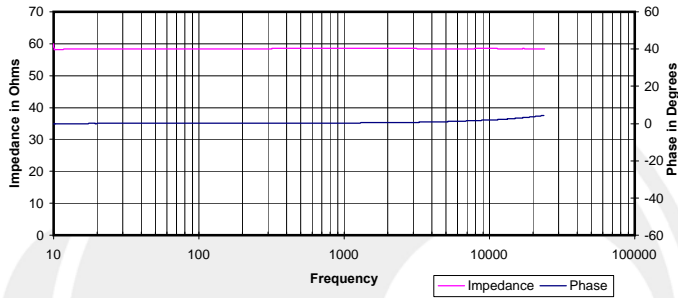
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



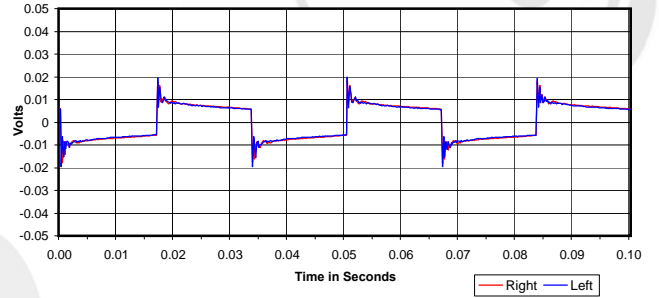
Isolation
Attenuation of External Sound vs. Frequency



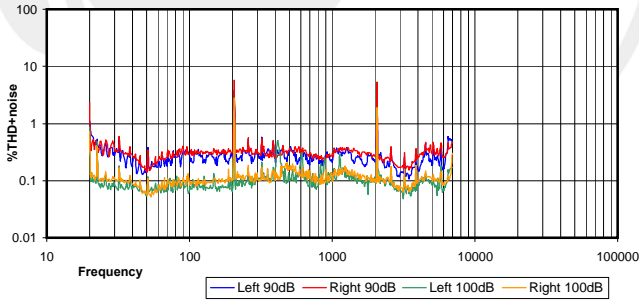
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



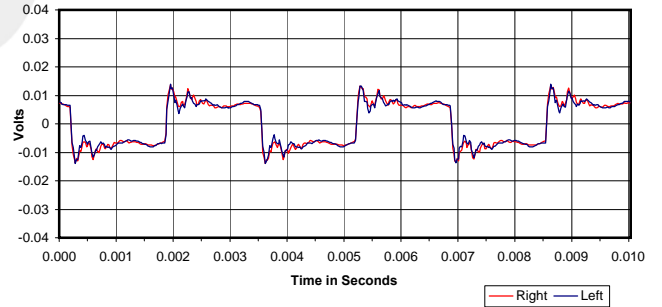
30 Hz Square Wave



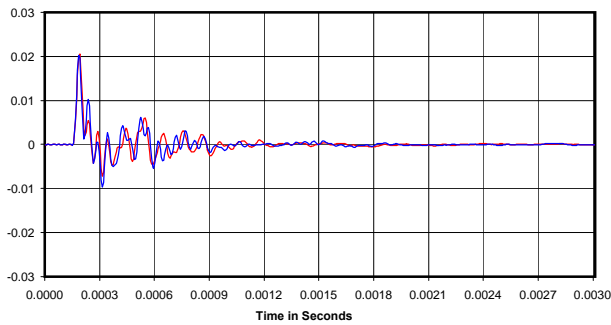
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

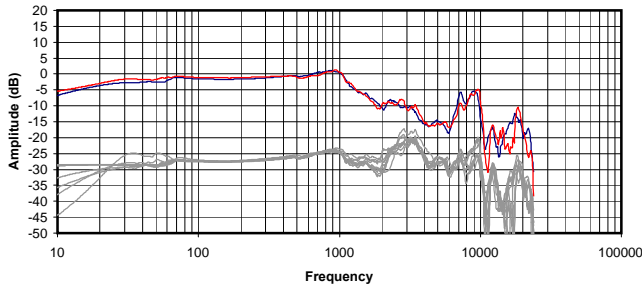


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

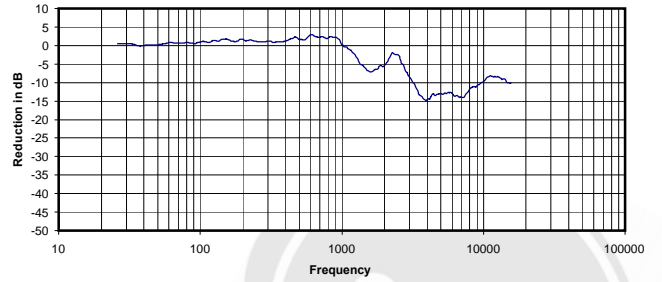
0.209 Vrms
59 Ohms
0.75 mW
-1 dB



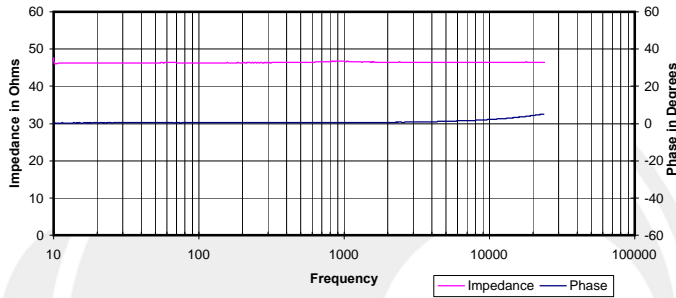
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



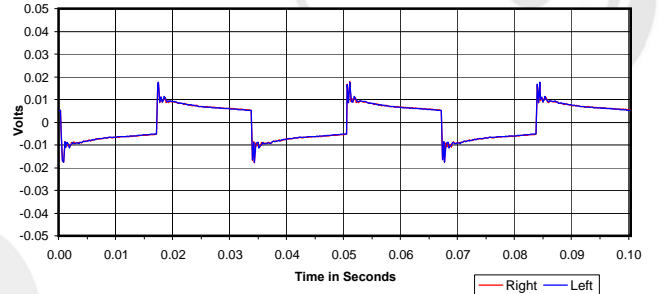
Isolation
 Attenuation of External Sound vs. Frequency



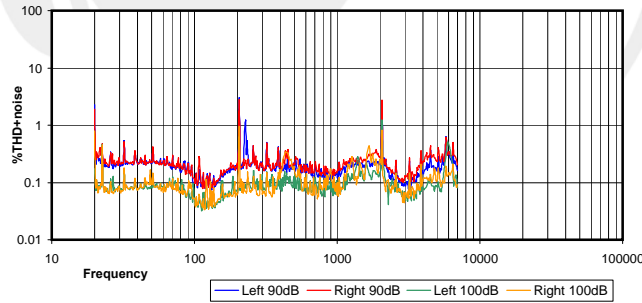
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



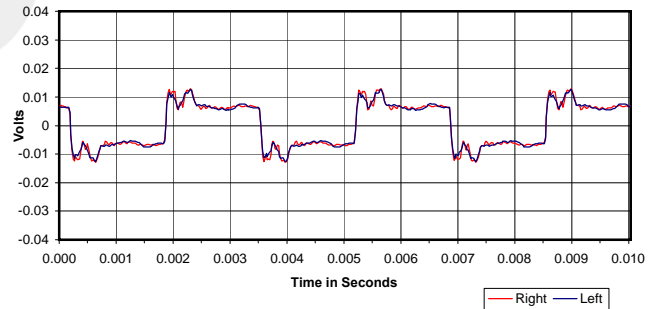
30 Hz Square Wave



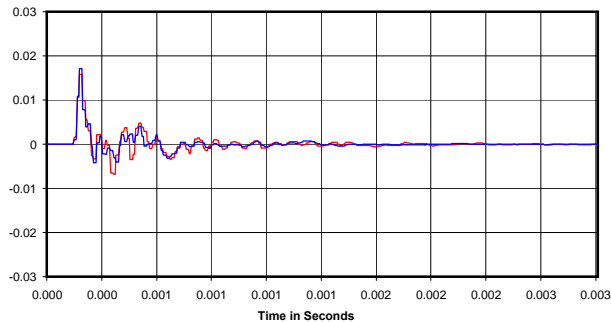
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

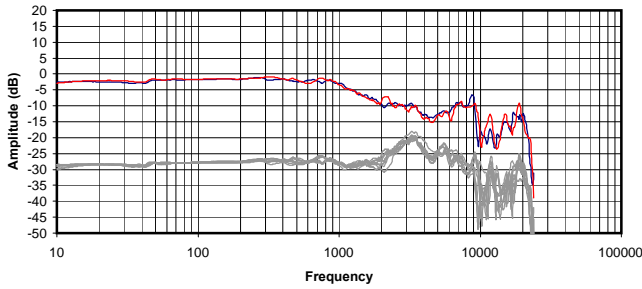


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

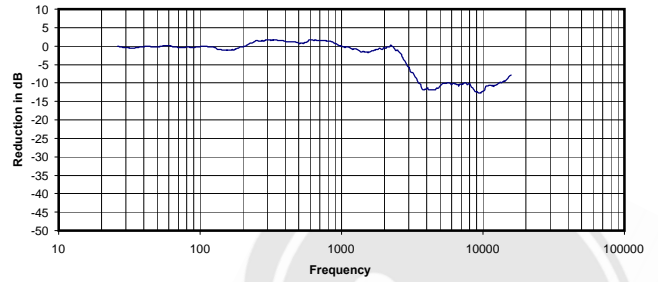
0.106 Vrms
 47 Ohms
 0.24 mW
 -3 dB



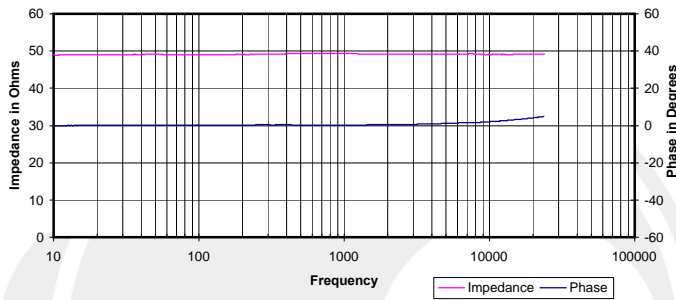
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



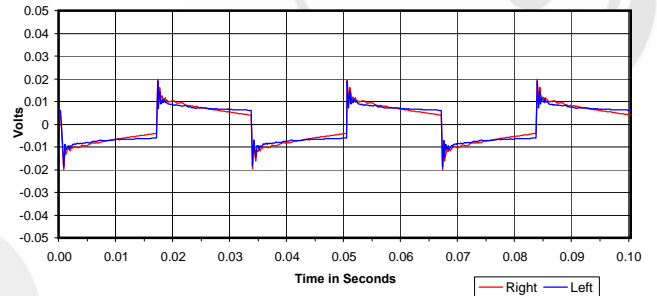
Isolation
 Attenuation of External Sound vs. Frequency



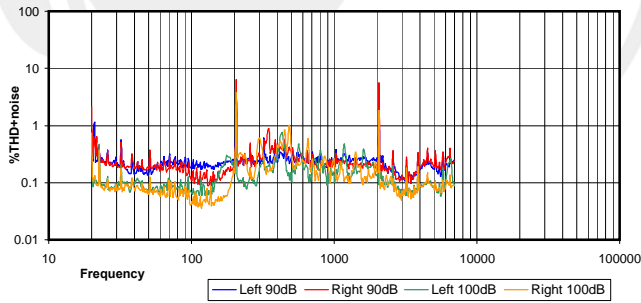
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



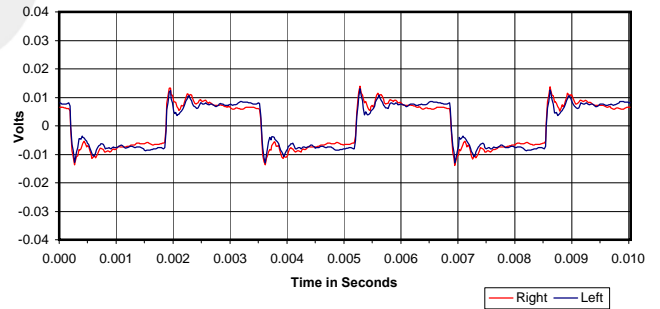
30 Hz Square Wave



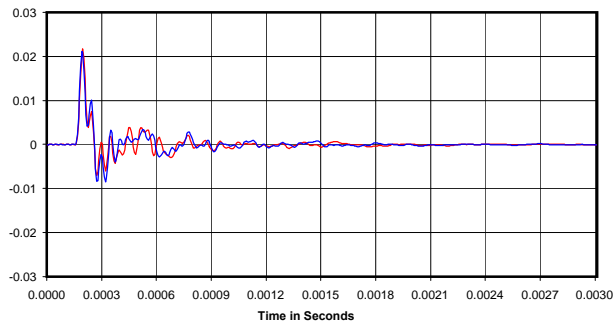
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

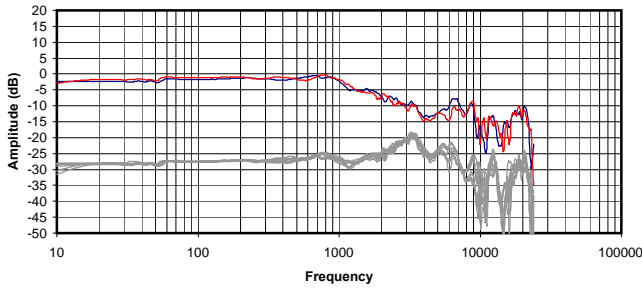


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

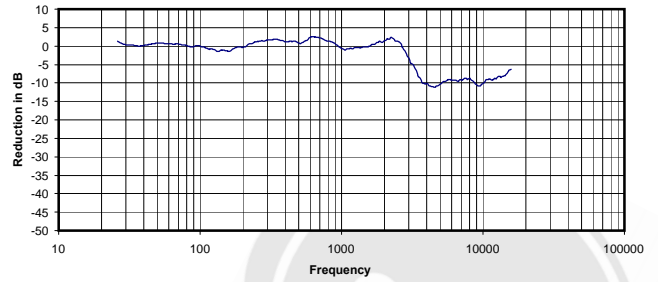
0.165 Vrms
 49 Ohms
 0.55 mW
 -2 dB



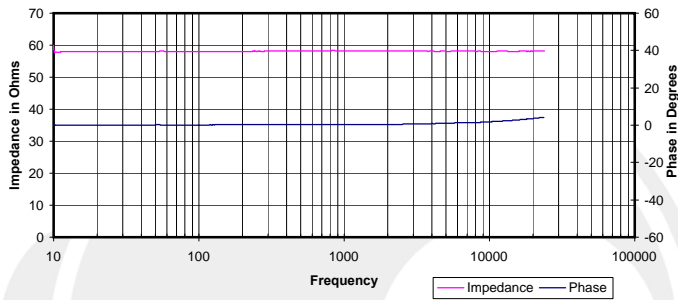
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



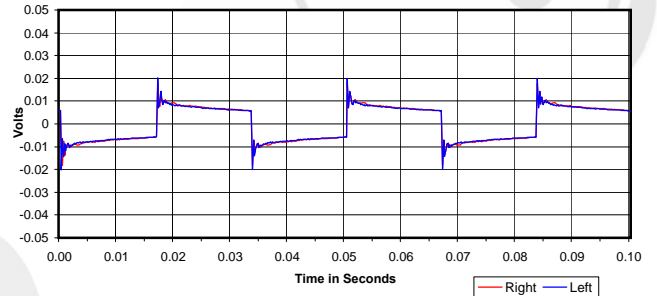
Isolation
 Attenuation of External Sound vs. Frequency



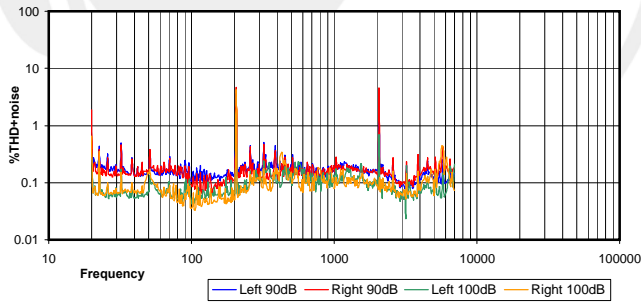
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



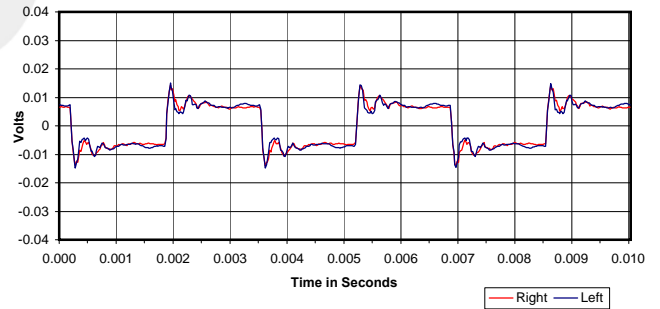
30 Hz Square Wave



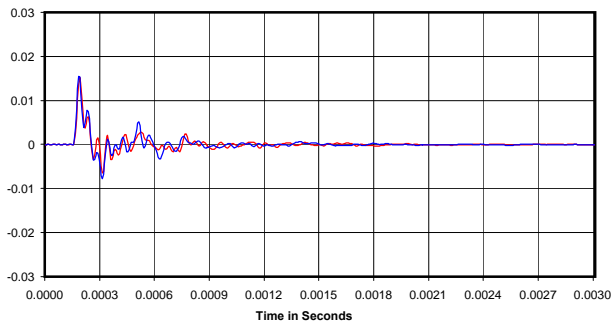
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

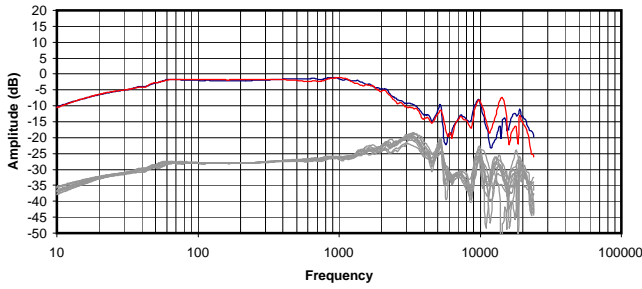


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

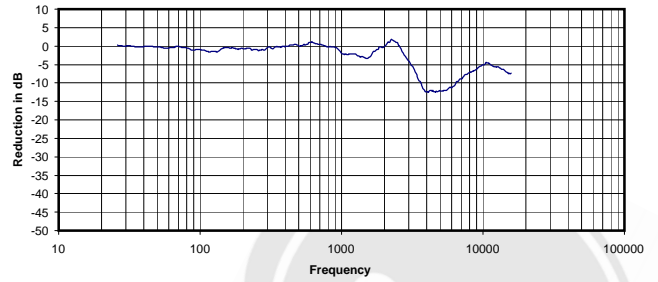
0.225 Vrms
 58 Ohms
 0.87 mW
 -1 dB



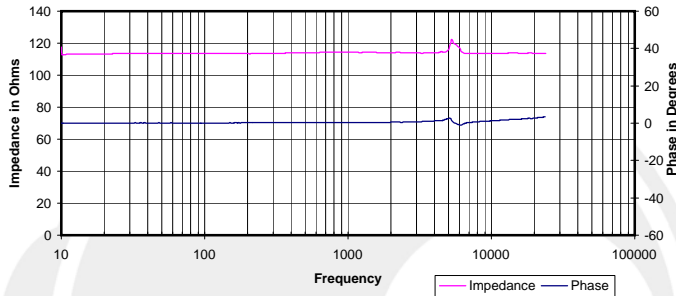
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



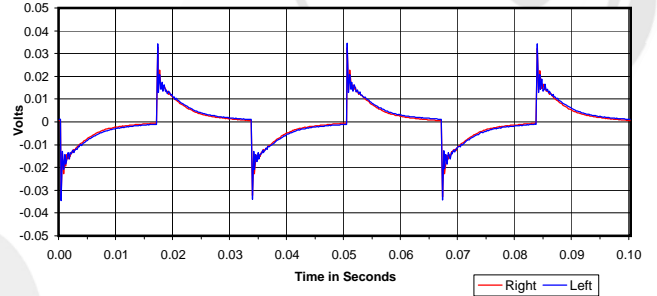
Isolation
 Attenuation of External Sound vs. Frequency



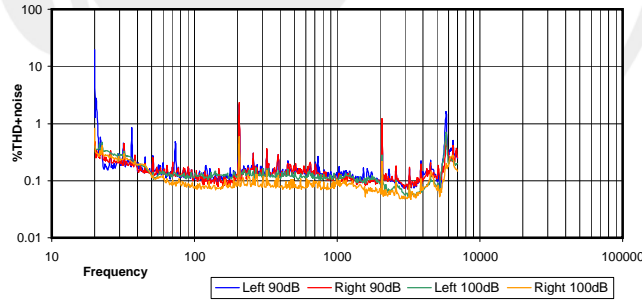
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



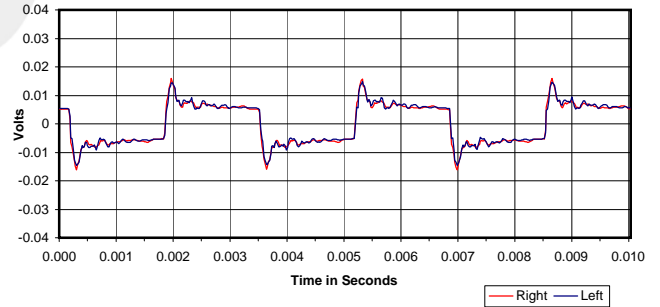
30 Hz Square Wave



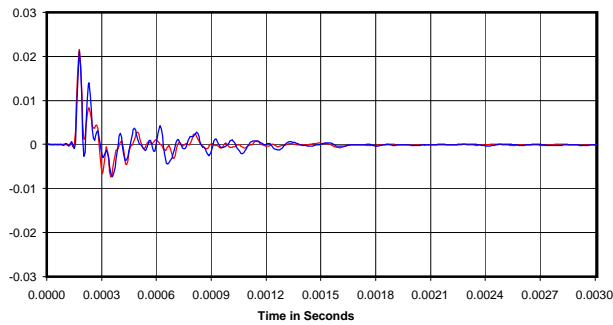
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

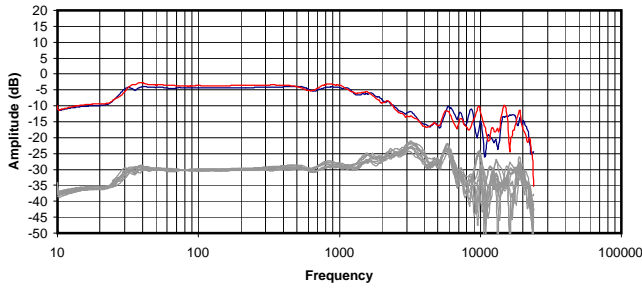


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

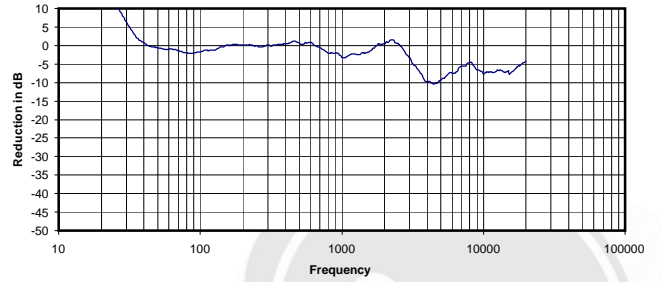
0.127 Vrms
 114 Ohms
 0.14 mW
 -3 dB



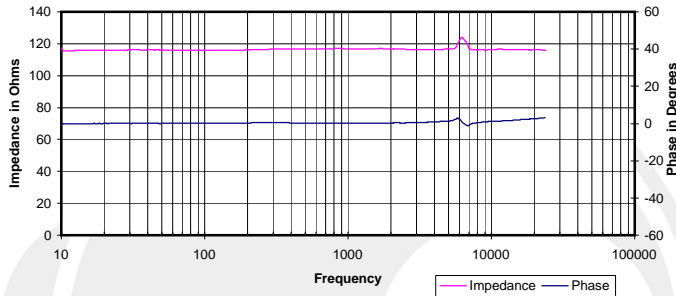
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



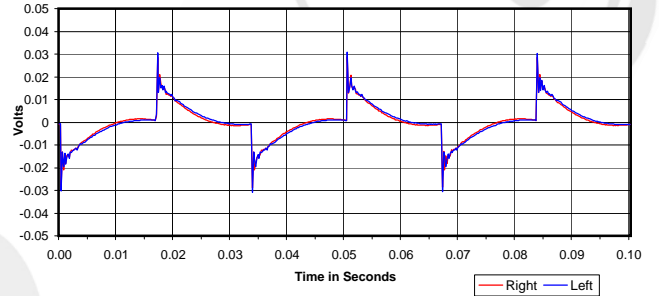
Isolation
 Attenuation of External Sound vs. Frequency



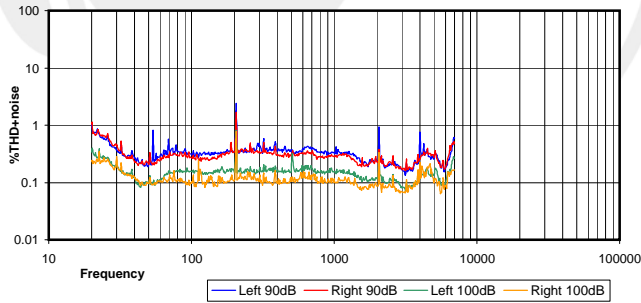
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



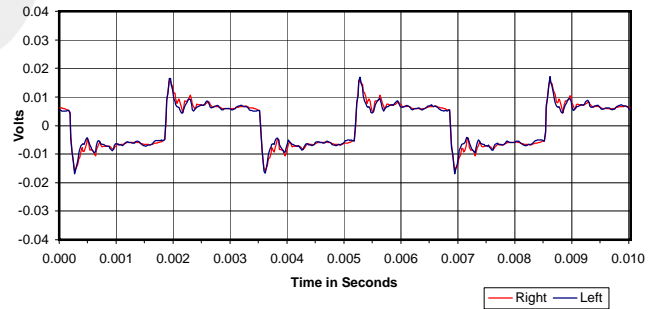
30 Hz Square Wave



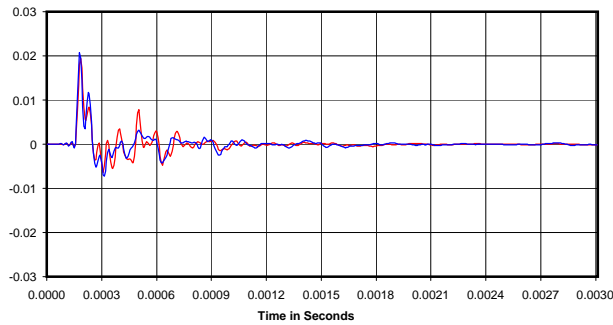
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

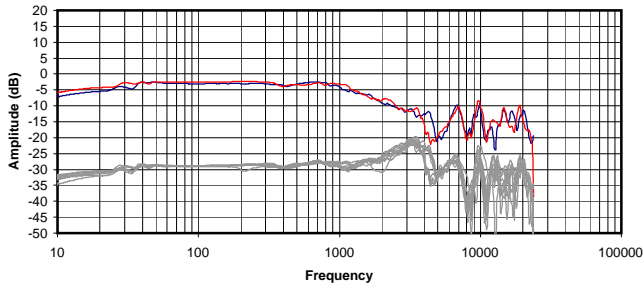


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

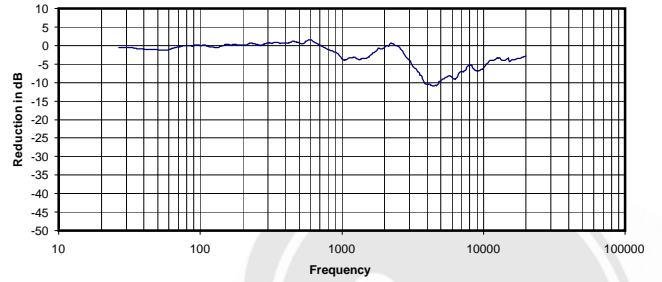
0.146 Vrms
 117 Ohms
 0.18 mW
 -2 dBr



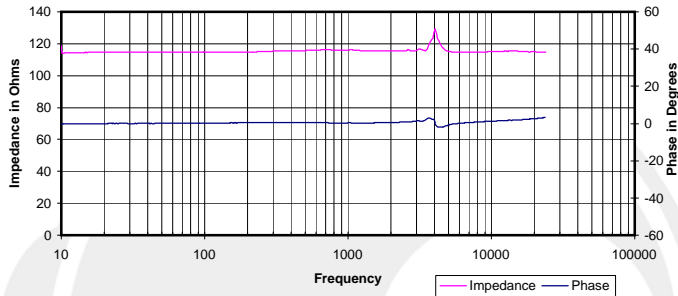
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



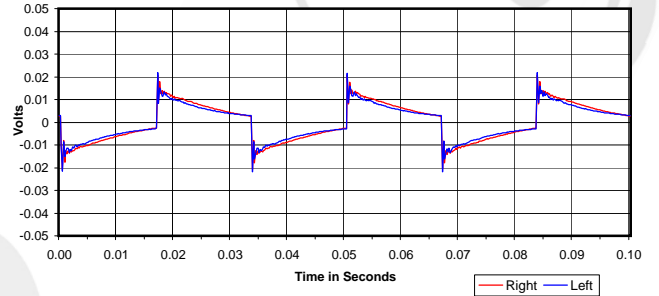
Isolation
 Attenuation of External Sound vs. Frequency



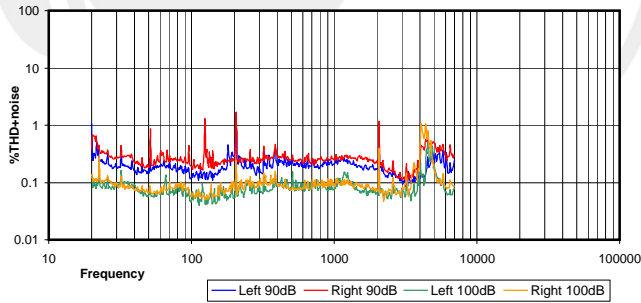
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



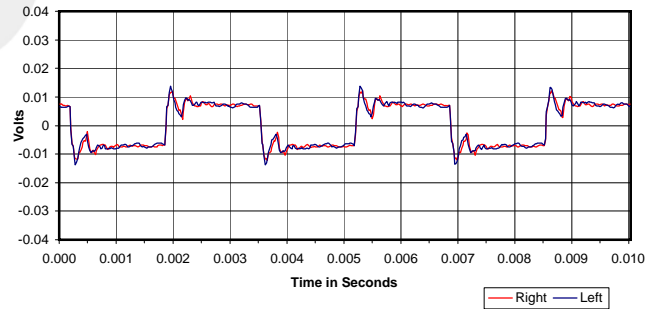
30 Hz Square Wave



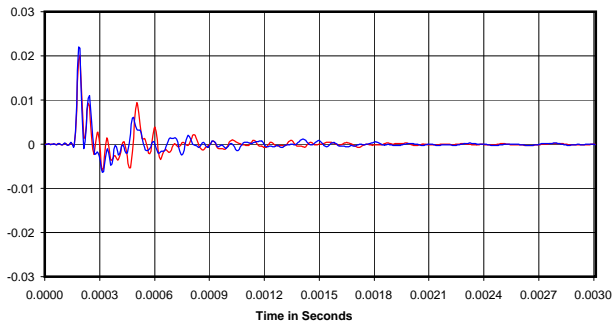
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

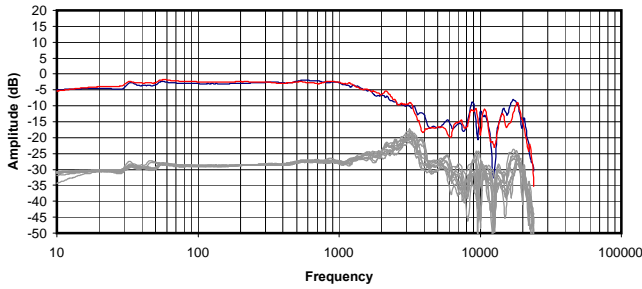


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

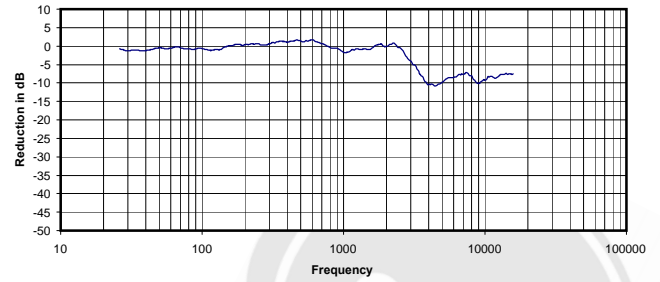
0.154 Vrms
 116 Ohms
 0.20 mW
 -3 dB



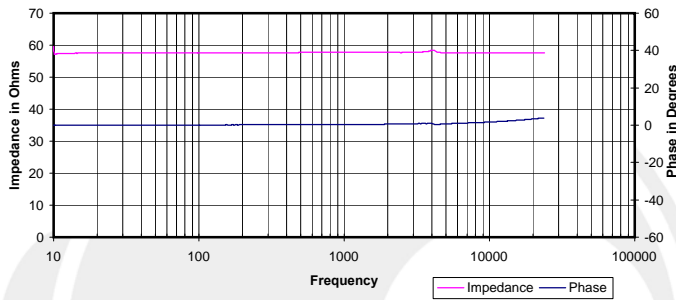
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



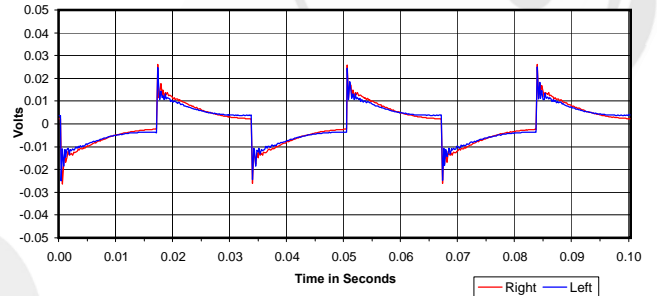
Isolation
 Attenuation of External Sound vs. Frequency



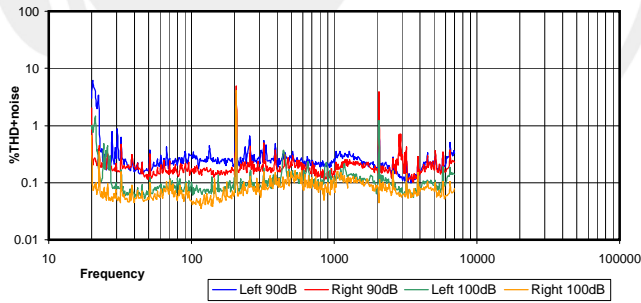
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



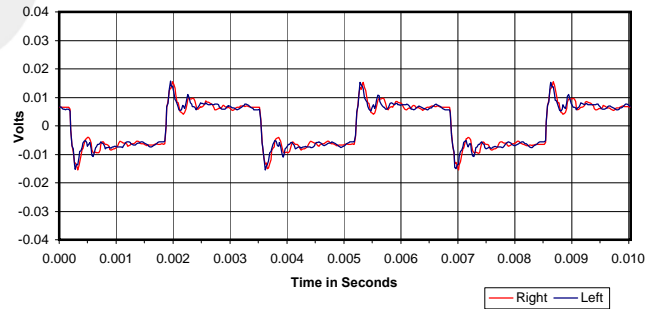
30 Hz Square Wave



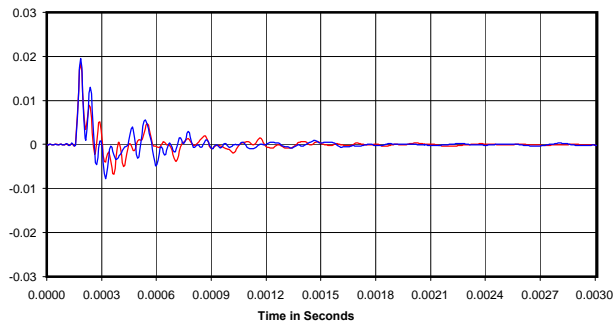
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

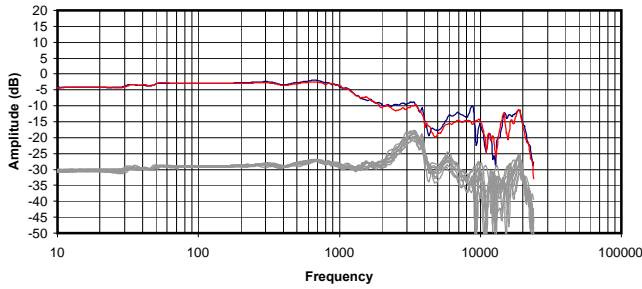


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

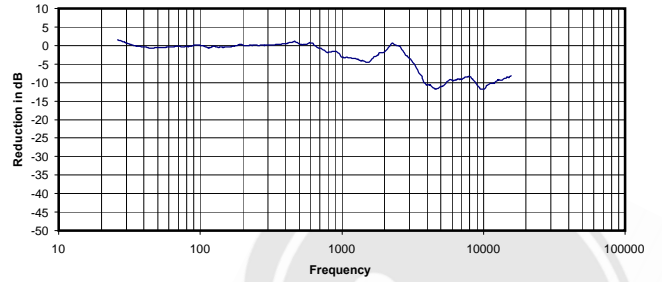
0.196 Vrms
 58 Ohms
 0.66 mW
 -2 dB



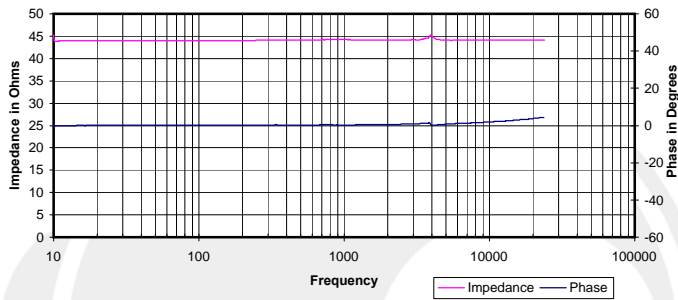
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



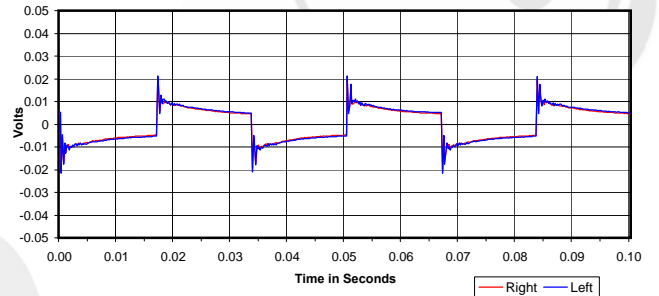
Isolation
 Attenuation of External Sound vs. Frequency



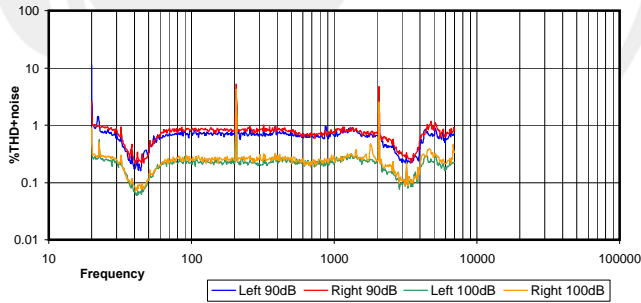
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



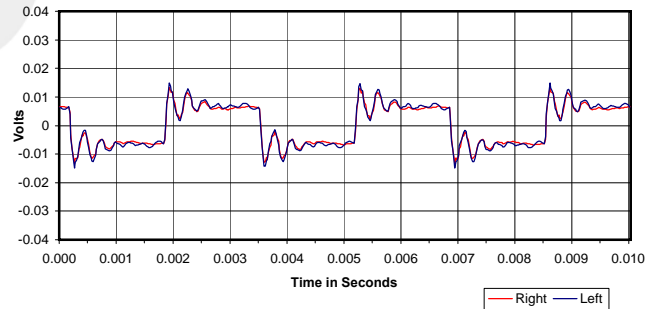
30 Hz Square Wave



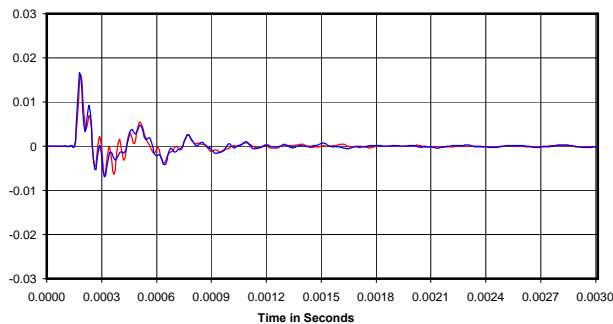
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

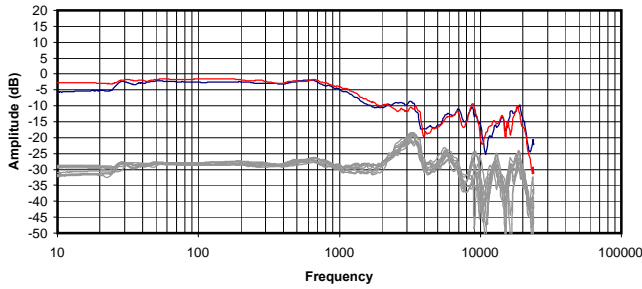


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

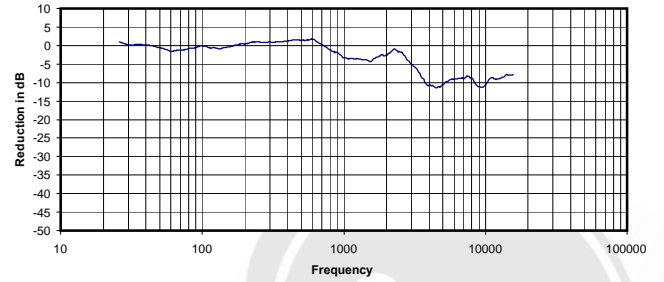
0.160 Vrms
 44 Ohms
 0.58 mW
 -2 dB



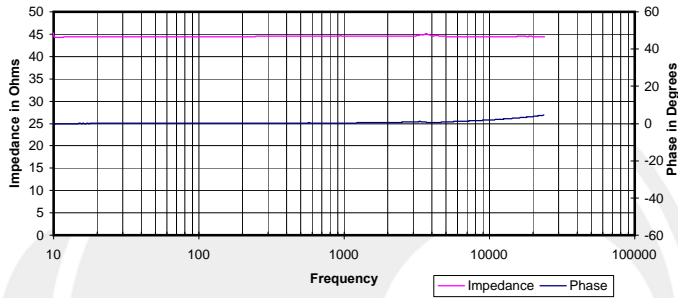
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



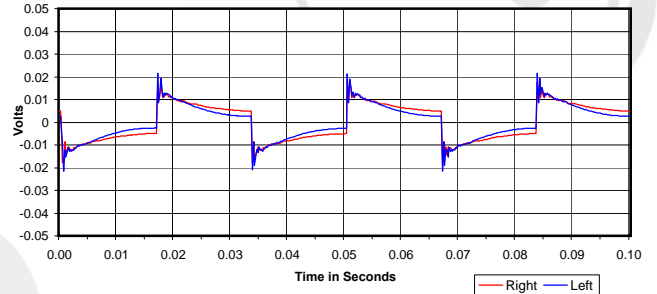
Isolation
 Attenuation of External Sound vs. Frequency



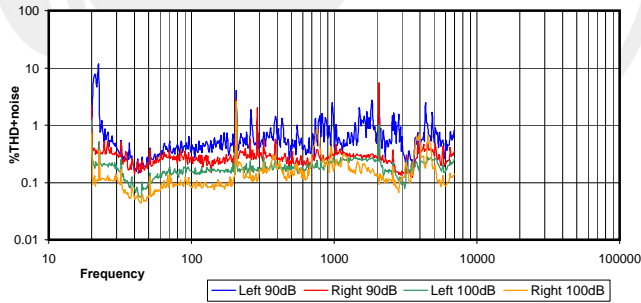
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



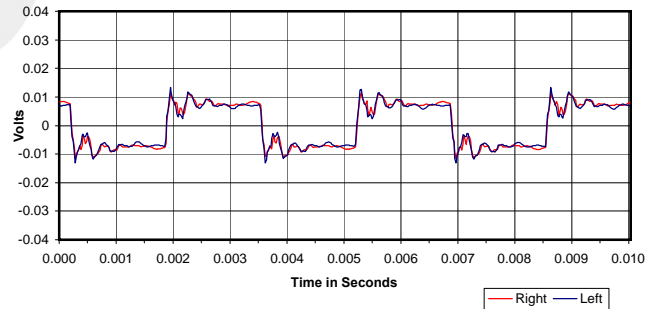
30 Hz Square Wave



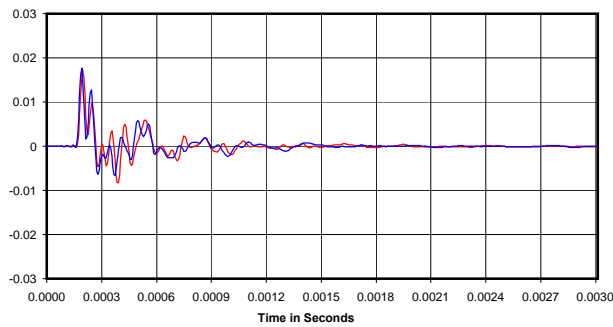
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

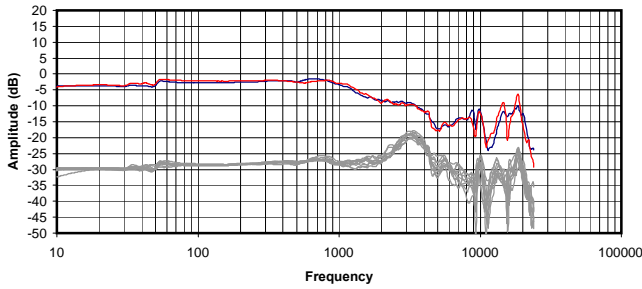


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

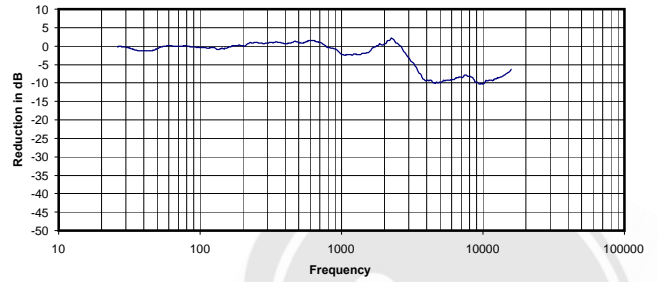
0.198 Vrms
 45 Ohms
 0.88 mW
 -2 dB



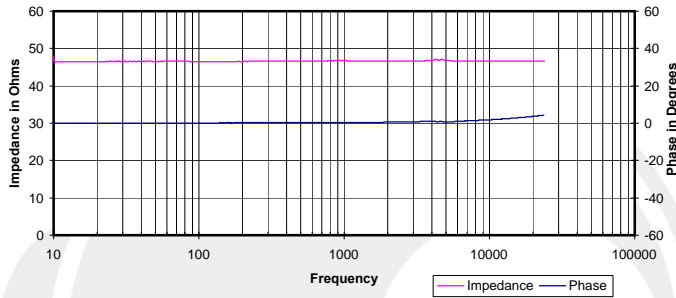
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



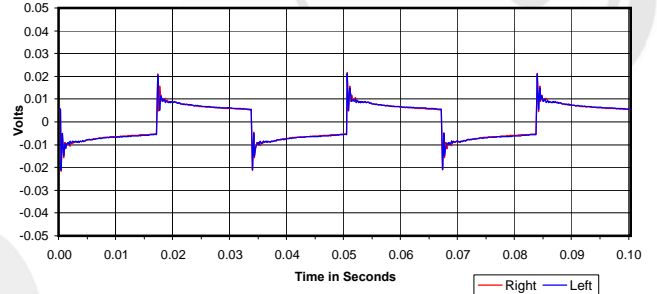
Isolation
 Attenuation of External Sound vs. Frequency



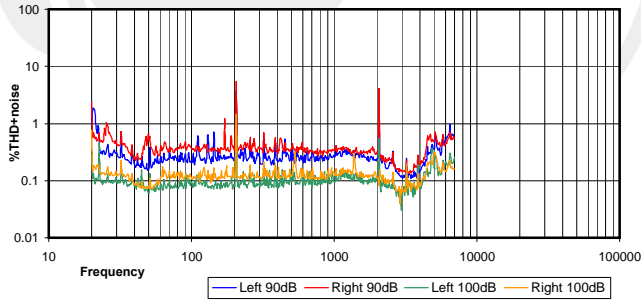
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



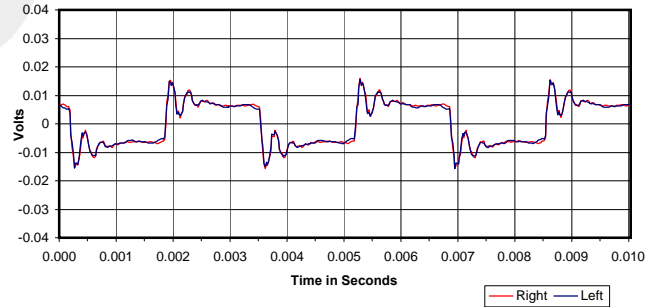
30 Hz Square Wave



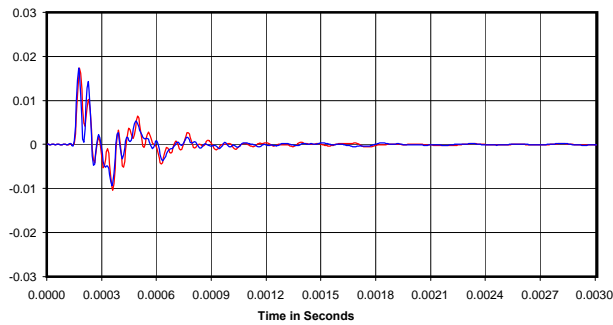
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

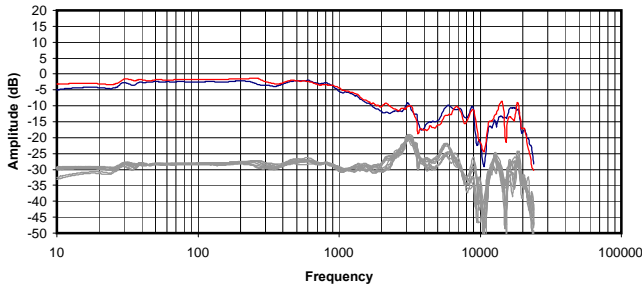


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

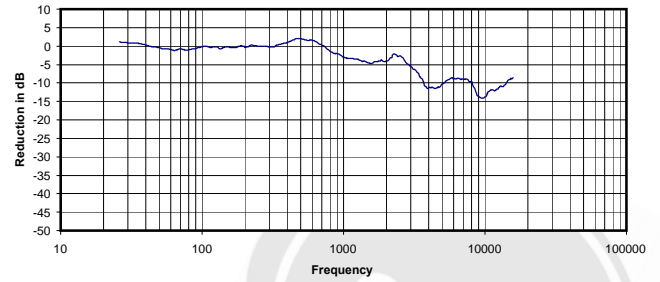
0.157 Vrms
 47 Ohms
 0.53 mW
 -2 dB



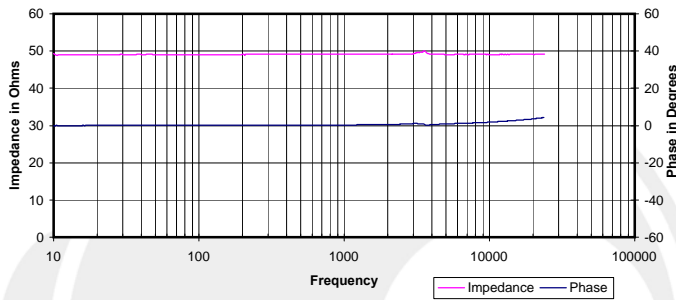
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



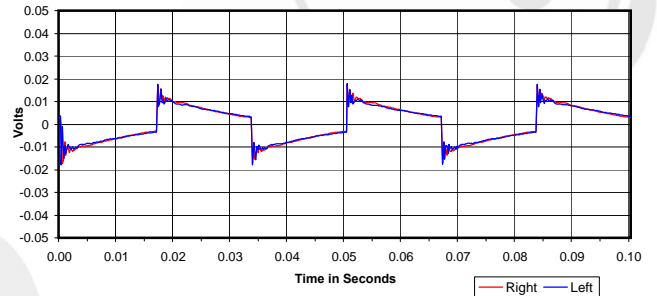
Isolation
 Attenuation of External Sound vs. Frequency



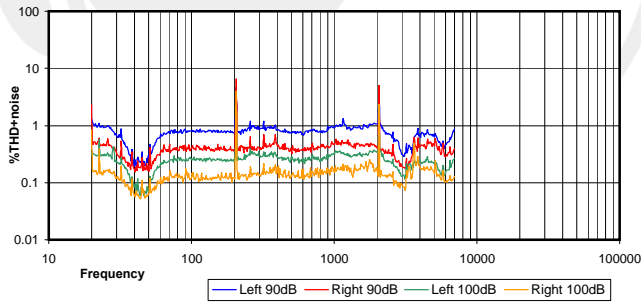
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



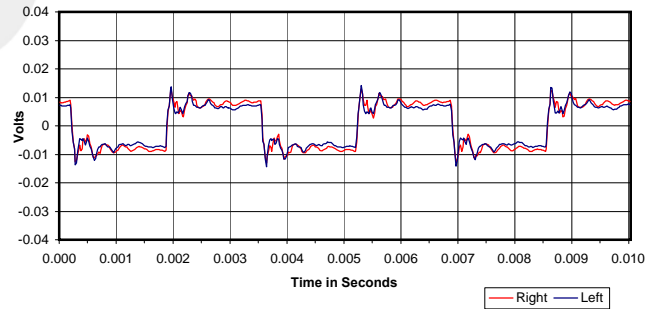
30 Hz Square Wave



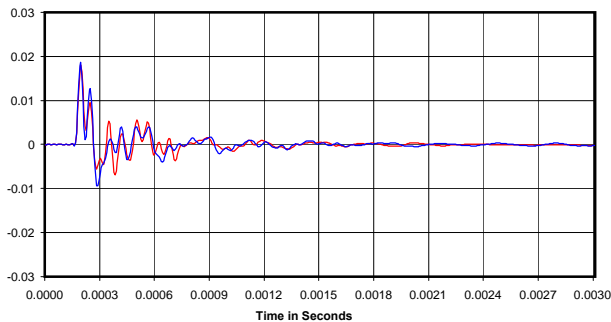
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



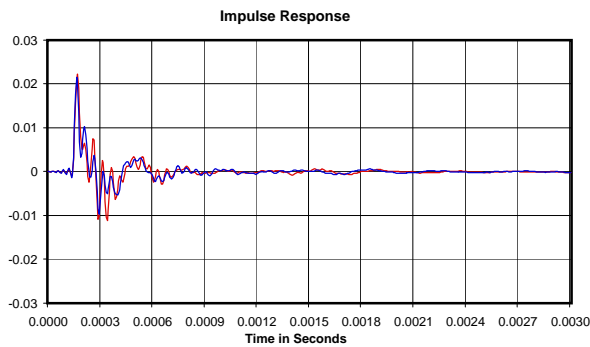
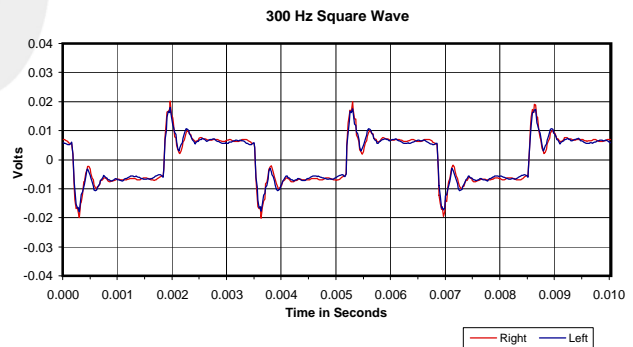
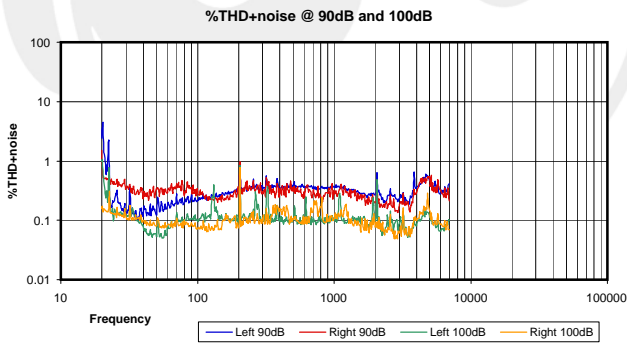
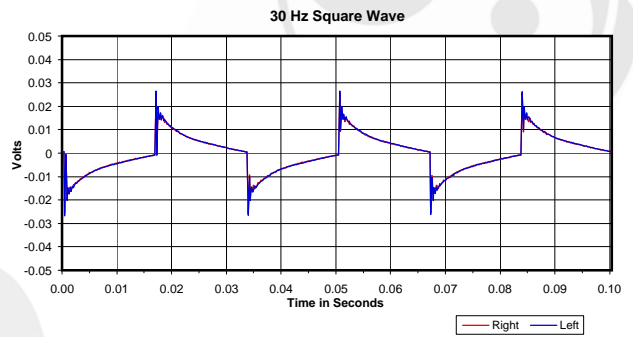
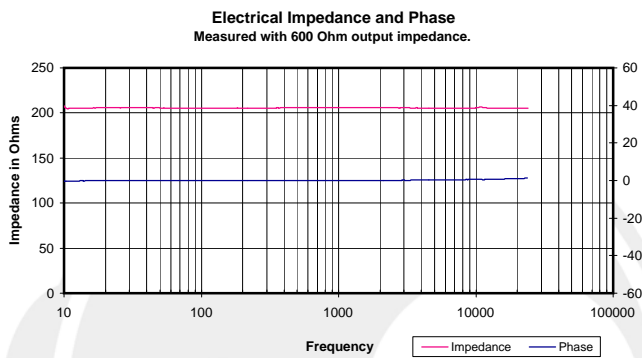
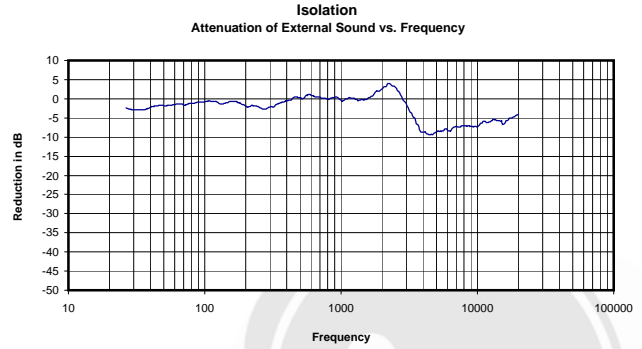
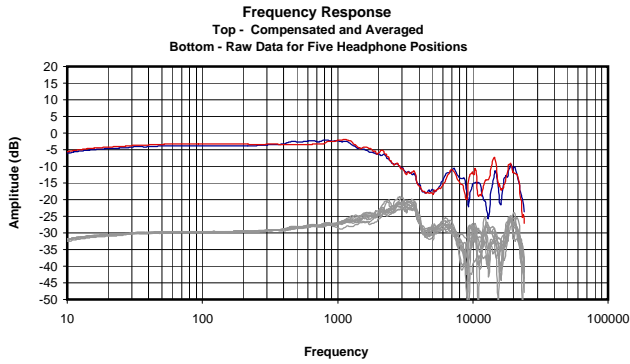
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.244 Vrms
 49 Ohms
 1.21 mW
 -3 dB



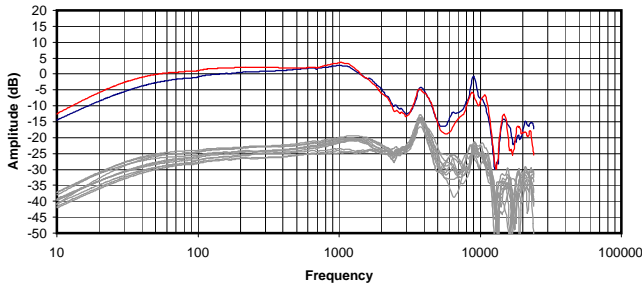


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

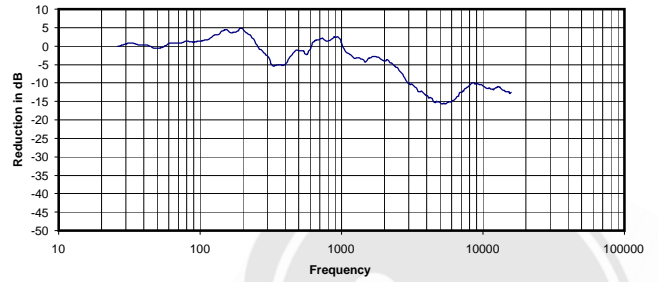
0.482 Vrms
206 Ohms
1.13 mW
-2 dBr



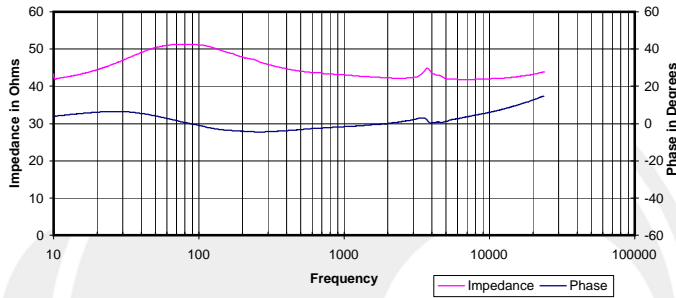
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



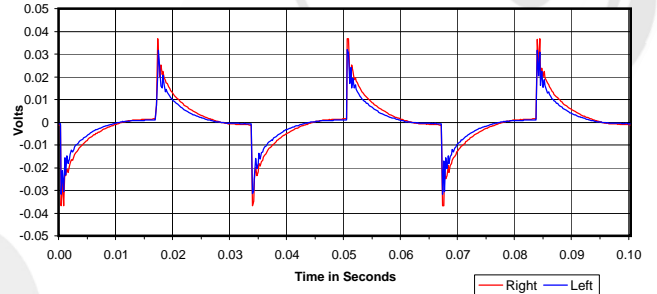
Isolation
 Attenuation of External Sound vs. Frequency



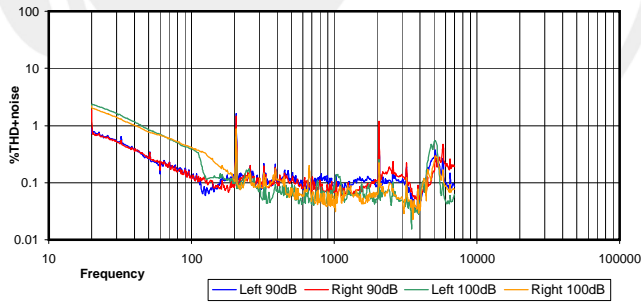
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



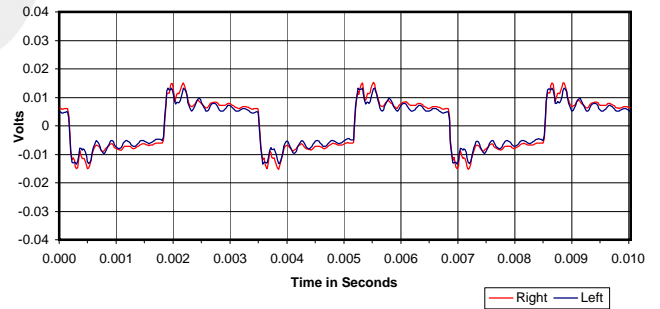
30 Hz Square Wave



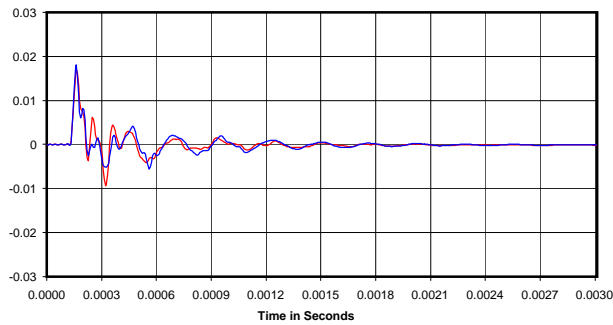
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

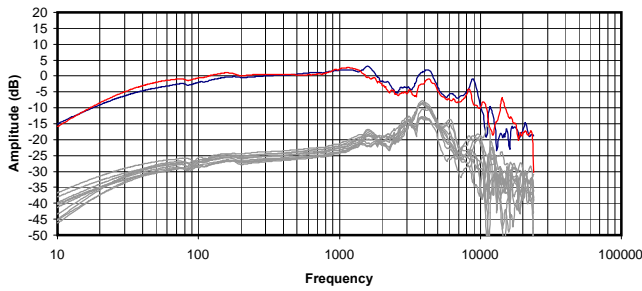


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

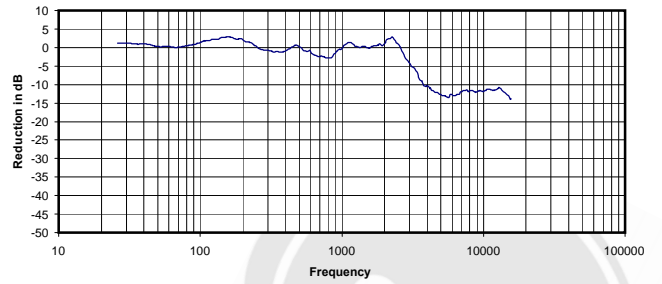
0.034 Vrms
 43 Ohms
 0.03 mW
 -3 dB



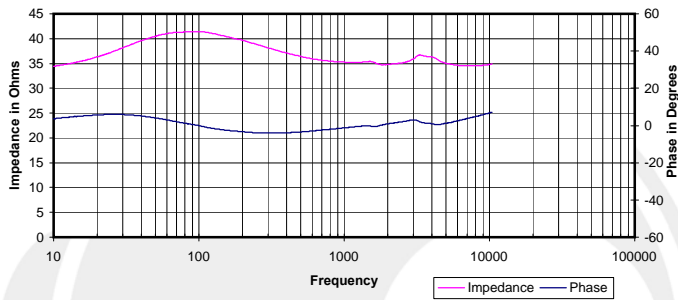
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



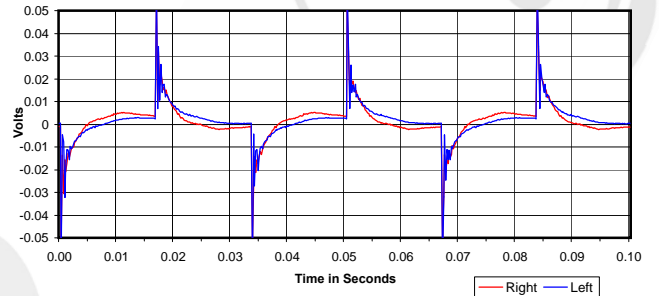
Isolation
 Attenuation of External Sound vs. Frequency



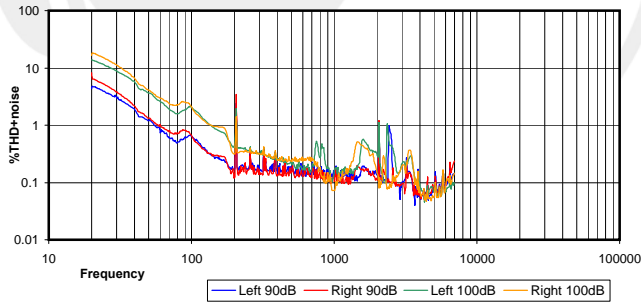
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



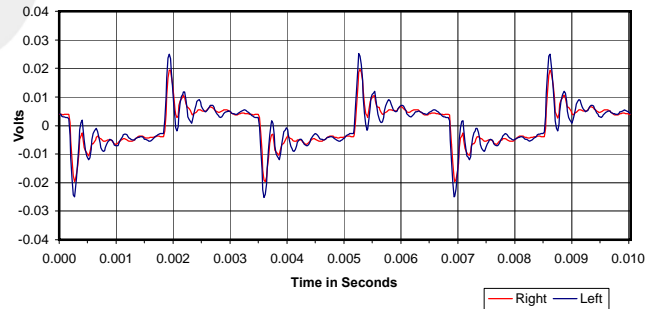
30 Hz Square Wave



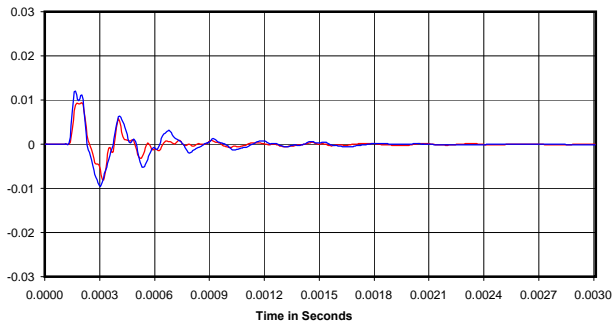
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

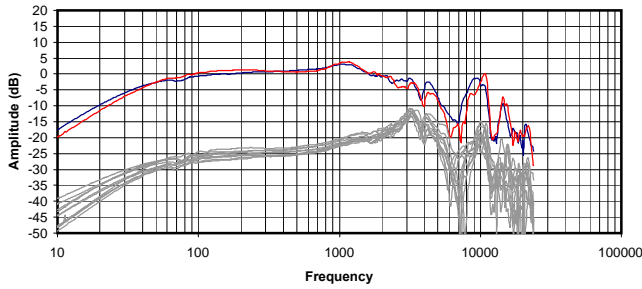


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

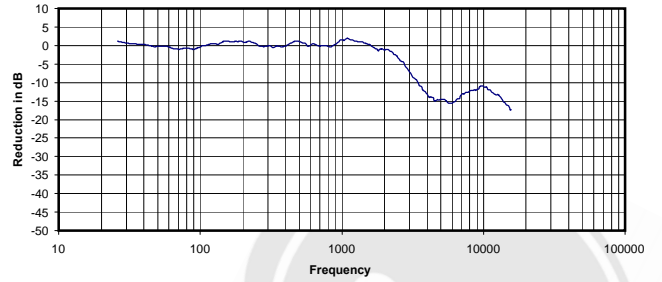
0.062 Vrms
 35 Ohms
 0.11 mW
 -2 dB



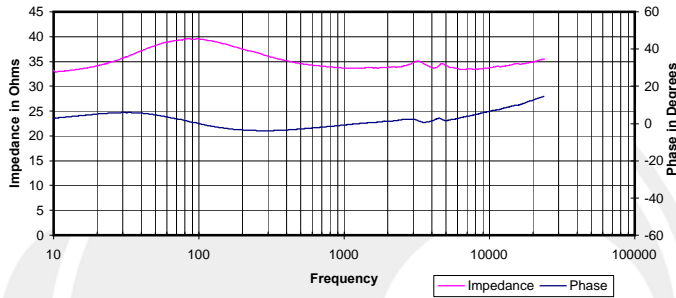
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



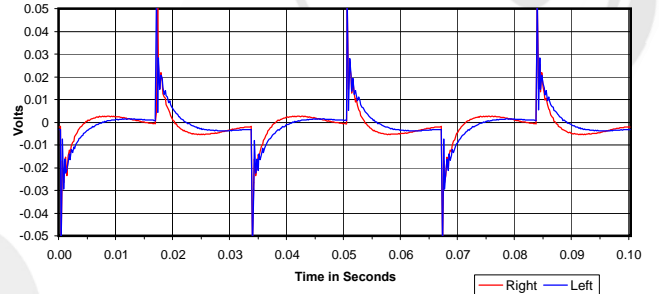
Isolation
 Attenuation of External Sound vs. Frequency



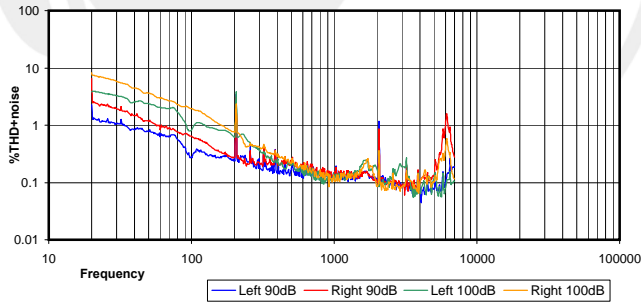
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



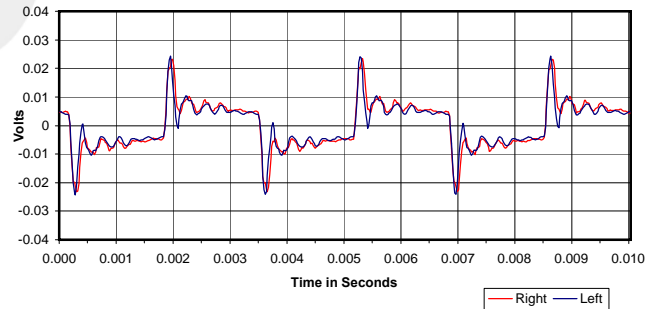
30 Hz Square Wave



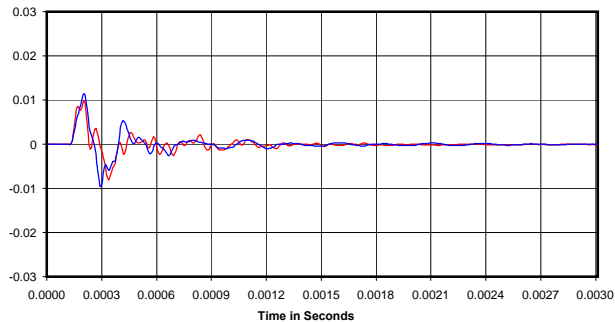
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

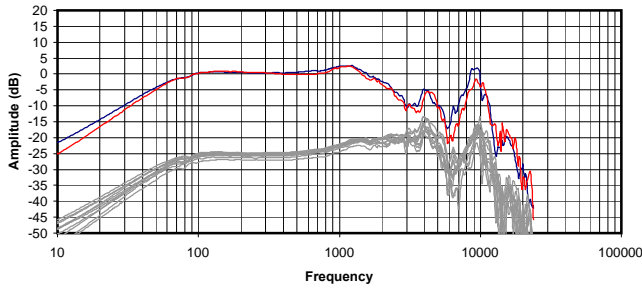


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

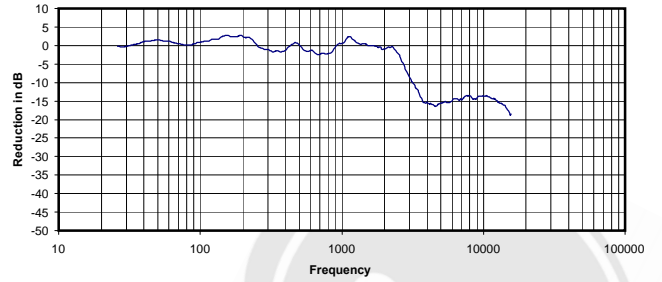
0.055 Vrms
 34 Ohms
 0.09 mW
 -2 dB



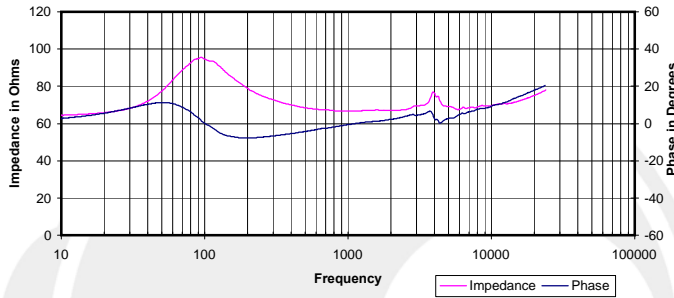
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



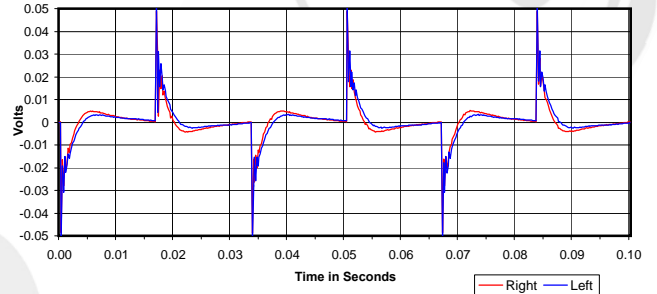
Isolation
 Attenuation of External Sound vs. Frequency



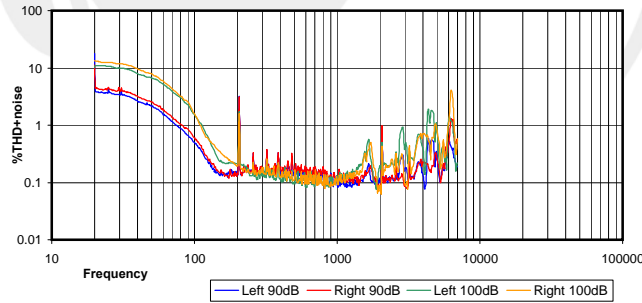
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



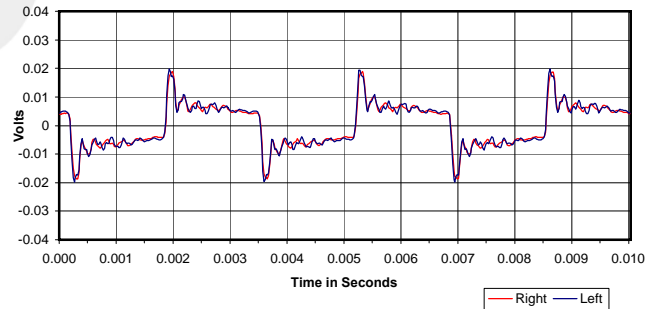
30 Hz Square Wave



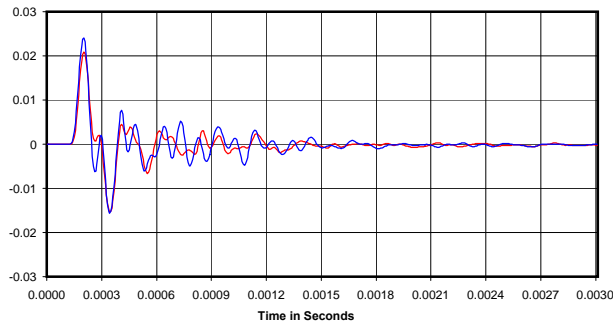
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



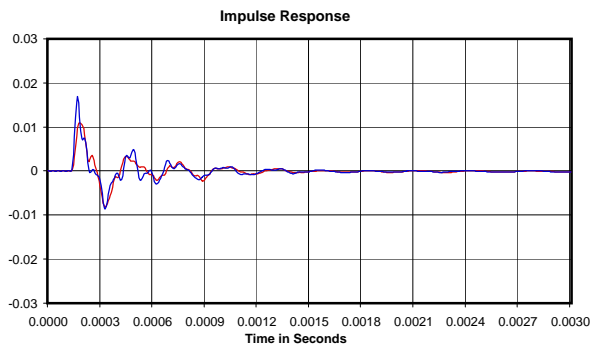
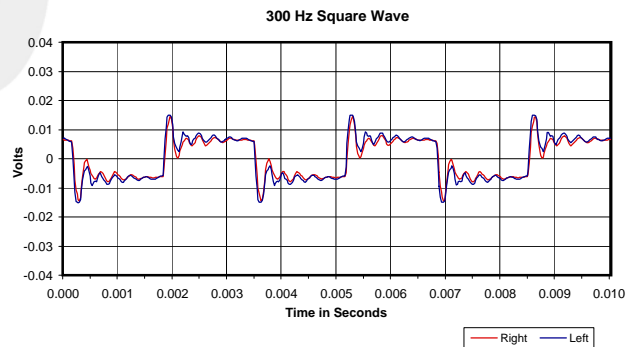
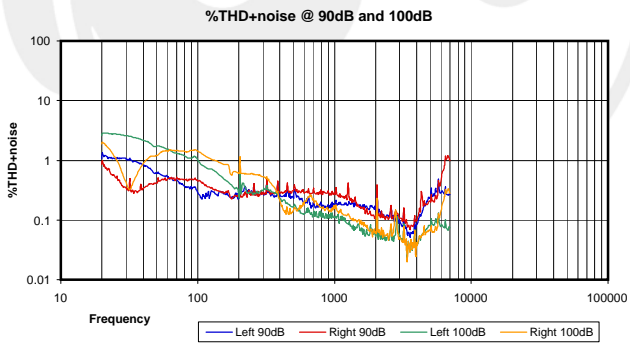
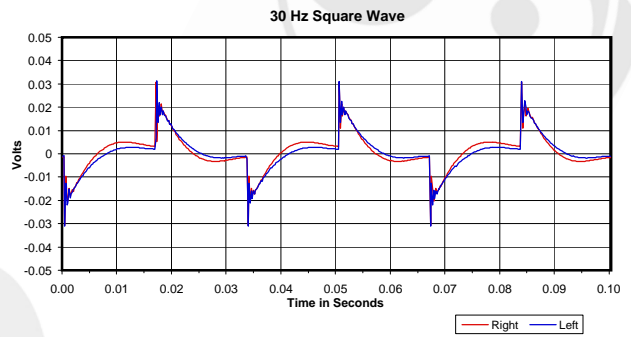
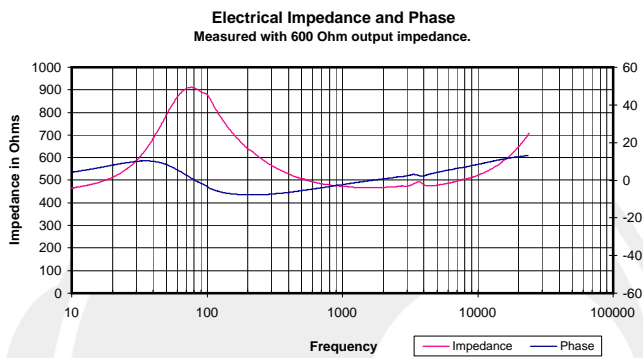
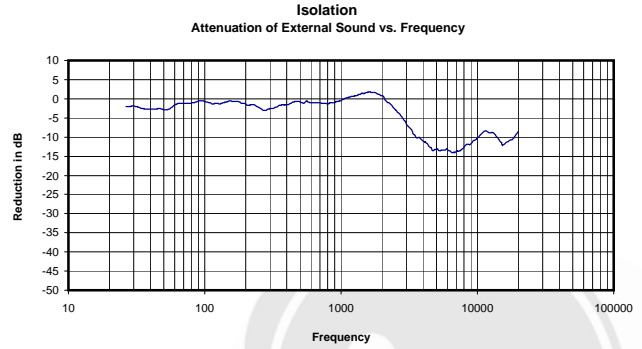
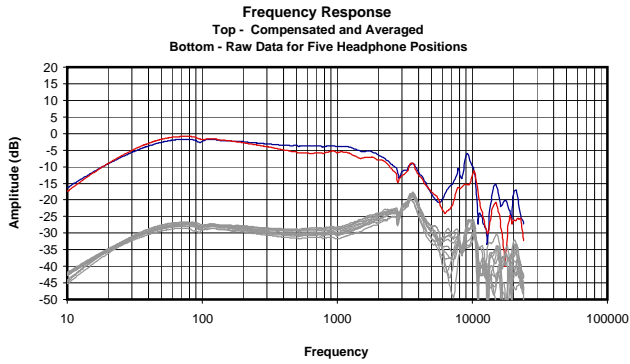
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
 67 Ohms
 0.03 mW
 -3 dBr



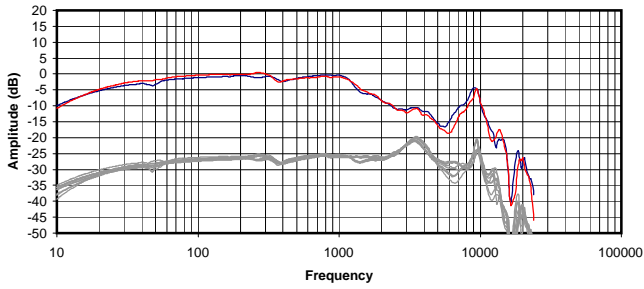


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

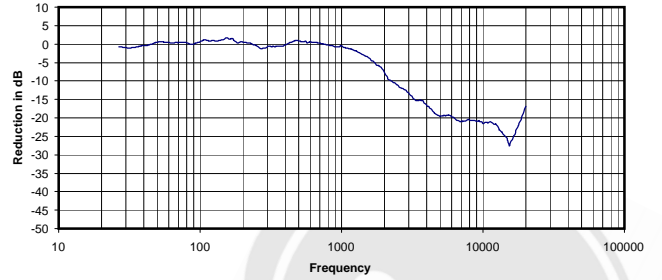
0.195 Vrms
473 Ohms
0.08 mW
-4 dBr



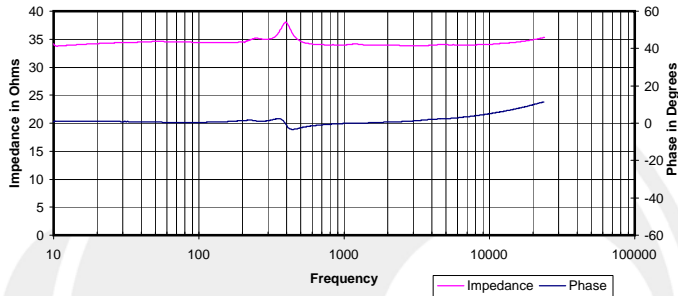
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



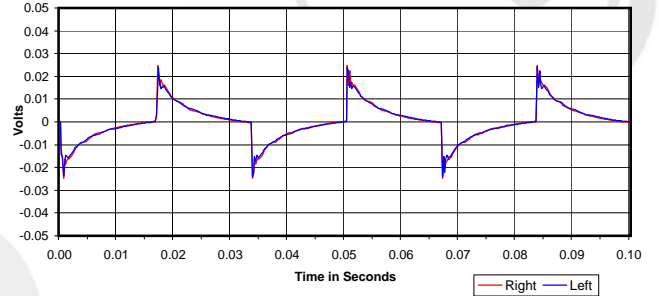
Isolation
 Attenuation of External Sound vs. Frequency



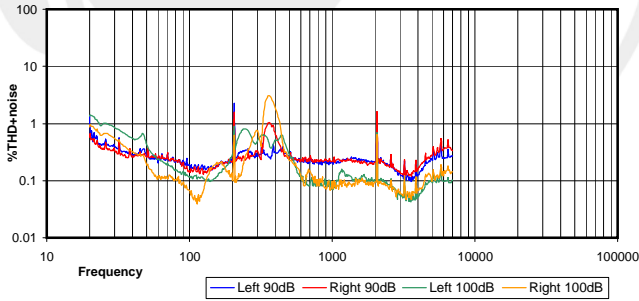
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



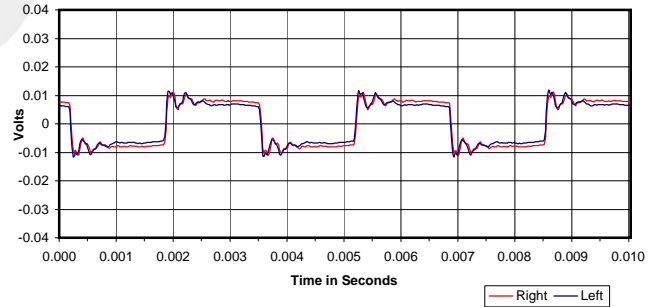
30 Hz Square Wave



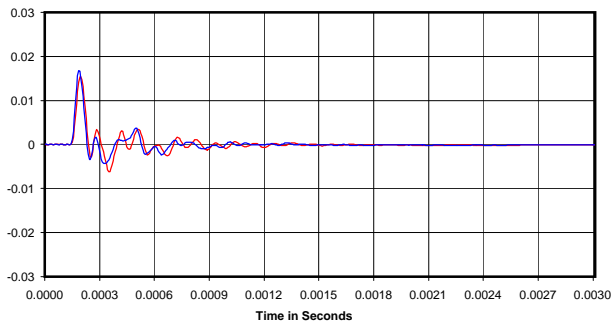
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



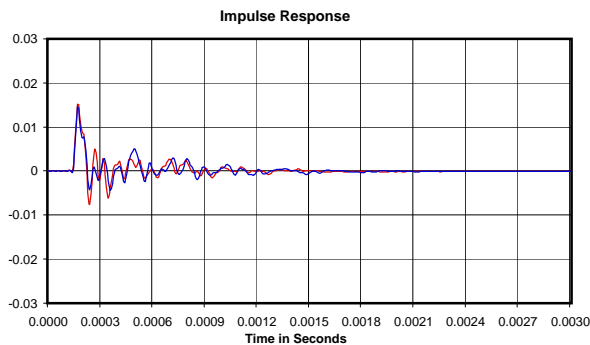
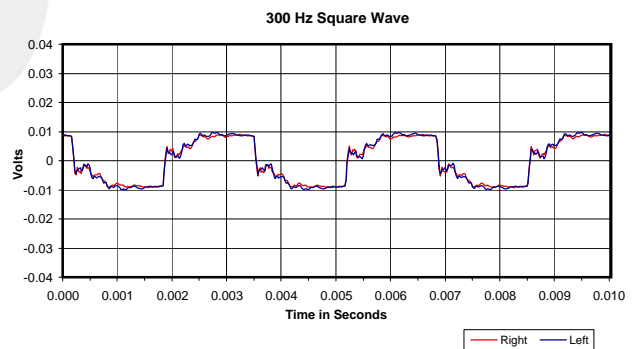
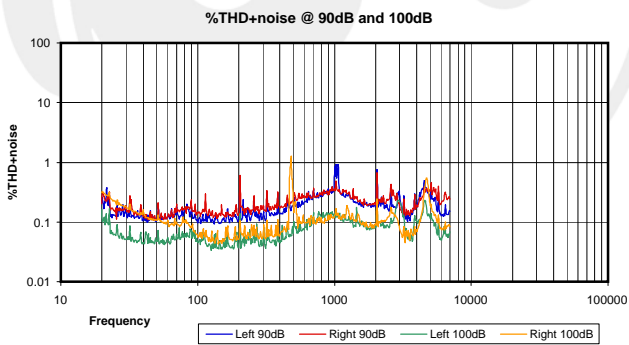
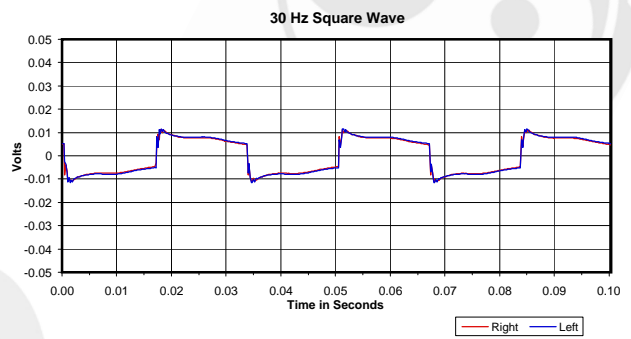
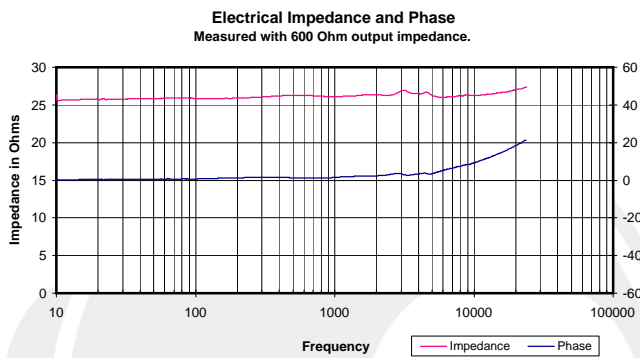
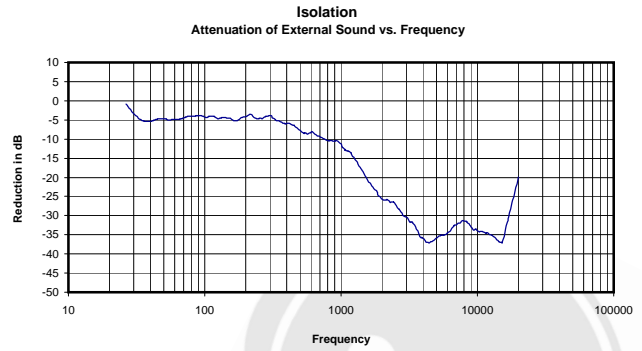
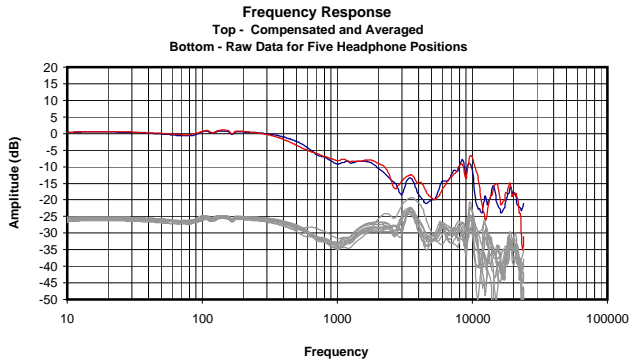
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.066 Vrms
 34 Ohms
 0.13 mW
 -6 dB



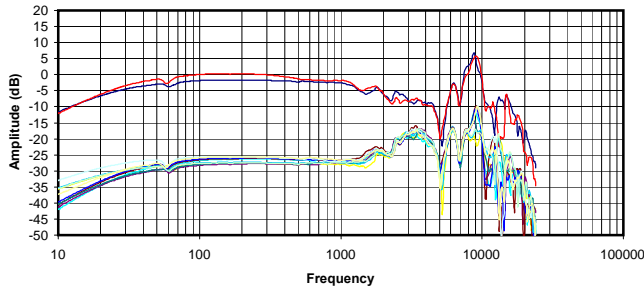


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

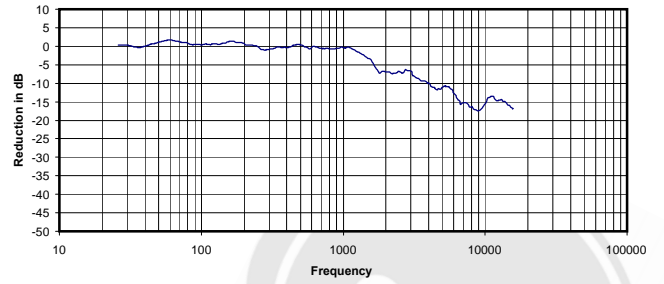
0.165 Vrms
26 Ohms
1.04 mW
-17 dB



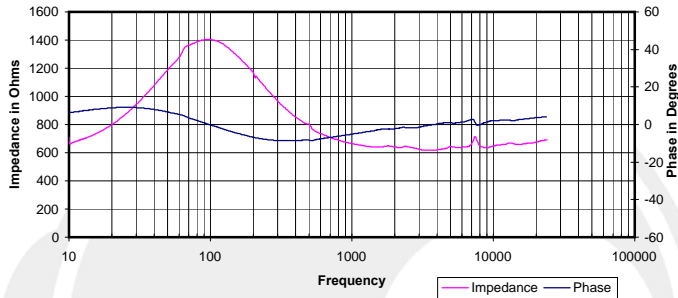
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



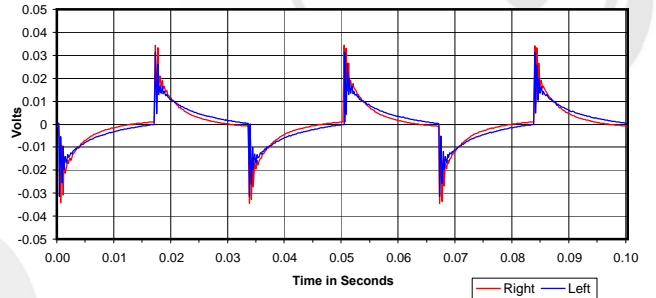
Isolation
Attenuation of External Sound vs. Frequency



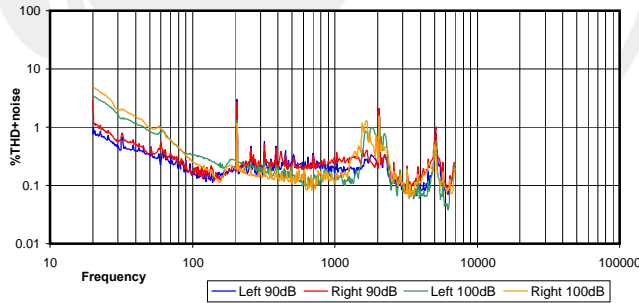
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



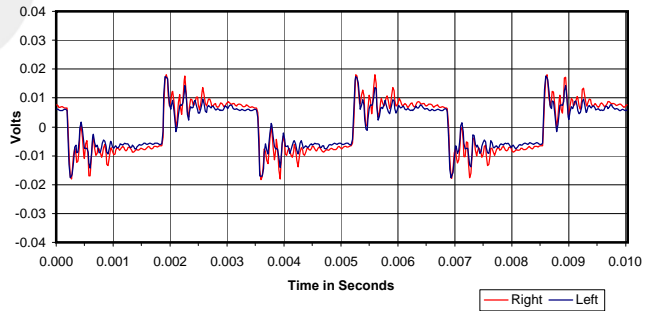
30 Hz Square Wave



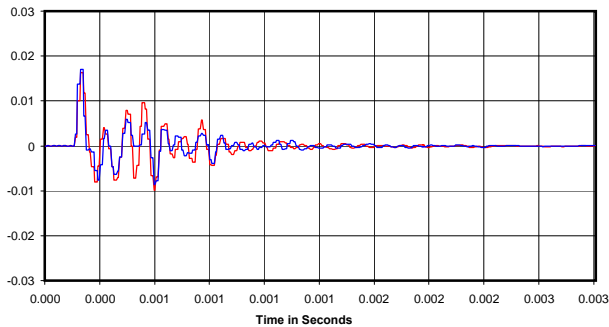
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

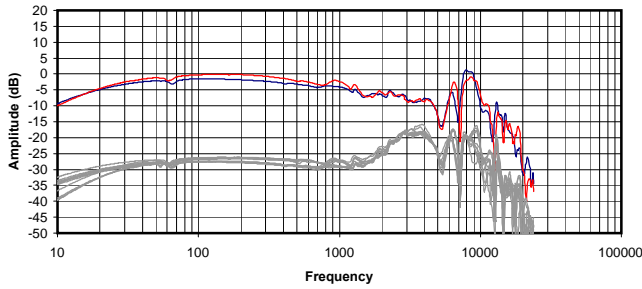


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

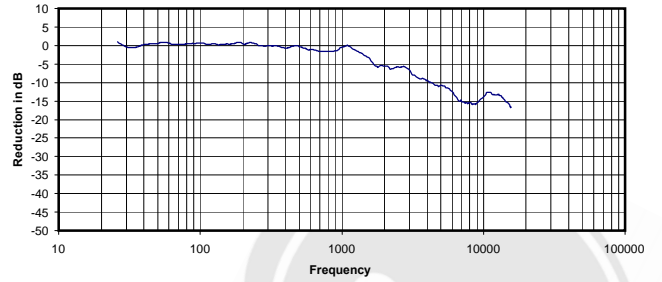
0.346 Vrms
665 Ohms
0.18 mW
-3 dB



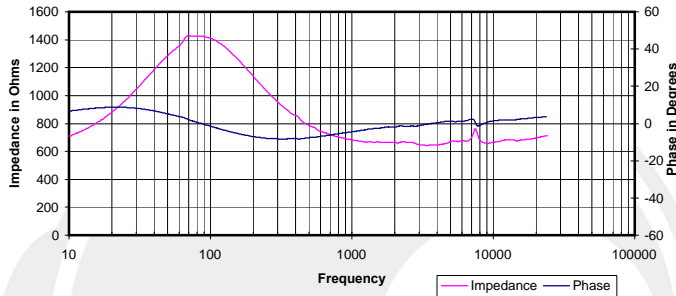
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



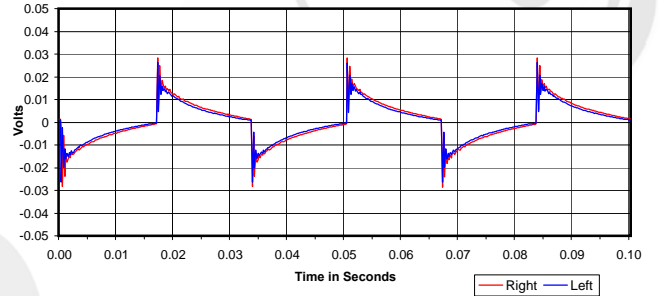
Isolation
 Attenuation of External Sound vs. Frequency



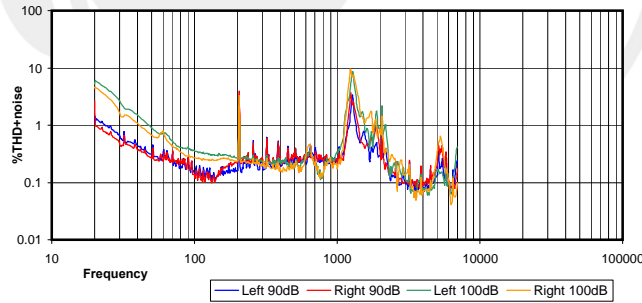
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



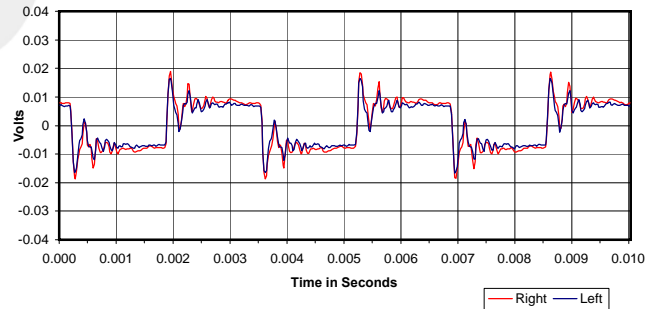
30 Hz Square Wave



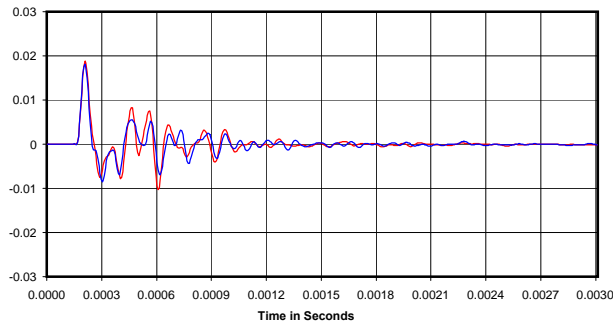
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



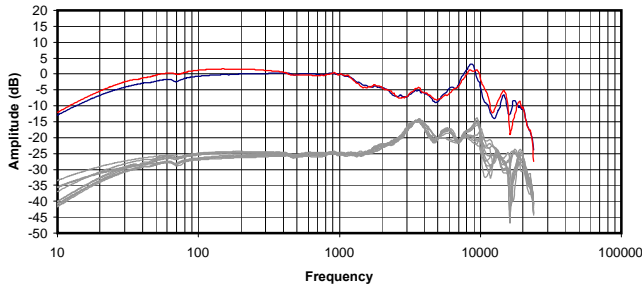
Impulse Response



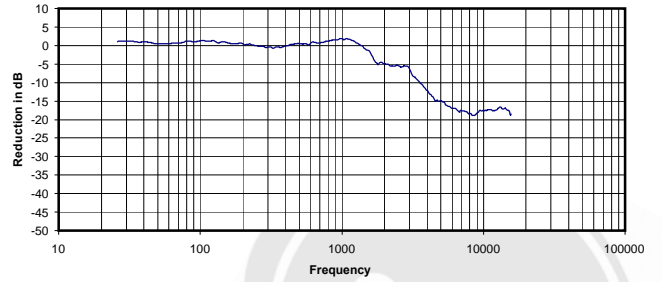
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.436 Vrms
 683 Ohms
 0.28 mW
 -3 dBr

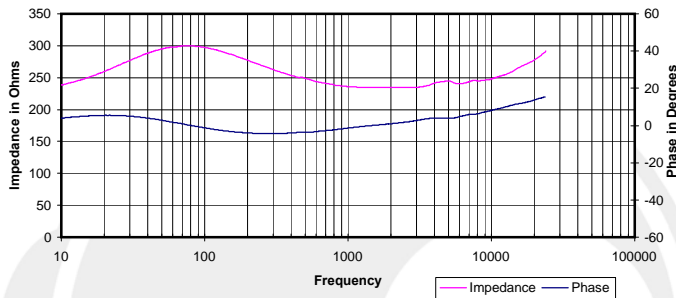
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



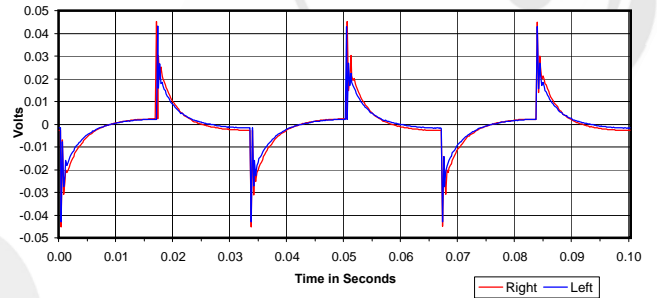
Isolation
 Attenuation of External Sound vs. Frequency



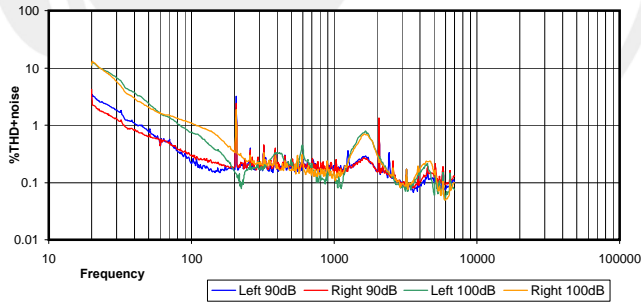
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



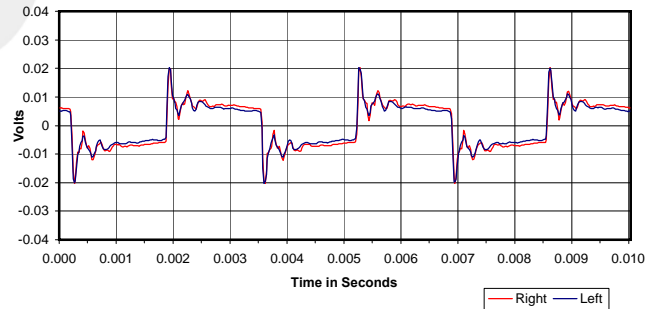
30 Hz Square Wave



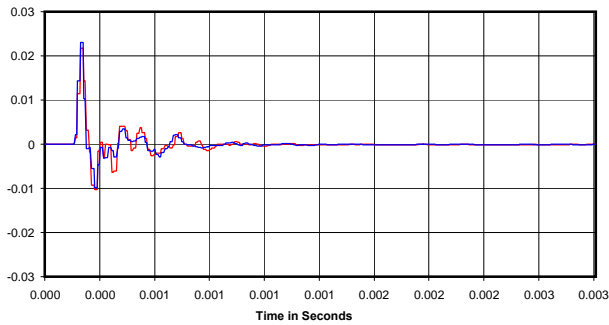
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

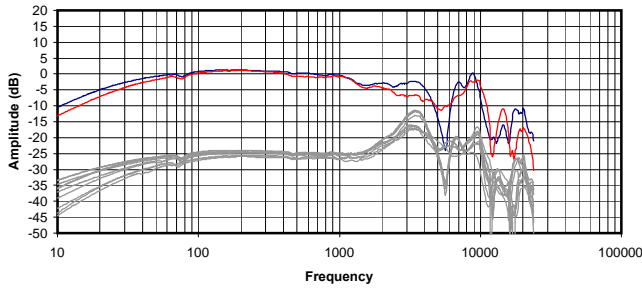


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

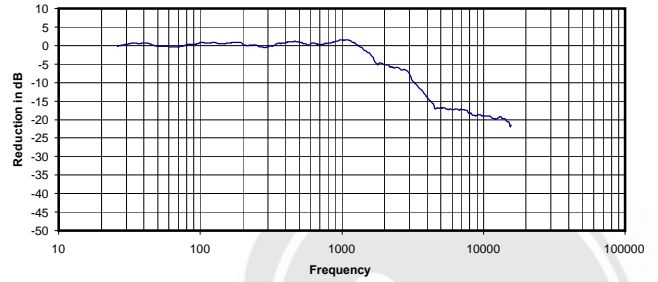
0.299 Vrms
 236 Ohms
 0.38 mW
 -3 dB



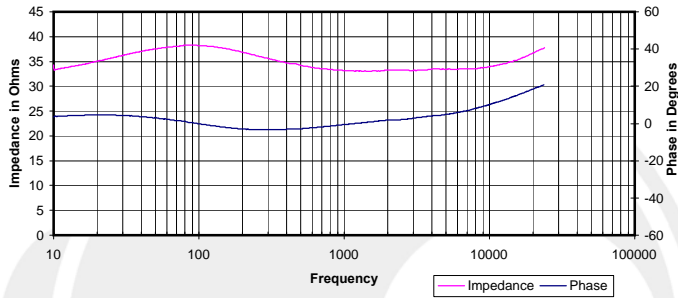
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



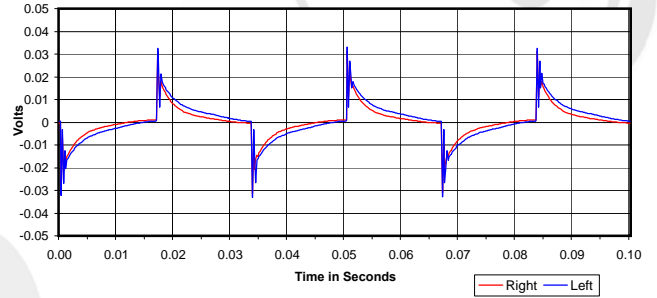
Isolation
 Attenuation of External Sound vs. Frequency



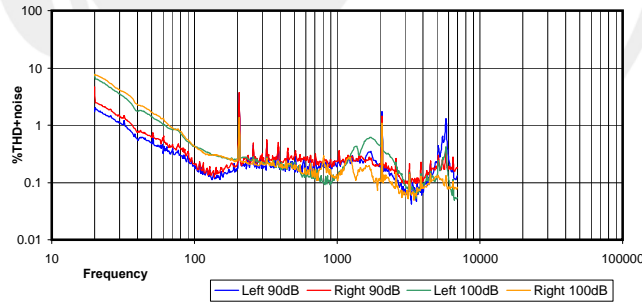
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



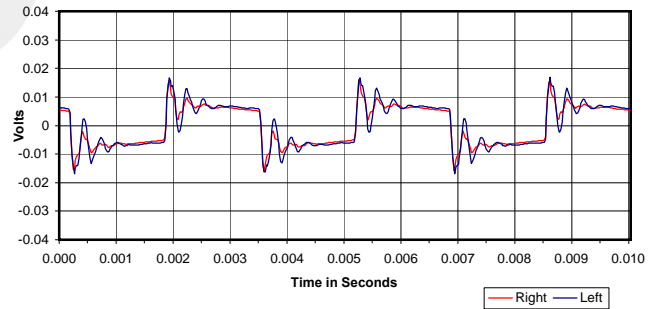
30 Hz Square Wave



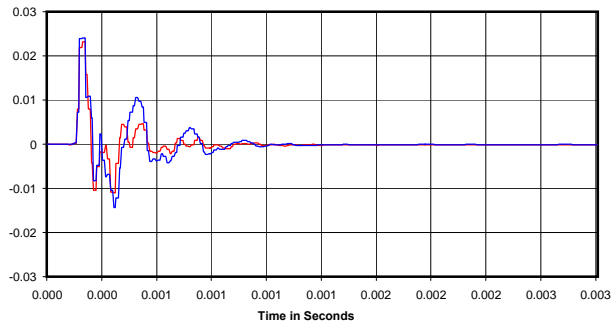
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

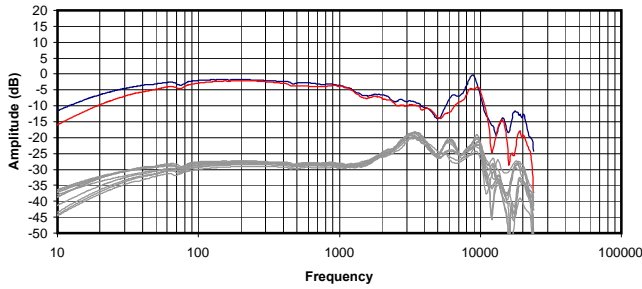


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

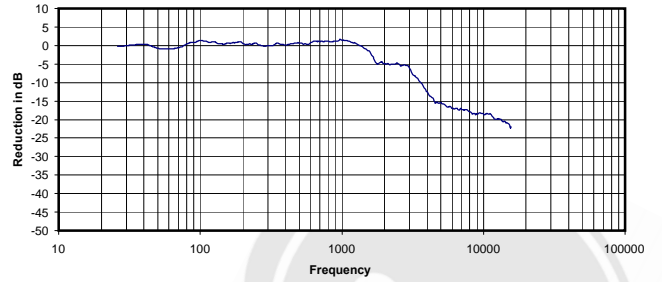
0.125 Vrms
 33 Ohms
 0.47 mW
 -3 dB



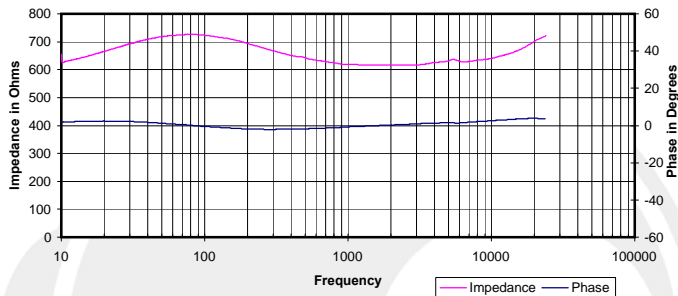
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



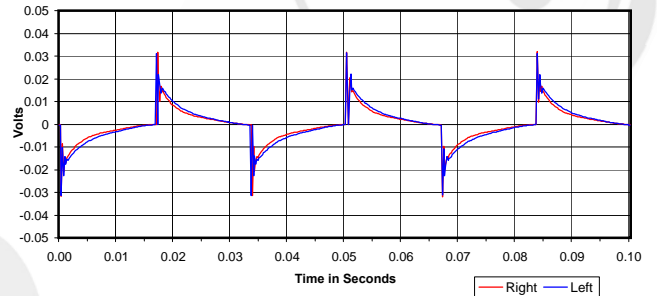
Isolation
 Attenuation of External Sound vs. Frequency



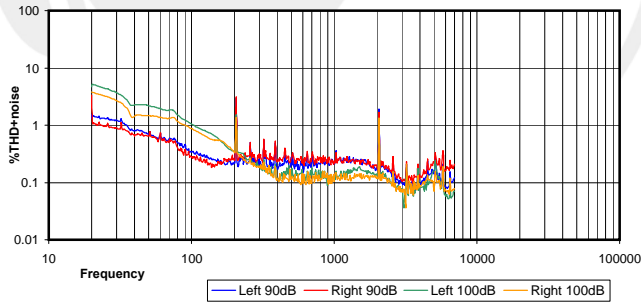
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



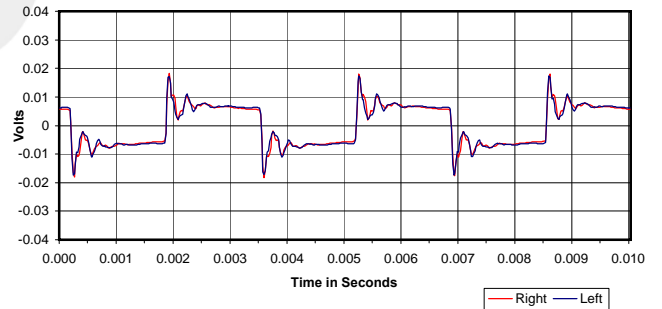
30 Hz Square Wave



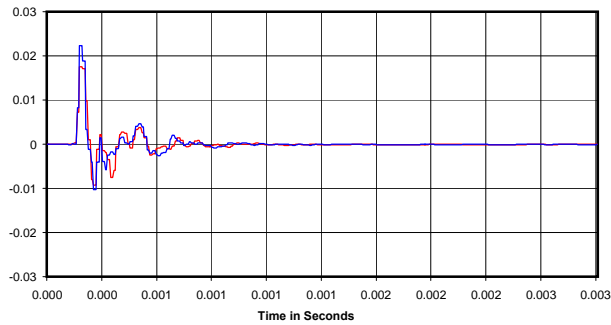
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

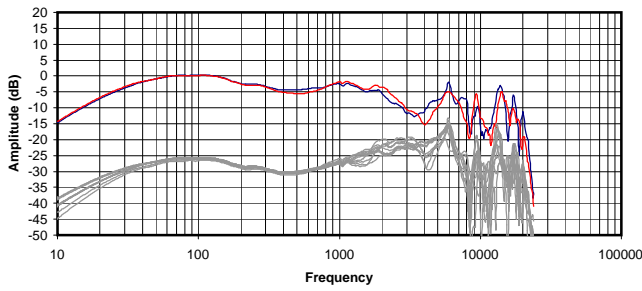


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

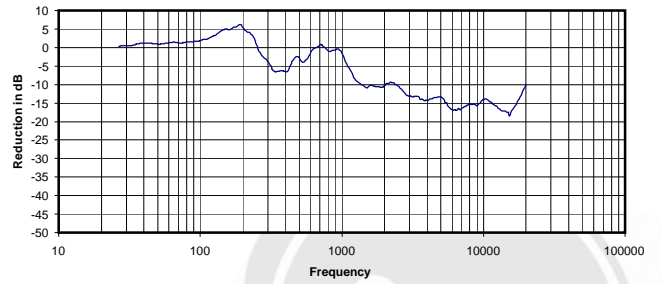
0.514 Vrms
 619 Ohms
 0.43 mW
 -3 dB



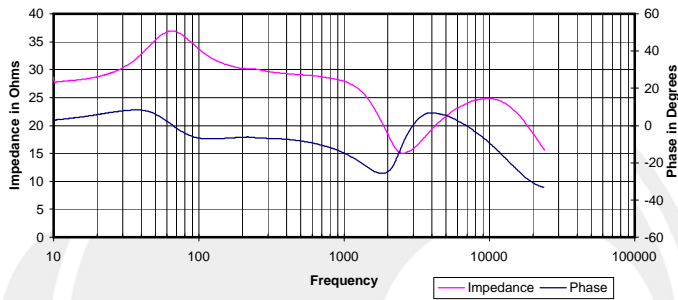
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



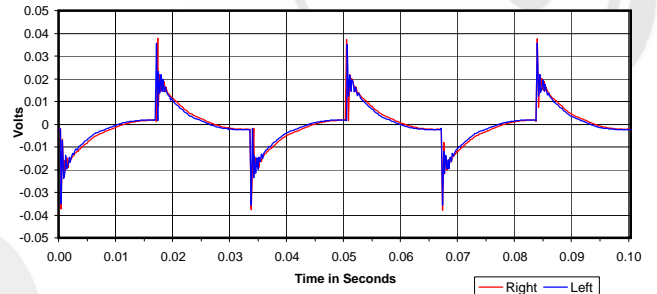
Isolation
Attenuation of External Sound vs. Frequency



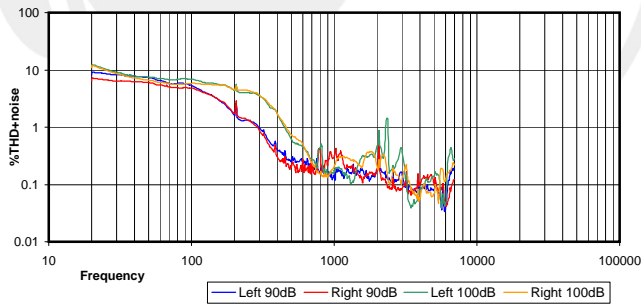
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



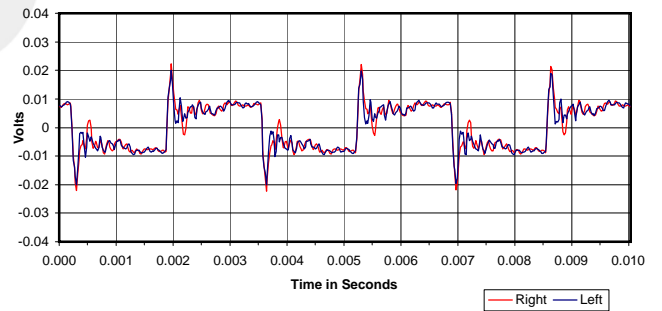
30 Hz Square Wave



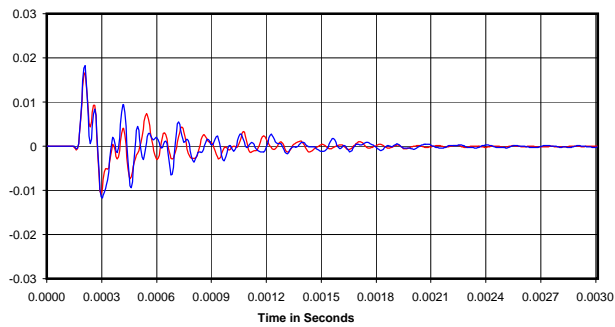
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



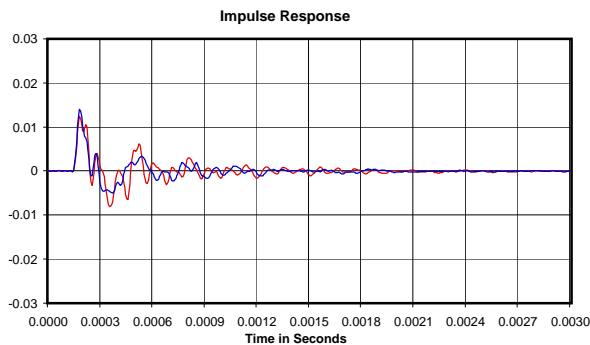
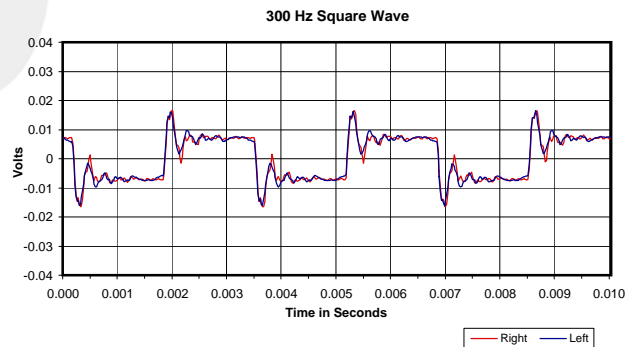
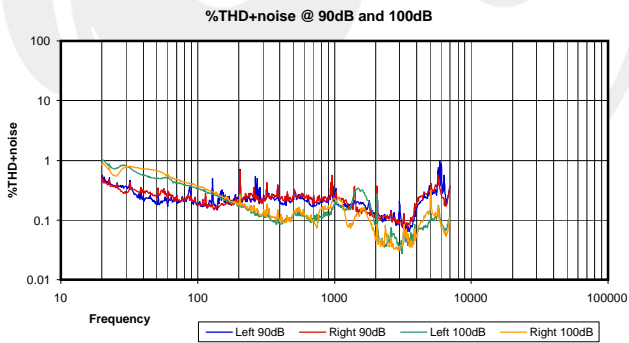
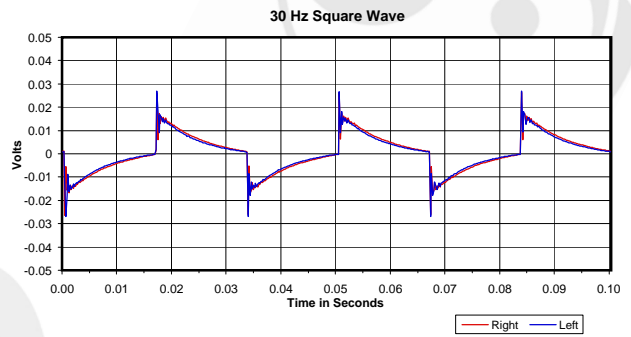
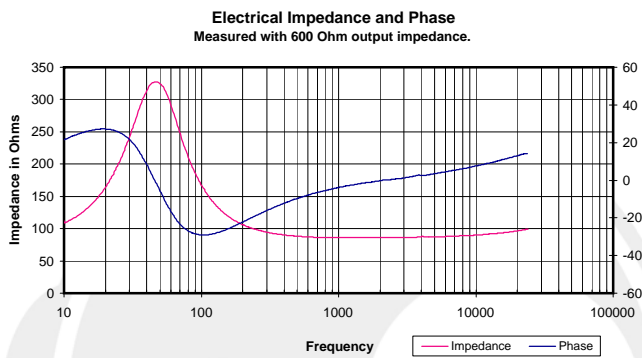
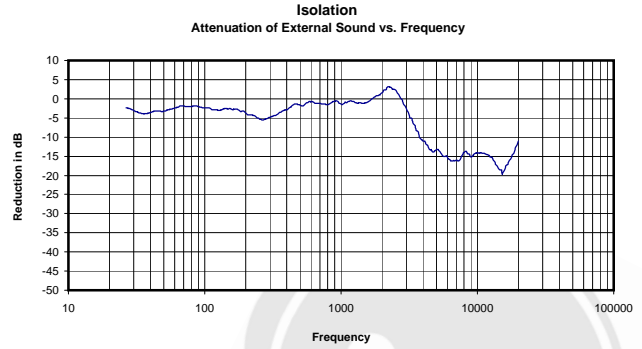
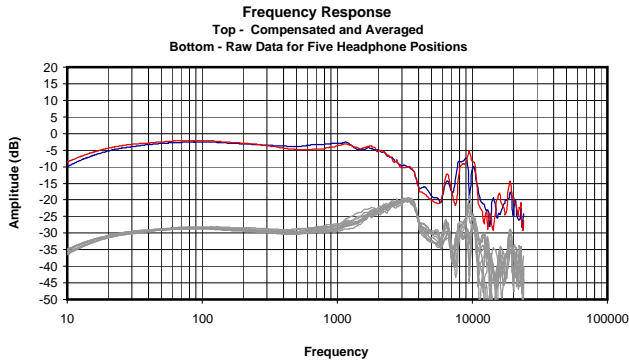
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.091 Vrms
28 Ohms
0.30 mW
-6 dBr

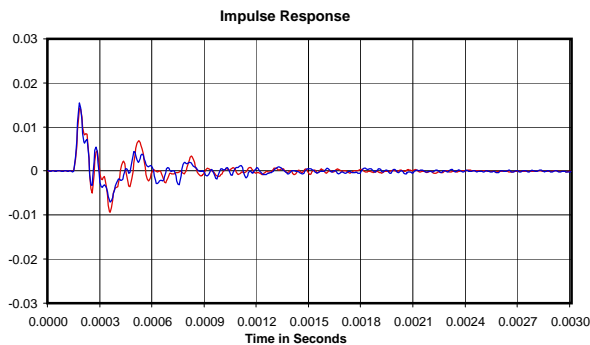
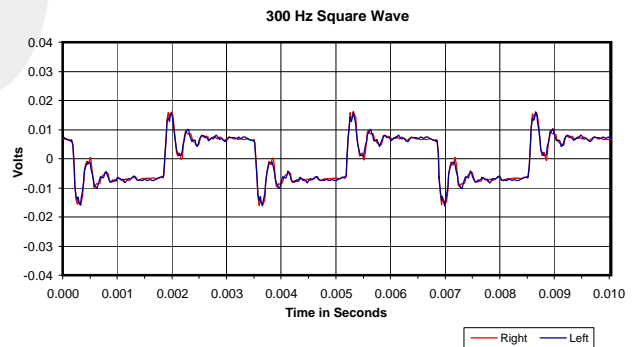
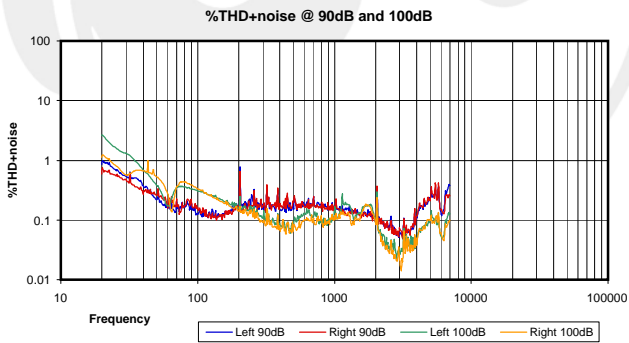
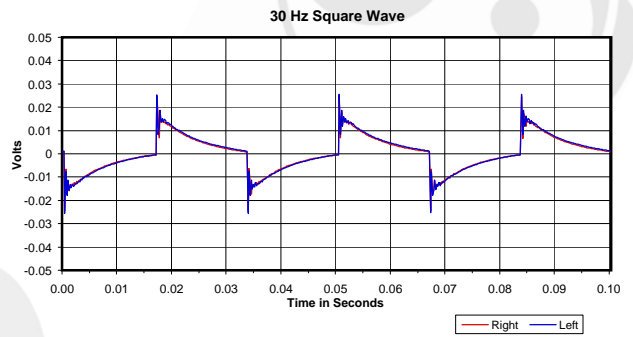
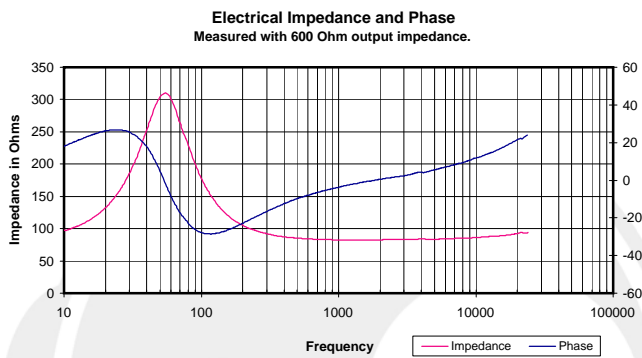
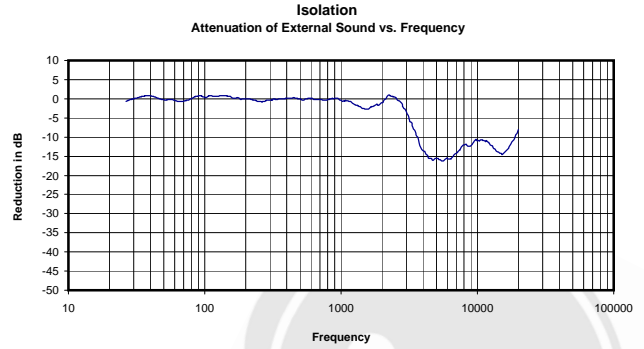
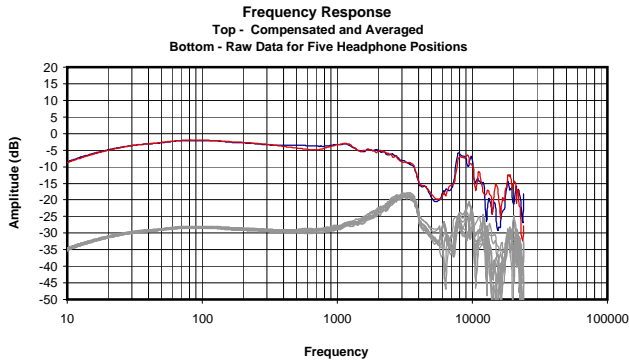




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.096 Vrms
86 Ohms
0.11 mW
-5 dBr

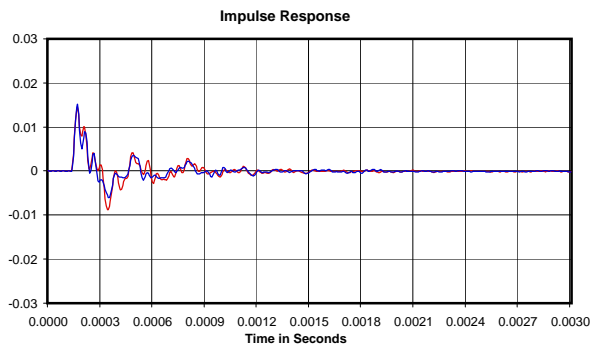
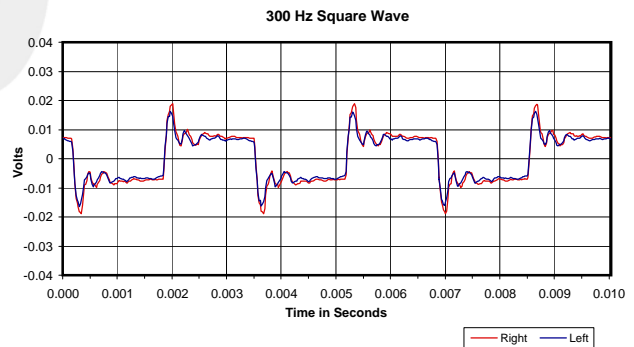
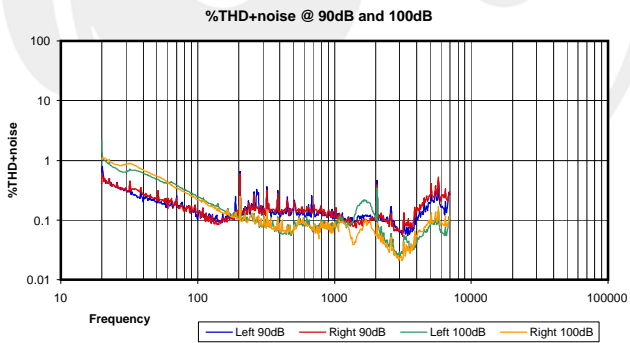
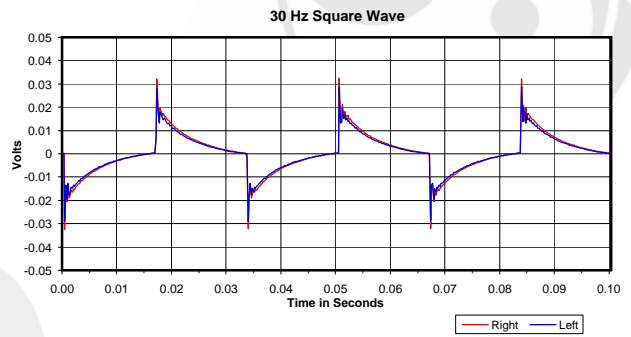
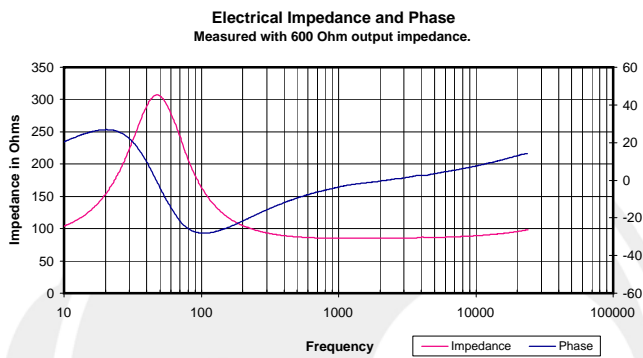
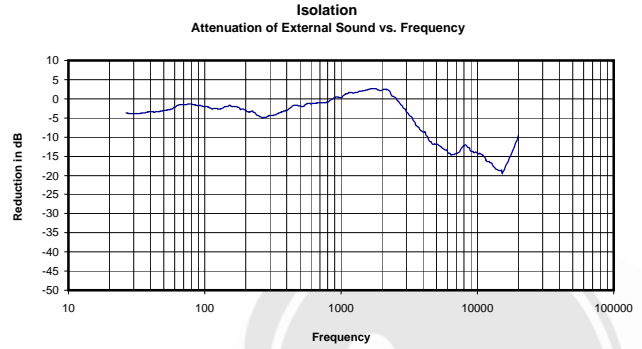
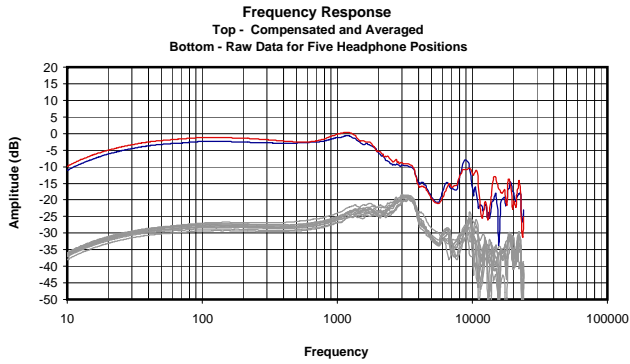




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.115 Vrms
83 Ohms
0.16 mW
-4 dBr

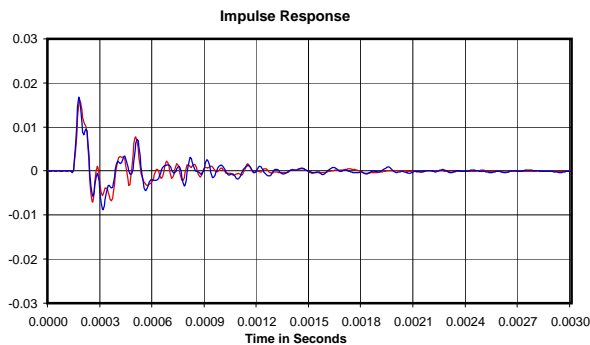
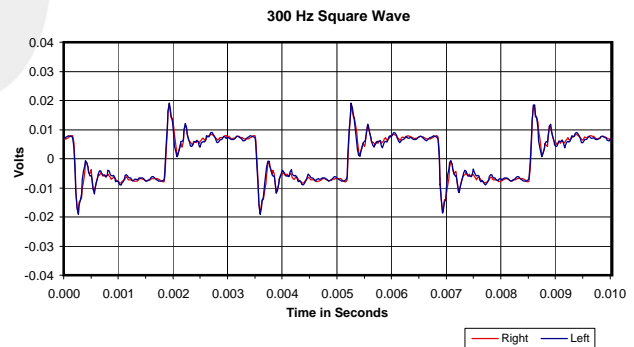
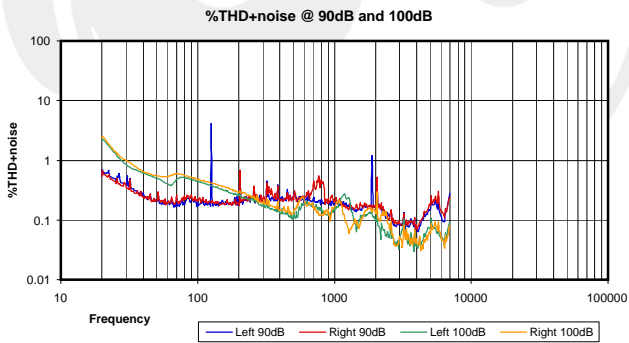
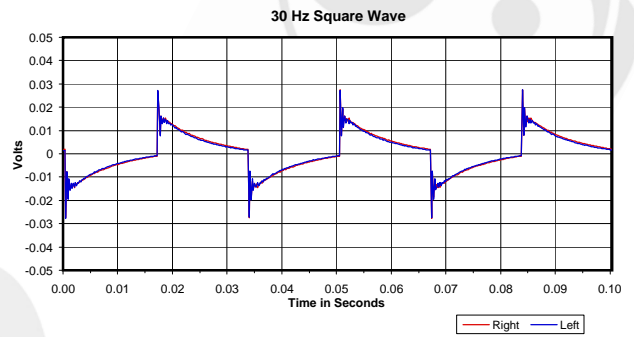
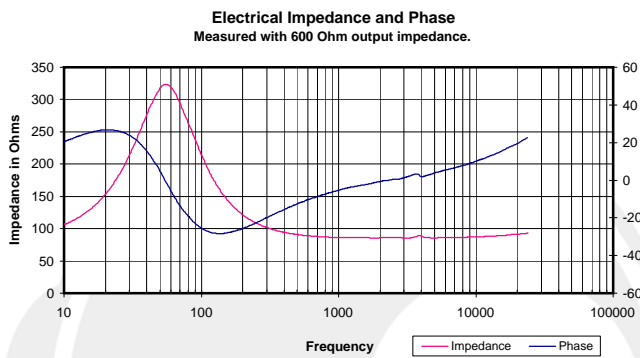
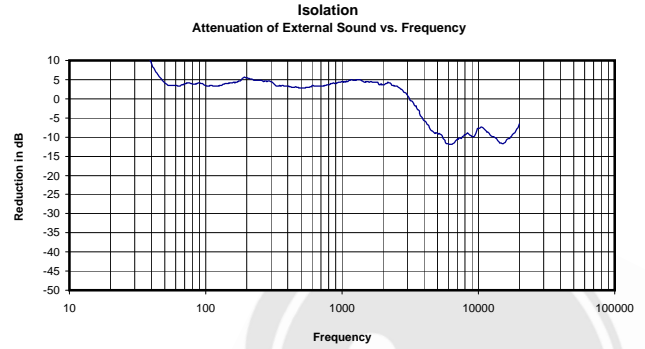
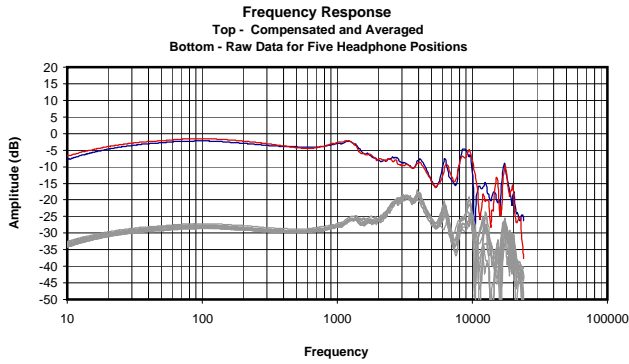




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.069 Vrms
85 Ohms
0.06 mW
-4 dBr

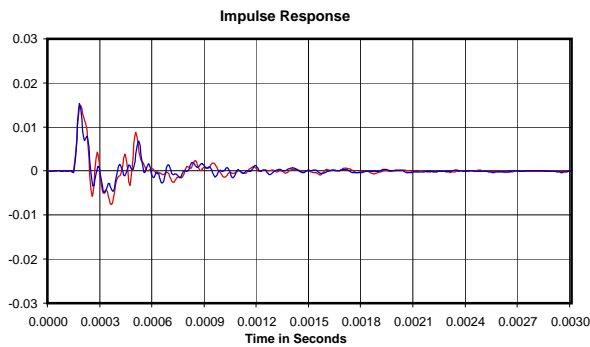
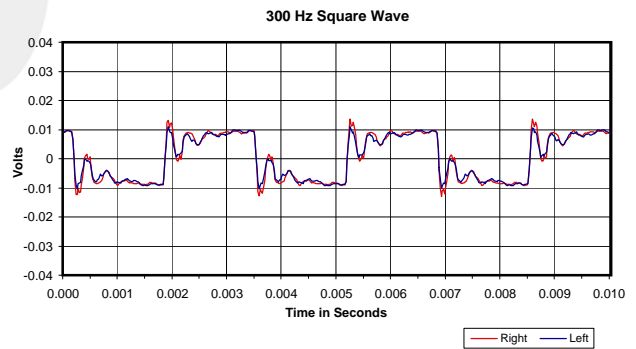
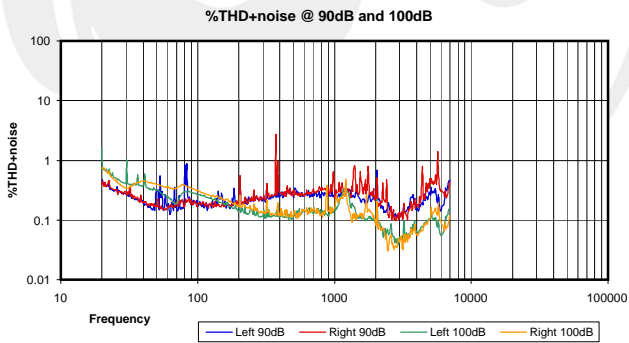
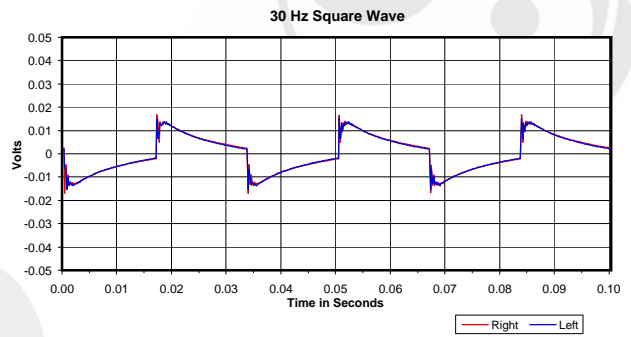
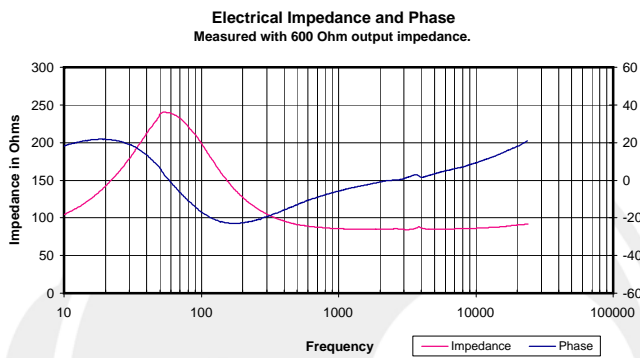
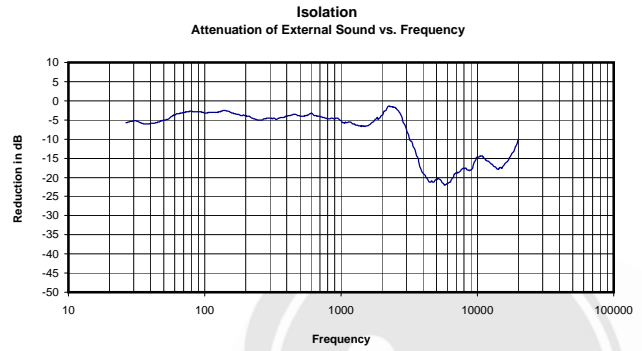
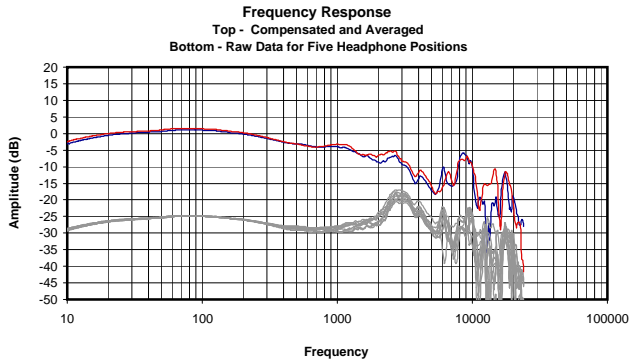




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.119 Vrms
86 Ohms
0.16 mW
1 dBr

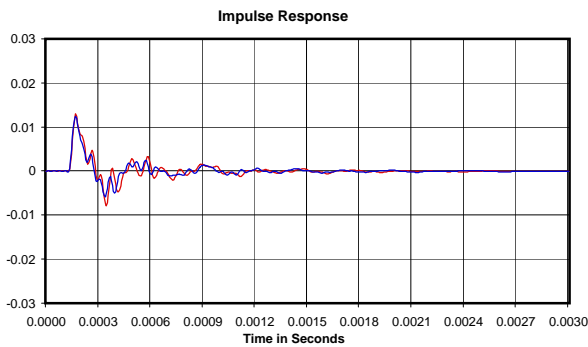
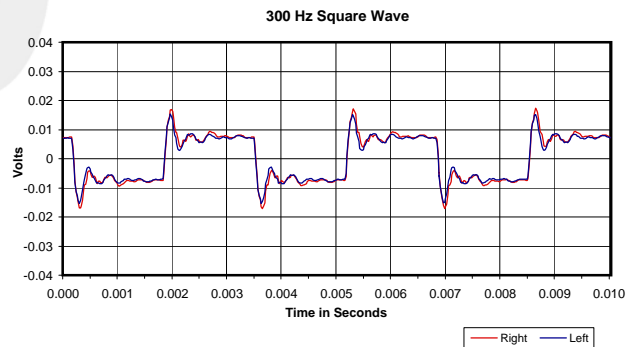
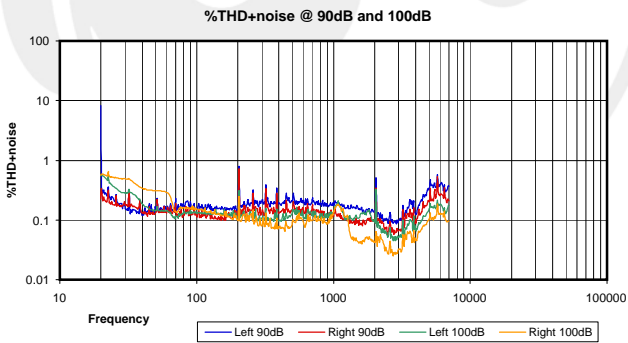
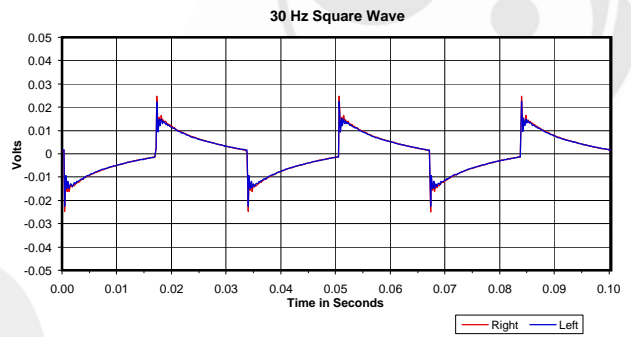
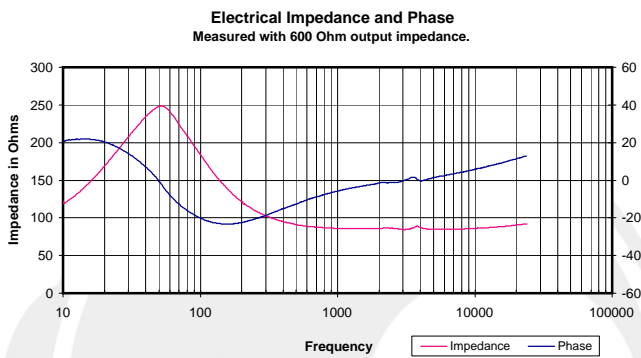
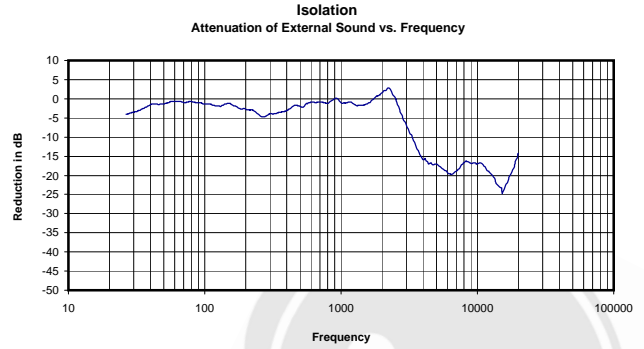
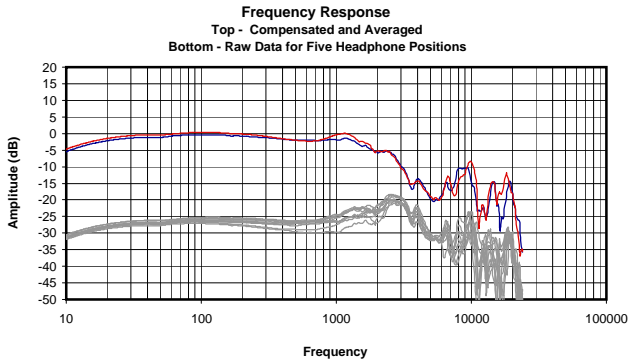




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.144 Vrms
86 Ohms
0.24 mW
-8 dBr



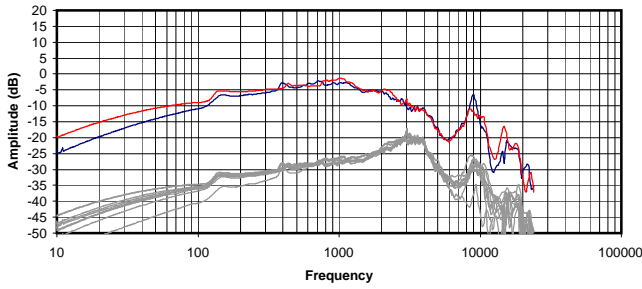


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

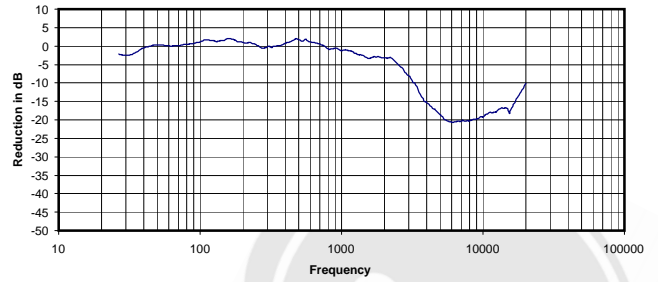
0.054 Vrms
86 Ohms
0.03 mW
-5 dBr



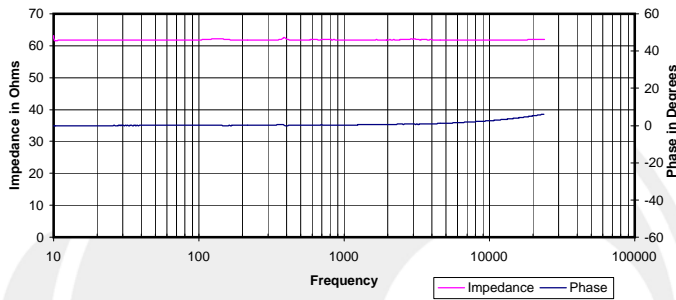
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



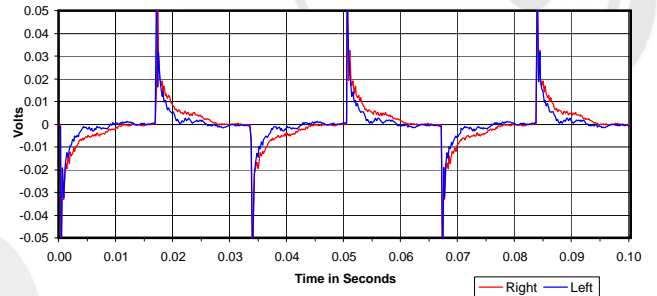
Isolation
 Attenuation of External Sound vs. Frequency



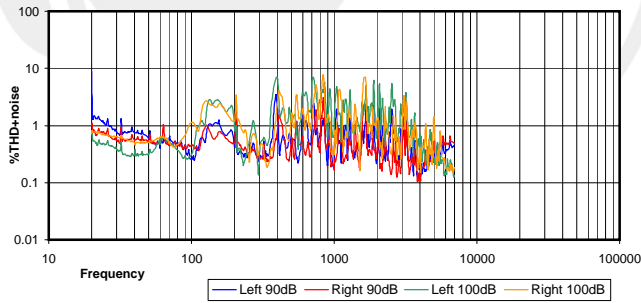
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



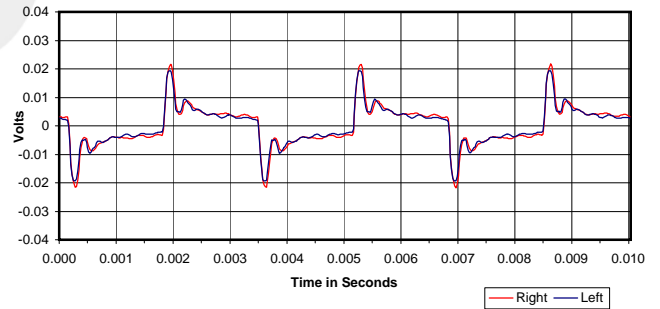
30 Hz Square Wave



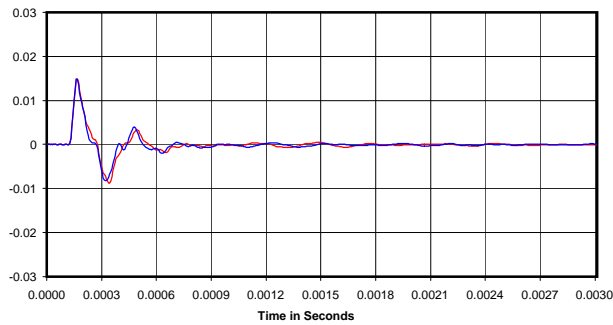
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

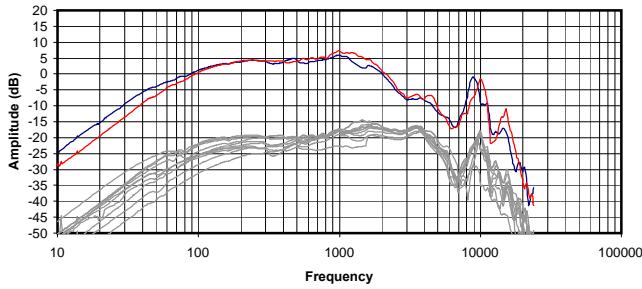


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

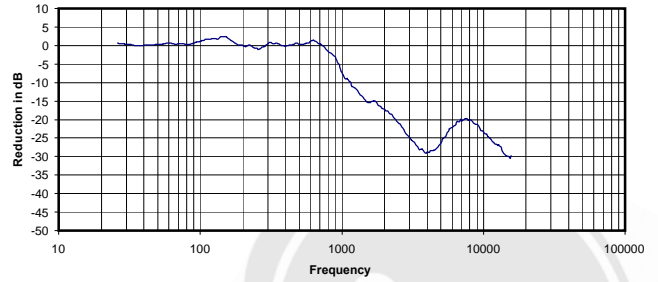
0.166 Vrms
 62 Ohms
 0.45 mW
 -5 dB



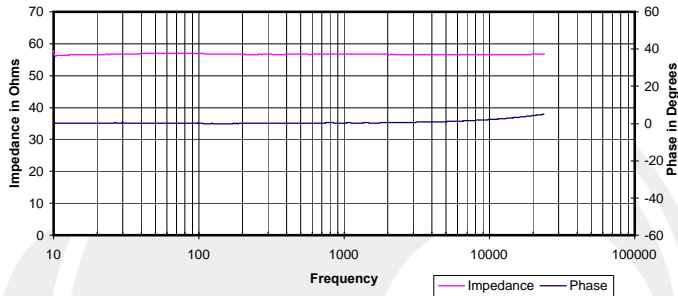
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



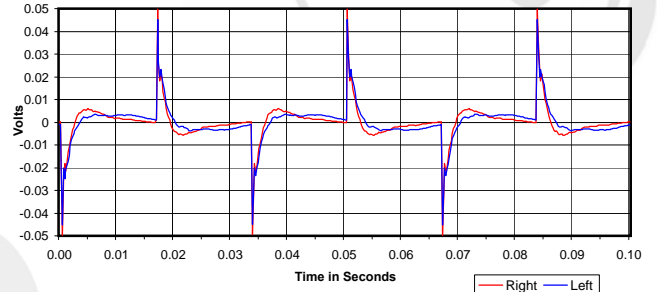
Isolation
 Attenuation of External Sound vs. Frequency



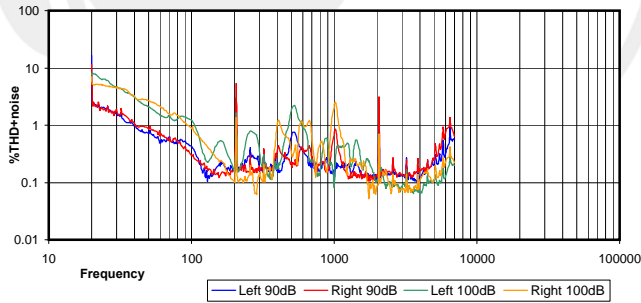
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



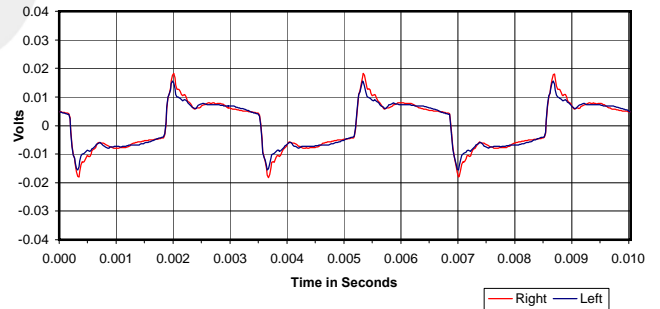
30 Hz Square Wave



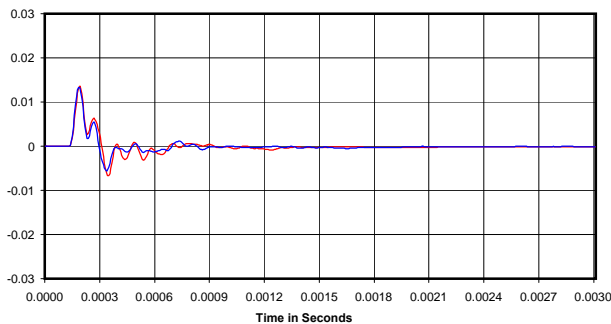
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

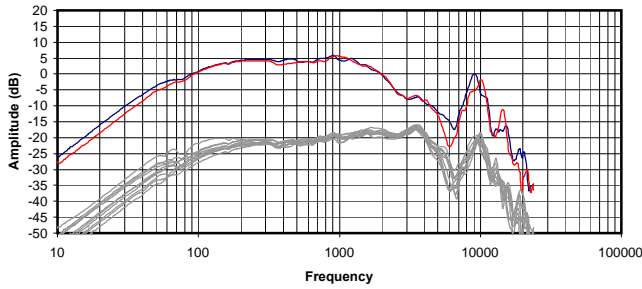


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

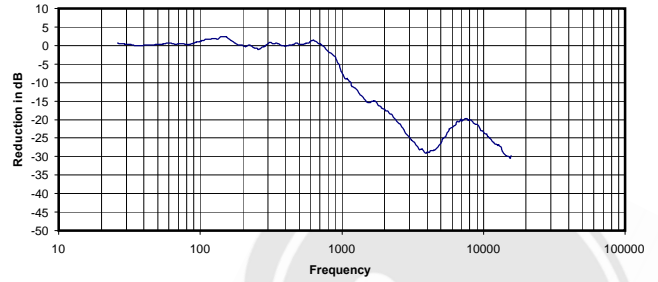
0.088 Vrms
 57 Ohms
 0.14 mW
 -9 dB



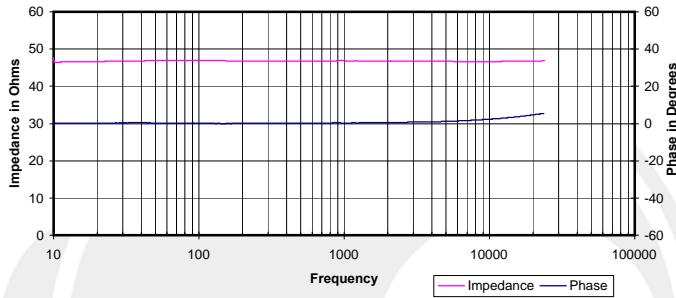
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



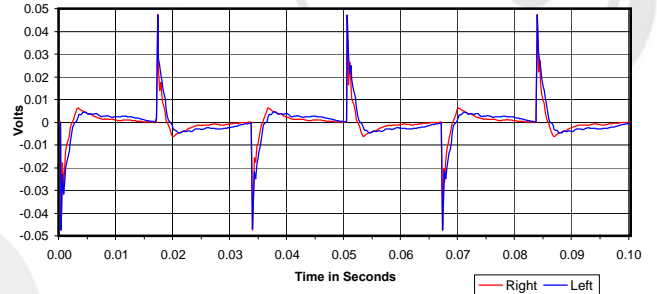
Isolation
 Attenuation of External Sound vs. Frequency



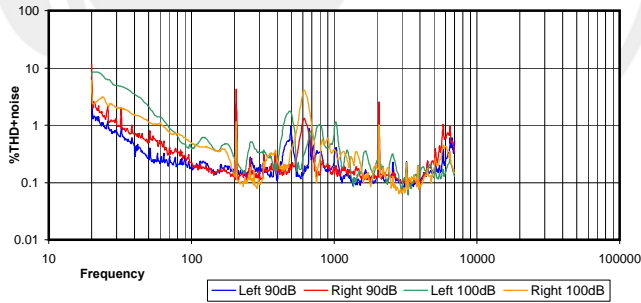
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



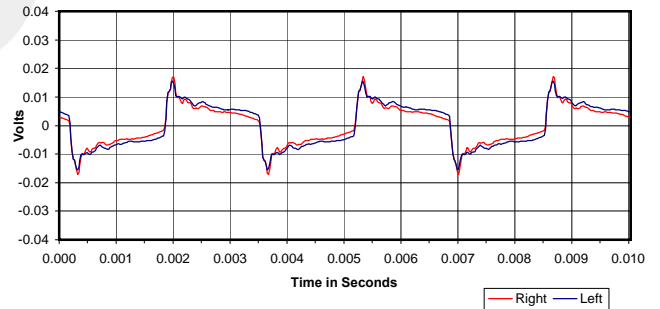
30 Hz Square Wave



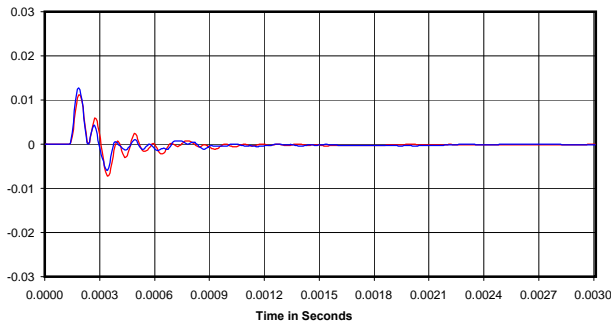
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

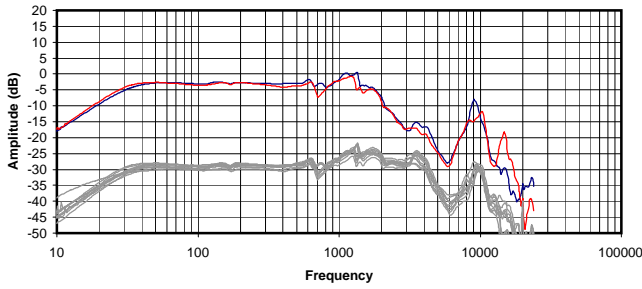


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

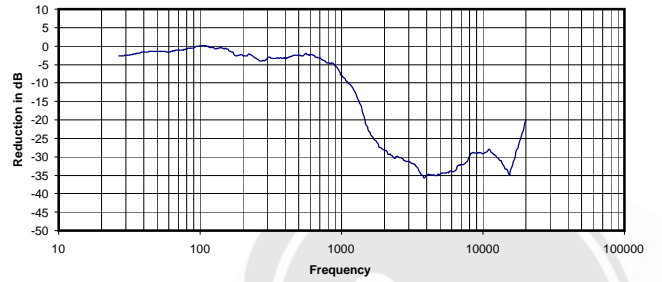
0.116 Vrms
 47 Ohms
 0.29 mW
 -9 dB



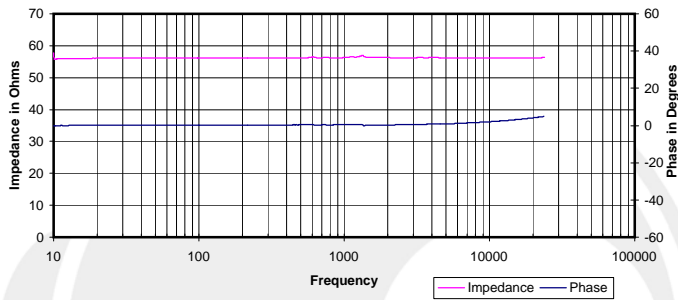
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



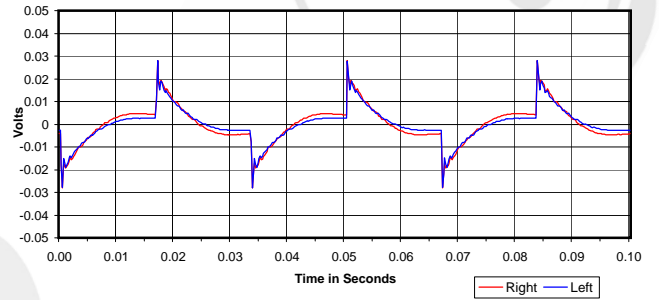
Isolation
 Attenuation of External Sound vs. Frequency



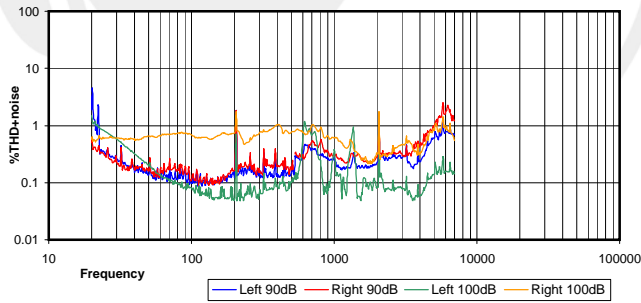
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



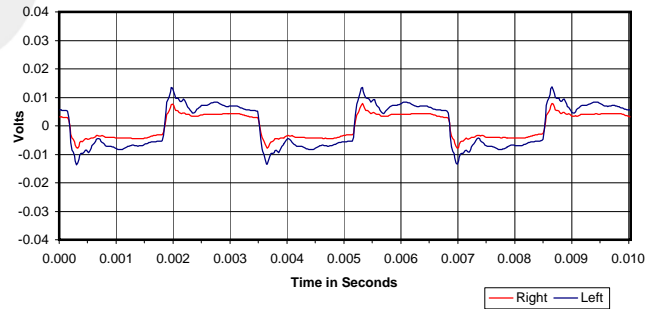
30 Hz Square Wave



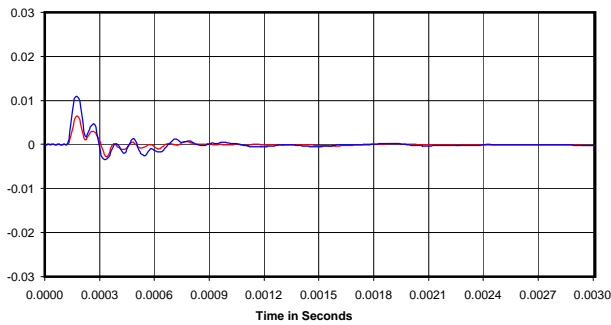
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

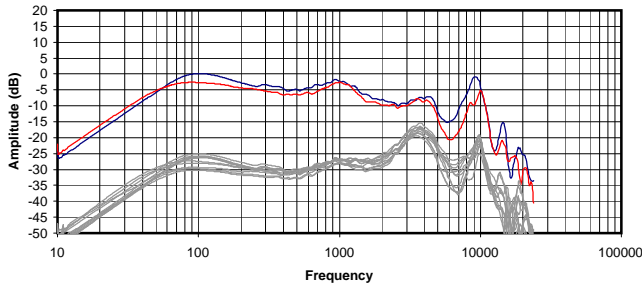


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

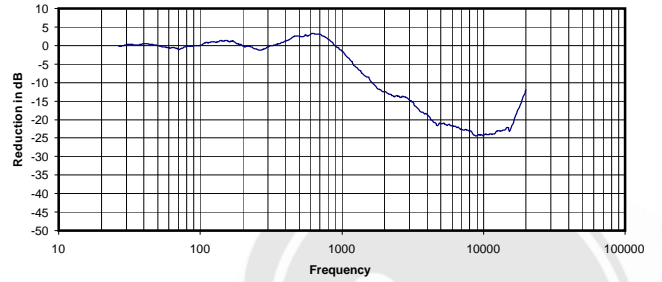
0.062 Vrms
 56 Ohms
 0.07 mW
 -15 dB



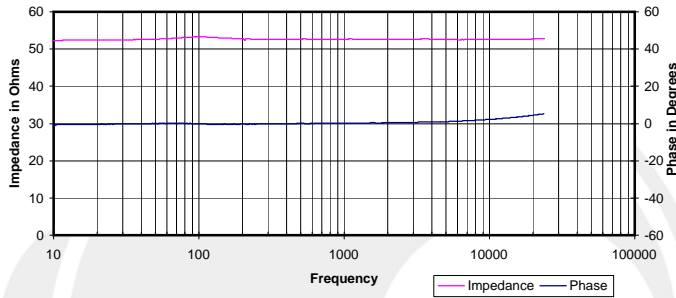
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



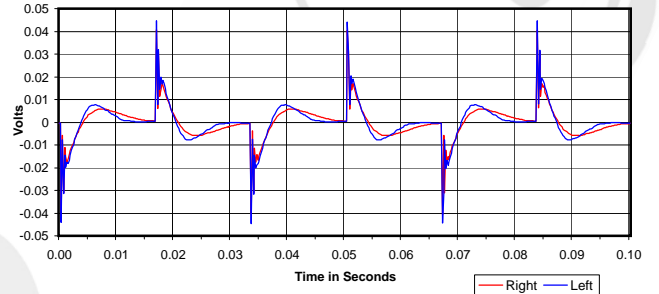
Isolation
 Attenuation of External Sound vs. Frequency



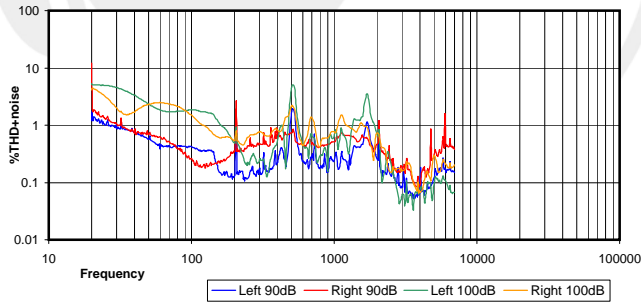
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



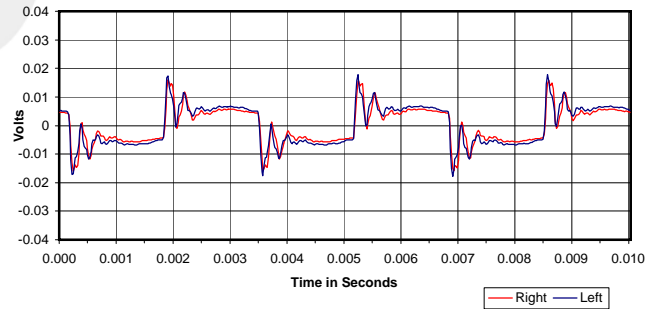
30 Hz Square Wave



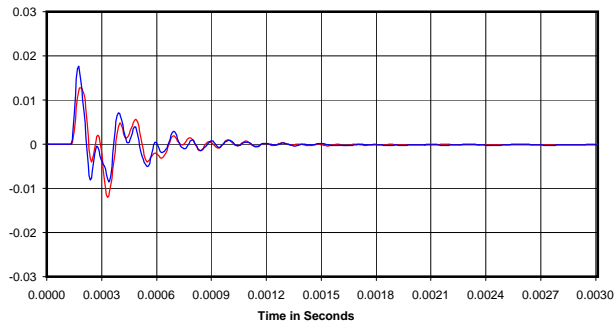
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

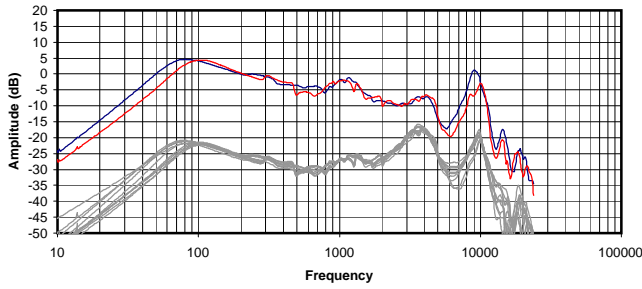


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

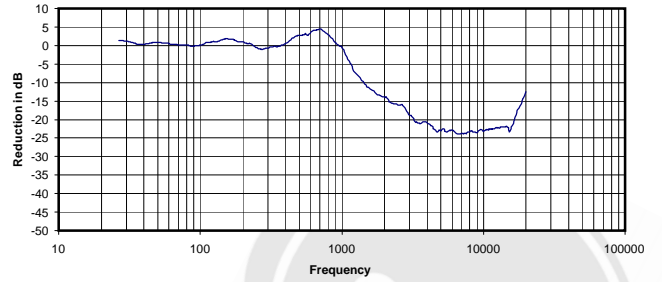
0.206 Vrms
 53 Ohms
 0.80 mW
 -7 dB



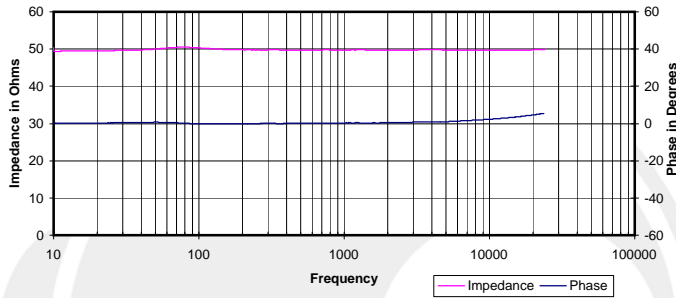
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



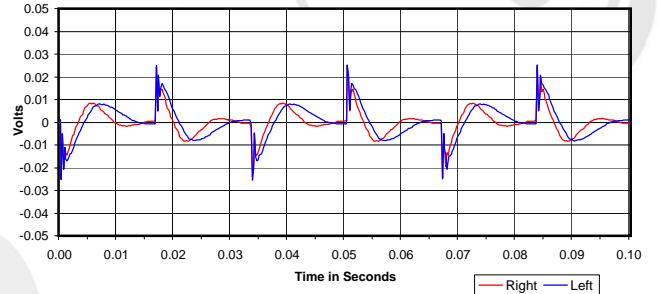
Isolation
 Attenuation of External Sound vs. Frequency



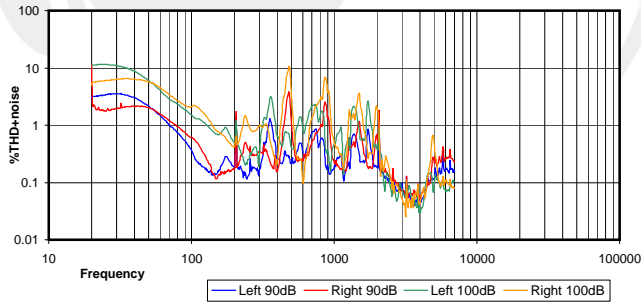
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



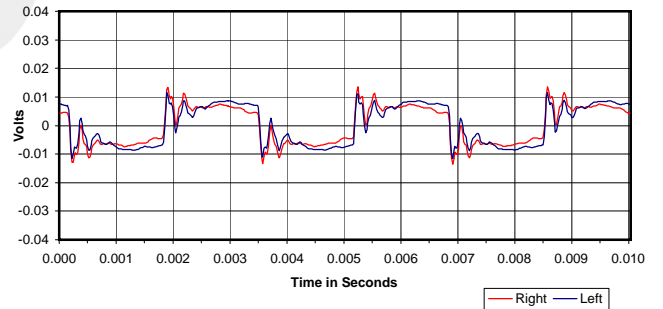
30 Hz Square Wave



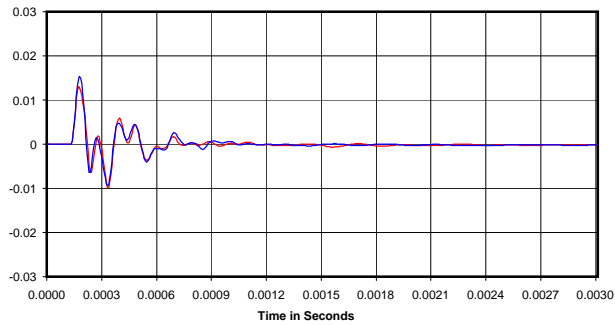
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

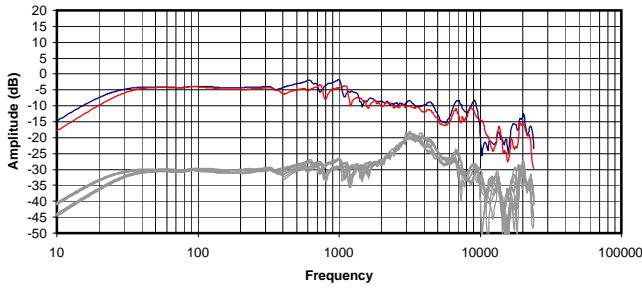


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

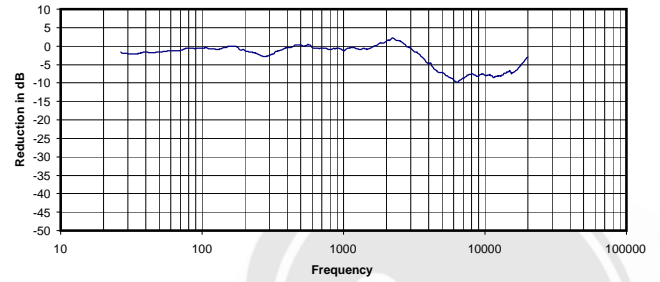
0.166 Vrms
 50 Ohms
 0.55 mW
 -8 dB



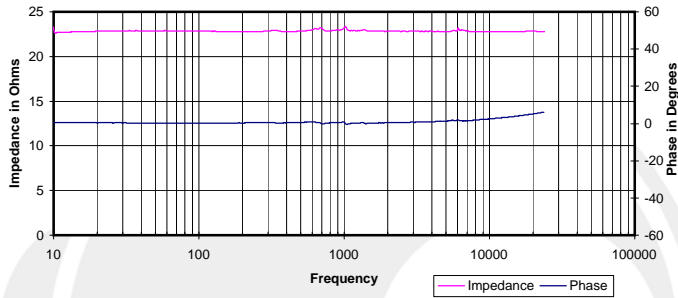
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



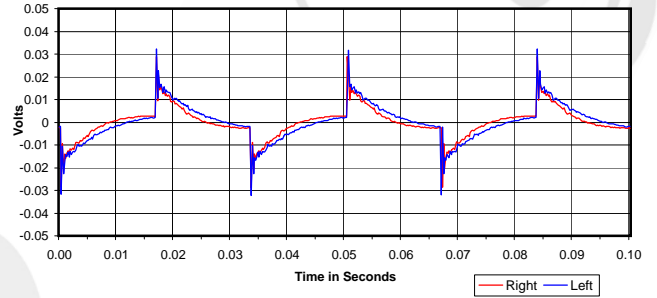
Isolation
 Attenuation of External Sound vs. Frequency



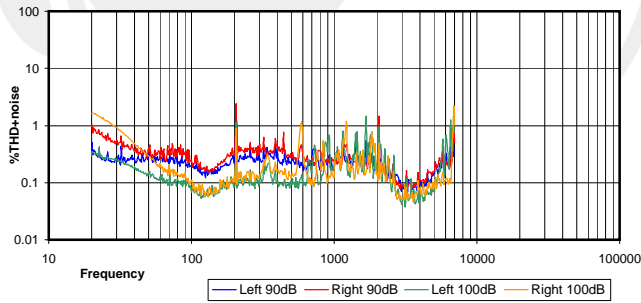
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



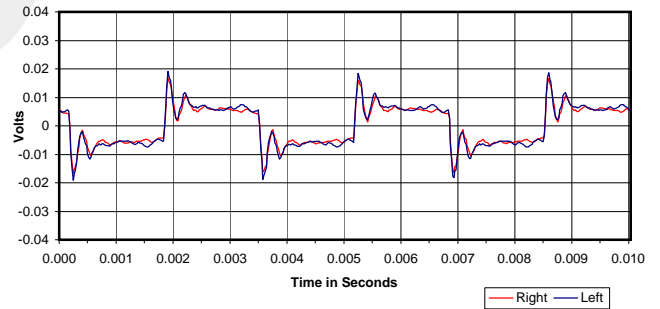
30 Hz Square Wave



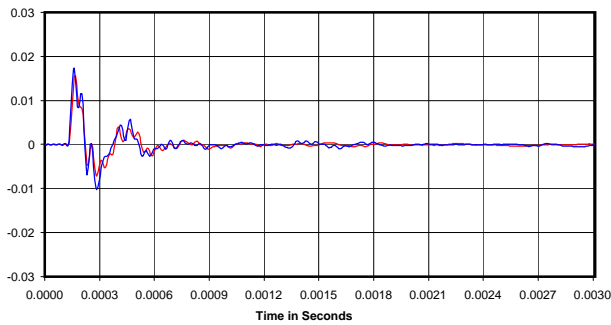
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



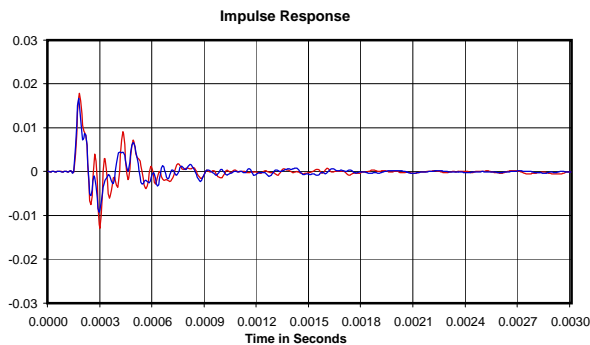
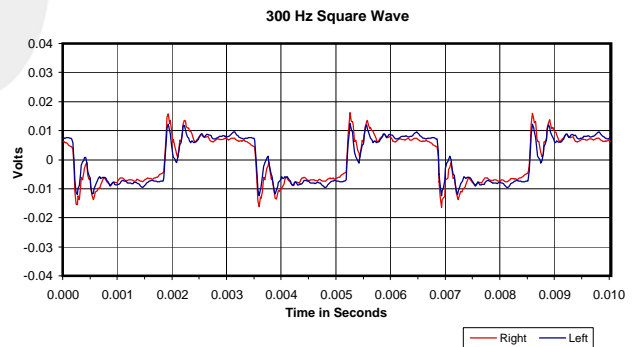
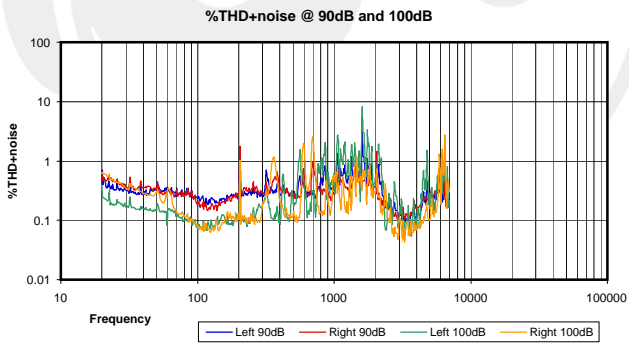
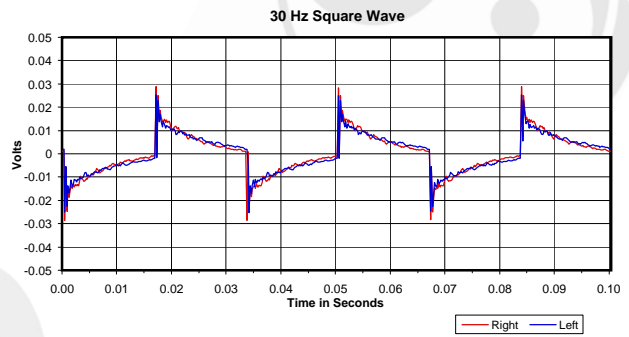
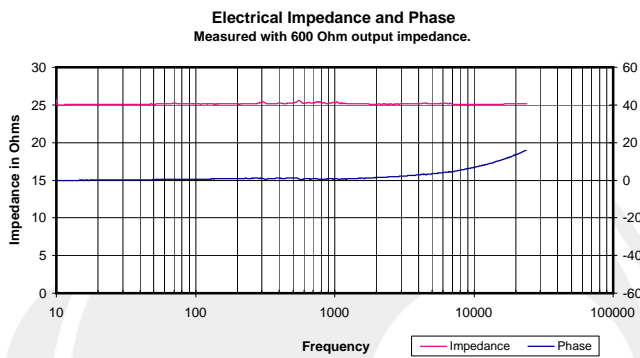
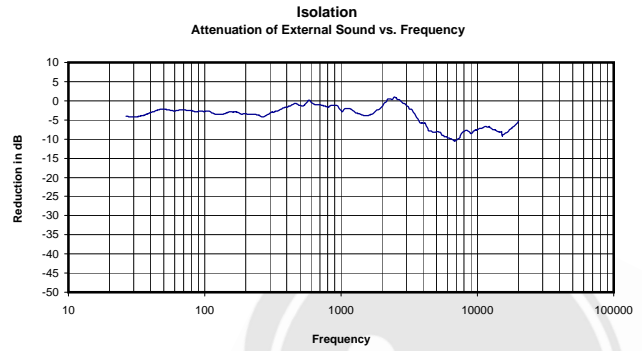
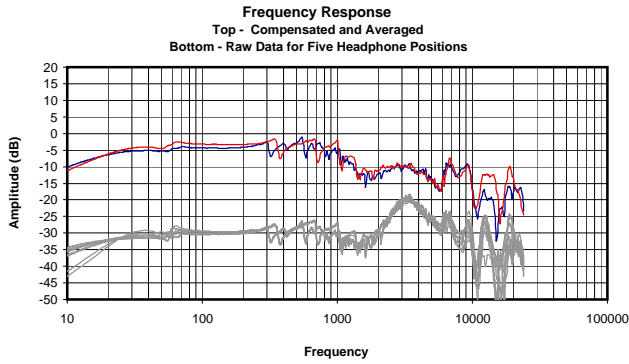
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
 23 Ohms
 0.22 mW
 -2 dB

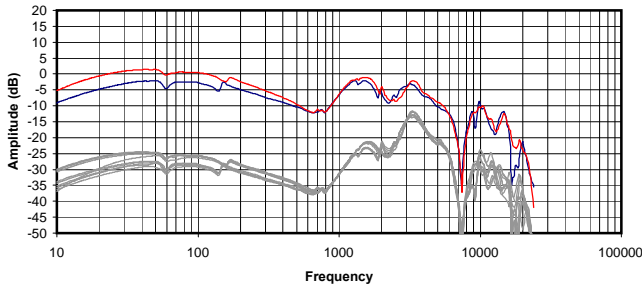




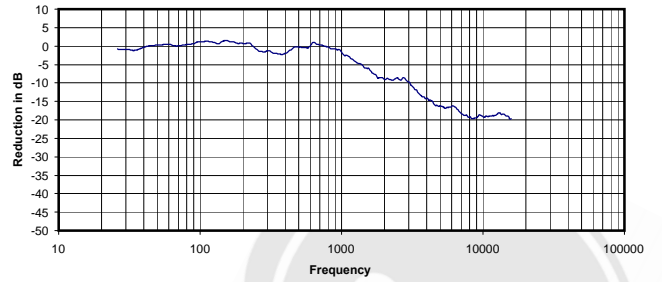
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.143 Vrms
25 Ohms
0.80 mW
-4 dBr

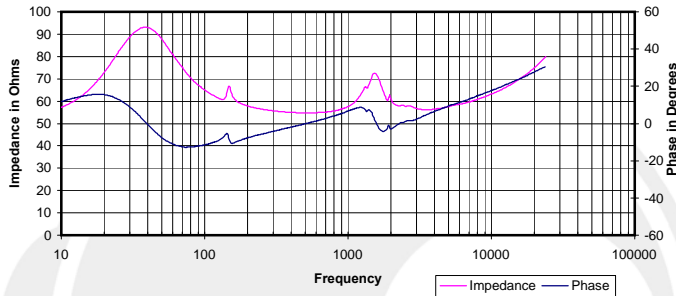
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



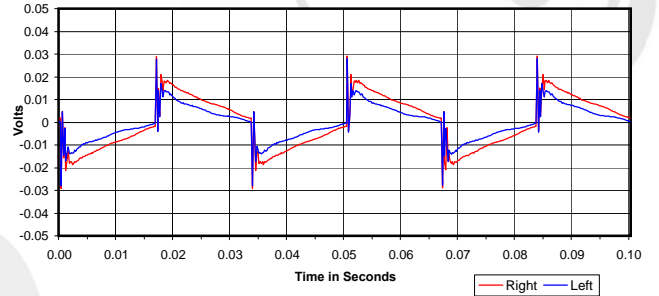
Isolation
 Attenuation of External Sound vs. Frequency



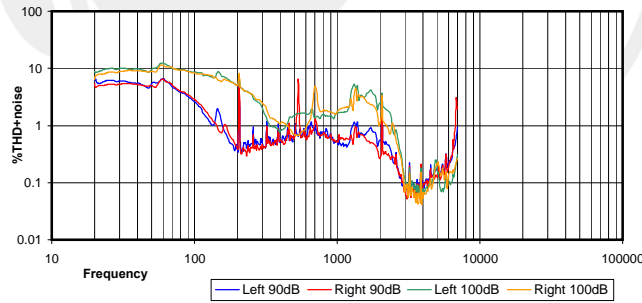
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



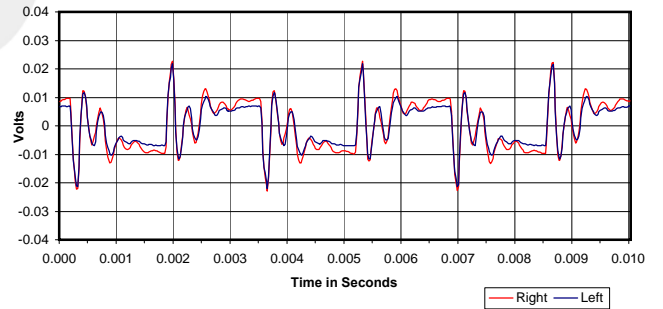
30 Hz Square Wave



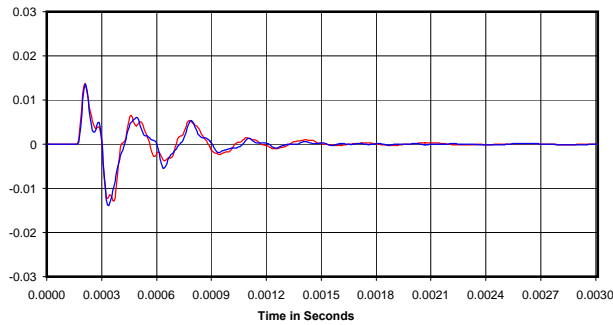
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

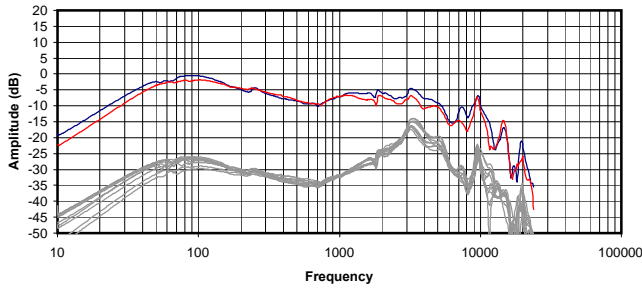


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

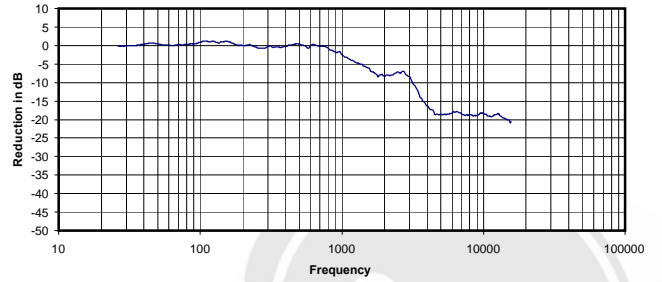
0.262 Vrms
 58 Ohms
 1.19 mW
 -4 dB



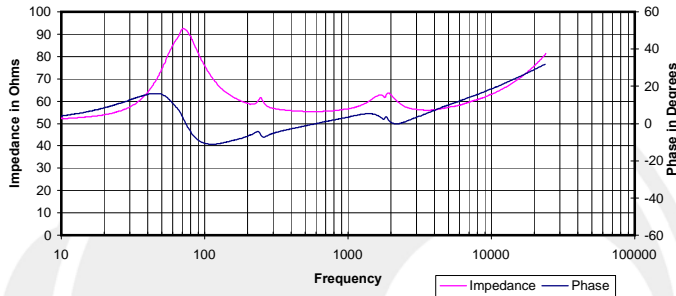
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



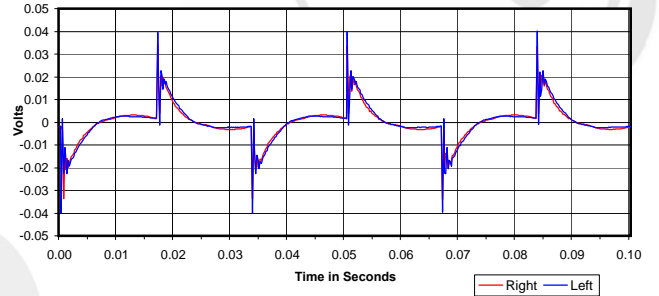
Isolation
 Attenuation of External Sound vs. Frequency



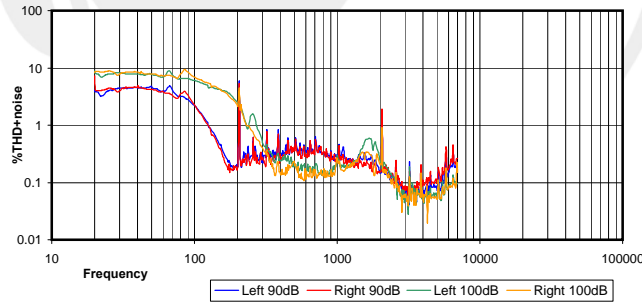
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



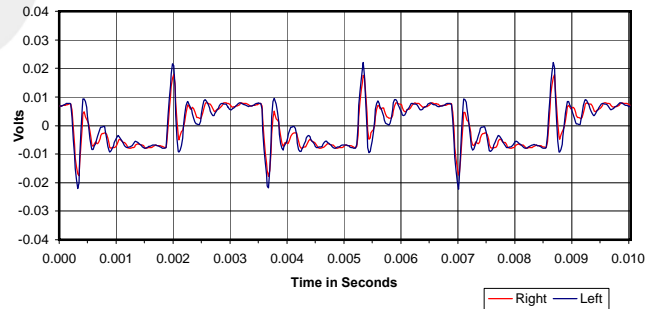
30 Hz Square Wave



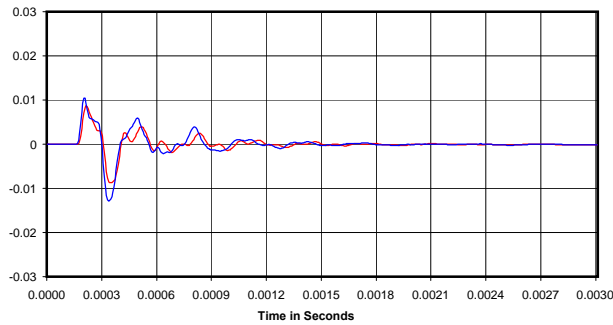
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

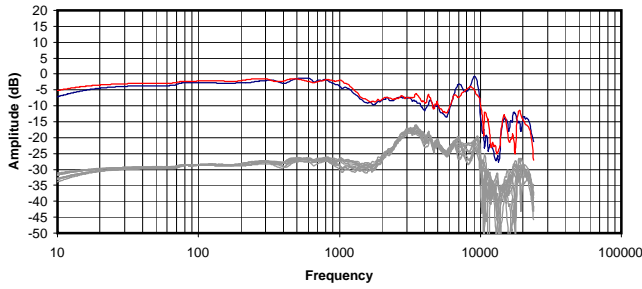


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

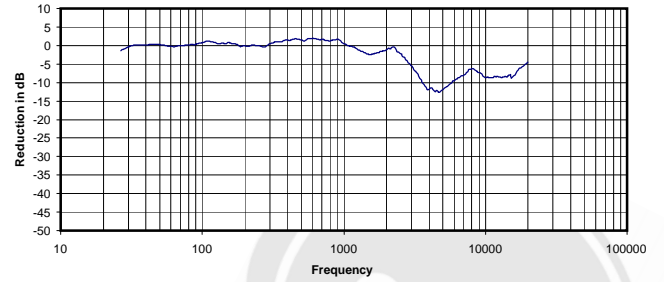
0.189 Vrms
 57 Ohms
 0.63 mW
 -4 dB



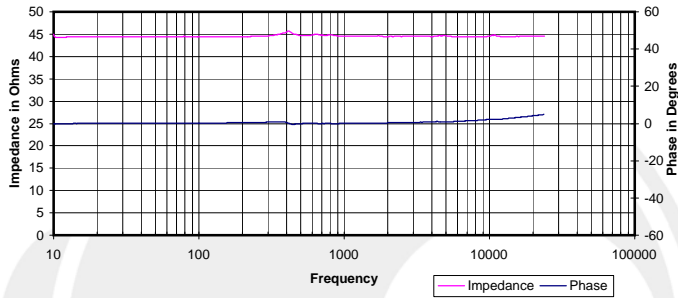
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



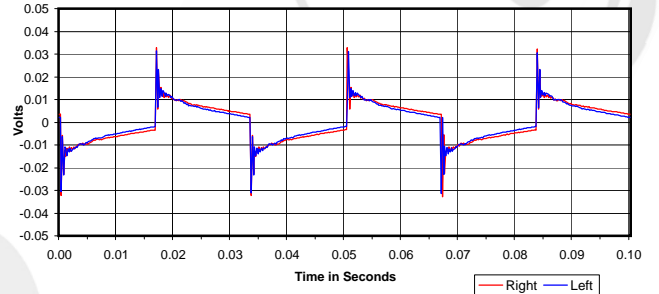
Isolation
 Attenuation of External Sound vs. Frequency



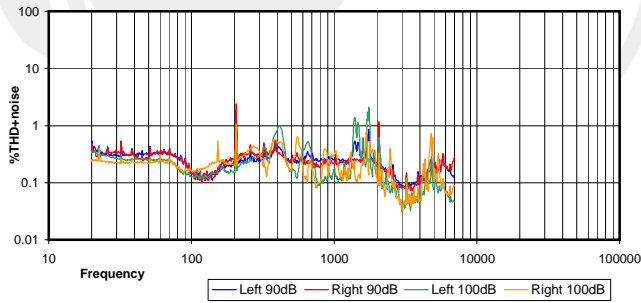
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



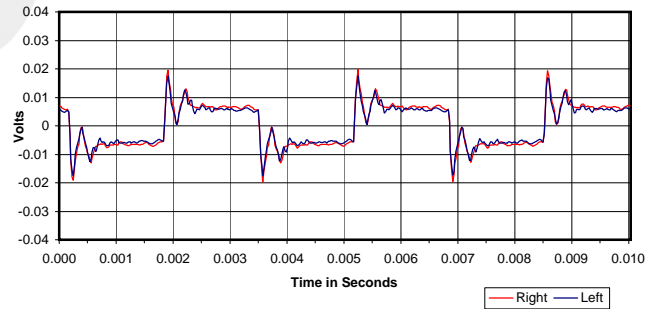
30 Hz Square Wave



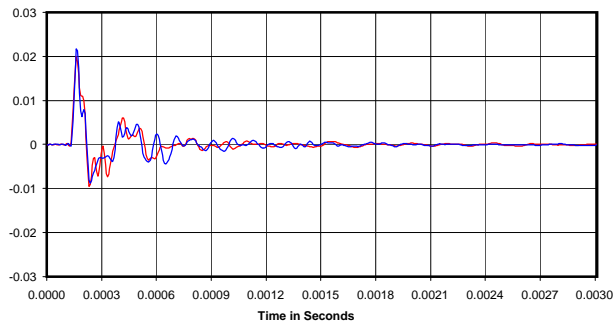
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

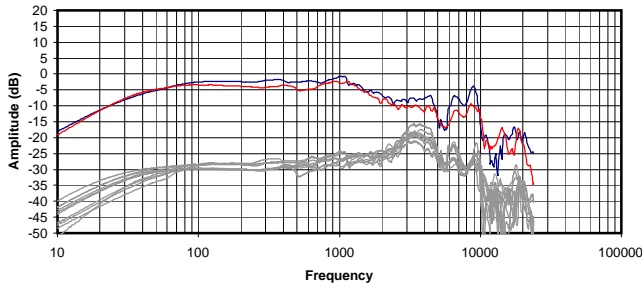


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

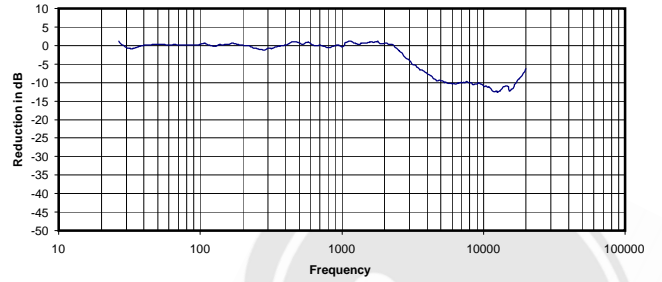
0.162 Vrms
 45 Ohms
 0.59 mW
 -2 dB



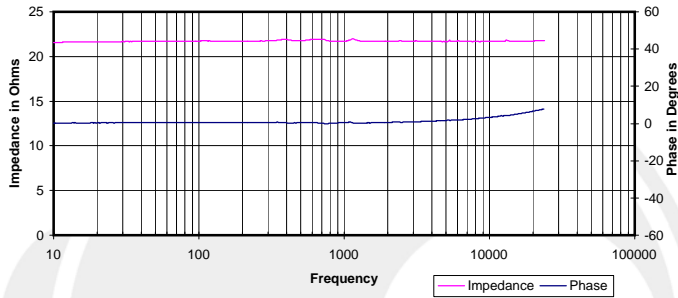
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



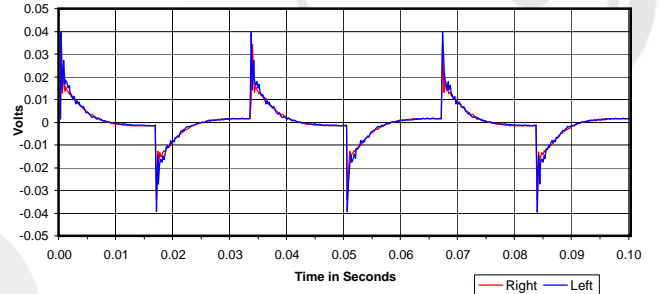
Isolation
 Attenuation of External Sound vs. Frequency



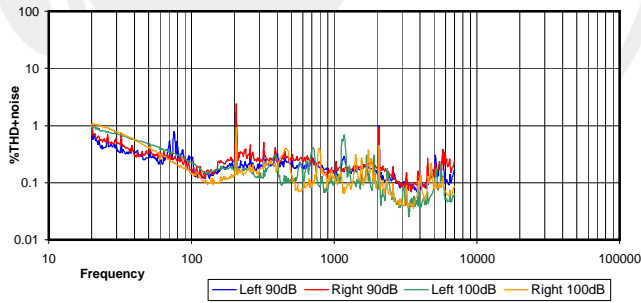
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



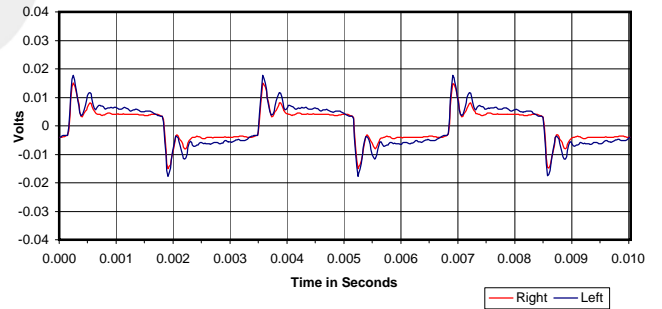
30 Hz Square Wave



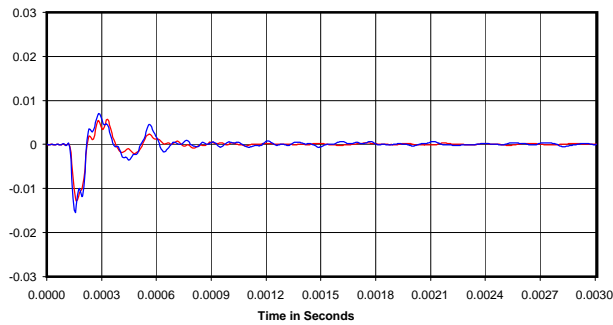
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

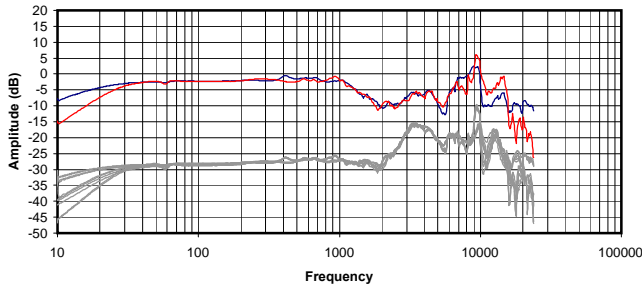


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

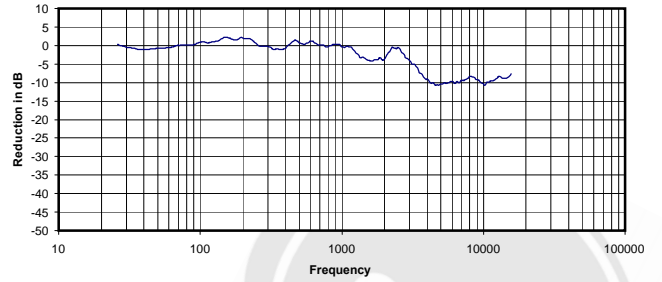
0.086 Vrms
 22 Ohms
 0.34 mW
 -2 dB



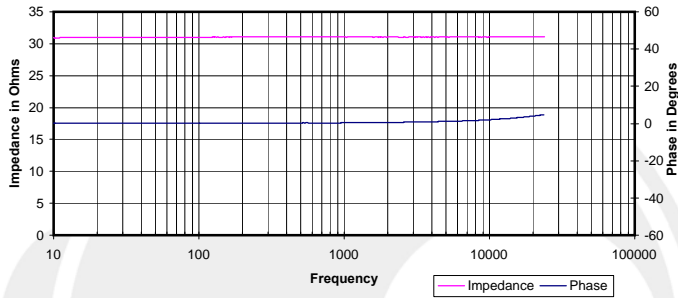
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



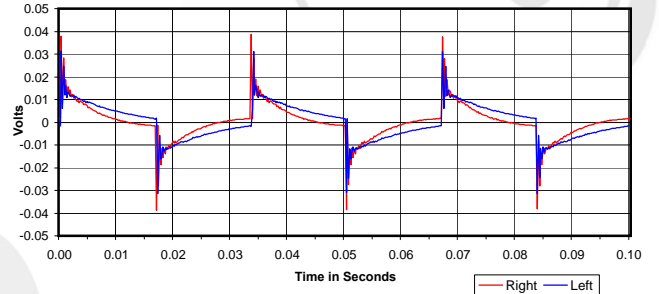
Isolation
 Attenuation of External Sound vs. Frequency



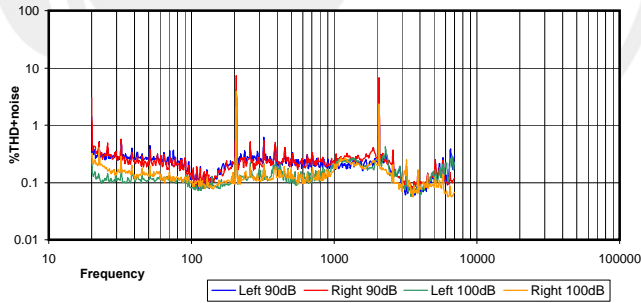
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



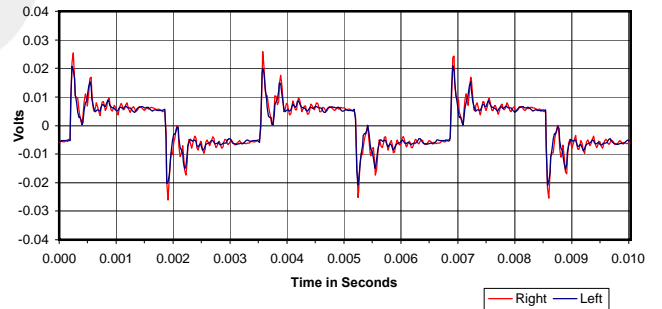
30 Hz Square Wave



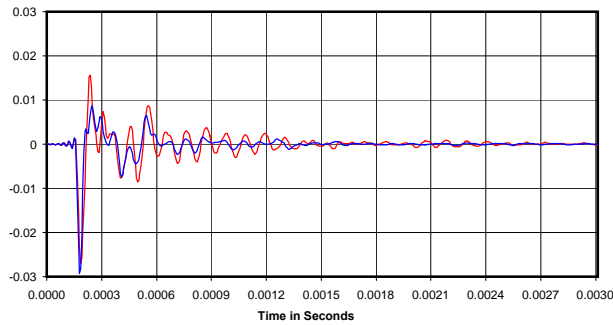
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

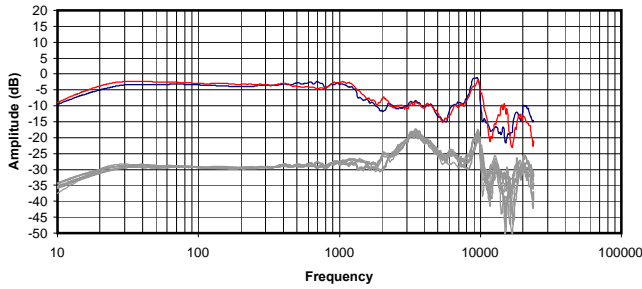


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

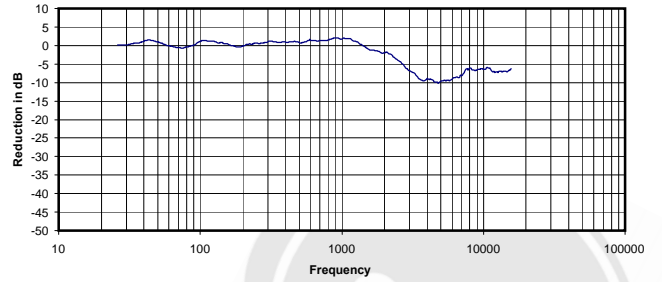
0.380 Vrms
 31 Ohms
 4.65 mW
 -2 dB



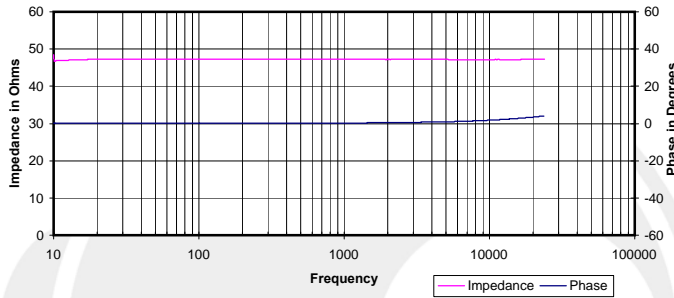
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



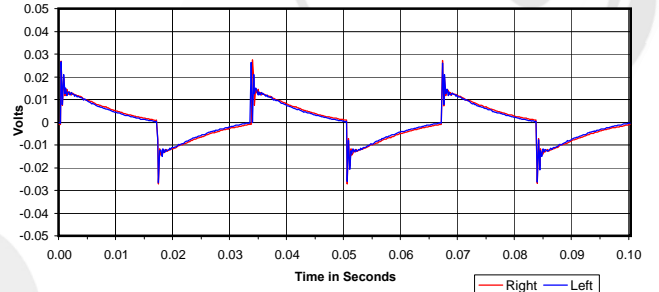
Isolation
 Attenuation of External Sound vs. Frequency



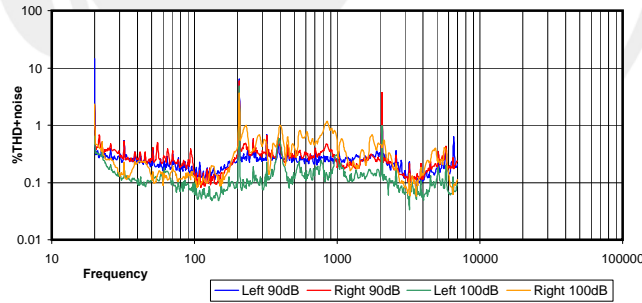
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



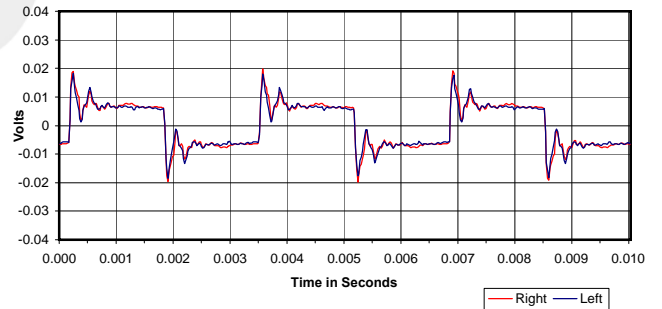
30 Hz Square Wave



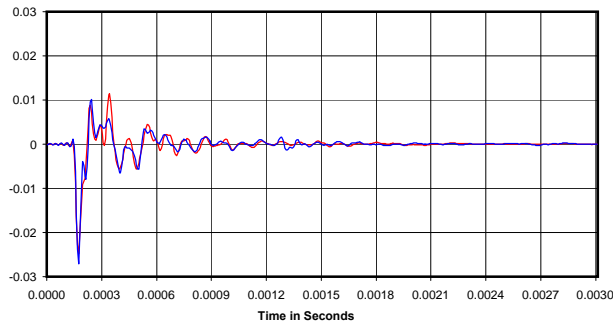
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



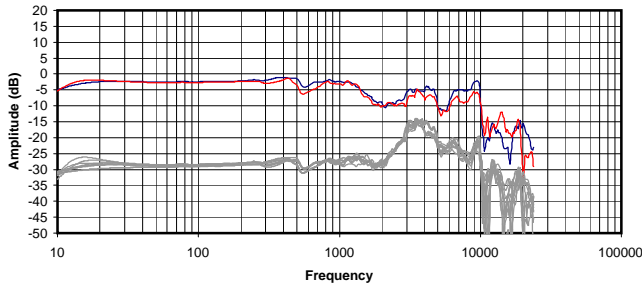
Impulse Response



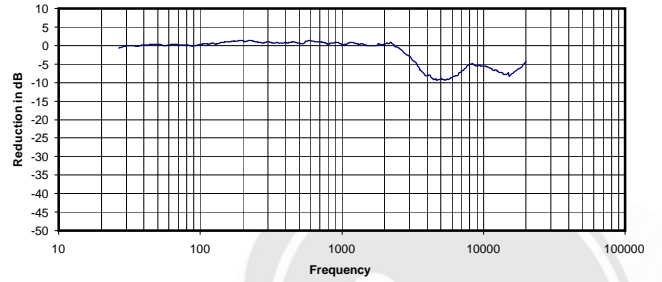
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.310 Vrms
 47 Ohms
 2.04 mW
 -1 dB

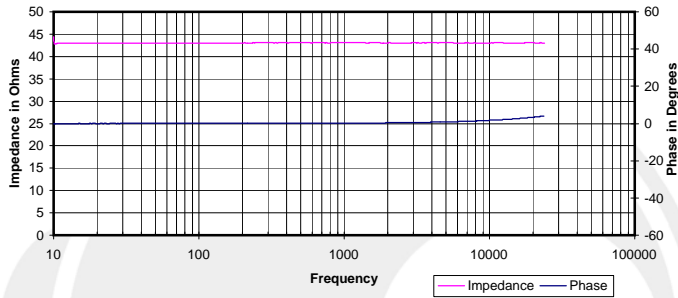
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



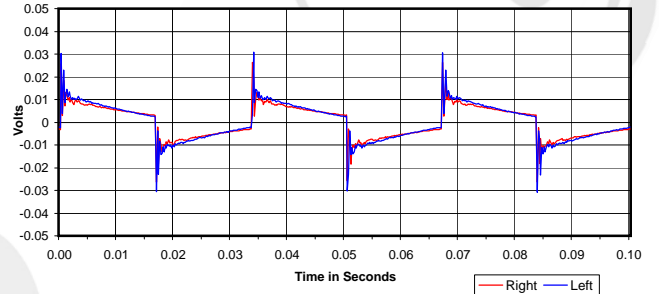
Isolation
 Attenuation of External Sound vs. Frequency



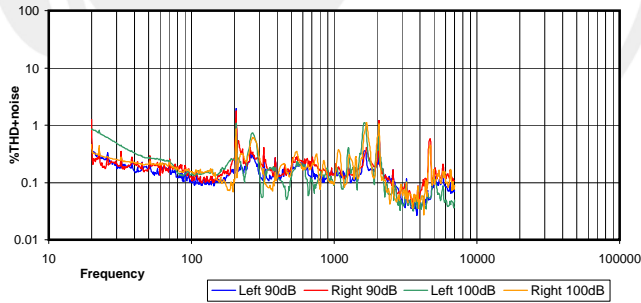
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



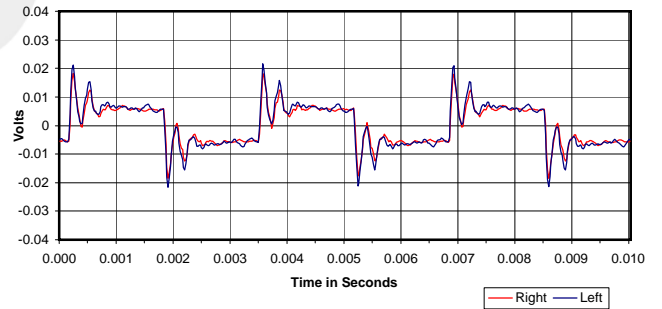
30 Hz Square Wave



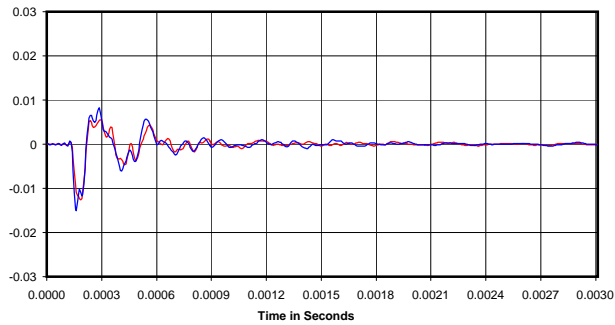
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

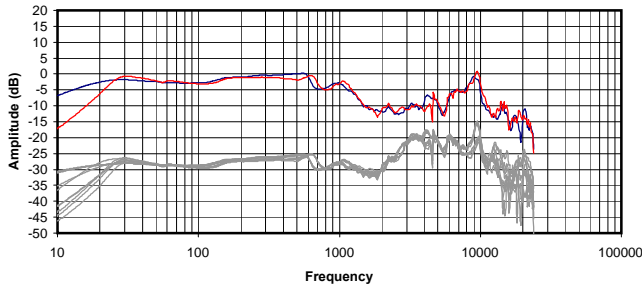


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

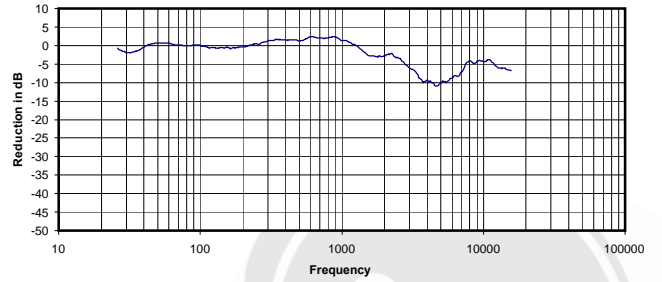
0.330 Vrms
 43 Ohms
 2.53 mW
 -1 dB



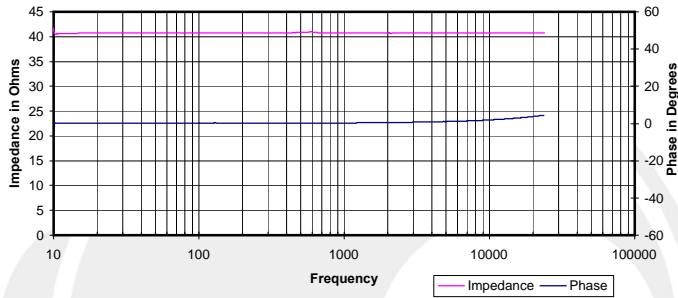
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



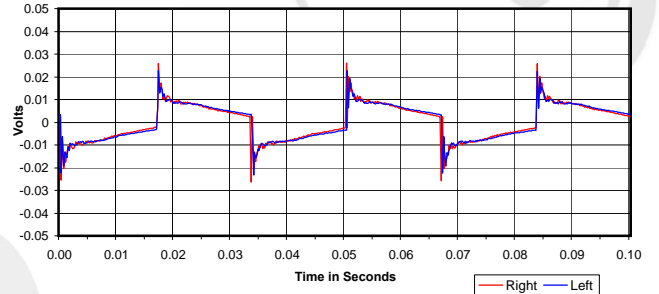
Isolation
 Attenuation of External Sound vs. Frequency



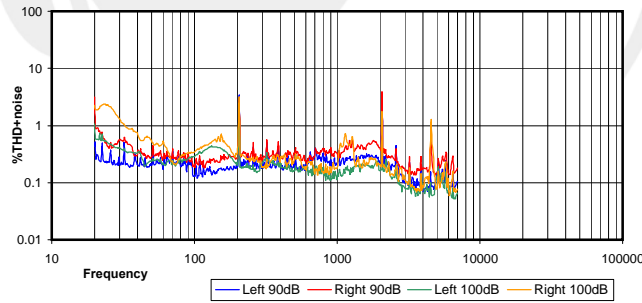
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



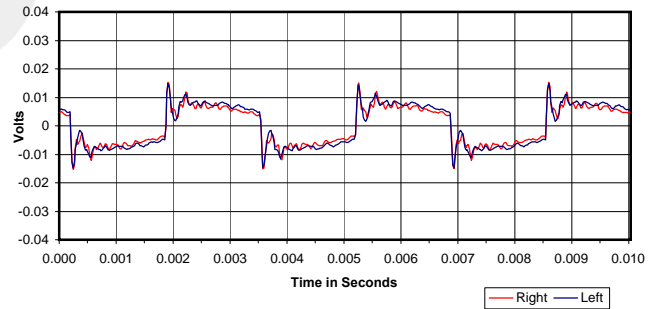
30 Hz Square Wave



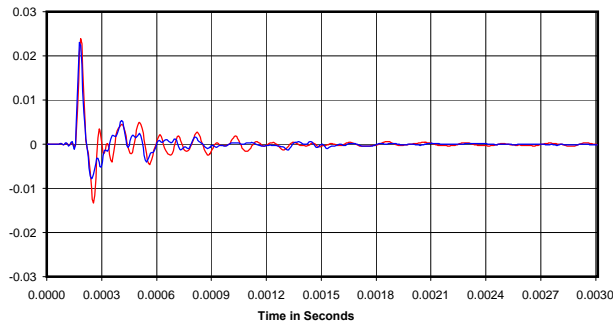
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

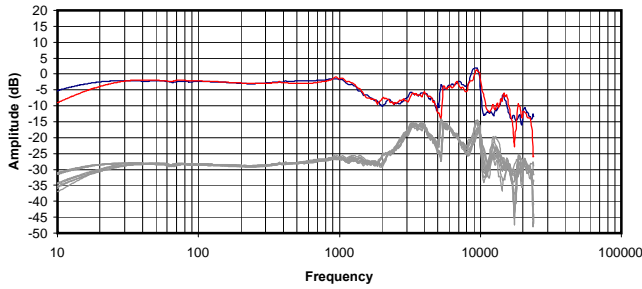


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

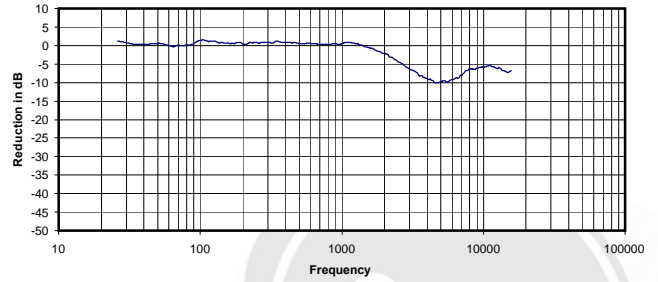
0.439 Vrms
 41 Ohms
 4.73 mW
 -2 dB



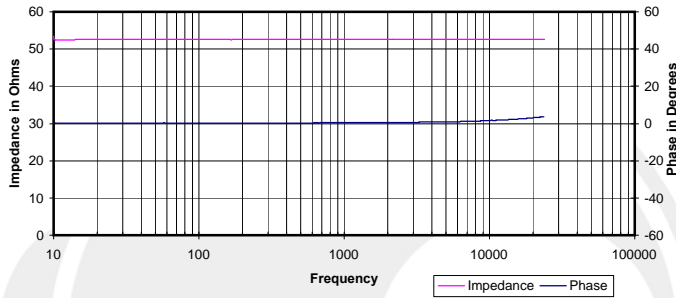
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



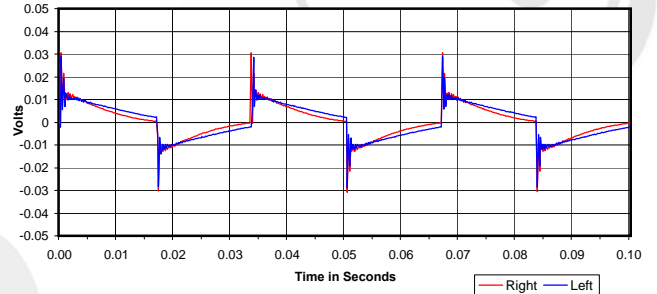
Isolation
 Attenuation of External Sound vs. Frequency



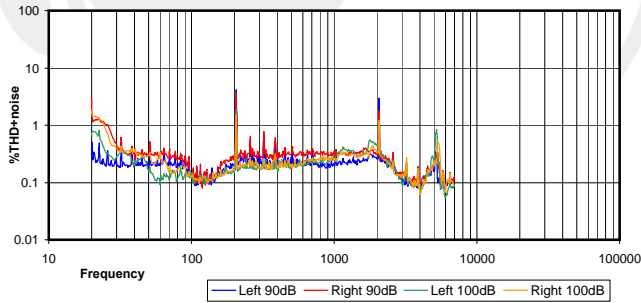
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



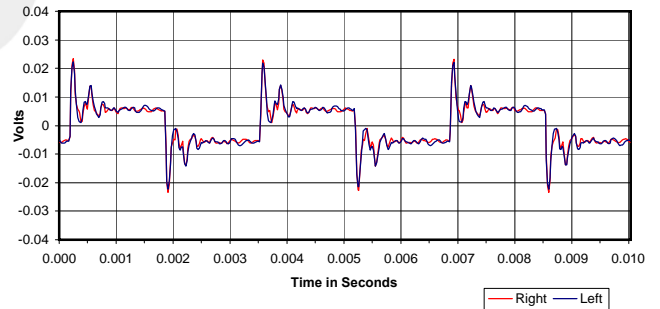
30 Hz Square Wave



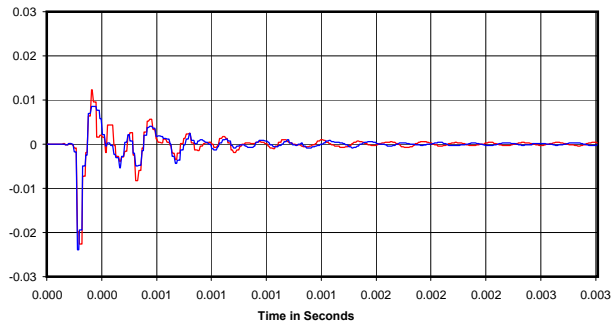
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

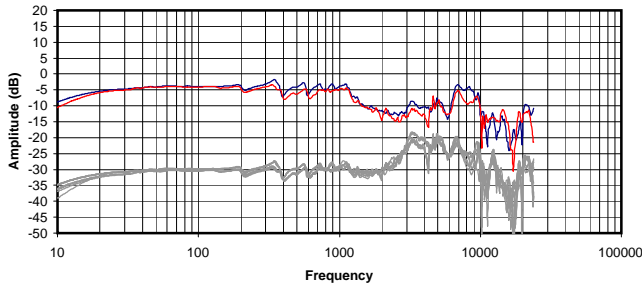


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

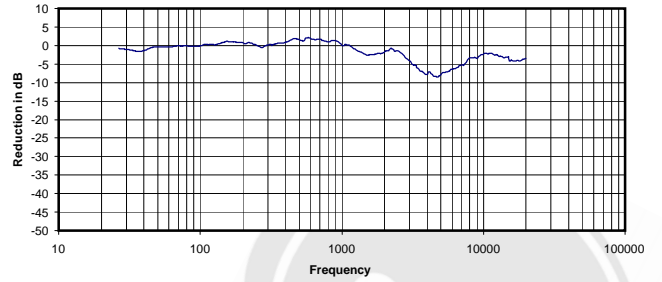
1.018 Vrms
 53 Ohms
 19.69 mW
 -2 dB



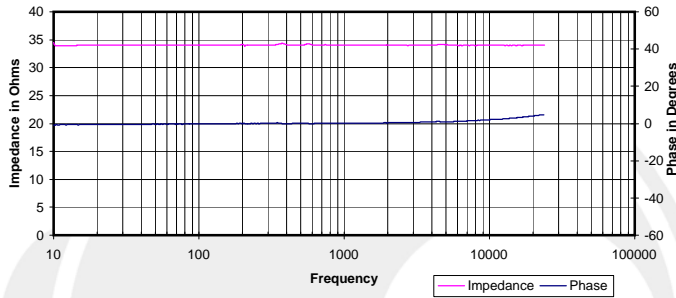
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



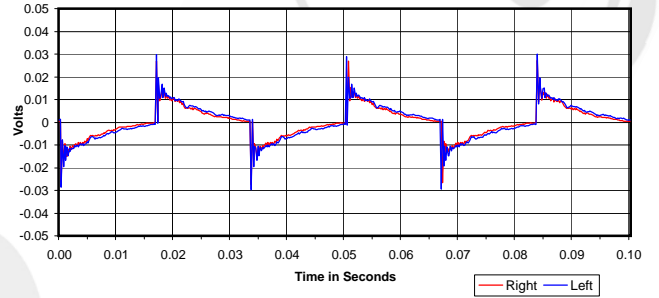
Isolation
 Attenuation of External Sound vs. Frequency



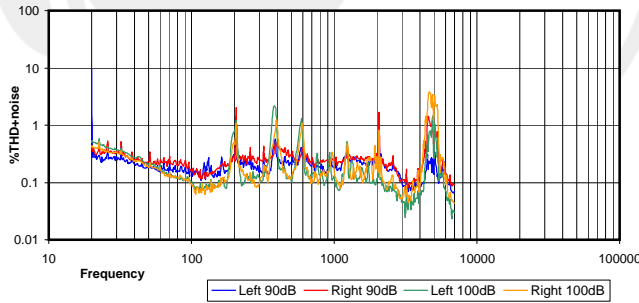
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



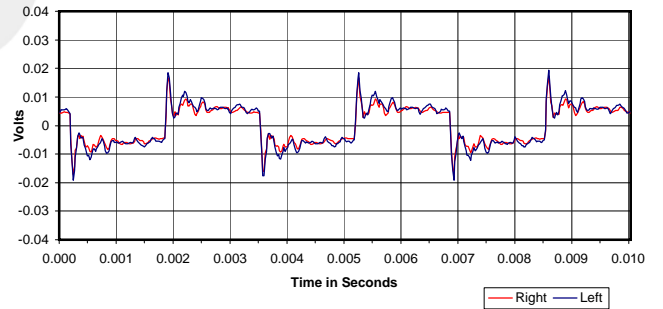
30 Hz Square Wave



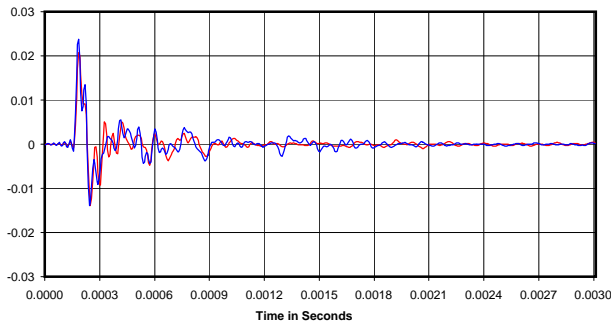
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

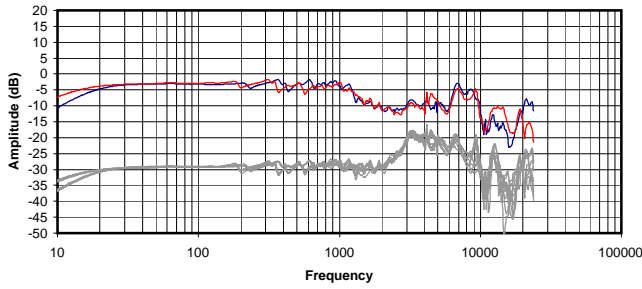


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

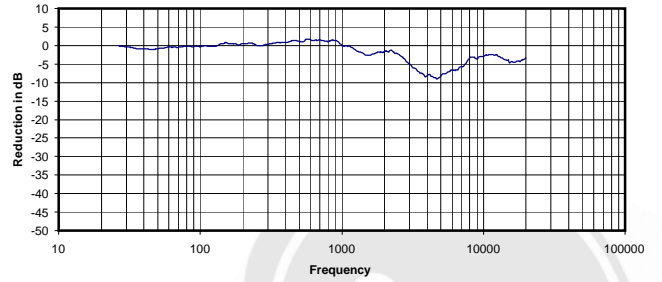
0.297 Vrms
 34 Ohms
 2.60 mW
 -2 dB



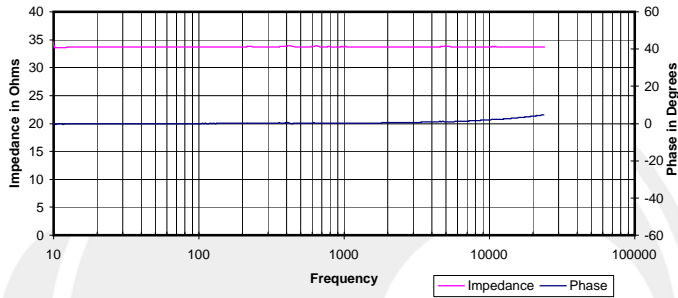
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



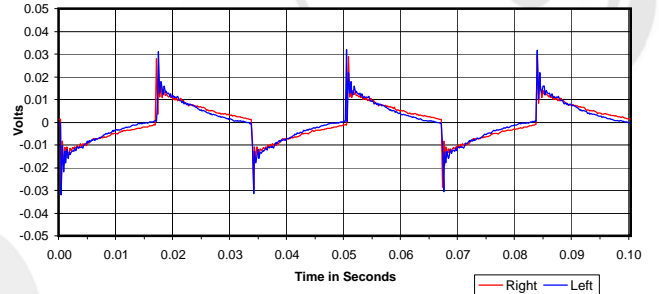
Isolation
 Attenuation of External Sound vs. Frequency



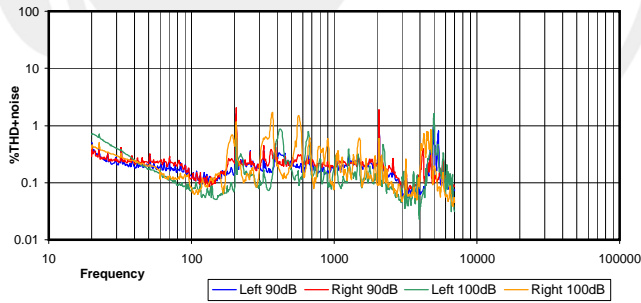
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



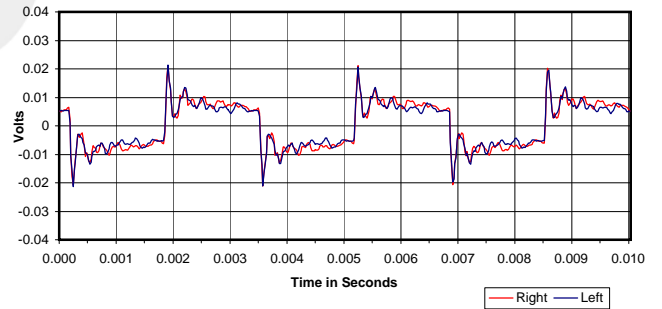
30 Hz Square Wave



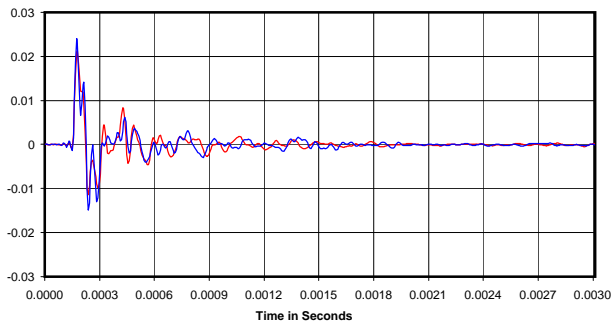
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

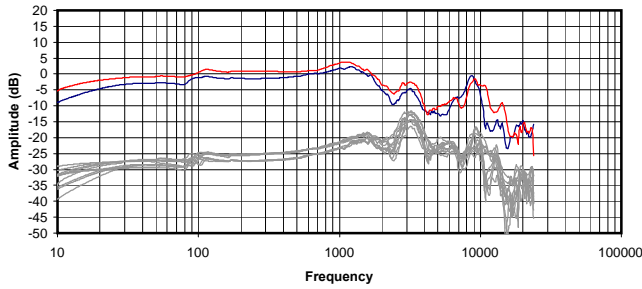


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

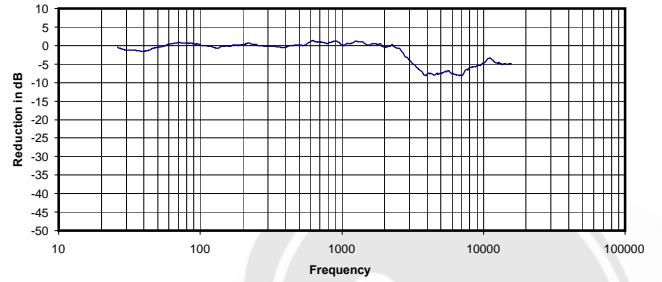
0.287 Vrms
 34 Ohms
 2.45 mW
 -2 dB



Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

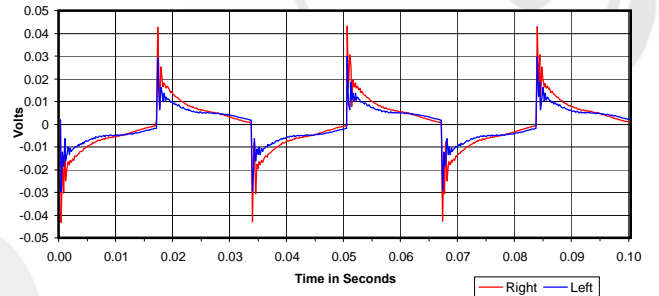


Isolation
 Attenuation of External Sound vs. Frequency

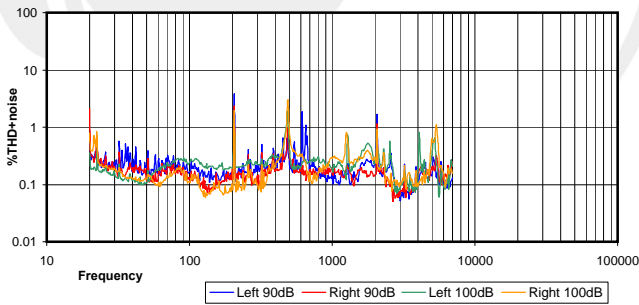


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

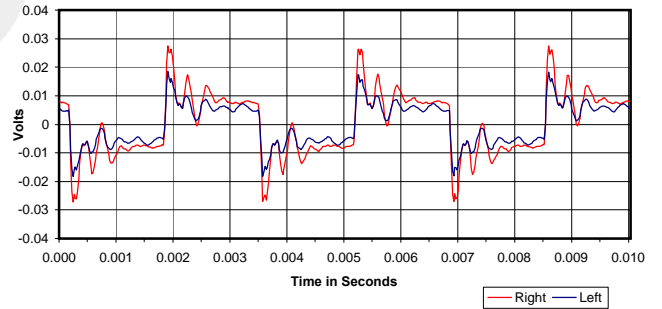
30 Hz Square Wave



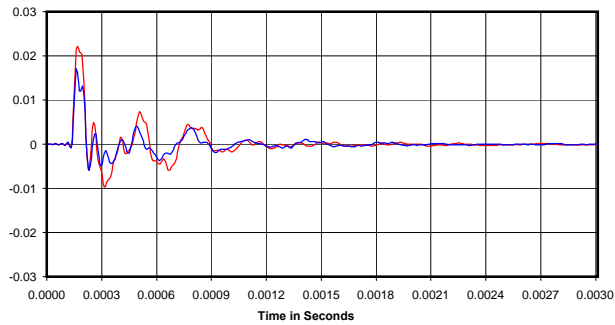
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



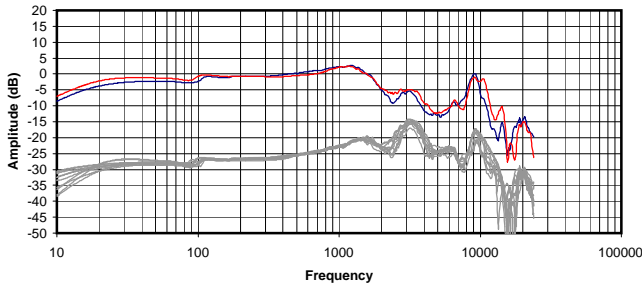
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

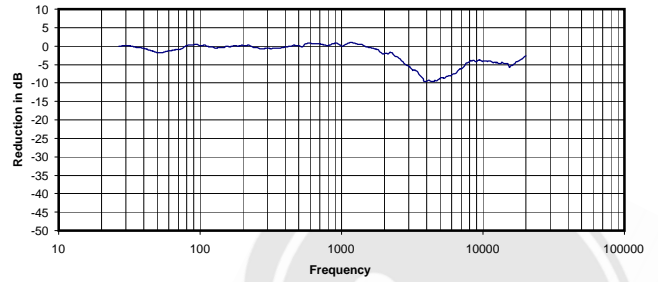
-1 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

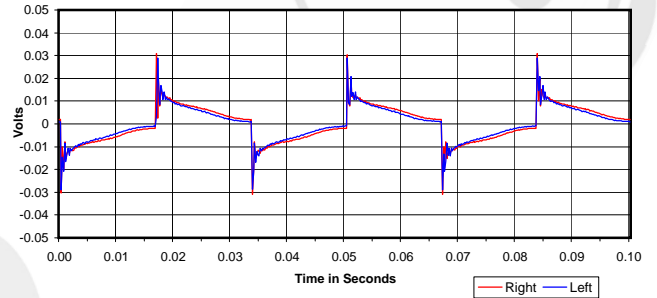


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

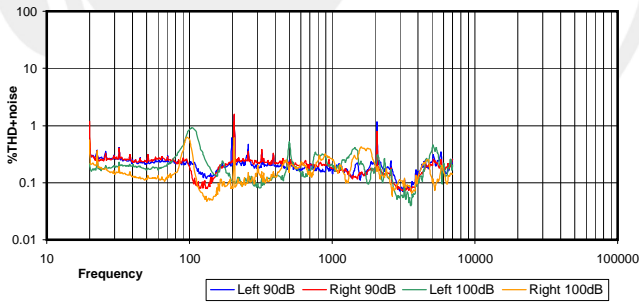
Isolation
 Attenuation of External Sound vs. Frequency



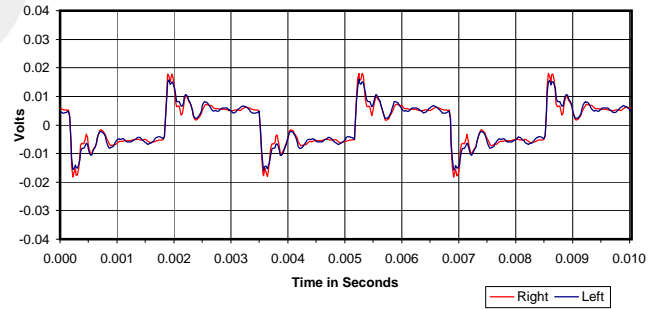
30 Hz Square Wave



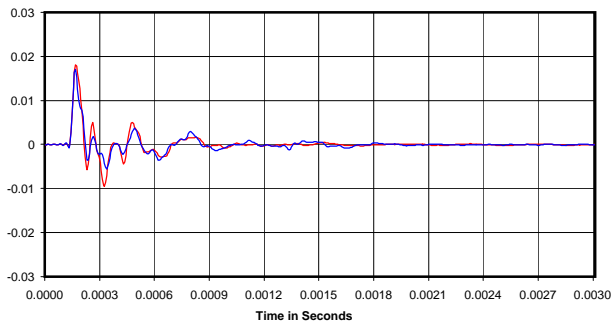
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

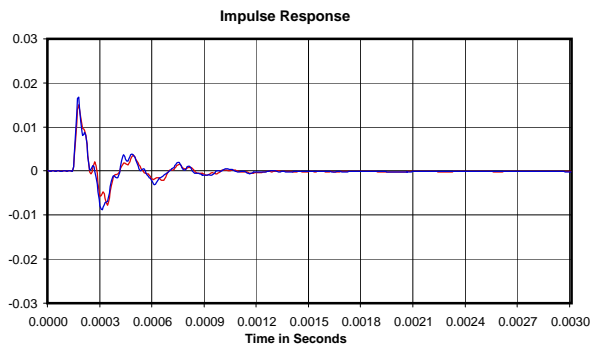
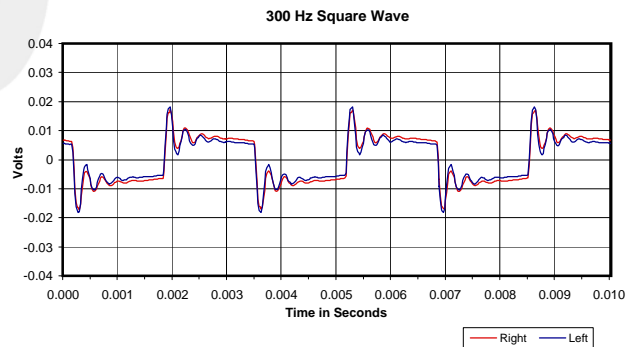
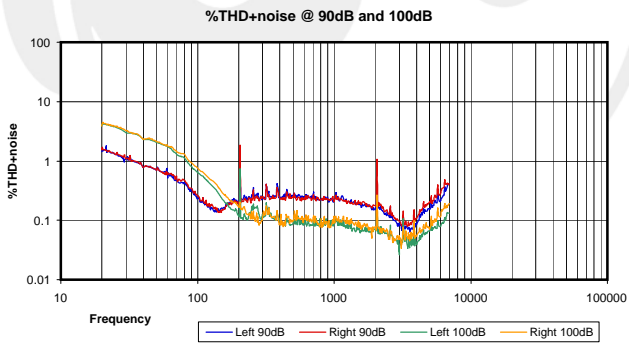
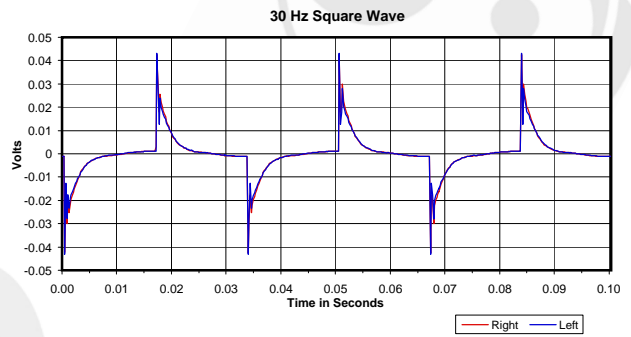
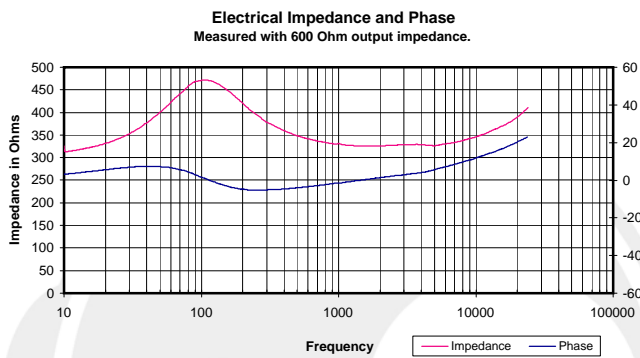
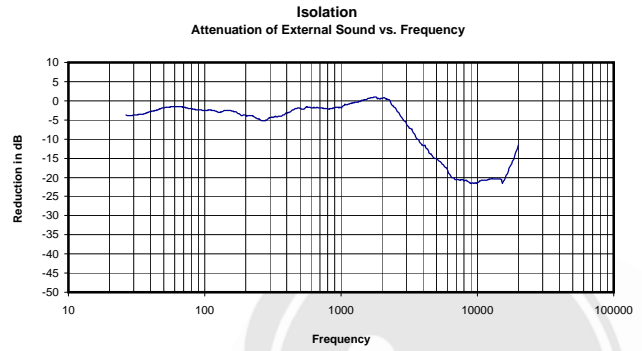
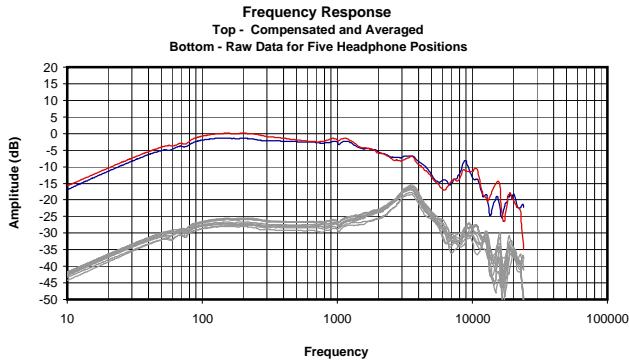


Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

-2 dB

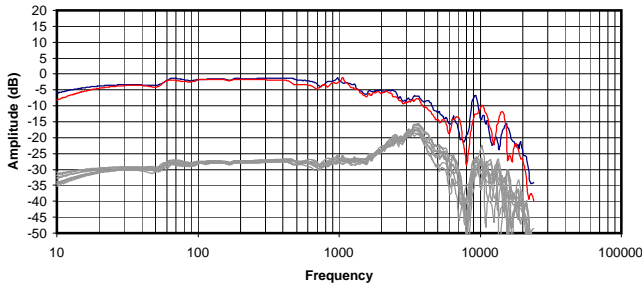


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

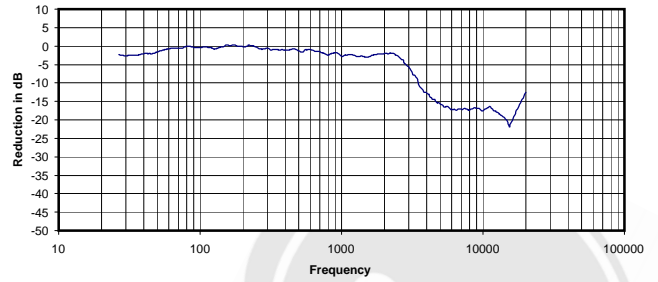
0.172 Vrms
330 Ohms
0.09 mW
-6 dBr



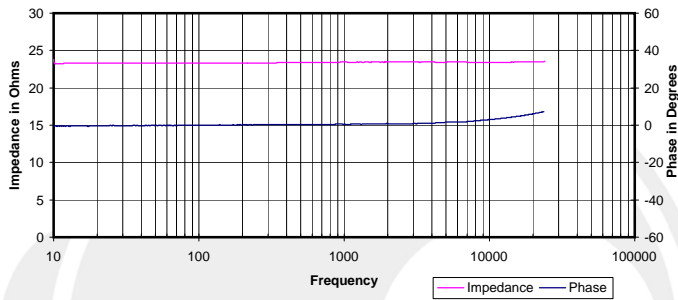
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



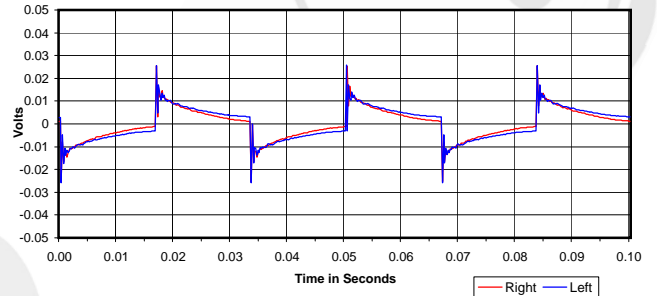
Isolation
 Attenuation of External Sound vs. Frequency



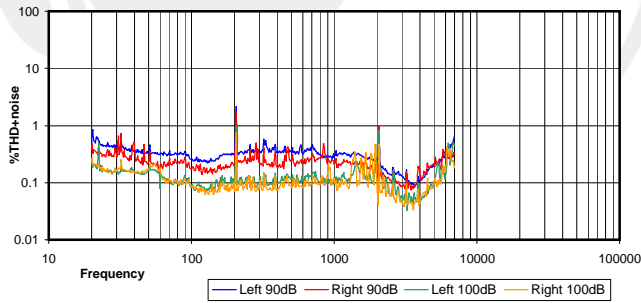
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



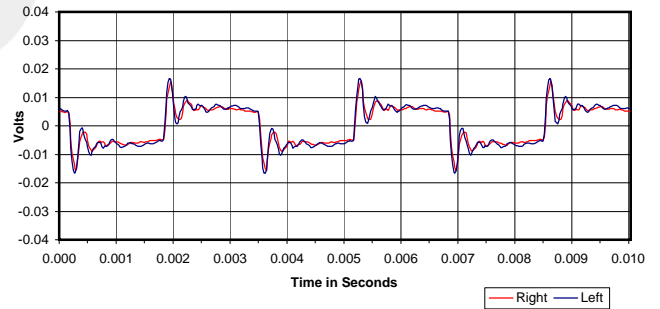
30 Hz Square Wave



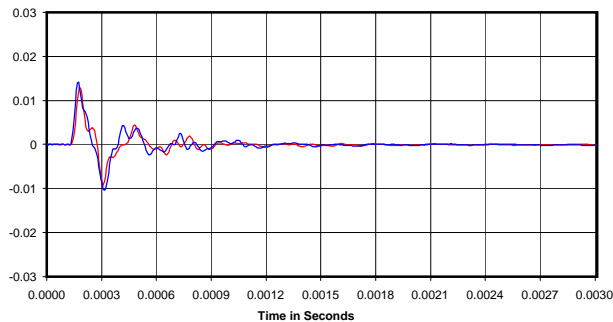
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



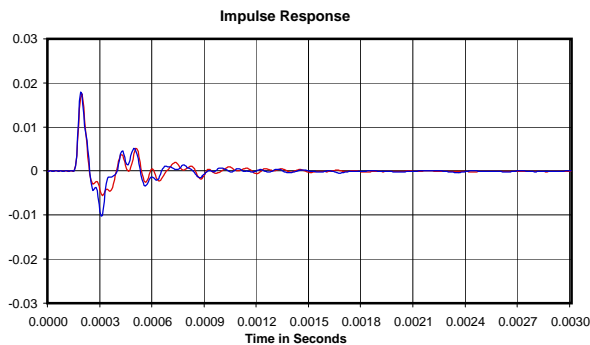
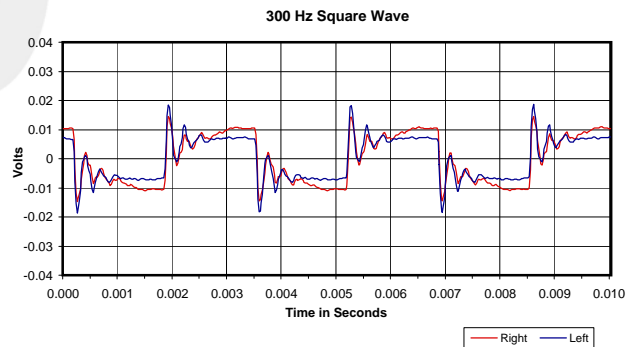
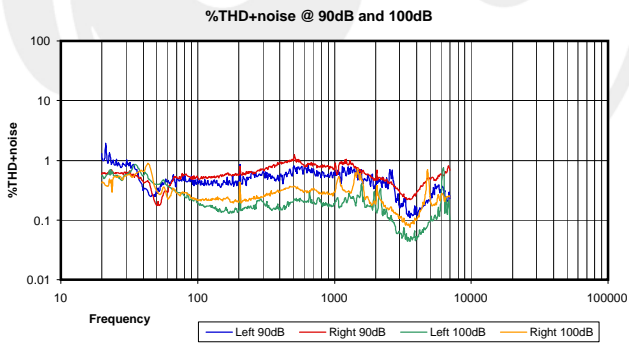
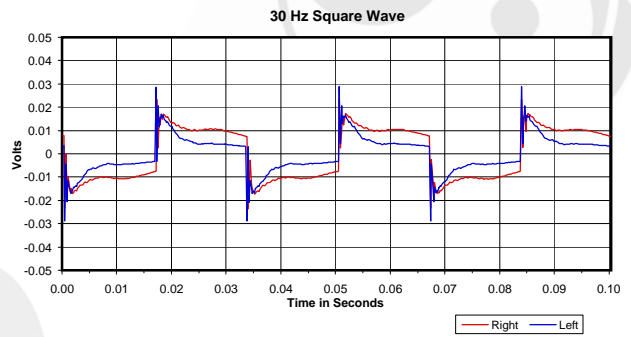
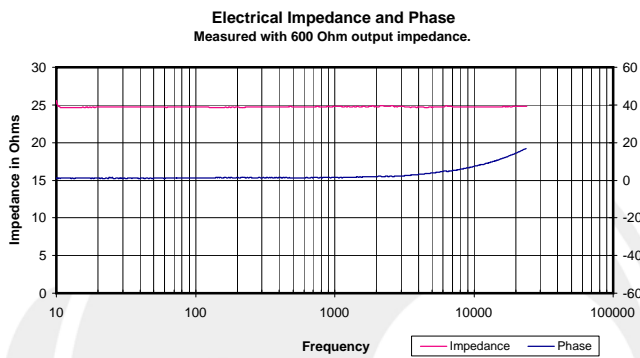
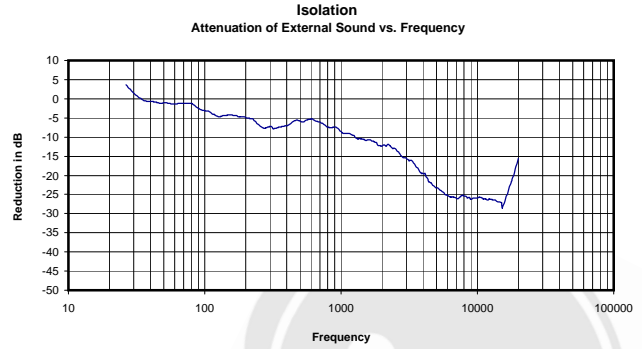
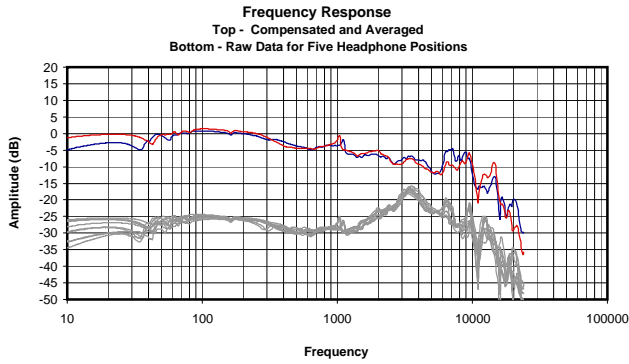
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
 23 Ohms
 0.21 mW
 -5 dB

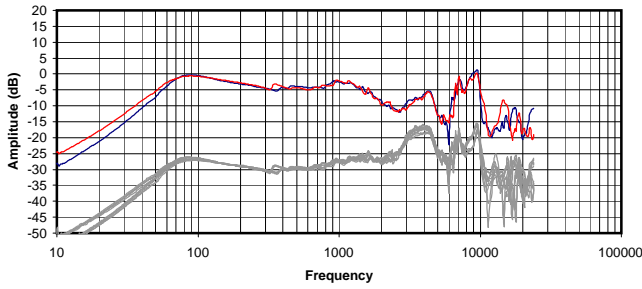




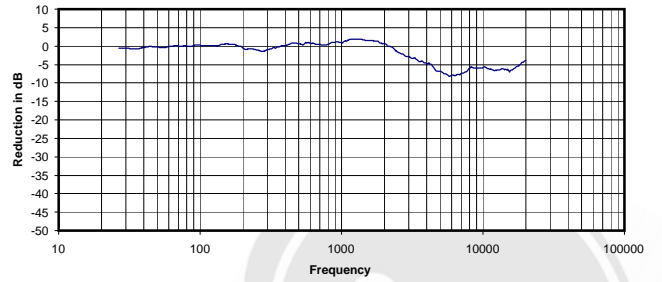
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.163 Vrms
25 Ohms
1.08 mW
-12 dBr

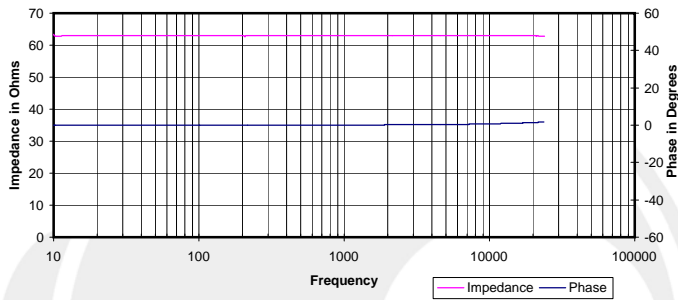
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



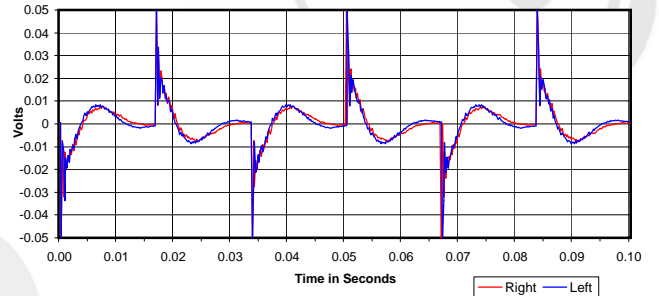
Isolation
 Attenuation of External Sound vs. Frequency



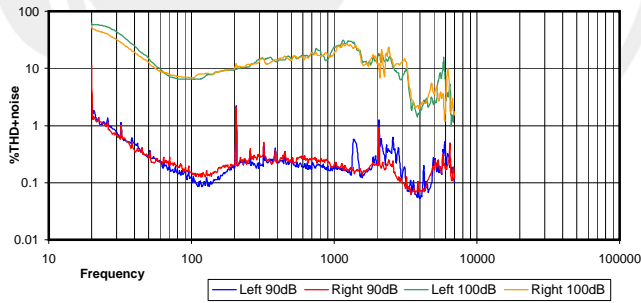
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



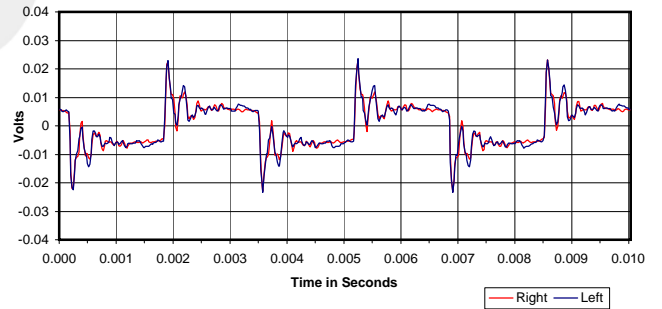
30 Hz Square Wave



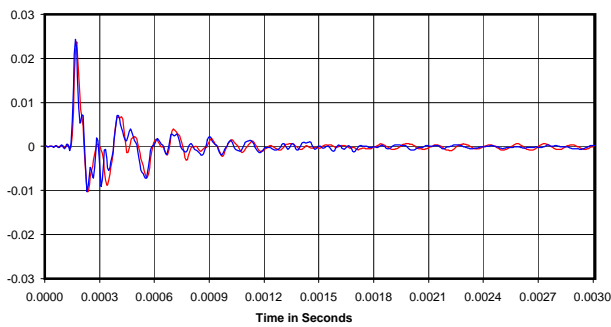
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



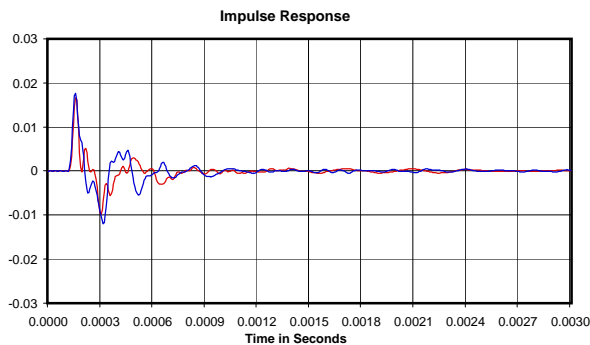
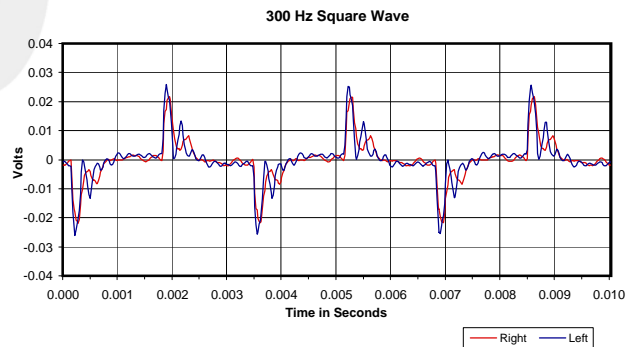
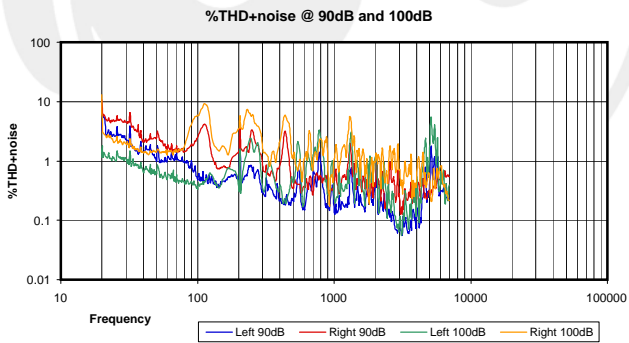
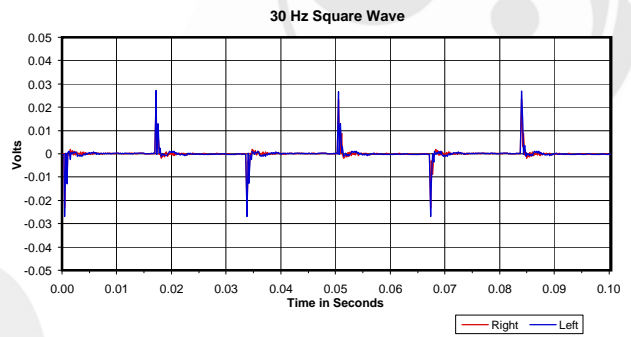
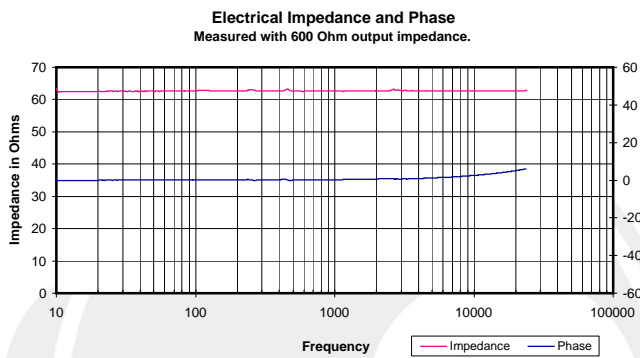
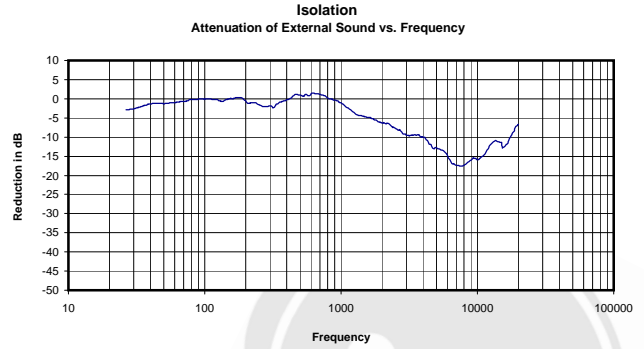
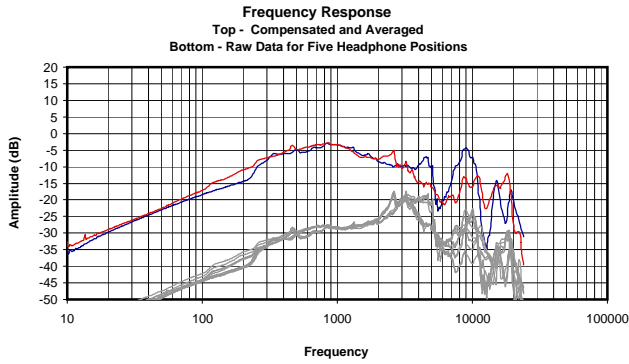
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

1.017 Vrms
 63 Ohms
 16.41 mW
 -1 dB



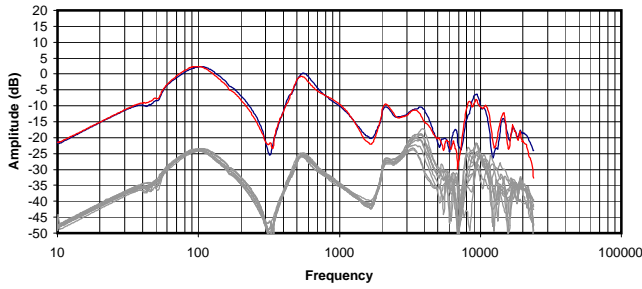


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

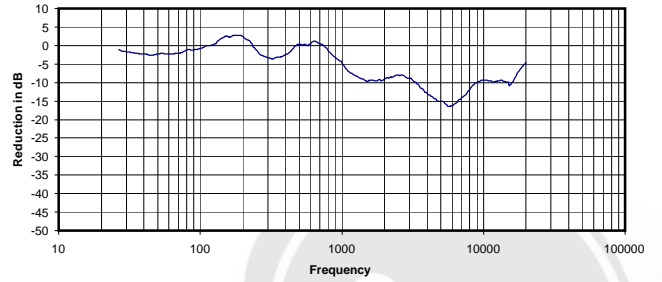
0.209 Vrms
63 Ohms
0.70 mW
-5 dBr



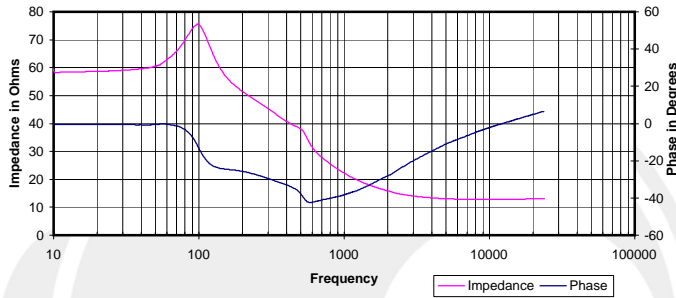
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



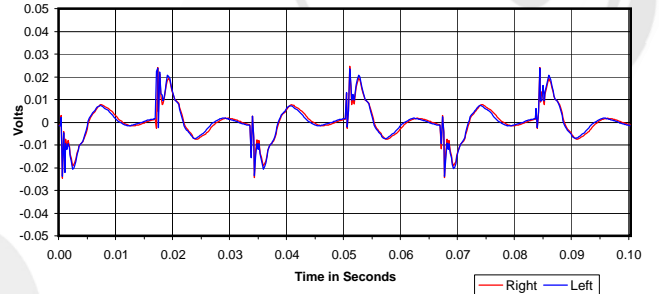
Isolation
 Attenuation of External Sound vs. Frequency



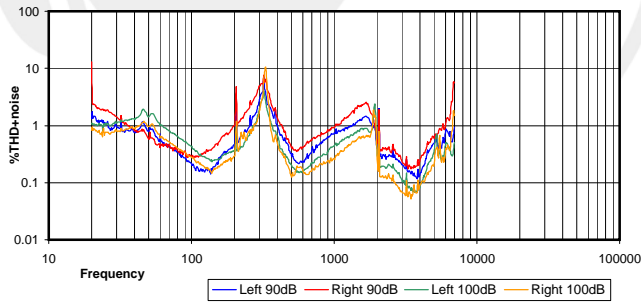
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



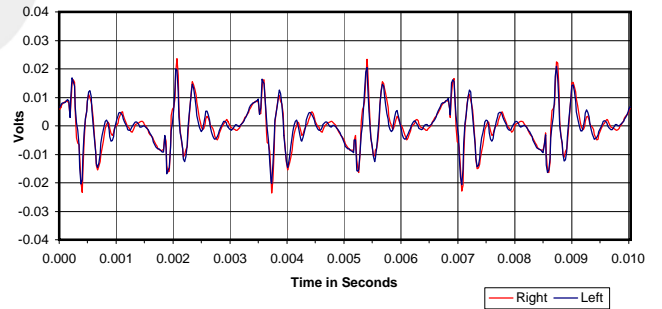
30 Hz Square Wave



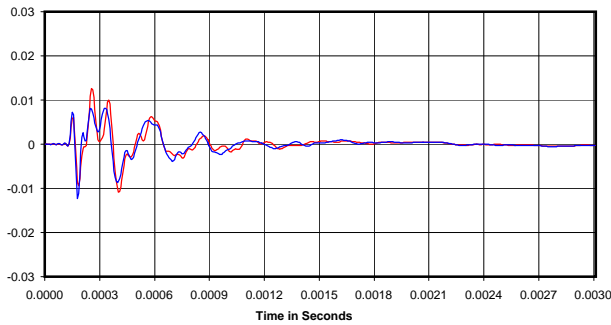
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

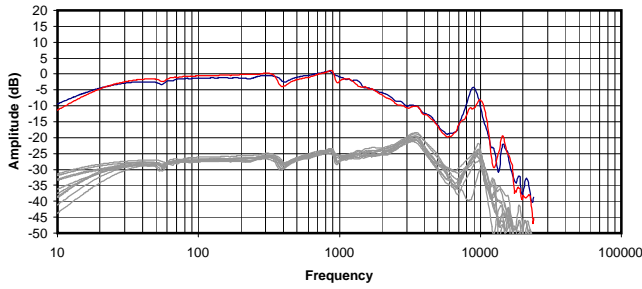


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

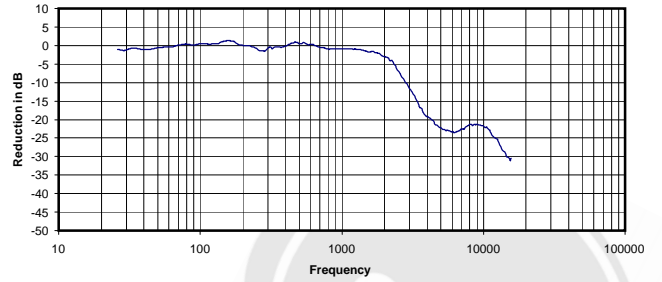
0.141 Vrms
 22 Ohms
 0.89 mW
 -6 dB



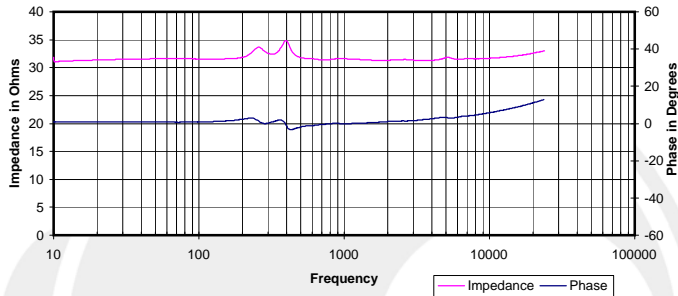
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



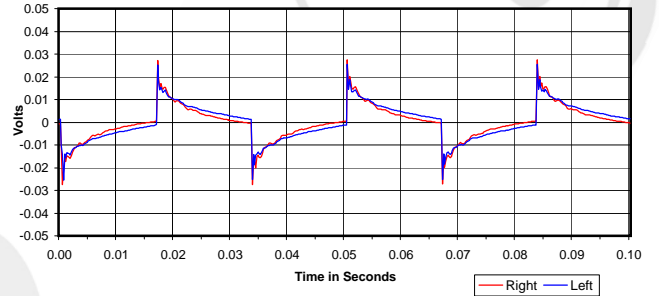
Isolation
 Attenuation of External Sound vs. Frequency



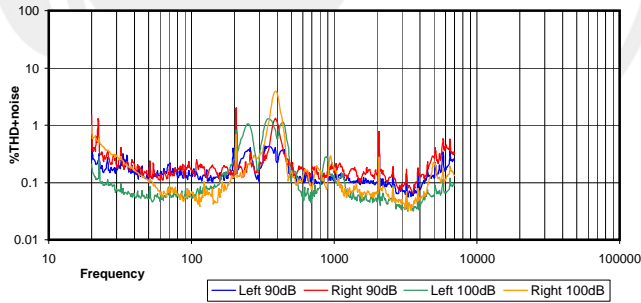
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



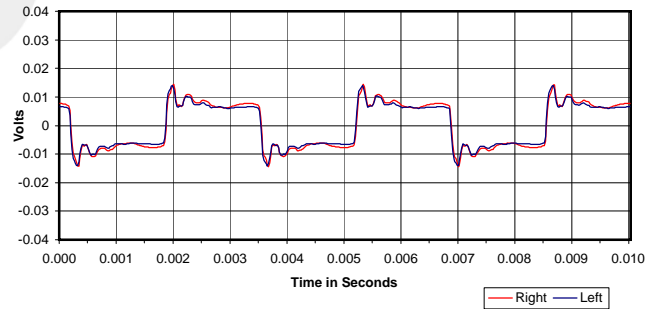
30 Hz Square Wave



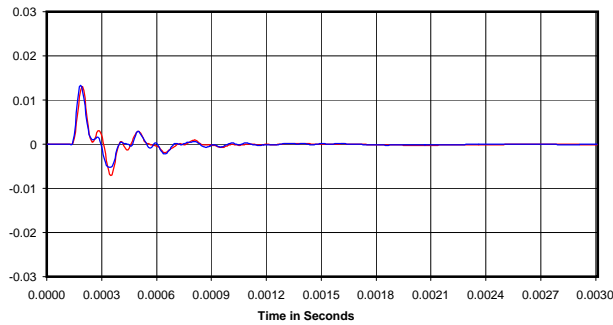
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

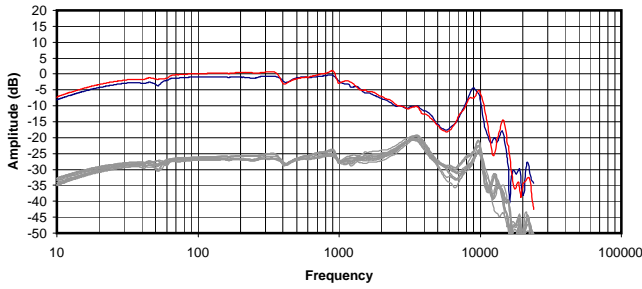


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

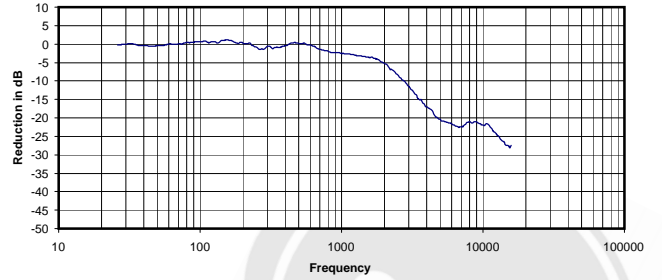
0.053 Vrms
 32 Ohms
 0.09 mW
 -4 dB



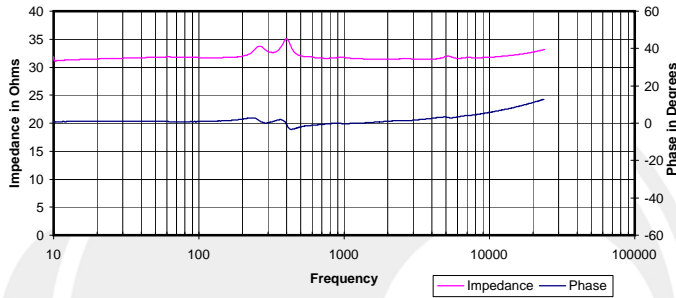
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



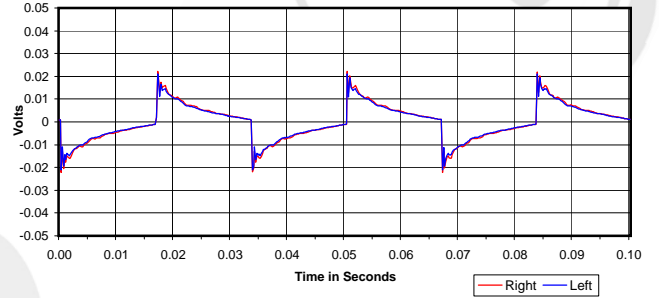
Isolation
 Attenuation of External Sound vs. Frequency



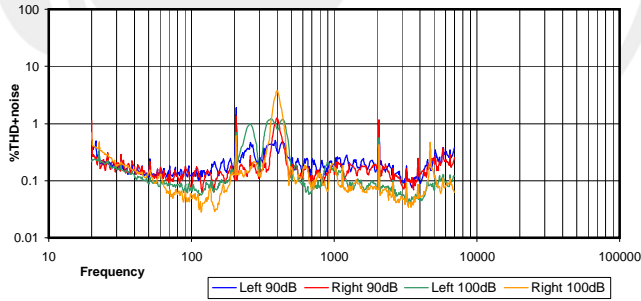
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



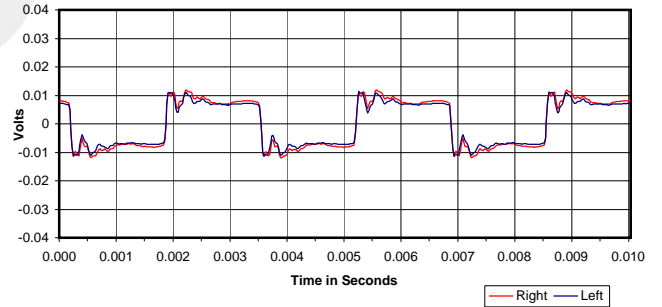
30 Hz Square Wave



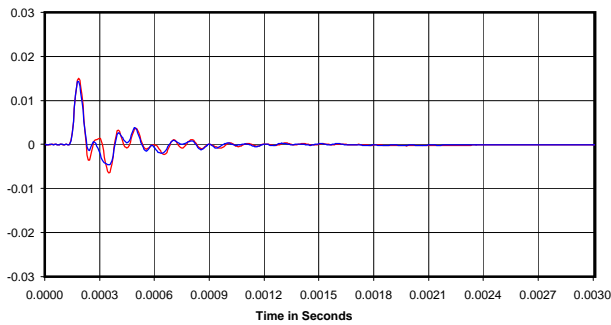
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



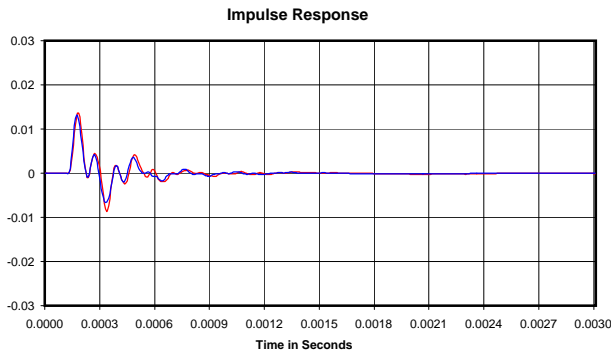
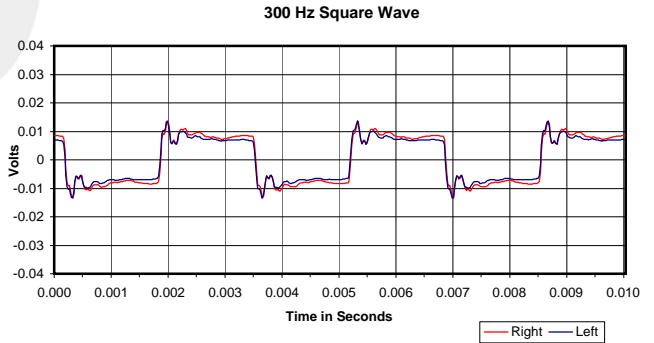
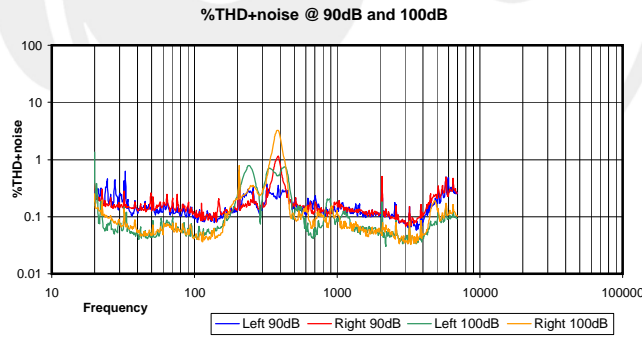
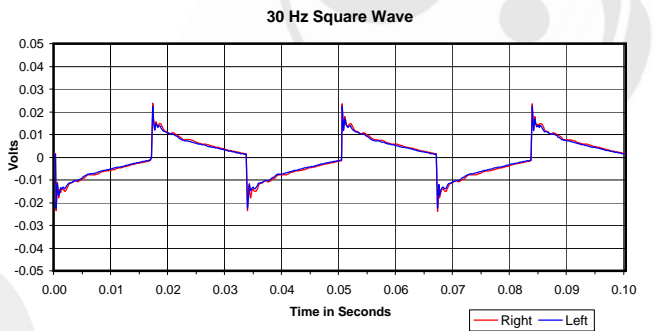
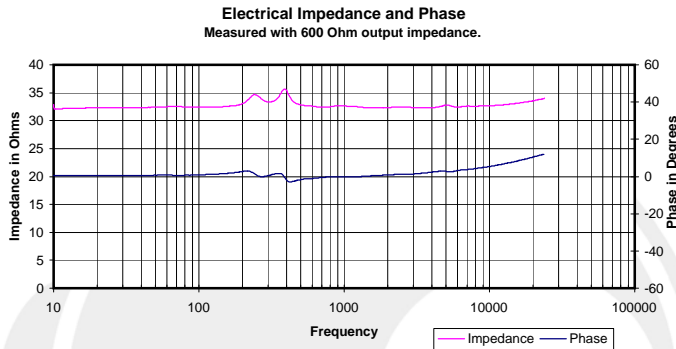
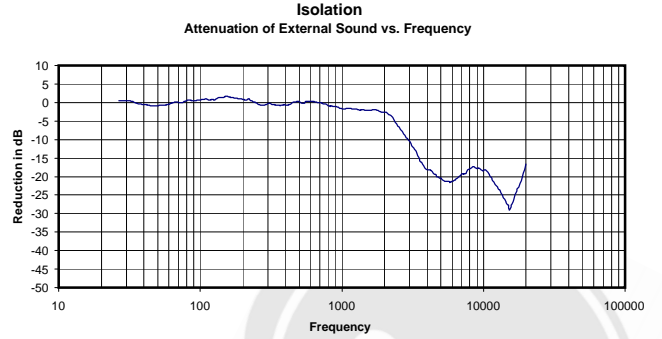
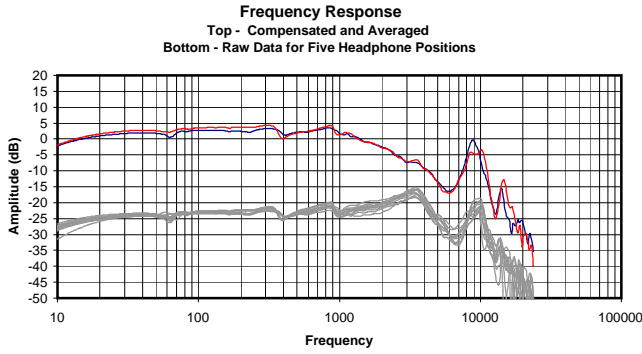
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.072 Vrms
 32 Ohms
 0.16 mW
 -5 dB



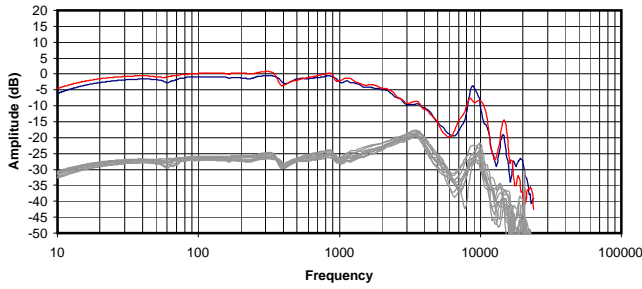


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

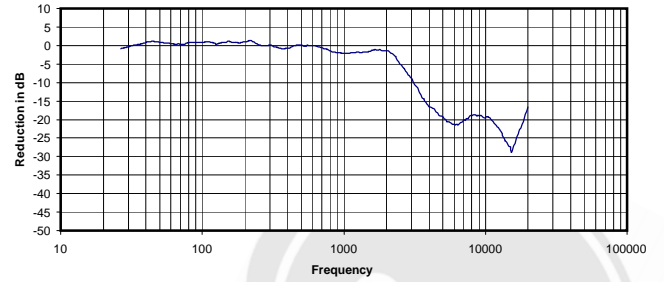
0.054 Vrms
33 Ohms
0.09 mW
-6 dB



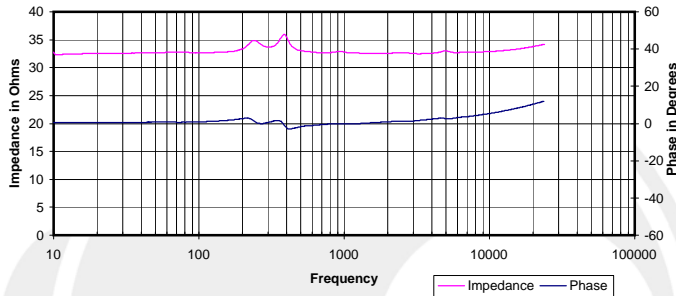
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



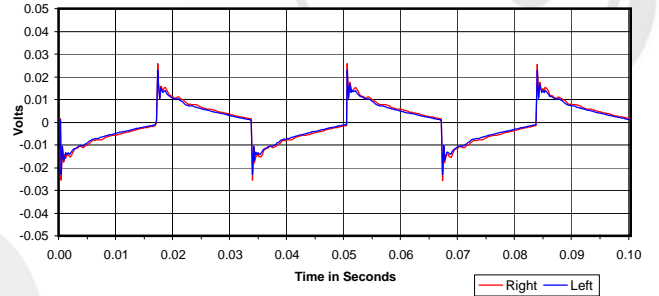
Isolation
 Attenuation of External Sound vs. Frequency



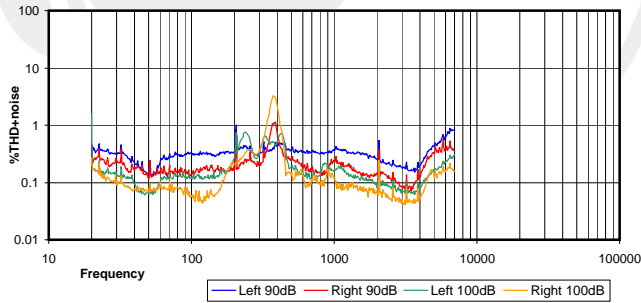
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



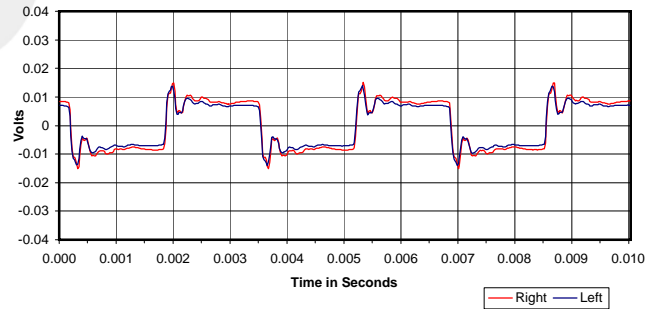
30 Hz Square Wave



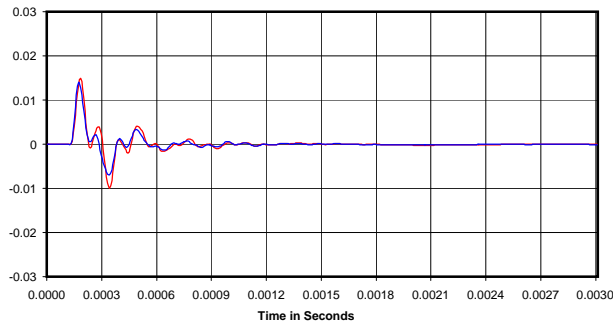
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

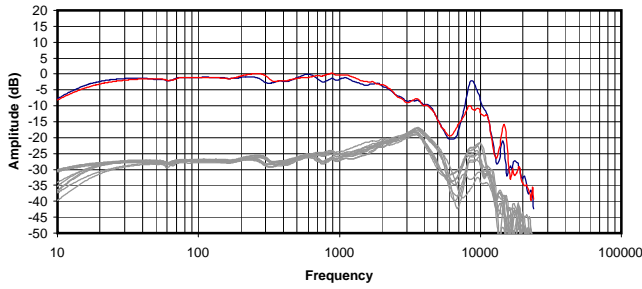


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

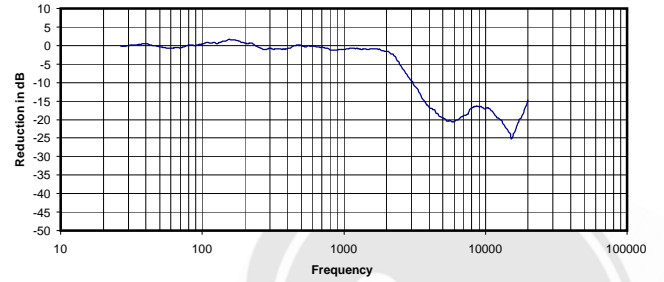
0.064 Vrms
 33 Ohms
 0.13 mW
 -5 dB



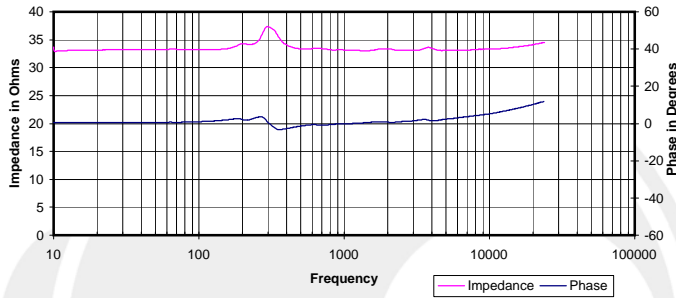
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



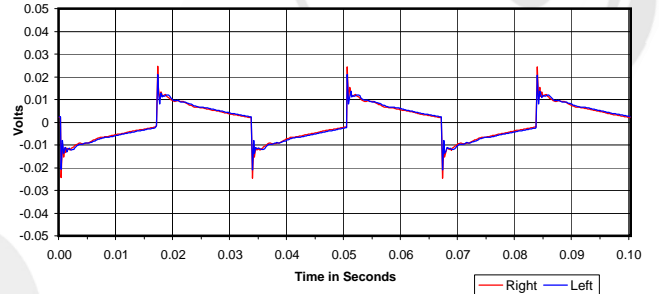
Isolation
 Attenuation of External Sound vs. Frequency



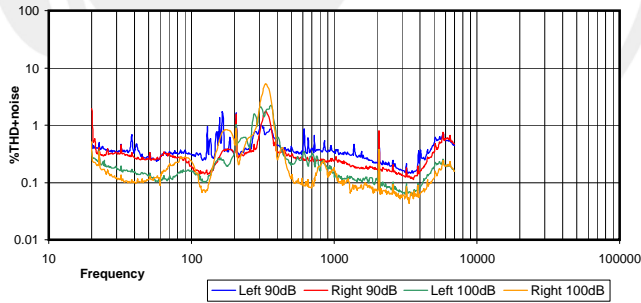
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



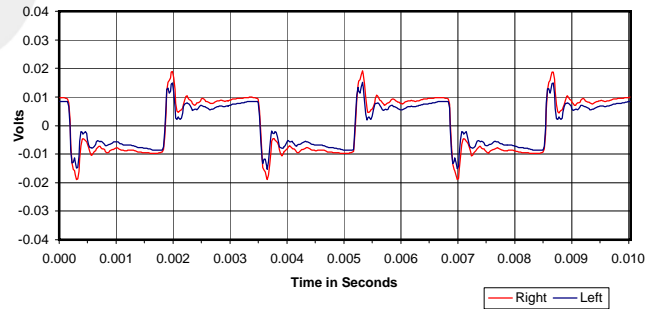
30 Hz Square Wave



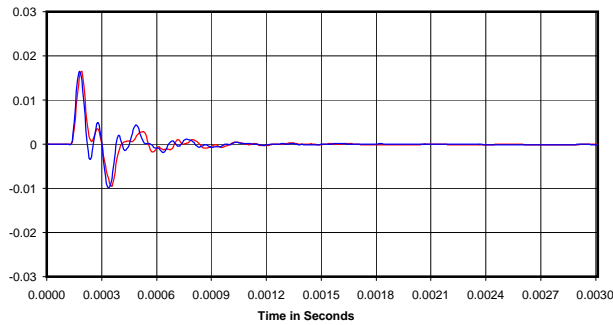
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

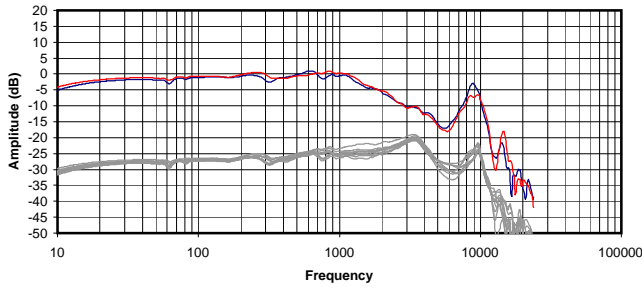


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

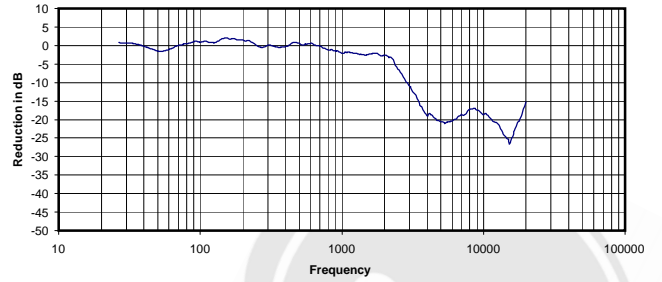
0.058 Vrms
 33 Ohms
 0.10 mW
 -5 dBr



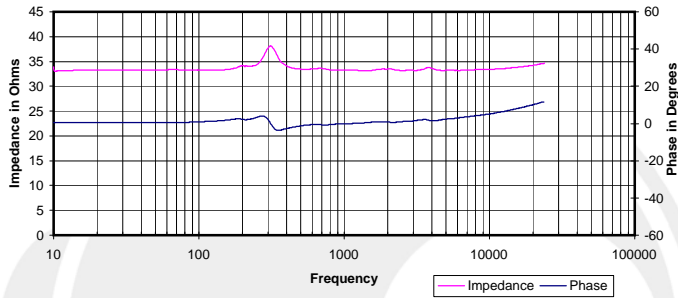
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



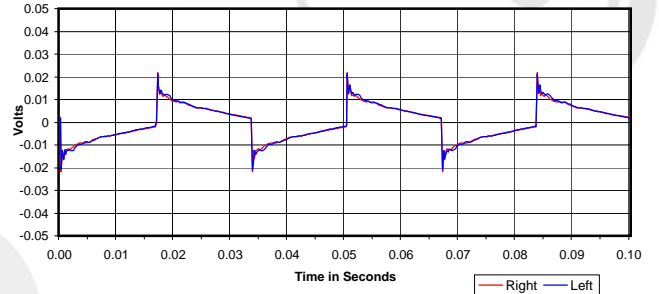
Isolation
 Attenuation of External Sound vs. Frequency



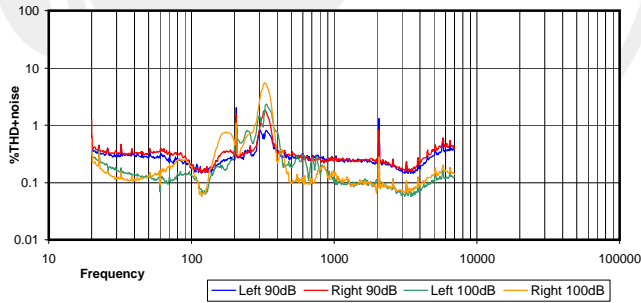
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



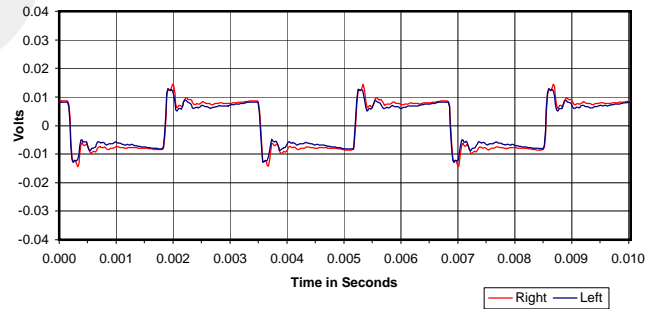
30 Hz Square Wave



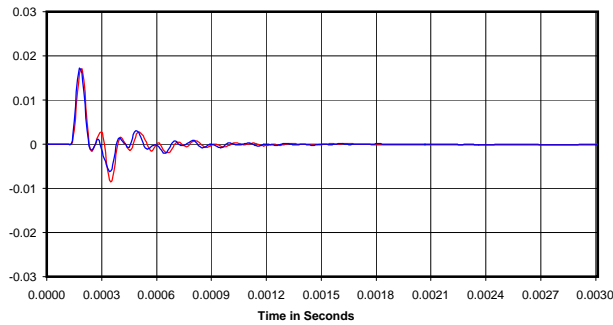
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

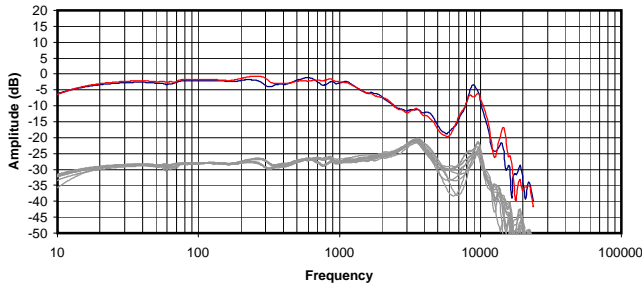


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

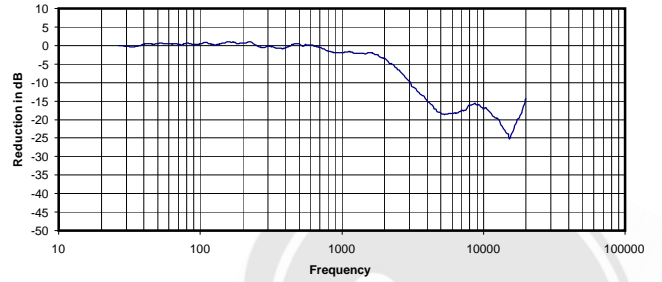
0.056 Vrms
 33 Ohms
 0.09 mW
 -5 dB



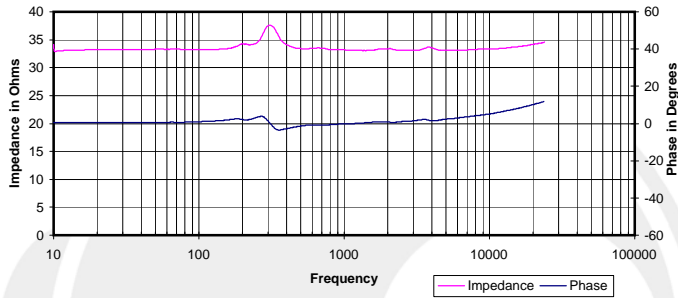
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



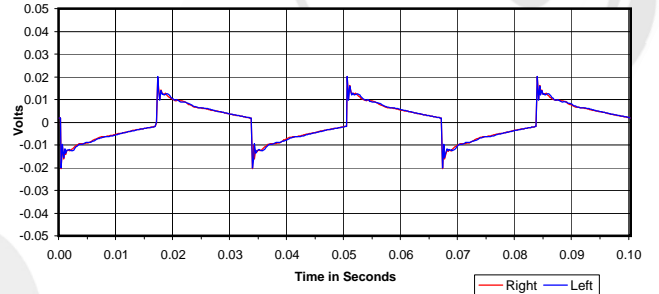
Isolation
 Attenuation of External Sound vs. Frequency



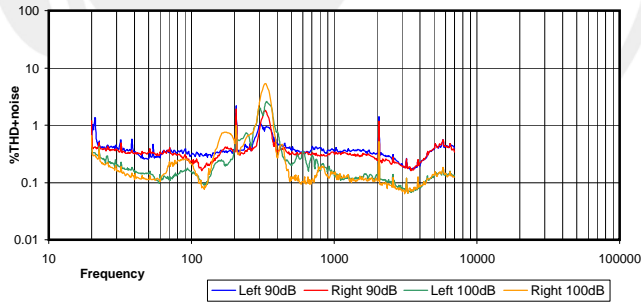
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



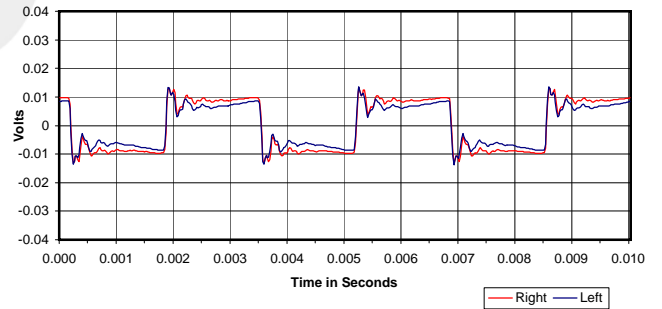
30 Hz Square Wave



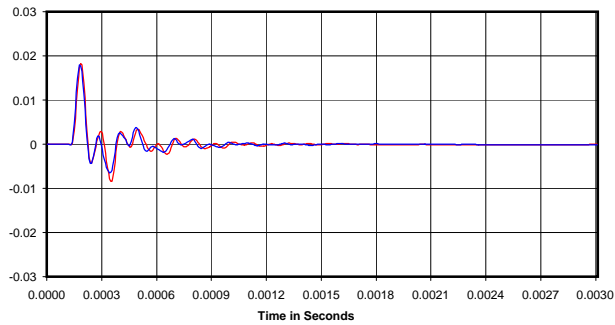
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

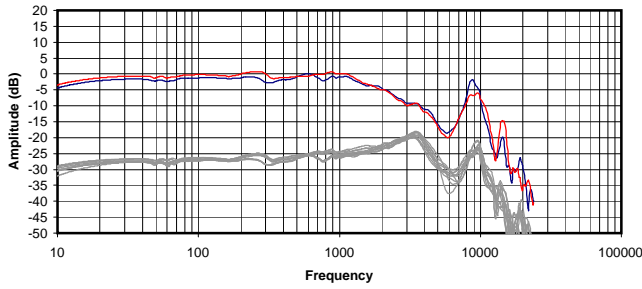


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

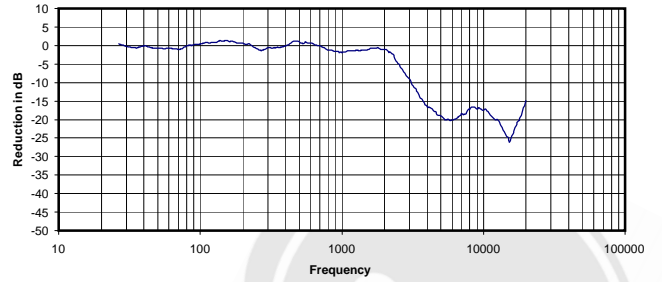
0.068 Vrms
 33 Ohms
 0.14 mW
 -5 dB



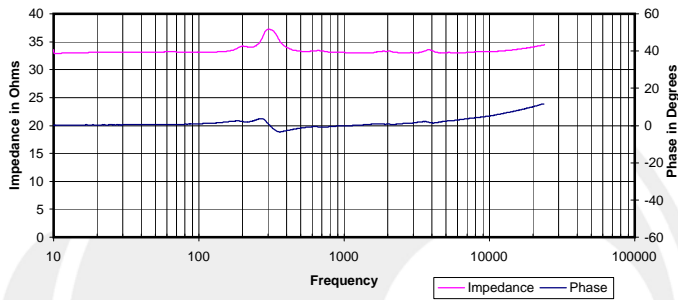
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



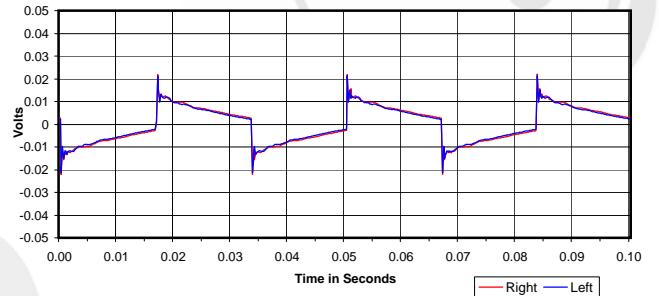
Isolation
 Attenuation of External Sound vs. Frequency



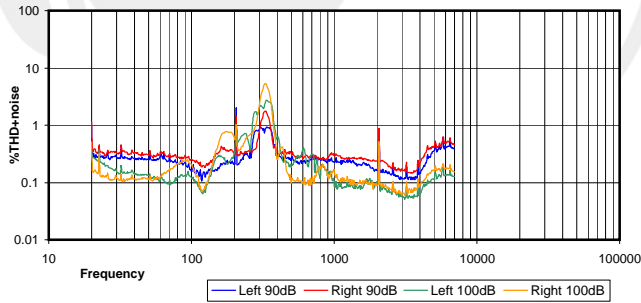
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



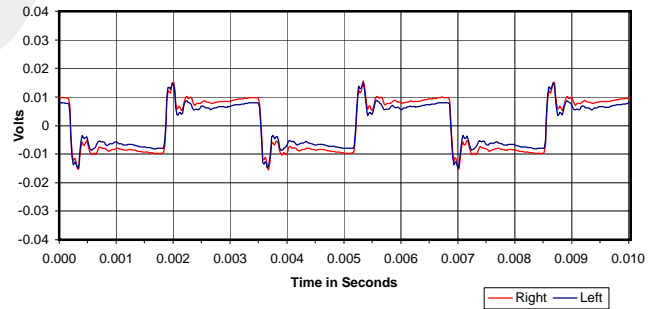
30 Hz Square Wave



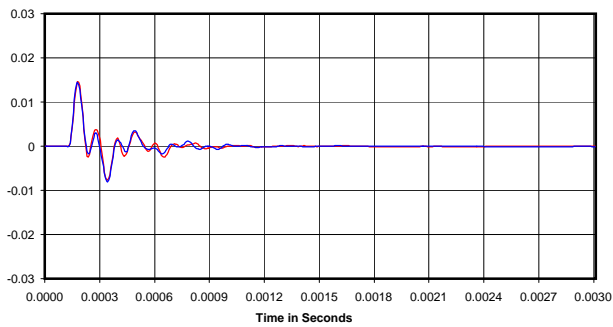
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

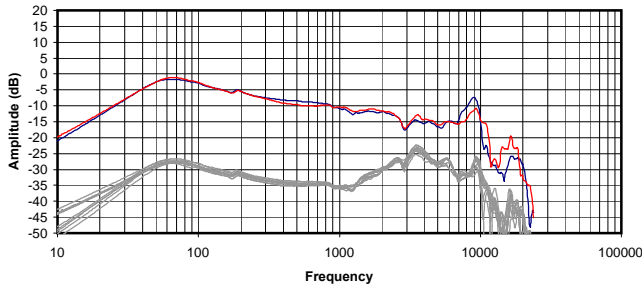


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

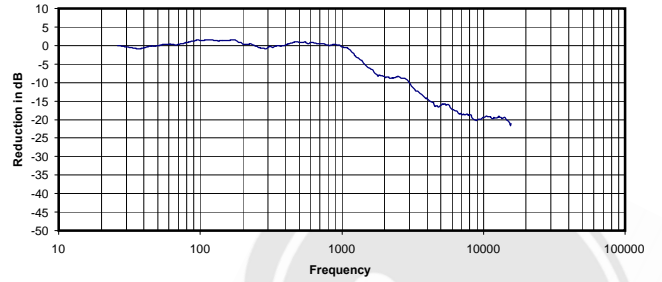
0.057 Vrms
 33 Ohms
 0.10 mW
 -5 dB



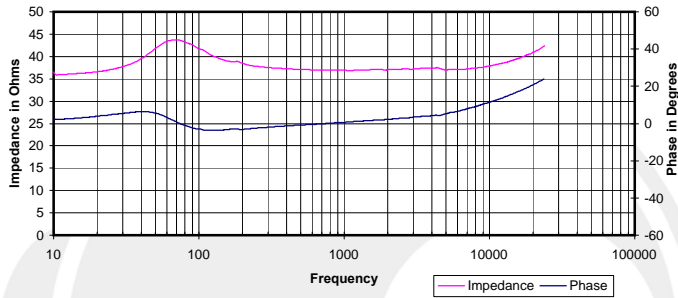
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



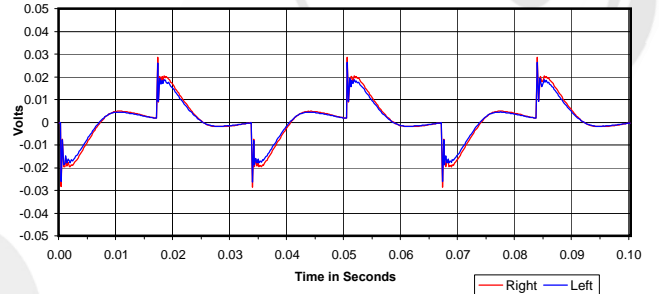
Isolation
 Attenuation of External Sound vs. Frequency



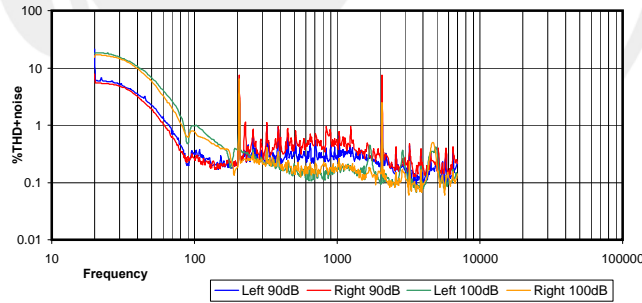
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



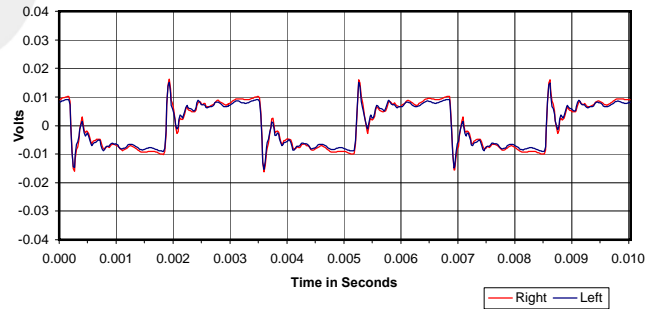
30 Hz Square Wave



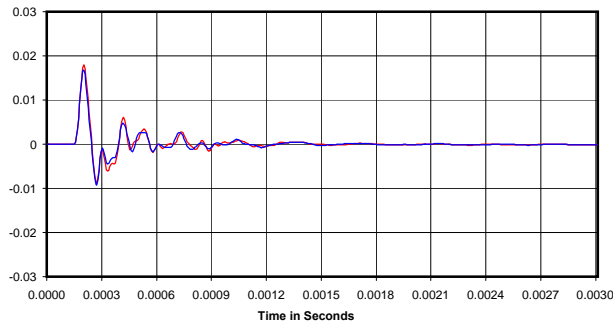
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

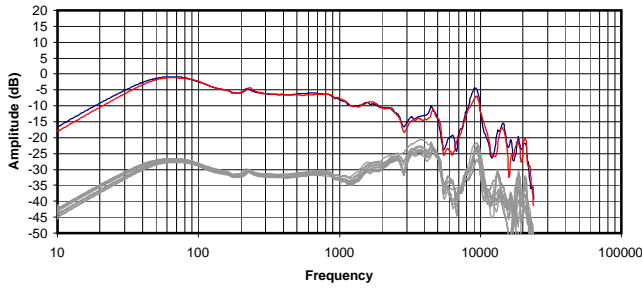


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

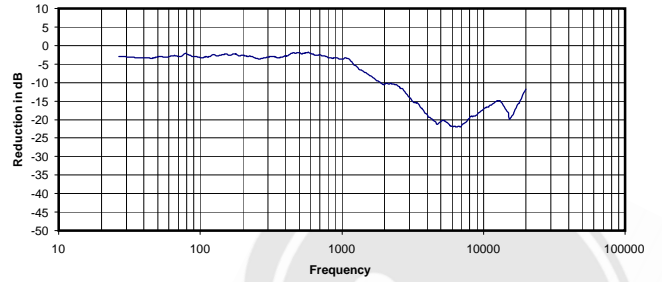
0.181 Vrms
 37 Ohms
 0.89 mW
 -4 dB



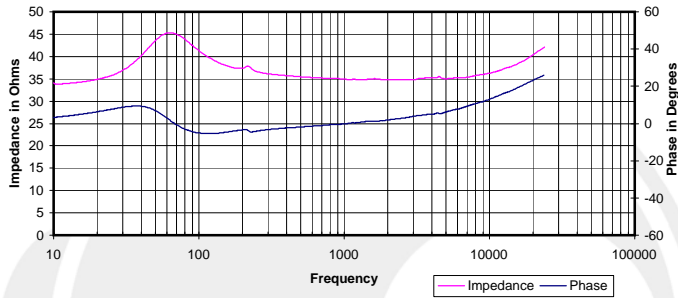
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



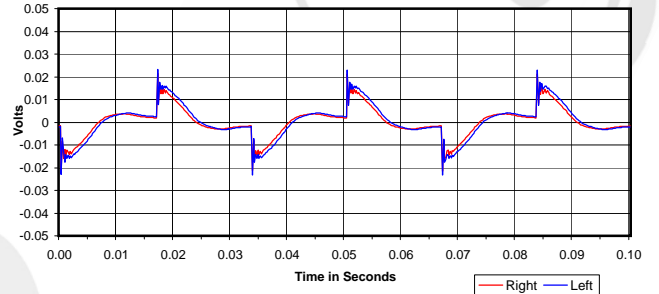
Isolation
Attenuation of External Sound vs. Frequency



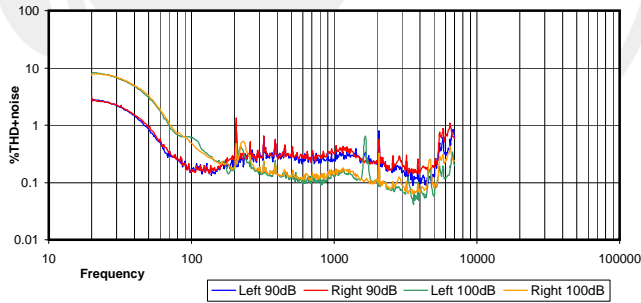
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



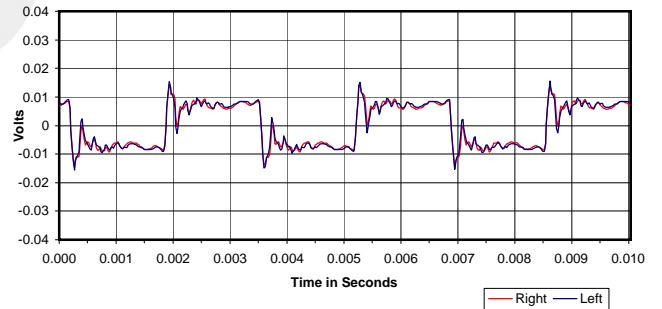
30 Hz Square Wave



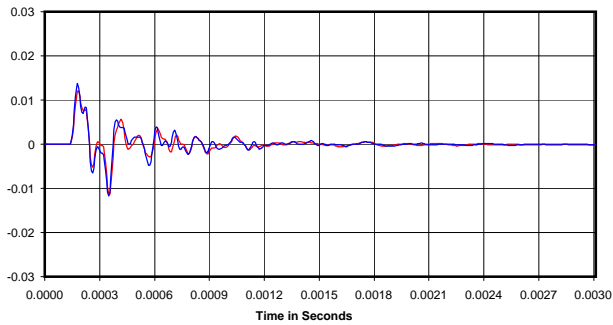
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

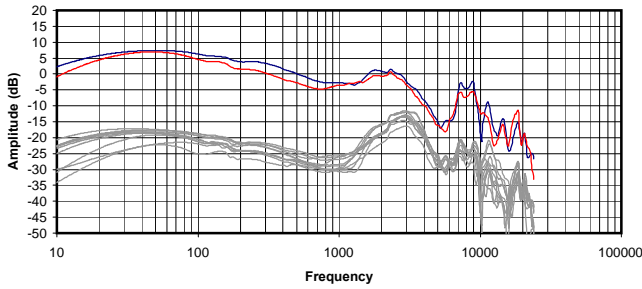


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

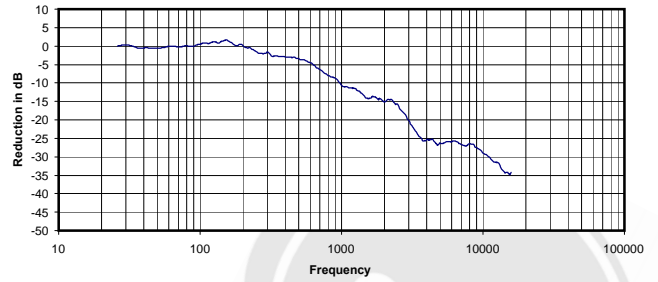
0.089 Vrms
35 Ohms
0.23 mW
-9 dB



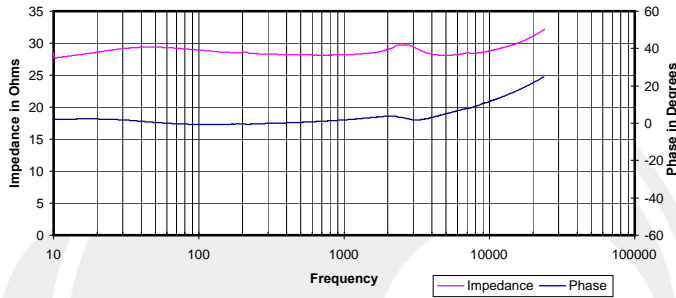
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



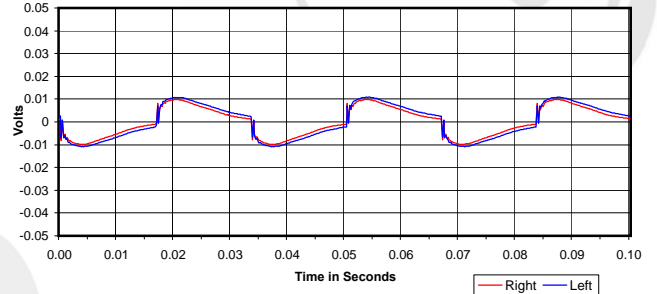
Isolation
Attenuation of External Sound vs. Frequency



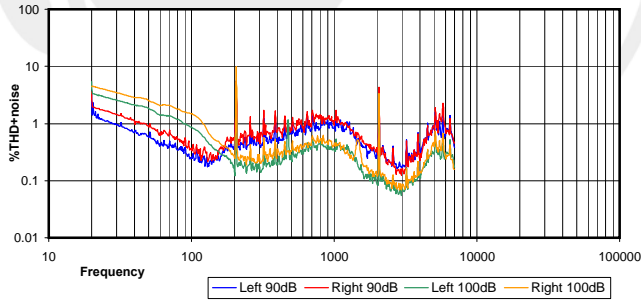
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



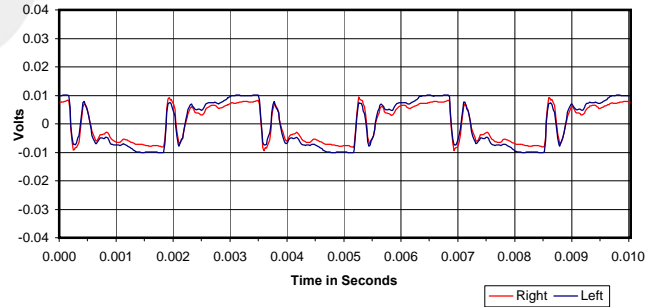
30 Hz Square Wave



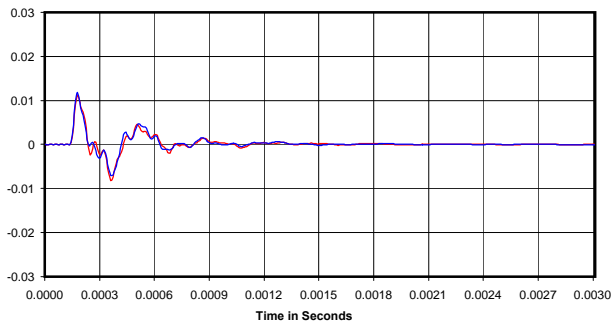
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

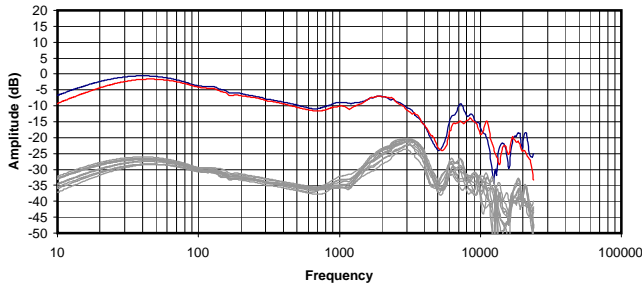


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

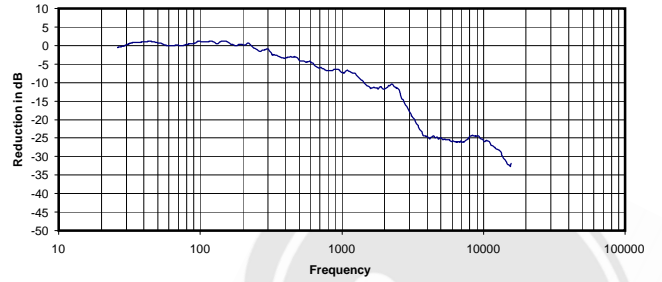
0.139 Vrms
28 Ohms
0.69 mW
-9 dB



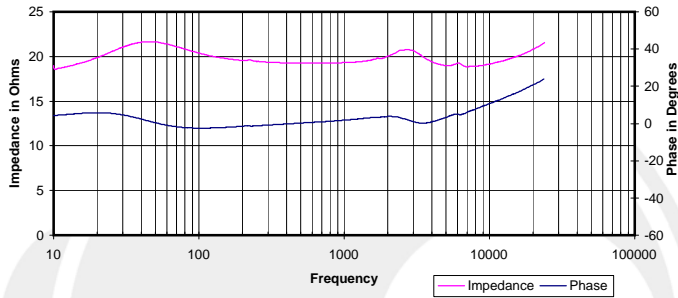
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



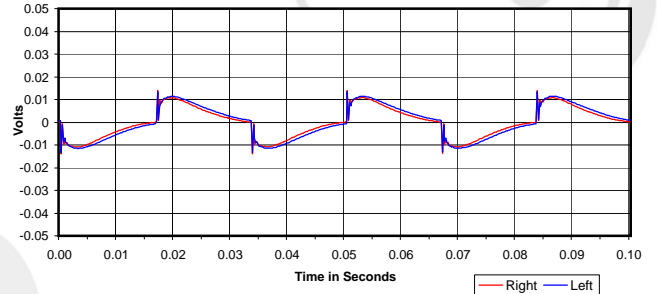
Isolation
 Attenuation of External Sound vs. Frequency



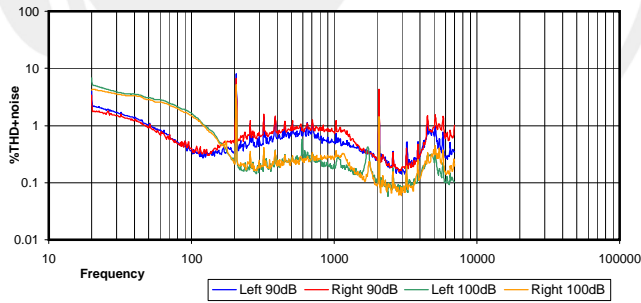
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



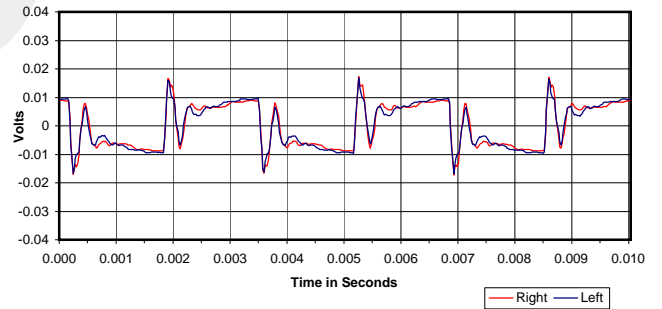
30 Hz Square Wave



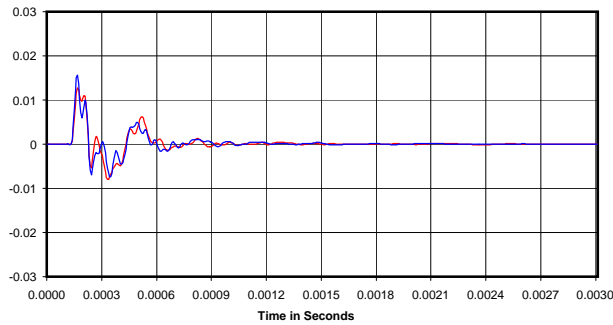
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

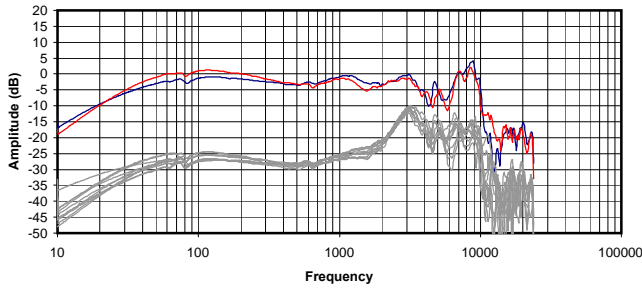


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

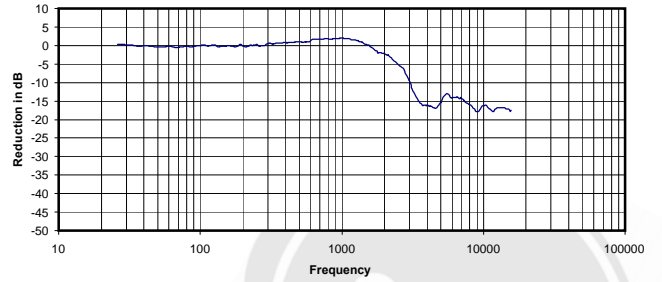
0.052 Vrms
 19 Ohms
 0.14 mW
 -8 dBr



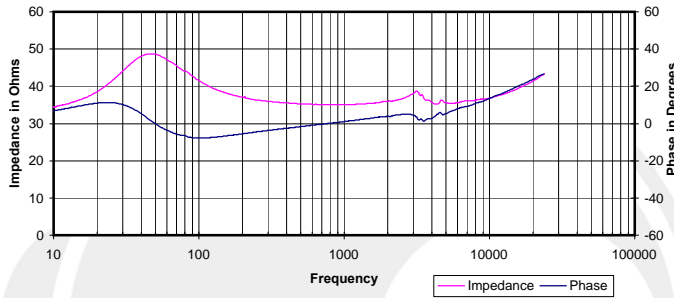
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



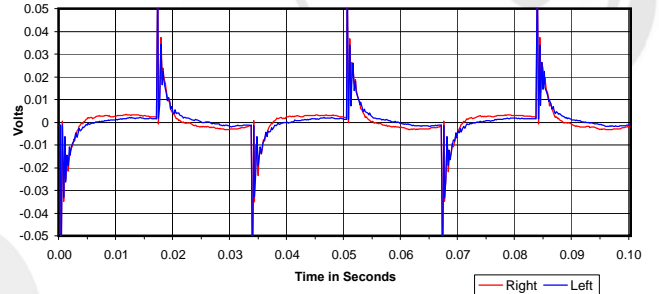
Isolation
 Attenuation of External Sound vs. Frequency



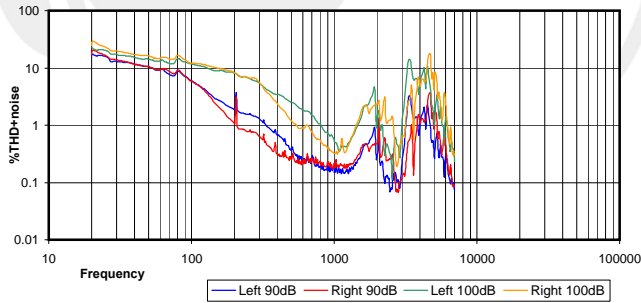
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



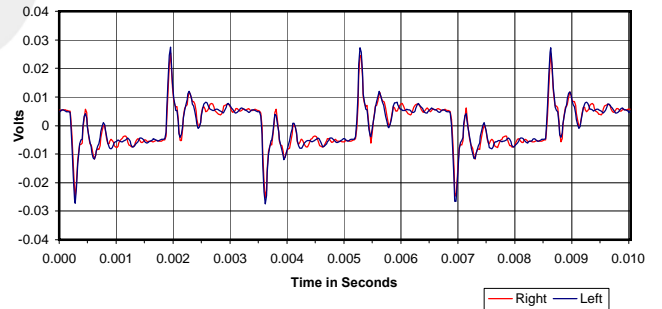
30 Hz Square Wave



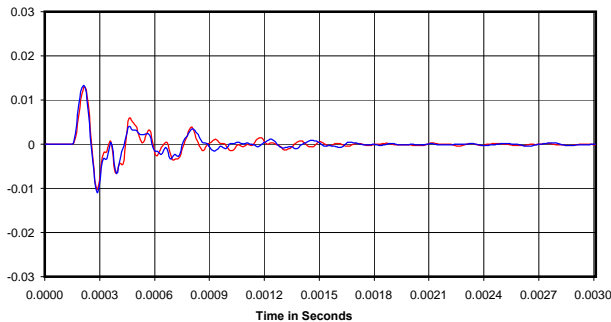
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

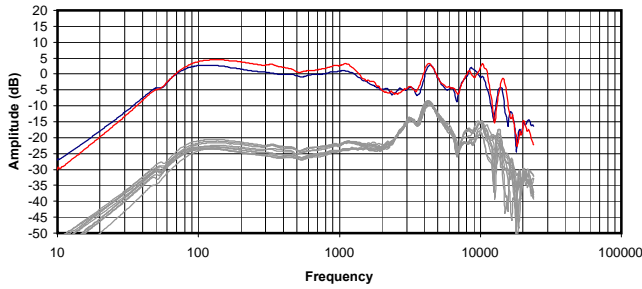


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

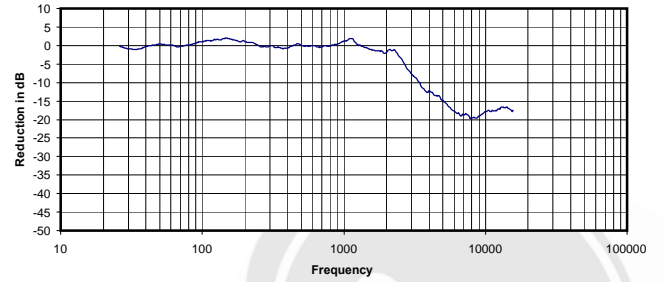
0.082 Vrms
 35 Ohms
 0.19 mW
 -3 dBr



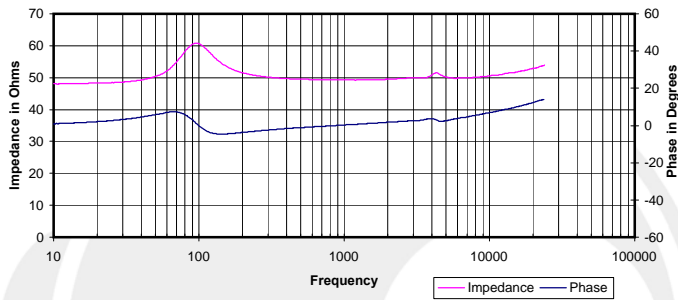
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



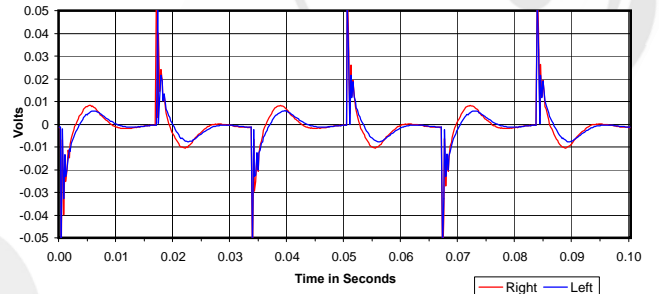
Isolation
 Attenuation of External Sound vs. Frequency



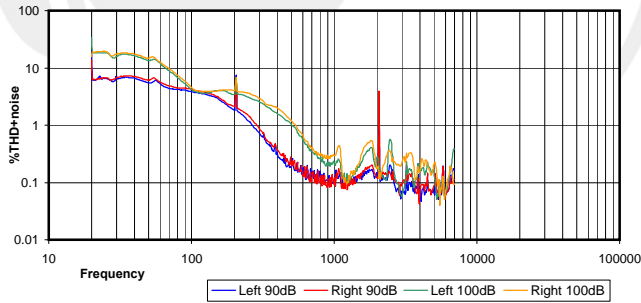
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



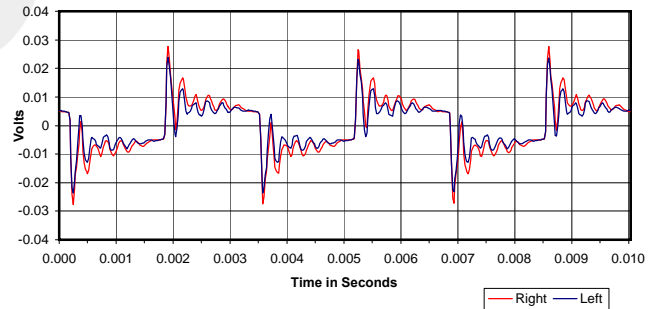
30 Hz Square Wave



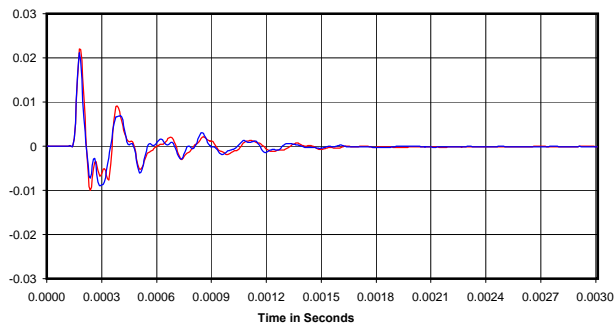
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



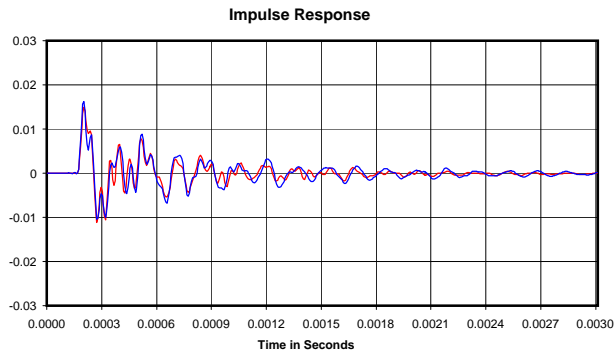
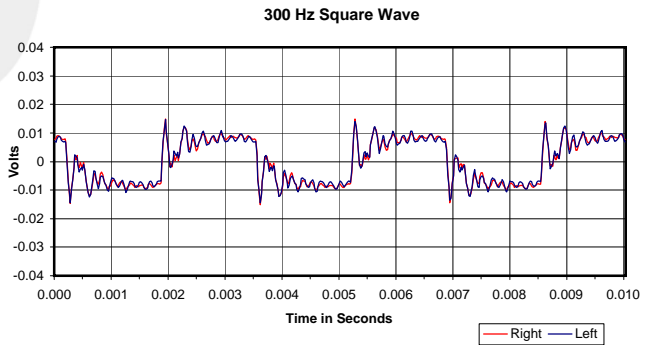
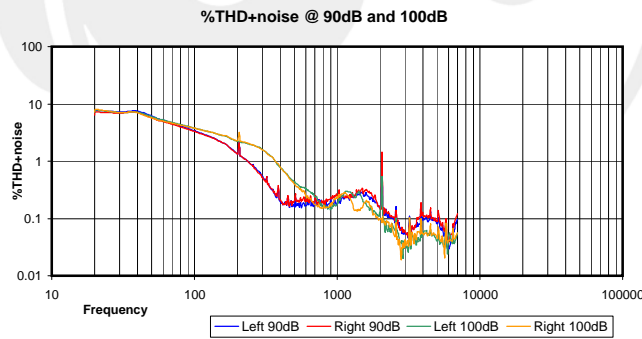
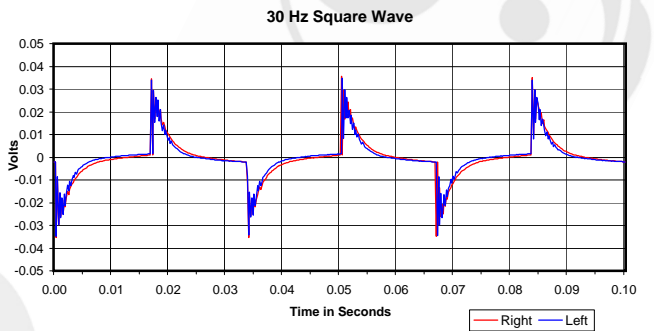
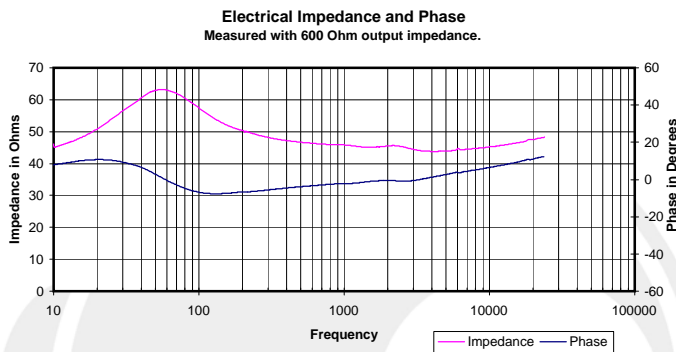
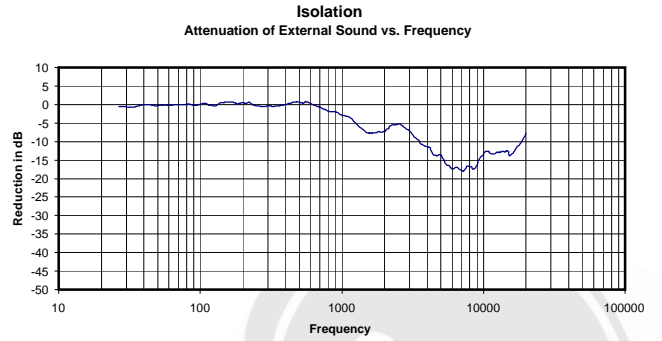
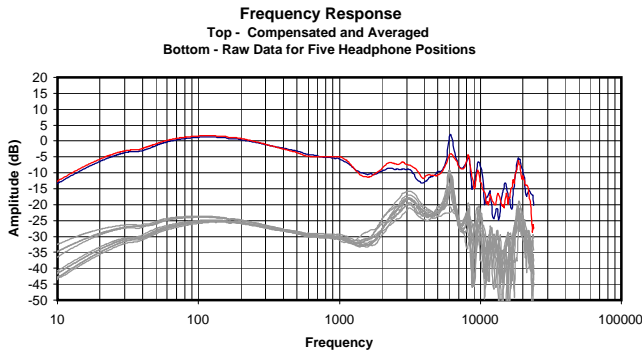
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
 49 Ohms
 0.00 mW
 -2 dB



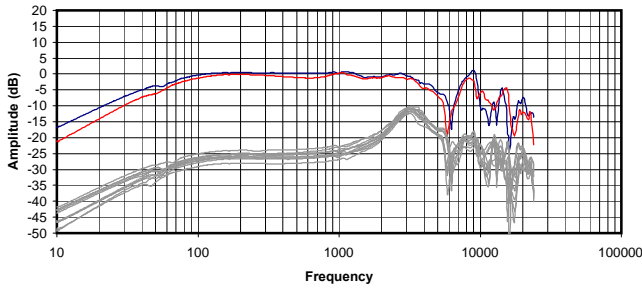


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

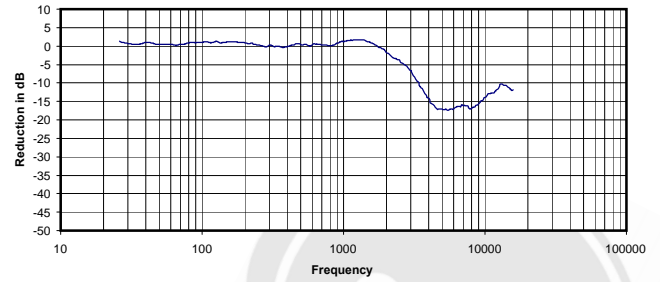
0.134 Vrms
46 Ohms
0.39 mW
-5 dB



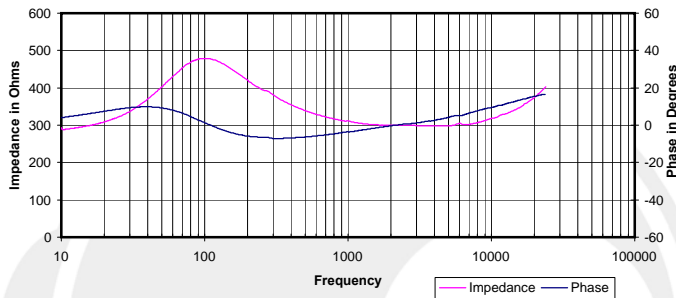
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



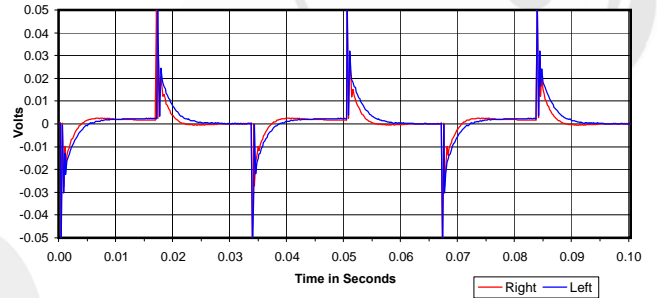
Isolation
 Attenuation of External Sound vs. Frequency



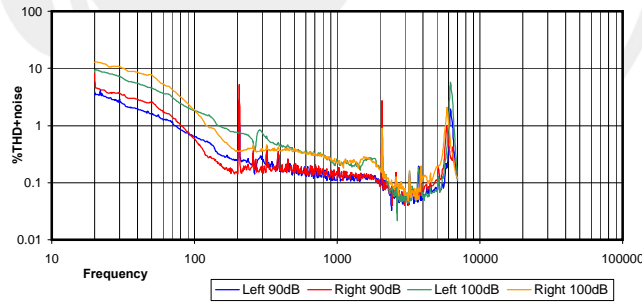
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



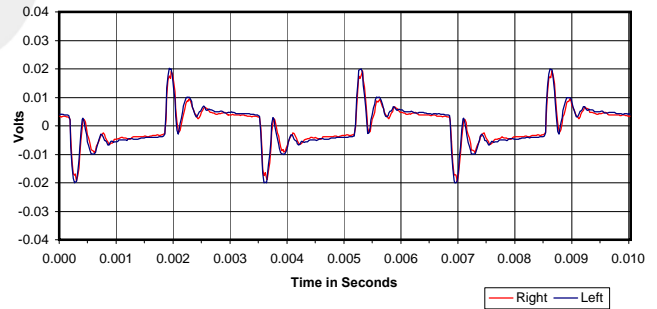
30 Hz Square Wave



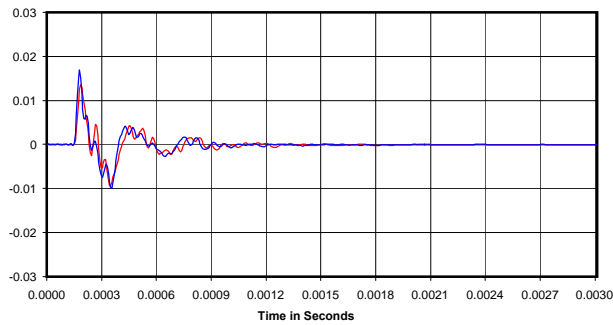
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

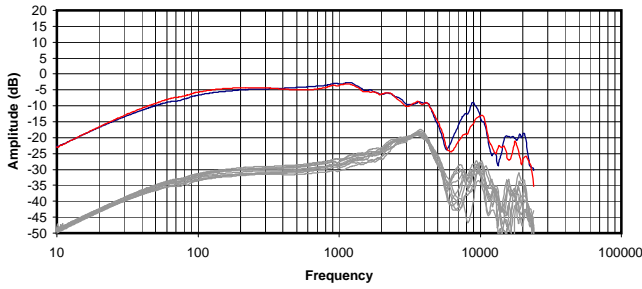


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

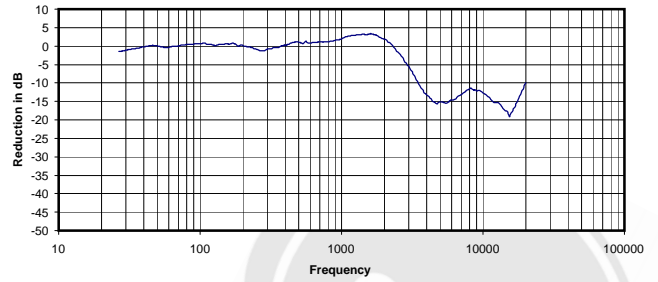
0.257 Vrms
 310 Ohms
 0.21 mW
 -2 dB



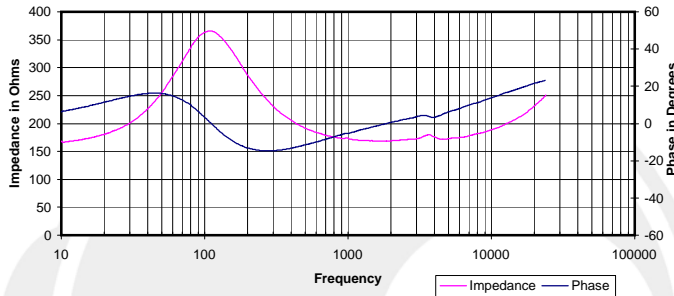
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



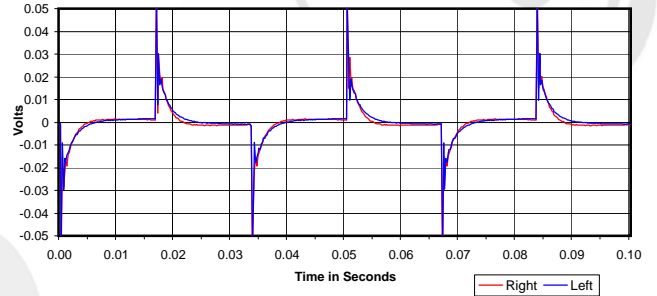
Isolation
 Attenuation of External Sound vs. Frequency



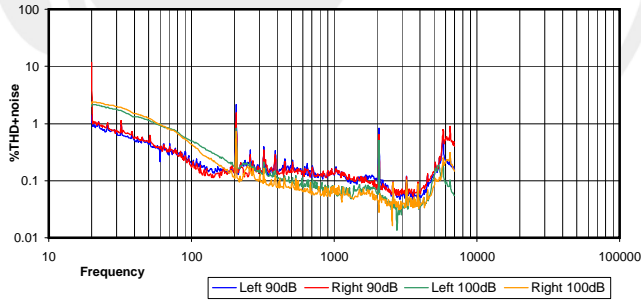
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



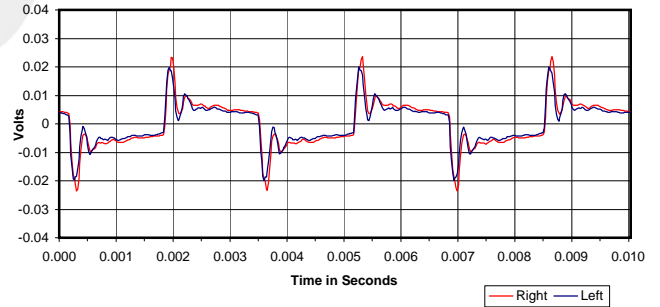
30 Hz Square Wave



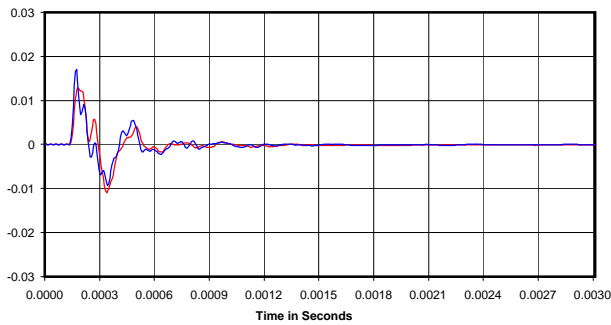
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

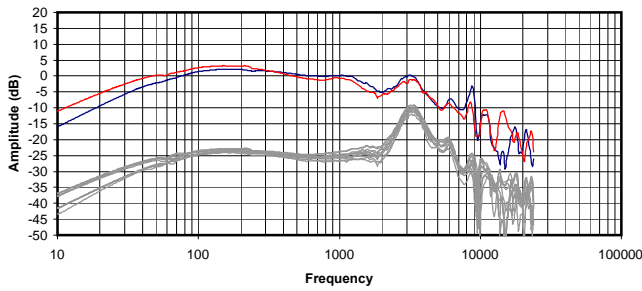


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

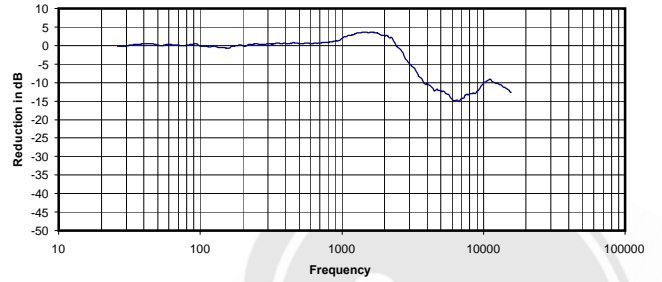
0.105 Vrms
 173 Ohms
 0.06 mW
 -3 dBr



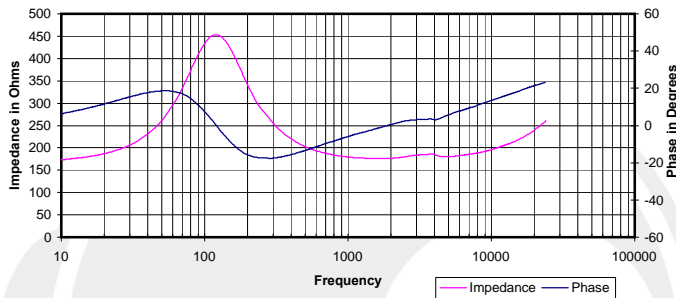
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



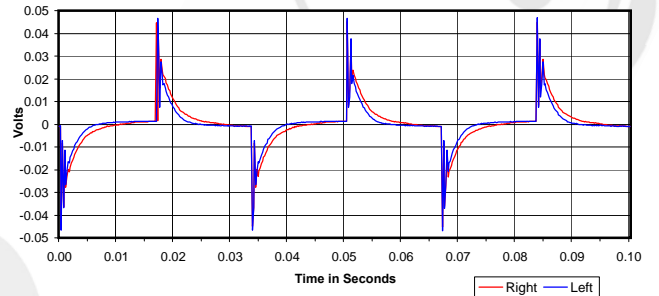
Isolation
 Attenuation of External Sound vs. Frequency



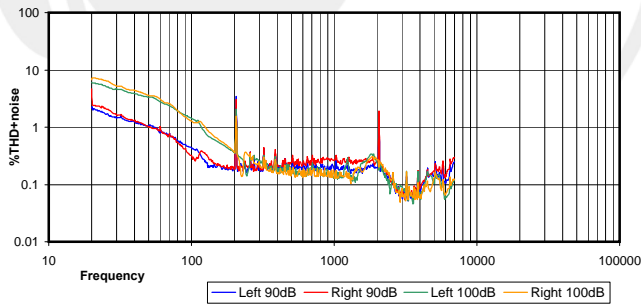
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



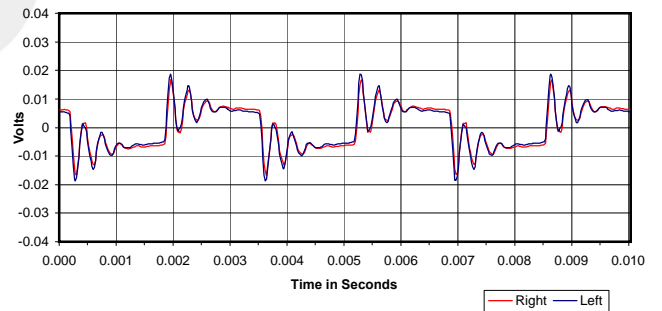
30 Hz Square Wave



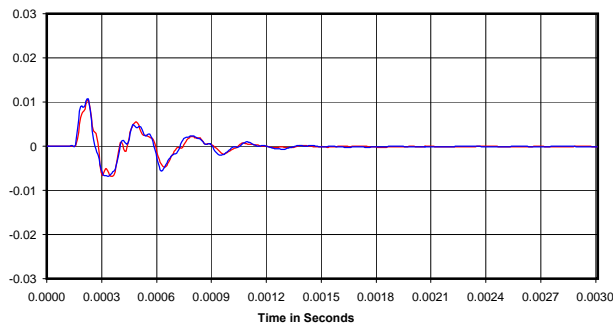
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

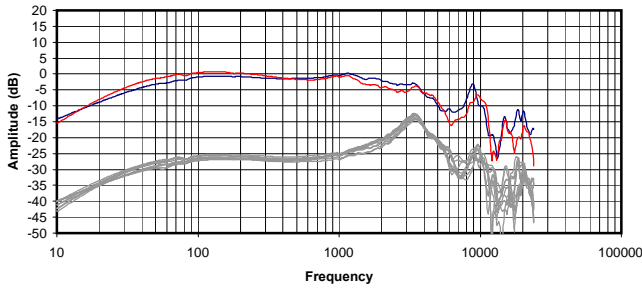


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

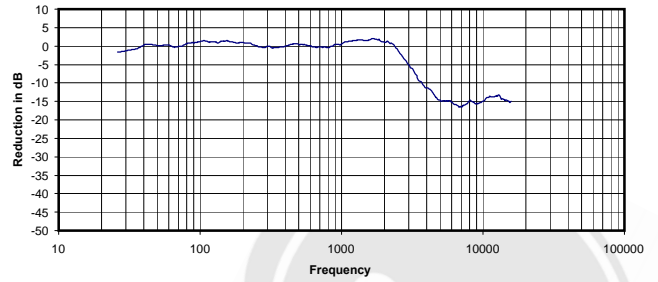
0.156 Vrms
 179 Ohms
 0.14 mW
 -1 dB



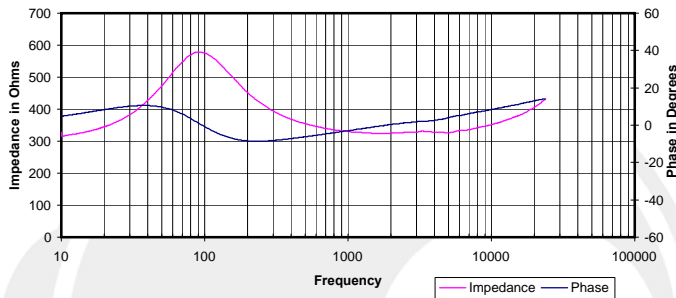
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



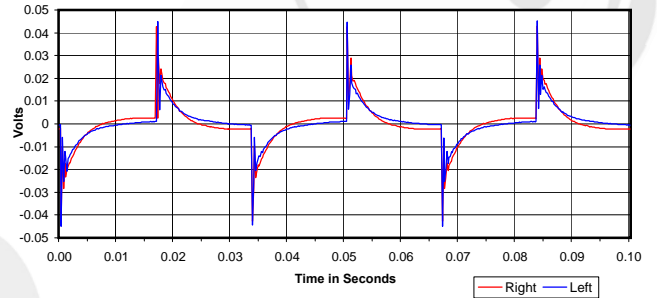
Isolation
Attenuation of External Sound vs. Frequency



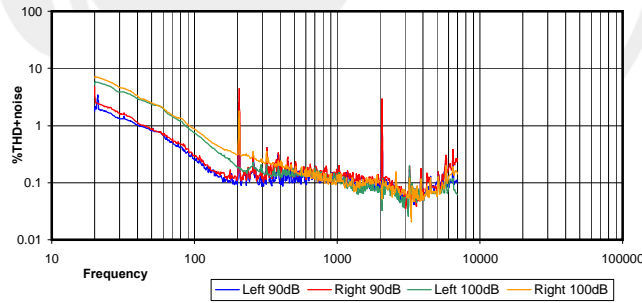
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



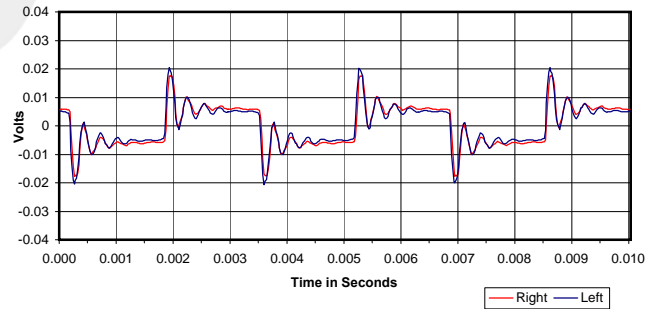
30 Hz Square Wave



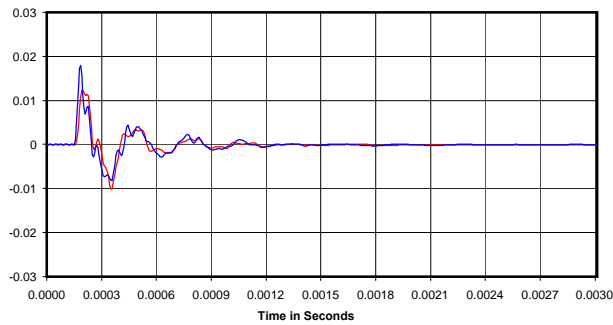
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

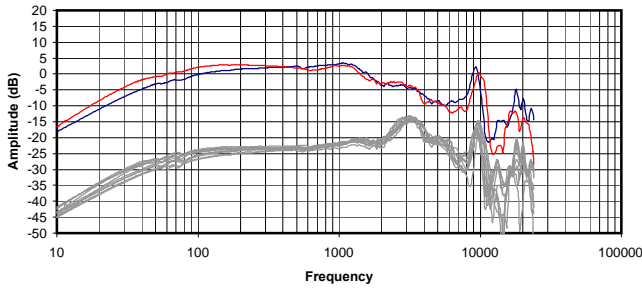


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

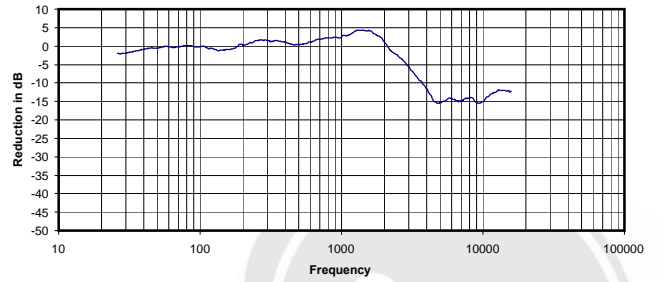
0.173 Vrms
330 Ohms
0.09 mW
-2 dB



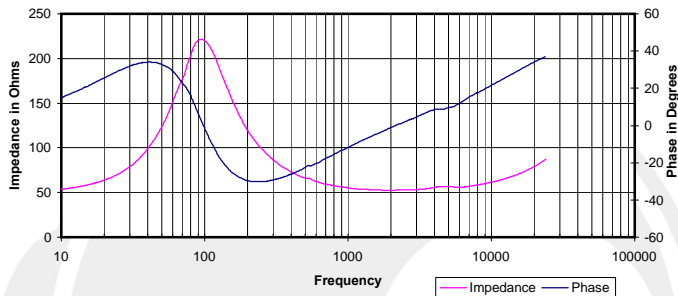
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



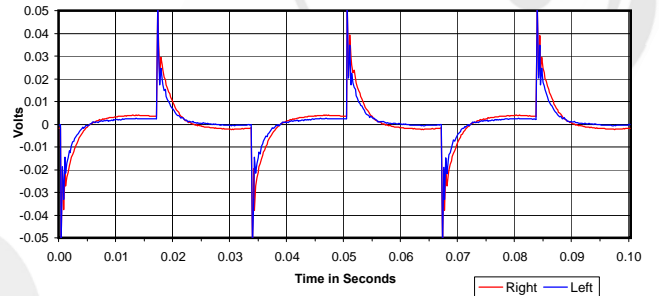
Isolation
 Attenuation of External Sound vs. Frequency



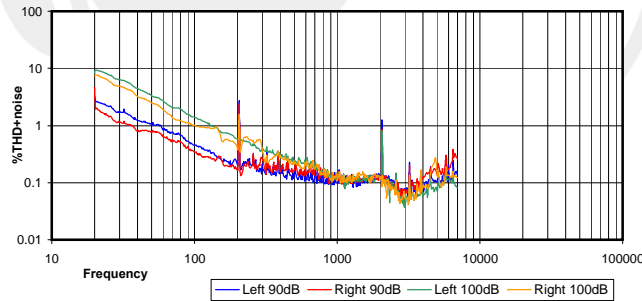
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



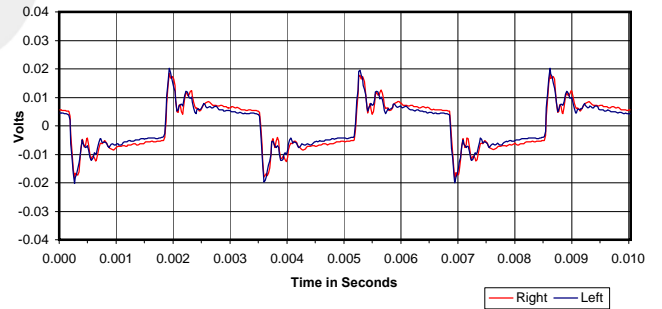
30 Hz Square Wave



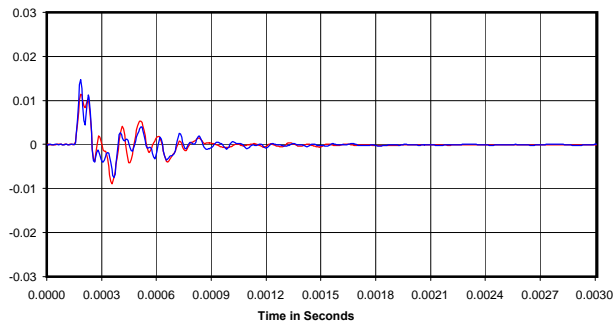
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

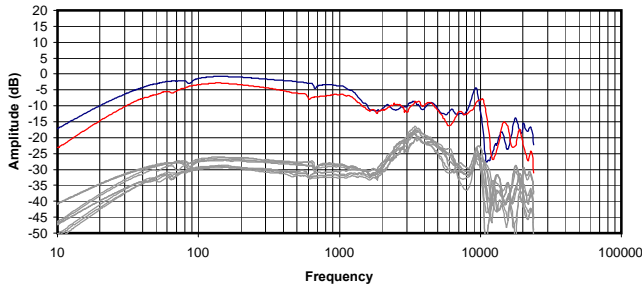


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

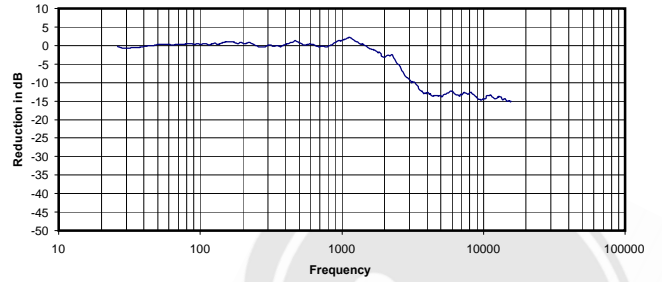
0.055 Vrms
 55 Ohms
 0.05 mW
 -2 dB



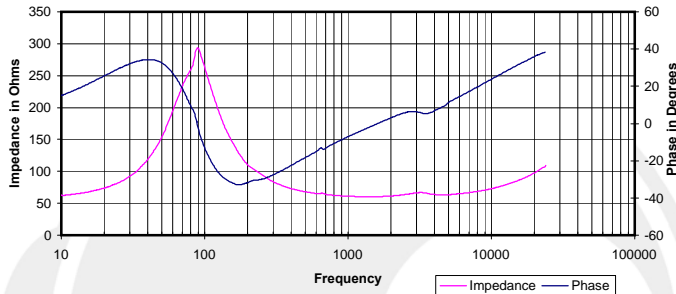
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



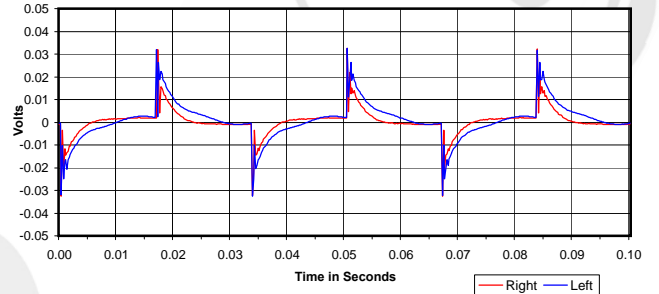
Isolation
 Attenuation of External Sound vs. Frequency



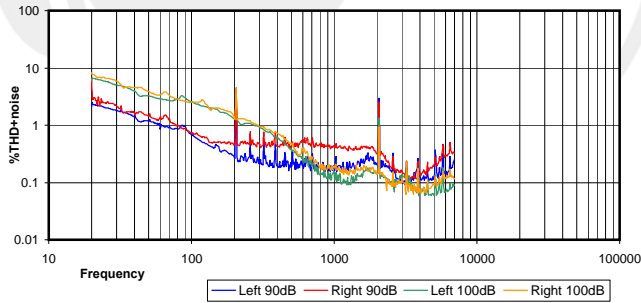
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



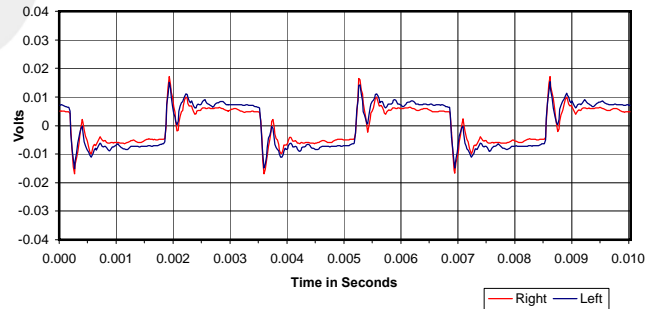
30 Hz Square Wave



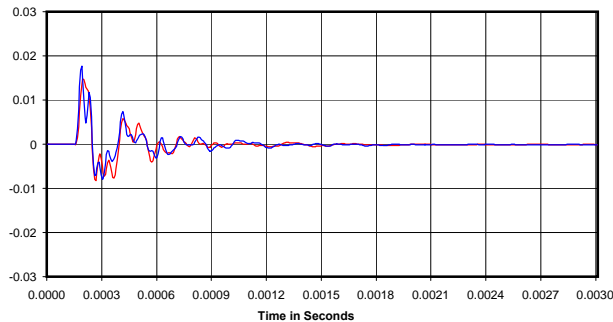
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

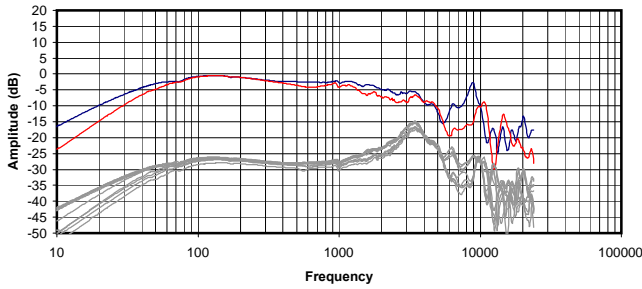


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

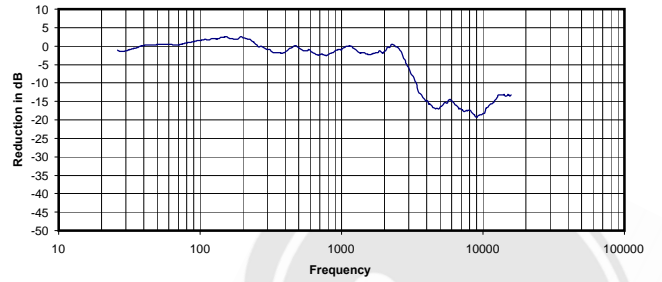
0.090 Vrms
 61 Ohms
 0.13 mW
 -3 dBr



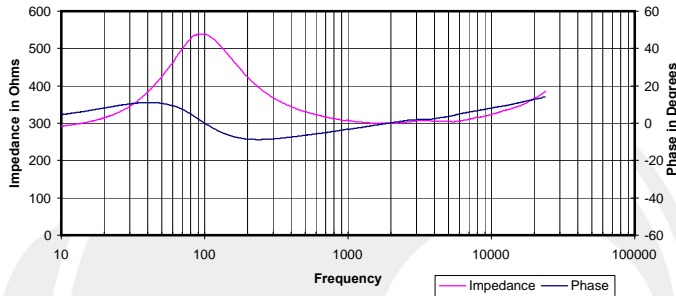
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



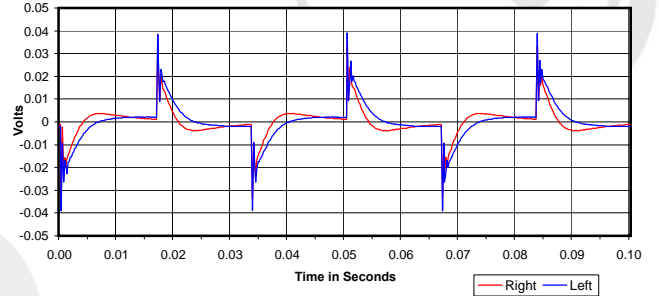
Isolation
 Attenuation of External Sound vs. Frequency



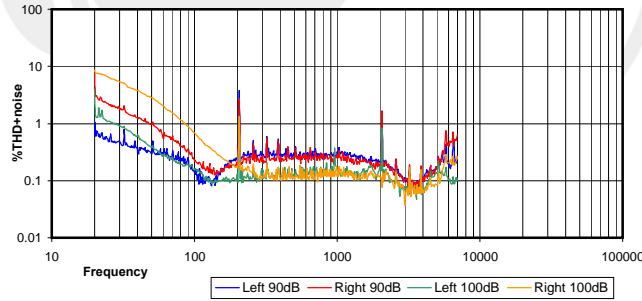
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



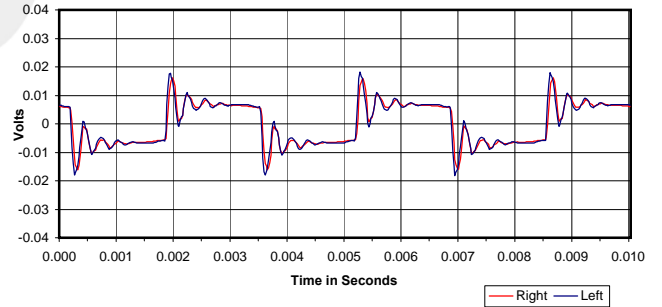
30 Hz Square Wave



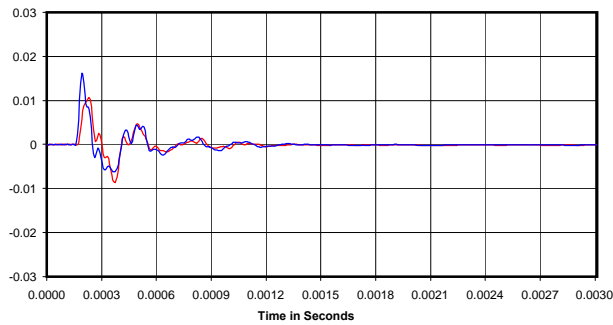
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

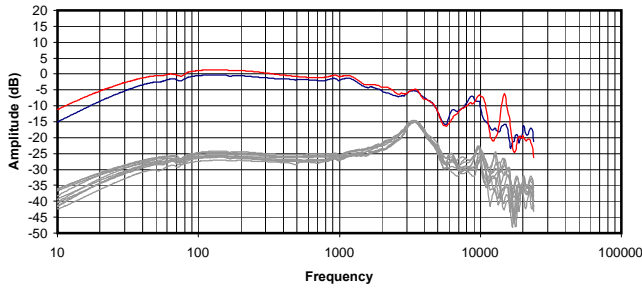


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

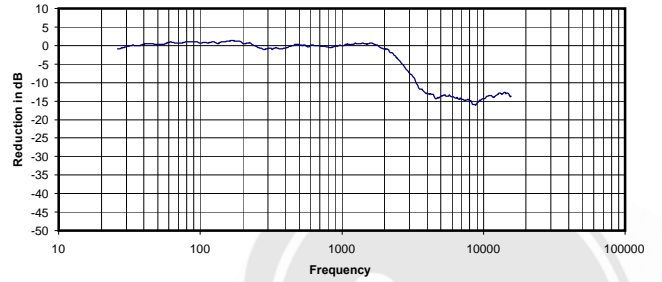
0.230 Vrms
 307 Ohms
 0.17 mW
 -3 dB



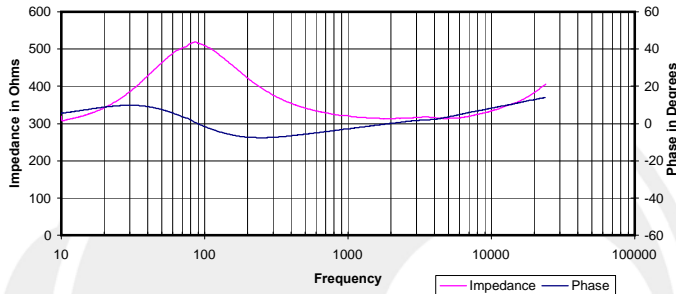
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



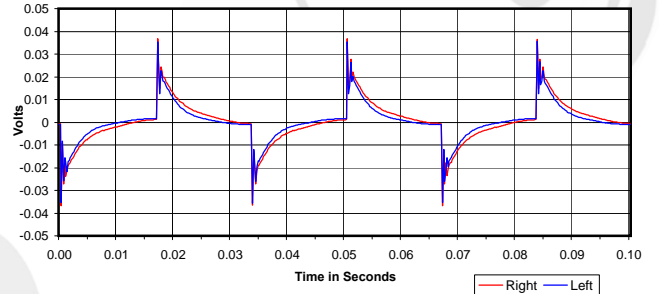
Isolation
 Attenuation of External Sound vs. Frequency



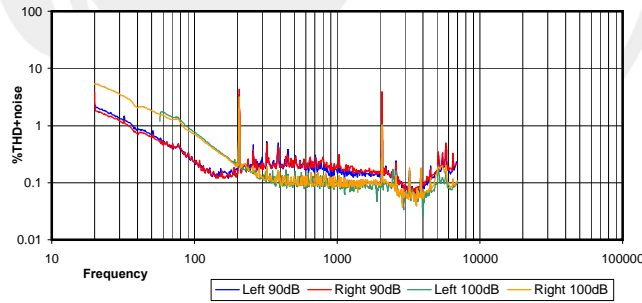
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



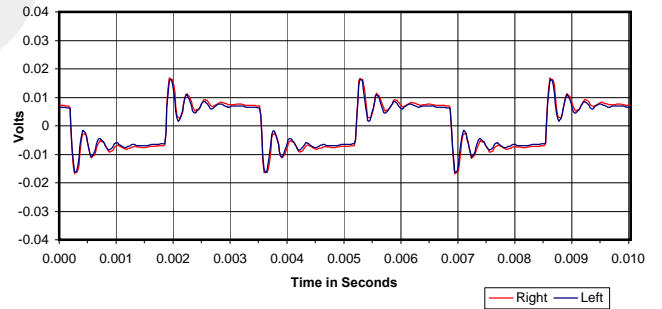
30 Hz Square Wave



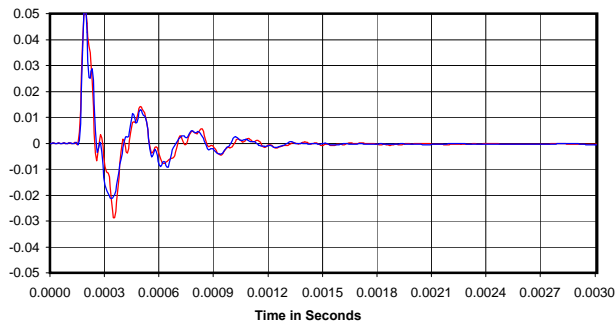
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



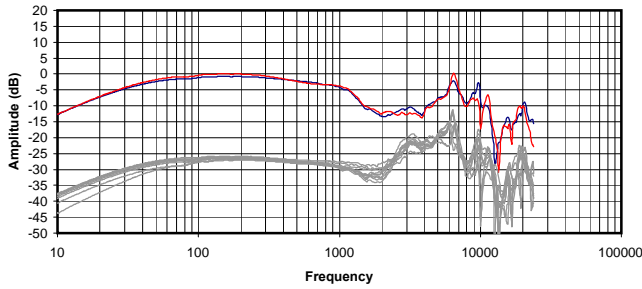
Impulse Response



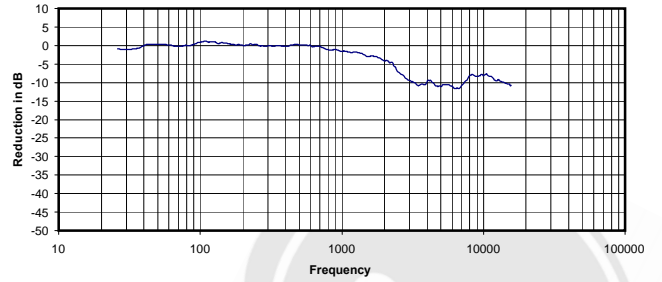
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.205 Vrms
 320 Ohms
 0.13 mW
 -2 dB

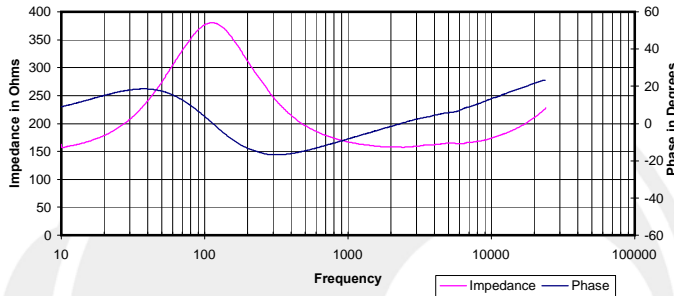
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



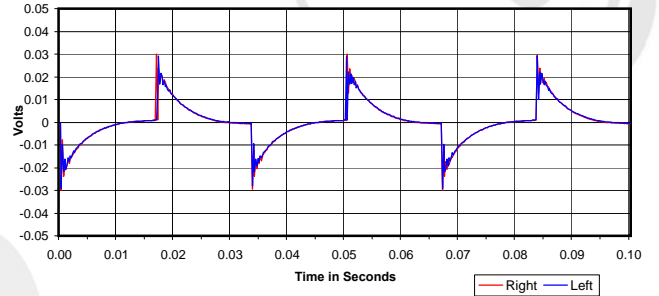
Isolation
 Attenuation of External Sound vs. Frequency



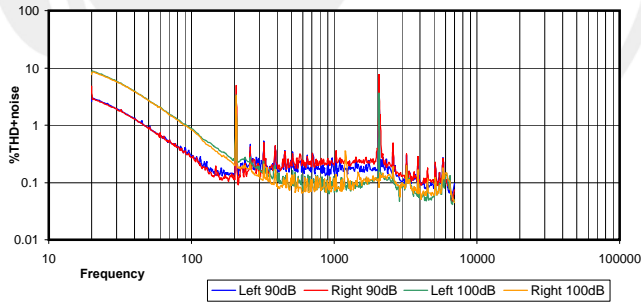
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



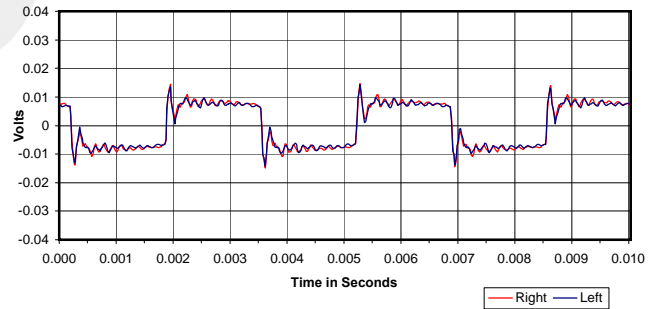
30 Hz Square Wave



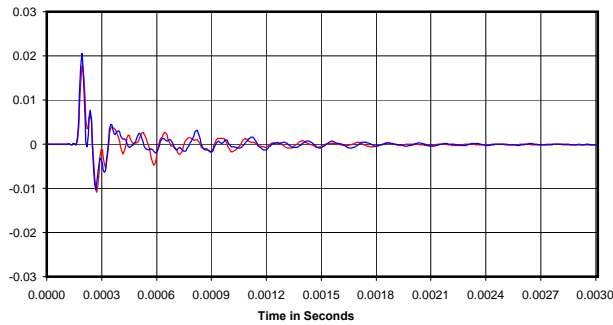
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

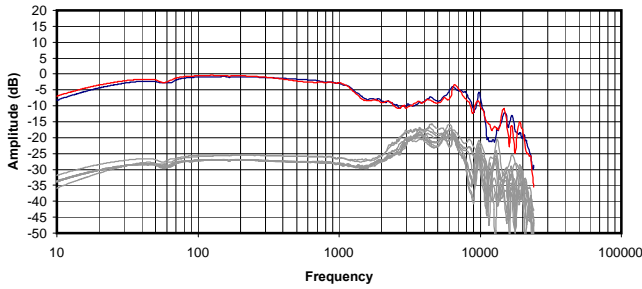


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

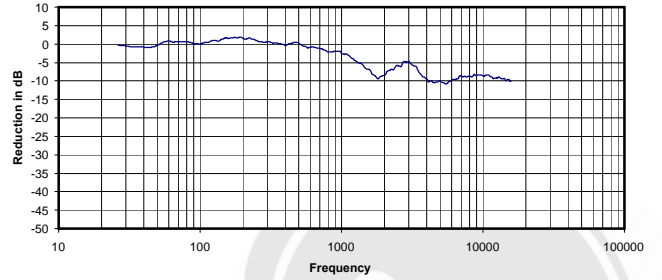
0.153 Vrms
 167 Ohms
 0.14 mW
 -3 dB



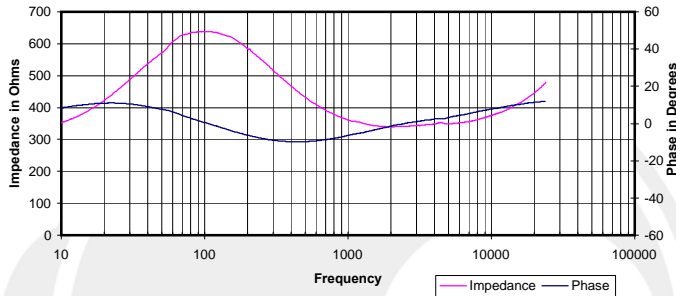
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



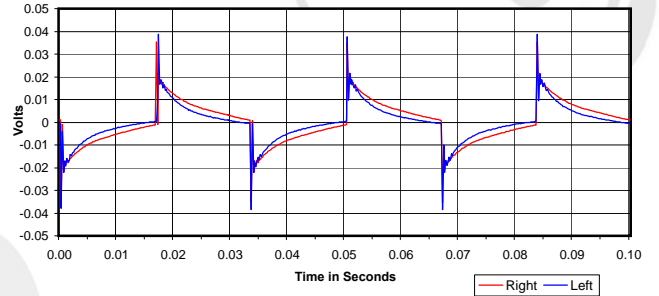
Isolation
 Attenuation of External Sound vs. Frequency



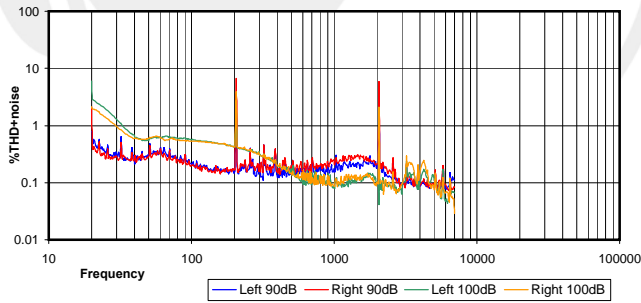
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



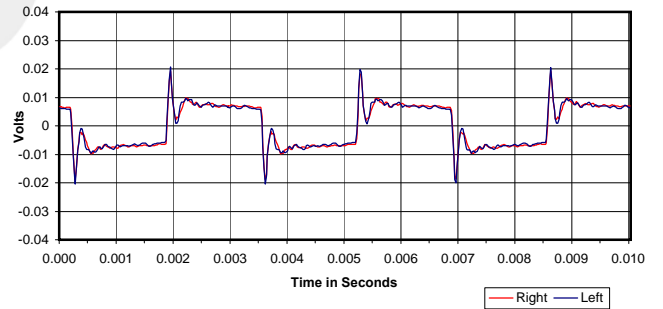
30 Hz Square Wave



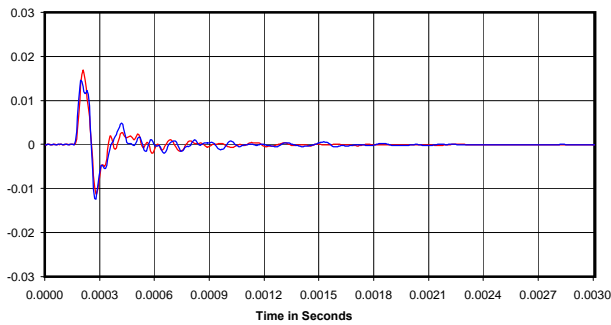
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



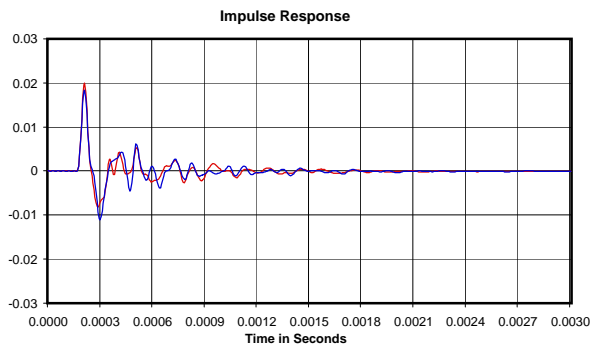
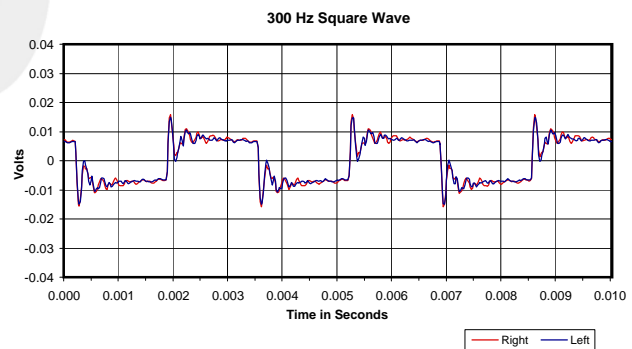
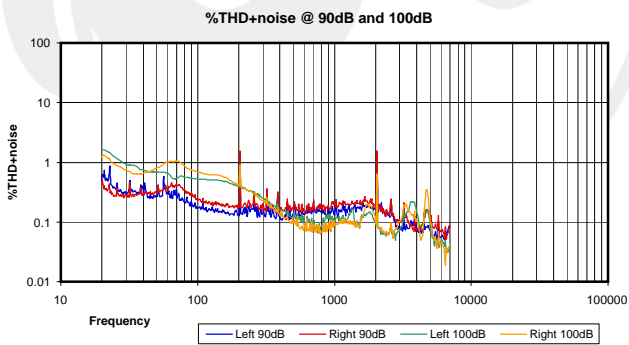
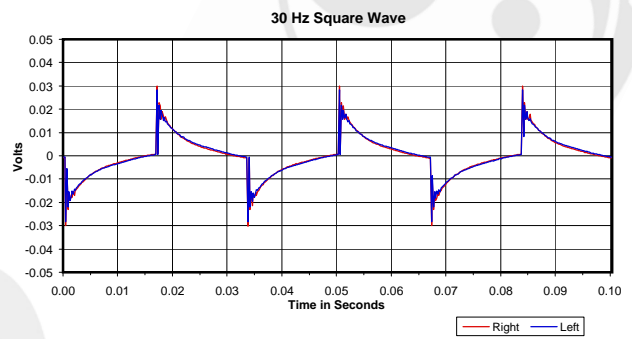
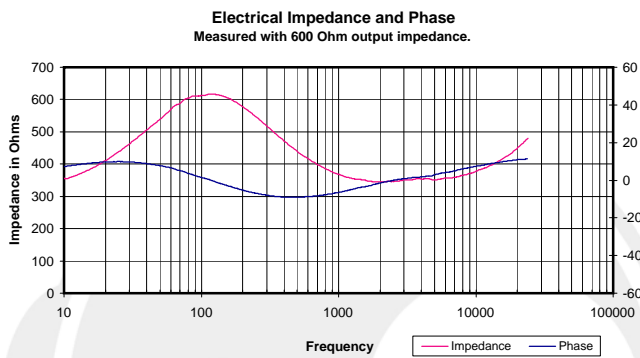
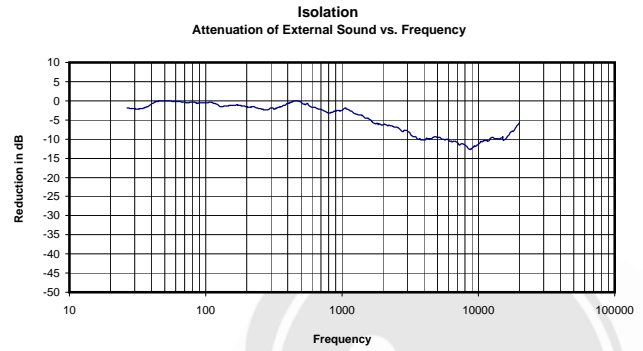
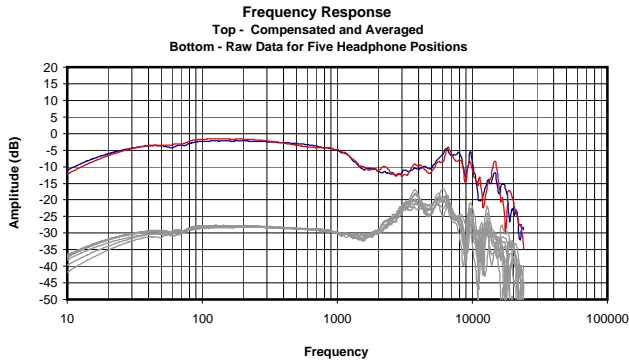
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.242 Vrms
 361 Ohms
 0.16 mW
 -3 dBr

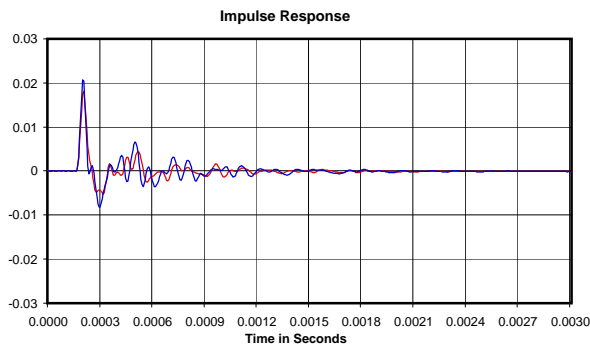
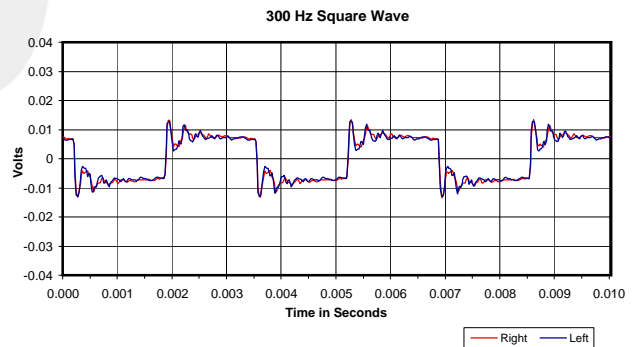
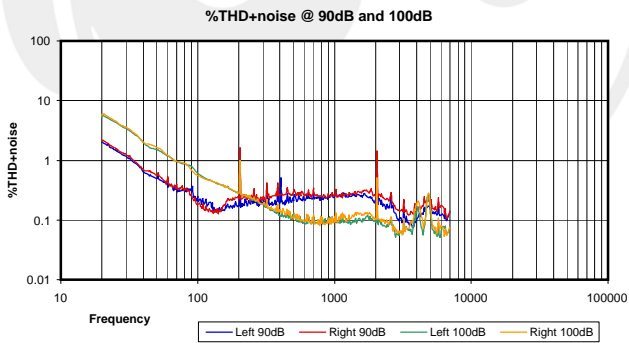
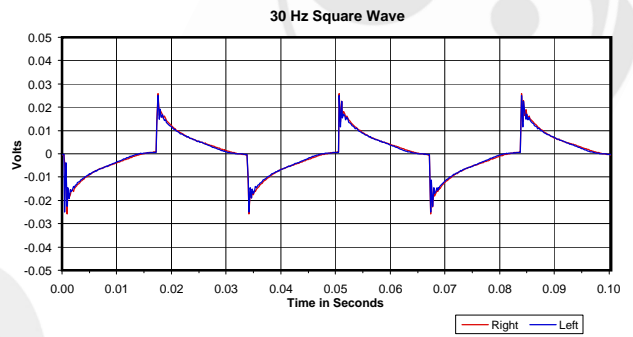
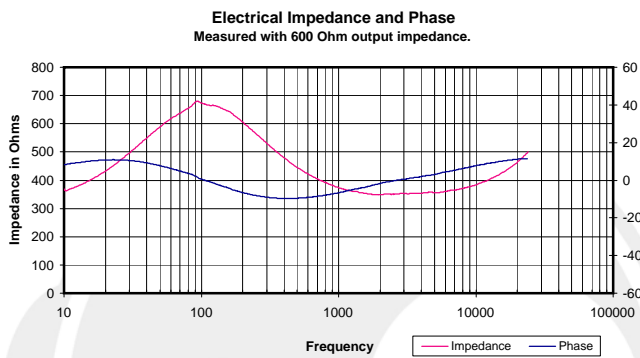
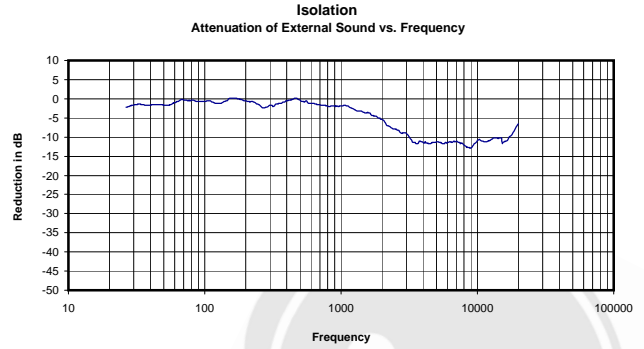
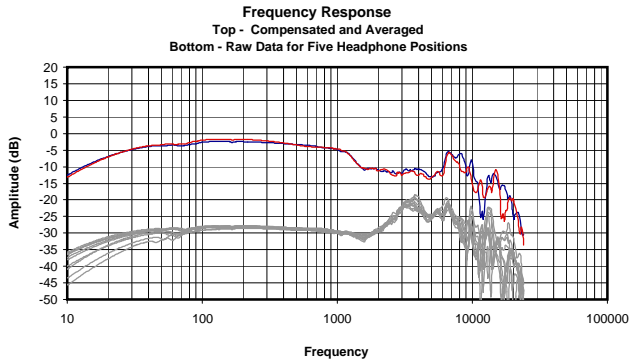




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.257 Vrms
368 Ohms
0.18 mW
-5 dBr



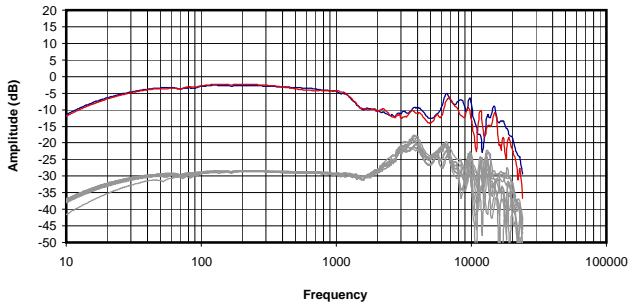


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

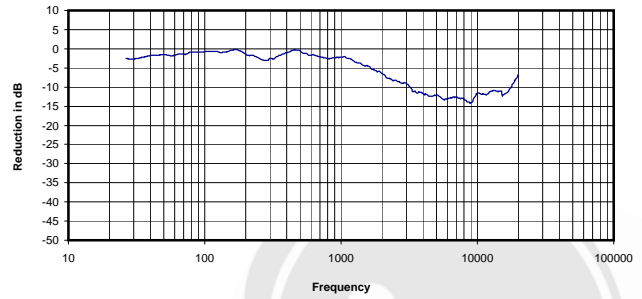
0.000 Vrms
374 Ohms
0.00 mW
-5 dBr



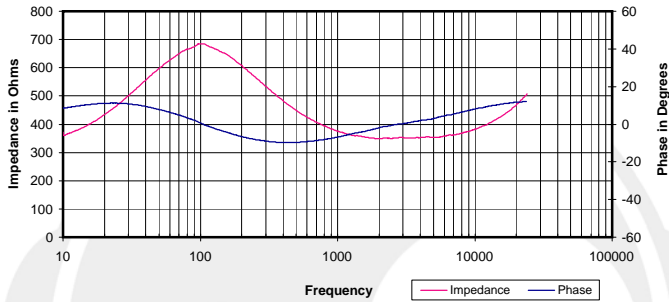
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



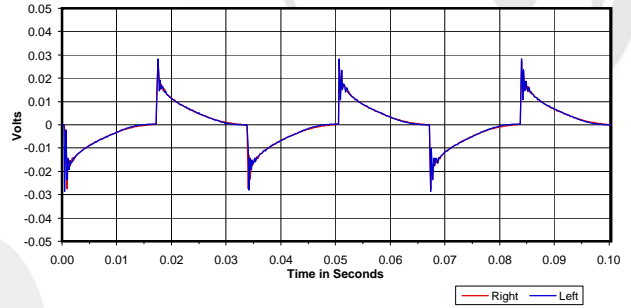
Isolation
Attenuation of External Sound vs. Frequency



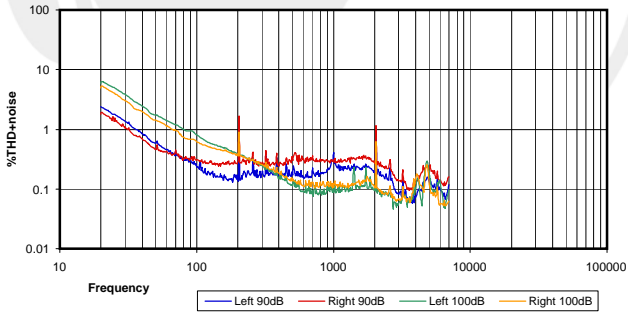
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



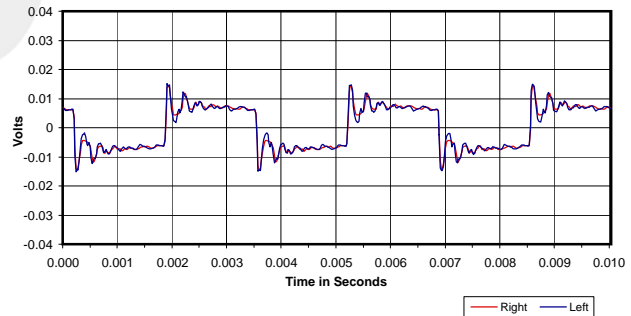
30 Hz Square Wave



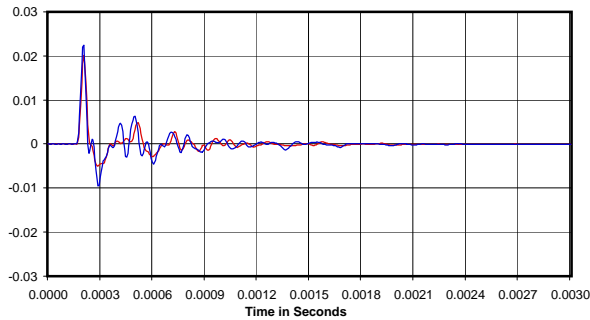
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



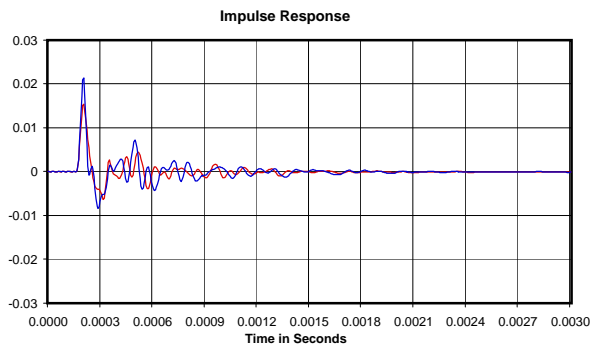
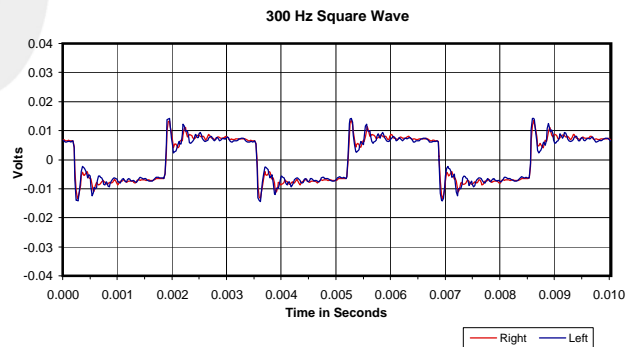
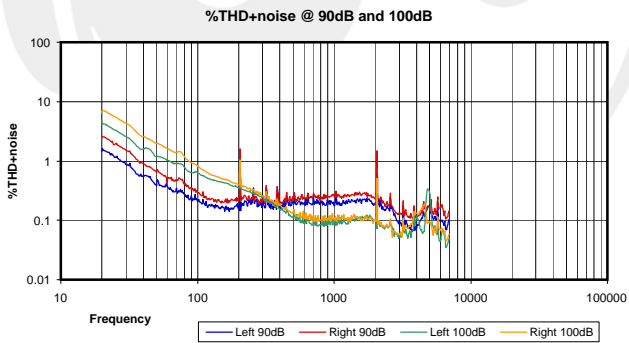
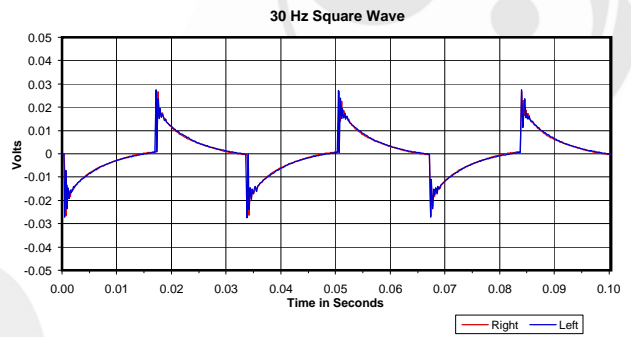
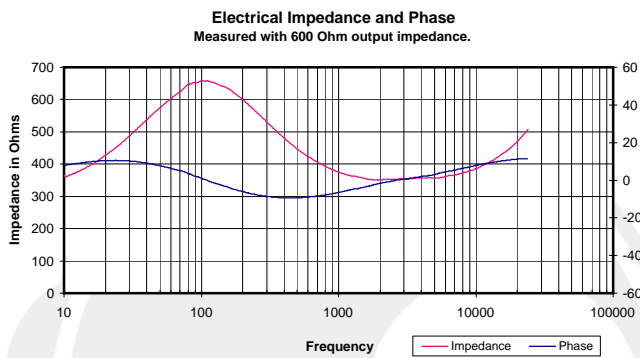
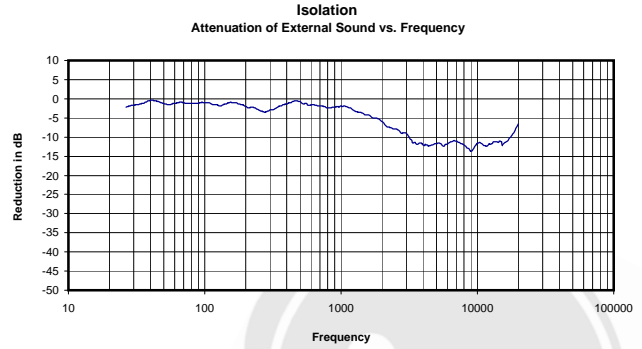
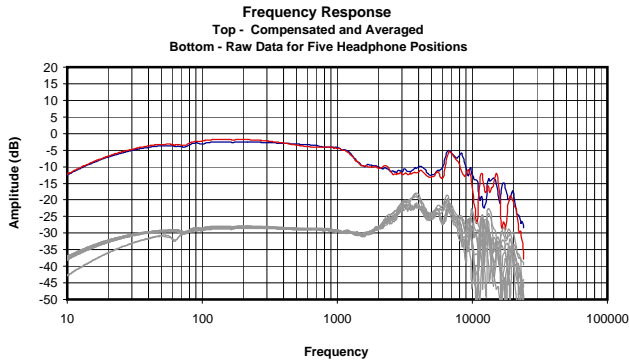
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

5.863 Vrms
376 Ohms
91.52 mW
-5 dBr



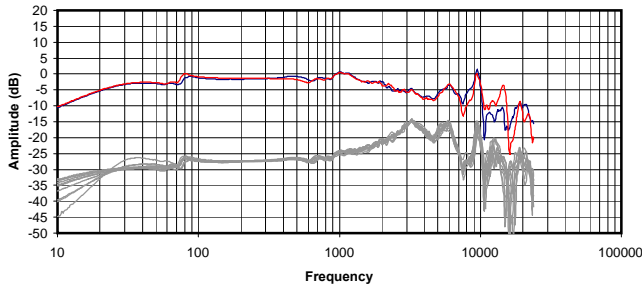


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

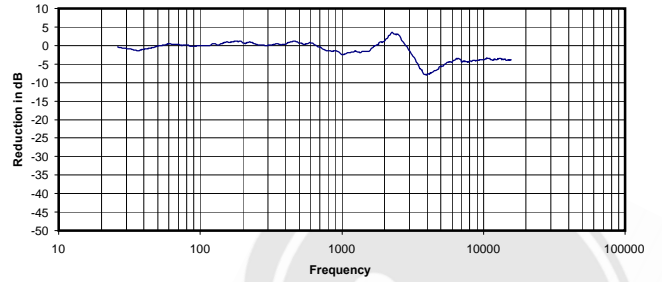
0.224 Vrms
375 Ohms
0.13 mW
-5 dBr



Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

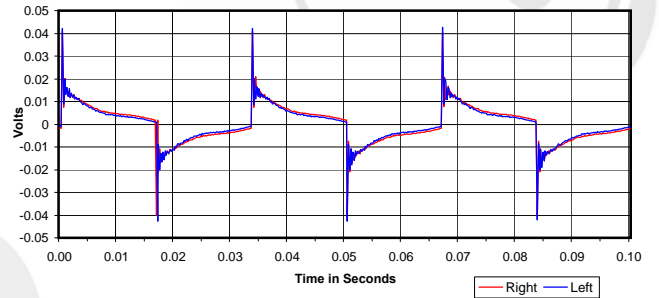


Isolation
 Attenuation of External Sound vs. Frequency

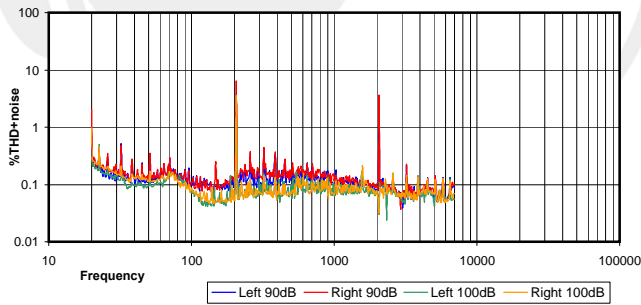


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

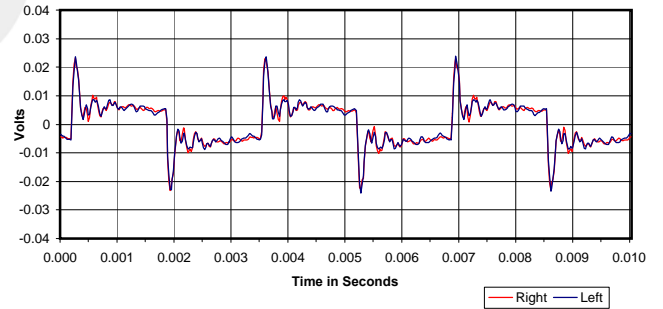
30 Hz Square Wave



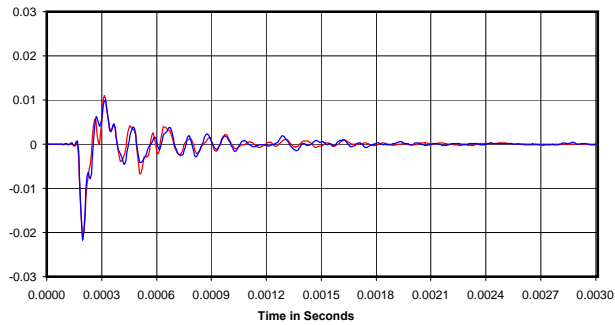
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



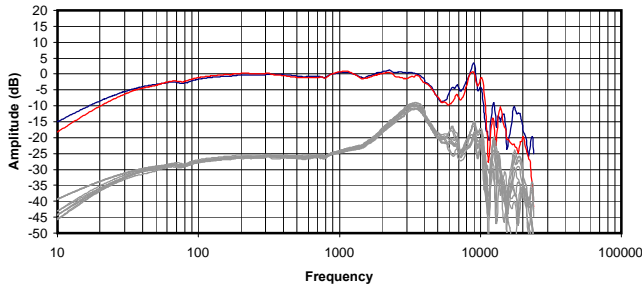
Impulse Response



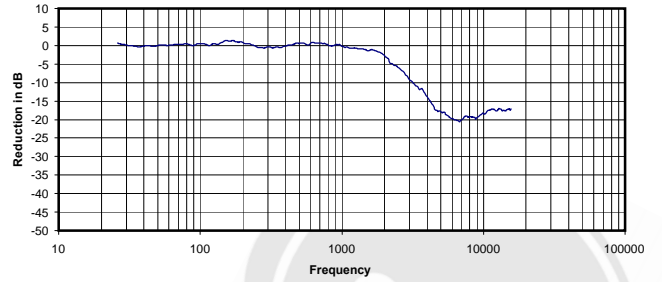
Broadband Isolation in dB (100Hz to 10kHz):

-1 dB

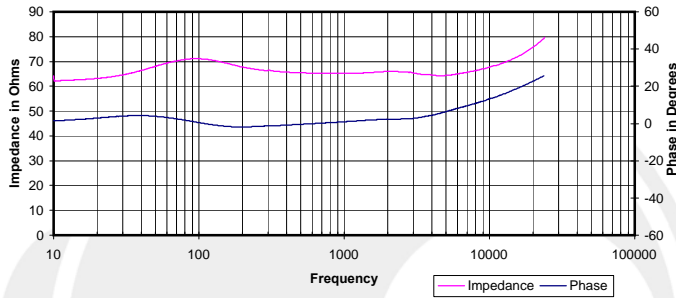
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



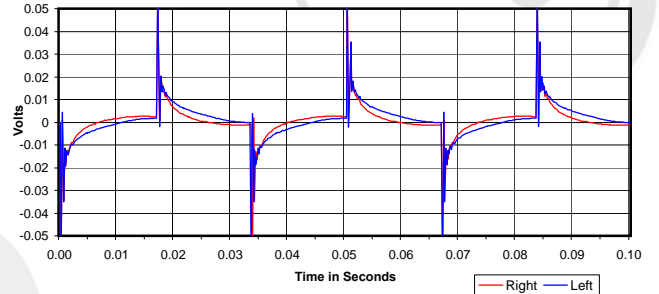
Isolation
 Attenuation of External Sound vs. Frequency



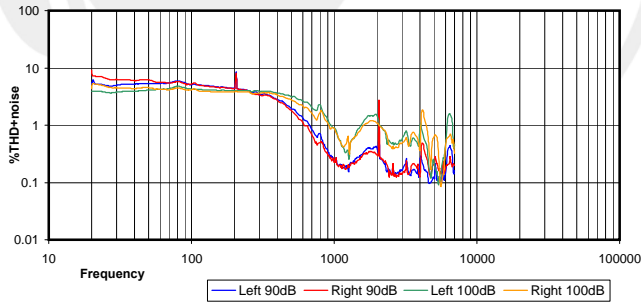
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



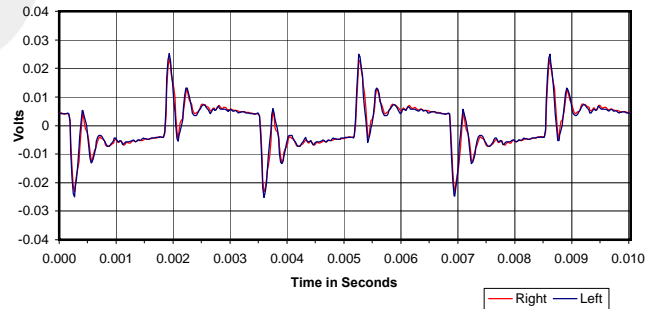
30 Hz Square Wave



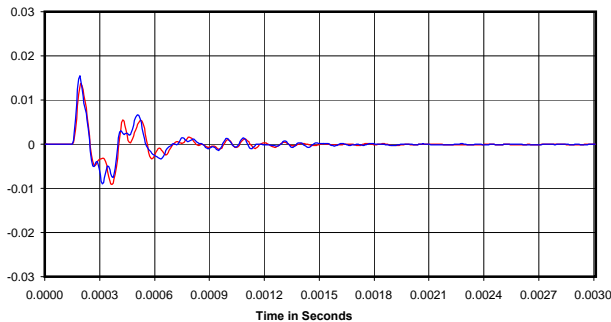
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

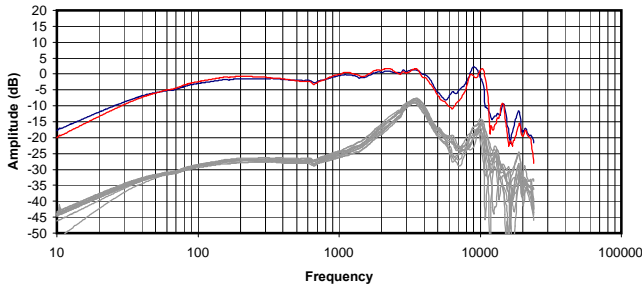


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

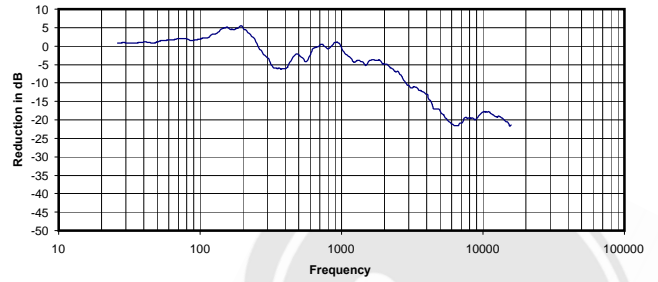
0.160 Vrms
 65 Ohms
 0.39 mW
 -3 dB



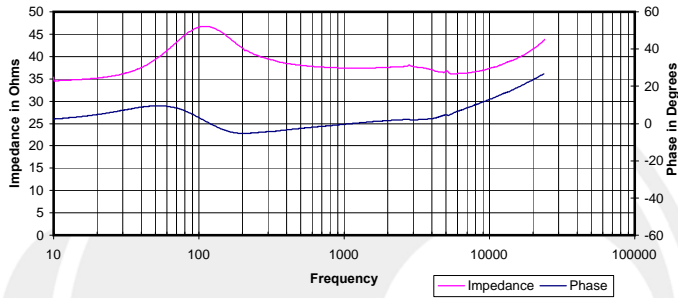
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



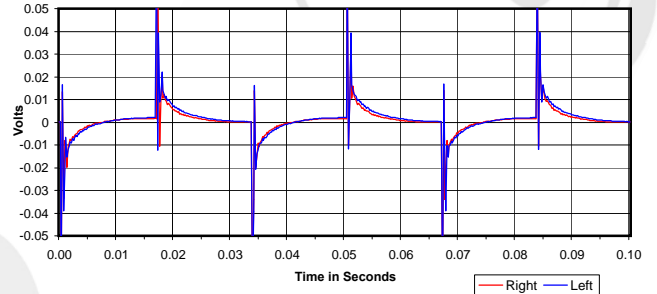
Isolation
 Attenuation of External Sound vs. Frequency



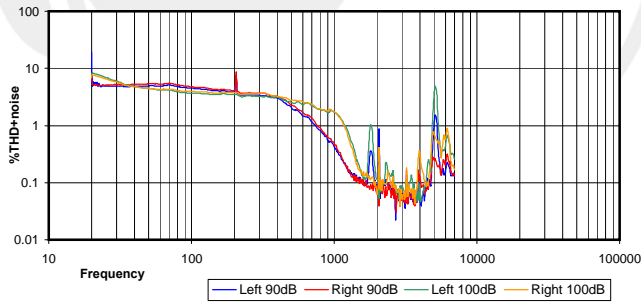
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



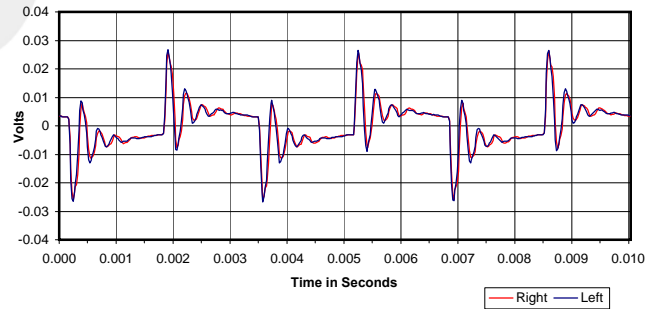
30 Hz Square Wave



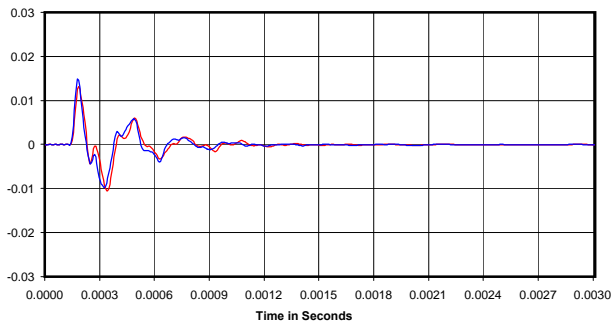
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



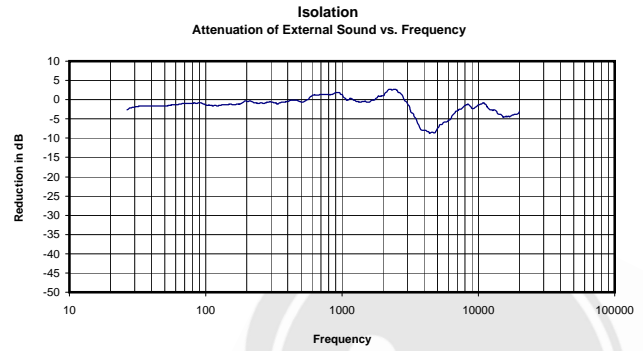
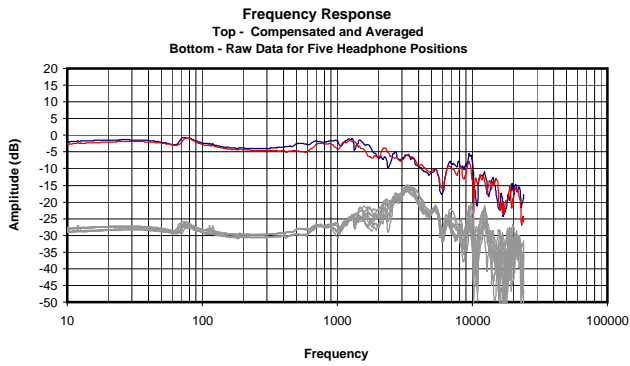
Impulse Response



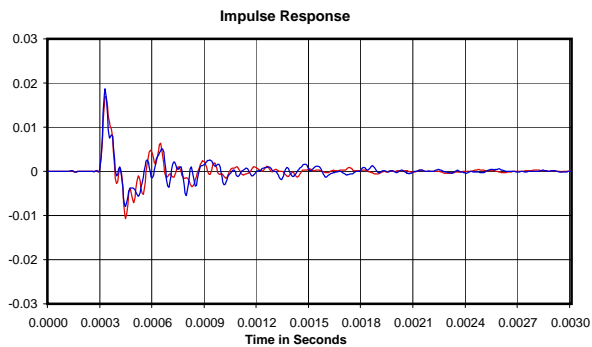
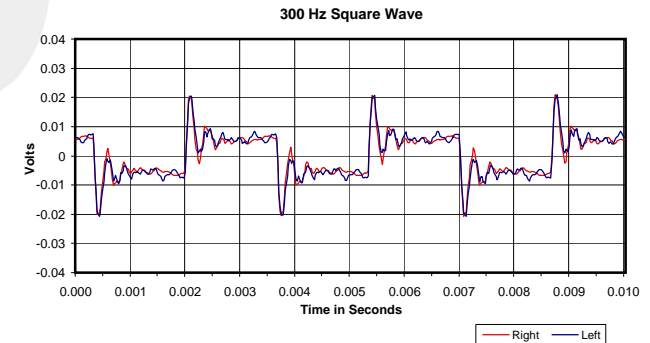
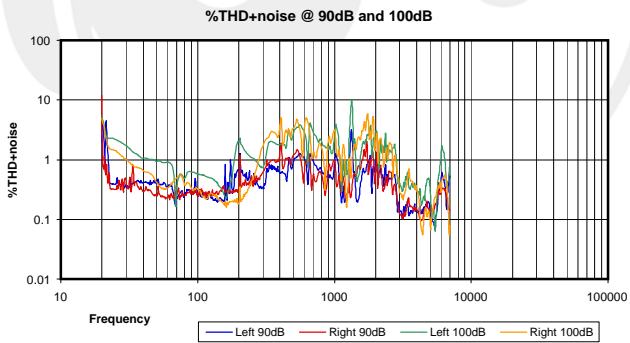
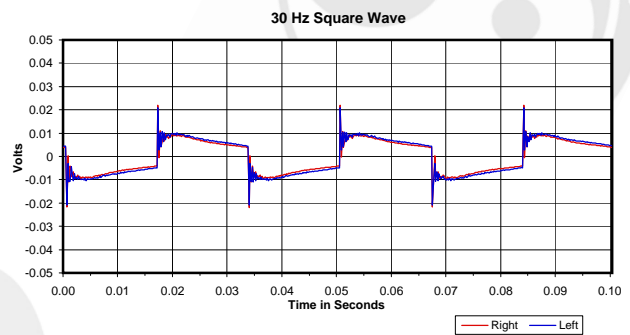
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.098 Vrms
 37 Ohms
 0.26 mW
 -4 dB



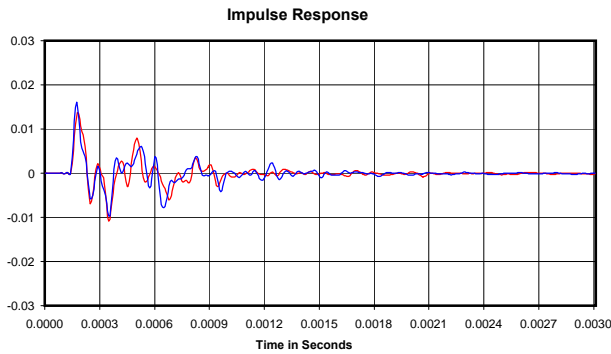
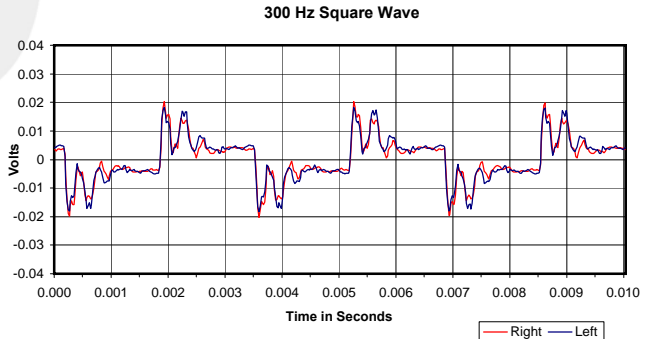
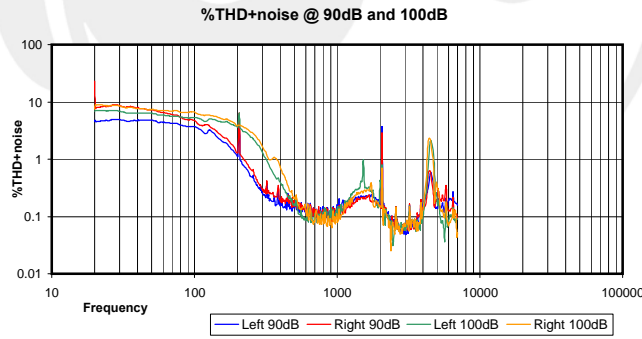
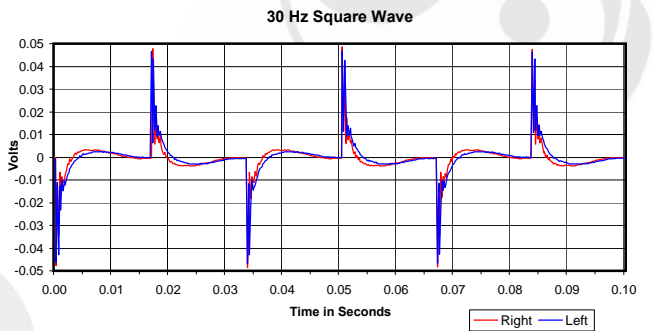
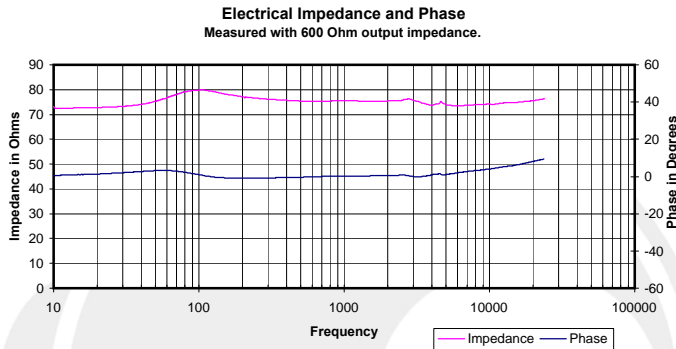
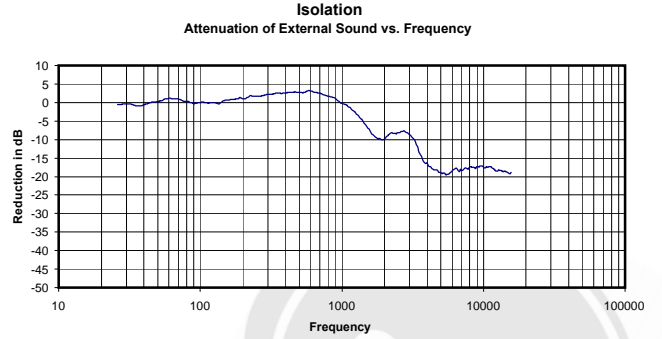
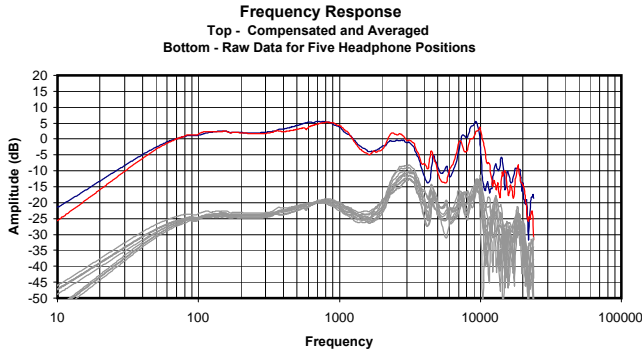


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones



Broadband Isolation in dB (100Hz to 10kHz):

-1 dBr

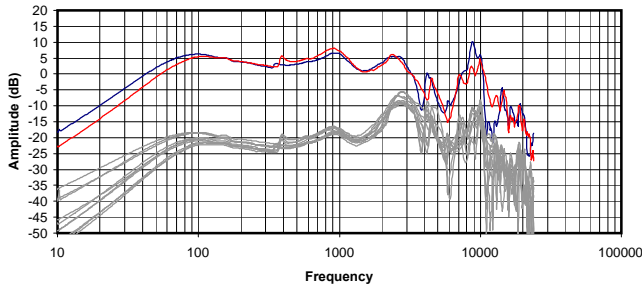


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

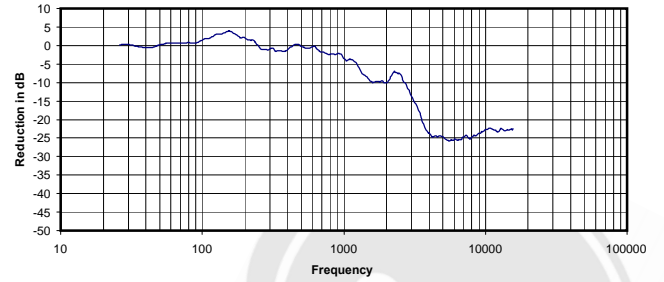
0.093 Vrms
76 Ohms
0.11 mW
-4 dBr



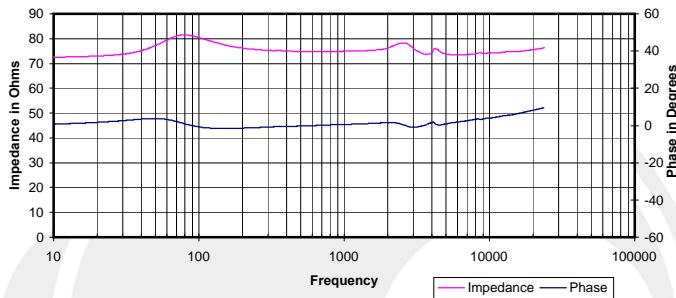
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



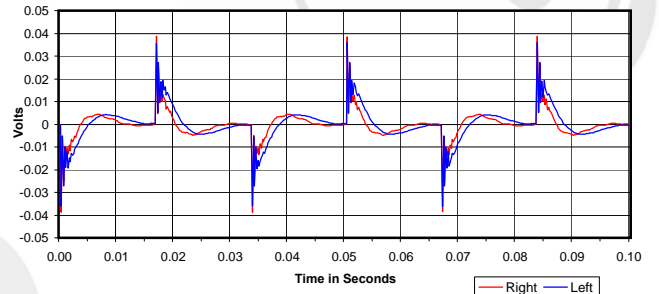
Isolation
 Attenuation of External Sound vs. Frequency



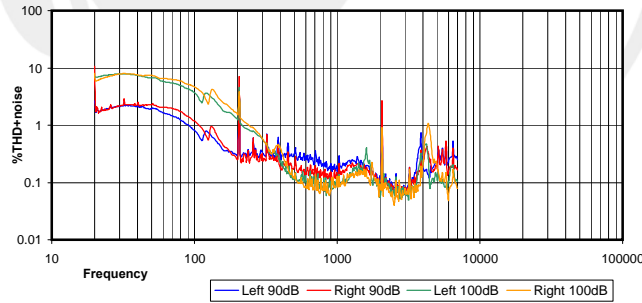
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



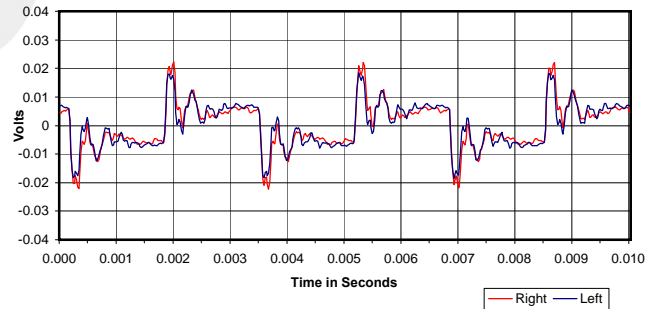
30 Hz Square Wave



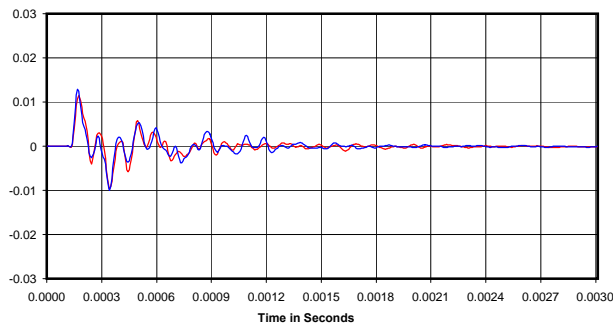
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

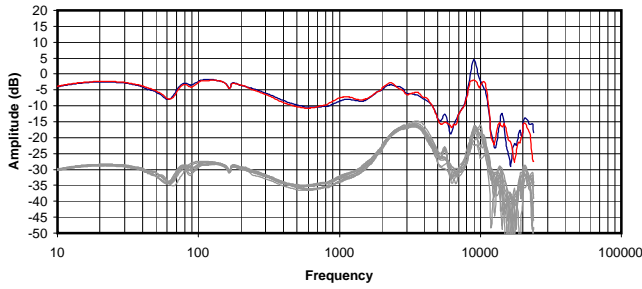


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

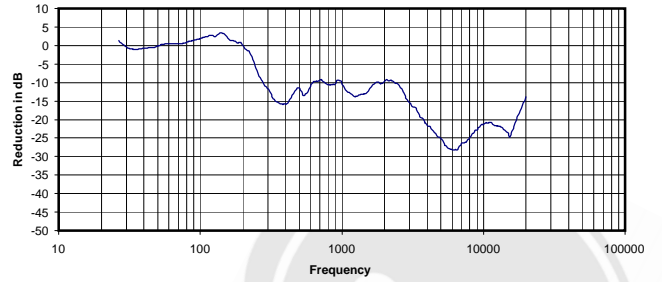
0.080 Vrms
 75 Ohms
 0.09 mW
 -6 dBr



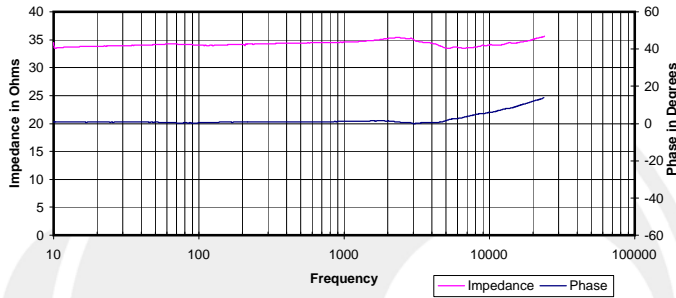
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



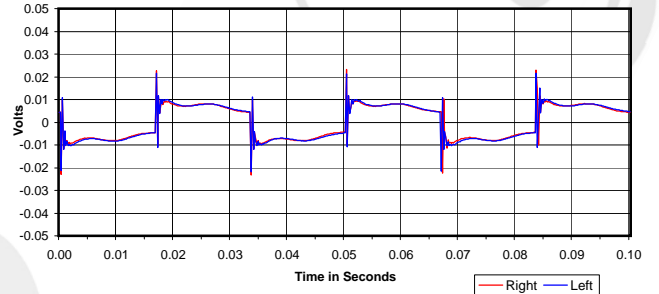
Isolation
Attenuation of External Sound vs. Frequency



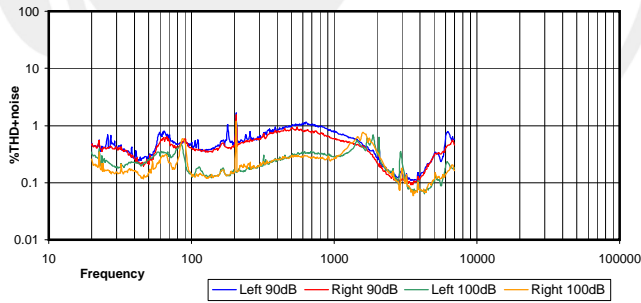
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



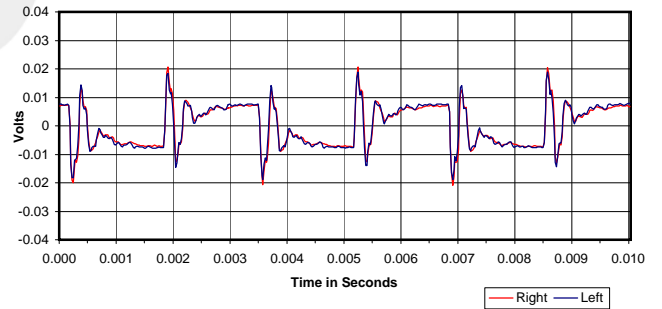
30 Hz Square Wave



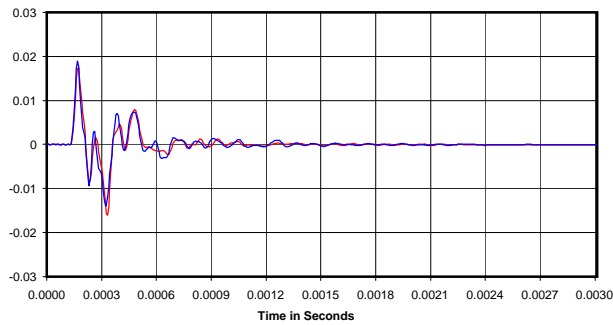
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



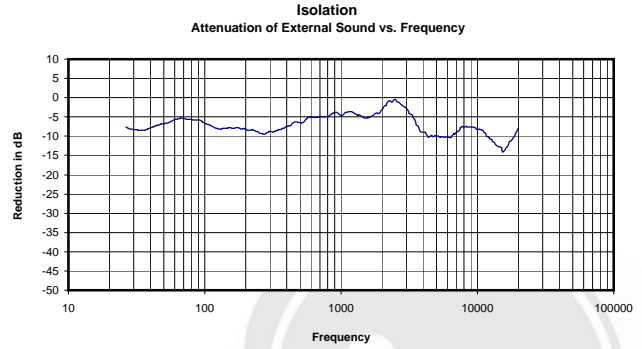
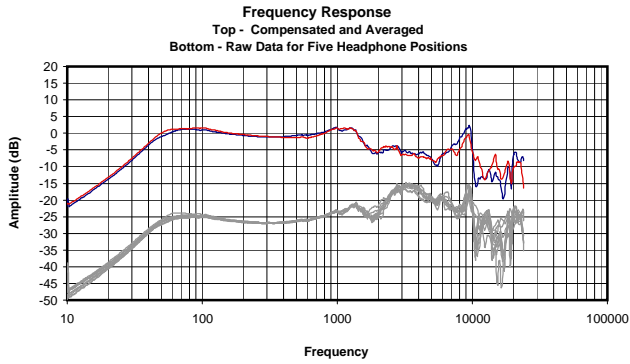
Impulse Response



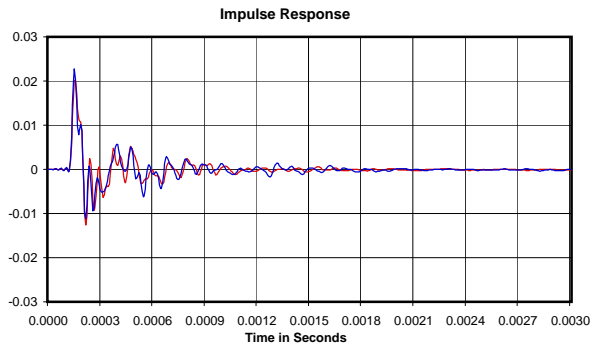
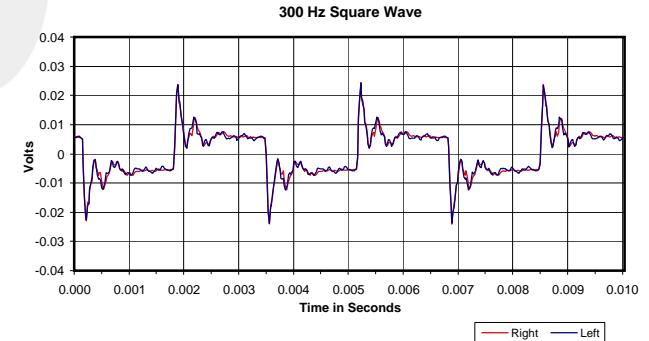
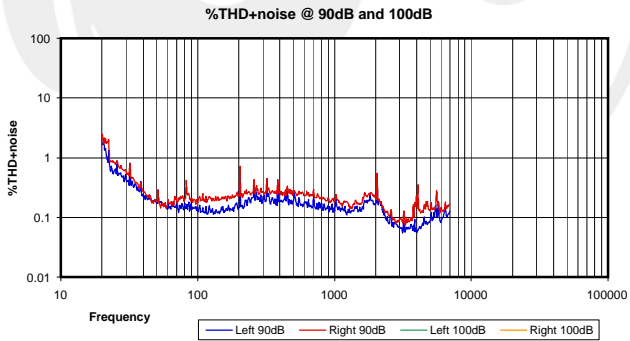
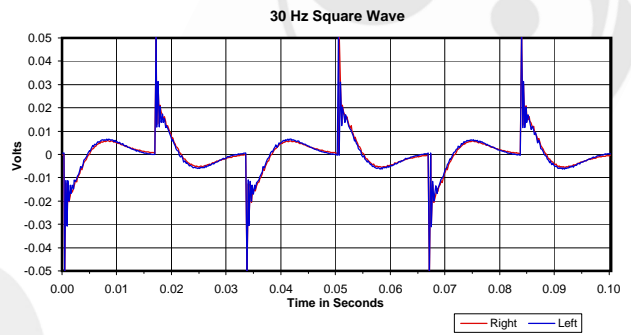
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.110 Vrms
35 Ohms
0.35 mW
-12 dB





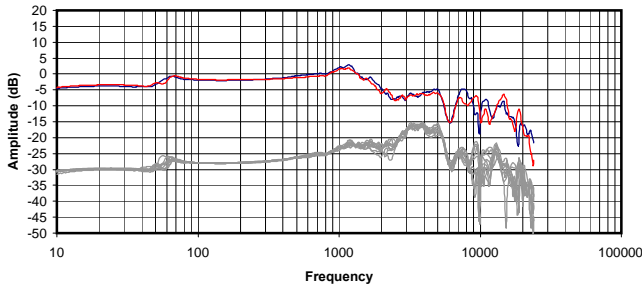
Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones



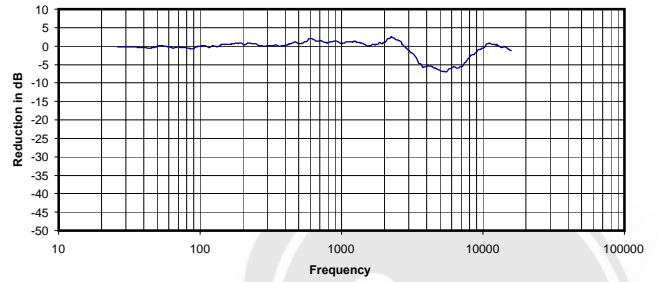
Broadband Isolation in dB (100Hz to 10kHz):

-7 dBr

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

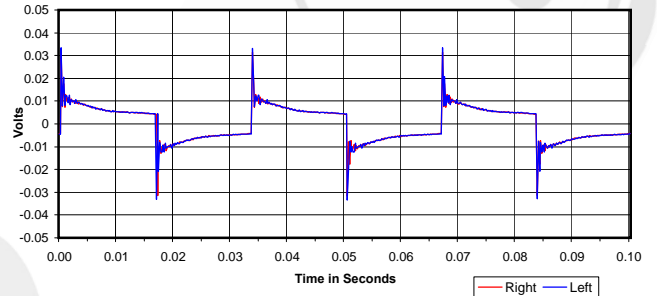


Isolation
 Attenuation of External Sound vs. Frequency

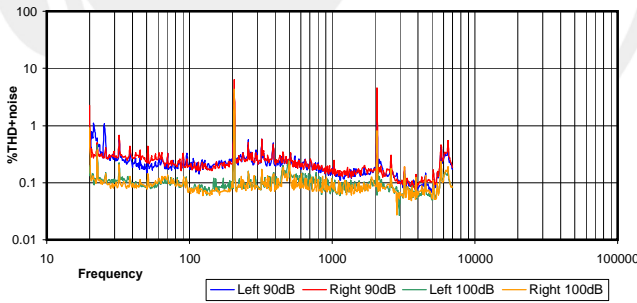


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

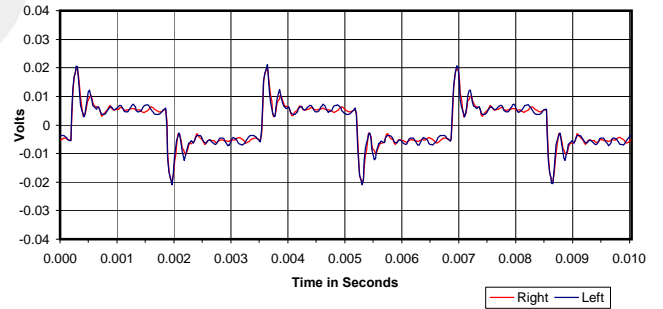
30 Hz Square Wave



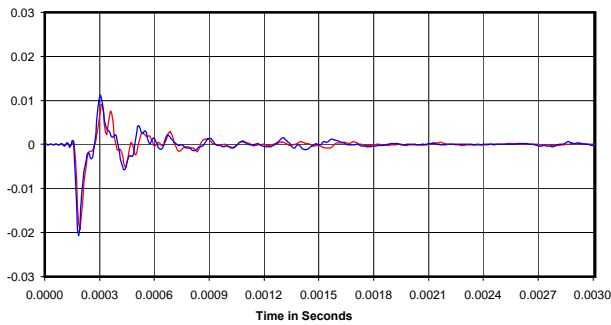
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

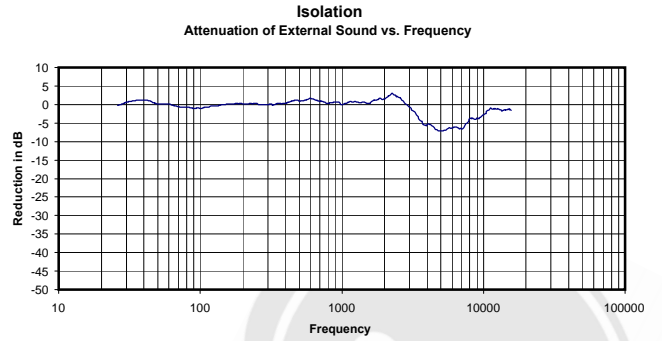
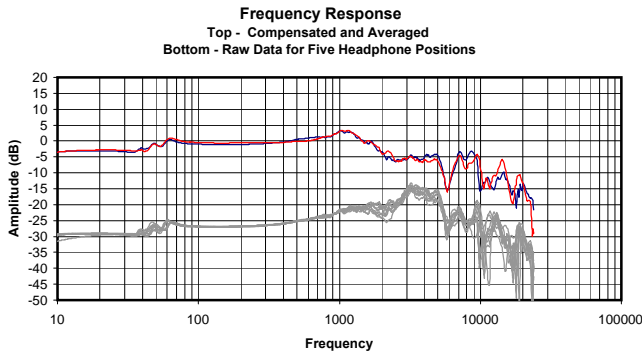


Impulse Response

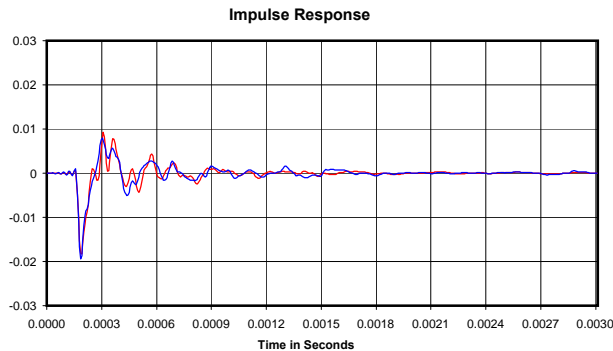
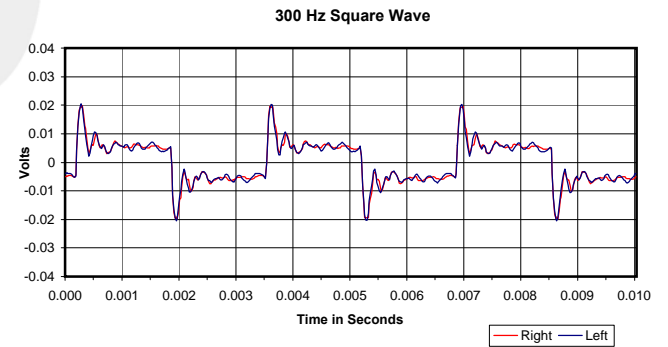
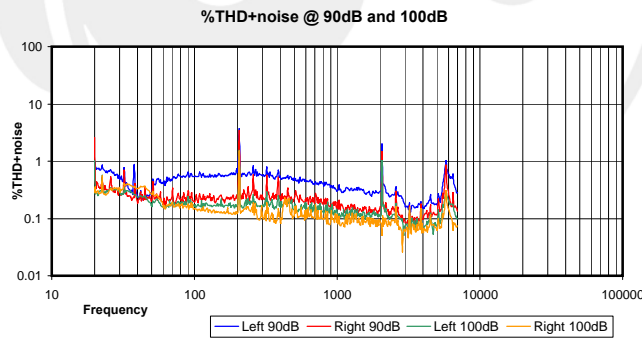
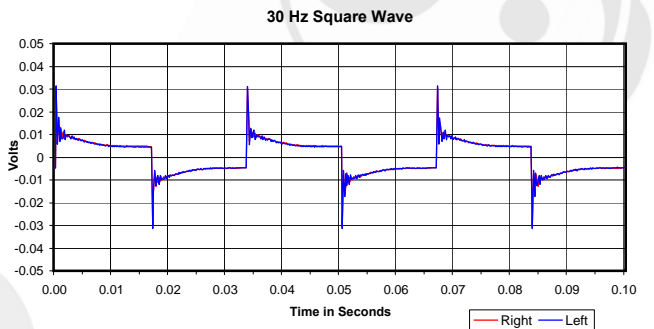


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.000 Vrms
 #DIV/0! Ohms
 #DIV/0! mW
 0 dBr



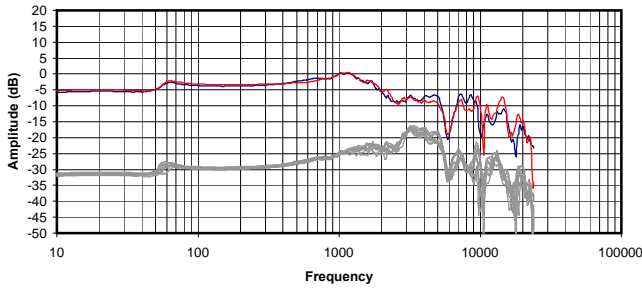
Electrical Impedance and phase measurements unavailable for Electrostatic headphones.



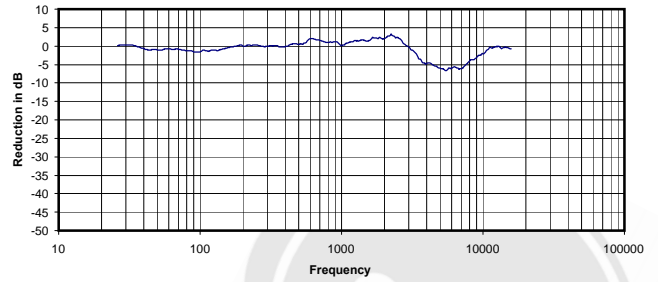
Broadband Isolation in dB (100Hz to 10kHz):

-1 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

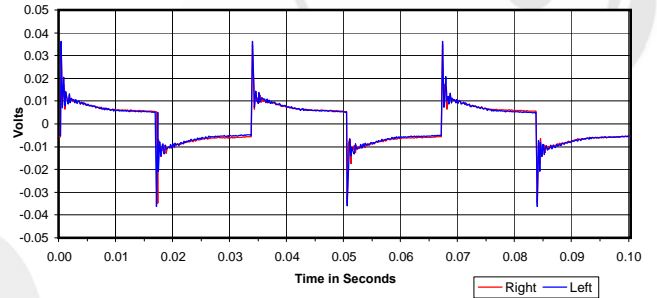


Isolation
 Attenuation of External Sound vs. Frequency

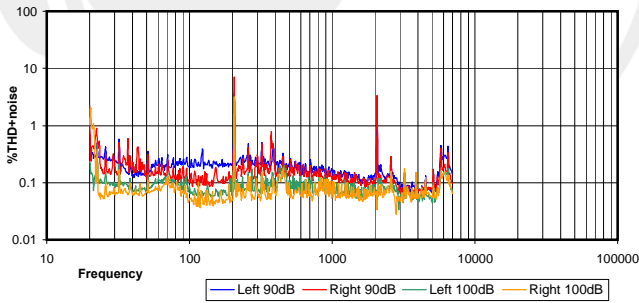


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

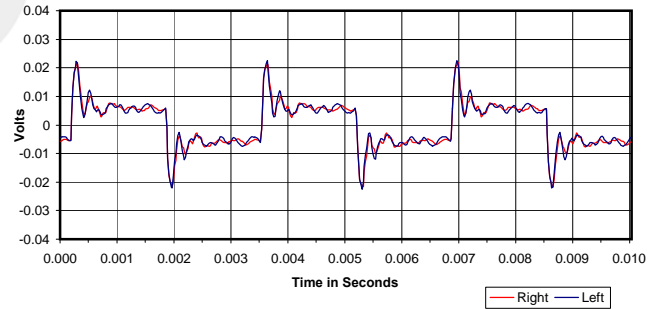
30 Hz Square Wave



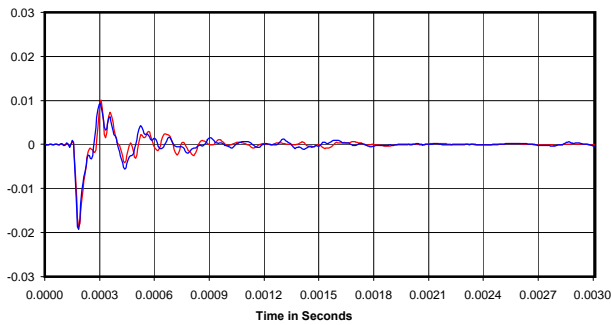
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



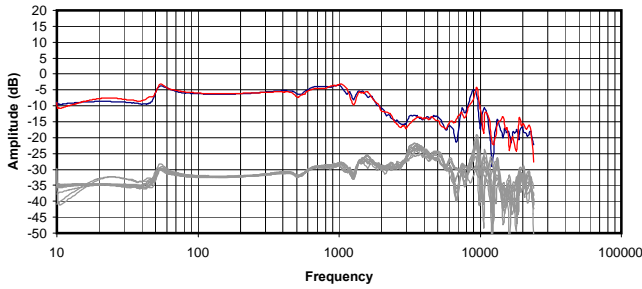
Impulse Response



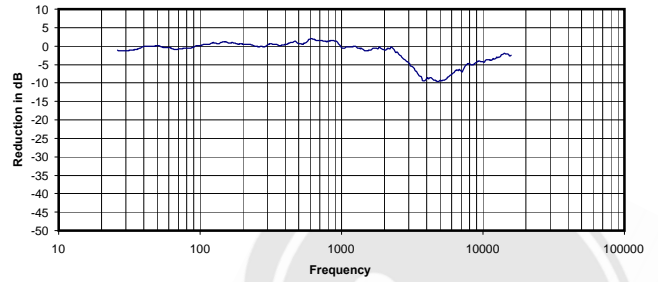
Broadband Isolation in dB (100Hz to 10kHz):

0 dBr

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

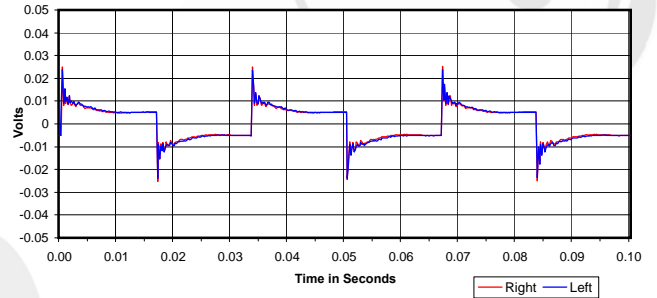


Isolation
 Attenuation of External Sound vs. Frequency

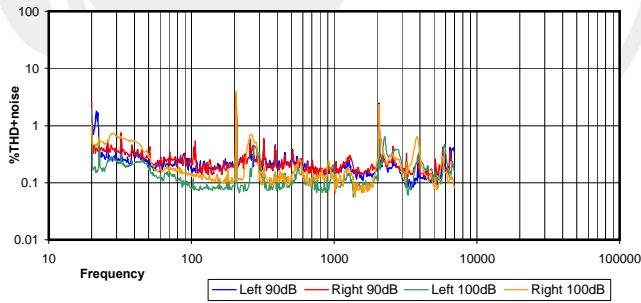


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

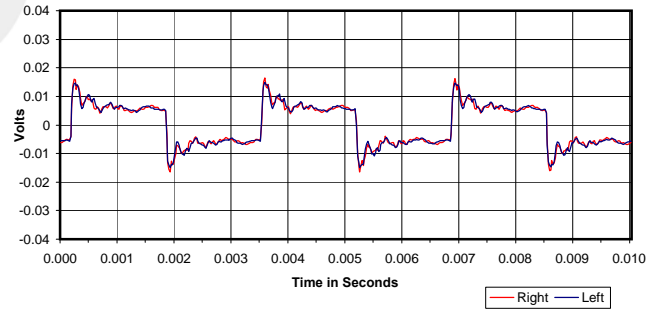
30 Hz Square Wave



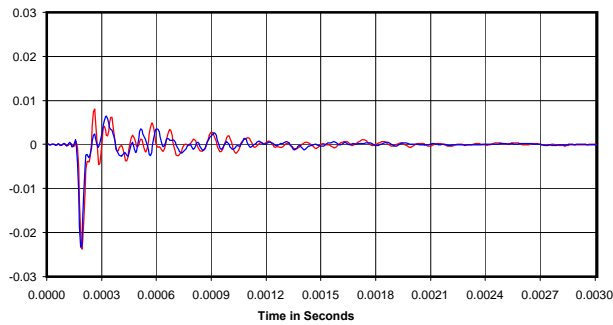
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



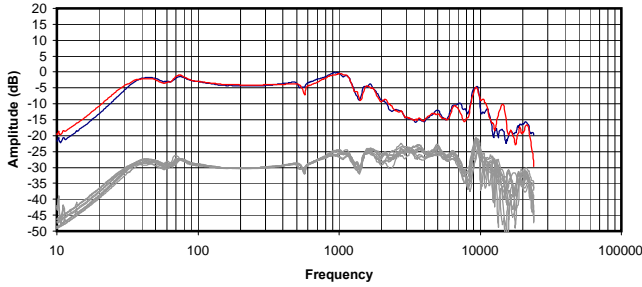
Impulse Response



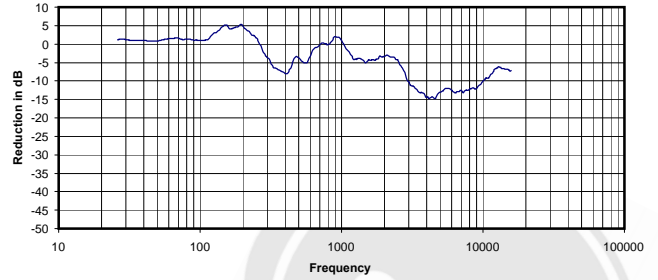
Broadband Isolation in dB (100Hz to 10kHz):

-1 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

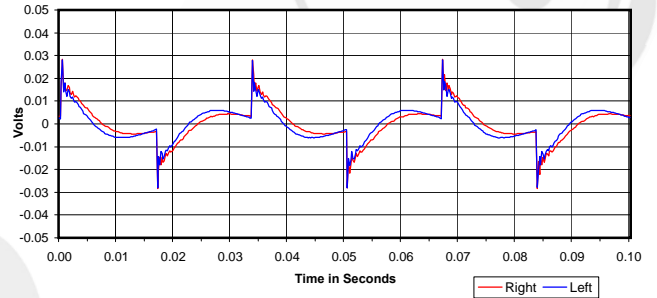


Isolation
 Attenuation of External Sound vs. Frequency

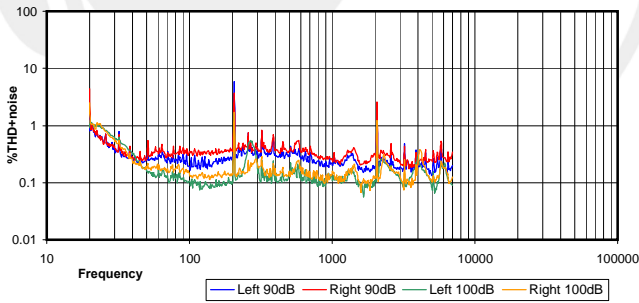


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

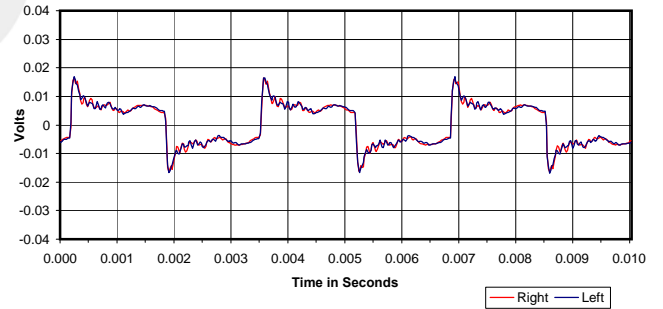
30 Hz Square Wave



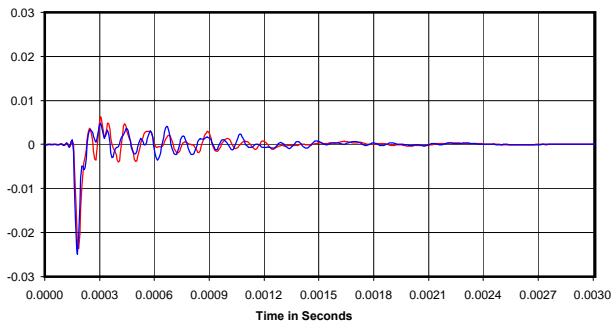
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



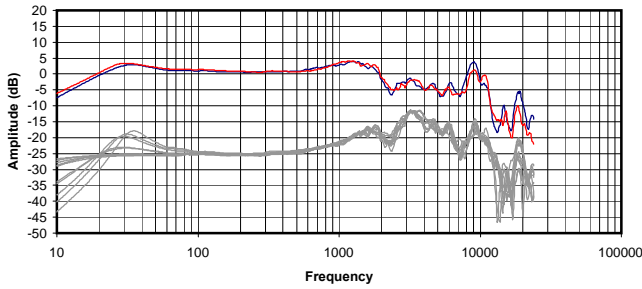
Impulse Response



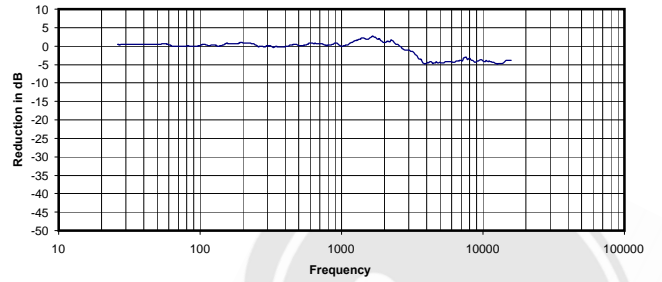
Broadband Isolation in dB (100Hz to 10kHz):

-4 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

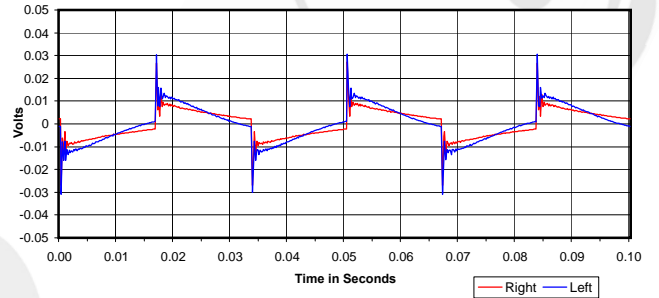


Isolation
 Attenuation of External Sound vs. Frequency

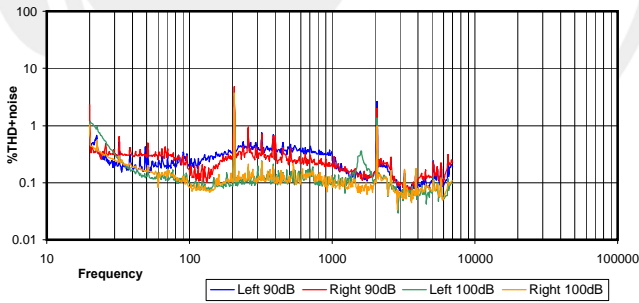


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

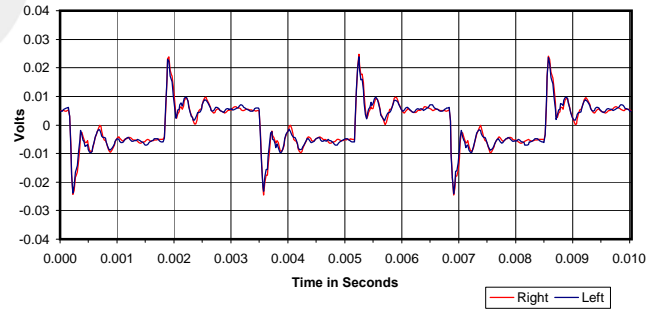
30 Hz Square Wave



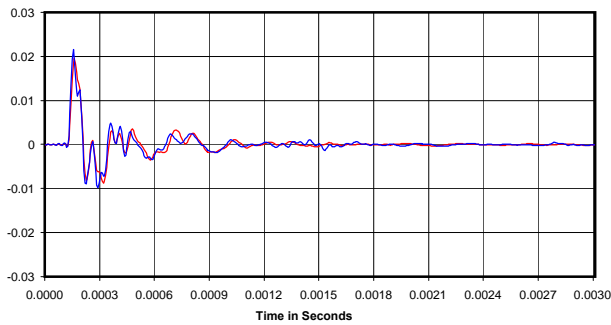
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



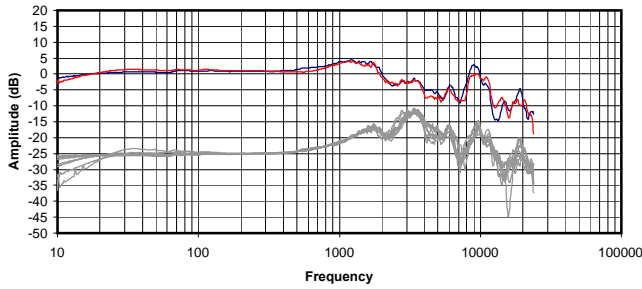
Impulse Response



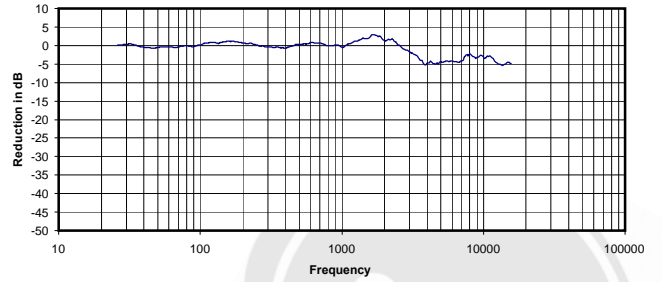
Broadband Isolation in dB (100Hz to 10kHz):

0 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

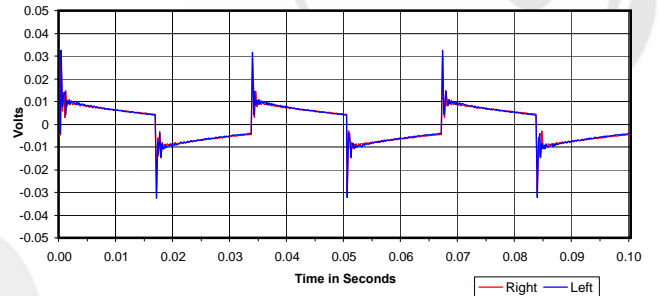


Isolation
 Attenuation of External Sound vs. Frequency

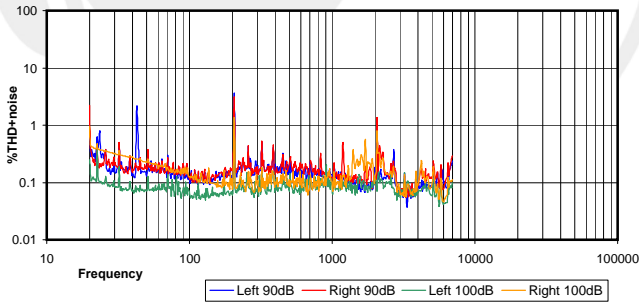


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

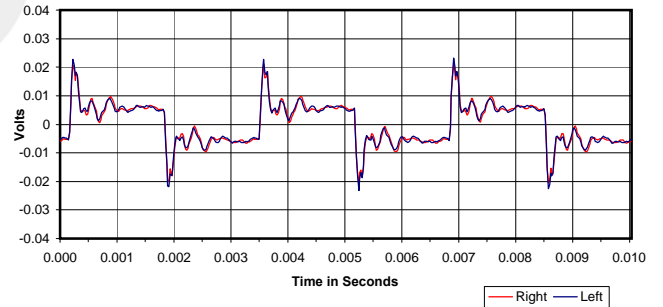
30 Hz Square Wave



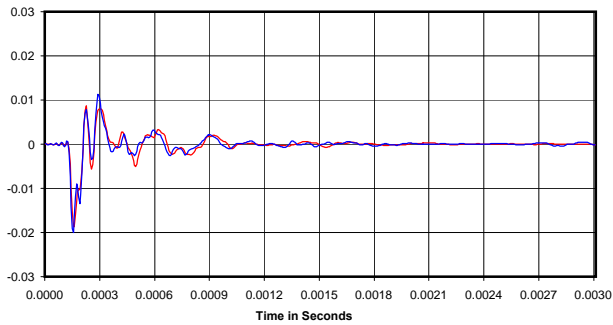
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



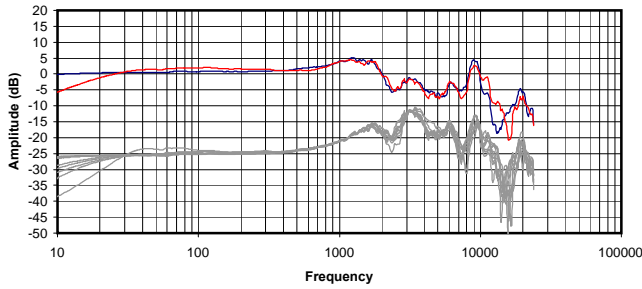
Impulse Response



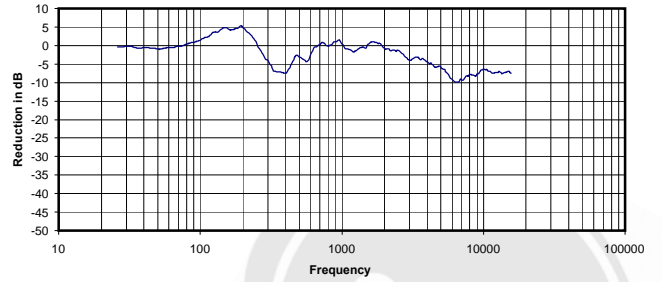
Broadband Isolation in dB (100Hz to 10kHz):

0 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

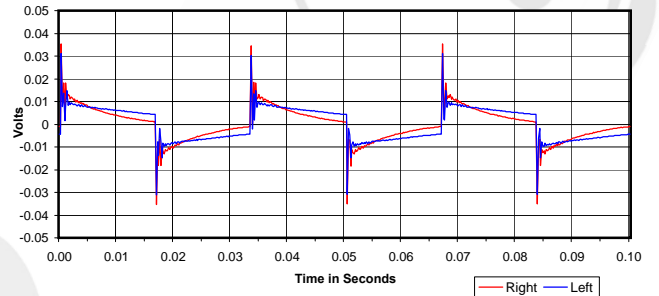


Isolation
 Attenuation of External Sound vs. Frequency

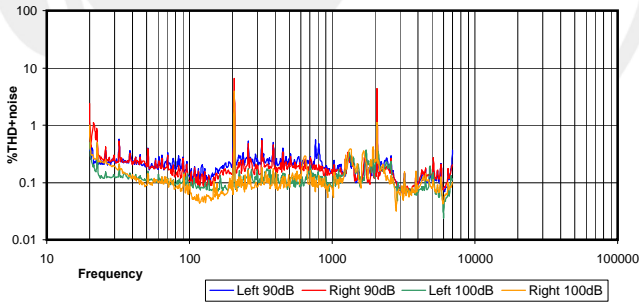


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

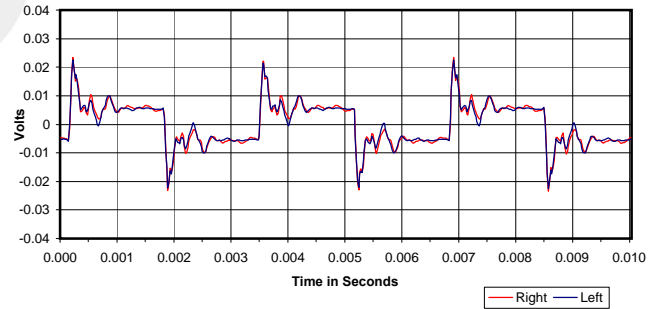
30 Hz Square Wave



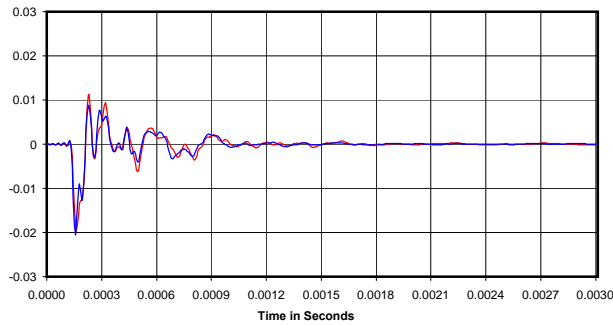
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



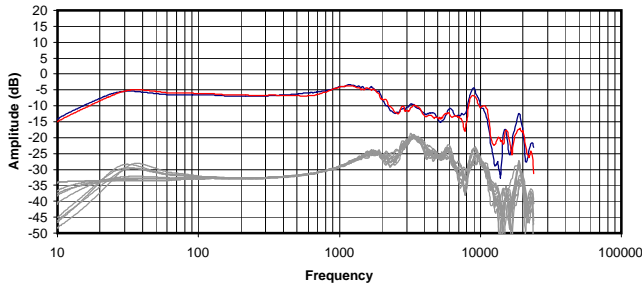
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

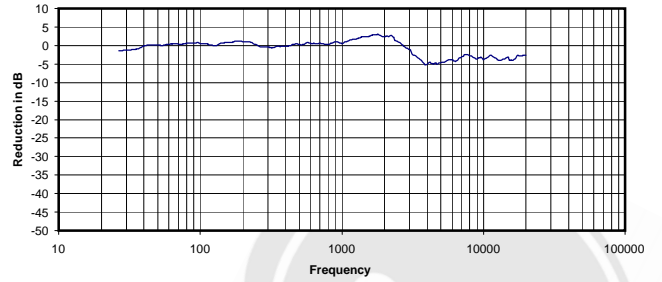
-1 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

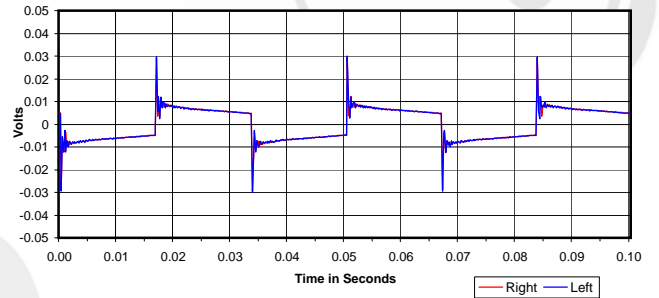


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

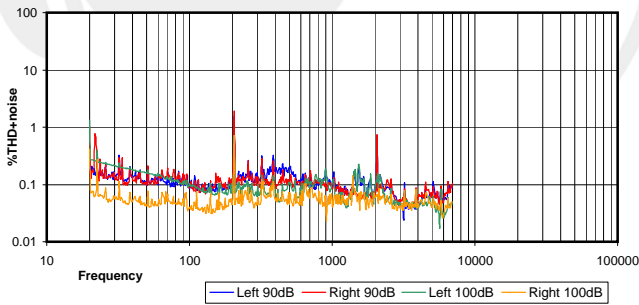
Isolation
 Attenuation of External Sound vs. Frequency



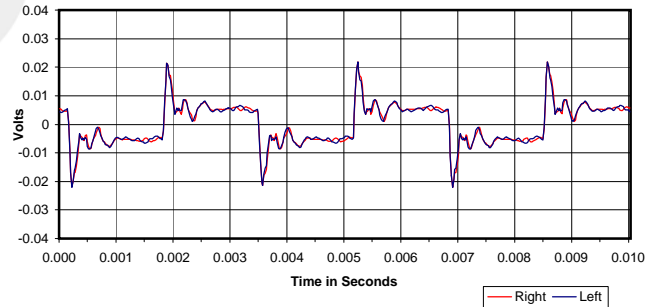
30 Hz Square Wave



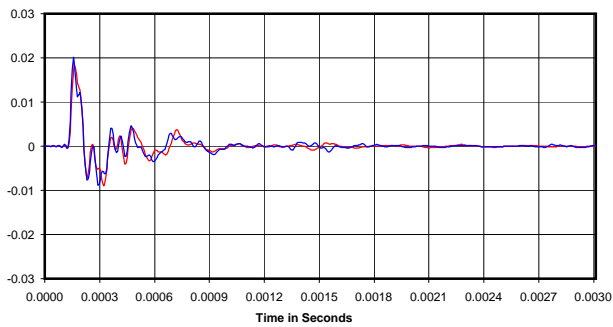
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



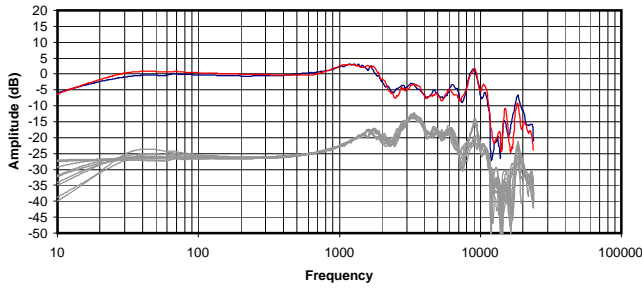
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

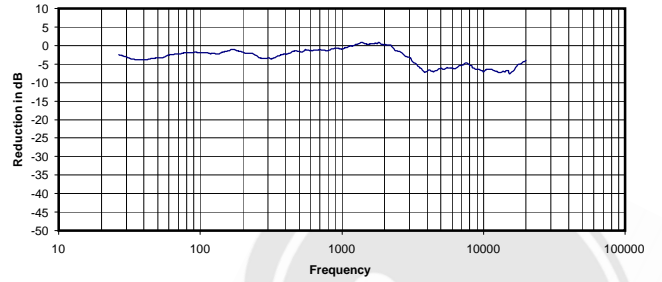
0 dBr

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

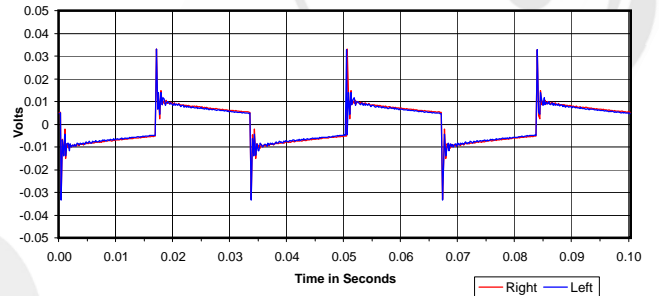


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

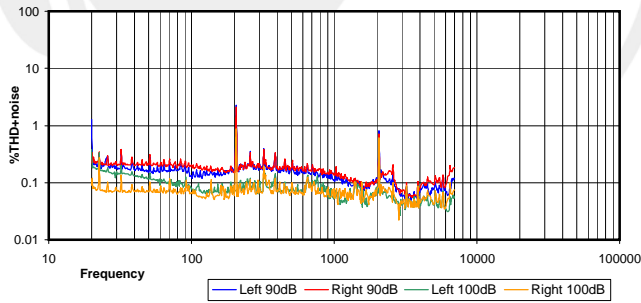
Isolation
Attenuation of External Sound vs. Frequency



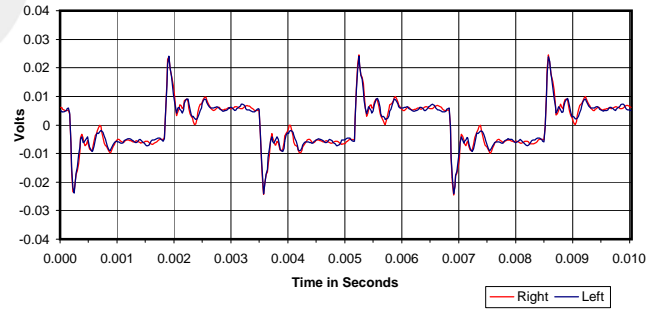
30 Hz Square Wave



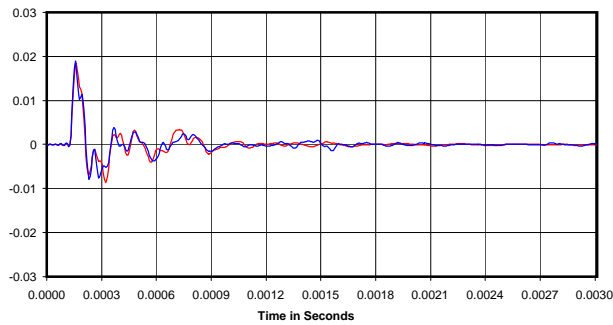
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

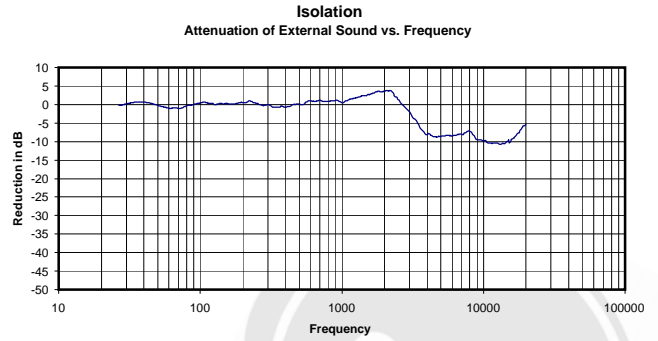
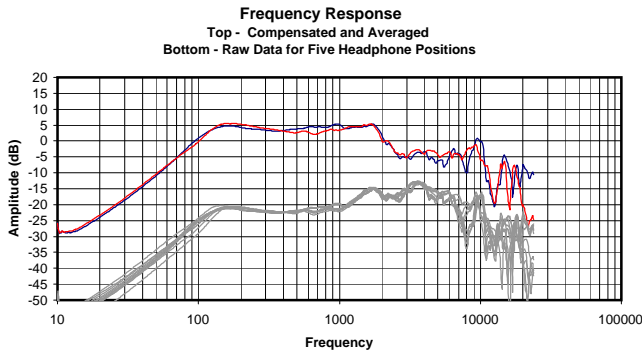


Impulse Response

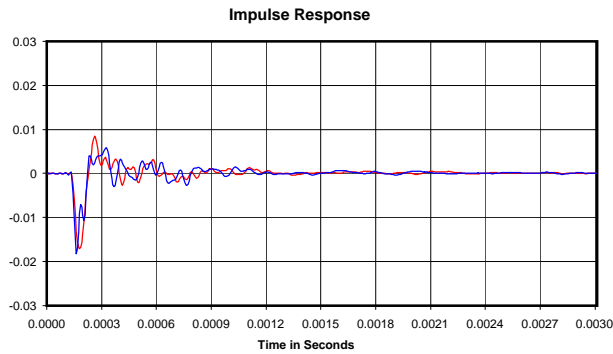
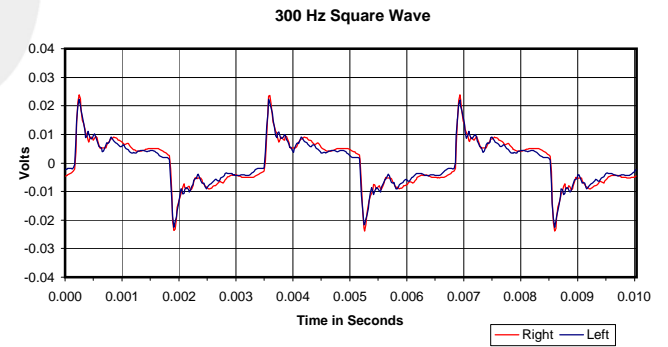
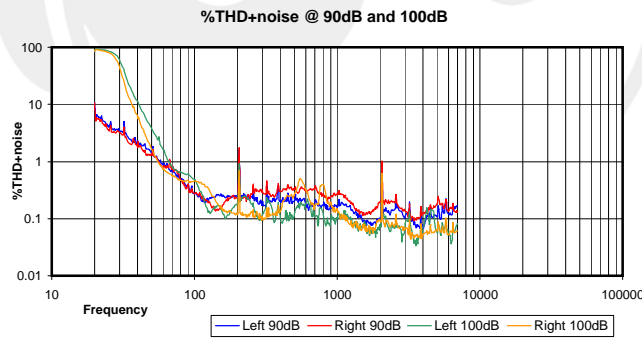
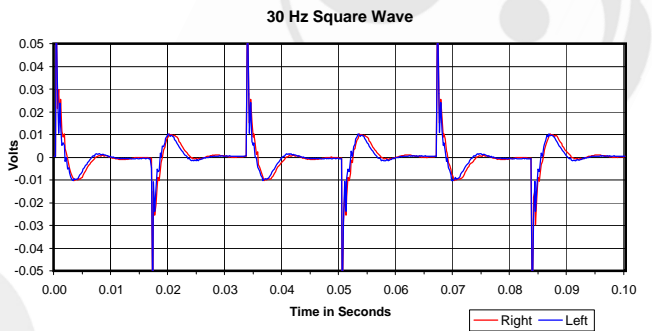


Broadband Isolation in dB (100Hz to 10kHz):

-3 dB

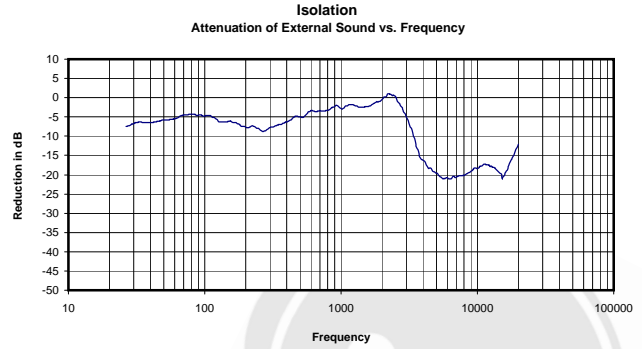
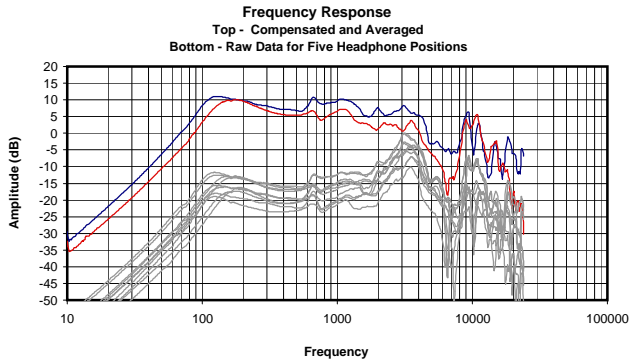


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

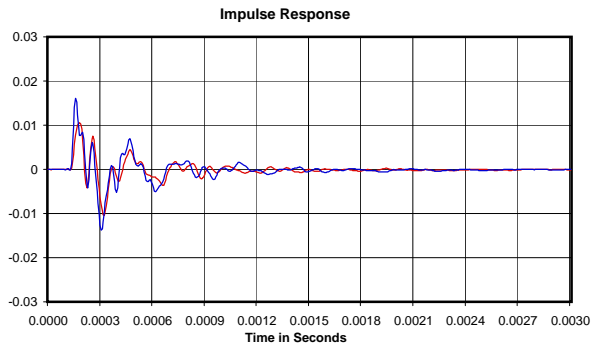
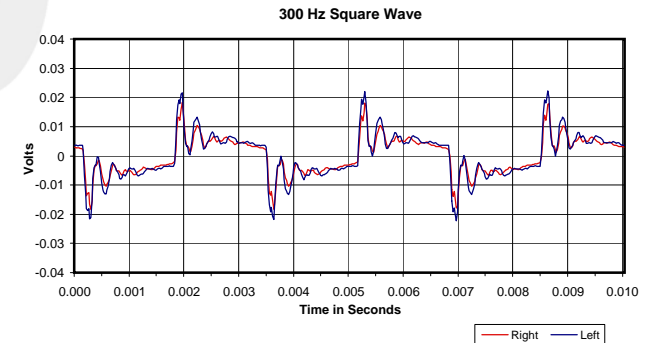
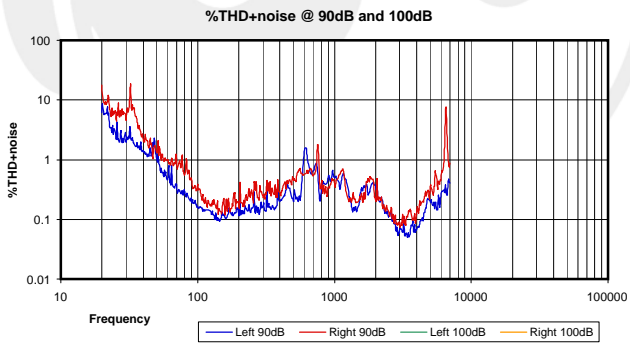
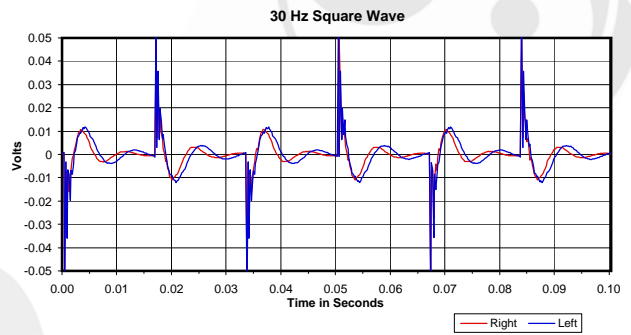


Broadband Isolation in dB (100Hz to 10kHz):

-1 dB

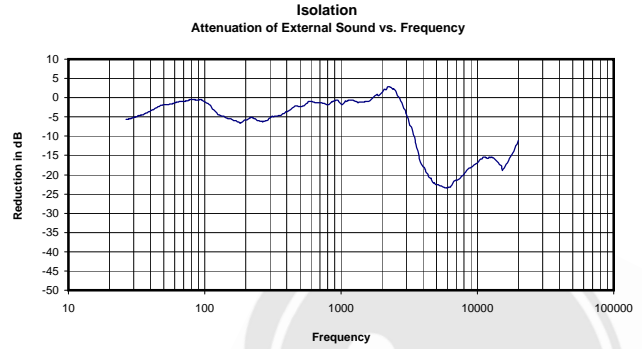
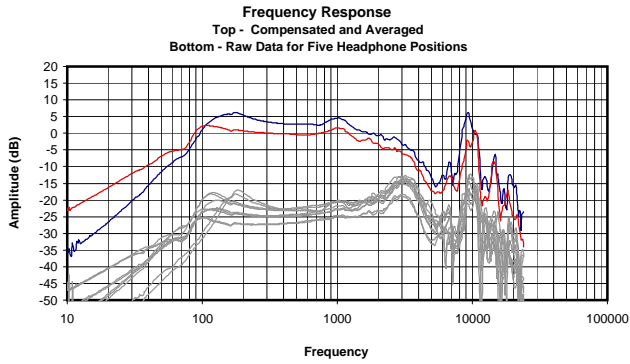


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

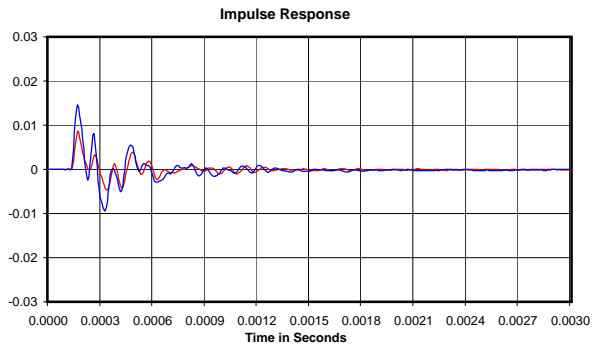
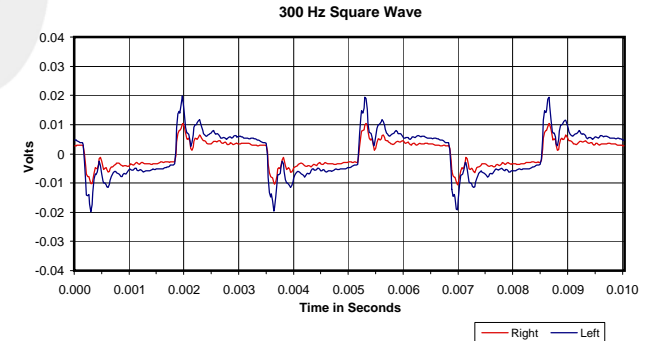
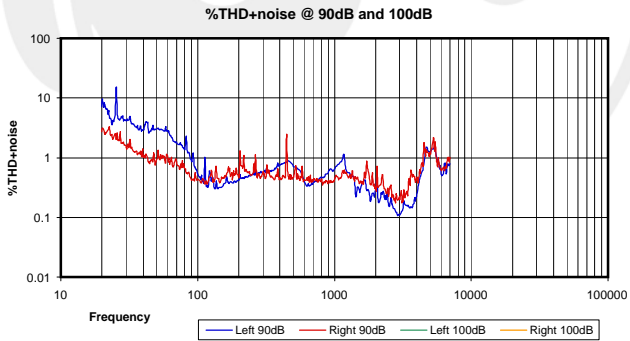
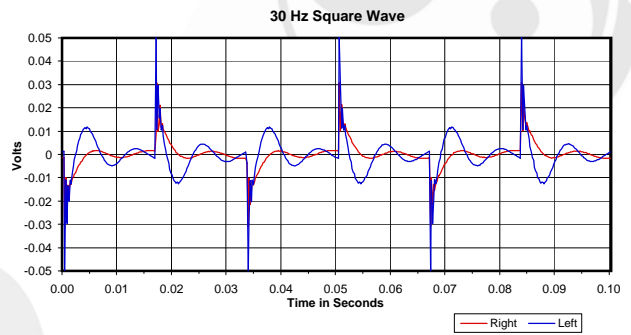


Broadband Isolation in dB (100Hz to 10kHz):

-8 dB

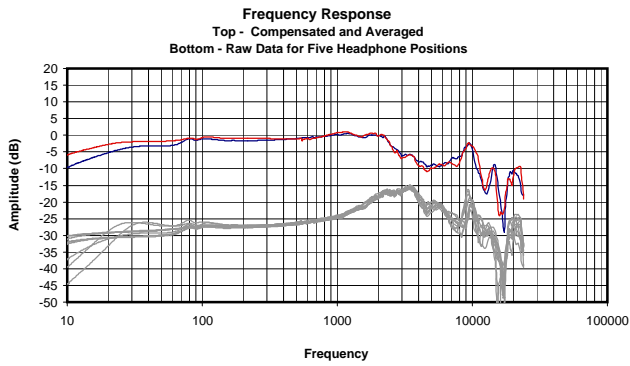


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

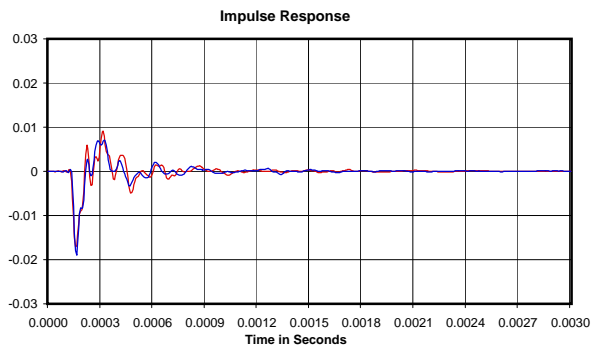
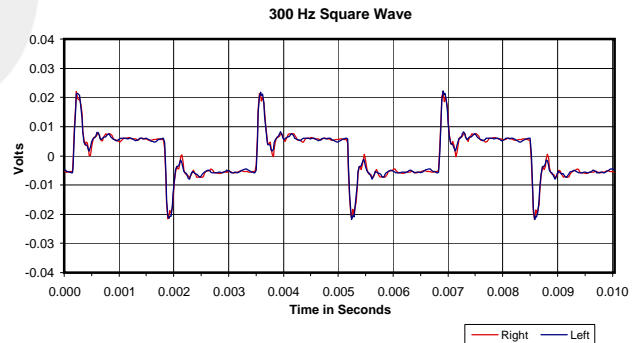
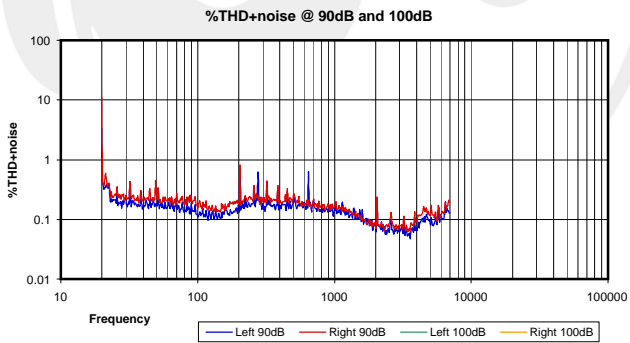
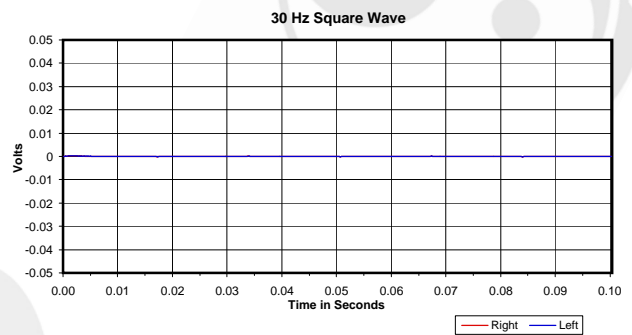
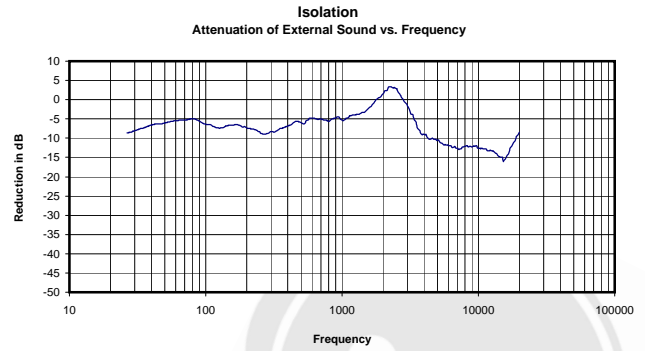


Broadband Isolation in dB (100Hz to 10kHz):

-7 dB

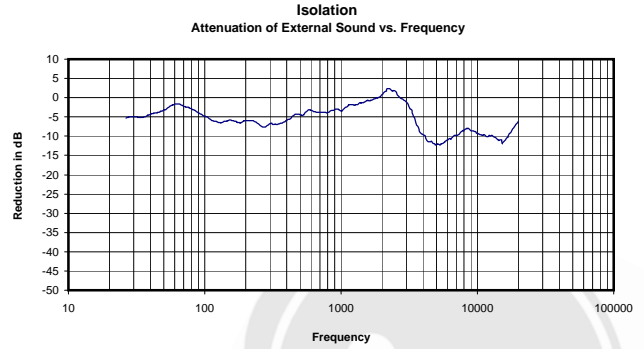
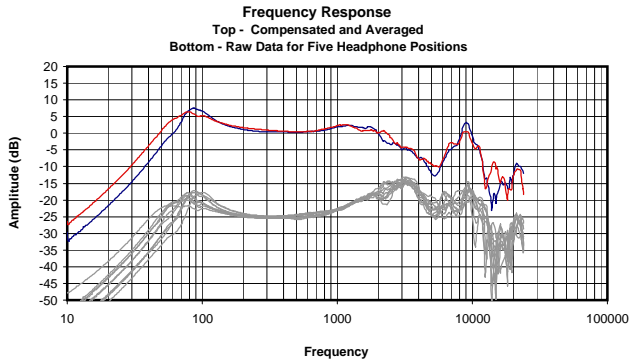


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

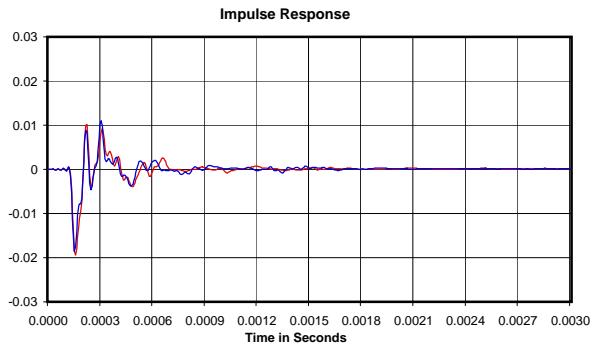
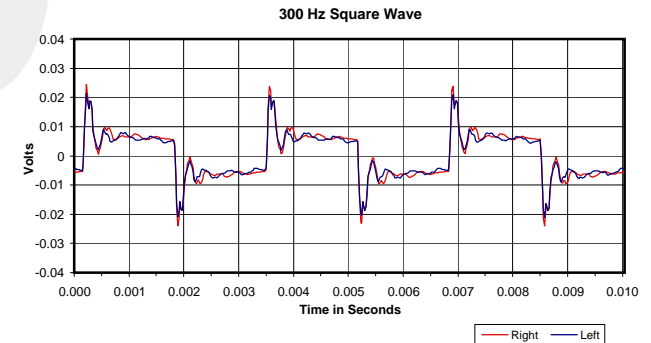
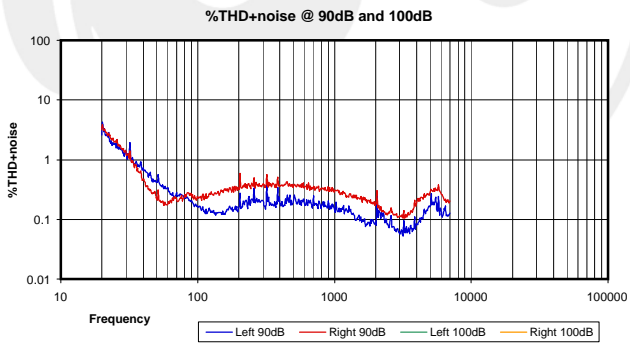
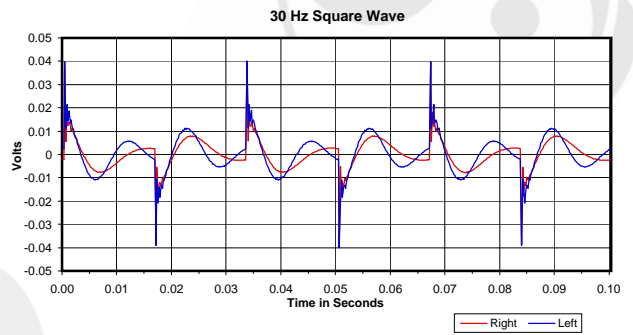


Broadband Isolation in dB (100Hz to 10kHz):

-6 dBr

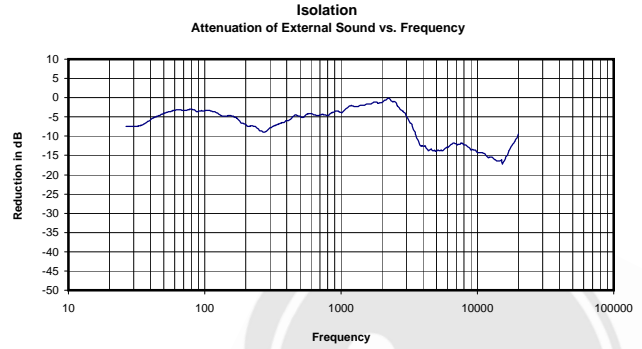
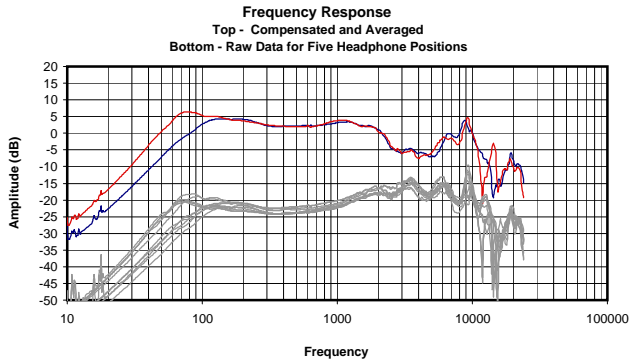


Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones

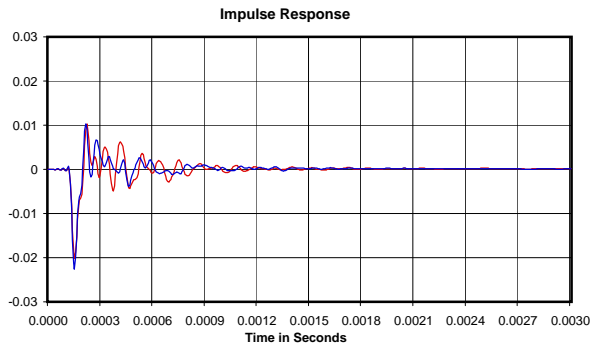
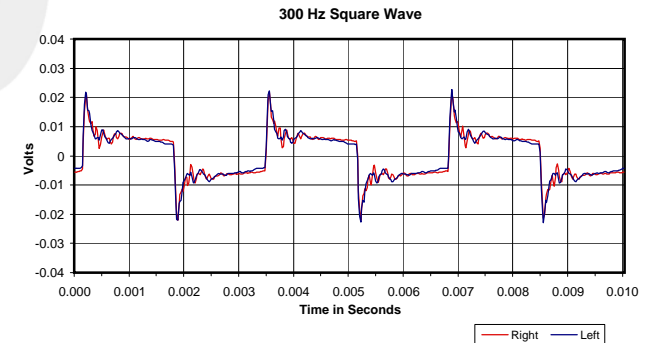
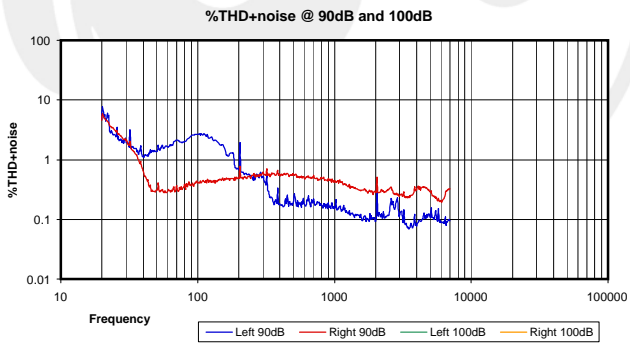
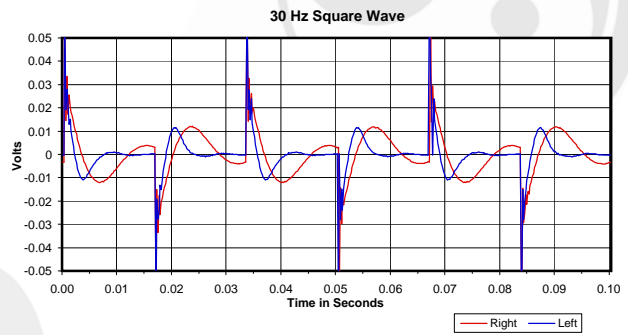


Broadband Isolation in dB (100Hz to 10kHz):

-5 dBr

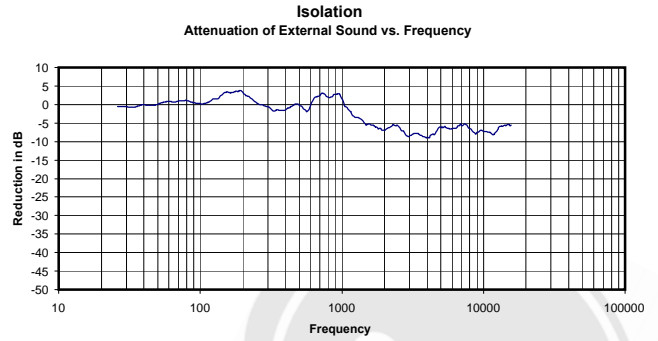
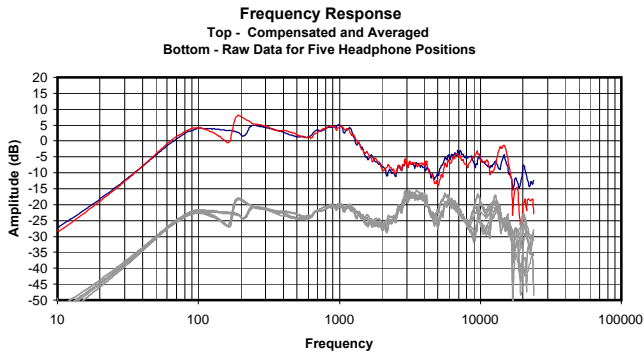


Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones

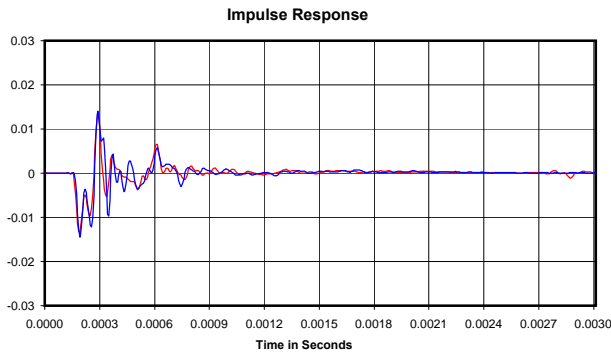
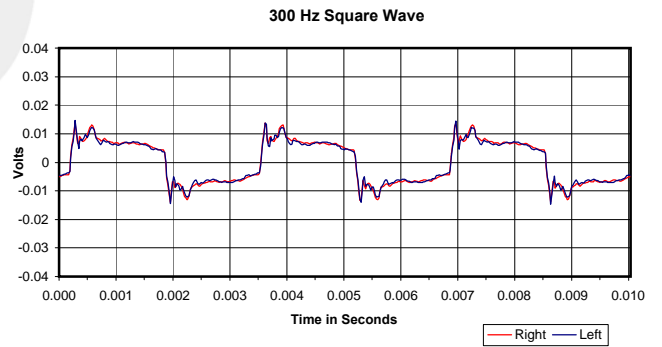
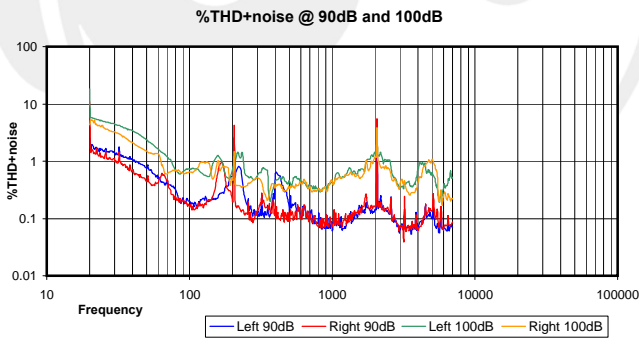
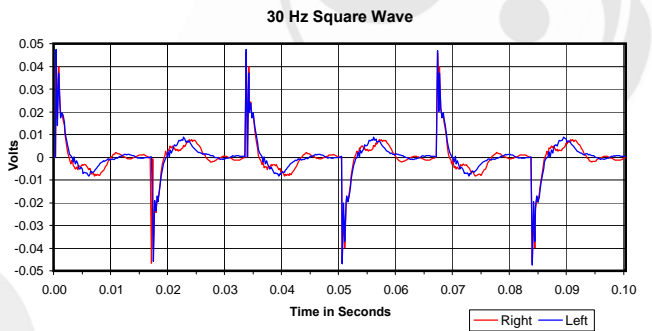


Broadband Isolation in dB (100Hz to 10kHz):

-6 dB

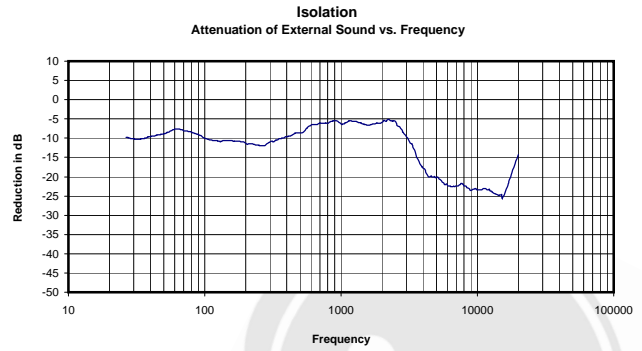
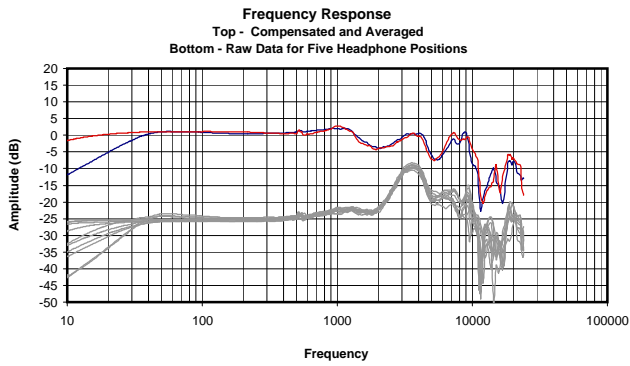


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

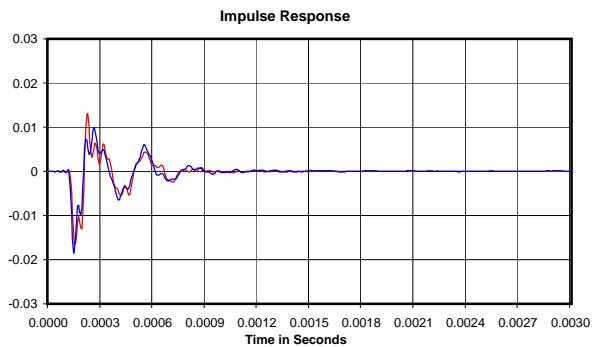
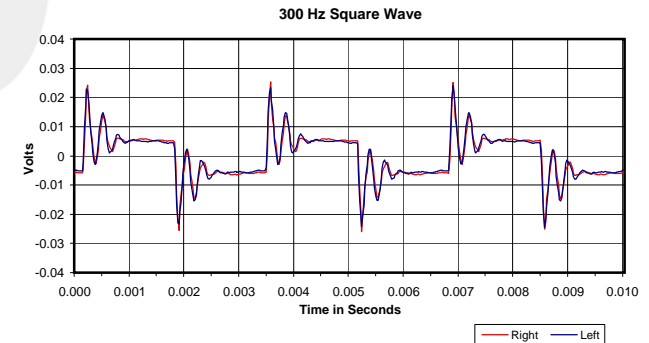
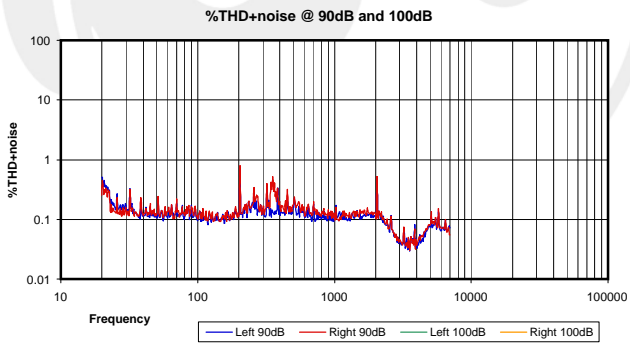
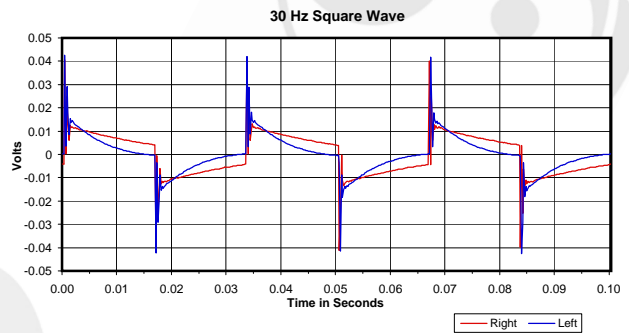


Broadband Isolation in dB (100Hz to 10kHz):

-2 dB



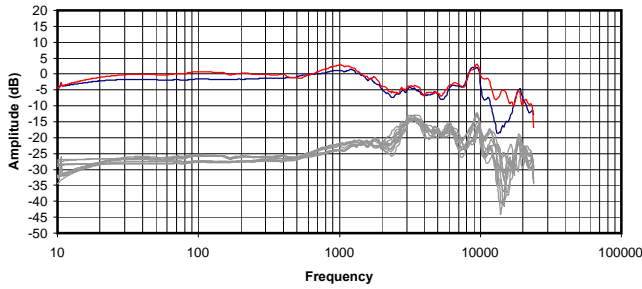
Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



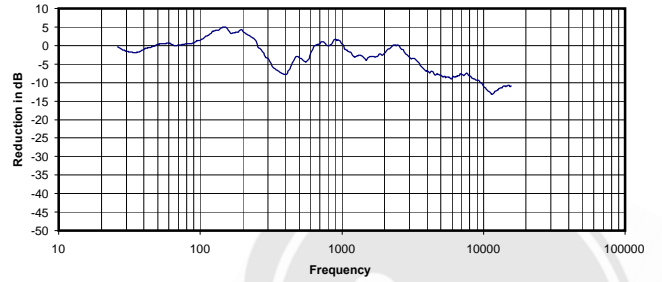
Broadband Isolation in dB (100Hz to 10kHz):

-11 dBr

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

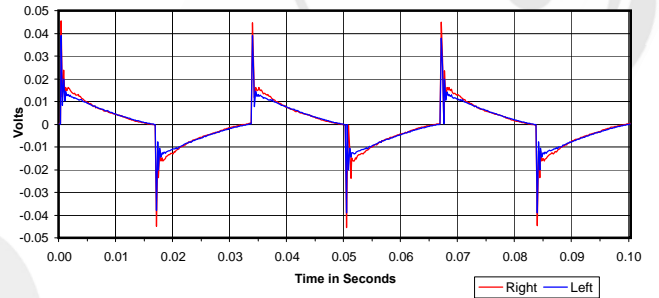


Isolation
 Attenuation of External Sound vs. Frequency

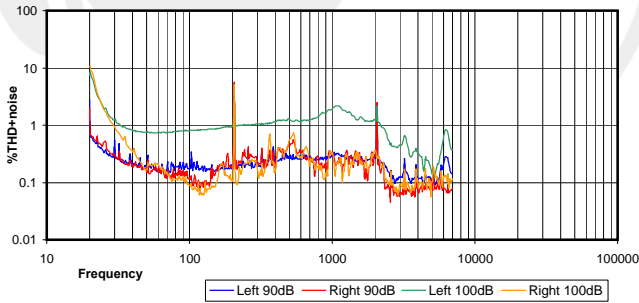


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

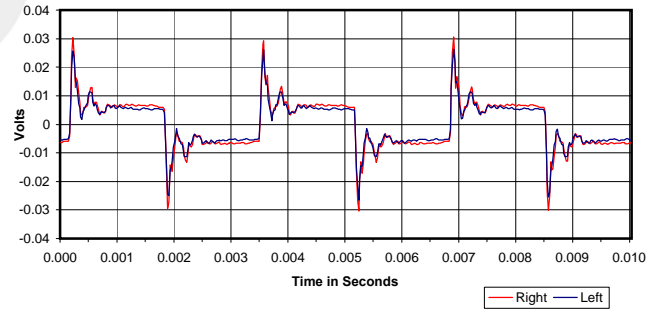
30 Hz Square Wave



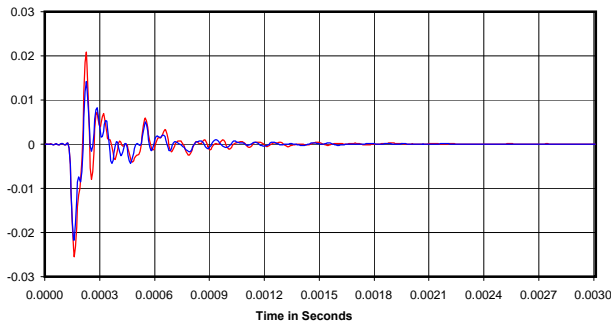
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

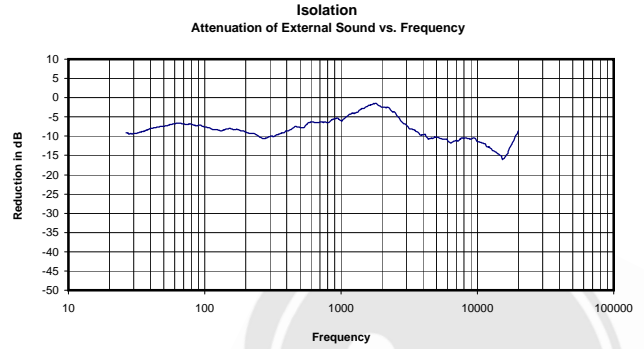
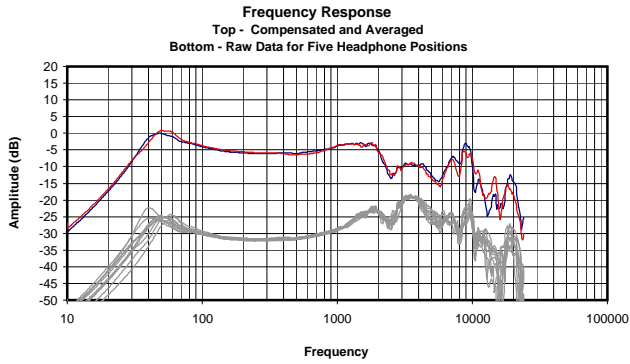


Impulse Response

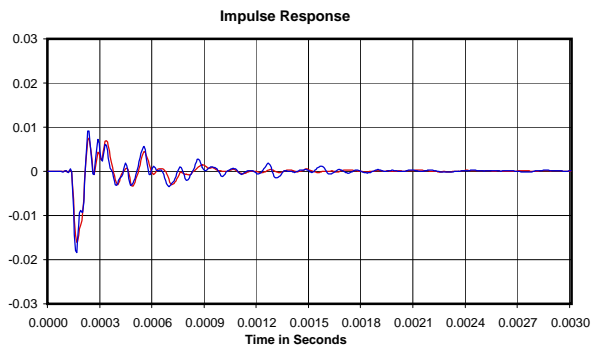
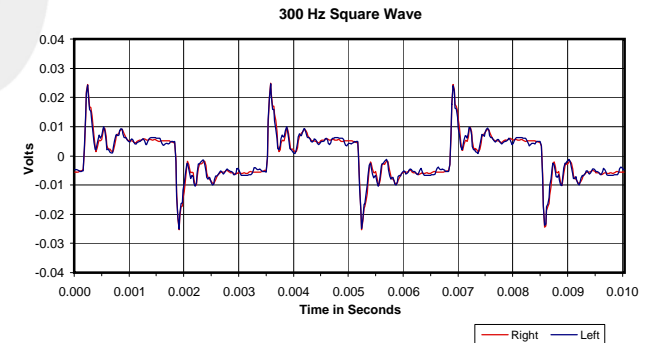
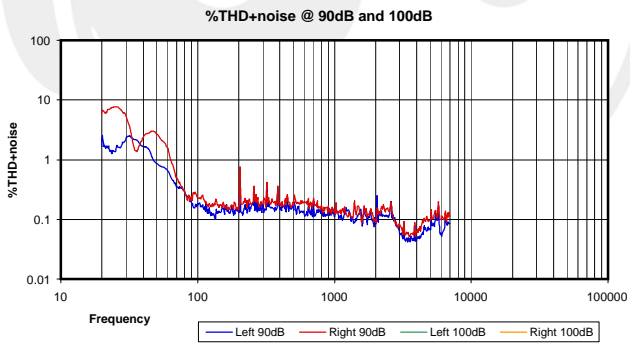
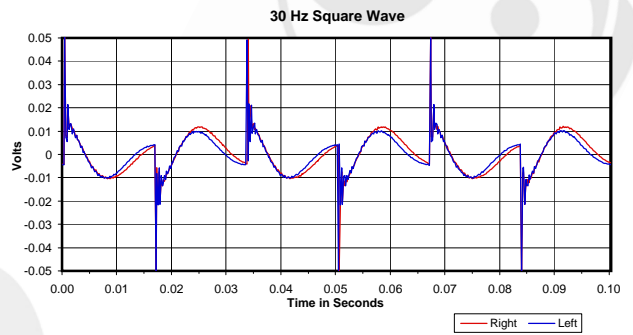


Broadband Isolation in dB (100Hz to 10kHz):

-2 dB

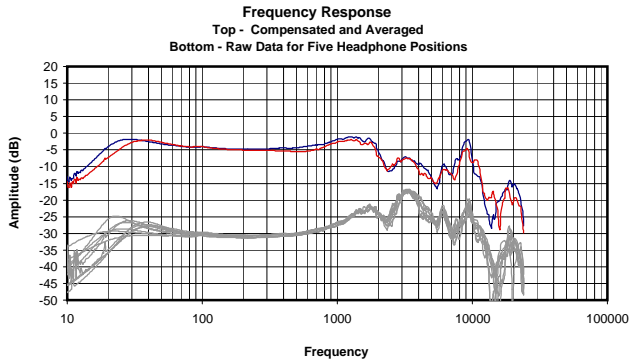


Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones

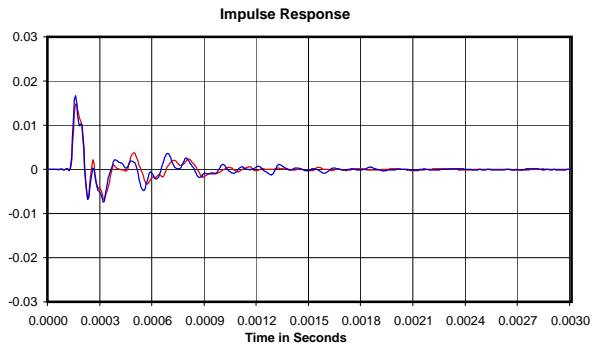
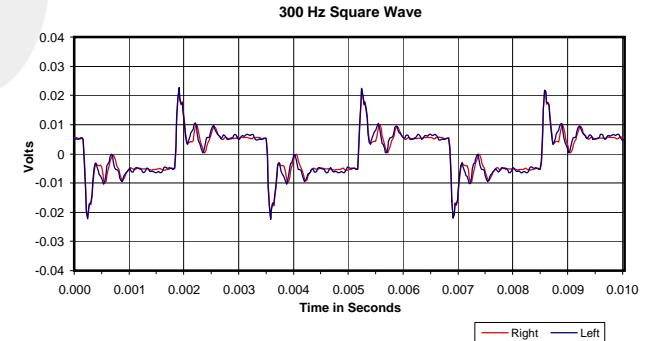
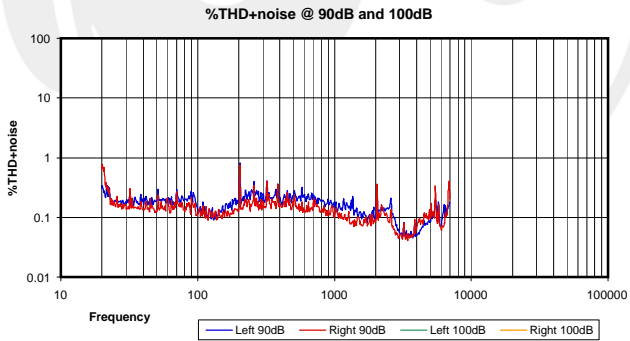
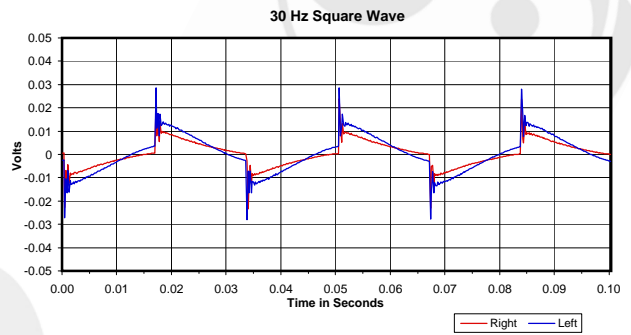
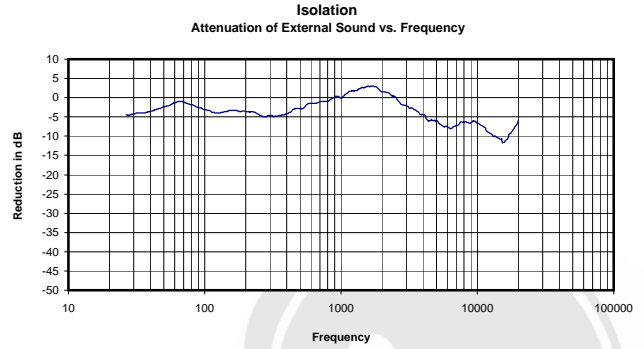


Broadband Isolation in dB (100Hz to 10kHz):

-8 dB



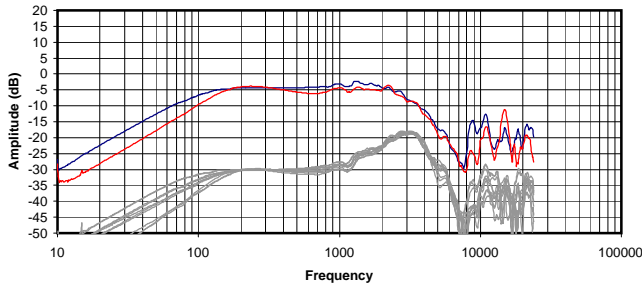
Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones



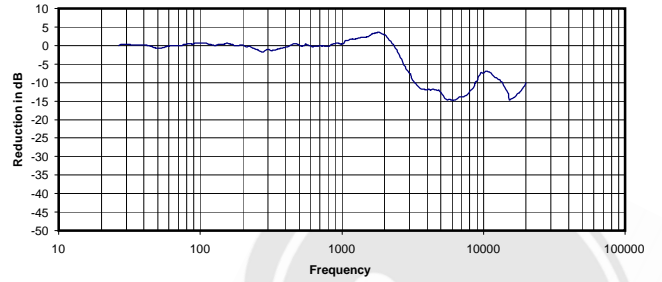
Broadband Isolation in dB (100Hz to 10kHz):

-3 dB

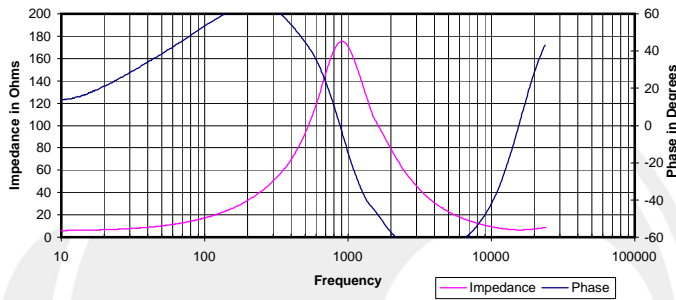
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



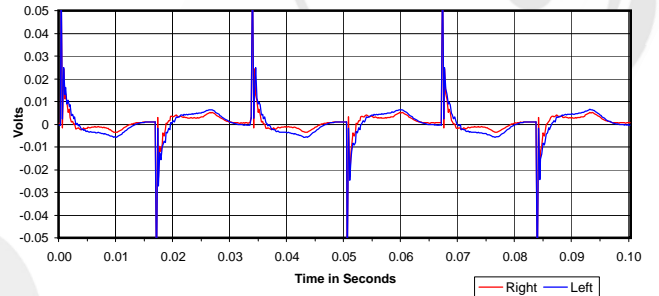
Isolation
 Attenuation of External Sound vs. Frequency



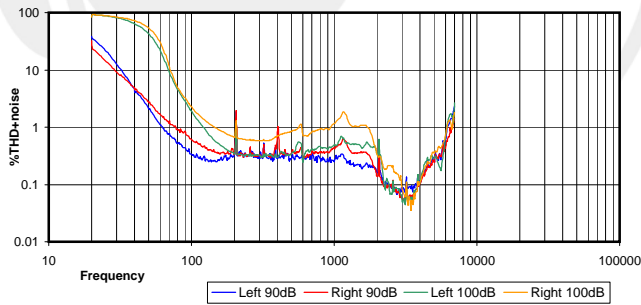
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



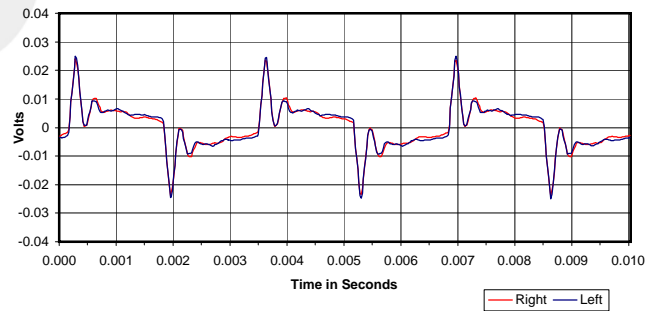
30 Hz Square Wave



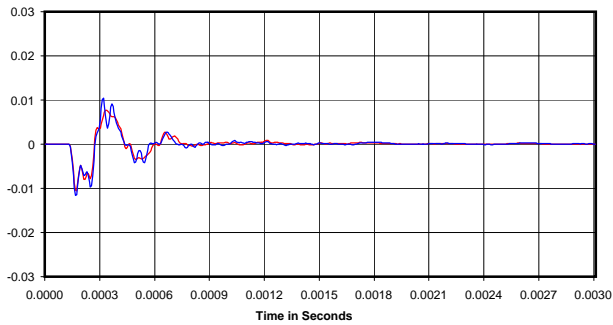
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

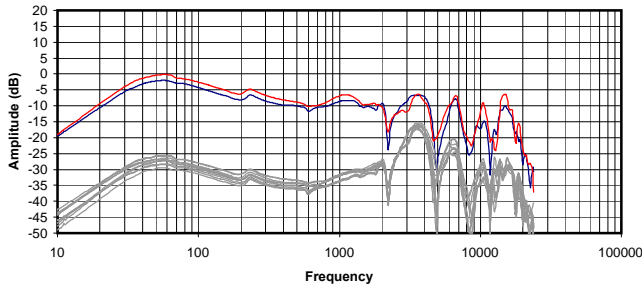


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

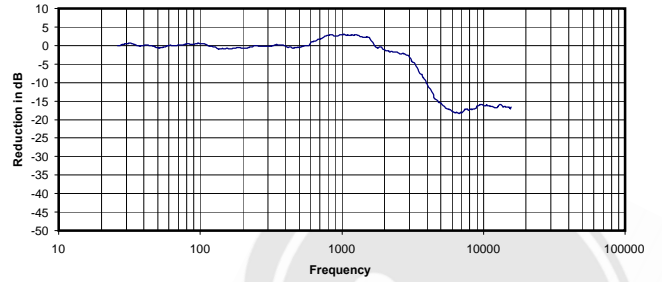
0.313 Vrms
 169 Ohms
 0.58 mW
 -3 dB



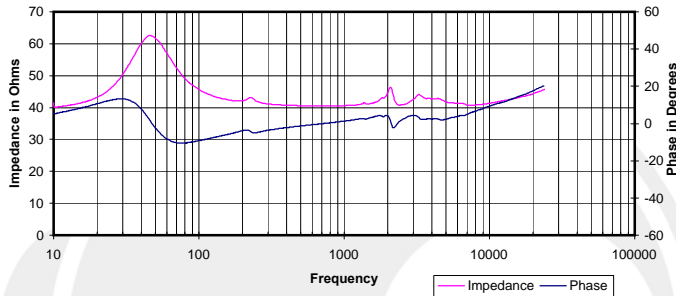
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



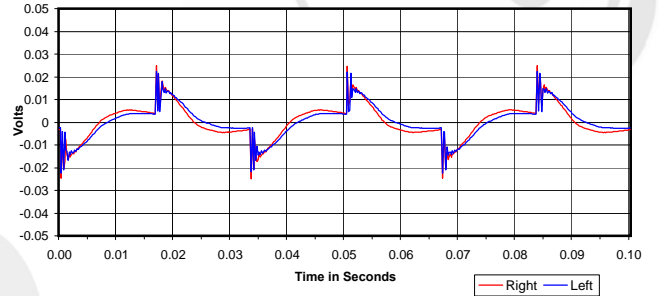
Isolation
 Attenuation of External Sound vs. Frequency



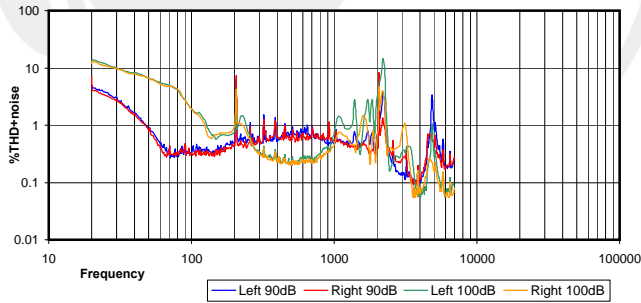
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



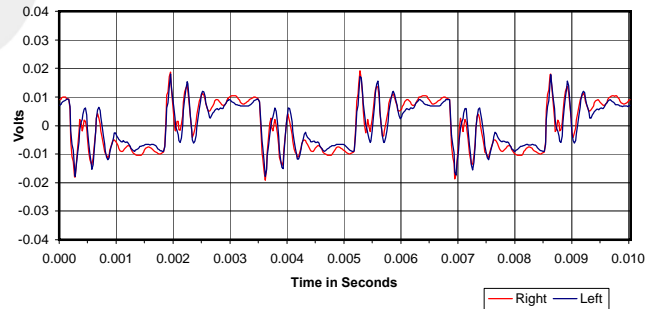
30 Hz Square Wave



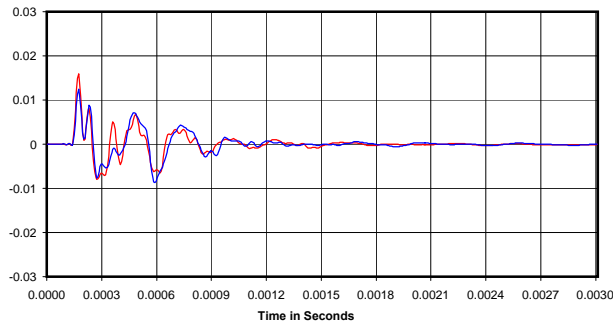
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

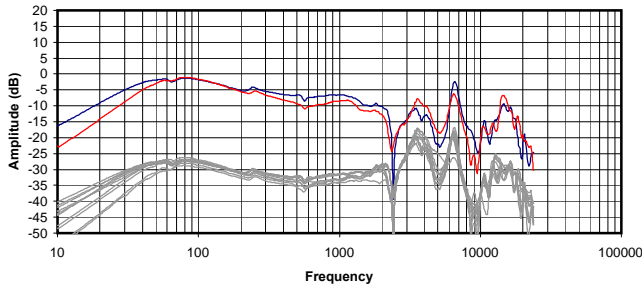


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

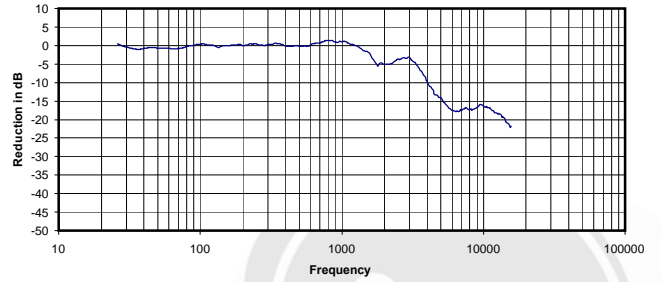
0.131 Vrms
 41 Ohms
 0.42 mW
 -2 dB



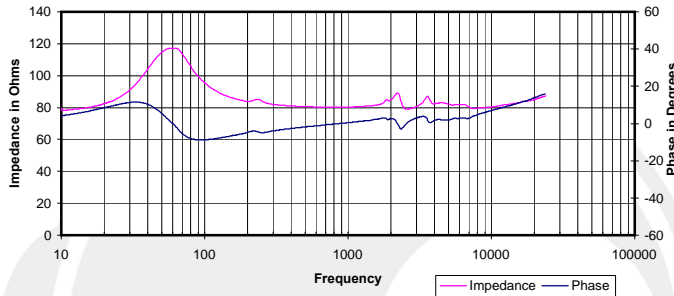
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



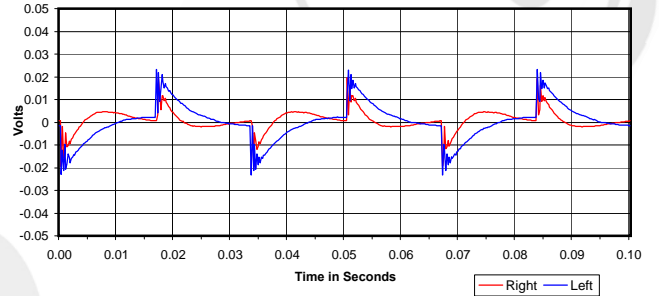
Isolation
 Attenuation of External Sound vs. Frequency



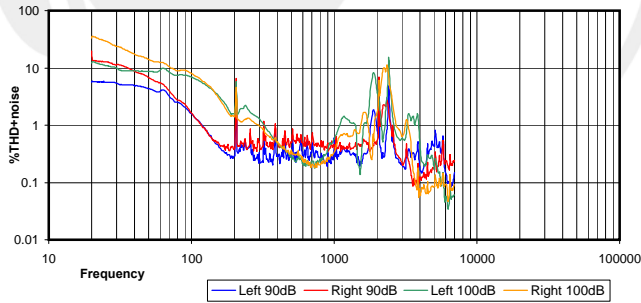
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



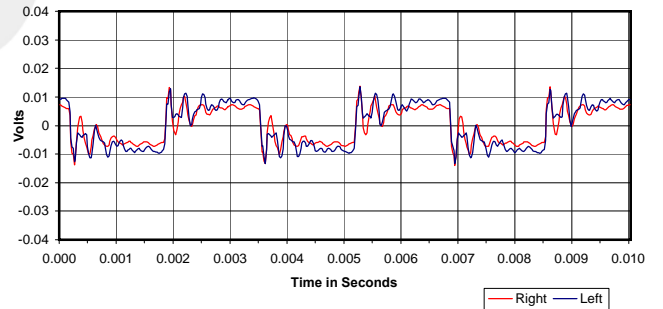
30 Hz Square Wave



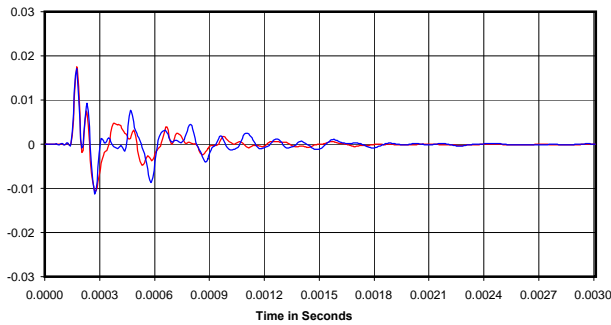
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

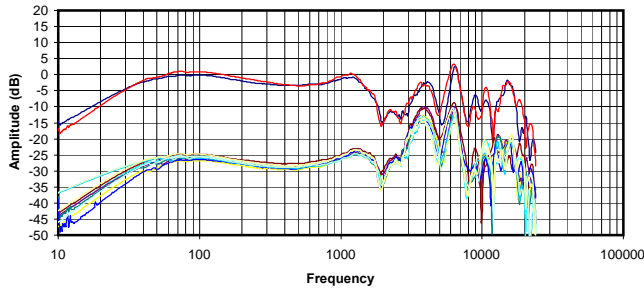


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

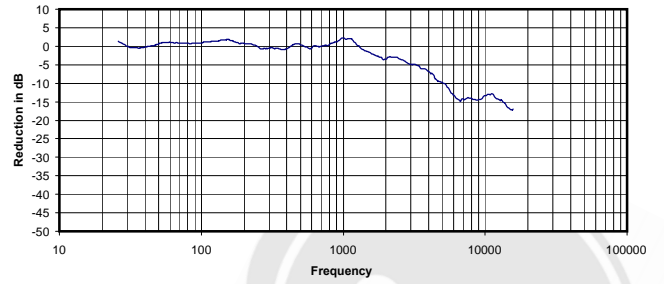
0.162 Vrms
 80 Ohms
 0.33 mW
 -2 dBr



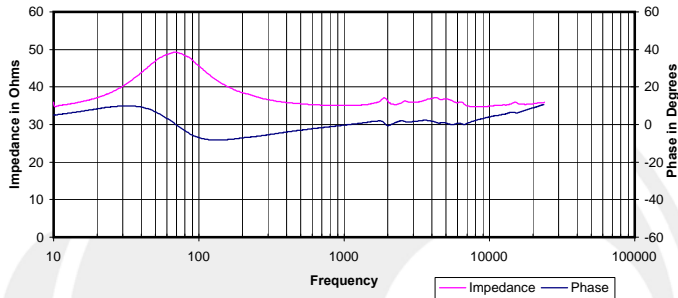
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



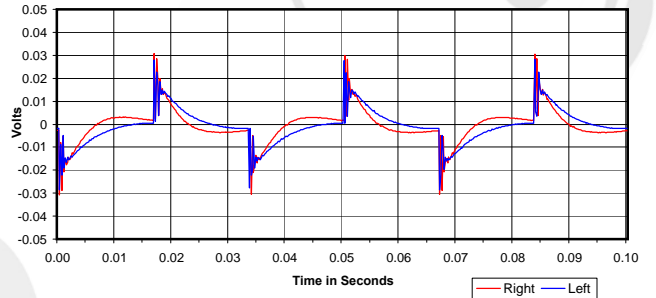
Isolation
Attenuation of External Sound vs. Frequency



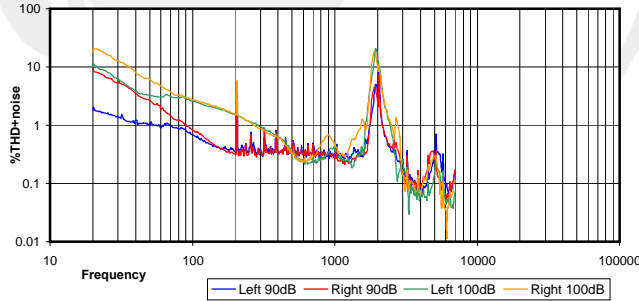
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



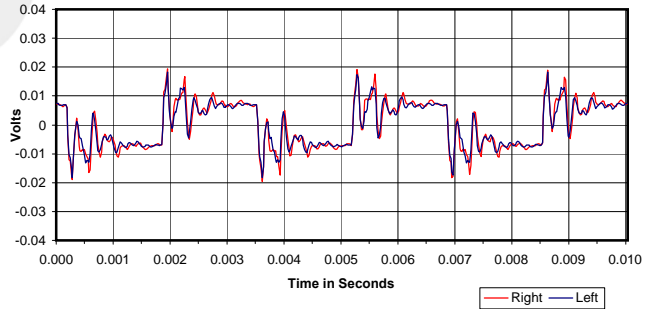
30 Hz Square Wave



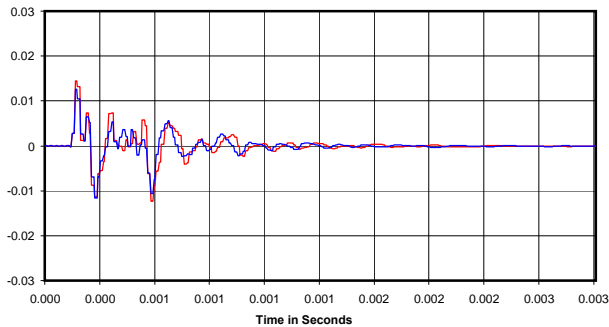
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

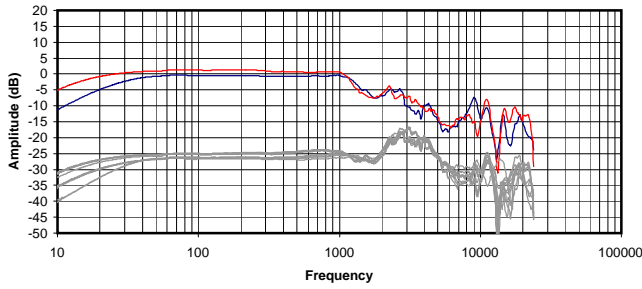


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

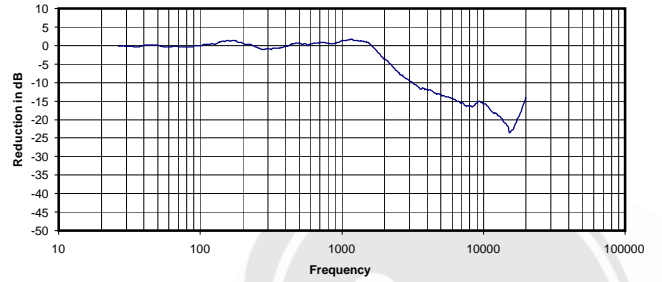
0.121 Vrms
35 Ohms
0.42 mW
-2 dB



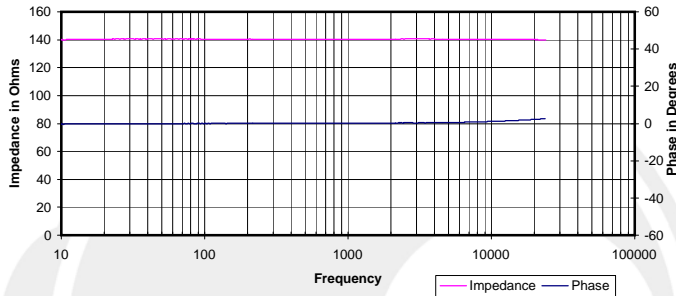
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



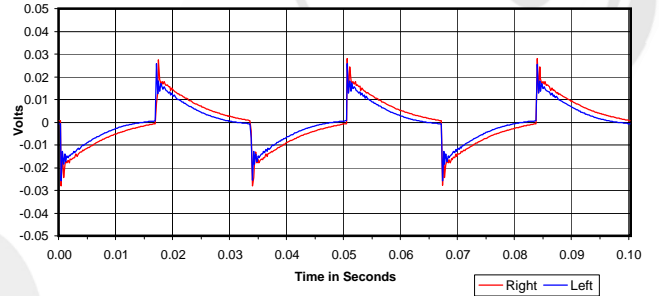
Isolation
 Attenuation of External Sound vs. Frequency



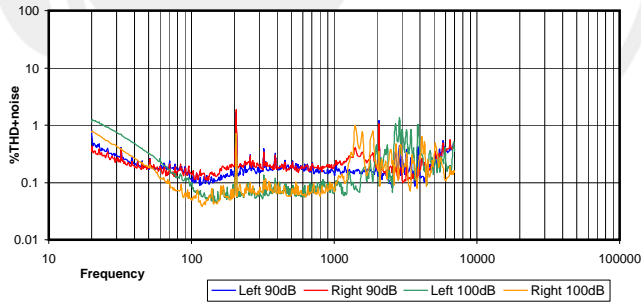
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



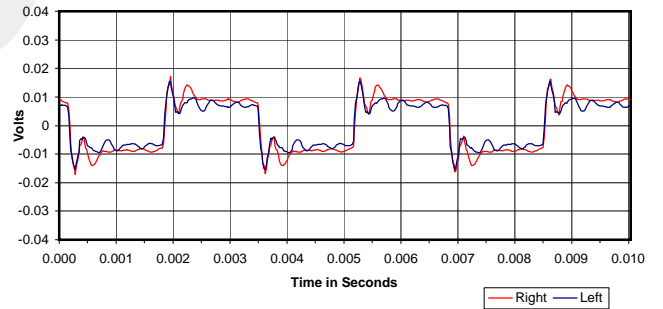
30 Hz Square Wave



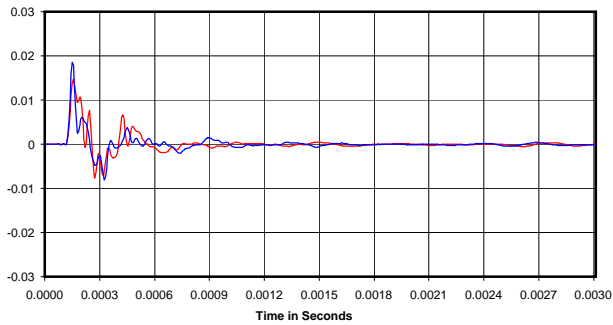
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



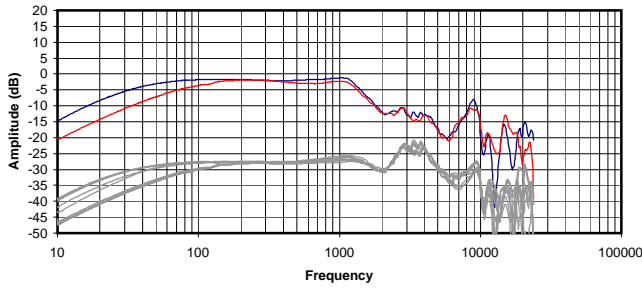
Impulse Response



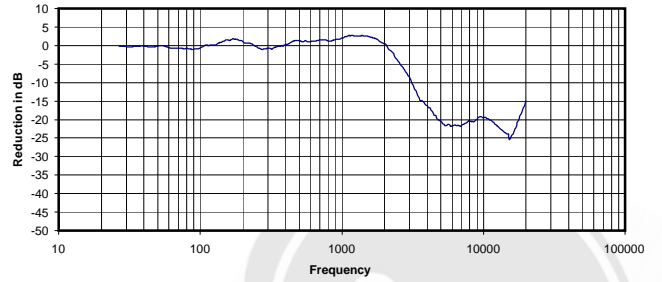
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.381 Vrms
 140 Ohms
 1.03 mW
 -4 dBr

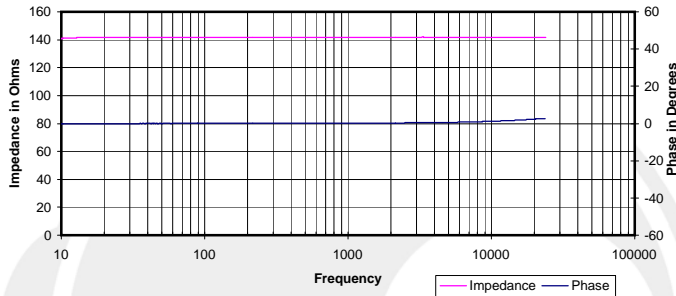
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



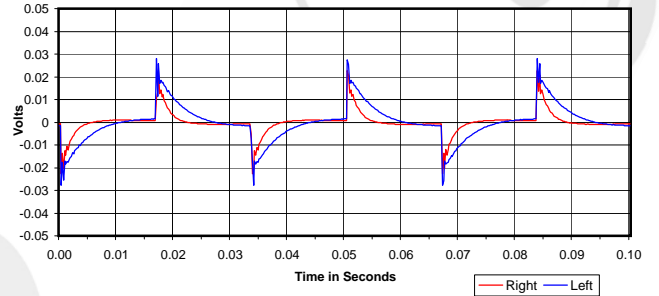
Isolation
 Attenuation of External Sound vs. Frequency



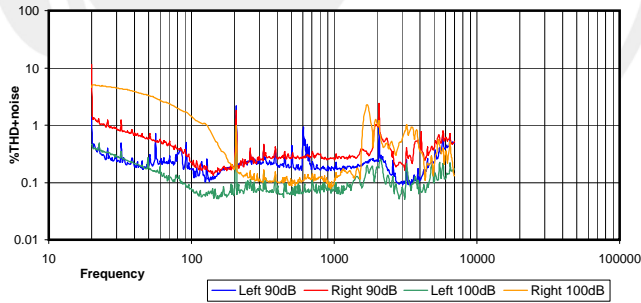
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



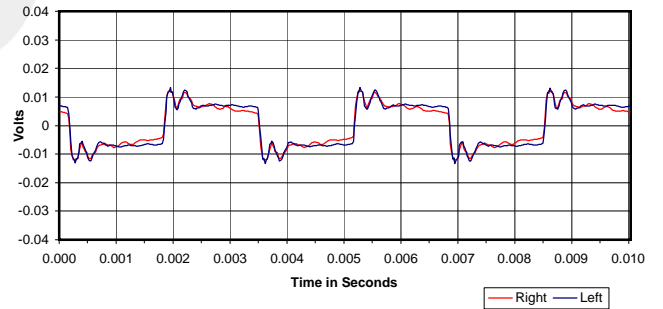
30 Hz Square Wave



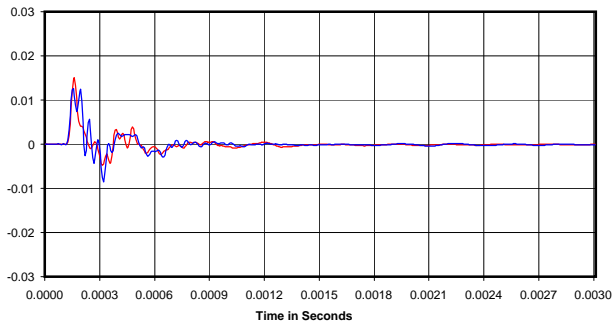
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

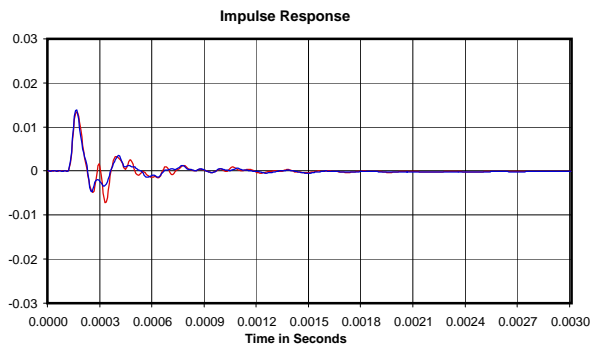
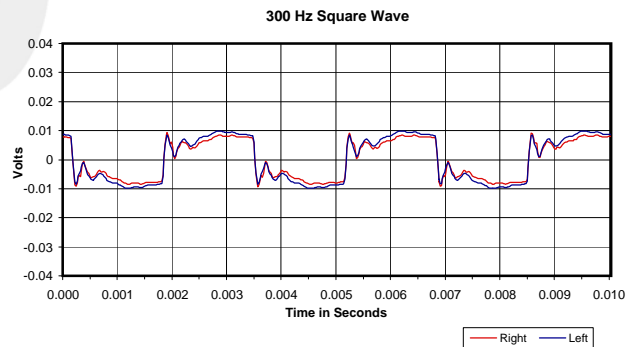
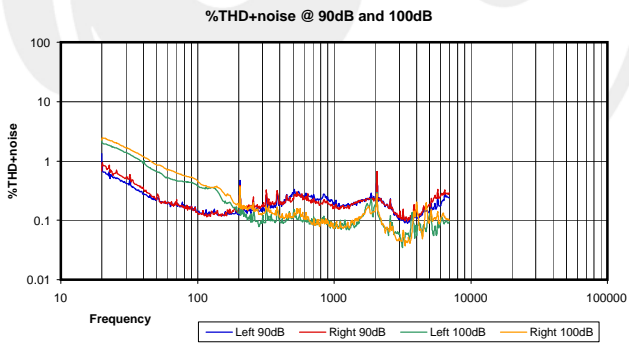
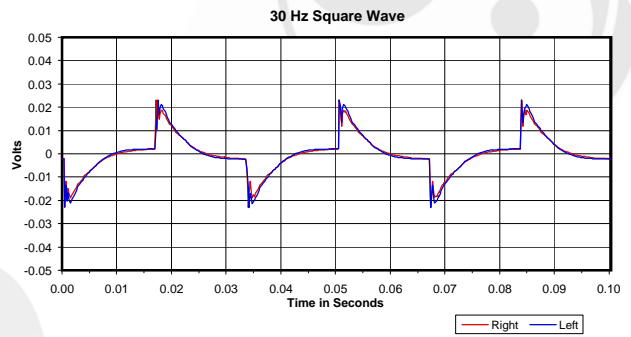
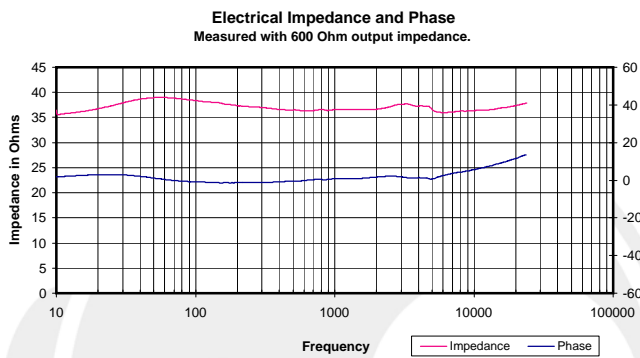
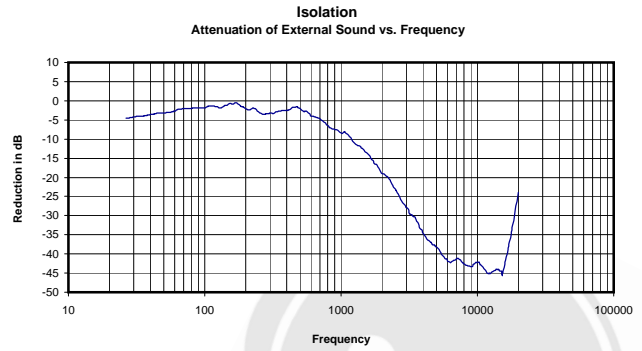
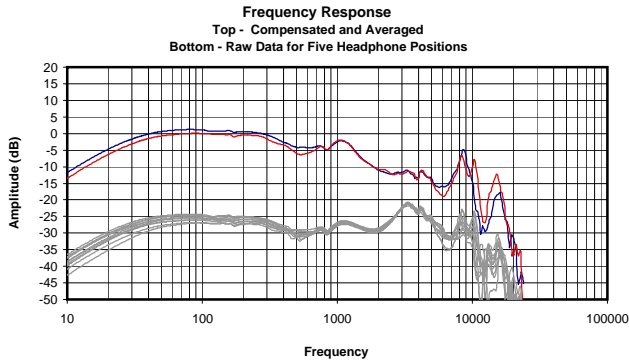
0.254 Vrms
 142 Ohms
 0.46 mW
 -5 dB



Headphone Measurement Datasheets

Full-Size Sealed



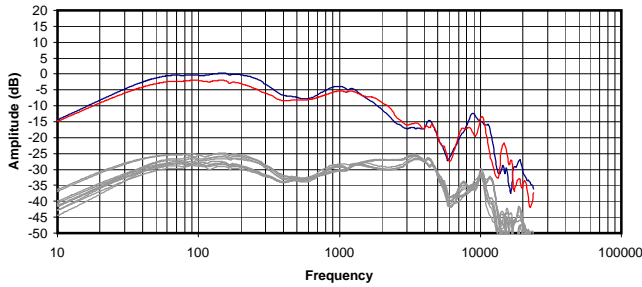


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

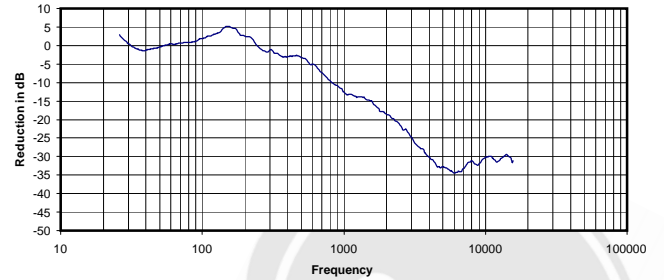
0.032 Vrms
37 Ohms
0.03 mW
-15 dBr



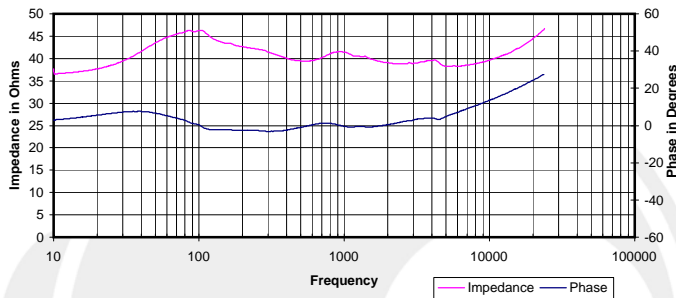
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



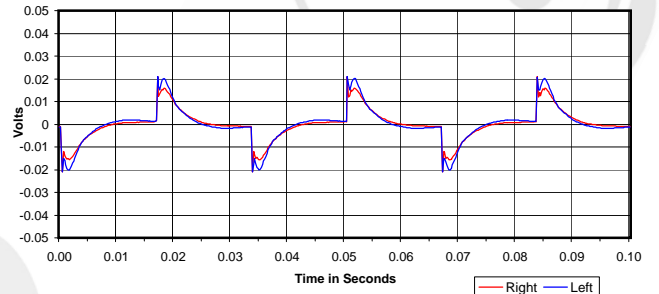
Isolation
Attenuation of External Sound vs. Frequency



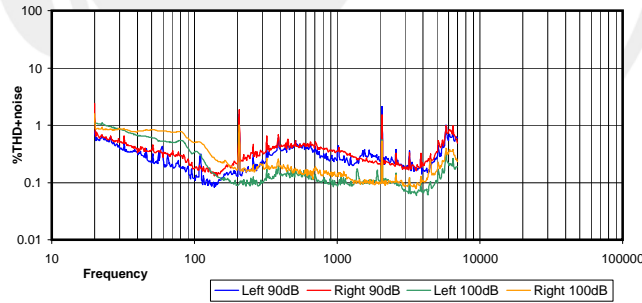
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



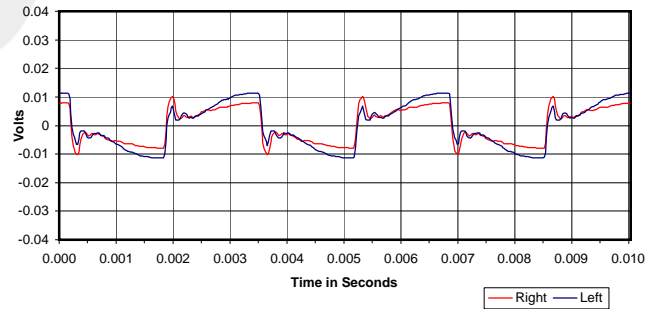
30 Hz Square Wave



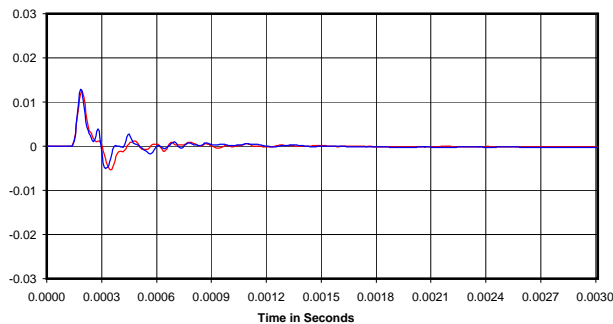
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

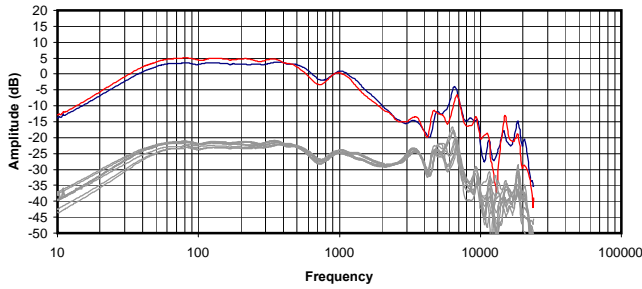


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

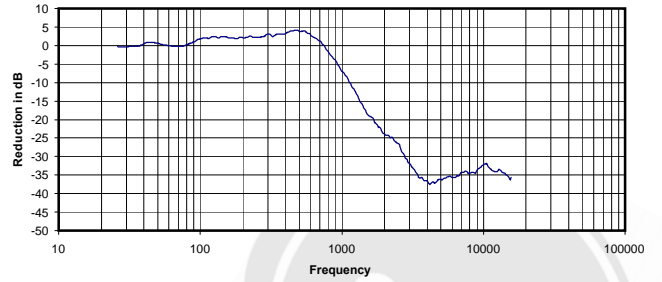
0.023 Vrms
41 Ohms
0.01 mW
-11 dB



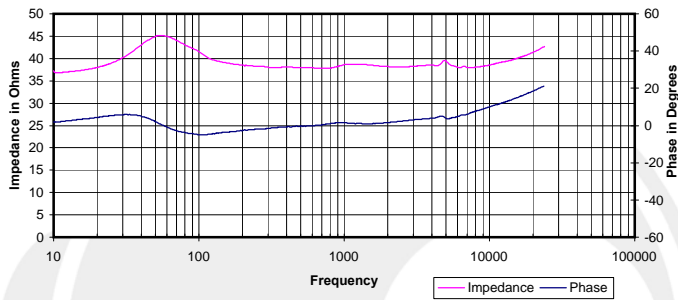
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



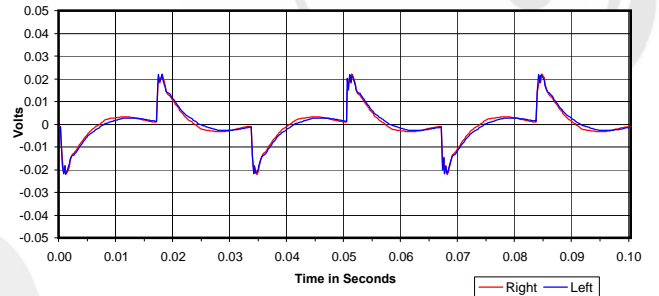
Isolation
 Attenuation of External Sound vs. Frequency



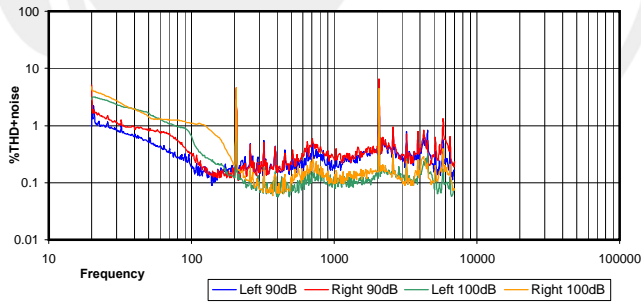
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



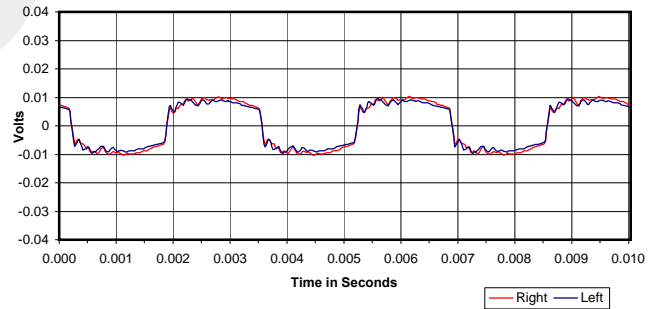
30 Hz Square Wave



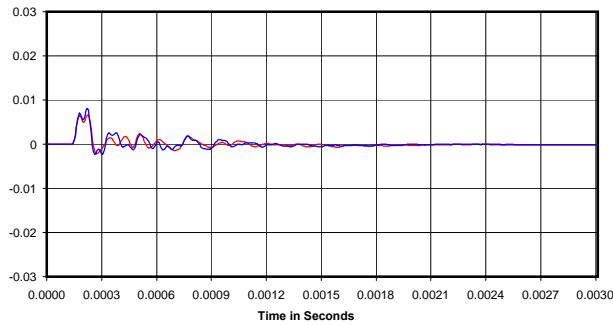
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



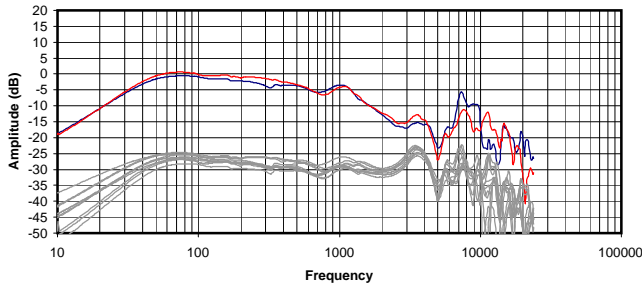
Impulse Response



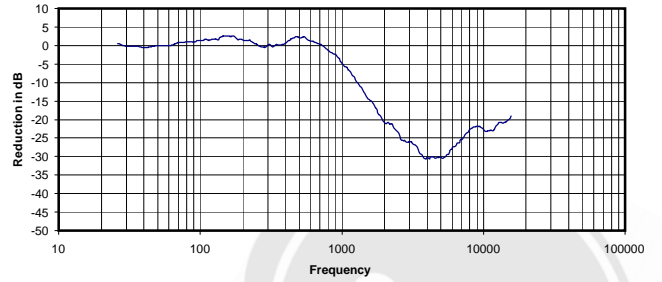
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
 39 Ohms
 0.02 mW
 -10 dB

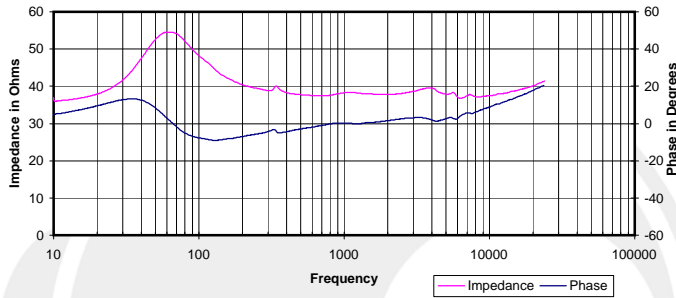
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



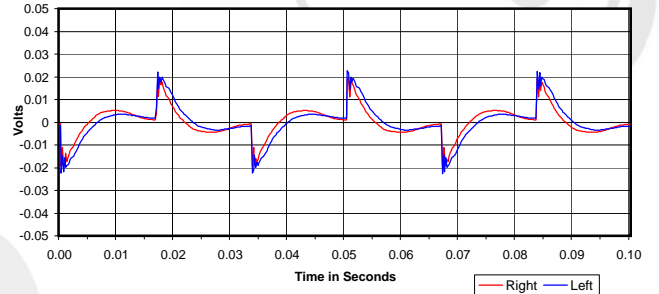
Isolation
Attenuation of External Sound vs. Frequency



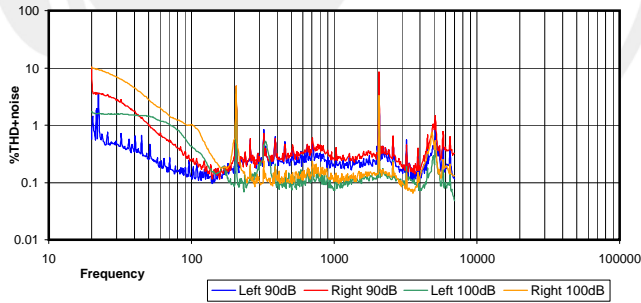
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



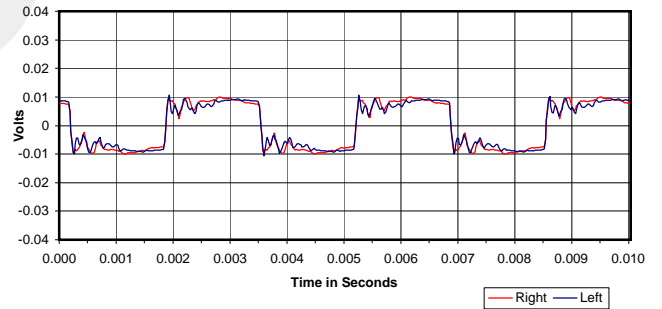
30 Hz Square Wave



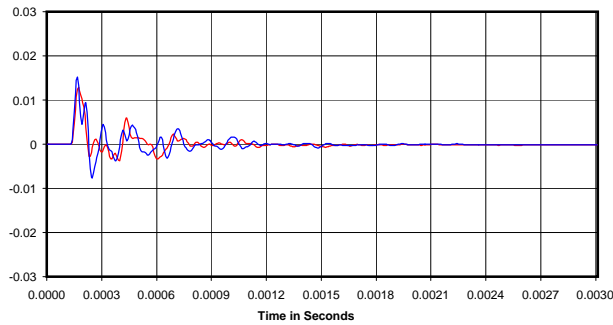
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

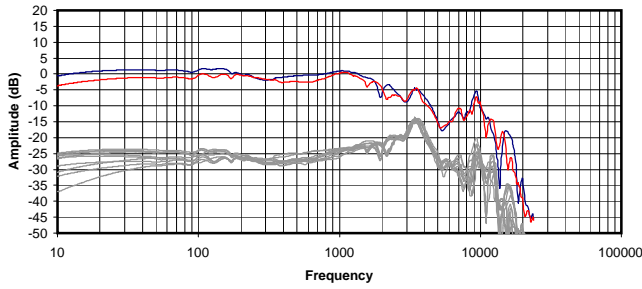


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

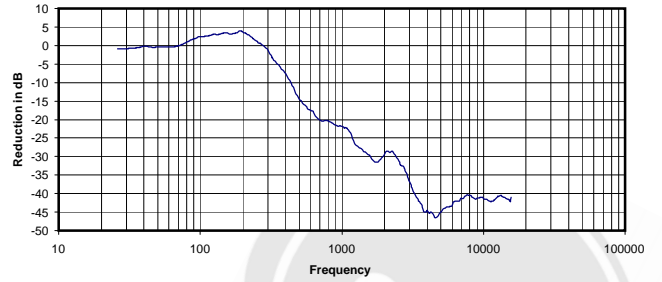
0.030 Vrms
38 Ohms
0.02 mW
-9 dBr



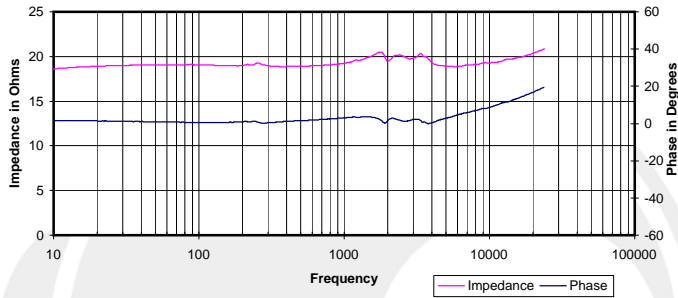
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



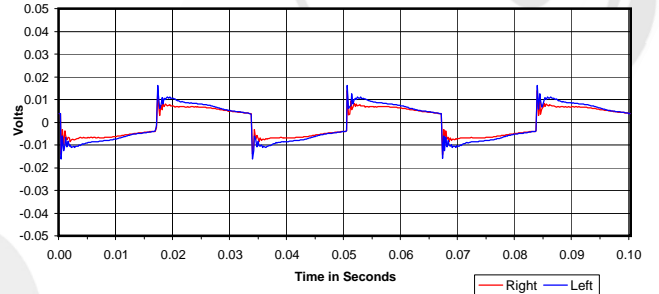
Isolation
 Attenuation of External Sound vs. Frequency



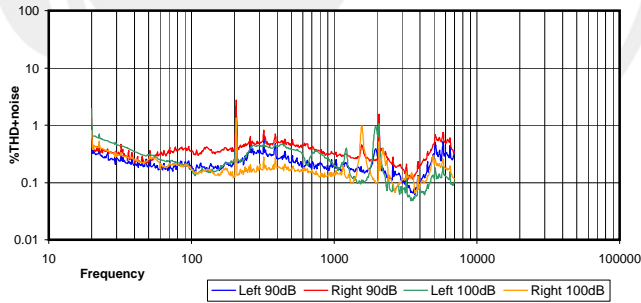
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



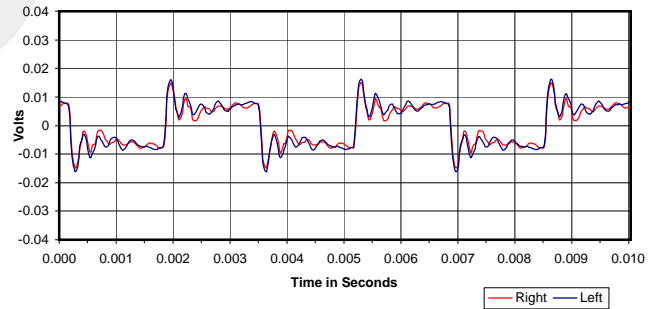
30 Hz Square Wave



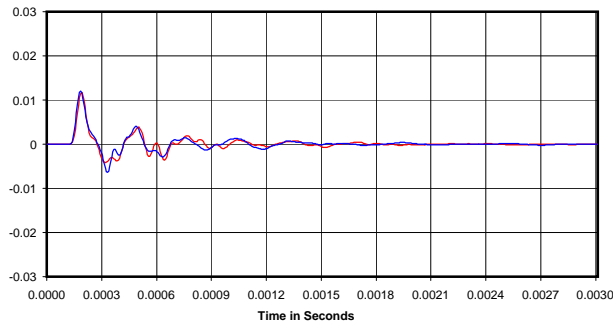
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

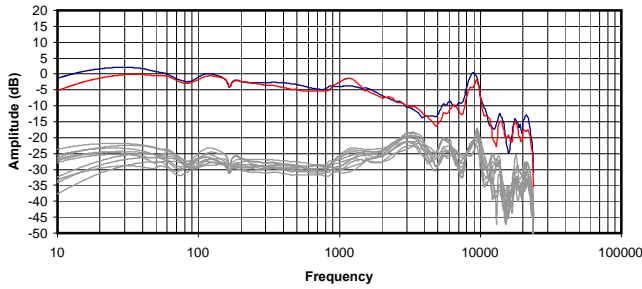


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

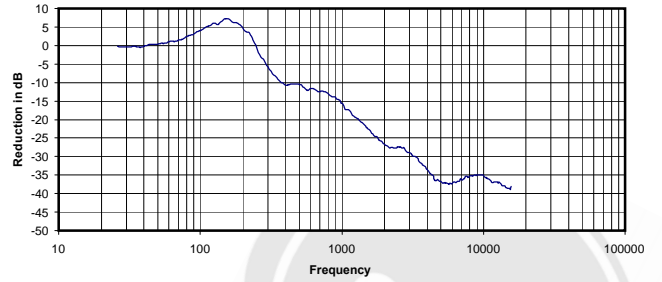
0.020 Vrms
 19 Ohms
 0.02 mW
 -18 dB



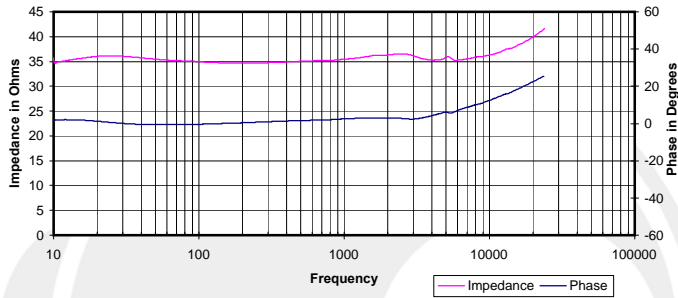
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



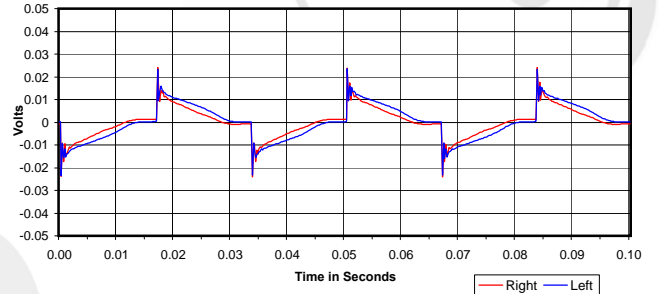
Isolation
 Attenuation of External Sound vs. Frequency



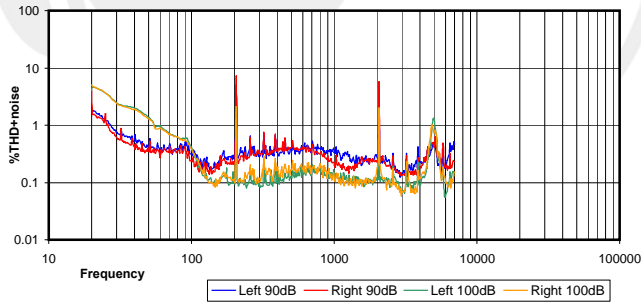
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



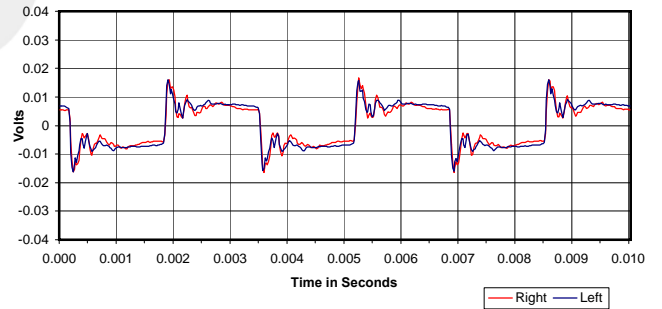
30 Hz Square Wave



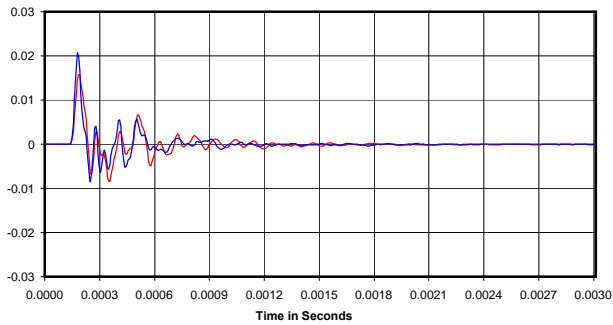
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



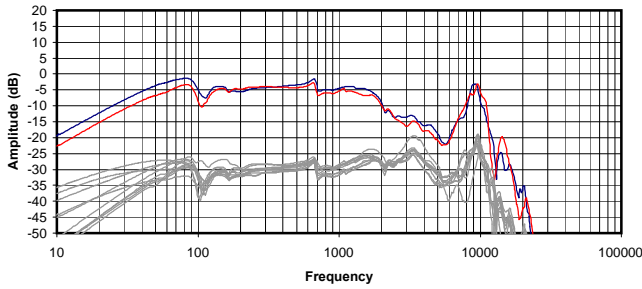
Impulse Response



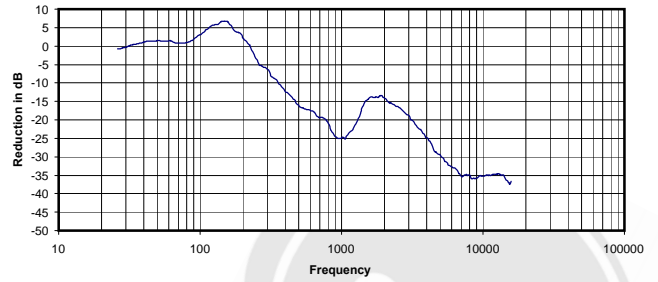
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
 35 Ohms
 0.09 mW
 -14 dB

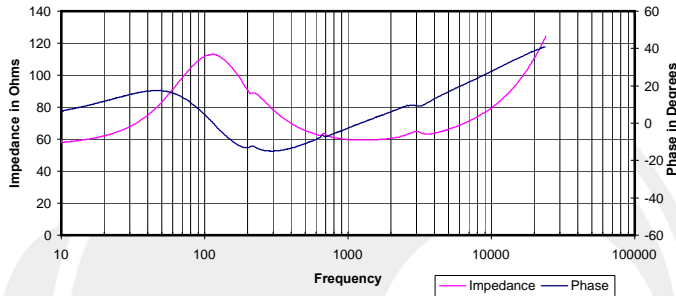
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



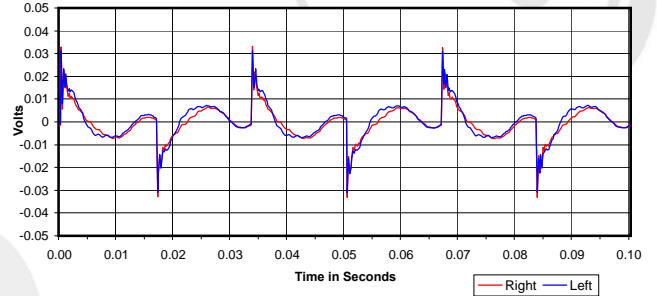
Isolation
 Attenuation of External Sound vs. Frequency



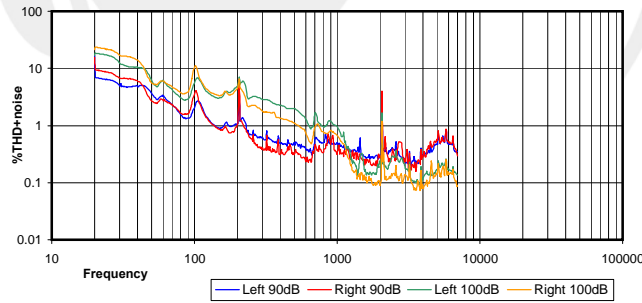
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



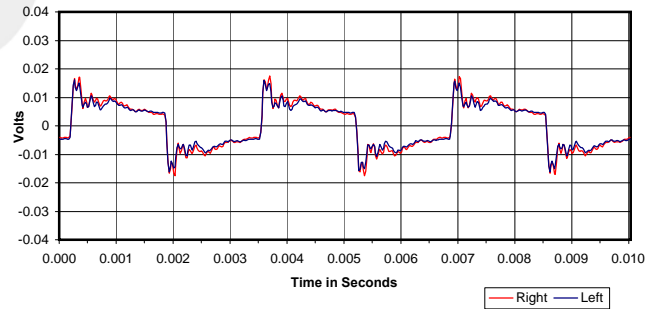
30 Hz Square Wave



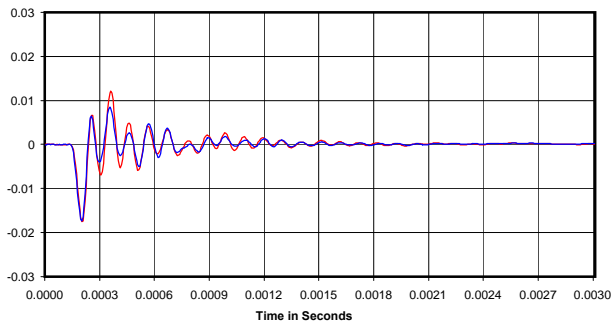
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

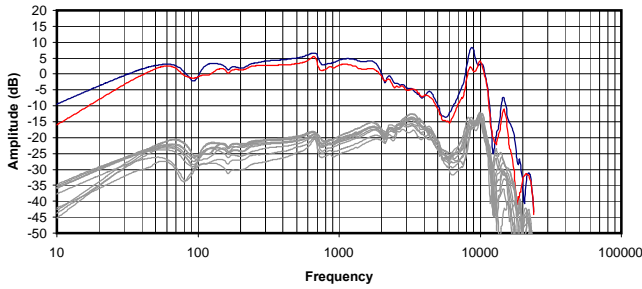


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

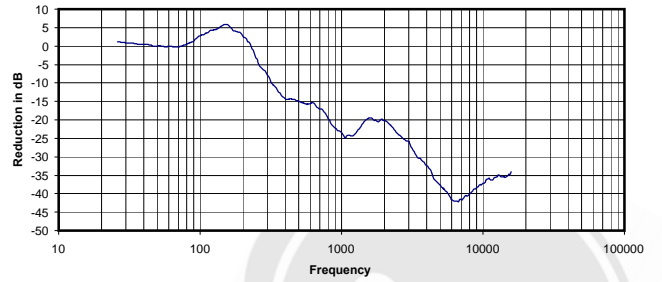
0.145 Vrms
 60 Ohms
 0.35 mW
 -13 dB



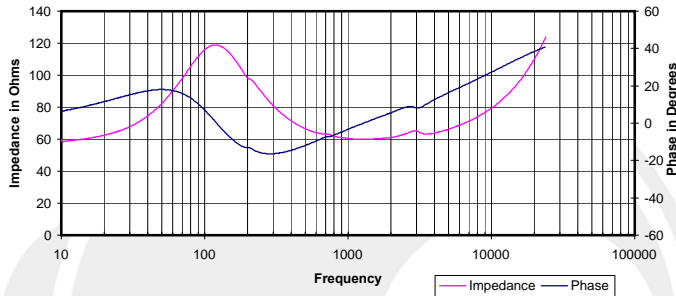
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



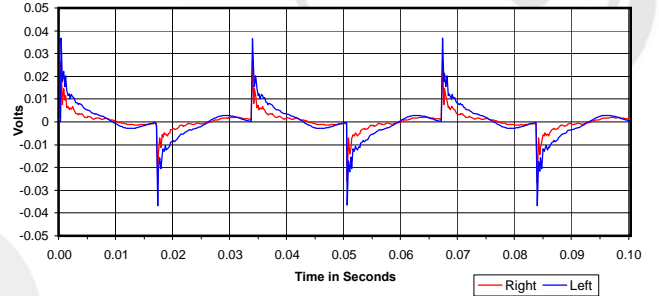
Isolation
Attenuation of External Sound vs. Frequency



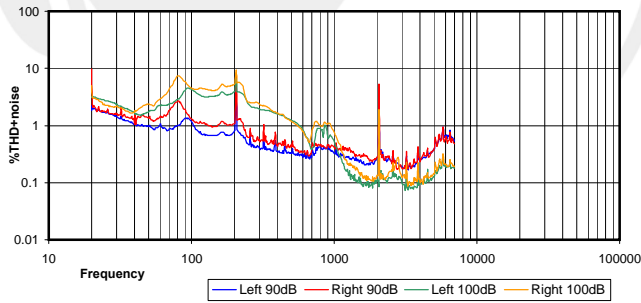
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



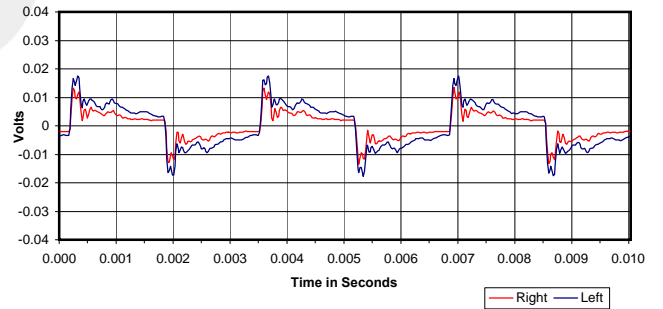
30 Hz Square Wave



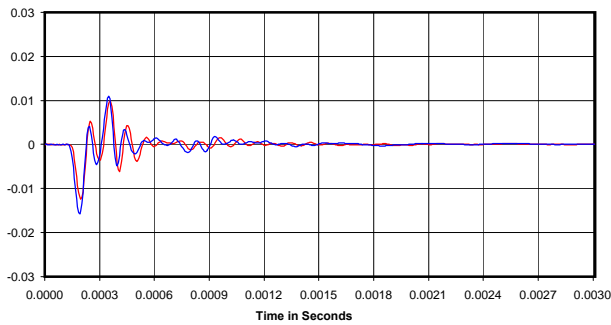
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

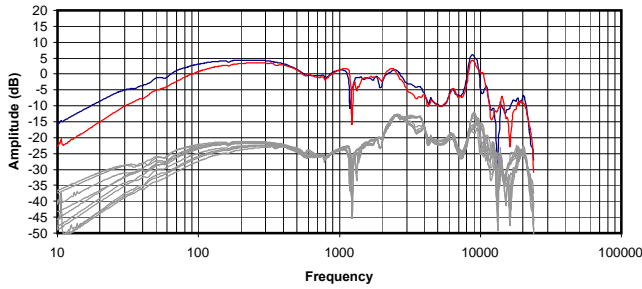


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

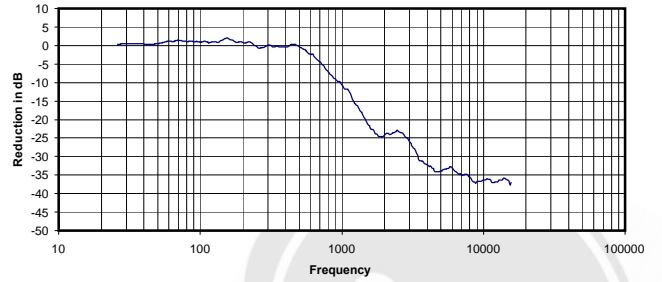
0.093 Vrms
60 Ohms
0.14 mW
-16 dB



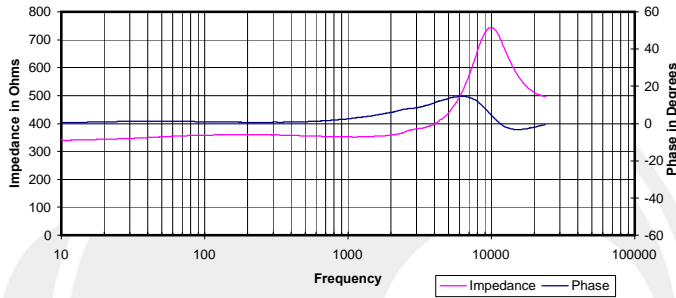
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



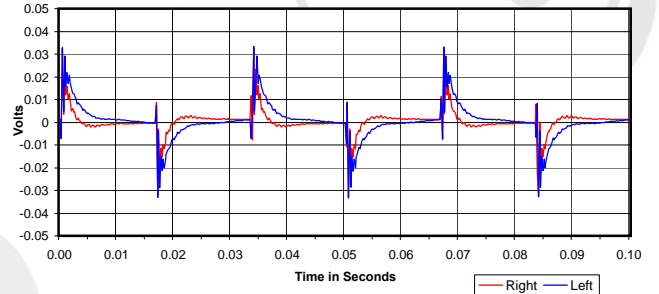
Isolation
 Attenuation of External Sound vs. Frequency



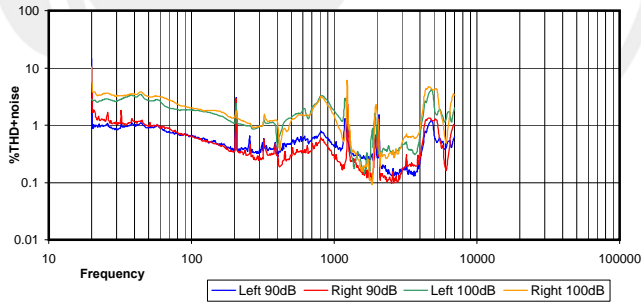
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



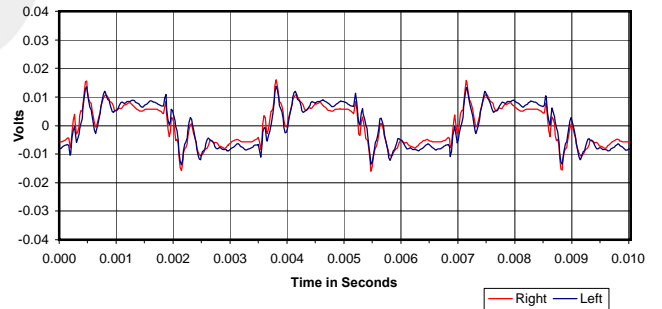
30 Hz Square Wave



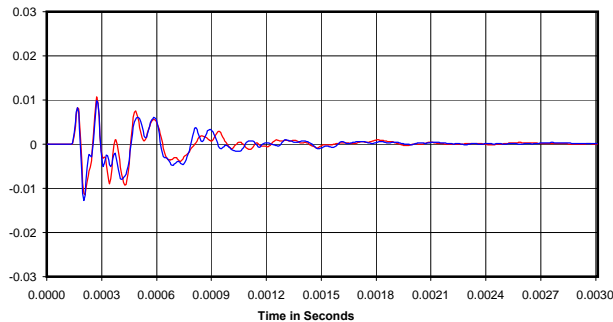
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

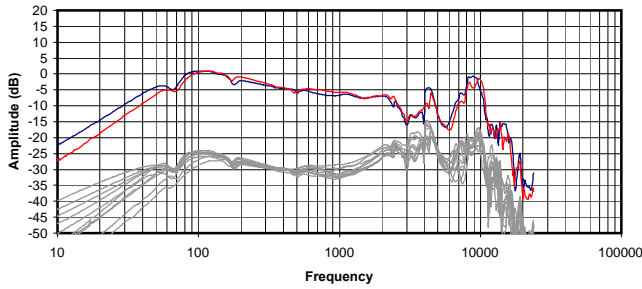


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

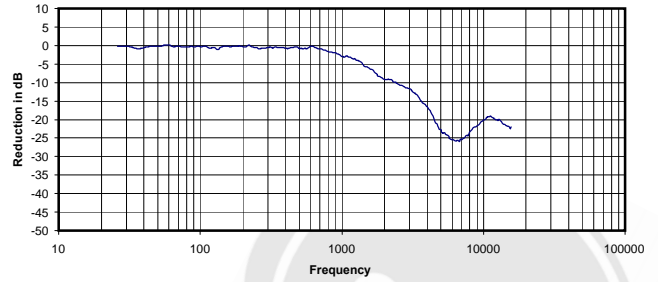
0.670 Vrms
 352 Ohms
 1.27 mW
 -12 dB



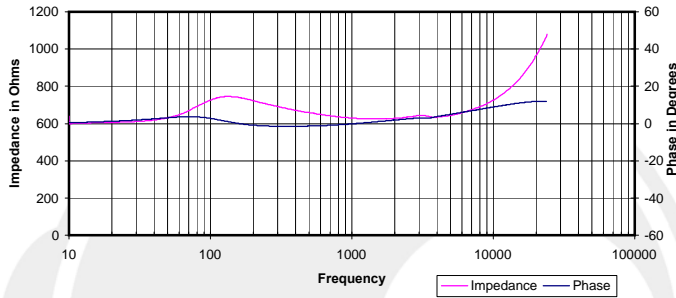
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



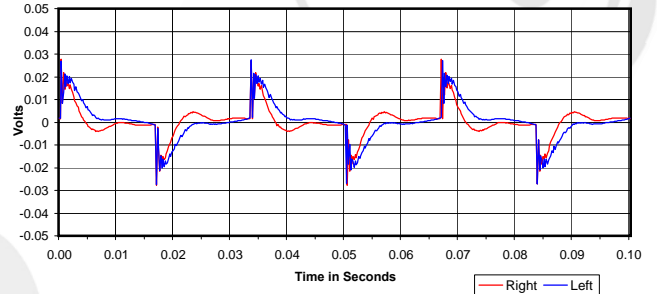
Isolation
 Attenuation of External Sound vs. Frequency



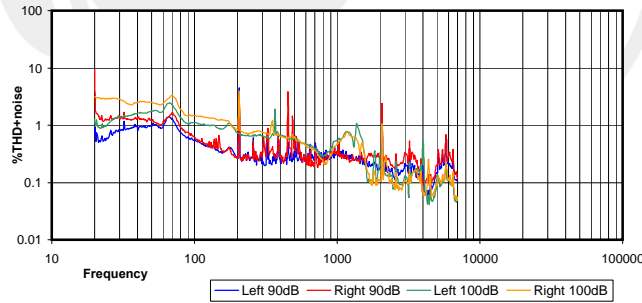
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



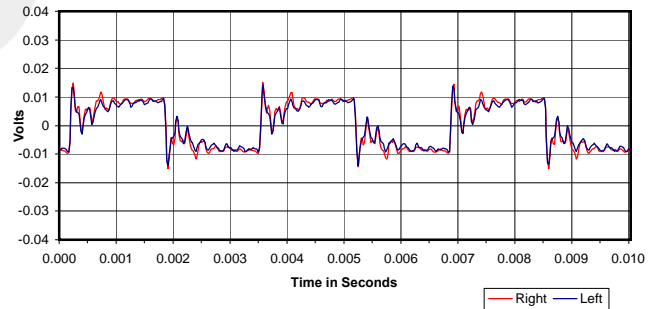
30 Hz Square Wave



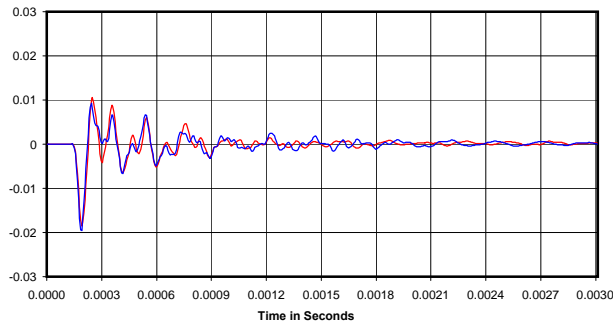
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

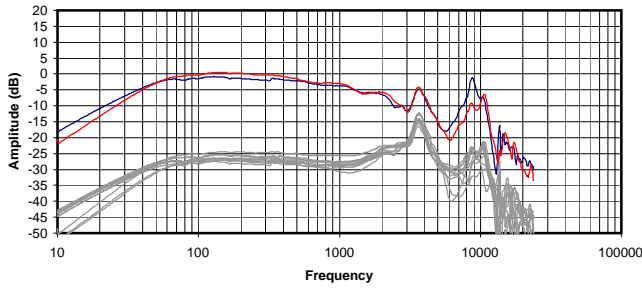


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

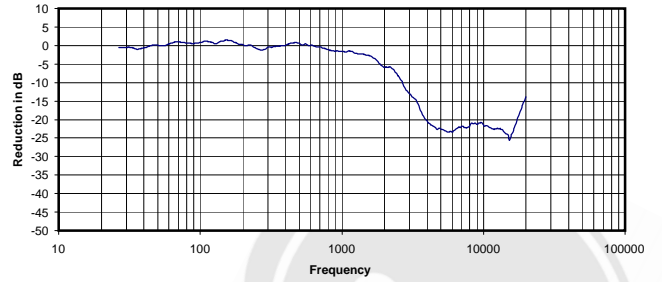
0.893 Vrms
 630 Ohms
 1.27 mW
 -6 dB



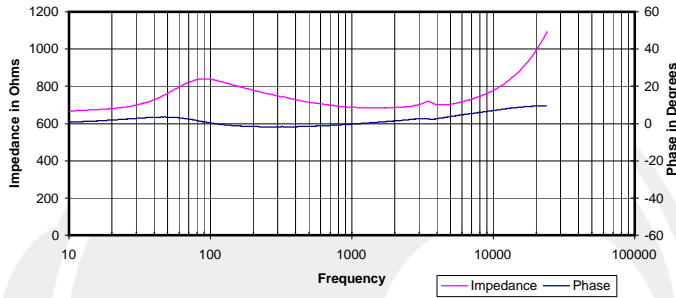
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



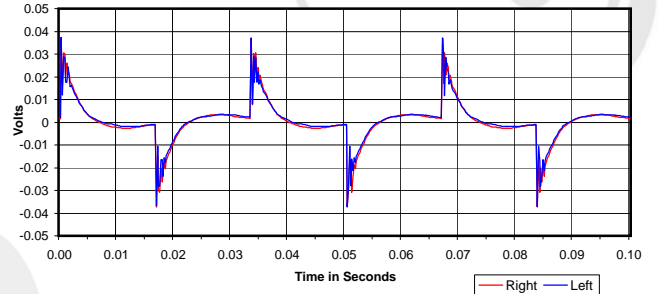
Isolation
Attenuation of External Sound vs. Frequency



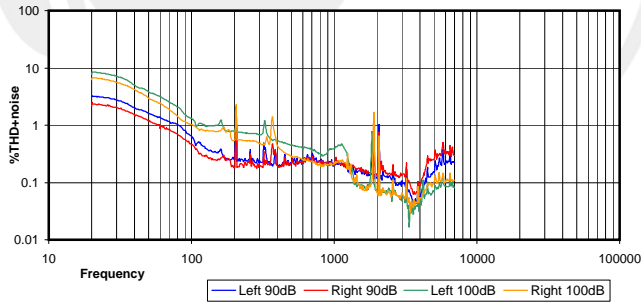
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



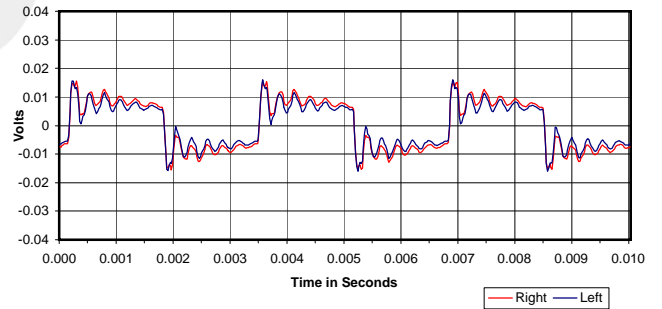
30 Hz Square Wave



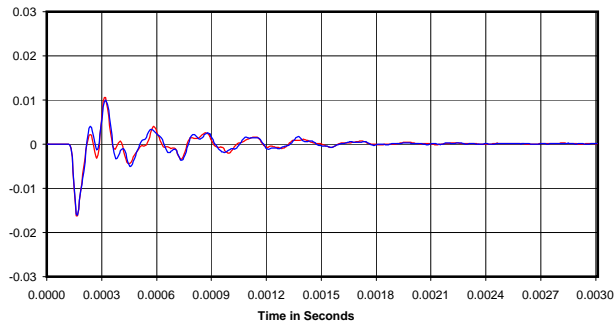
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

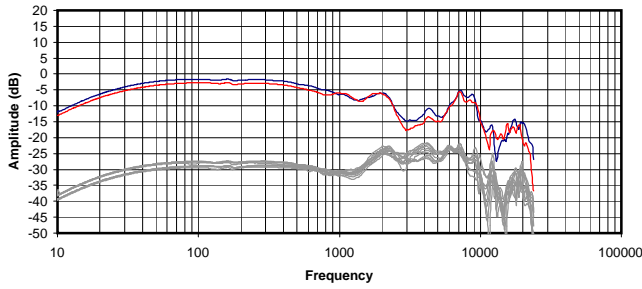


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

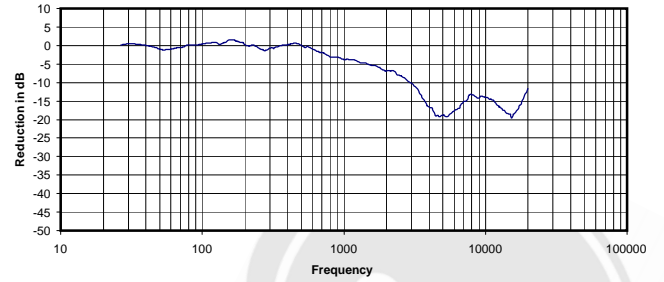
0.447 Vrms
688 Ohms
0.29 mW
-7 dB



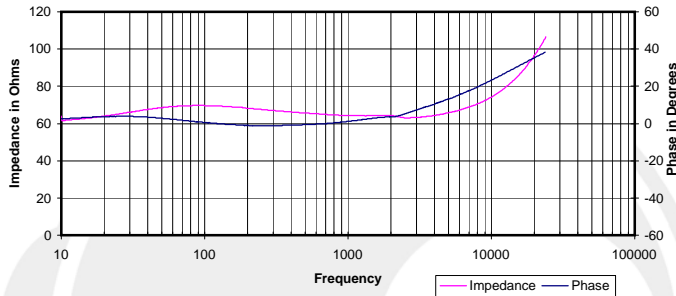
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



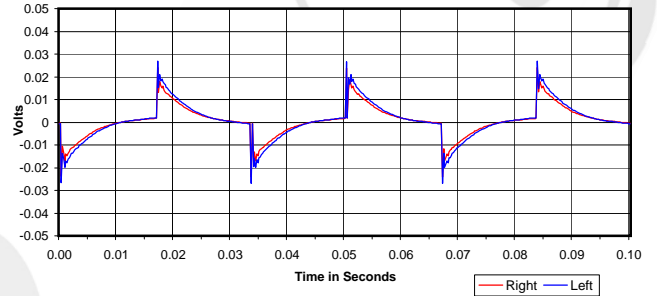
Isolation
 Attenuation of External Sound vs. Frequency



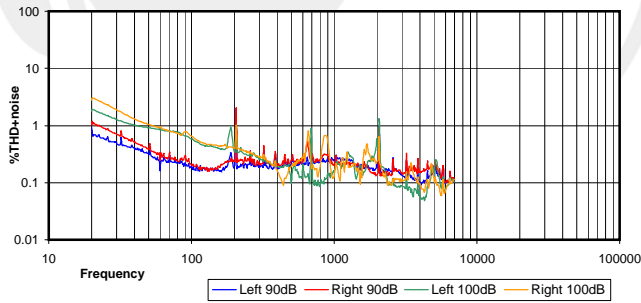
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



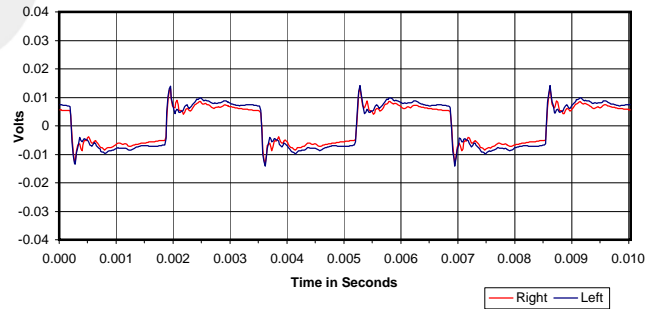
30 Hz Square Wave



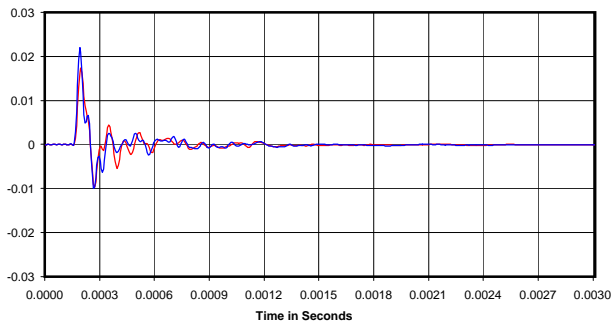
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



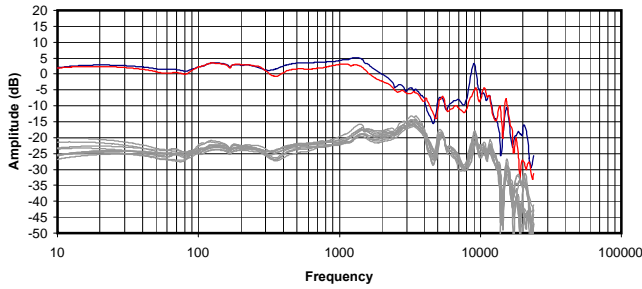
Impulse Response



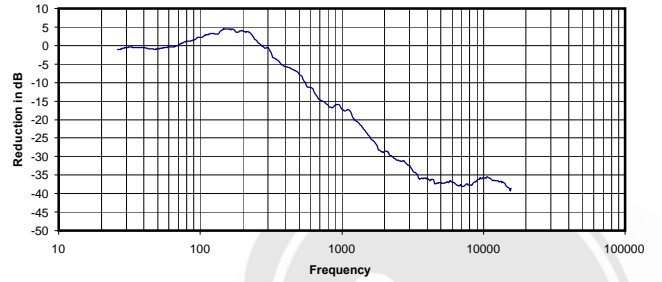
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.270 Vrms
 64 Ohms
 1.13 mW
 -6 dB

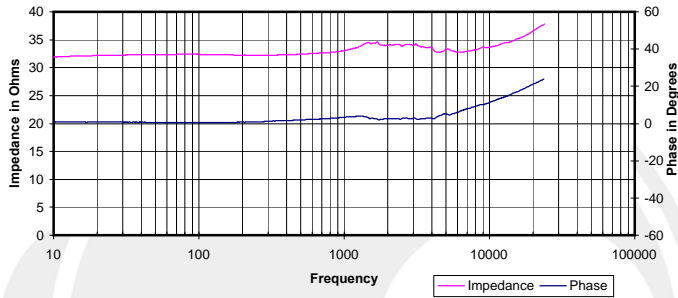
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



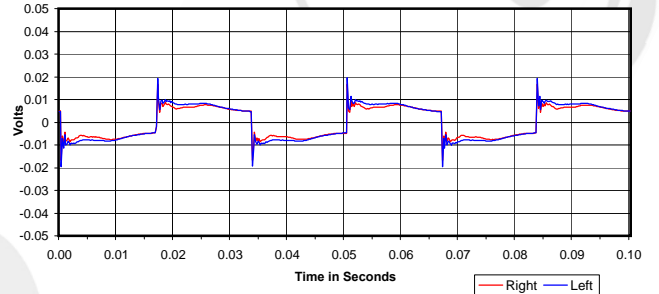
Isolation
 Attenuation of External Sound vs. Frequency



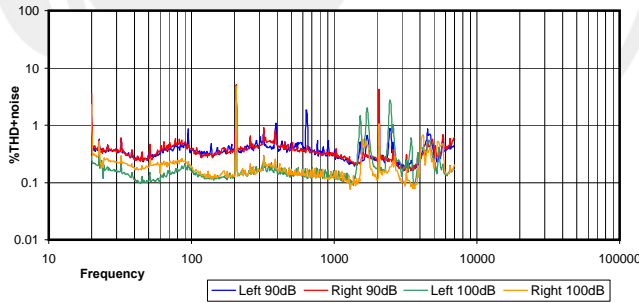
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



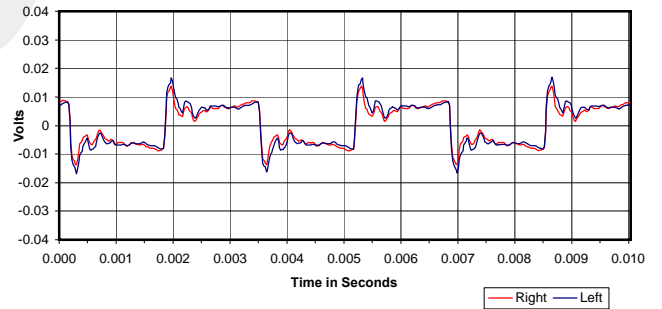
30 Hz Square Wave



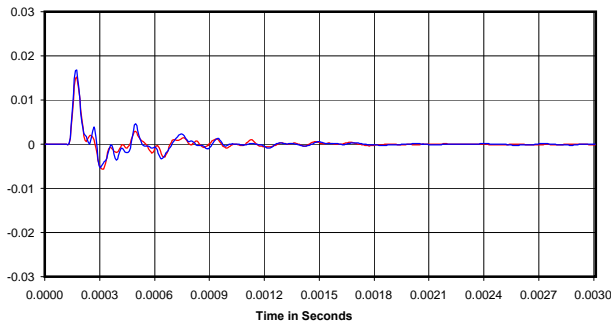
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

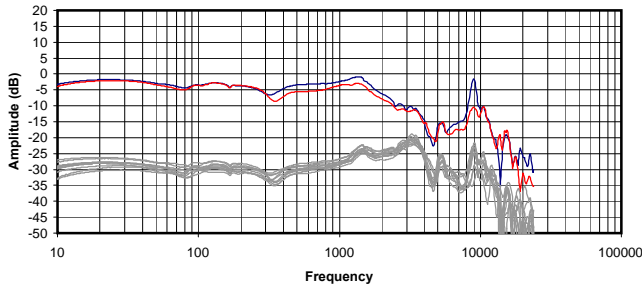


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

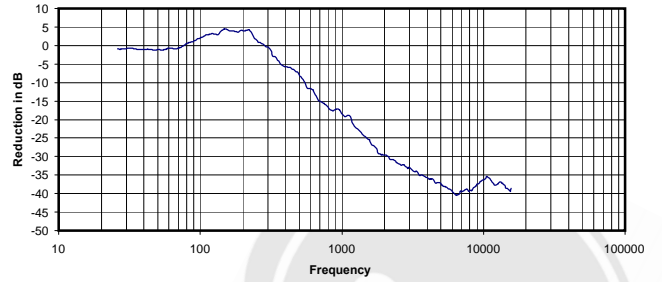
0.034 Vrms
 33 Ohms
 0.04 mW
 -15 dB



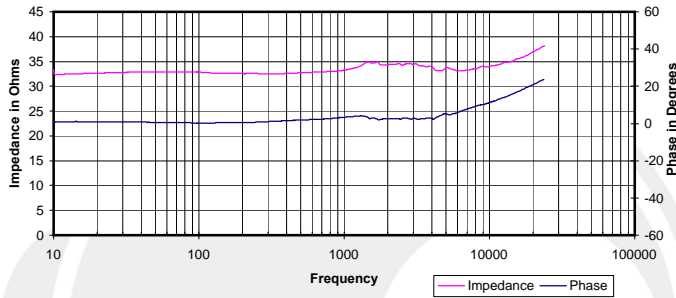
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



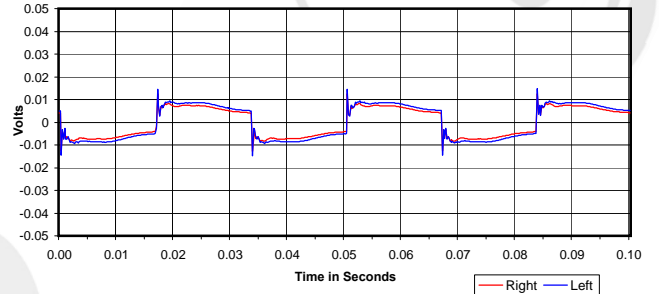
Isolation
Attenuation of External Sound vs. Frequency



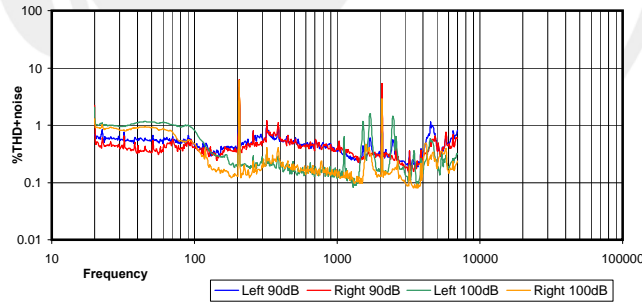
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



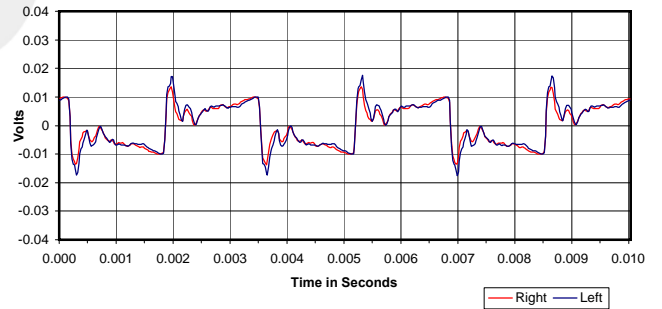
30 Hz Square Wave



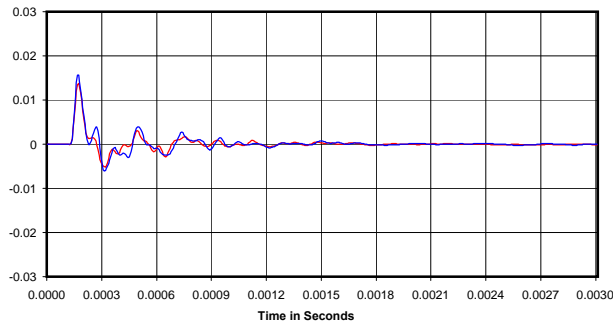
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

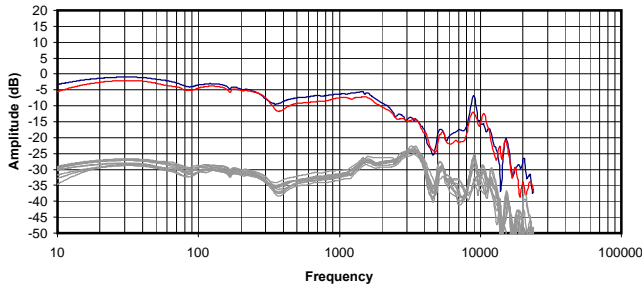


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

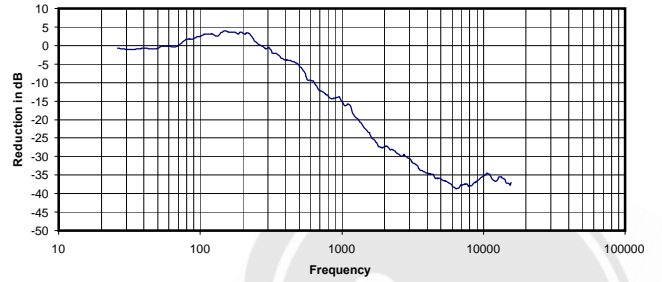
0.032 Vrms
33 Ohms
0.03 mW
-15 dB



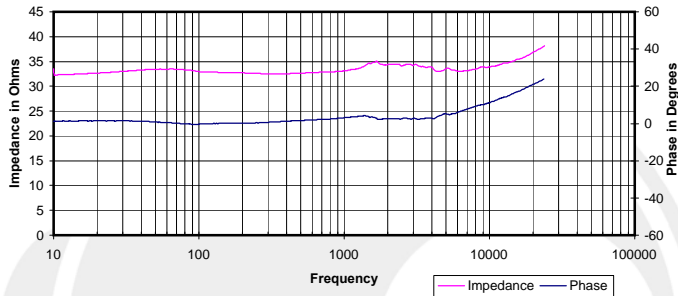
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



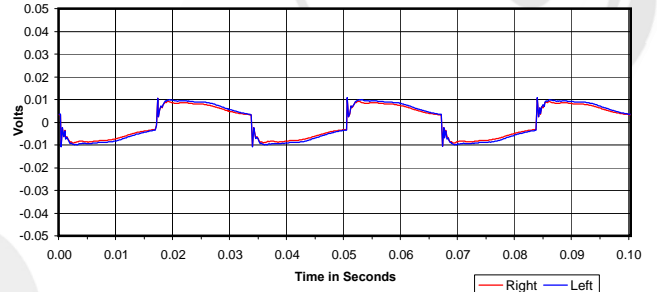
Isolation
 Attenuation of External Sound vs. Frequency



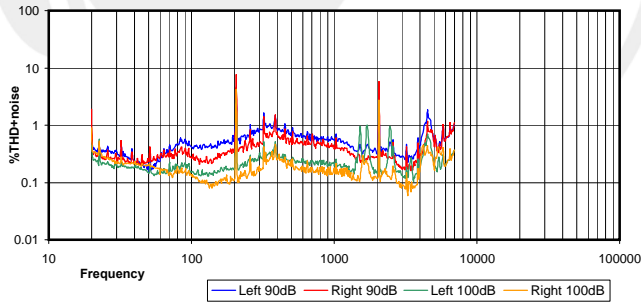
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



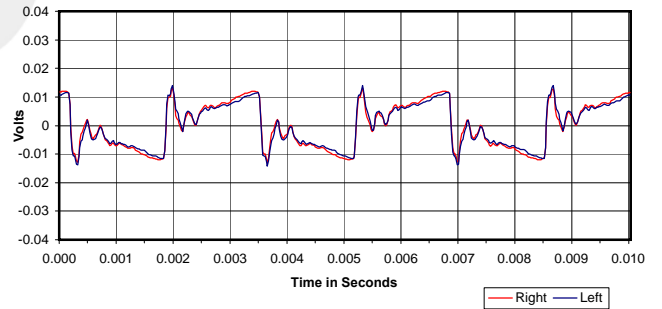
30 Hz Square Wave



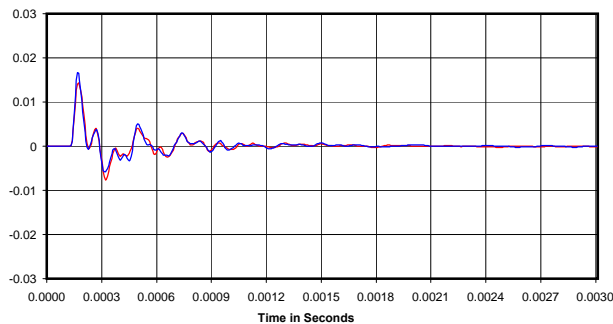
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

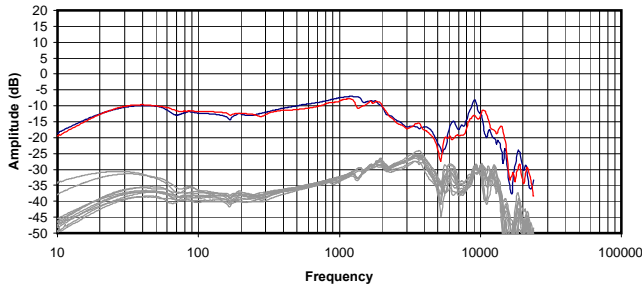


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

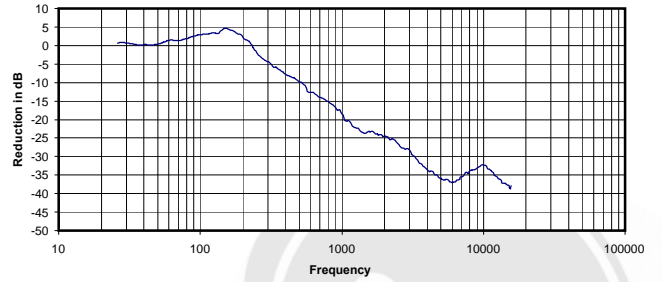
0.038 Vrms
 33 Ohms
 0.04 mW
 -14 dB



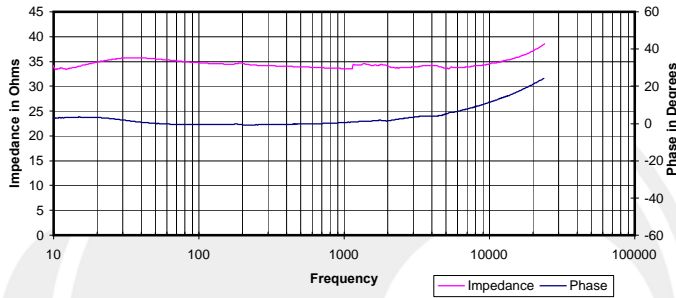
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



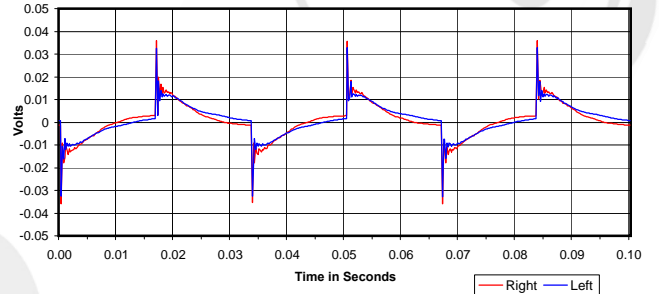
Isolation
 Attenuation of External Sound vs. Frequency



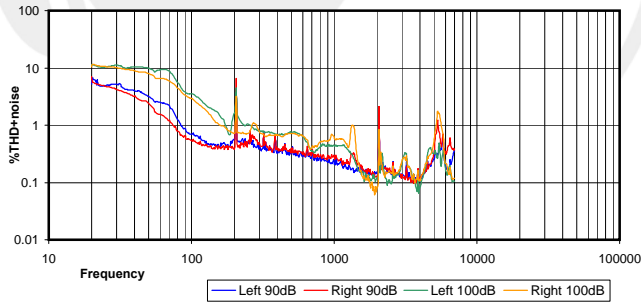
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



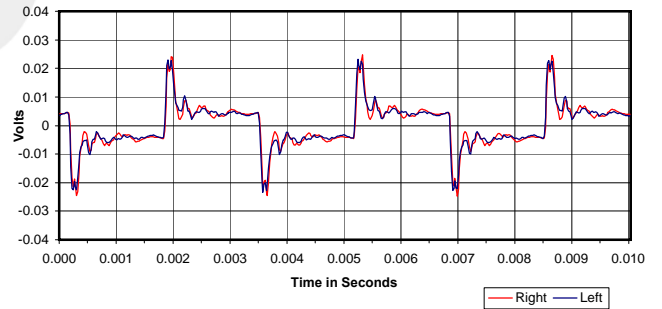
30 Hz Square Wave



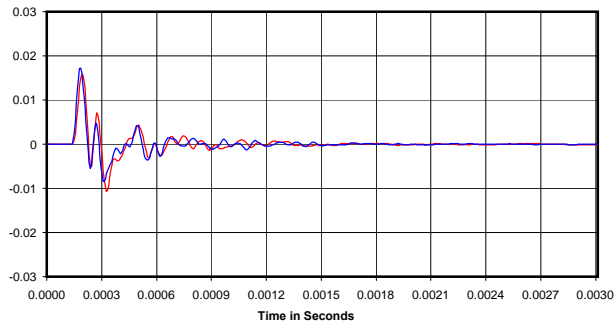
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

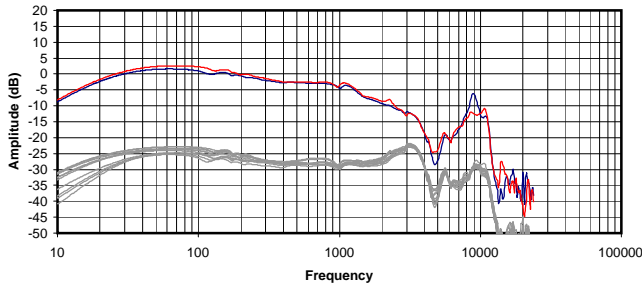


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

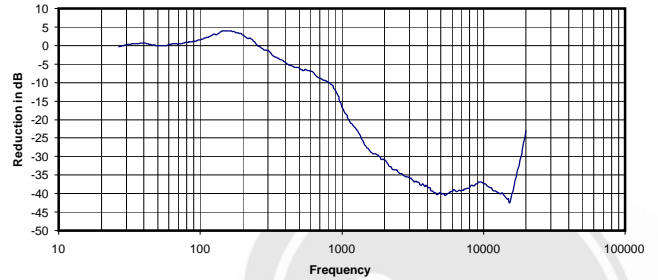
0.057 Vrms
 34 Ohms
 0.10 mW
 -15 dB



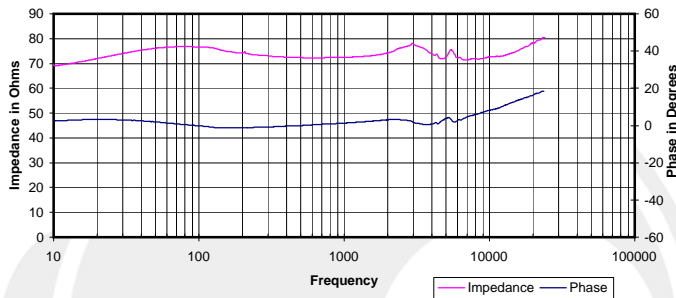
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



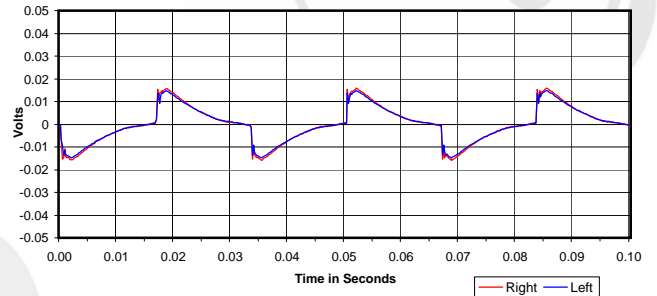
Isolation
 Attenuation of External Sound vs. Frequency



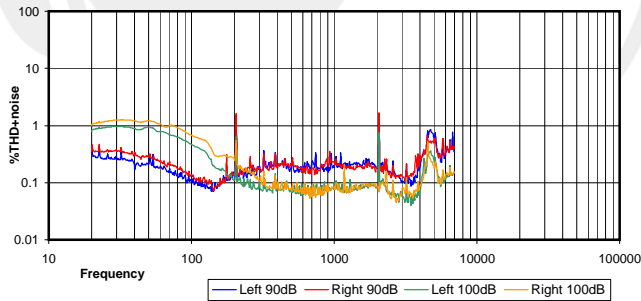
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



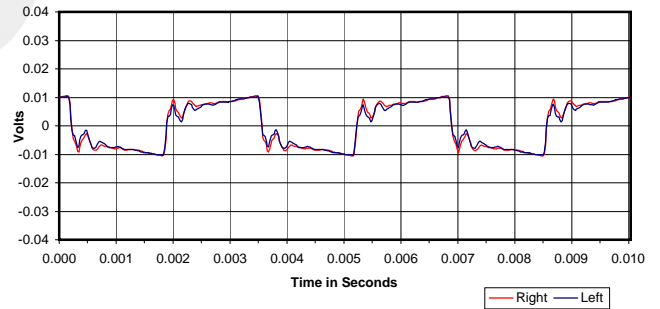
30 Hz Square Wave



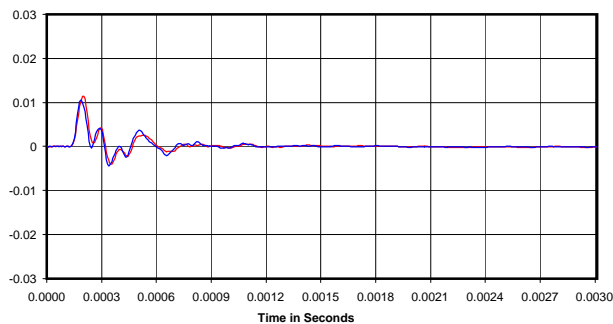
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



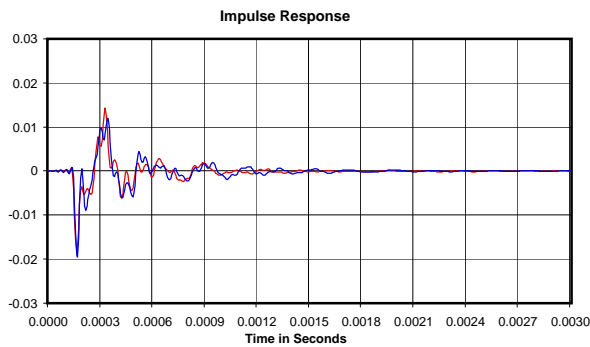
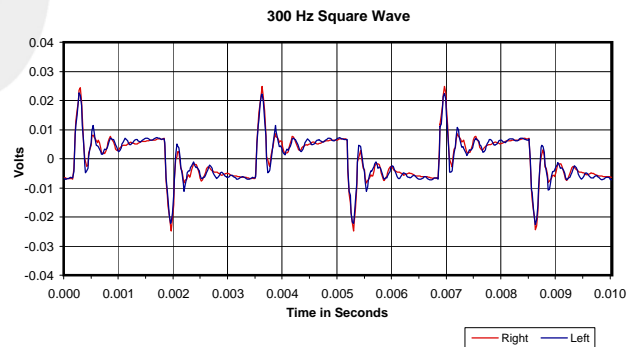
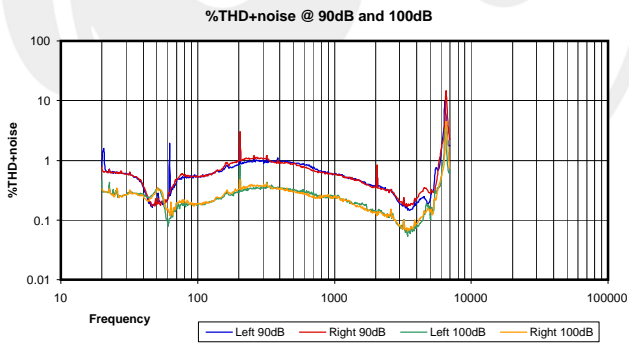
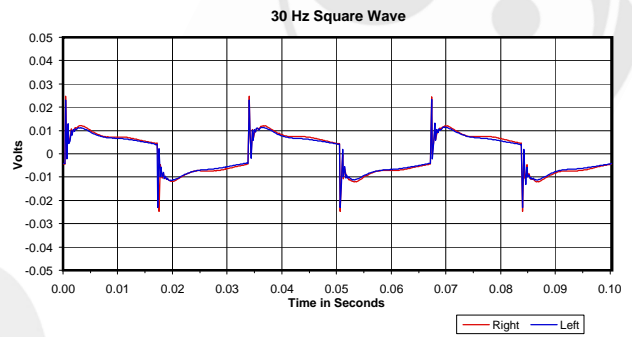
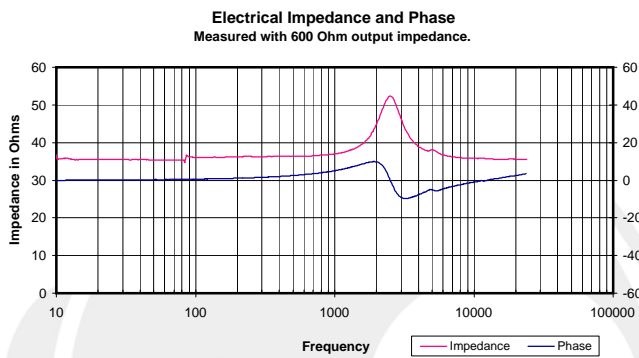
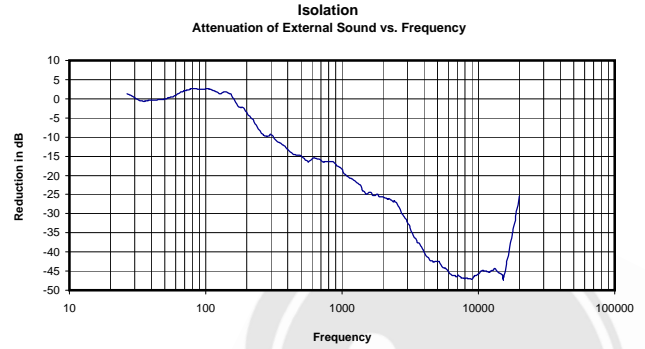
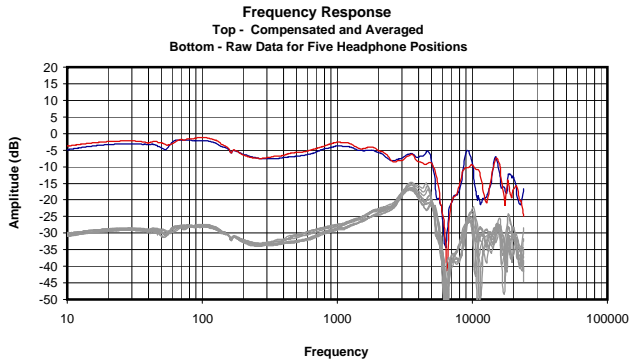
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
 72 Ohms
 0.03 mW
 -18 dB



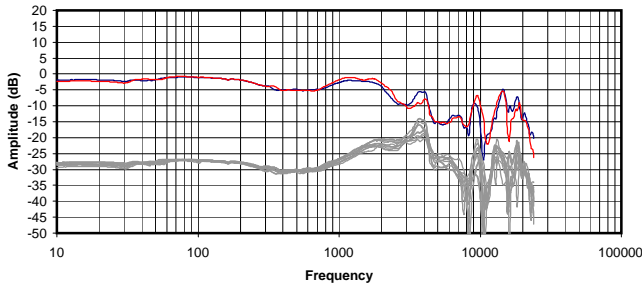


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

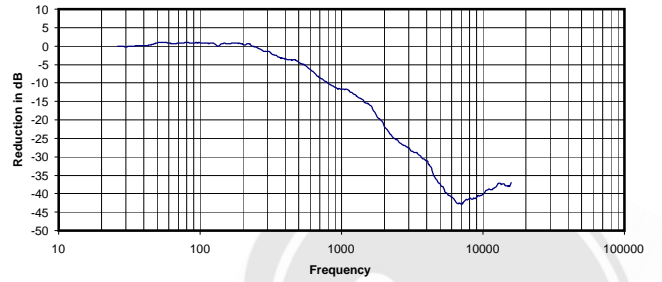
0.112 Vrms
37 Ohms
0.34 mW
-22 dB



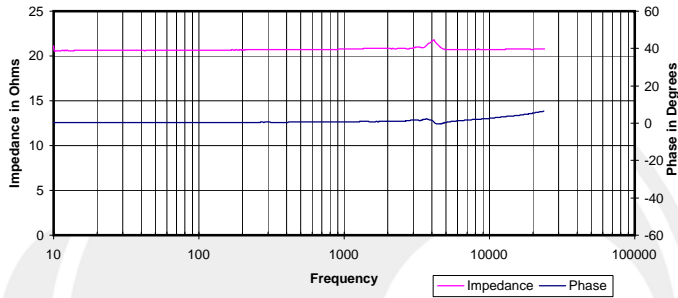
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



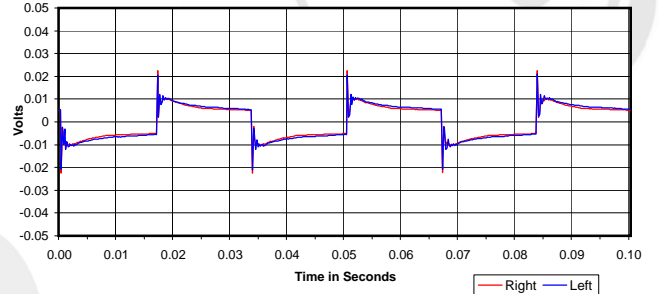
Isolation
 Attenuation of External Sound vs. Frequency



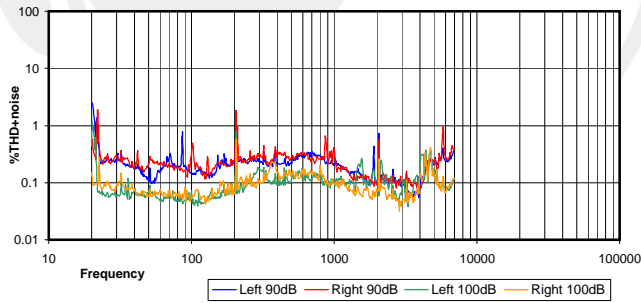
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



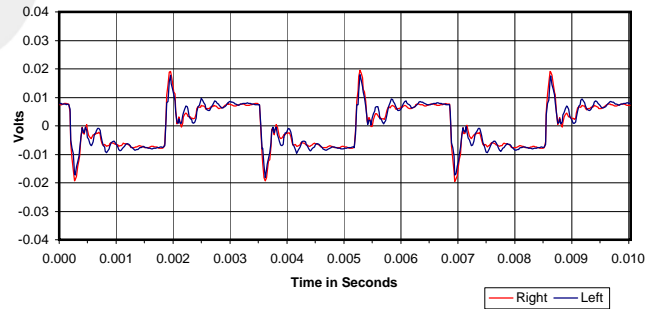
30 Hz Square Wave



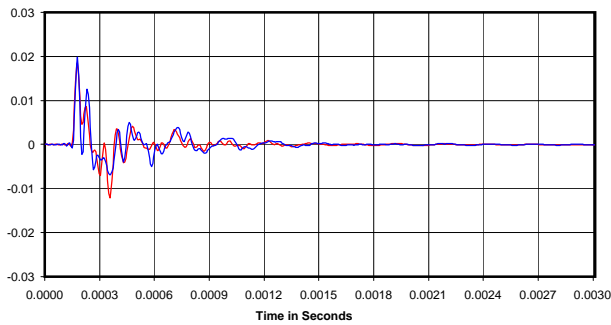
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

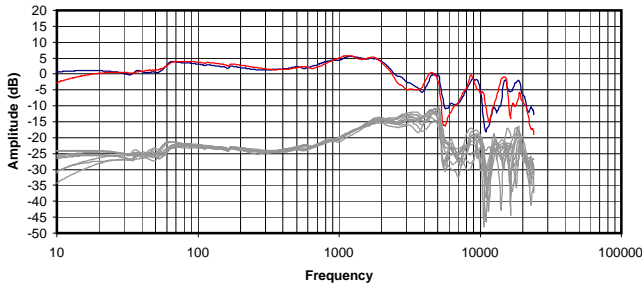


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

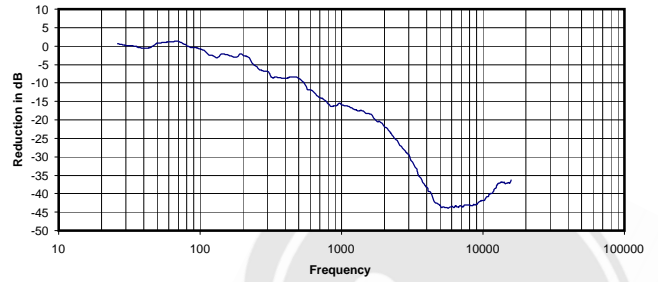
0.090 Vrms
 21 Ohms
 0.39 mW
 -13 dB



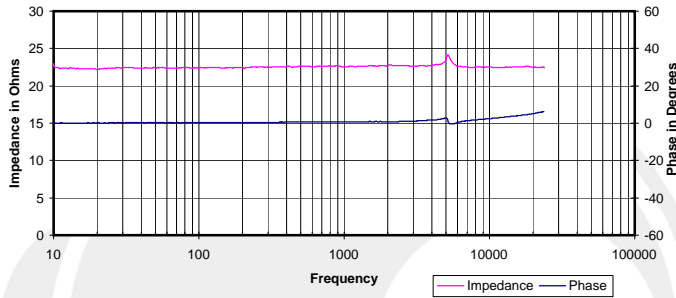
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



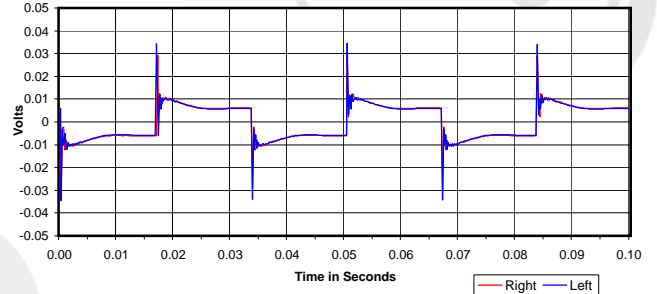
Isolation
 Attenuation of External Sound vs. Frequency



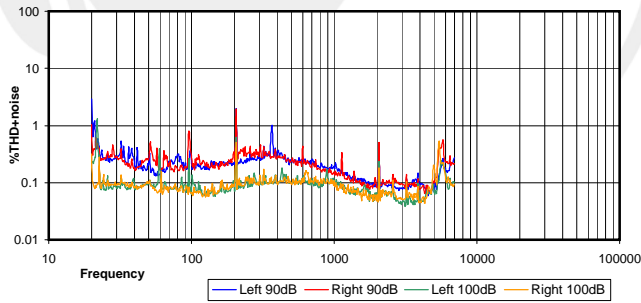
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



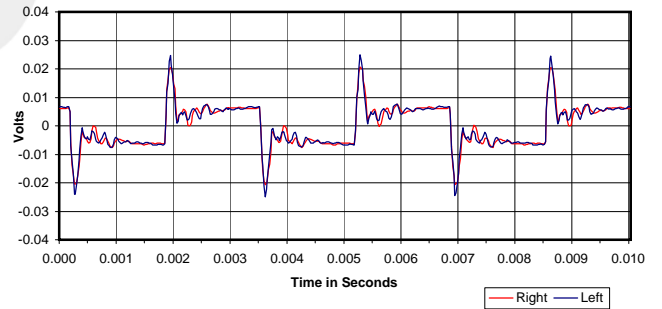
30 Hz Square Wave



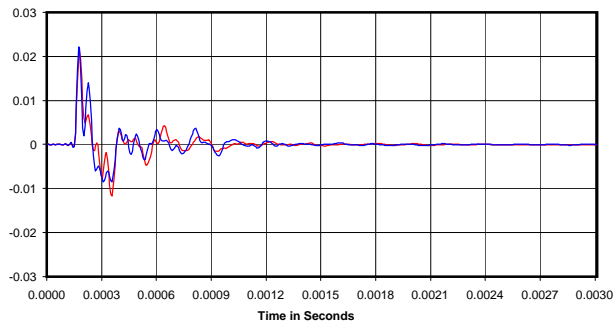
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



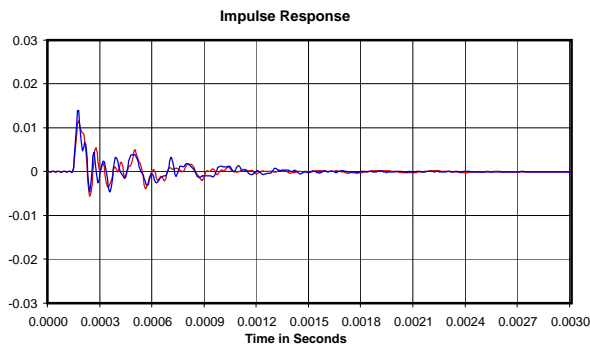
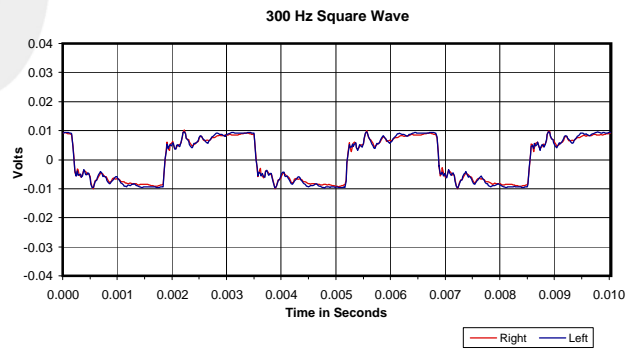
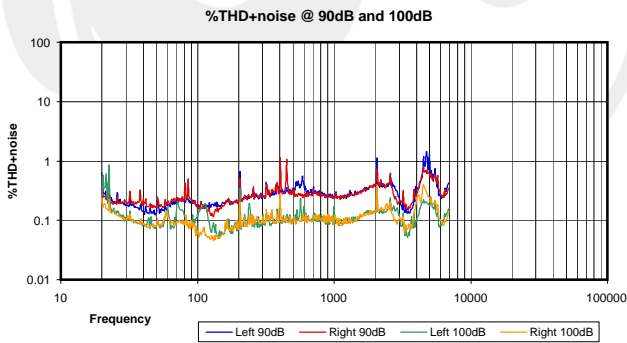
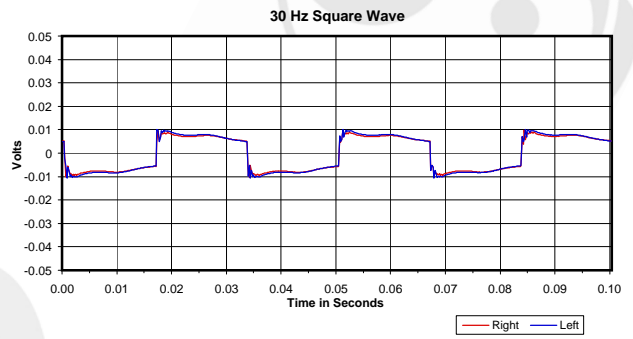
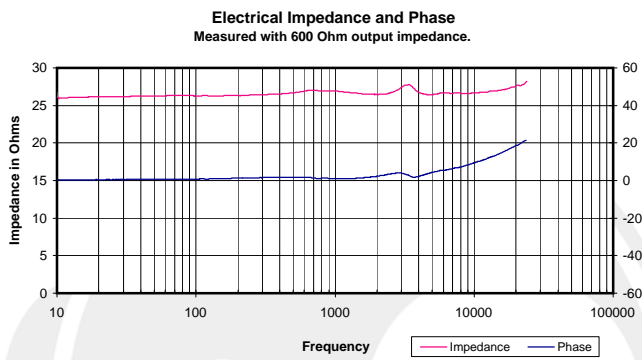
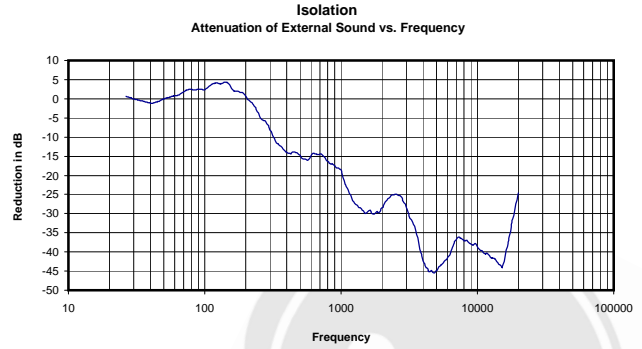
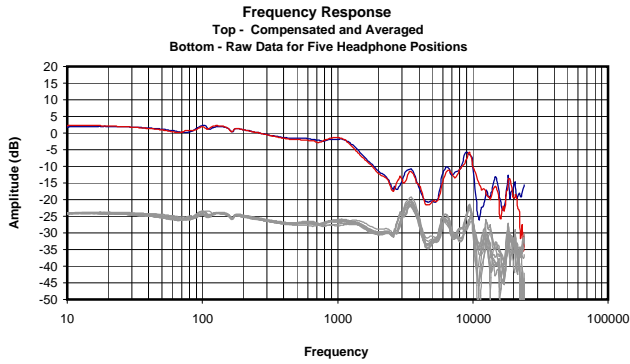
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
 23 Ohms
 0.22 mW
 -16 dB



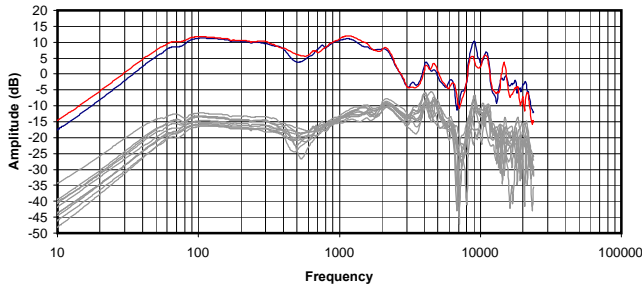


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

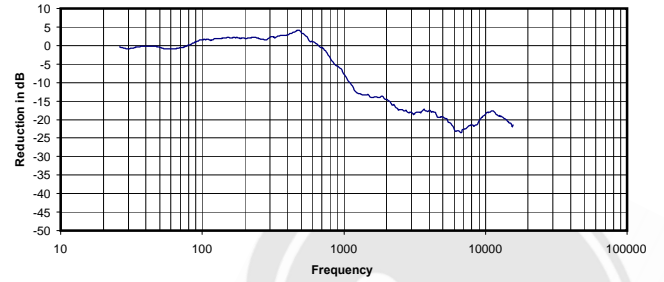
0.043 Vrms
27 Ohms
0.07 mW
-20 dBr



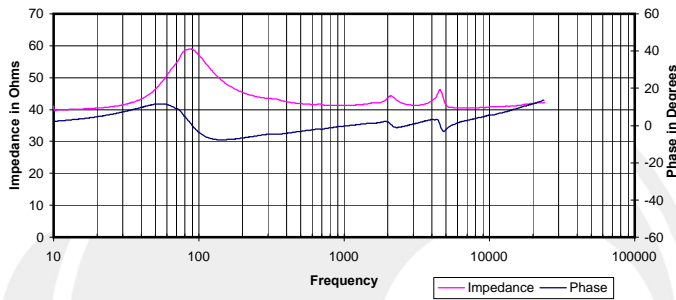
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



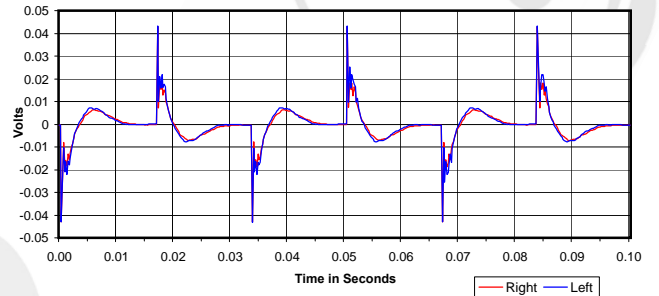
Isolation
 Attenuation of External Sound vs. Frequency



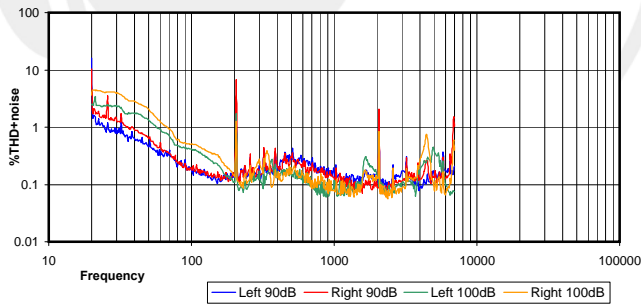
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



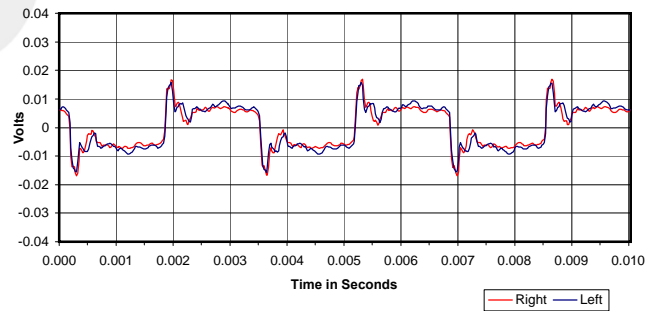
30 Hz Square Wave



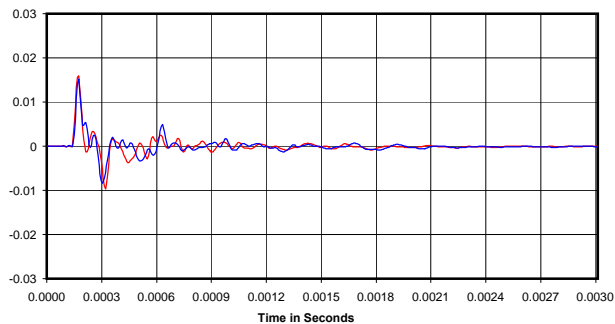
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

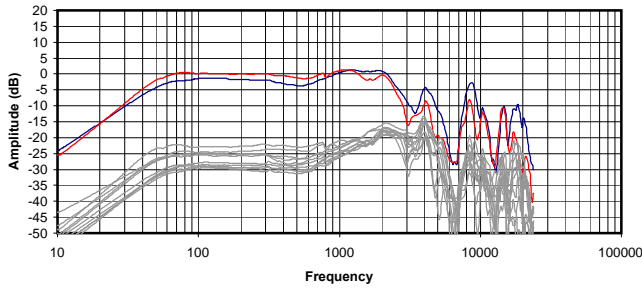


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

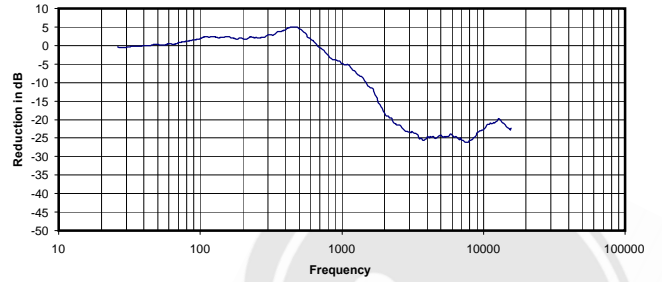
0.036 Vrms
 41 Ohms
 0.03 mW
 -6 dBr



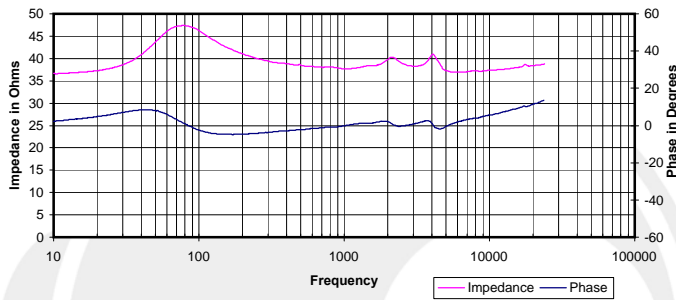
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



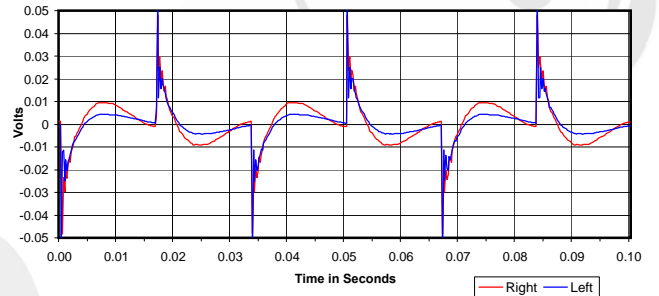
Isolation
 Attenuation of External Sound vs. Frequency



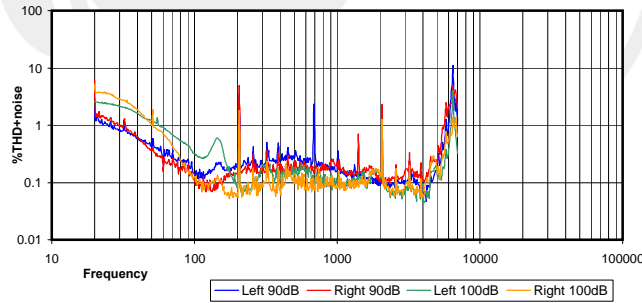
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



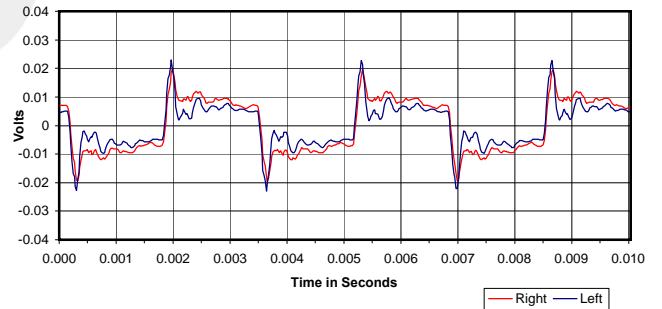
30 Hz Square Wave



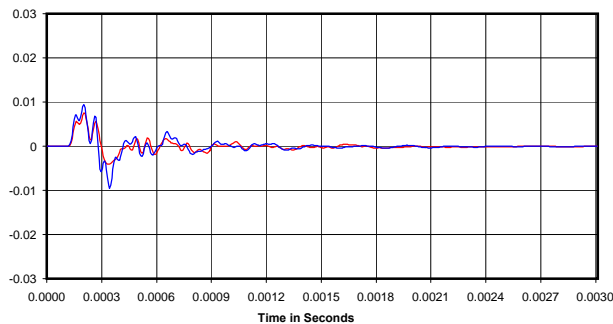
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



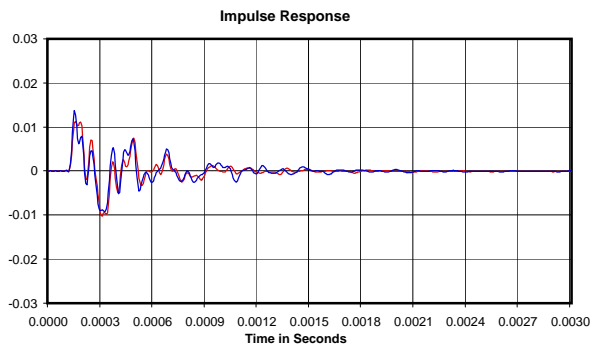
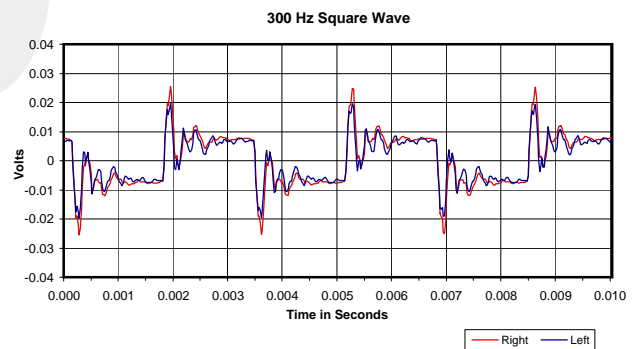
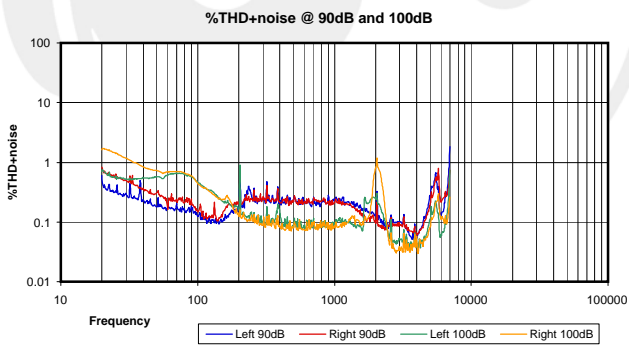
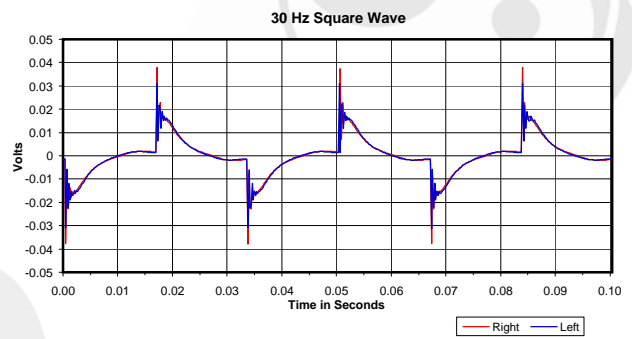
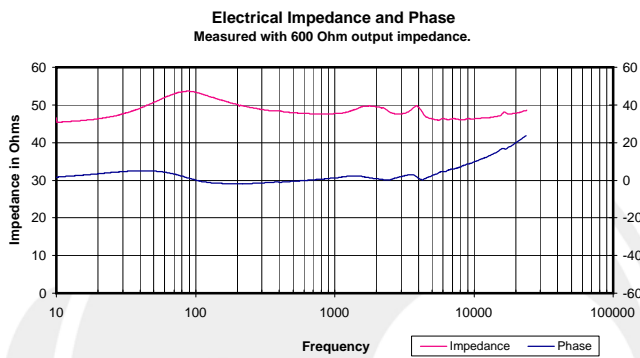
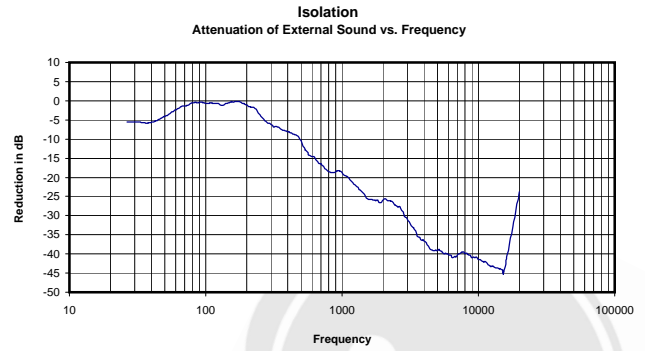
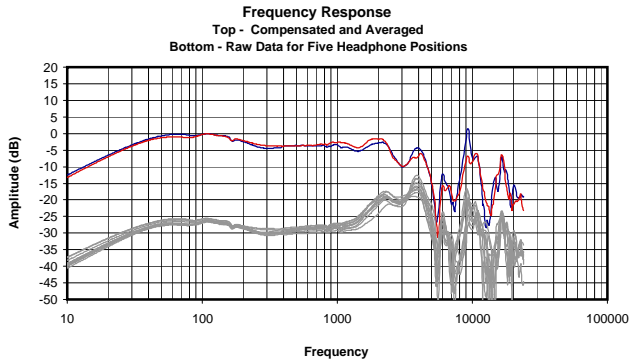
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
 38 Ohms
 0.03 mW
 -7 dB



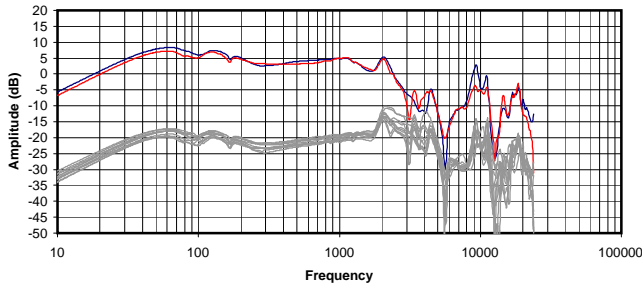


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

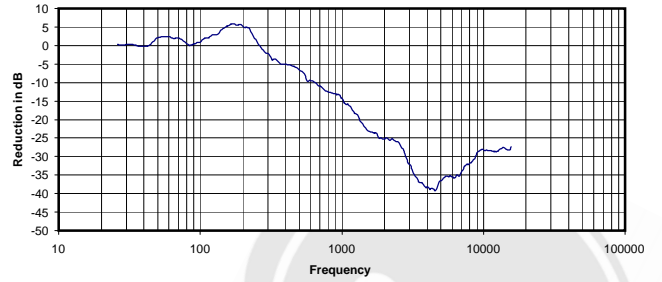
0.054 Vrms
48 Ohms
0.06 mW
-20 dBr



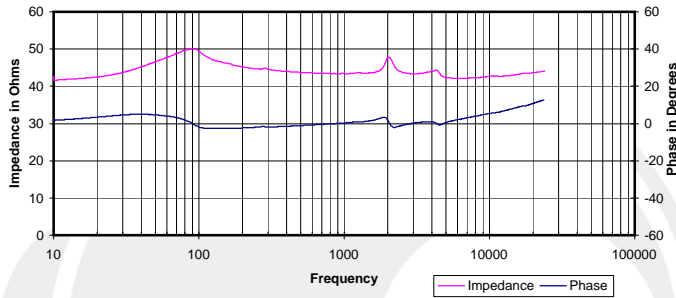
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



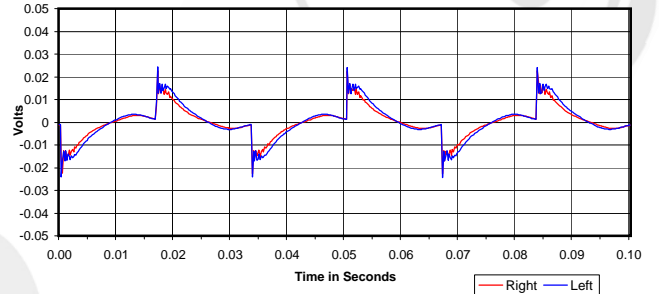
Isolation
 Attenuation of External Sound vs. Frequency



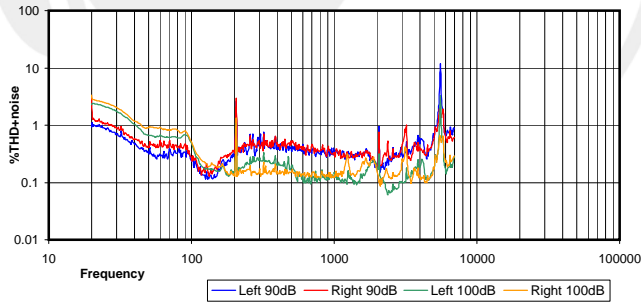
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



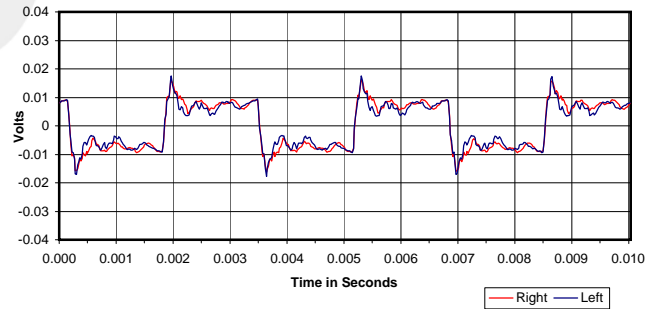
30 Hz Square Wave



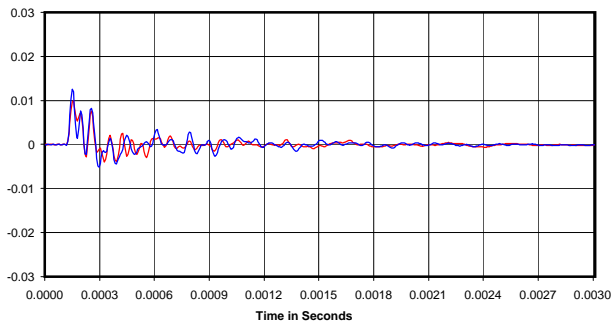
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



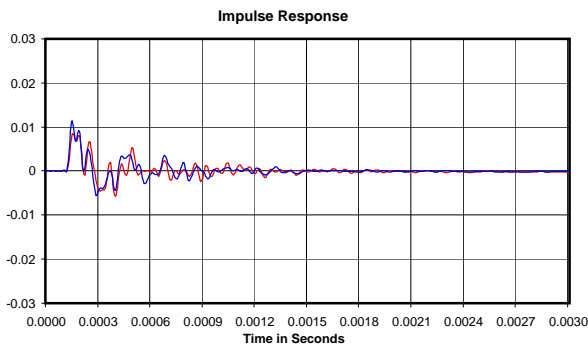
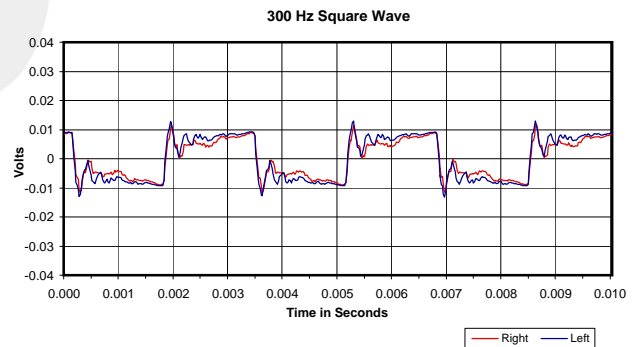
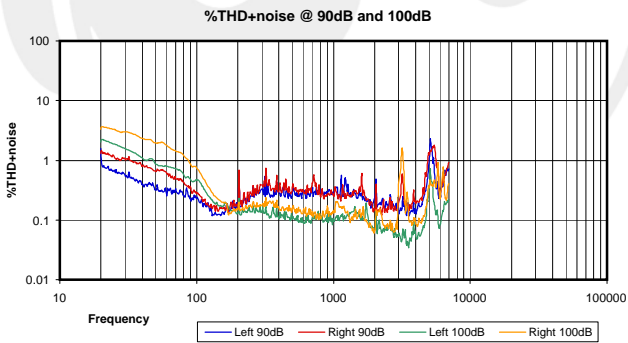
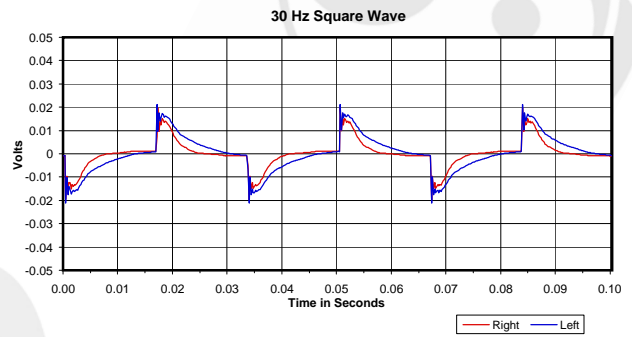
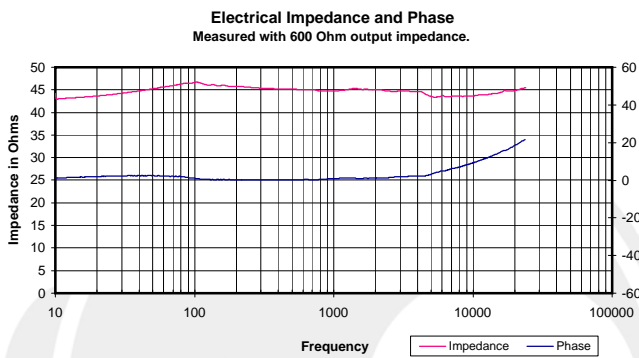
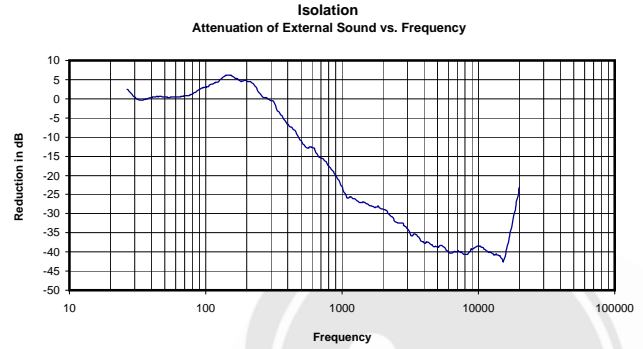
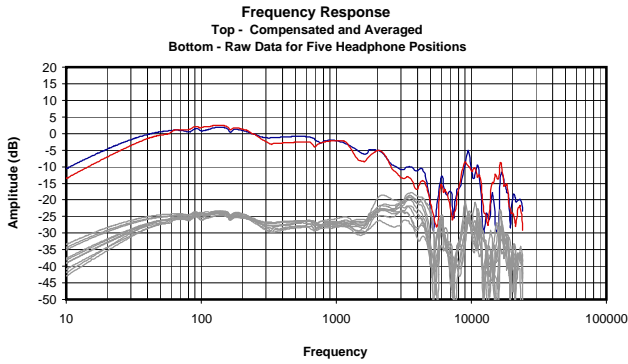
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.011 Vrms
 43 Ohms
 0.00 mW
 -14 dB



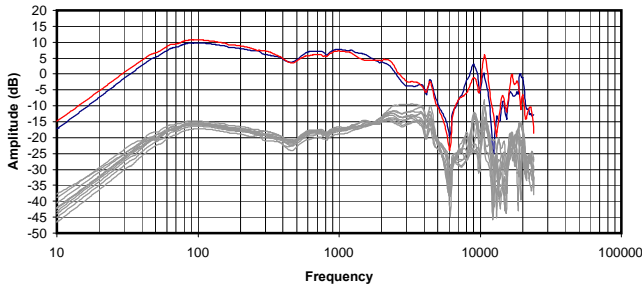


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

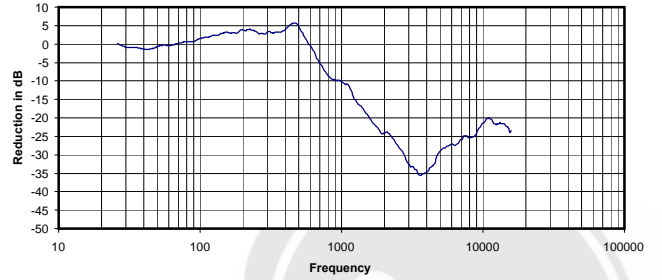
0.049 Vrms
45 Ohms
0.05 mW
-19 dBr



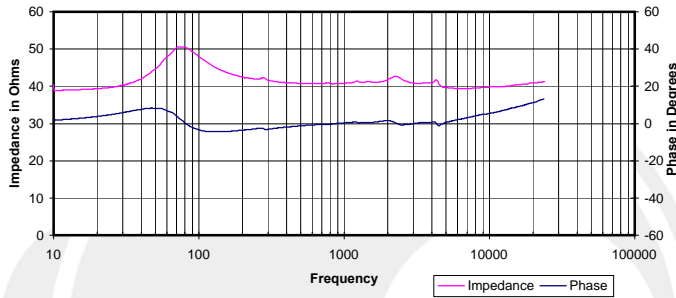
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



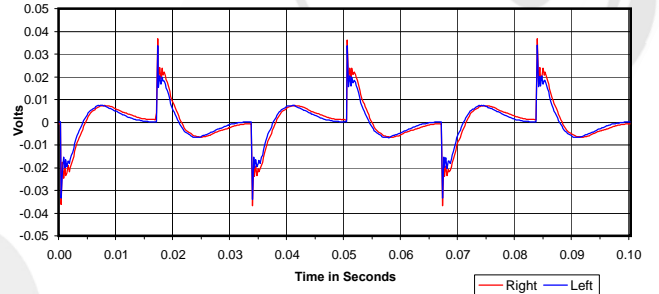
Isolation
 Attenuation of External Sound vs. Frequency



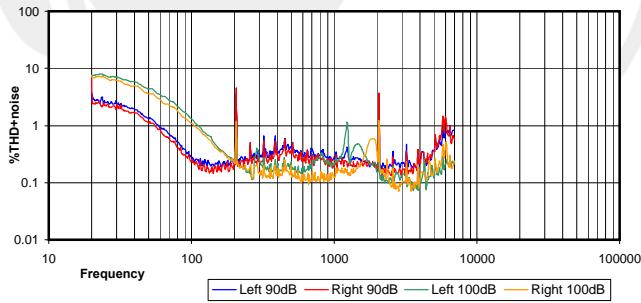
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



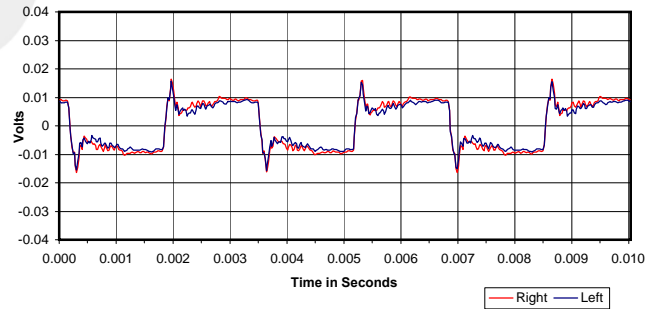
30 Hz Square Wave



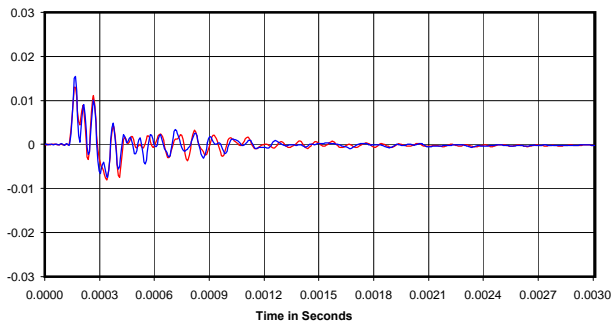
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

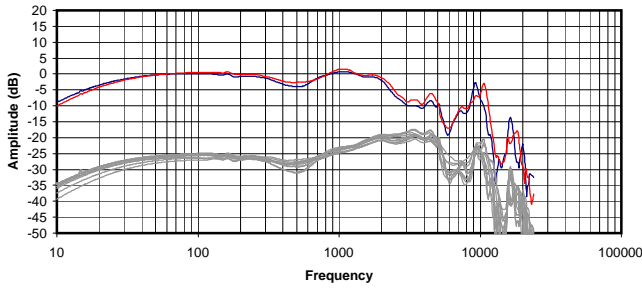


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

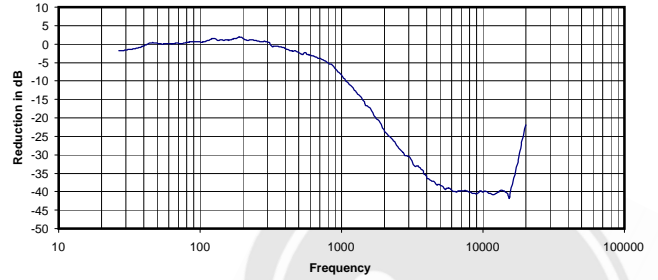
0.046 Vrms
 41 Ohms
 0.05 mW
 -10 dB



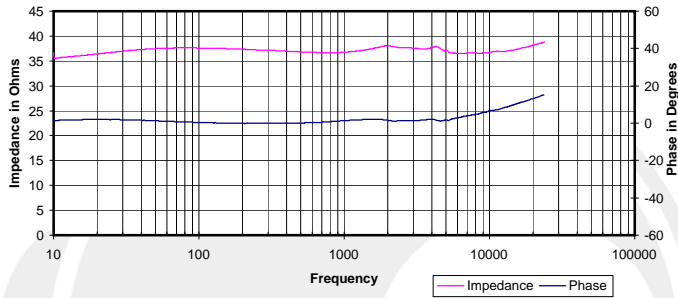
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



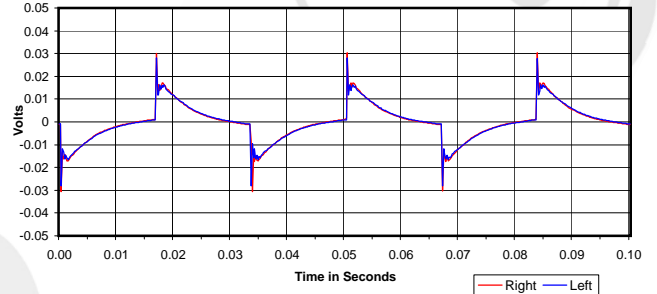
Isolation
 Attenuation of External Sound vs. Frequency



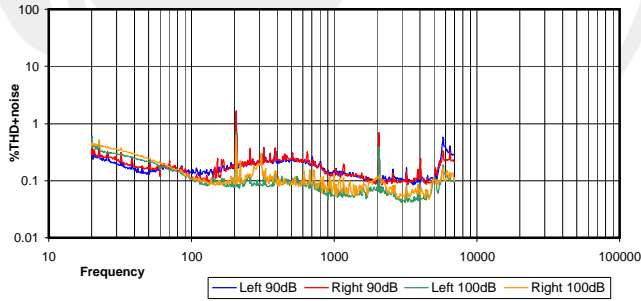
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



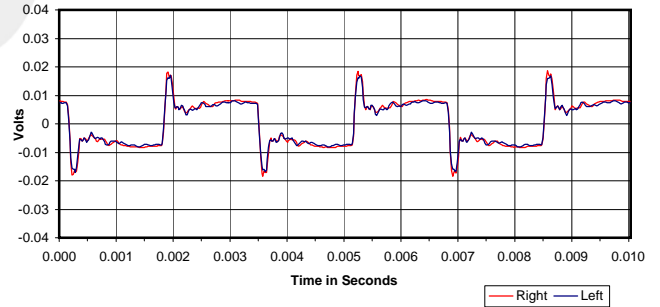
30 Hz Square Wave



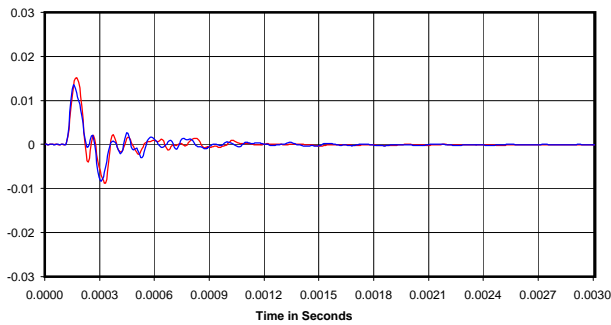
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

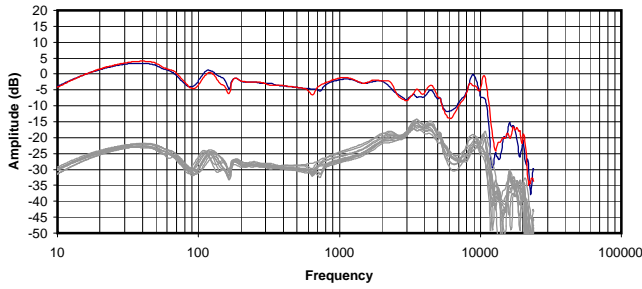


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

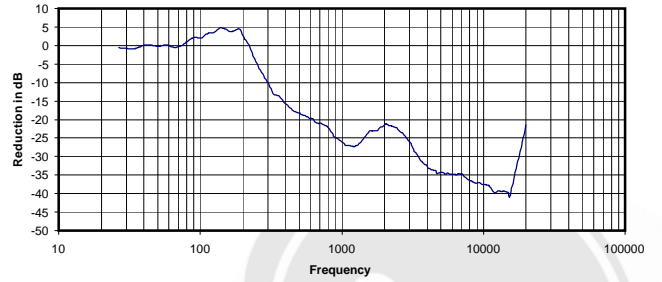
0.023 Vrms
 37 Ohms
 0.01 mW
 -15 dB



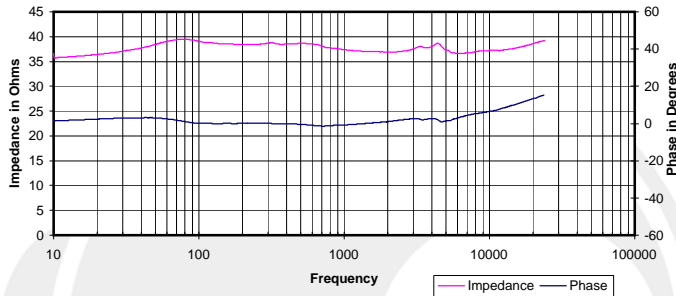
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



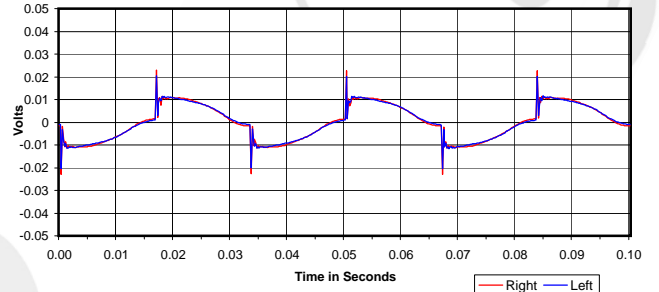
Isolation
 Attenuation of External Sound vs. Frequency



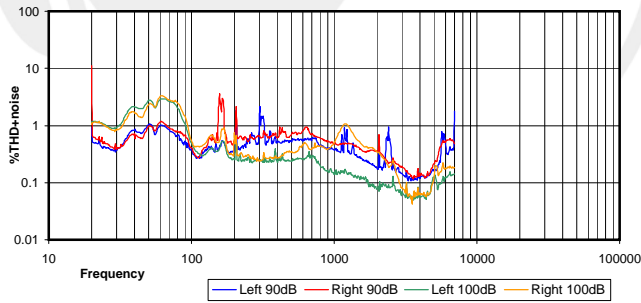
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



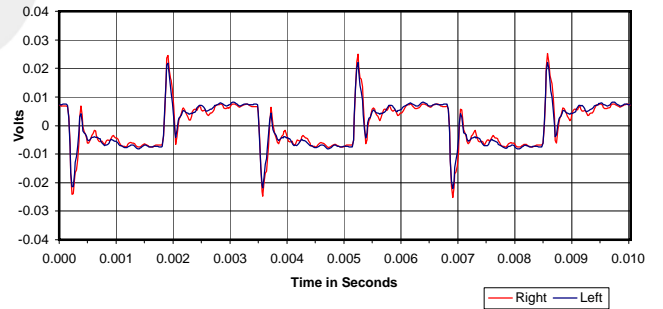
30 Hz Square Wave



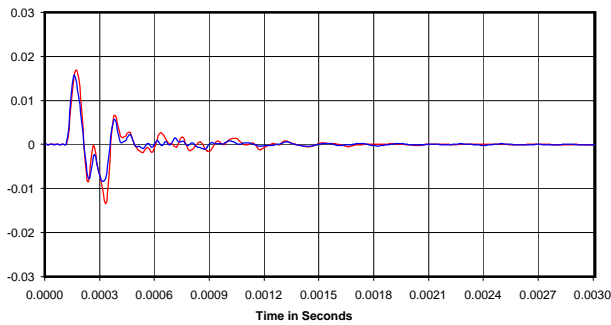
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

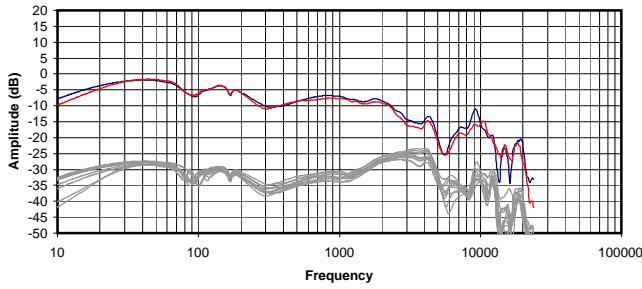


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

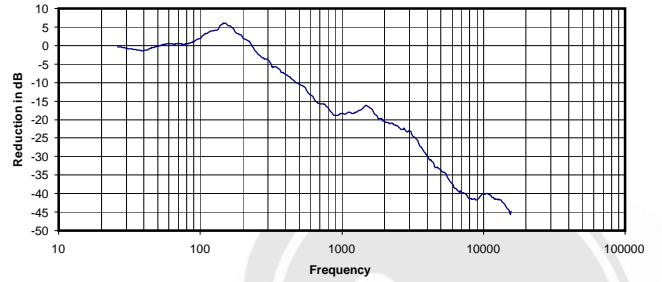
0.048 Vrms
 37 Ohms
 0.06 mW
 -19 dB



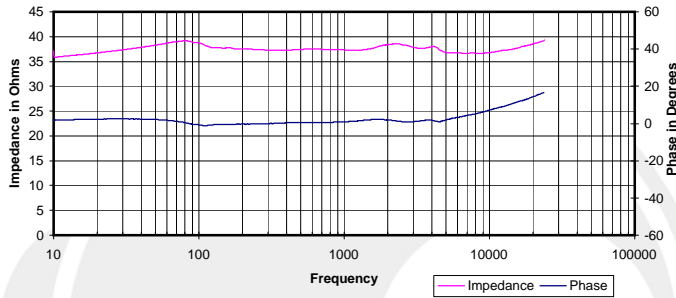
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



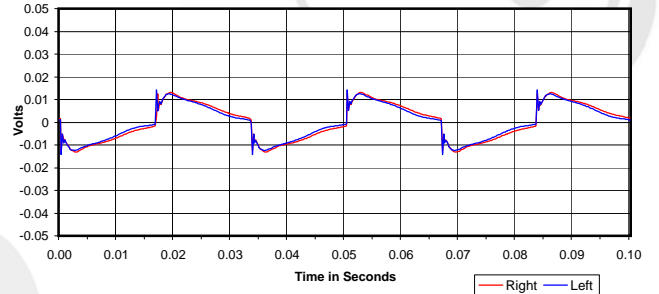
Isolation
 Attenuation of External Sound vs. Frequency



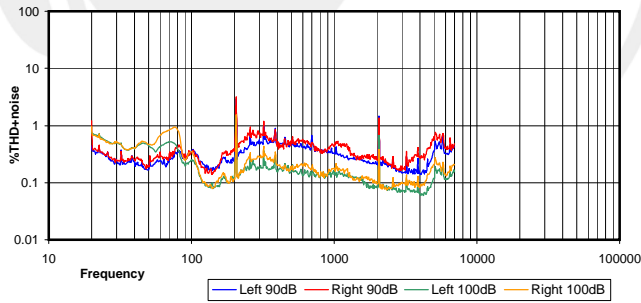
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



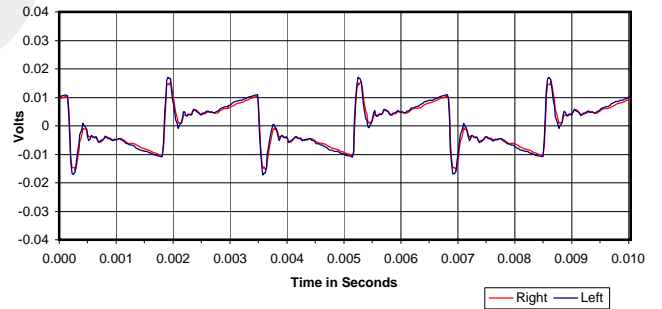
30 Hz Square Wave



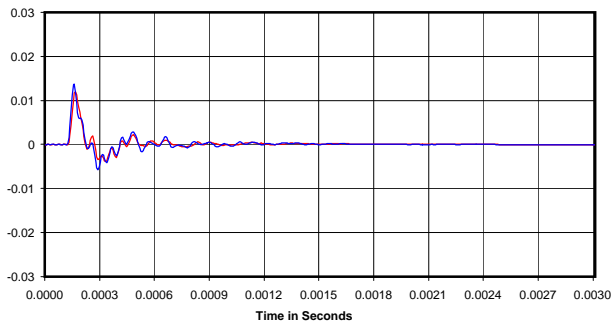
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



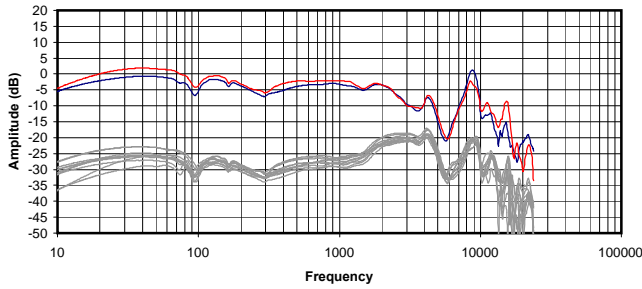
Impulse Response



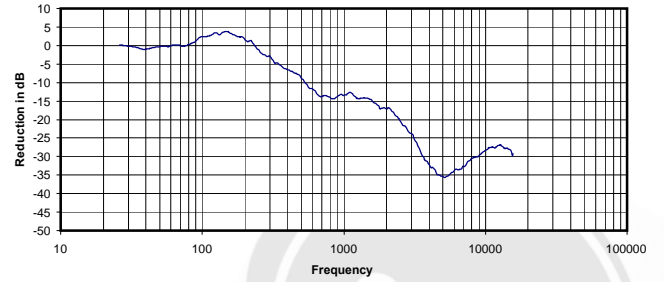
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
 37 Ohms
 0.05 mW
 -13 dB

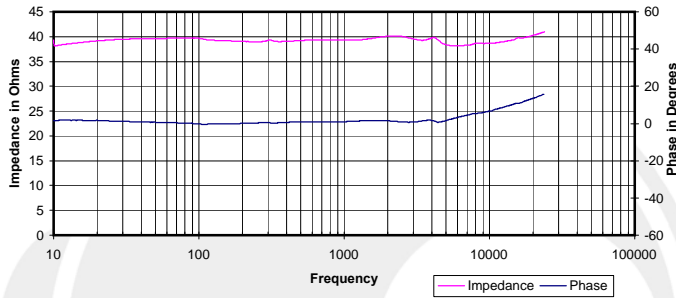
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



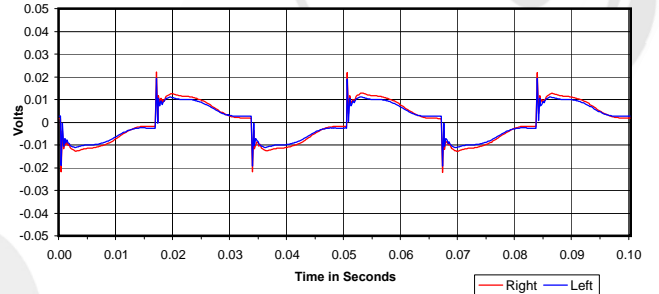
Isolation
 Attenuation of External Sound vs. Frequency



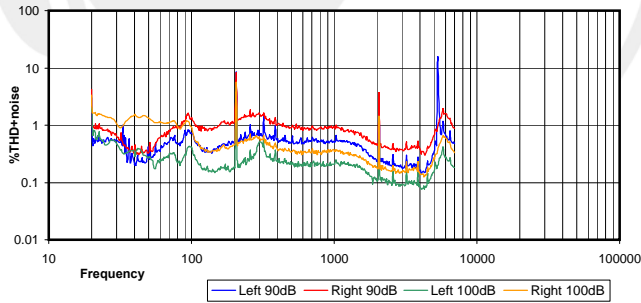
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



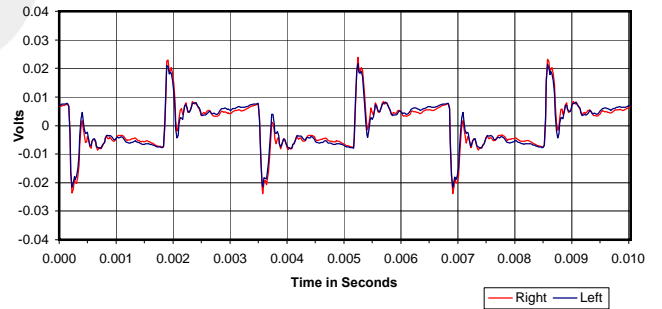
30 Hz Square Wave



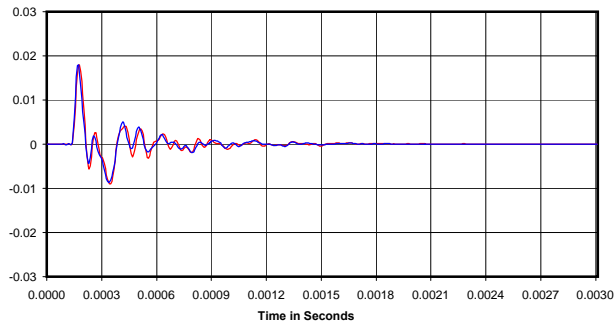
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

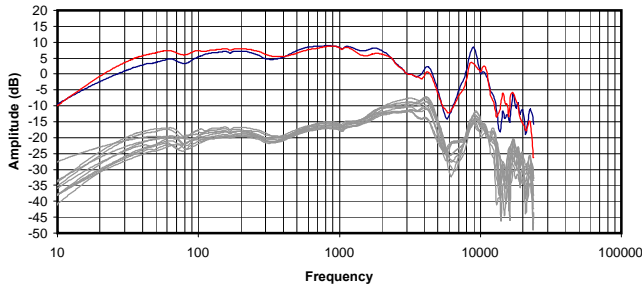


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

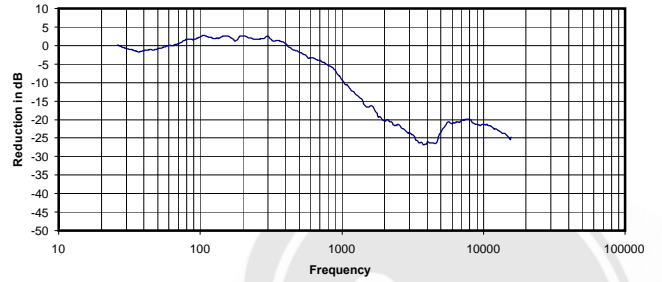
0.073 Vrms
 39 Ohms
 0.13 mW
 -12 dB



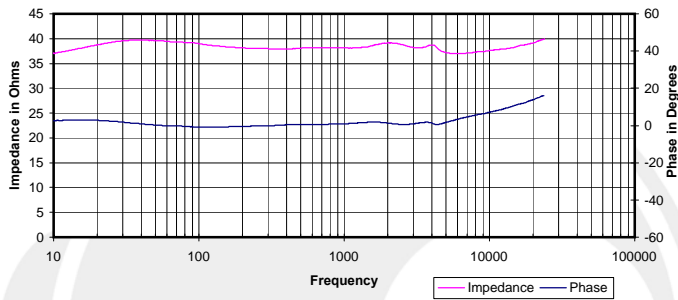
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



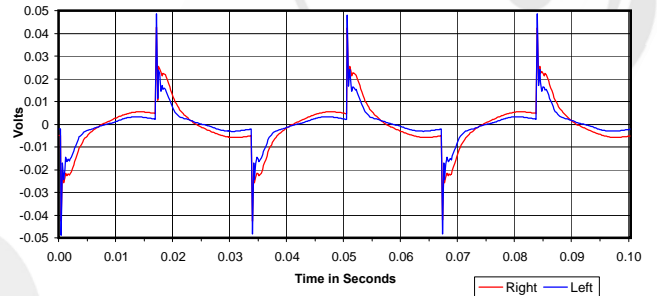
Isolation
 Attenuation of External Sound vs. Frequency



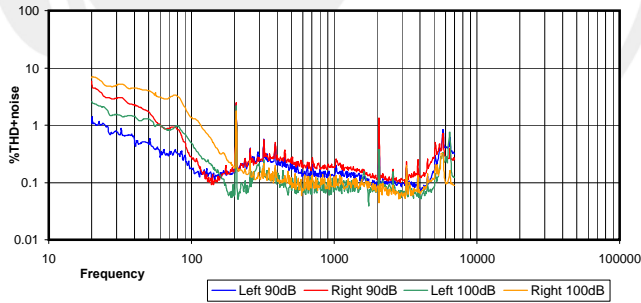
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



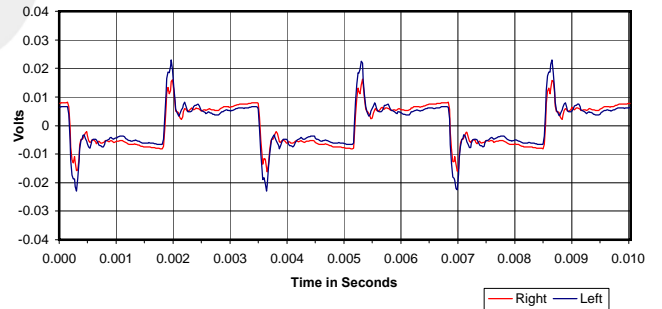
30 Hz Square Wave



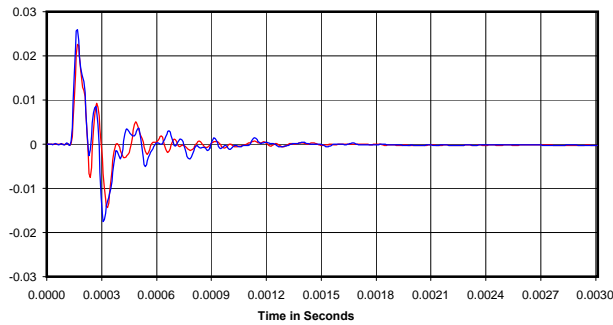
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

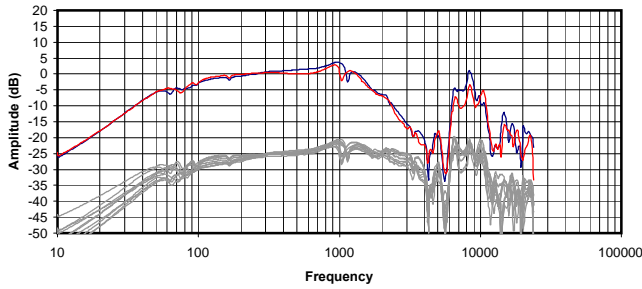


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

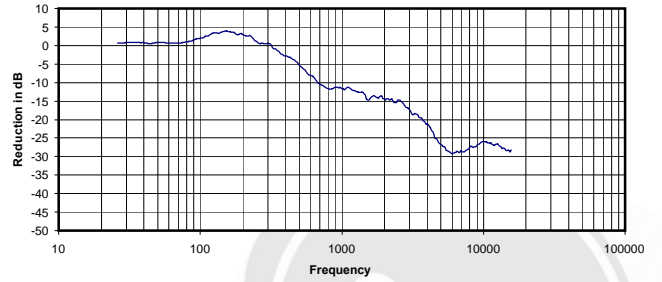
0.041 Vrms
 38 Ohms
 0.04 mW
 -9 dBr



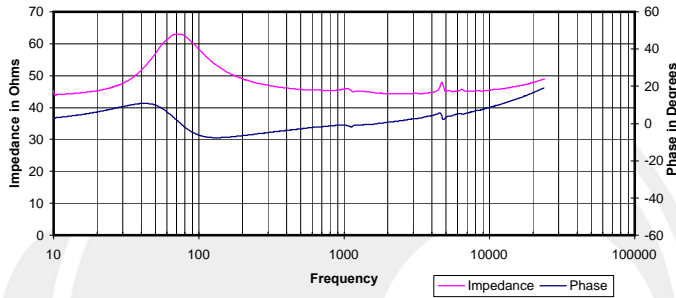
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



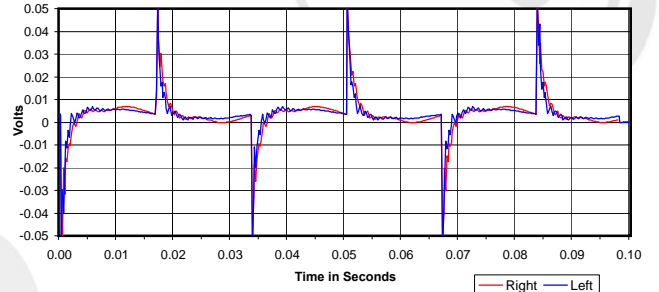
Isolation
 Attenuation of External Sound vs. Frequency



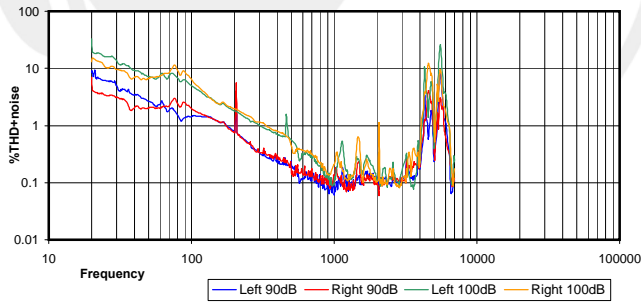
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



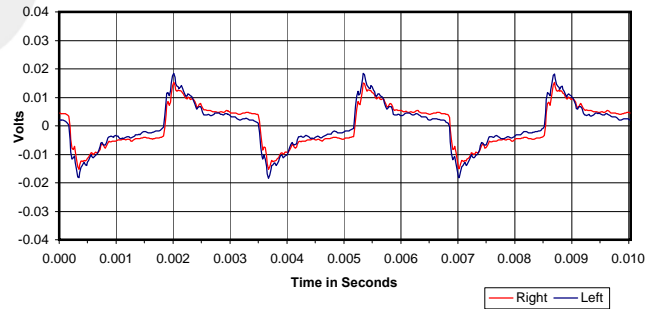
30 Hz Square Wave



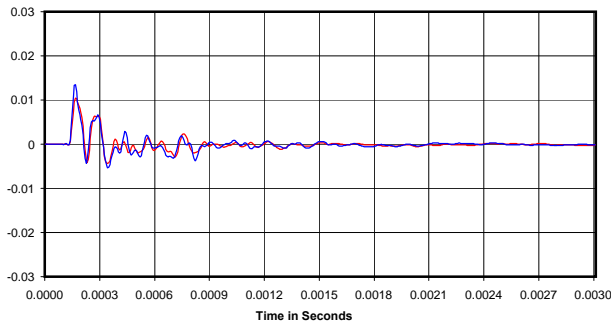
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

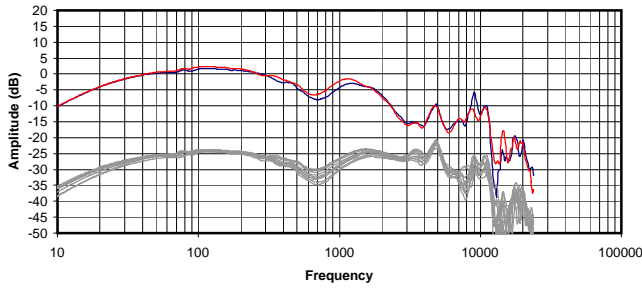


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

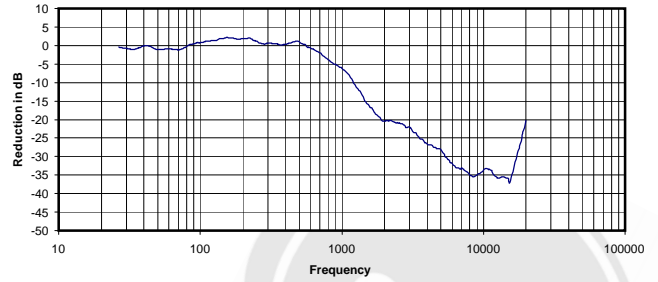
0.032 Vrms
 46 Ohms
 0.02 mW
 -9 dBr



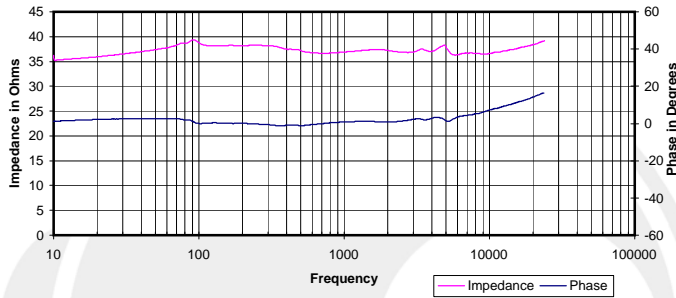
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



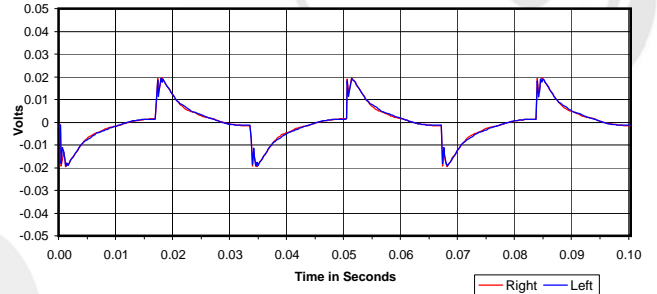
Isolation
 Attenuation of External Sound vs. Frequency



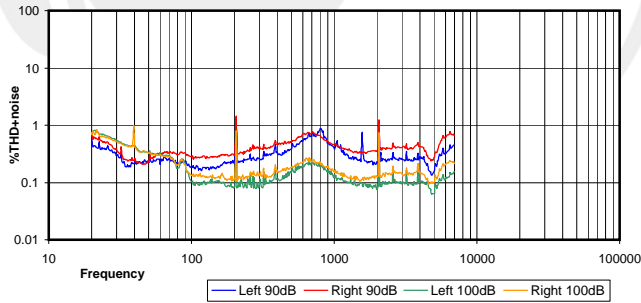
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



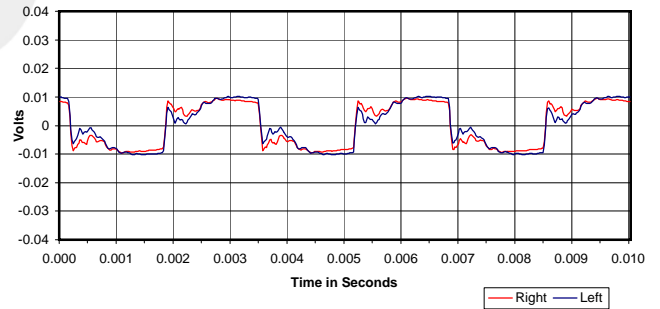
30 Hz Square Wave



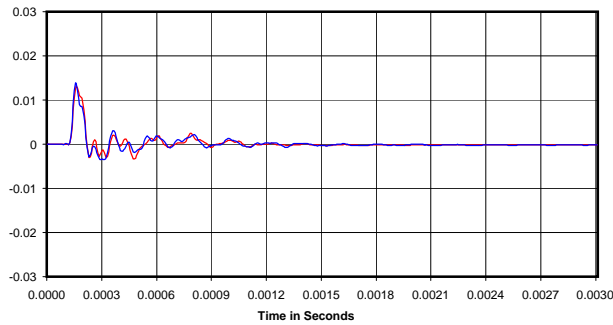
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



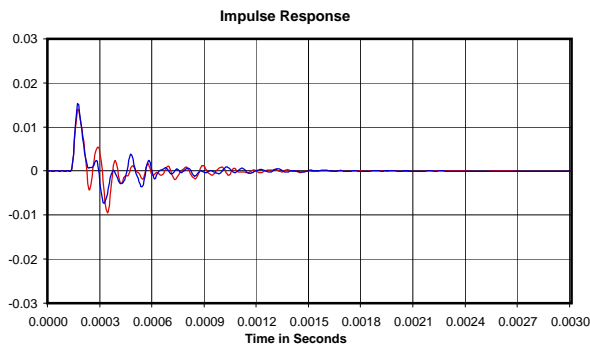
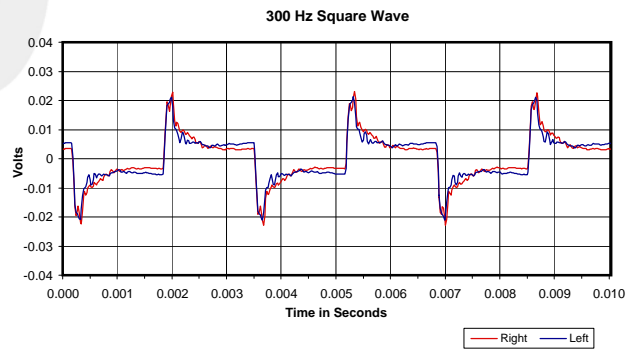
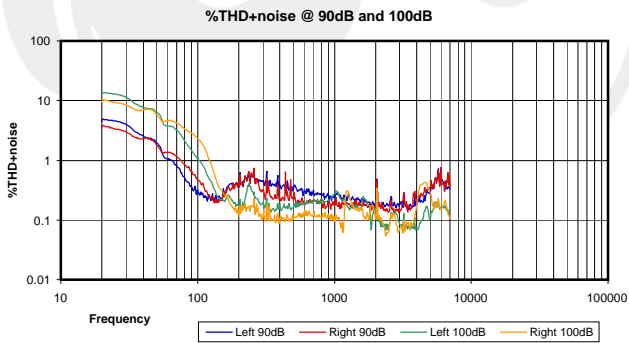
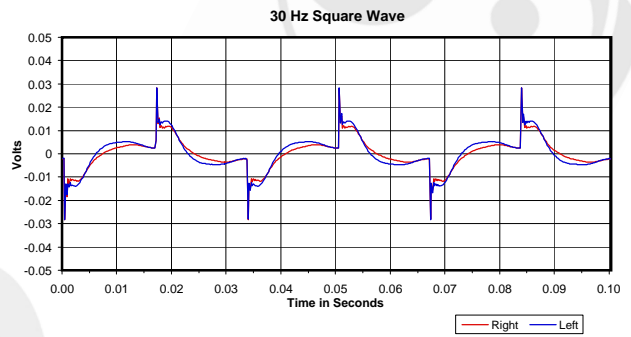
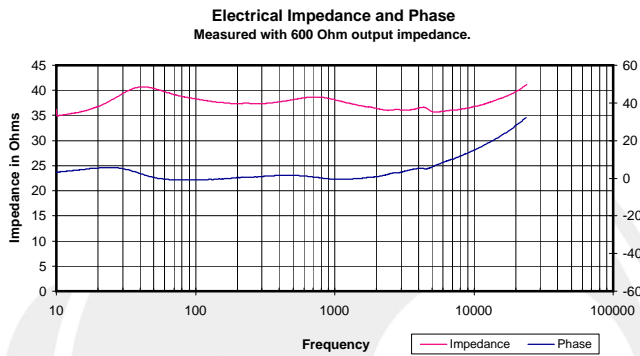
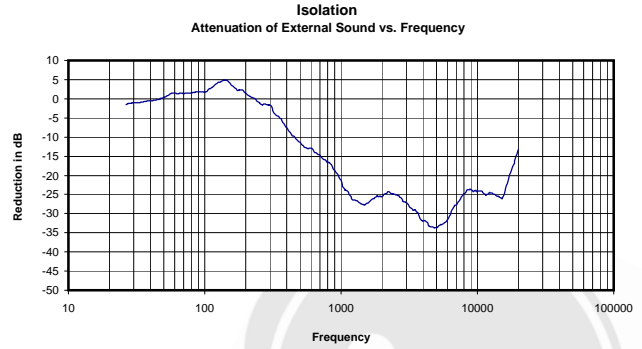
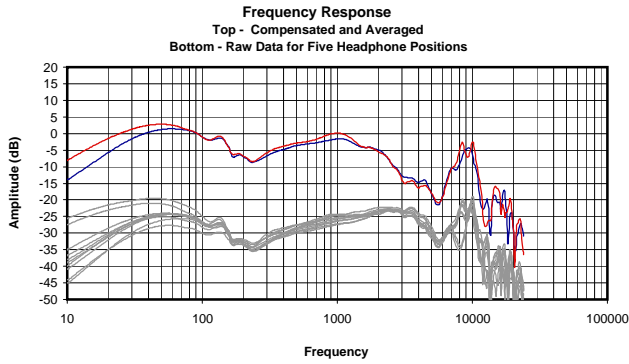
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
 37 Ohms
 0.03 mW
 -12 dB



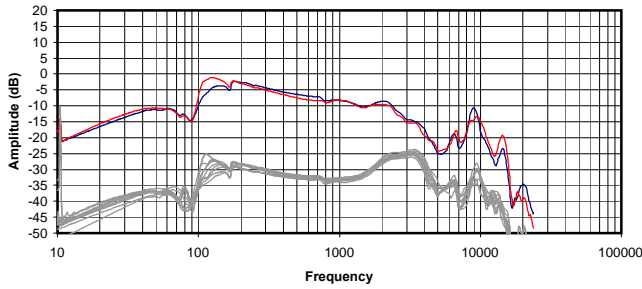


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

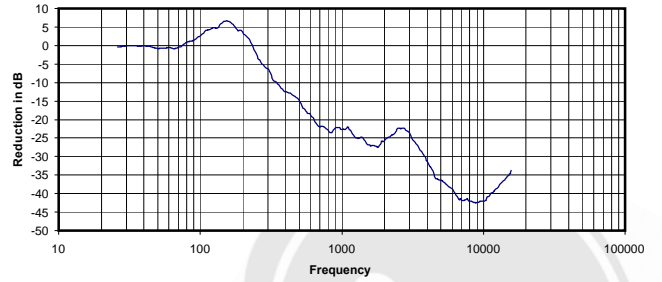
0.045 Vrms
38 Ohms
0.05 mW
-16 dB



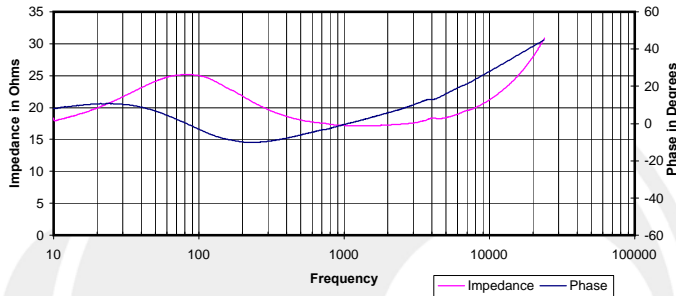
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



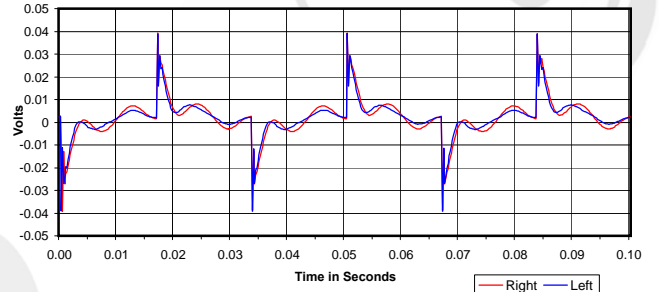
Isolation
Attenuation of External Sound vs. Frequency



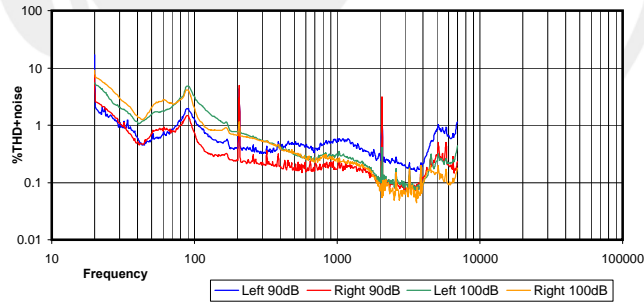
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



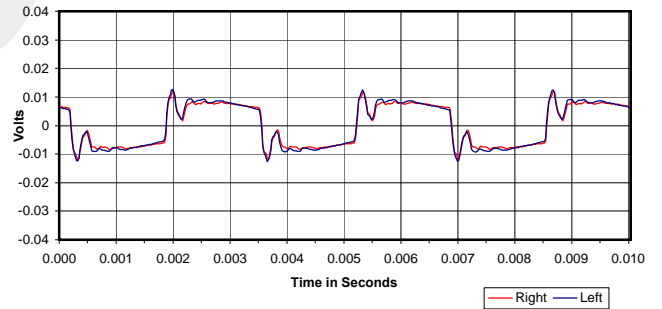
30 Hz Square Wave



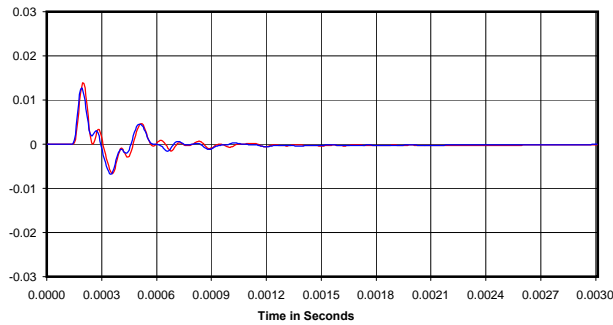
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

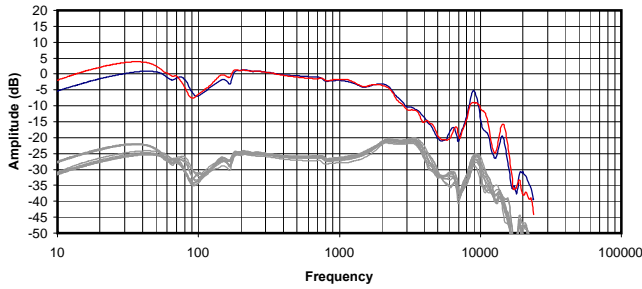


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

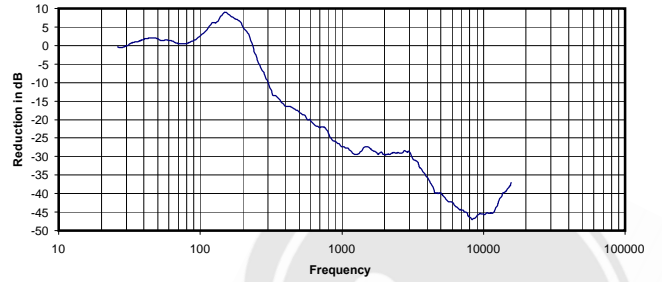
0.056 Vrms
17 Ohms
0.18 mW
-16 dB



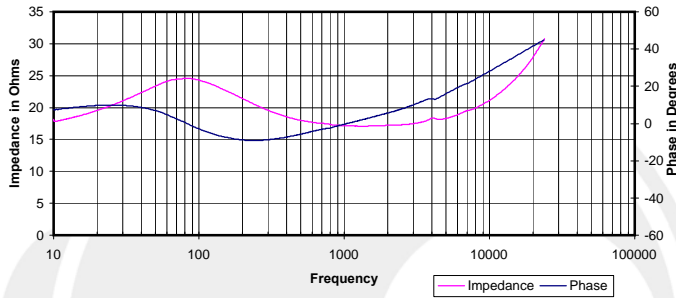
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



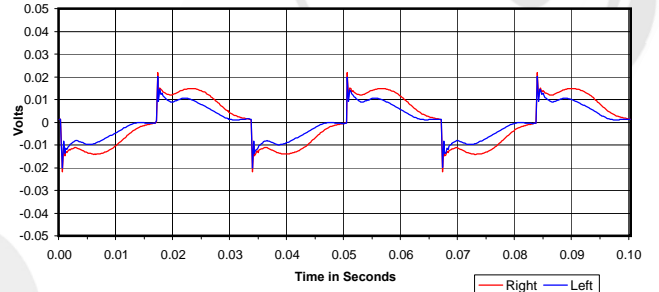
Isolation
Attenuation of External Sound vs. Frequency



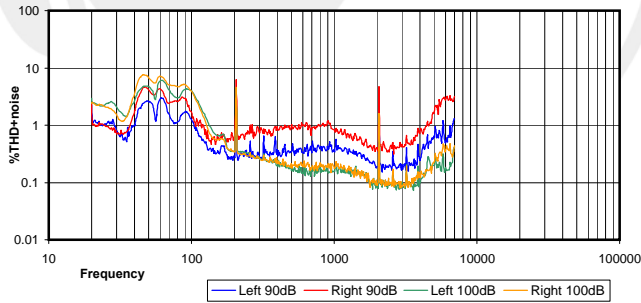
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



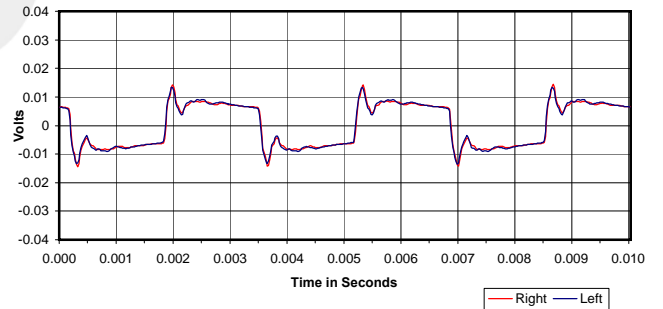
30 Hz Square Wave



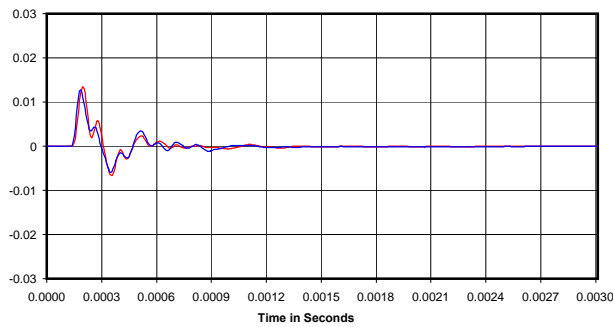
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

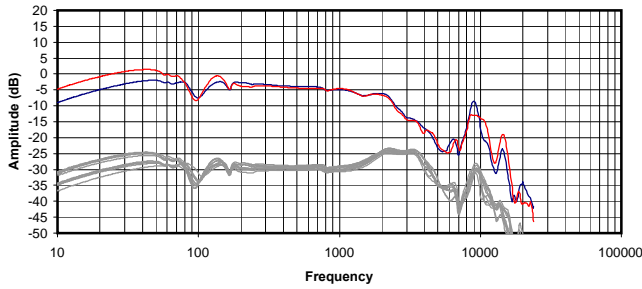


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

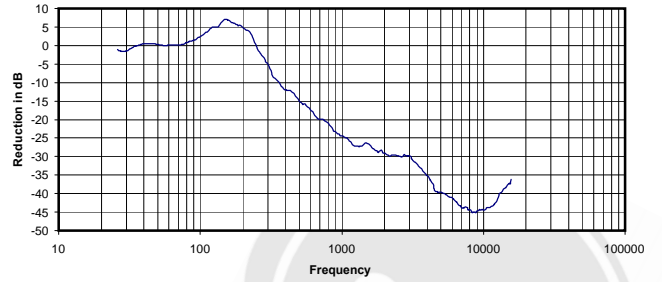
0.038 Vrms
17 Ohms
0.09 mW
-18 dB



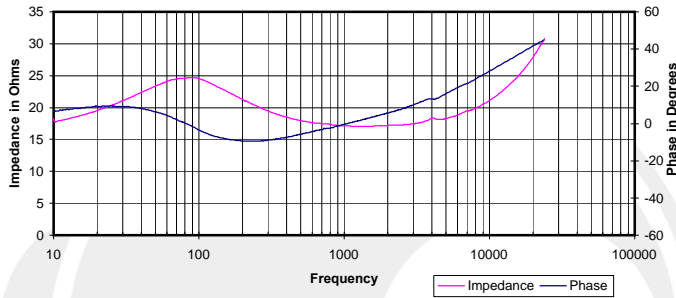
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



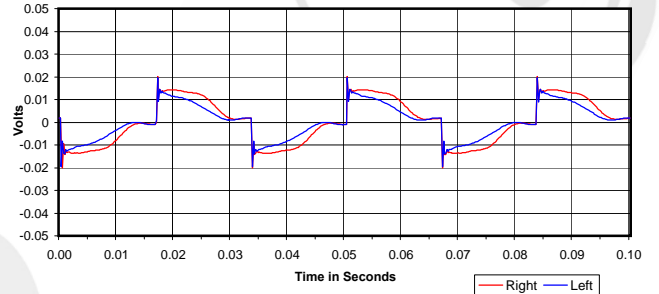
Isolation
Attenuation of External Sound vs. Frequency



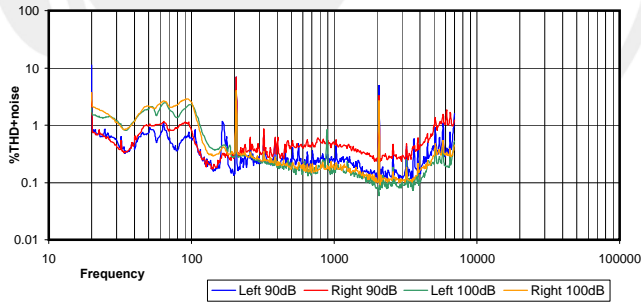
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



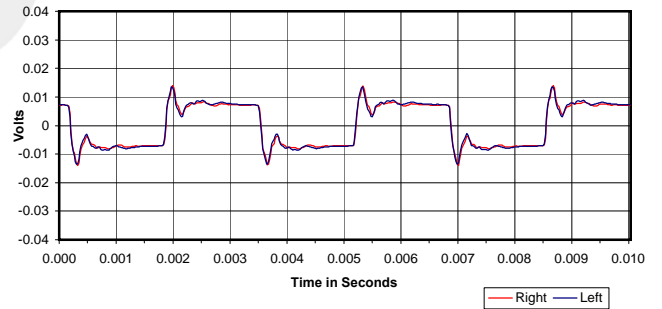
30 Hz Square Wave



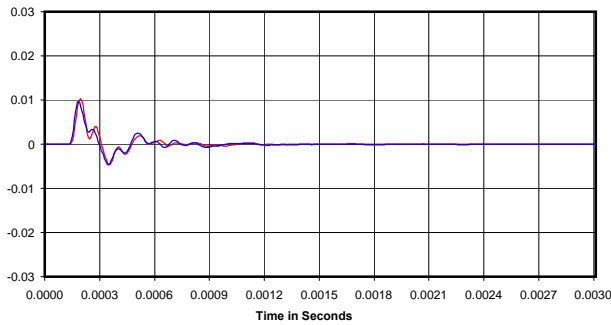
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

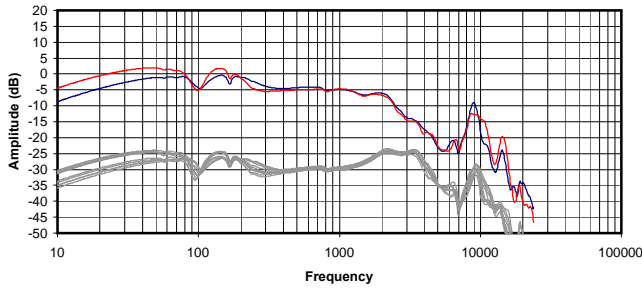


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

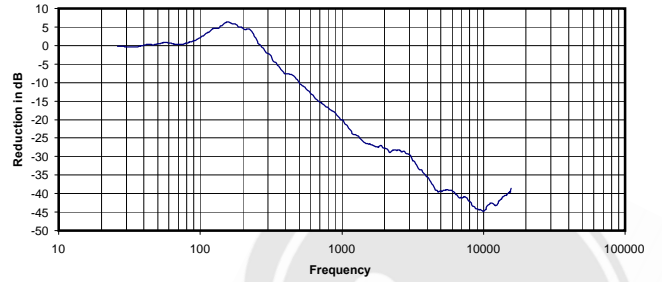
0.038 Vrms
17 Ohms
0.08 mW
-17 dB



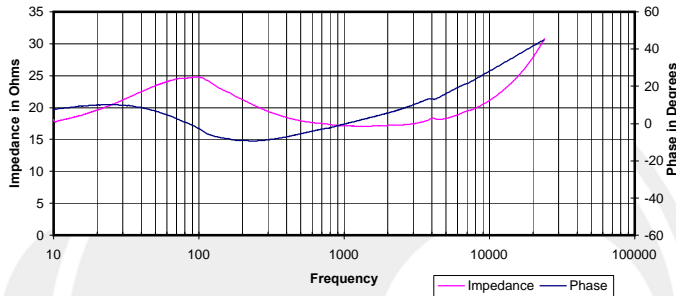
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



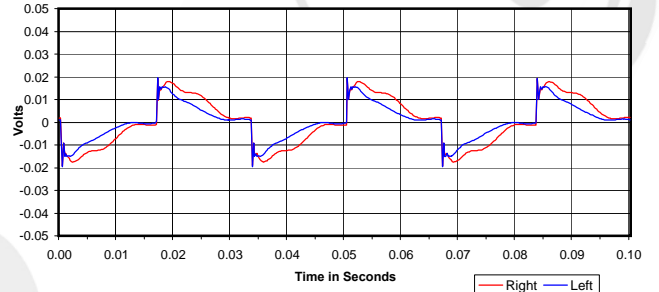
Isolation
Attenuation of External Sound vs. Frequency



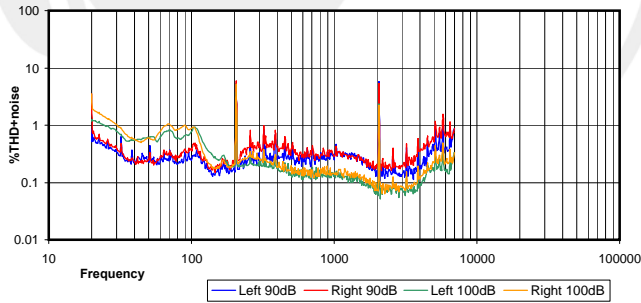
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



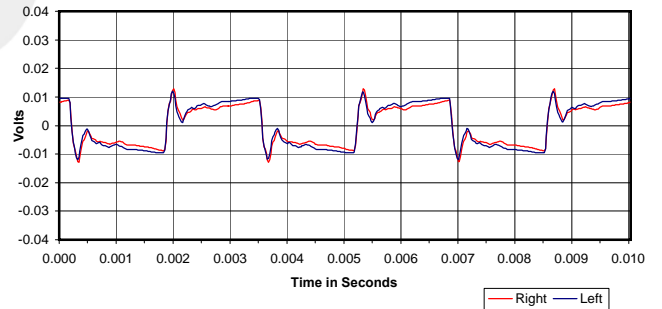
30 Hz Square Wave



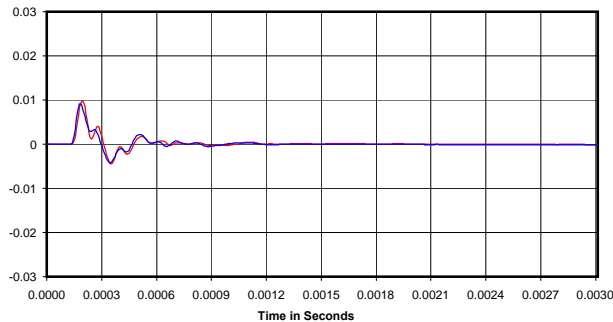
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

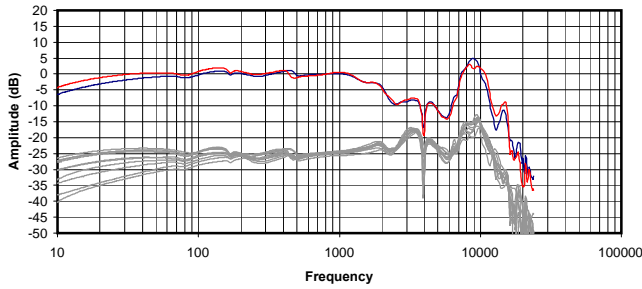


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

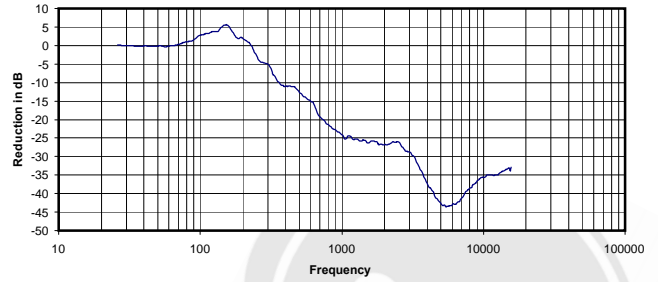
0.038 Vrms
17 Ohms
0.08 mW
-15 dB



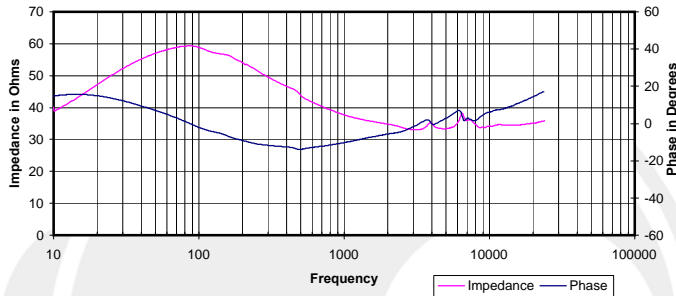
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



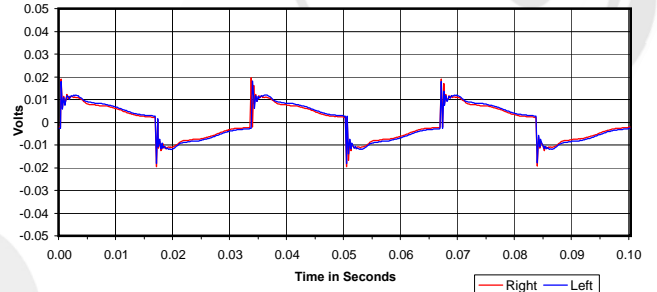
Isolation
 Attenuation of External Sound vs. Frequency



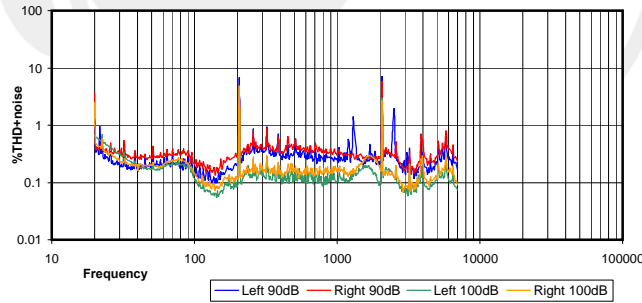
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



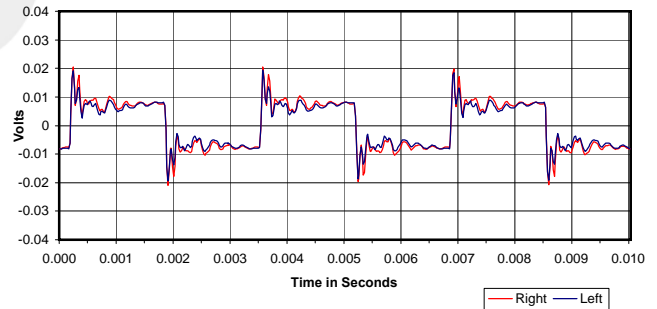
30 Hz Square Wave



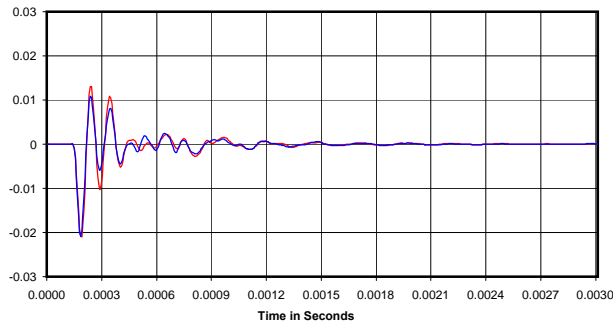
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

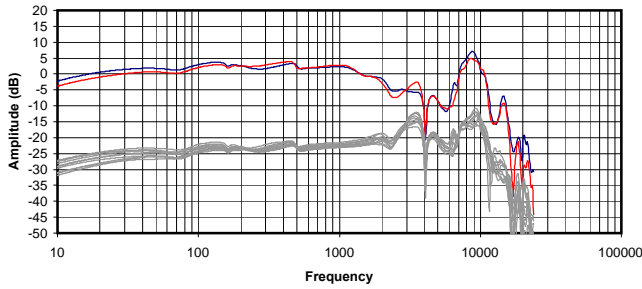


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

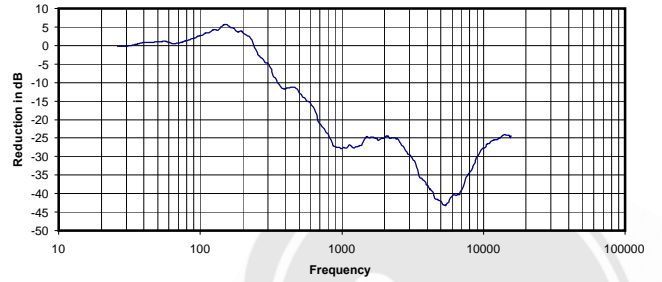
0.033 Vrms
 38 Ohms
 0.03 mW
 -17 dB



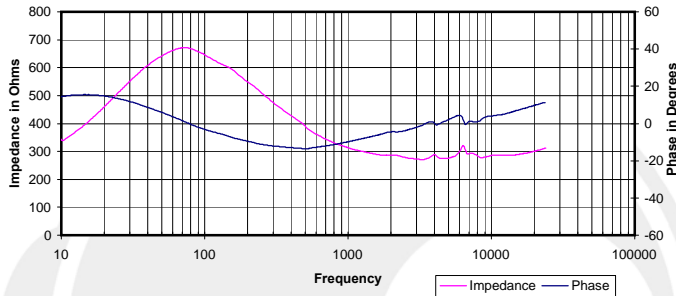
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



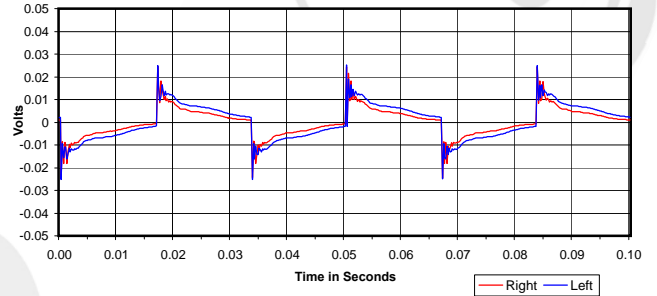
Isolation
 Attenuation of External Sound vs. Frequency



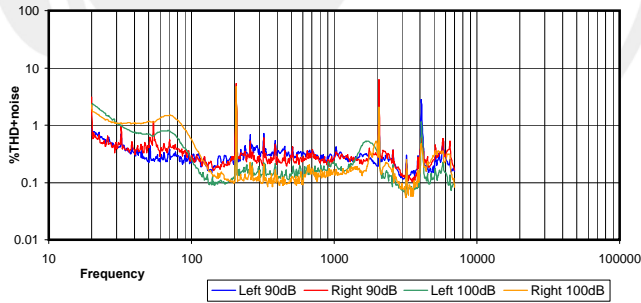
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



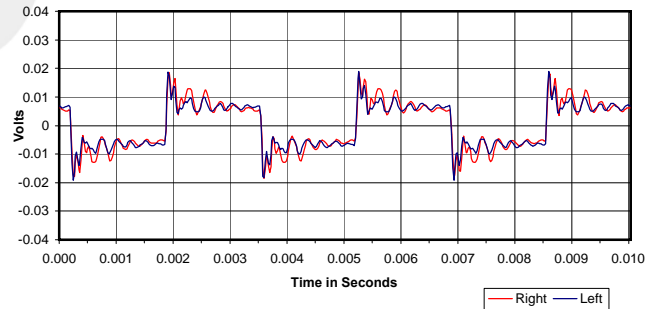
30 Hz Square Wave



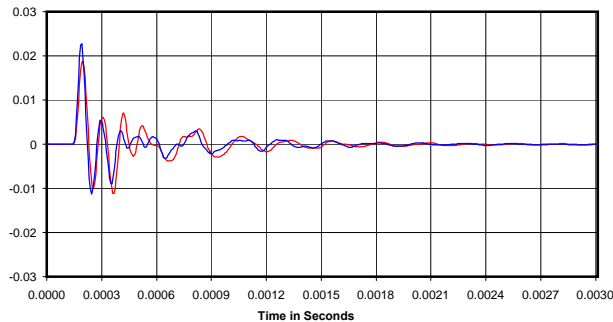
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

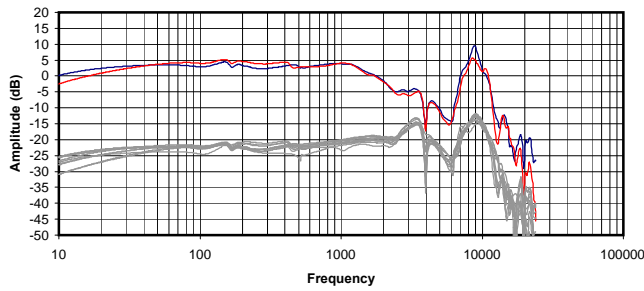


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

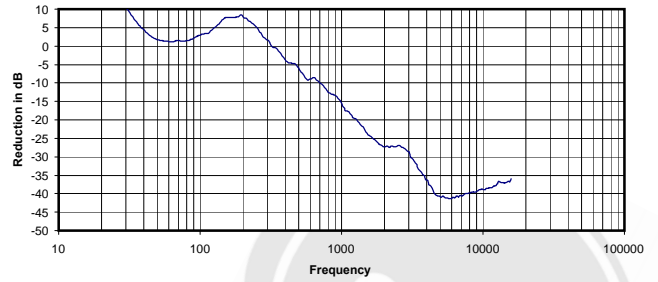
0.099 Vrms
 313 Ohms
 0.03 mW
 -18 dB



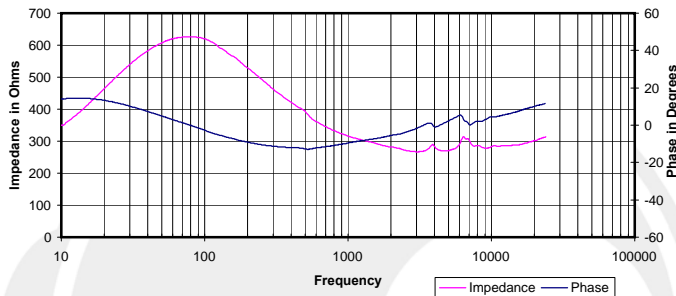
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



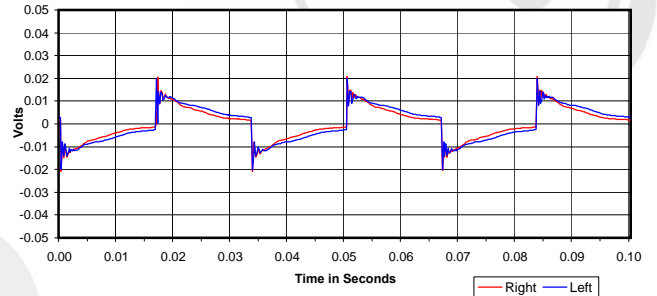
Isolation
Attenuation of External Sound vs. Frequency



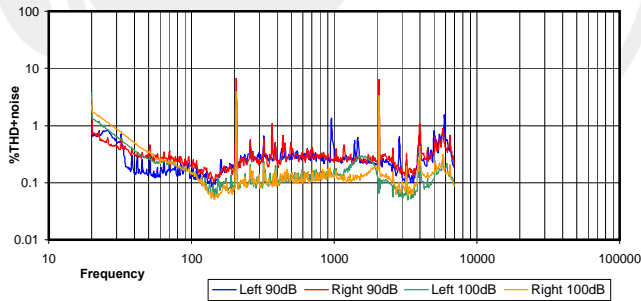
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



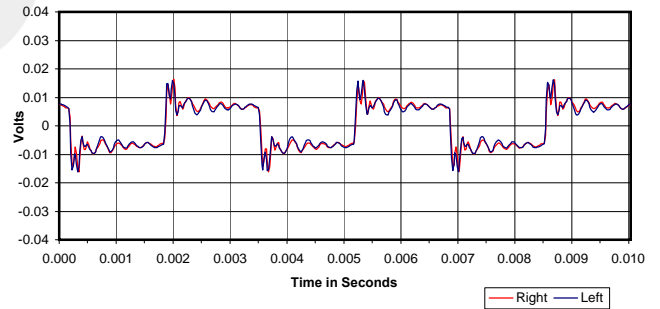
30 Hz Square Wave



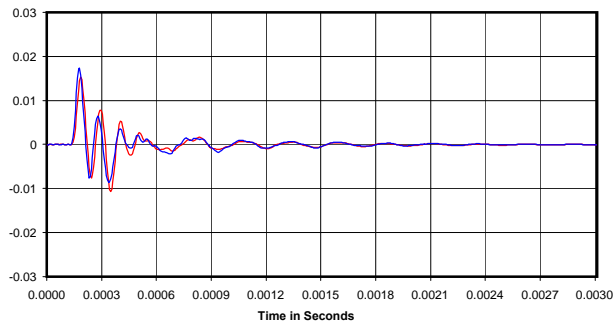
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

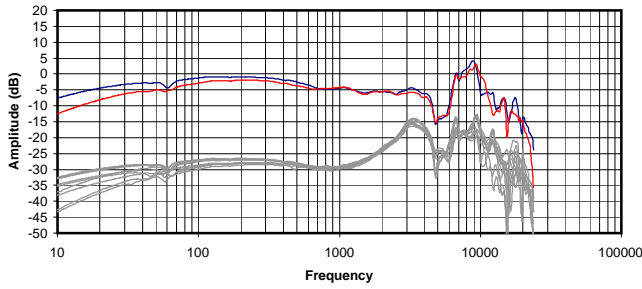


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

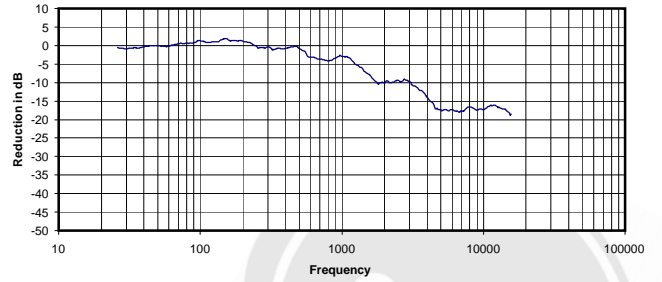
0.073 Vrms
316 Ohms
0.02 mW
-13 dB



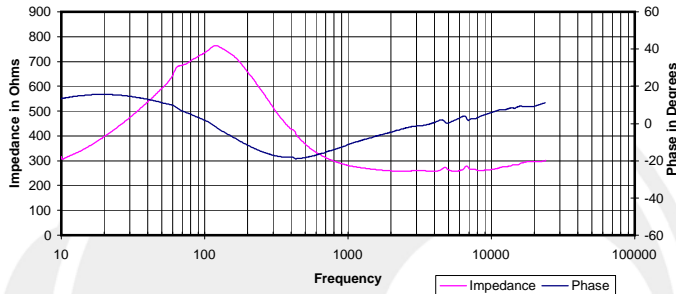
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



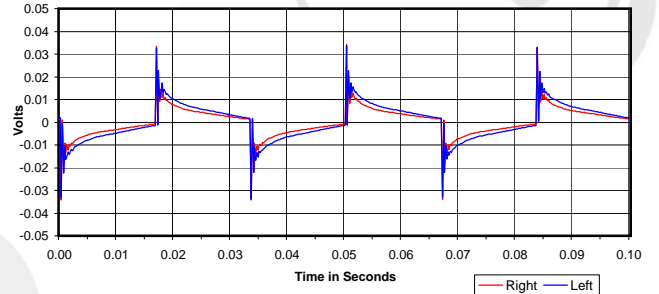
Isolation
 Attenuation of External Sound vs. Frequency



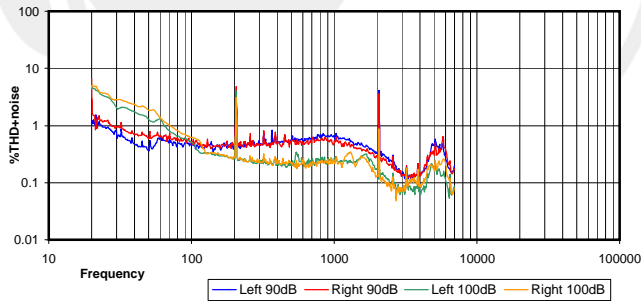
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



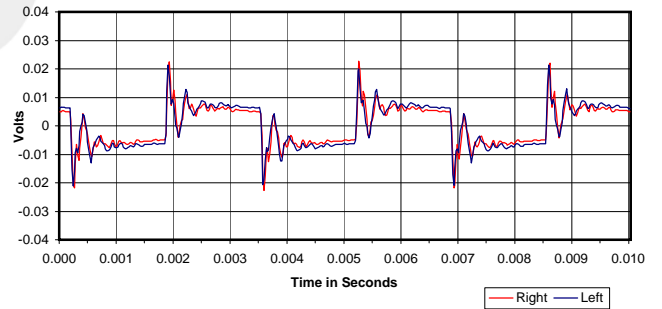
30 Hz Square Wave



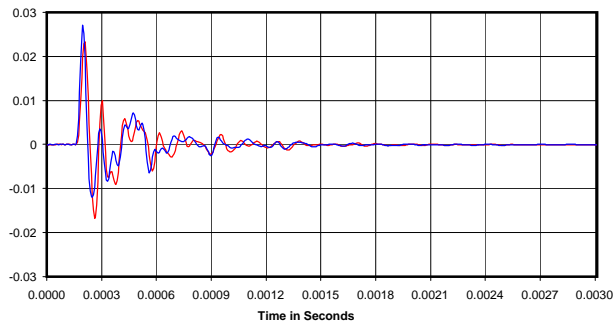
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

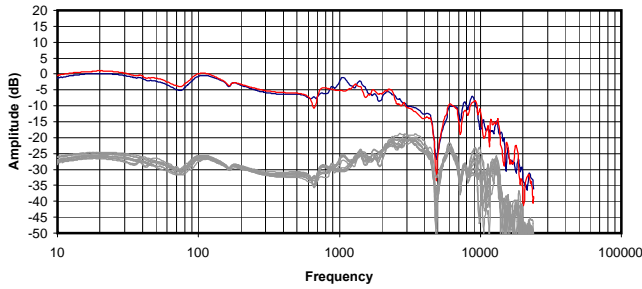


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

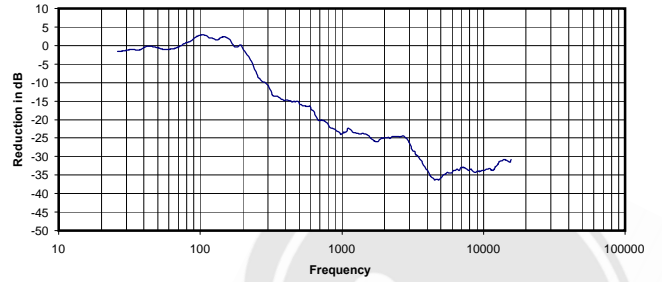
0.225 Vrms
 281 Ohms
 0.18 mW
 -5 dBr



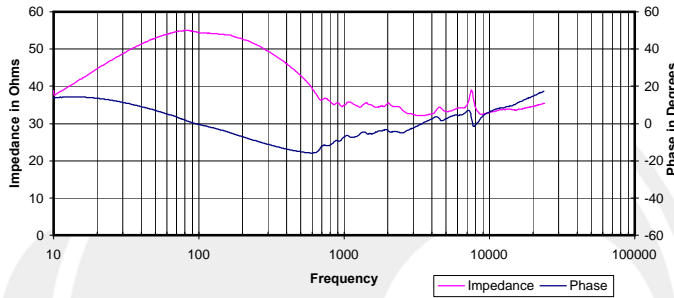
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



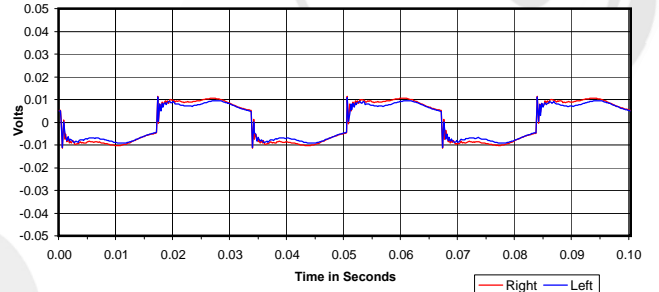
Isolation
 Attenuation of External Sound vs. Frequency



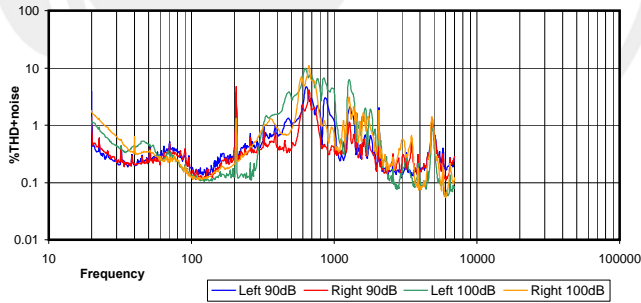
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



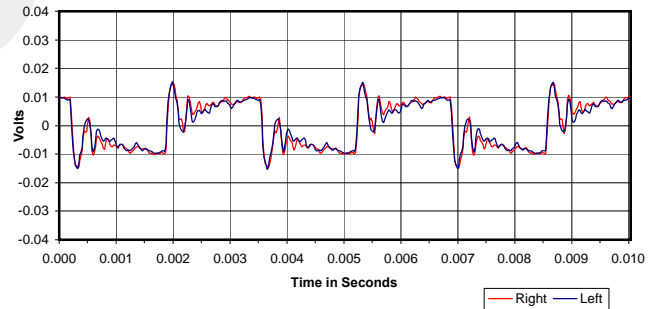
30 Hz Square Wave



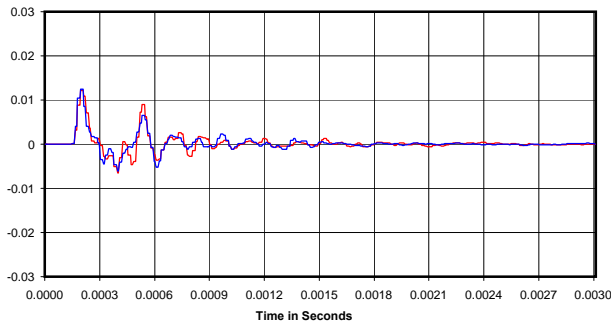
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



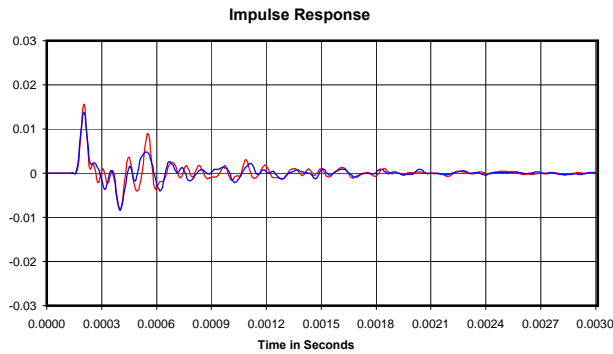
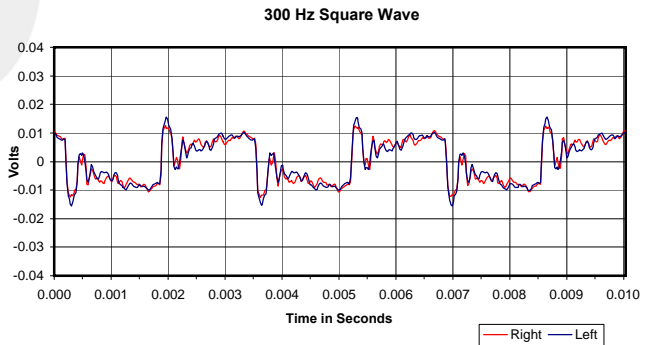
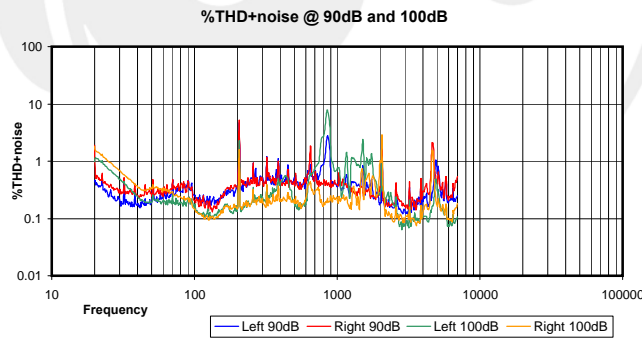
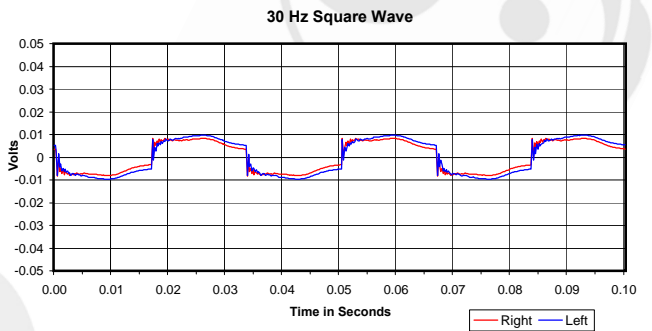
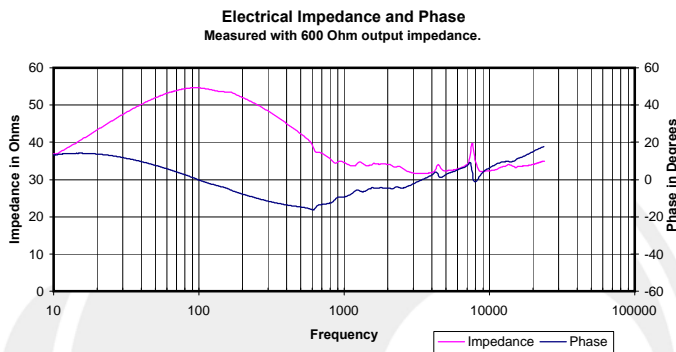
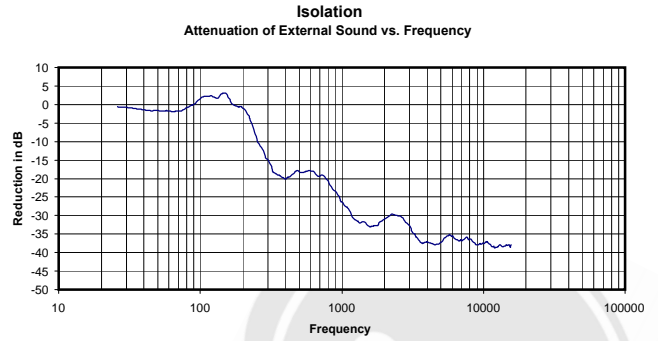
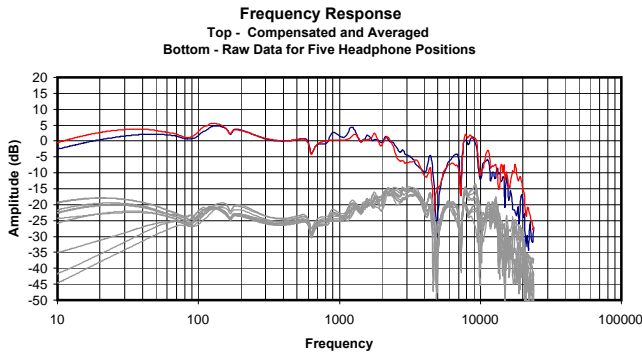
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
 35 Ohms
 0.07 mW
 -17 dB



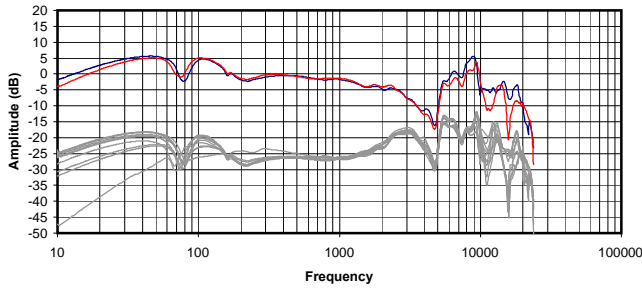


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

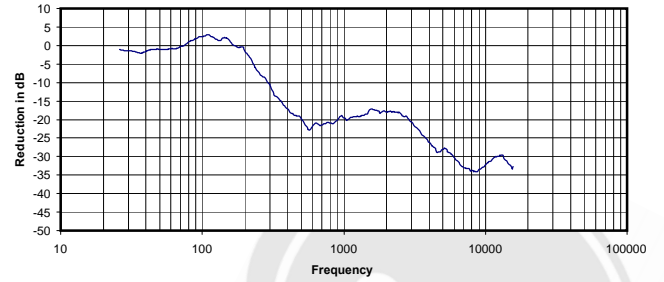
0.055 Vrms
34 Ohms
0.09 mW
-20 dB



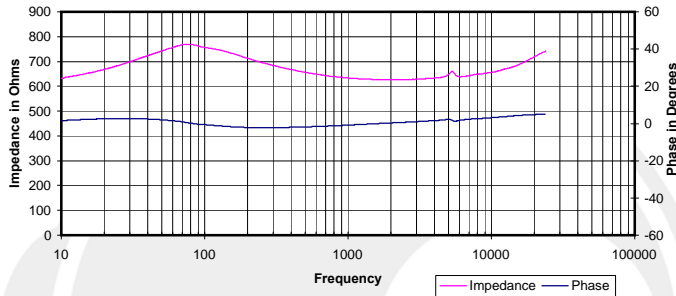
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



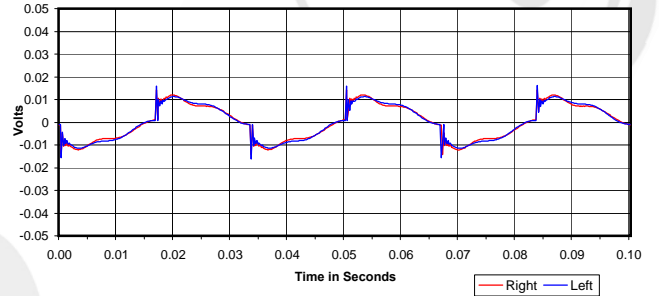
Isolation
Attenuation of External Sound vs. Frequency



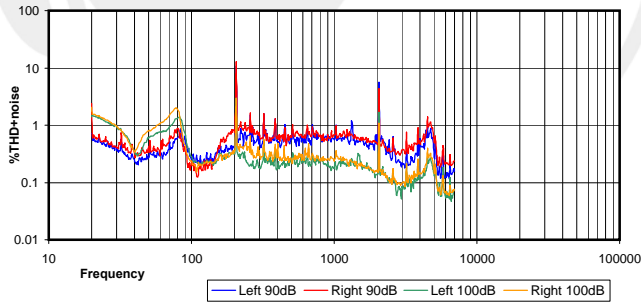
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



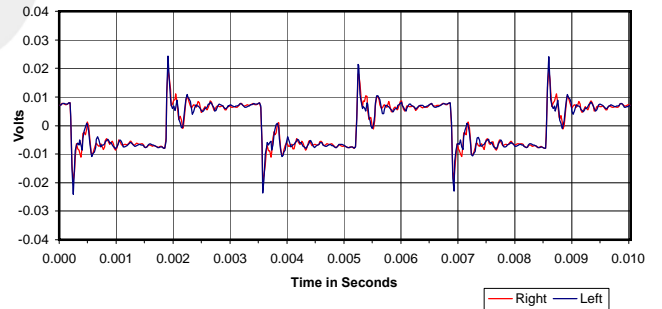
30 Hz Square Wave



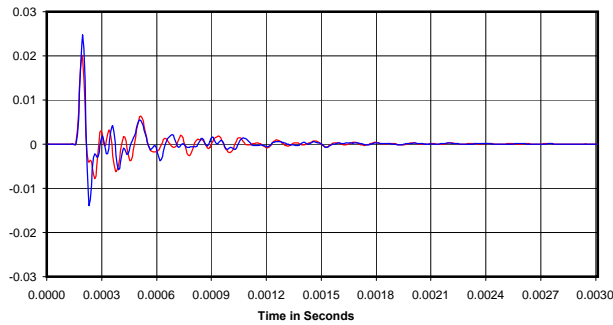
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

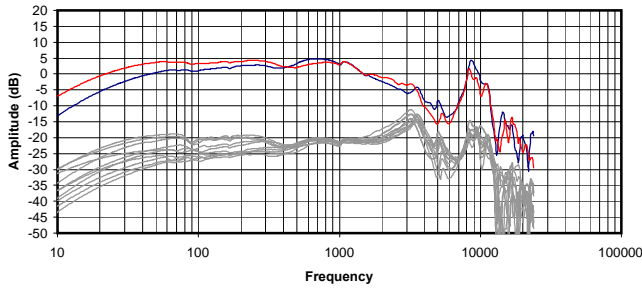


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

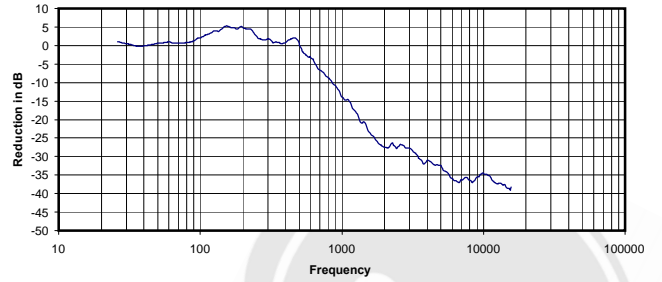
0.592 Vrms
633 Ohms
0.55 mW
-15 dB



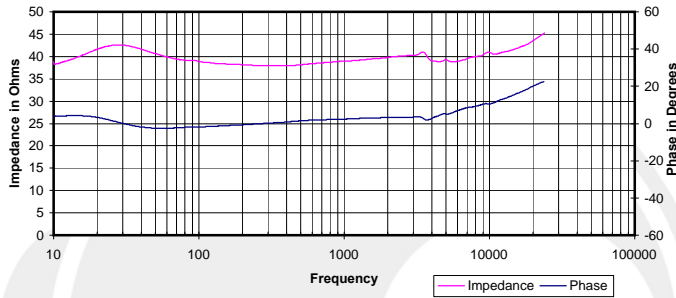
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



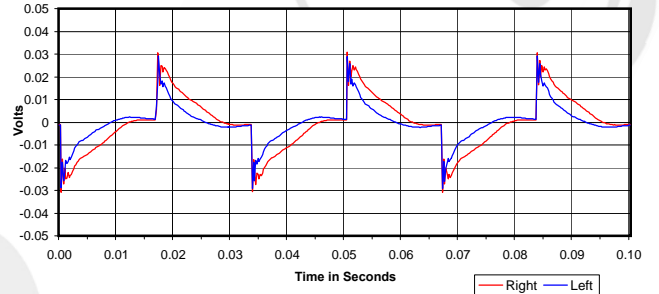
Isolation
 Attenuation of External Sound vs. Frequency



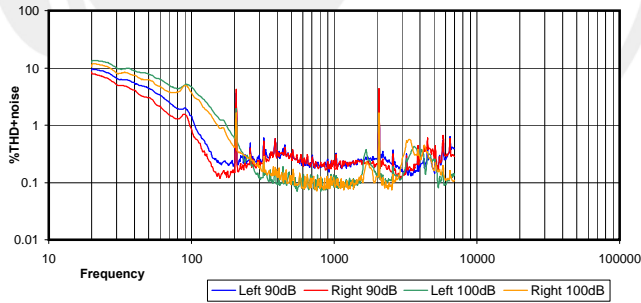
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



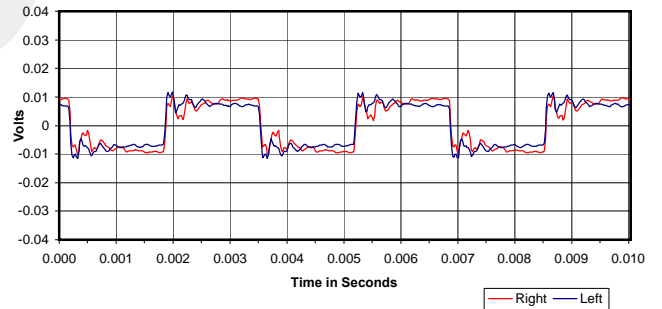
30 Hz Square Wave



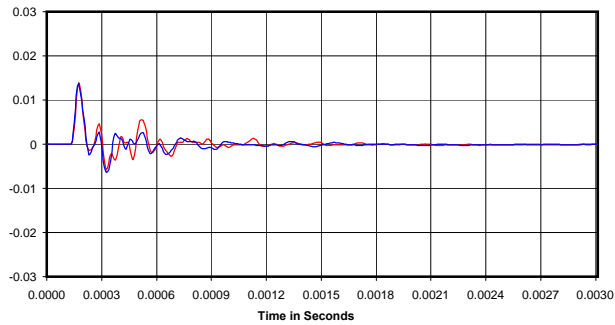
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

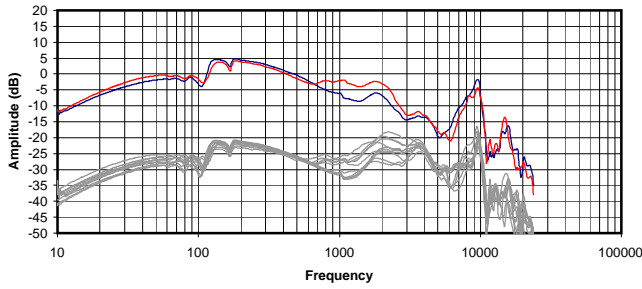


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

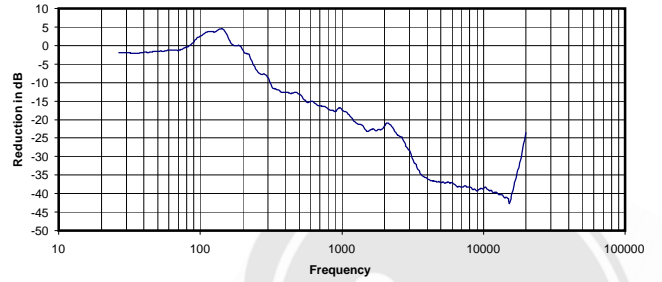
0.043 Vrms
 39 Ohms
 0.05 mW
 -11 dB



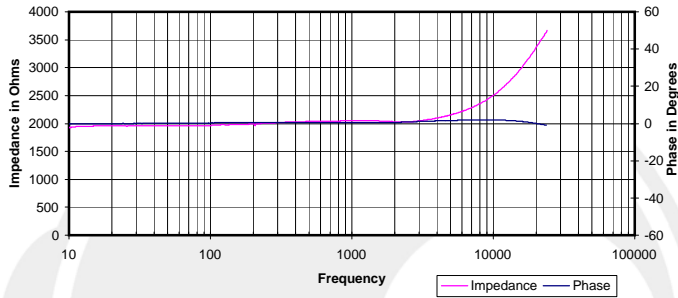
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



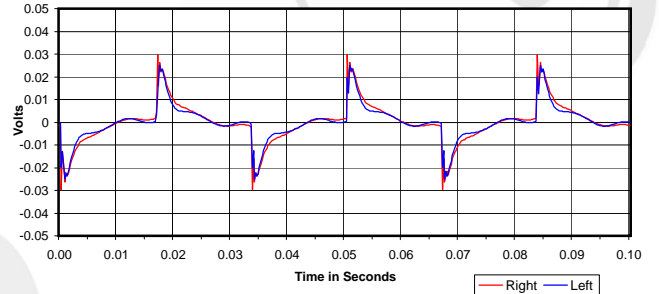
Isolation
Attenuation of External Sound vs. Frequency



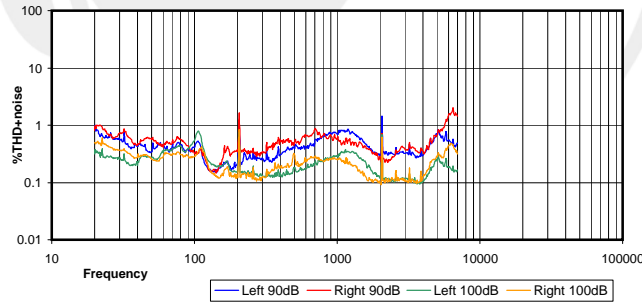
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



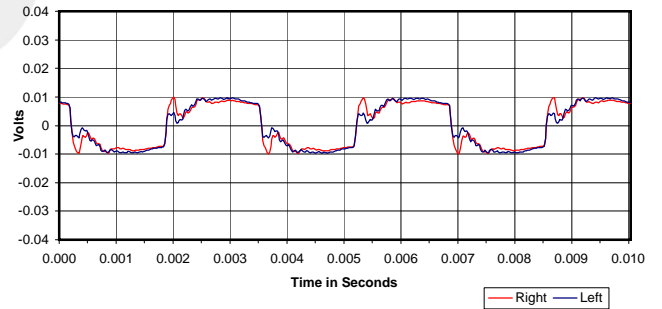
30 Hz Square Wave



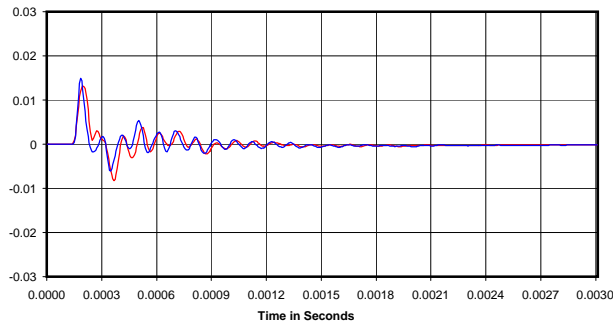
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

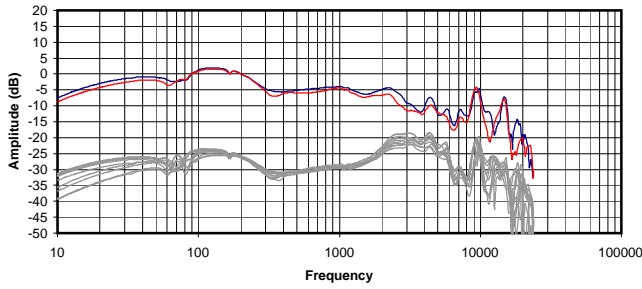


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

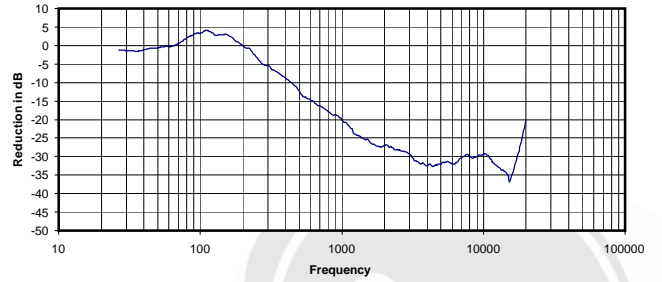
1.225 Vrms
2050 Ohms
0.73 mW
-19 dB



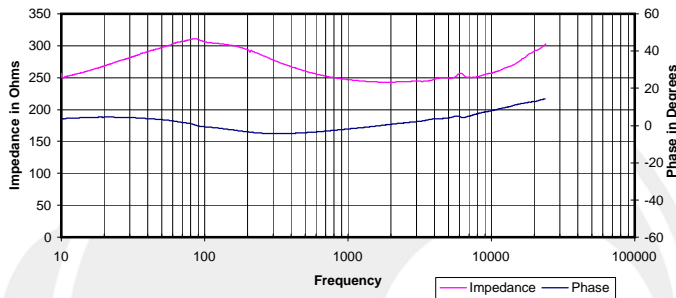
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



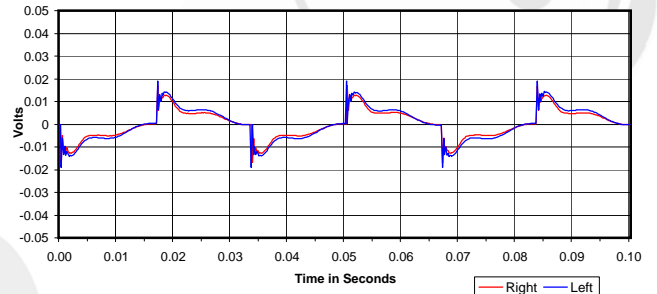
Isolation
 Attenuation of External Sound vs. Frequency



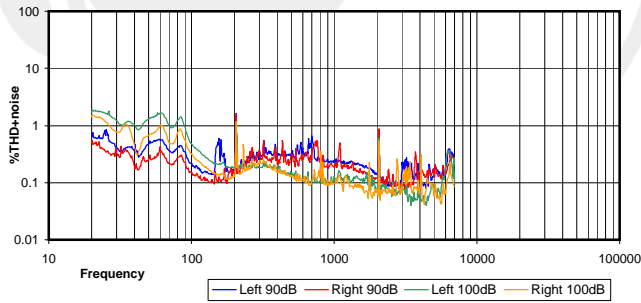
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



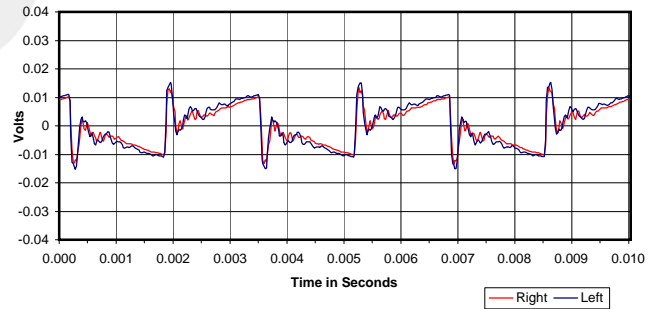
30 Hz Square Wave



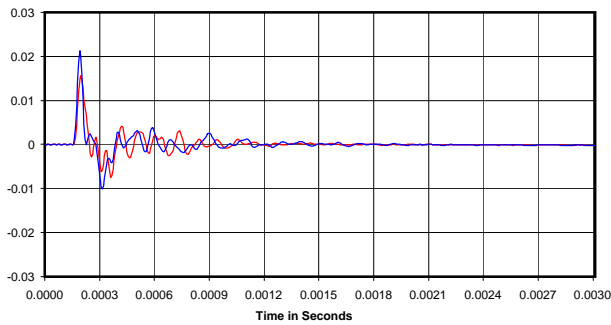
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



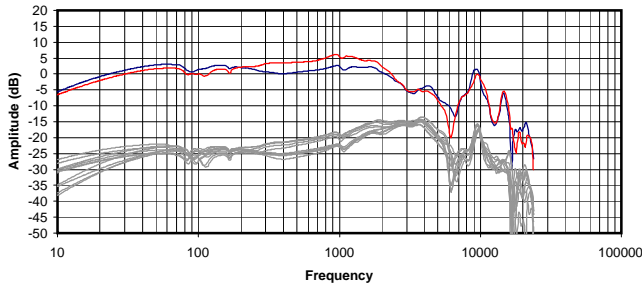
Impulse Response



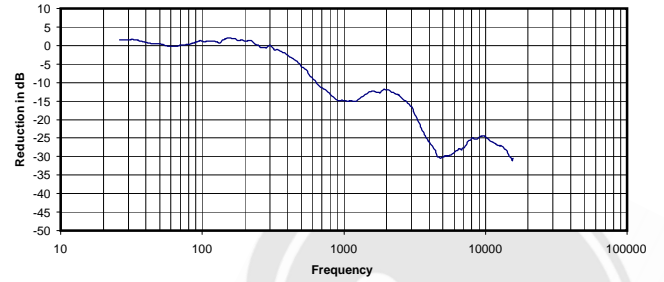
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.171 Vrms
 247 Ohms
 0.12 mW
 -18 dB

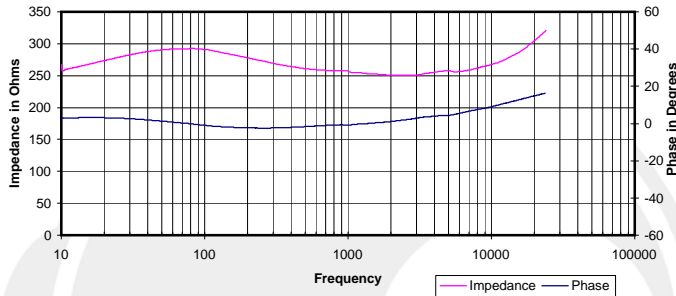
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



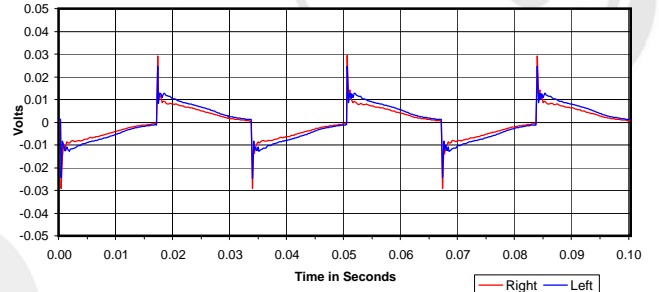
Isolation
Attenuation of External Sound vs. Frequency



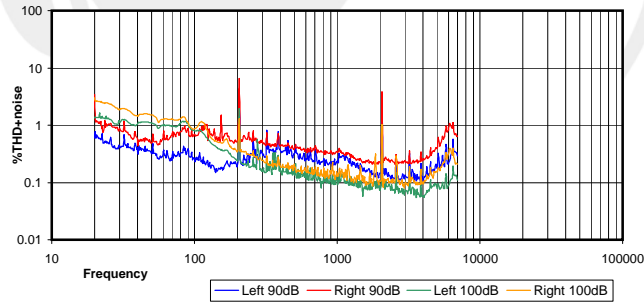
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



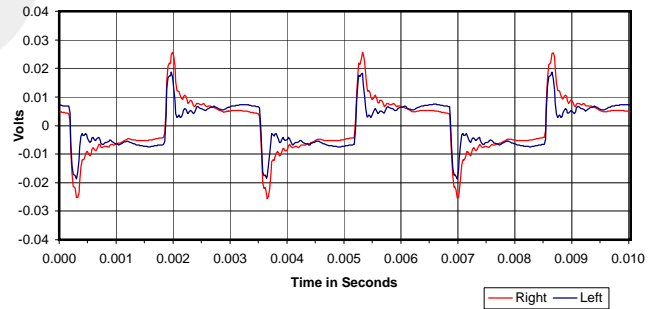
30 Hz Square Wave



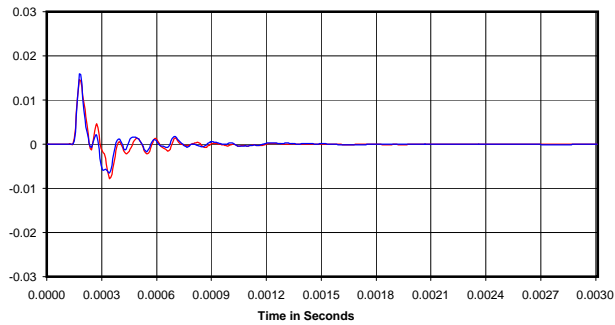
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

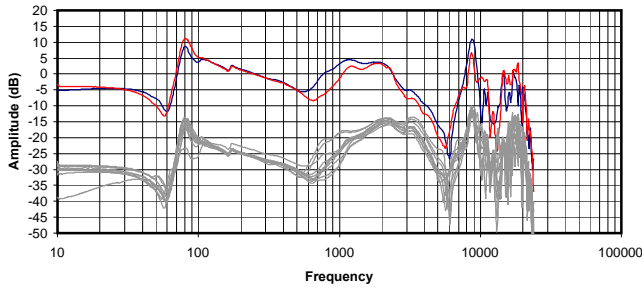


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

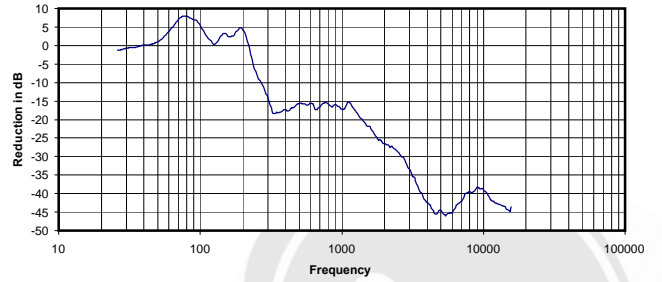
0.161 Vrms
257 Ohms
0.10 mW
-10 dB



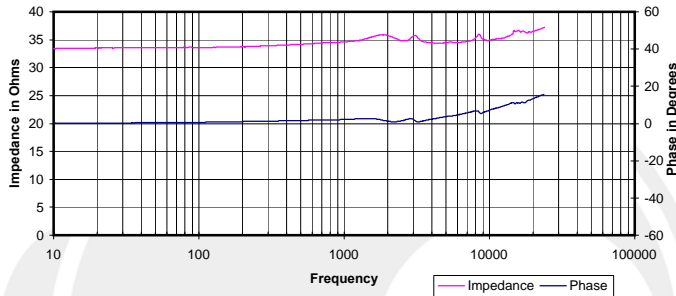
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



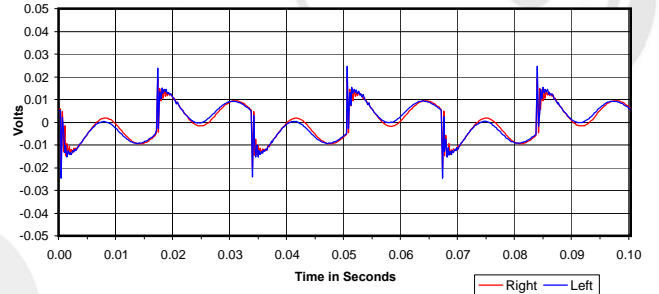
Isolation
 Attenuation of External Sound vs. Frequency



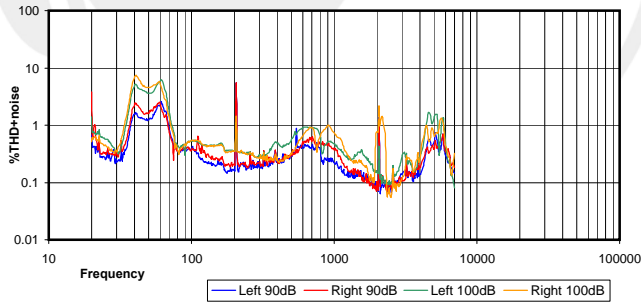
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



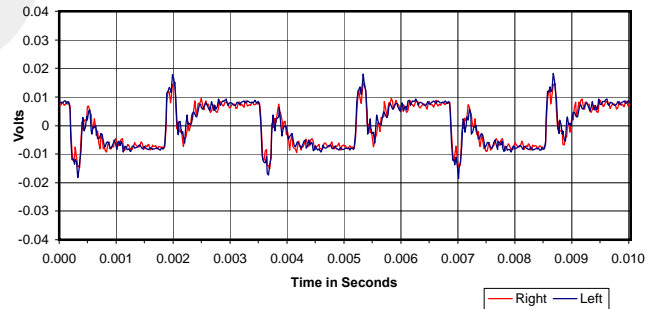
30 Hz Square Wave



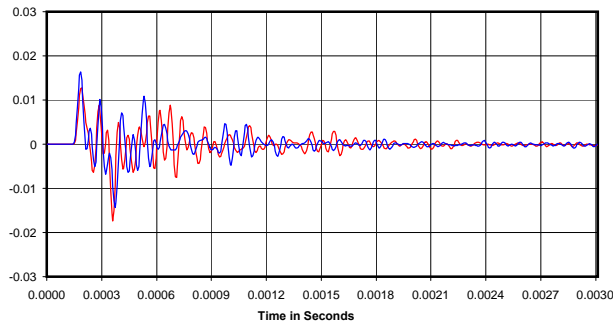
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

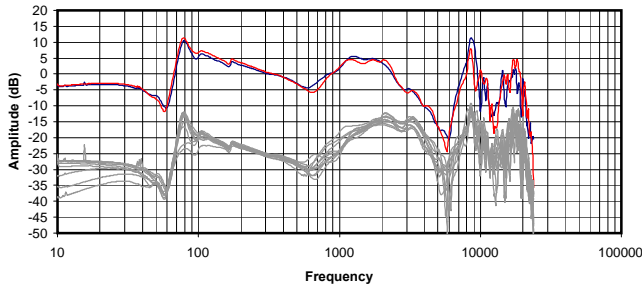


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

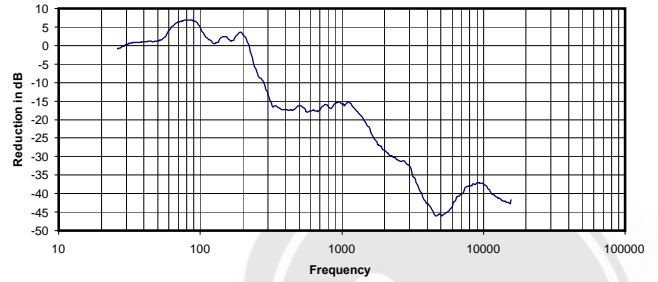
0.075 Vrms
 35 Ohms
 0.16 mW
 -18 dB



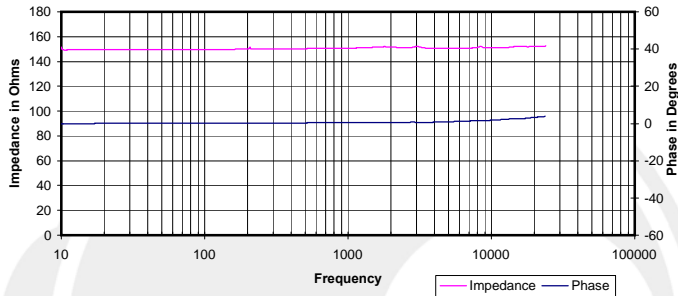
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



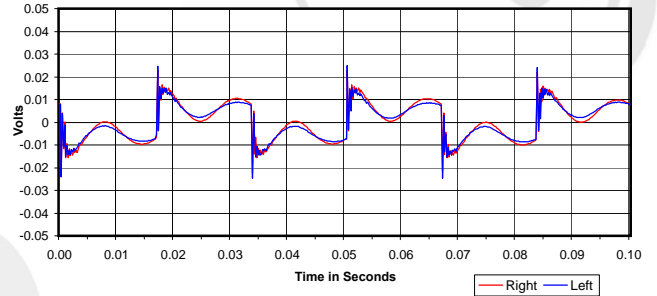
Isolation
 Attenuation of External Sound vs. Frequency



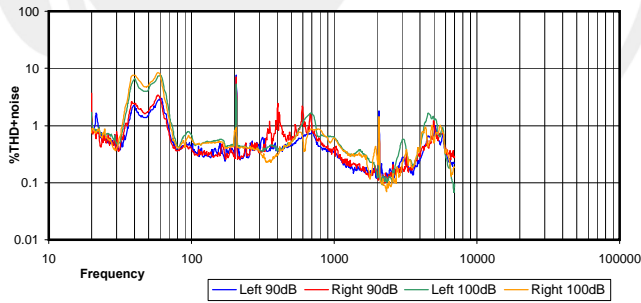
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



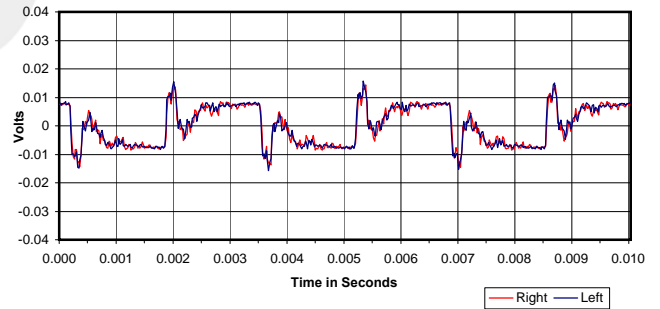
30 Hz Square Wave



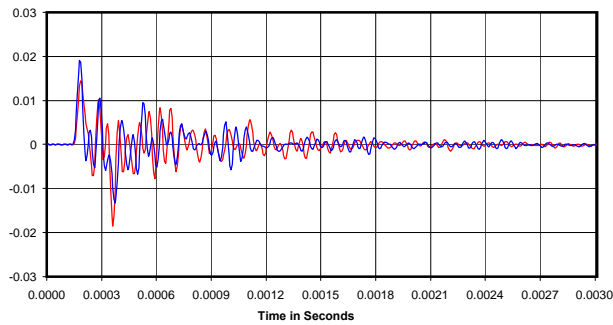
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

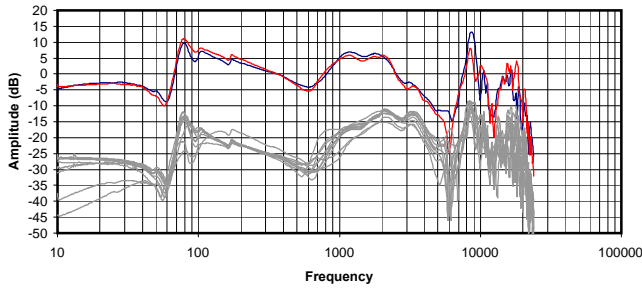


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

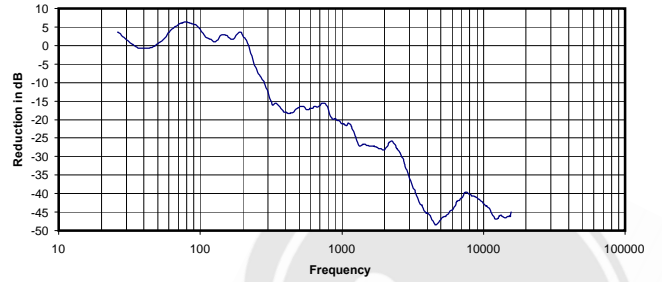
0.389 Vrms
 150 Ohms
 1.01 mW
 -19 dB



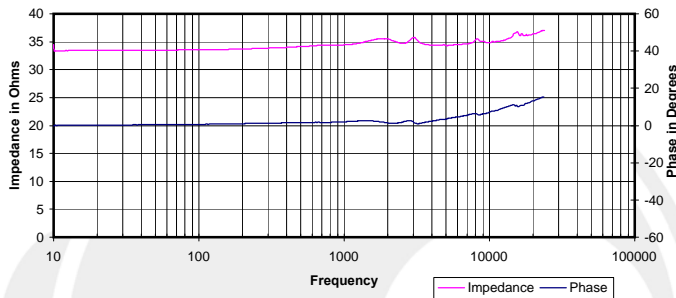
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



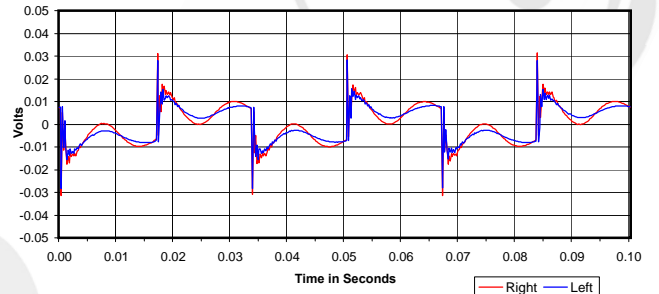
Isolation
Attenuation of External Sound vs. Frequency



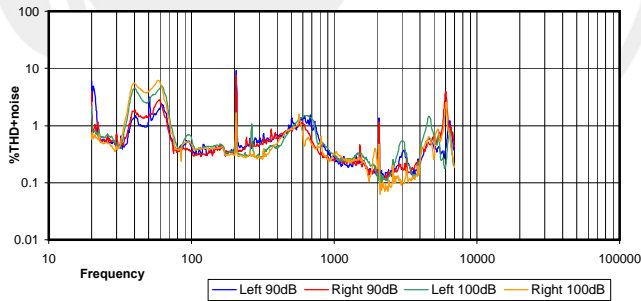
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



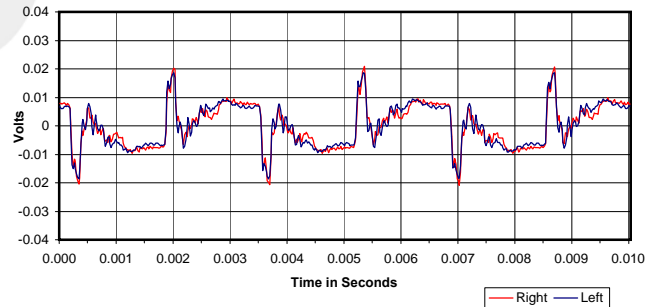
30 Hz Square Wave



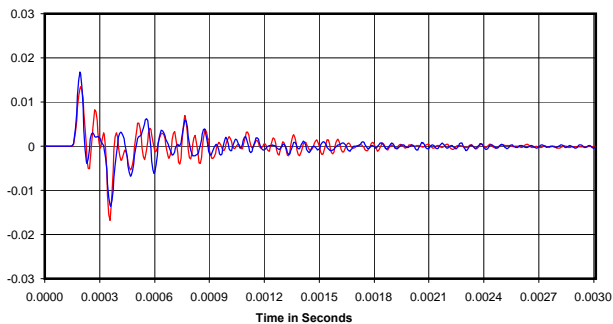
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

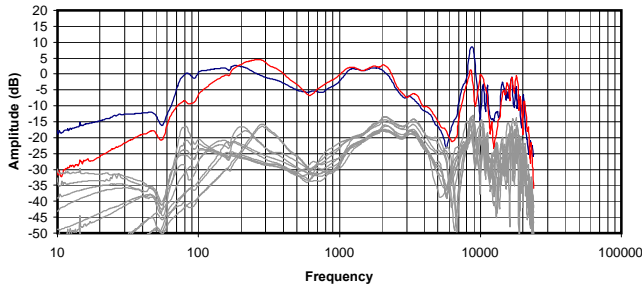


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

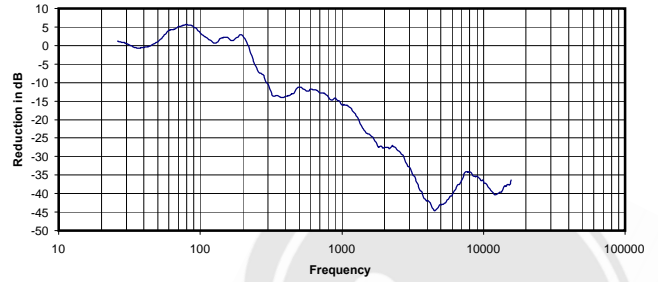
0.043 Vrms
34 Ohms
0.05 mW
-20 dB



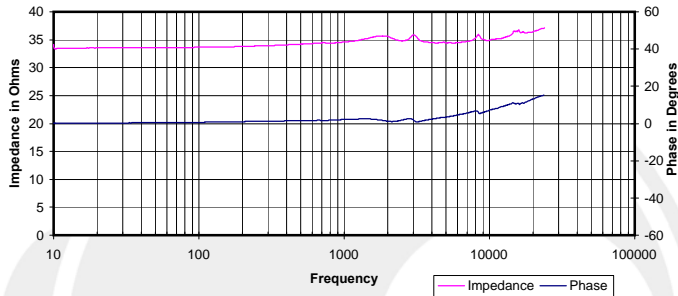
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



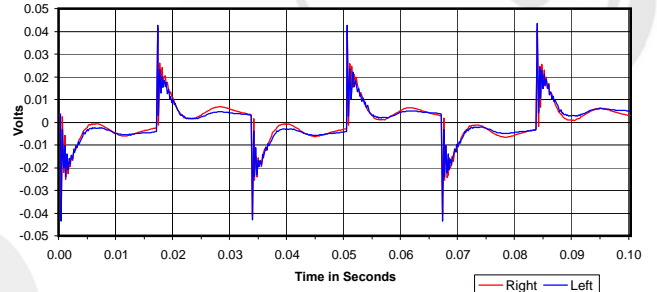
Isolation
 Attenuation of External Sound vs. Frequency



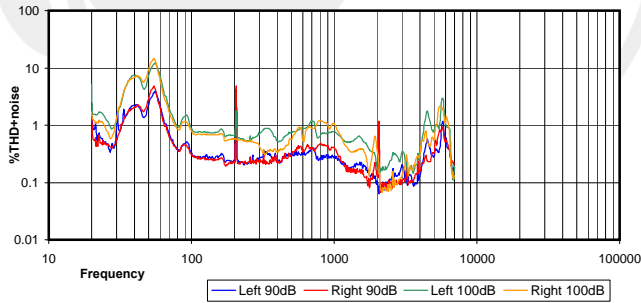
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



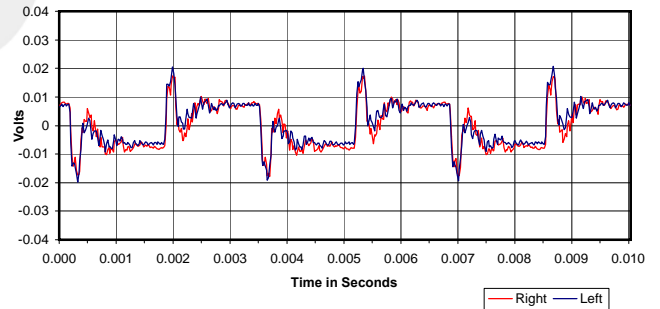
30 Hz Square Wave



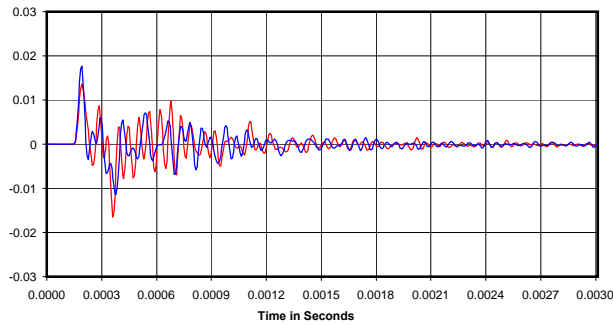
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

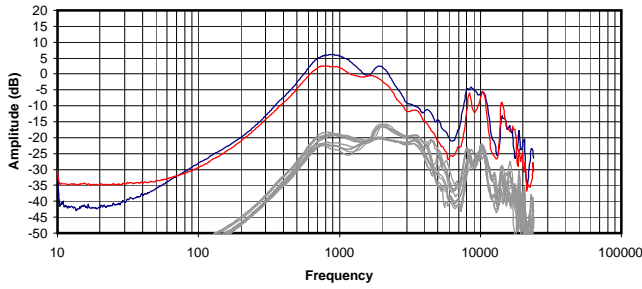


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

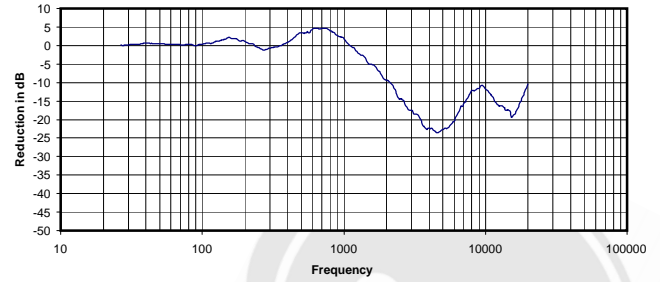
0.081 Vrms
 35 Ohms
 0.19 mW
 -17 dB



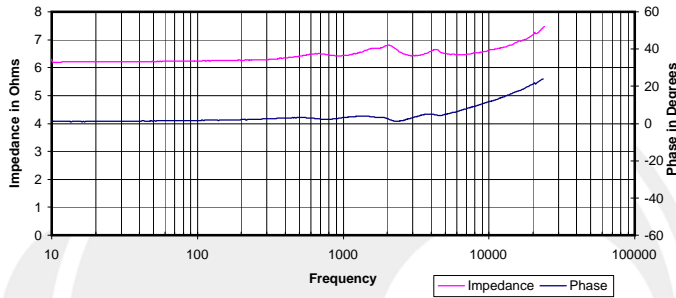
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



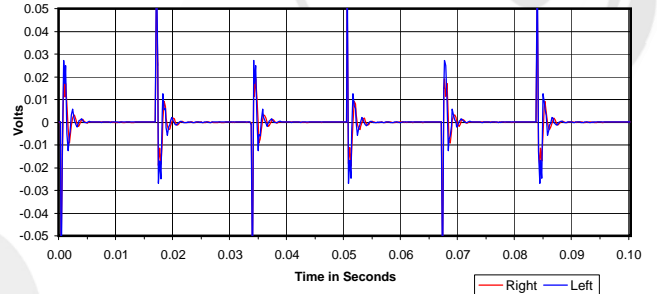
Isolation
 Attenuation of External Sound vs. Frequency



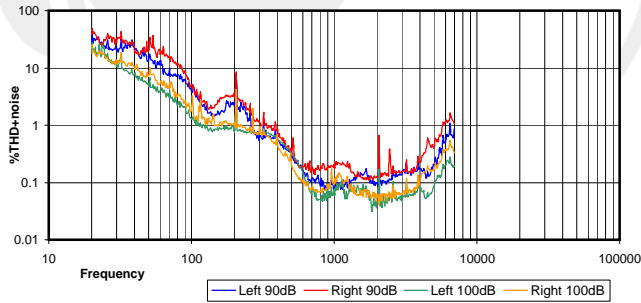
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



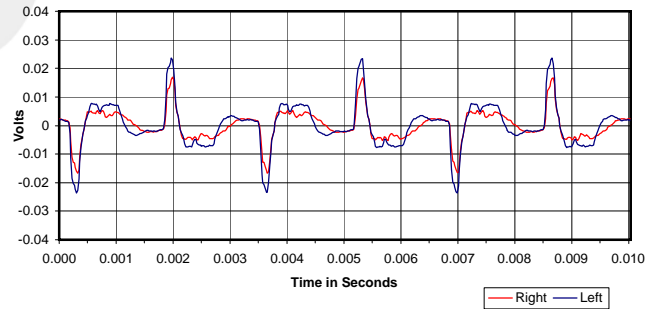
30 Hz Square Wave



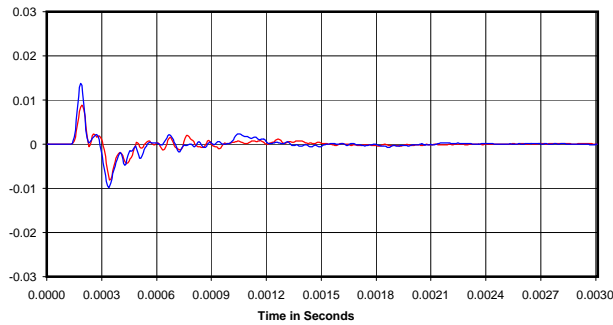
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

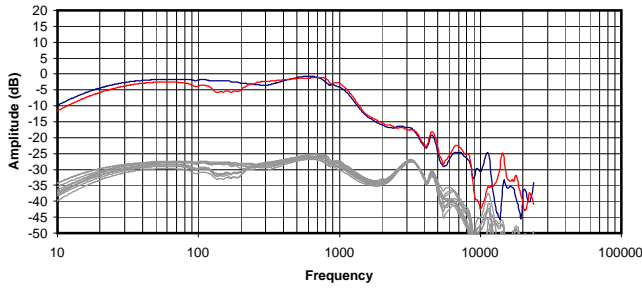


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

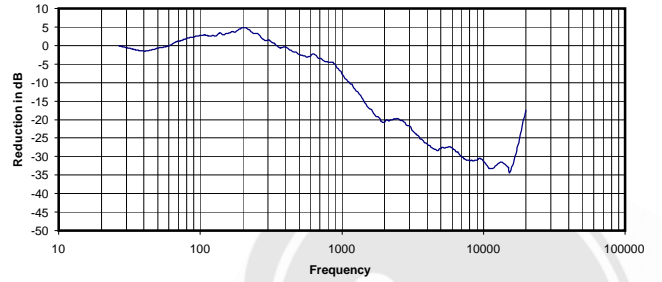
0.007 Vrms
 6 Ohms
 0.01 mW
 -6 dBr



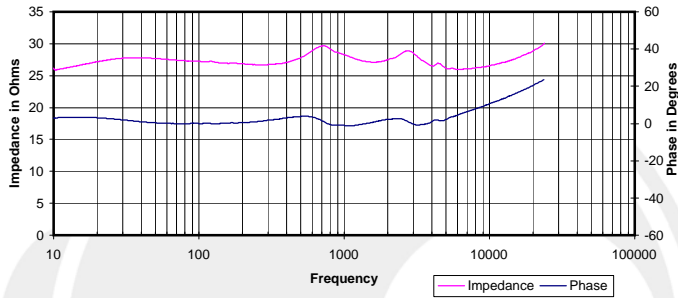
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



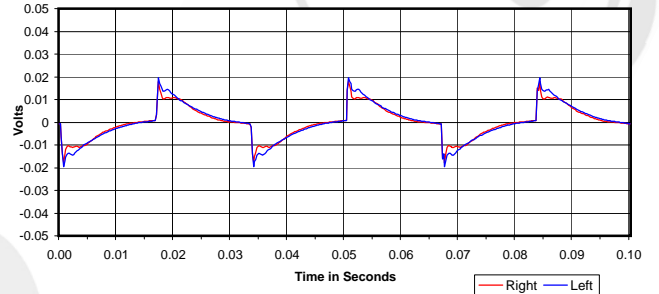
Isolation
 Attenuation of External Sound vs. Frequency



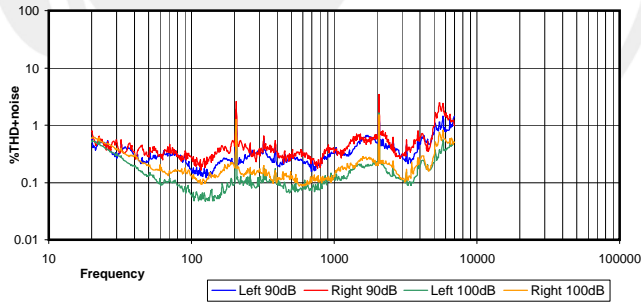
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



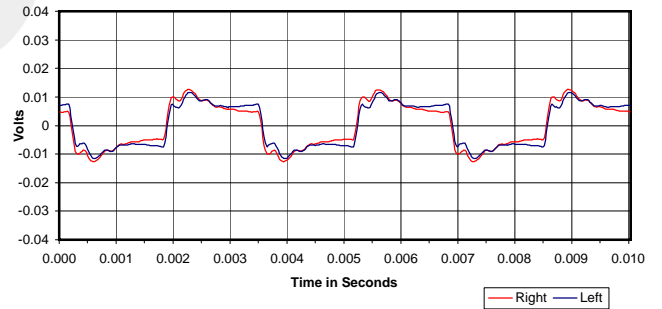
30 Hz Square Wave



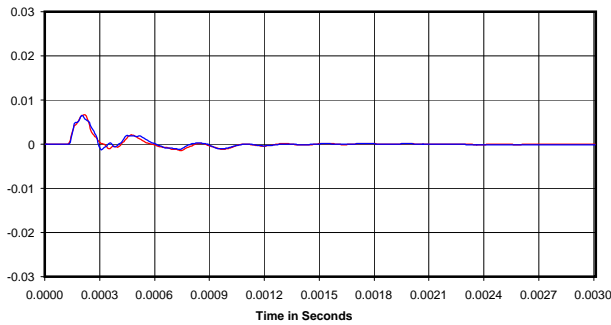
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

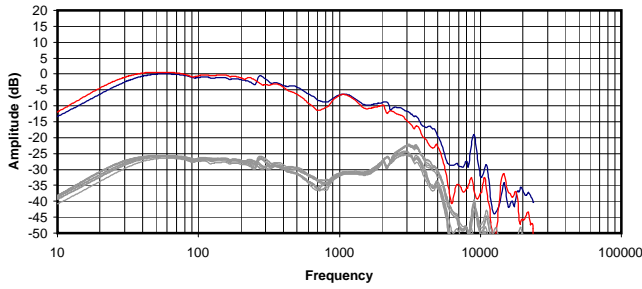


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

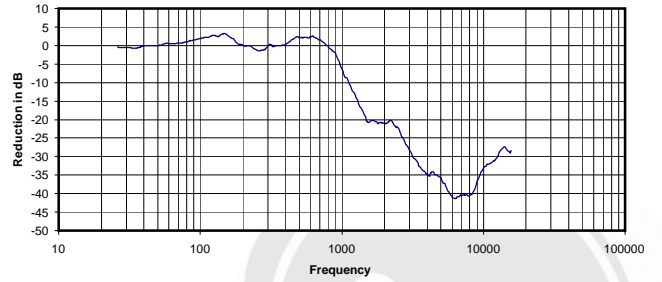
0.012 Vrms
 28 Ohms
 0.01 mW
 -11 dB



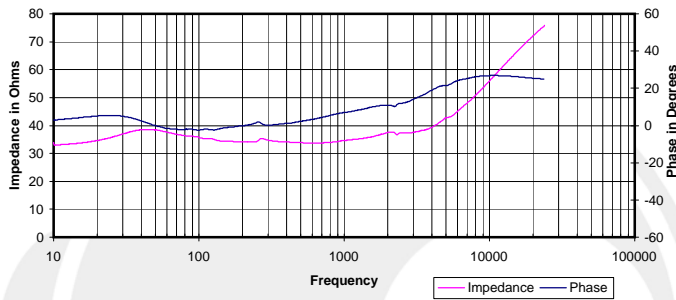
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



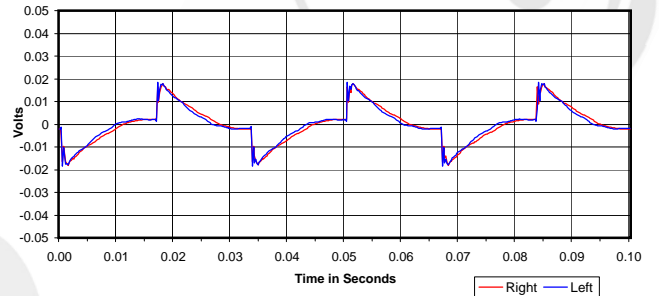
Isolation
 Attenuation of External Sound vs. Frequency



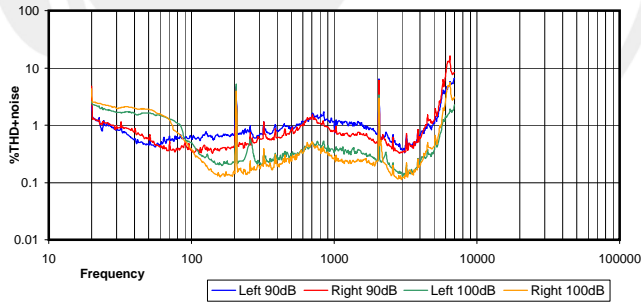
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



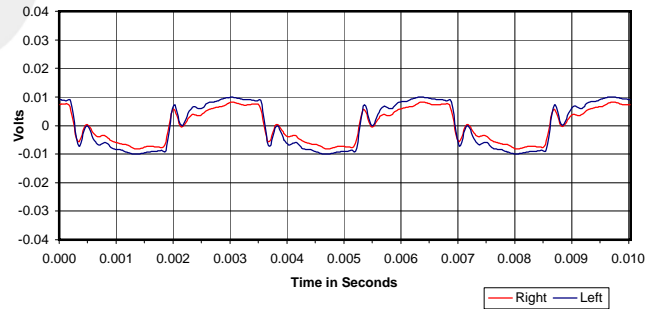
30 Hz Square Wave



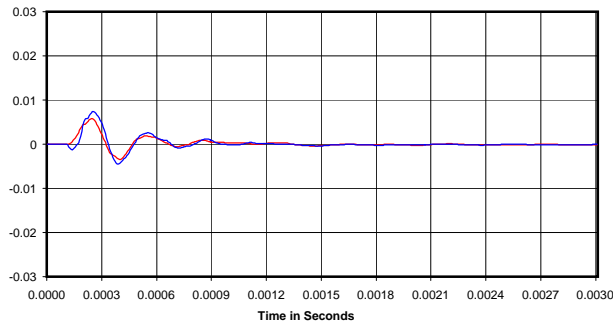
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



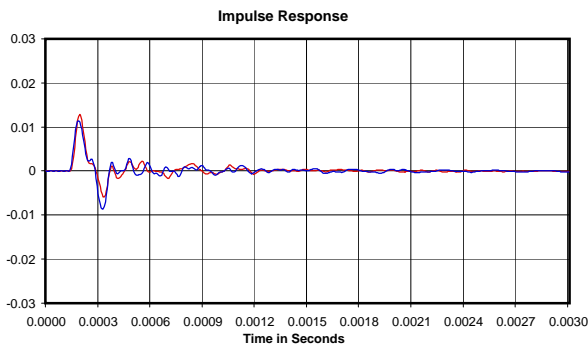
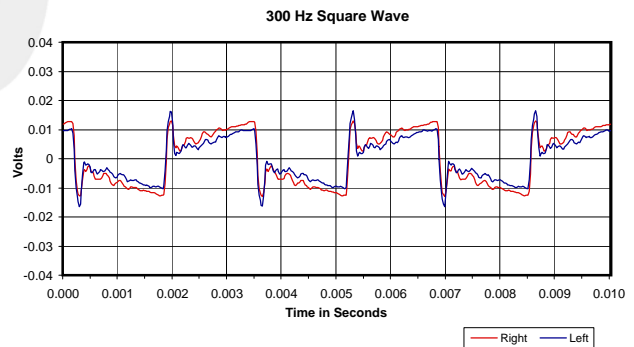
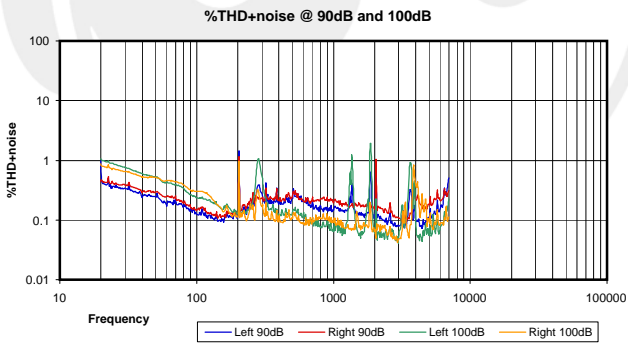
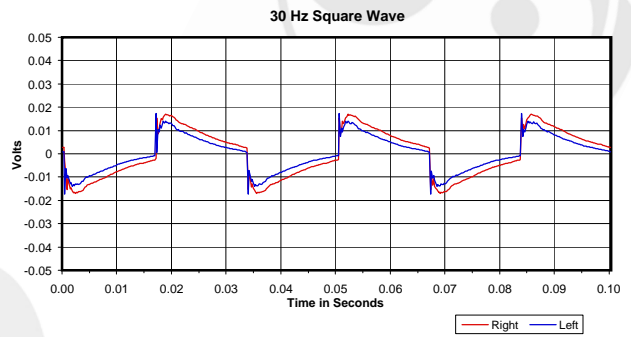
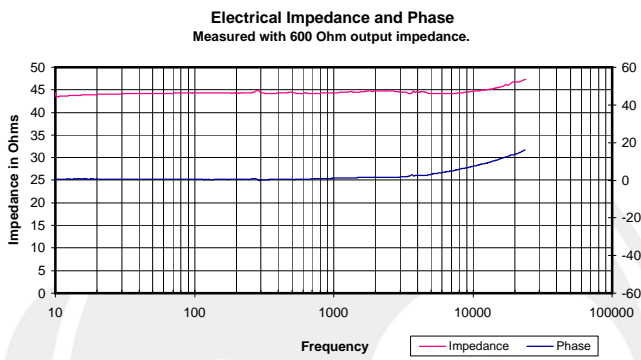
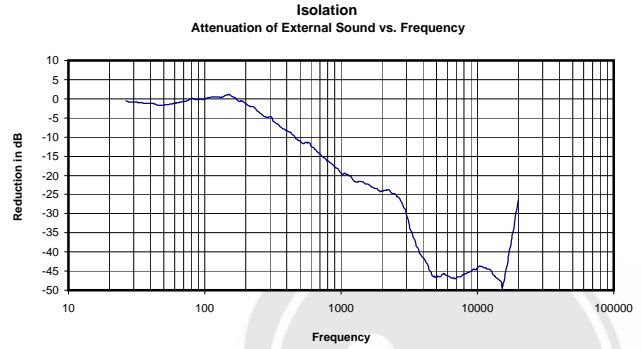
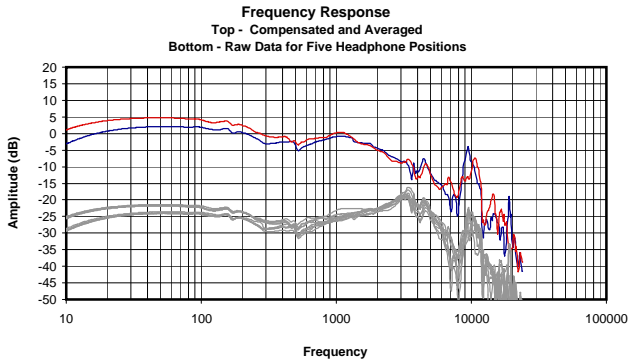
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
 35 Ohms
 0.02 mW
 -11 dB

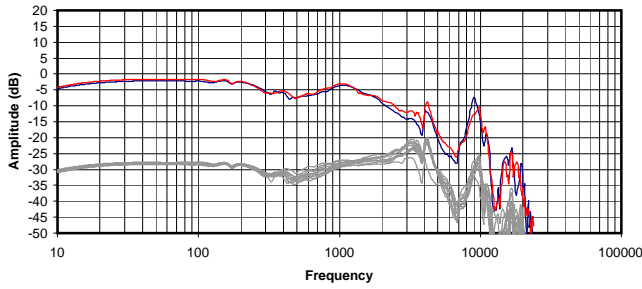




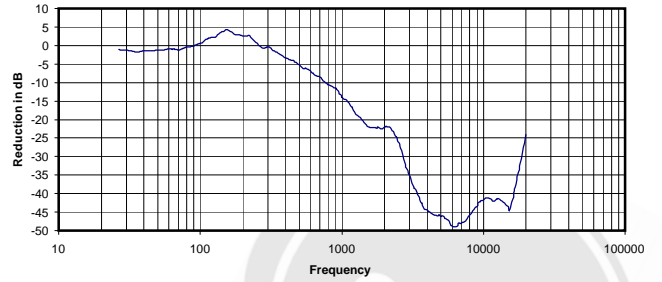
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
44 Ohms
0.07 mW
-20 dBr

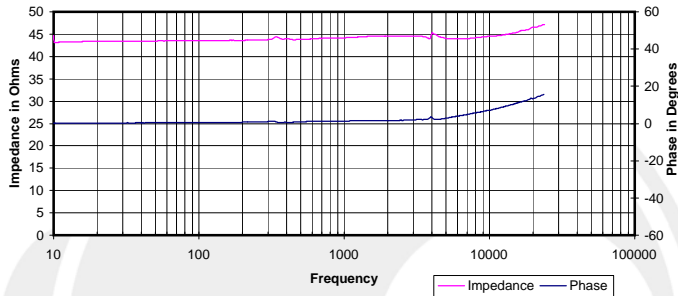
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



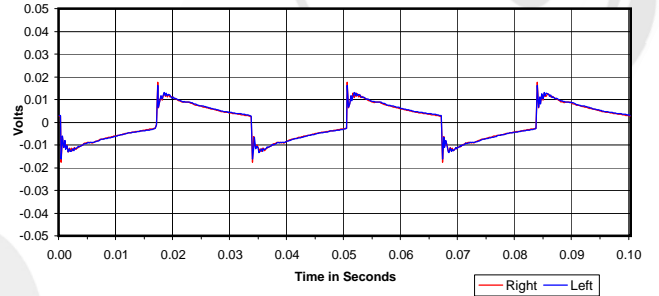
Isolation
Attenuation of External Sound vs. Frequency



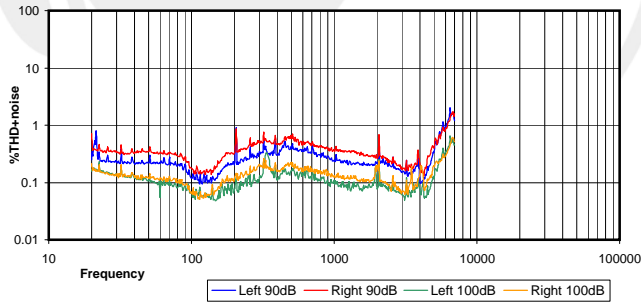
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



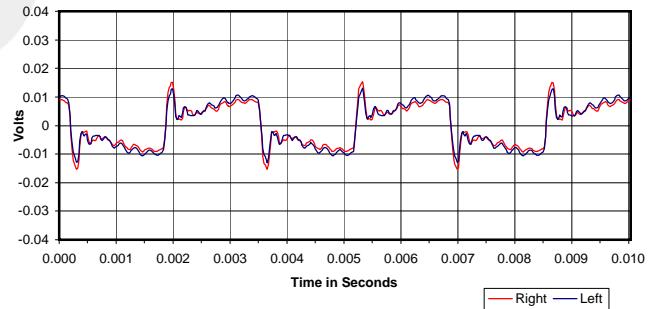
30 Hz Square Wave



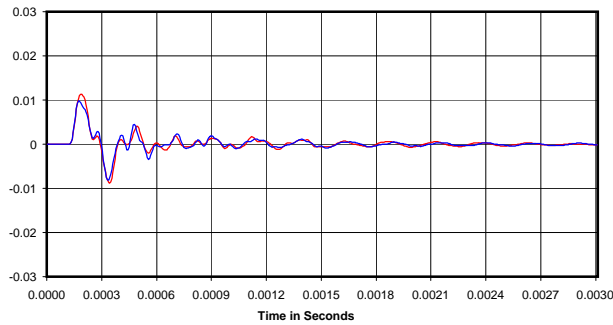
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

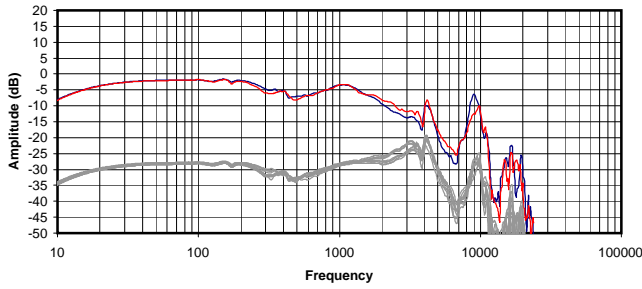


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

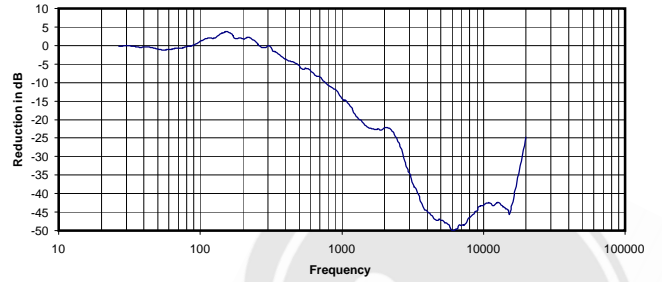
0.037 Vrms
44 Ohms
0.03 mW
-18 dB



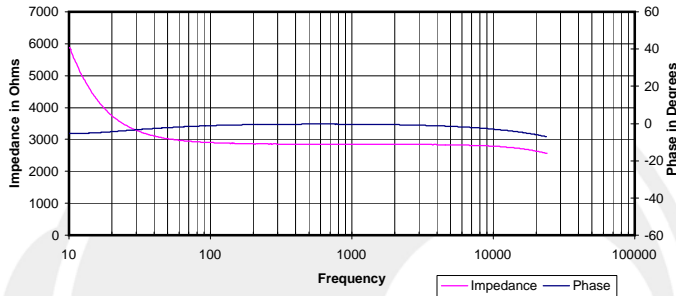
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



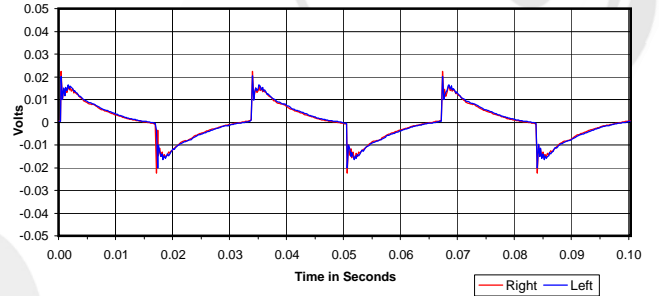
Isolation
Attenuation of External Sound vs. Frequency



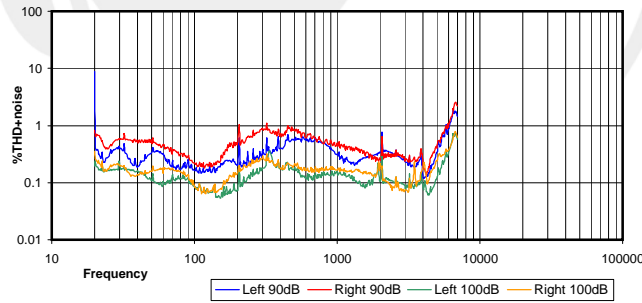
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



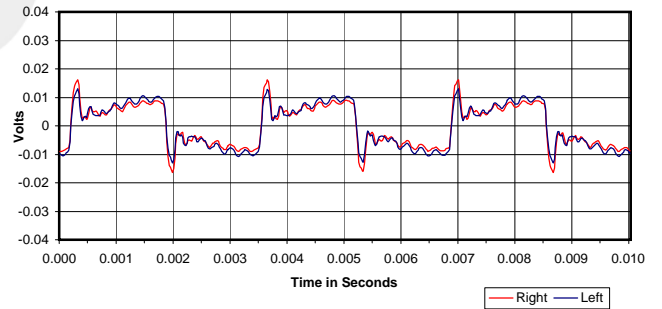
30 Hz Square Wave



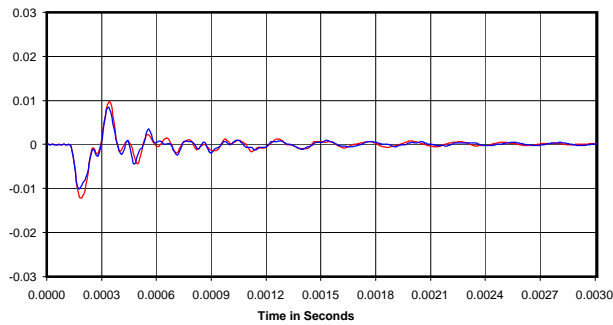
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

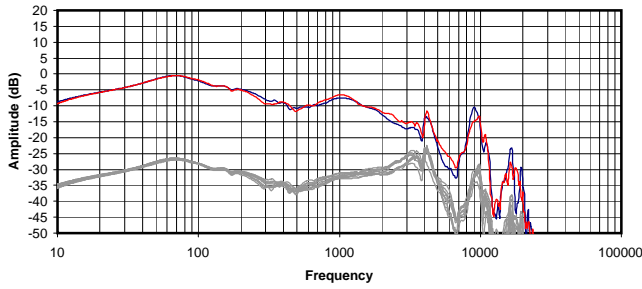


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

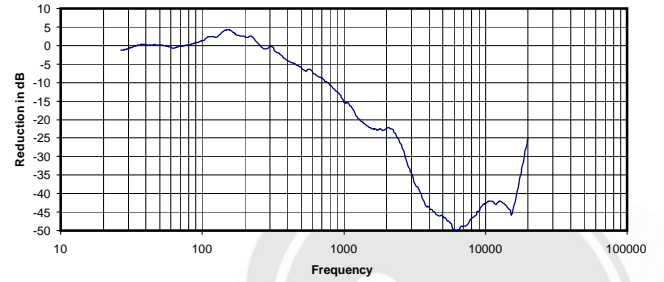
0.010 Vrms
2847 Ohms
0.00 mW
-19 dB



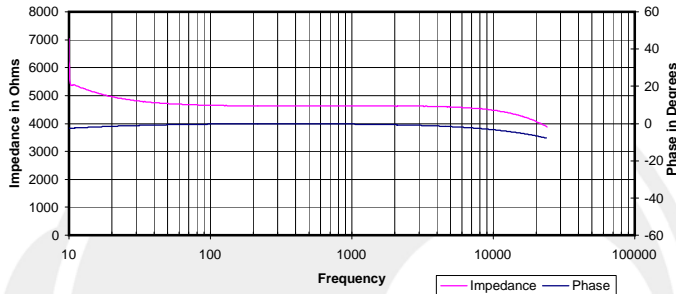
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



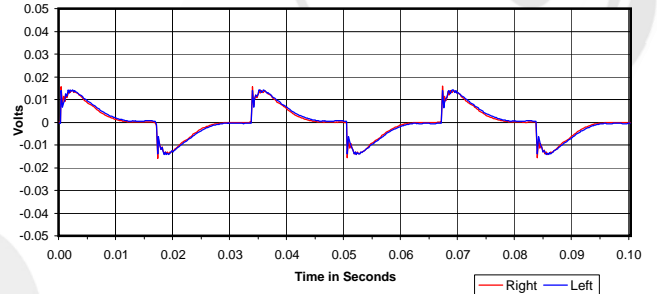
Isolation
 Attenuation of External Sound vs. Frequency



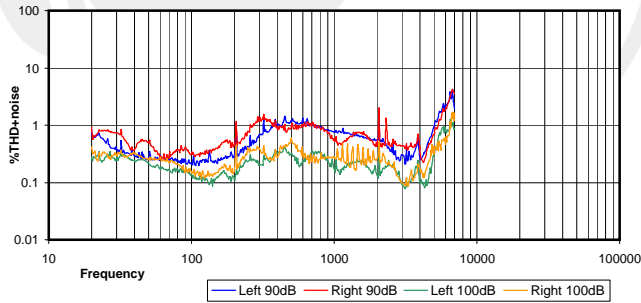
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



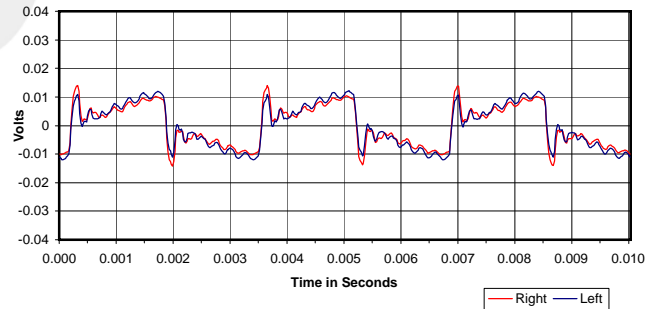
30 Hz Square Wave



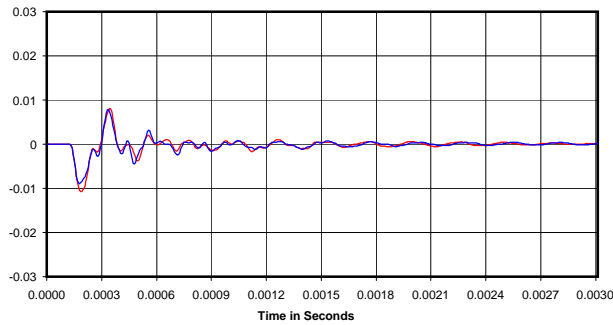
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



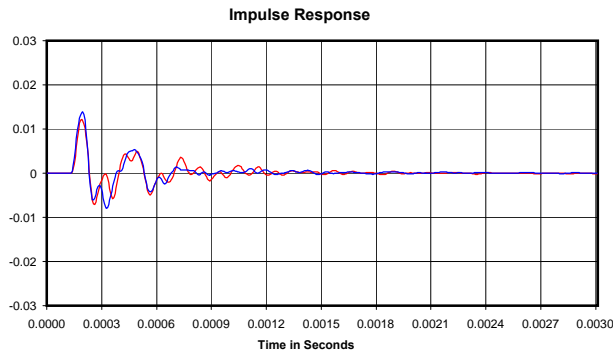
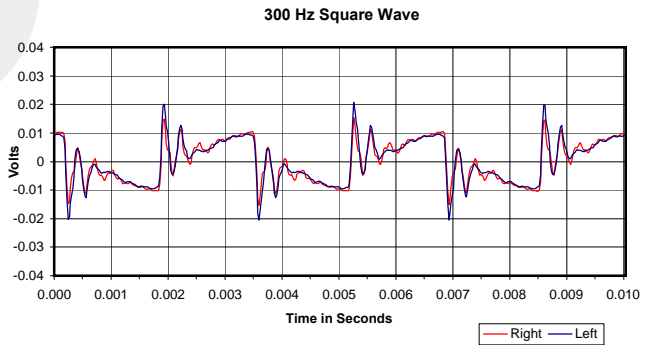
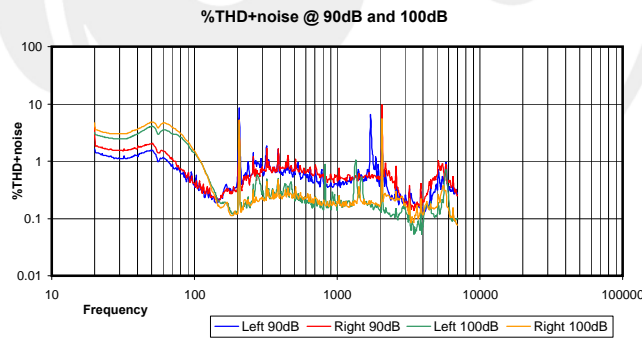
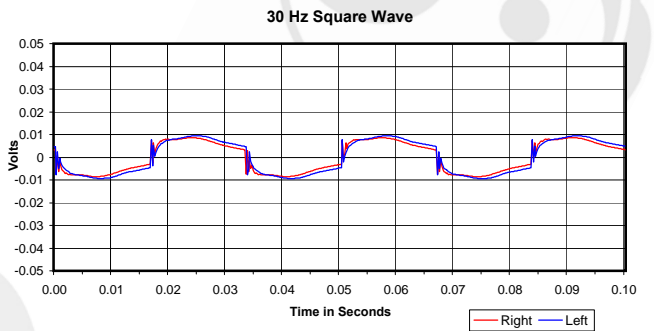
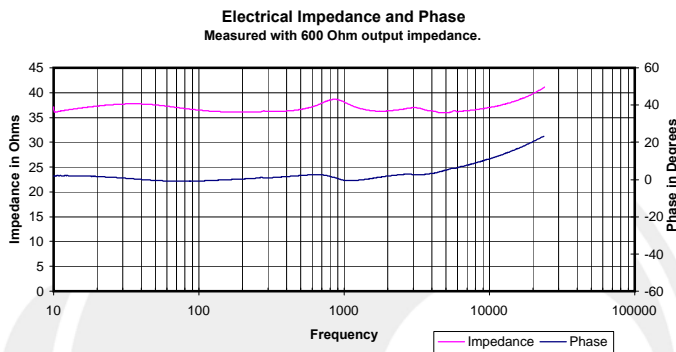
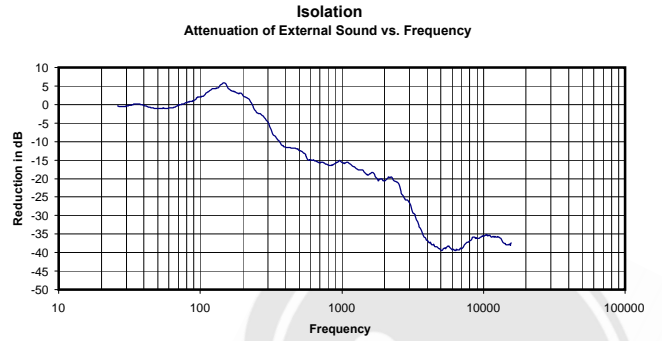
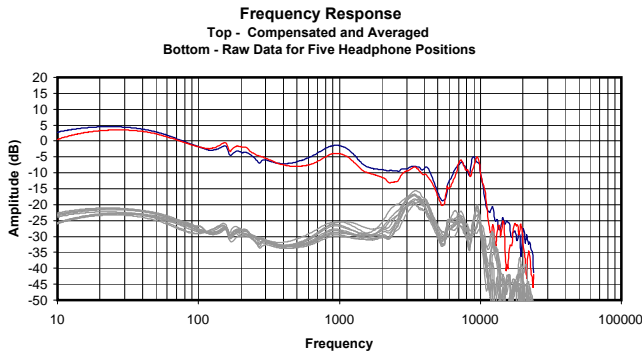
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
 4633 Ohms
 0.00 mW
 -19 dB



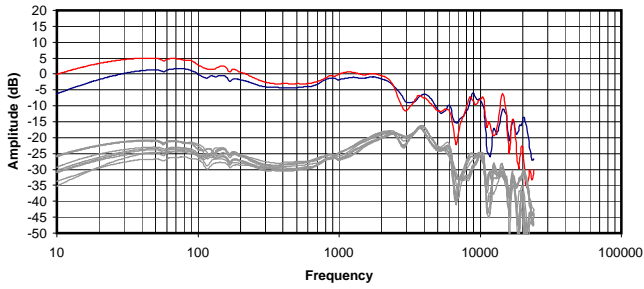


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

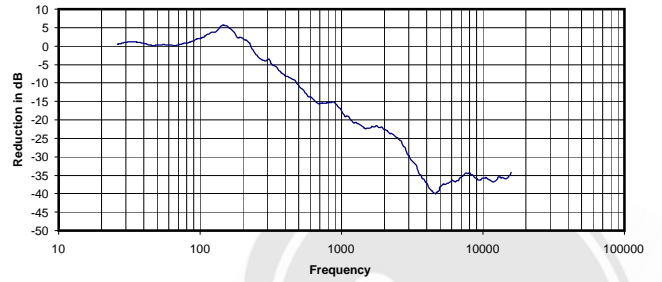
0.071 Vrms
38 Ohms
0.13 mW
-15 dB



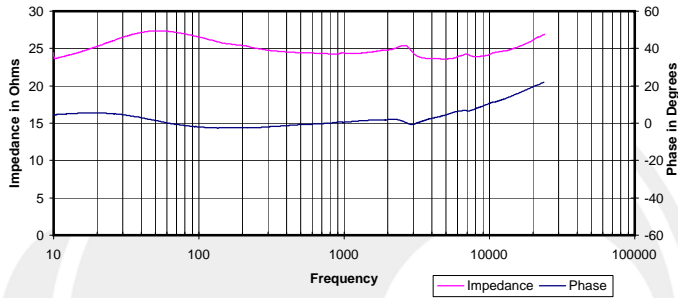
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



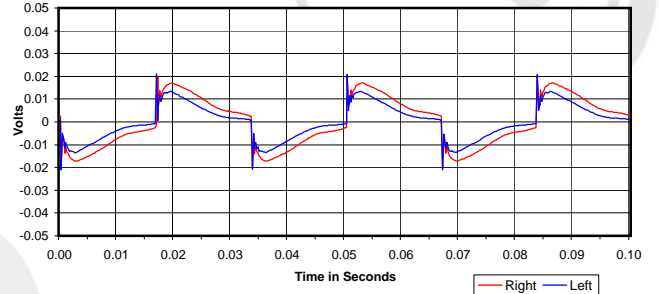
Isolation
 Attenuation of External Sound vs. Frequency



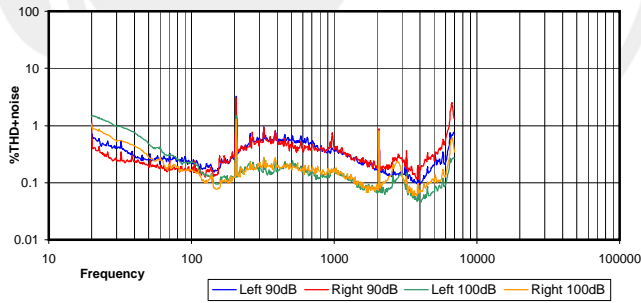
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



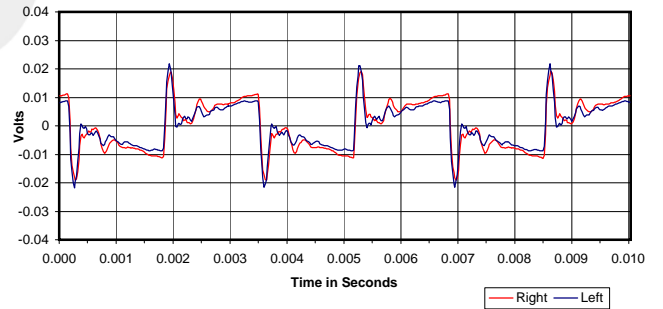
30 Hz Square Wave



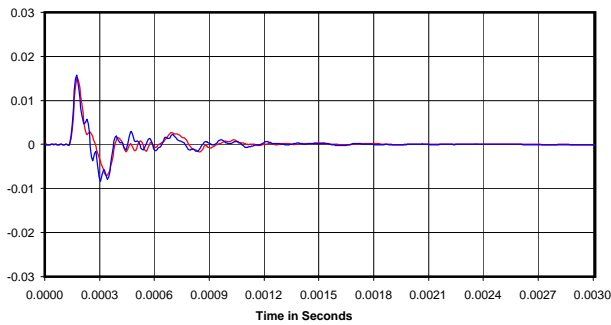
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

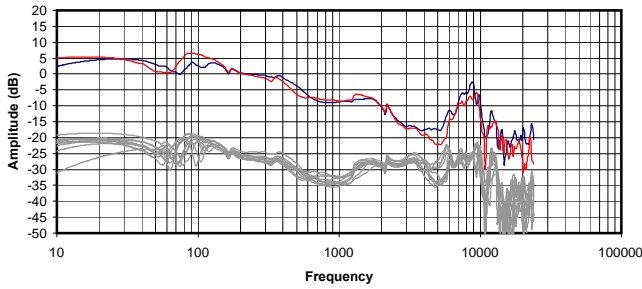


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

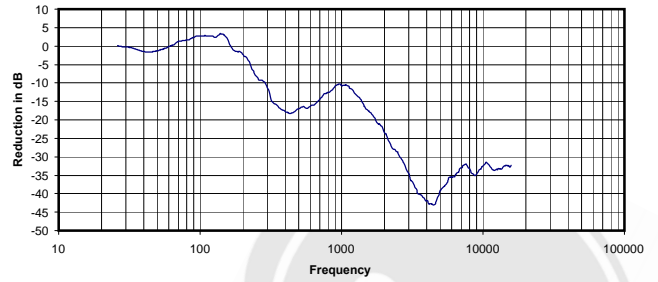
0.044 Vrms
 24 Ohms
 0.08 mW
 -15 dB



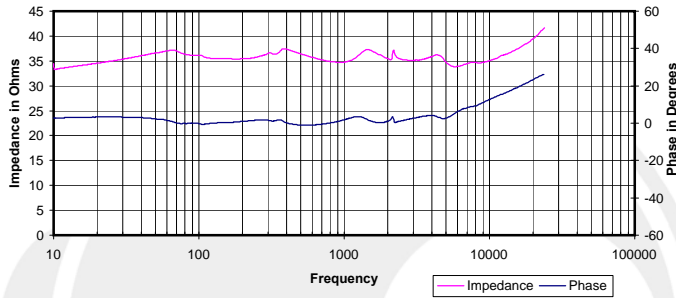
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



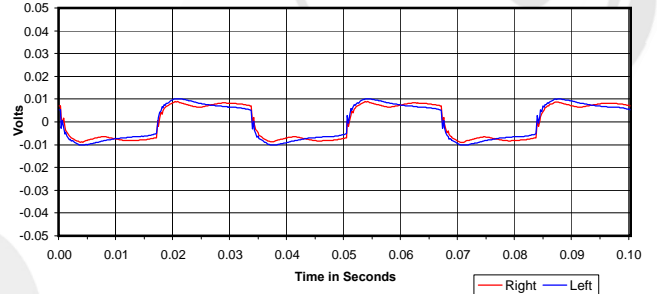
Isolation
 Attenuation of External Sound vs. Frequency



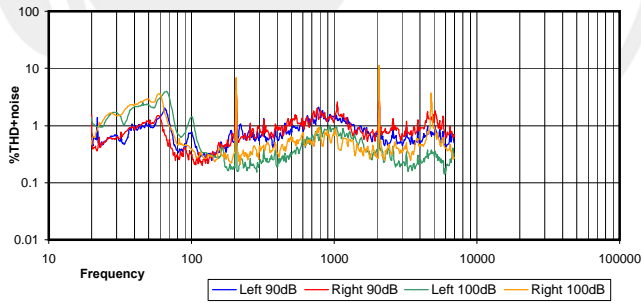
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



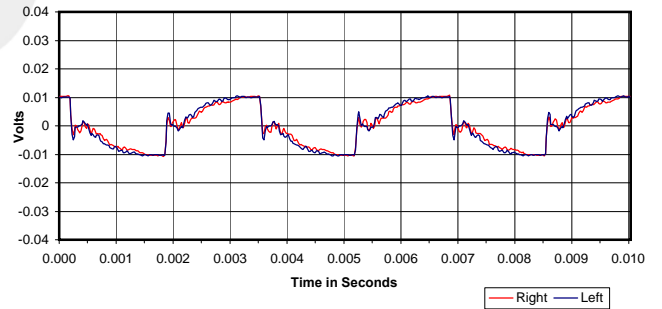
30 Hz Square Wave



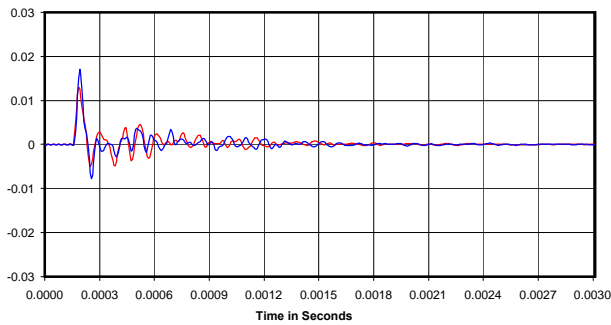
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

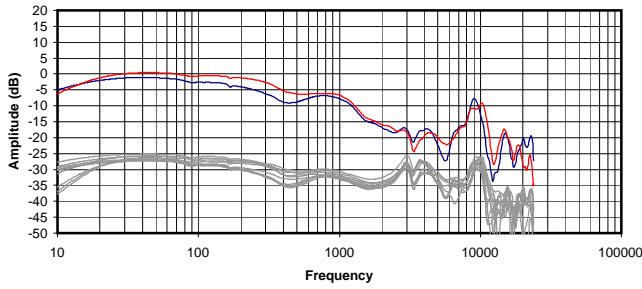


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

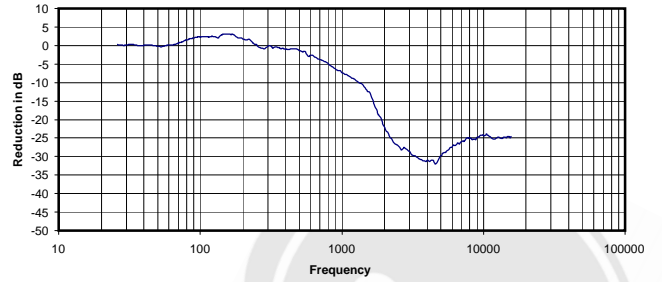
0.117 Vrms
 35 Ohms
 0.39 mW
 -17 dB



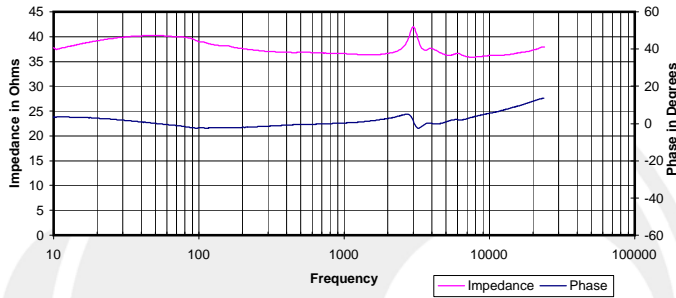
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



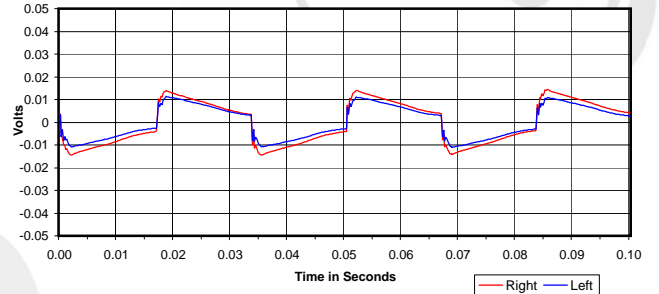
Isolation
Attenuation of External Sound vs. Frequency



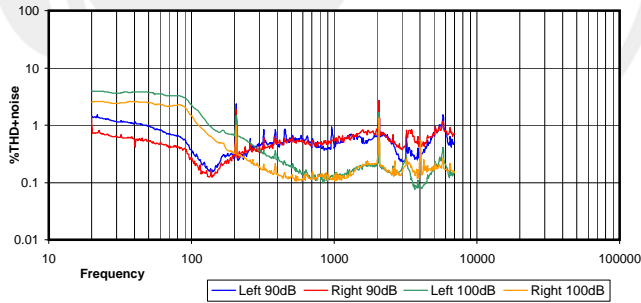
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



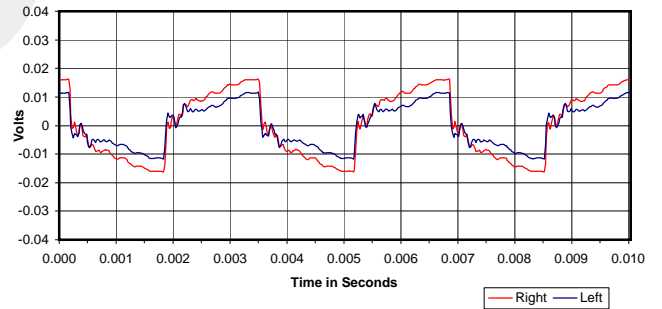
30 Hz Square Wave



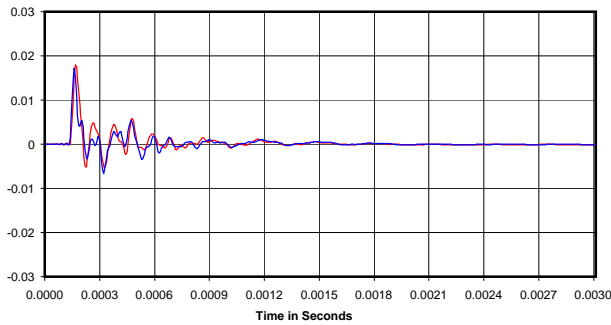
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

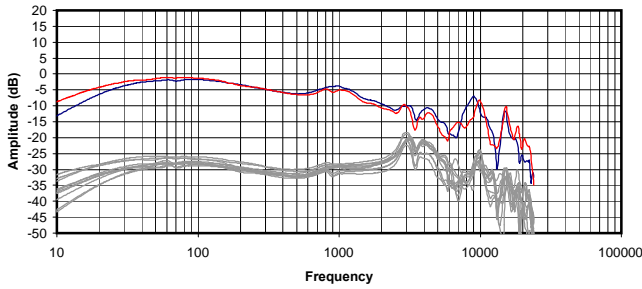


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

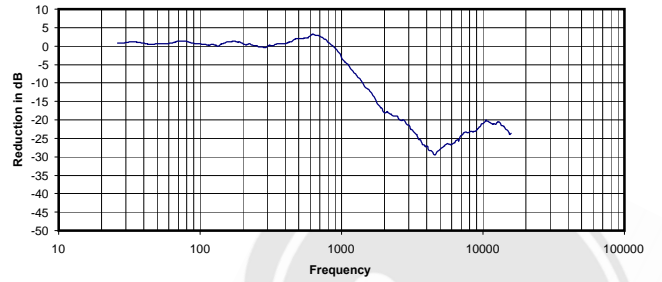
0.041 Vrms
37 Ohms
0.05 mW
-10 dB



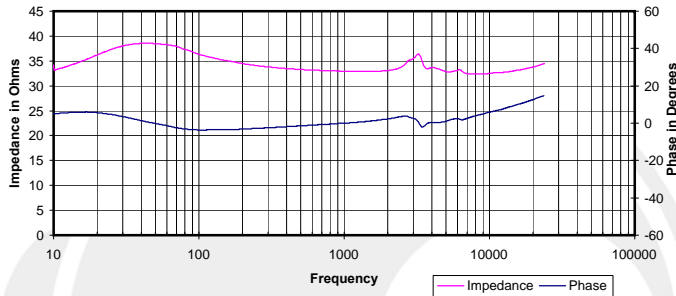
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



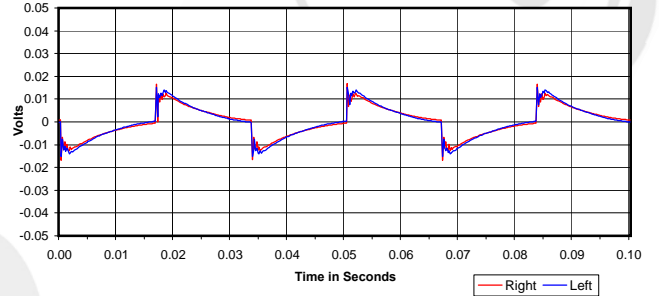
Isolation
Attenuation of External Sound vs. Frequency



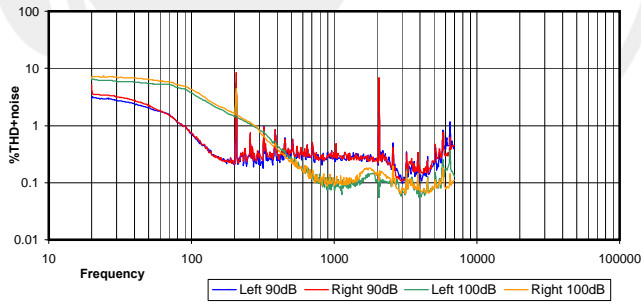
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



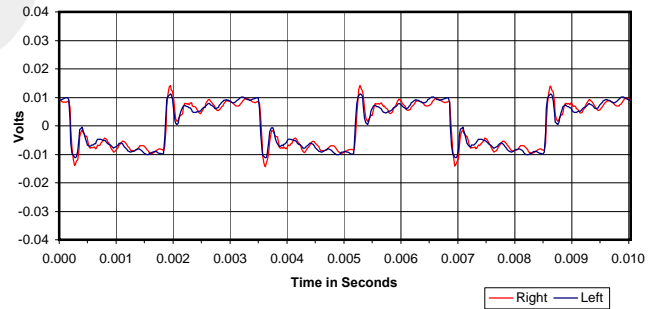
30 Hz Square Wave



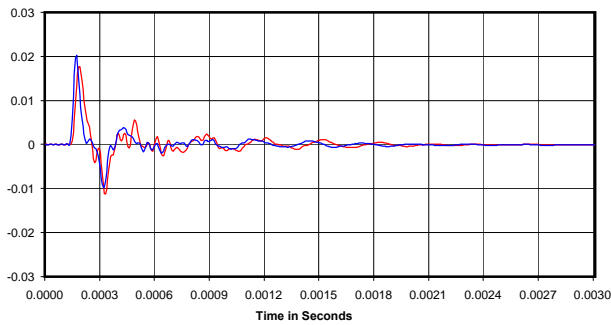
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

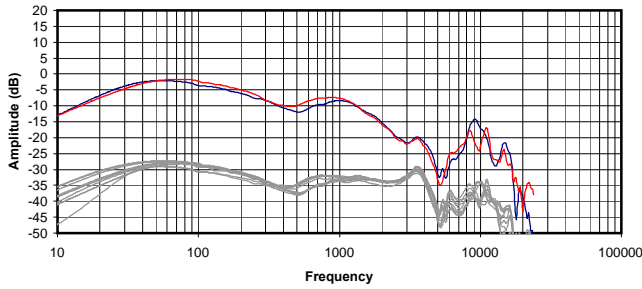


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

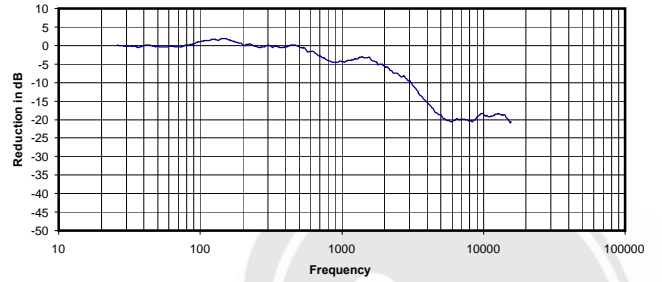
0.039 Vrms
33 Ohms
0.05 mW
-8 dB



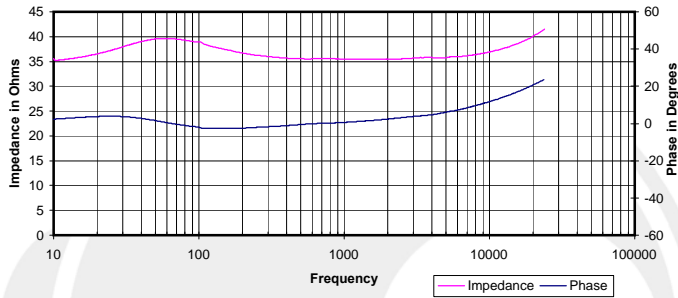
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



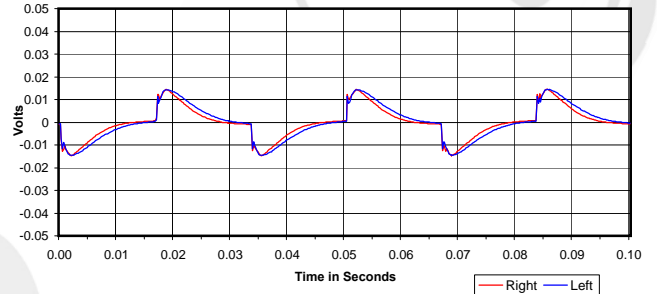
Isolation
Attenuation of External Sound vs. Frequency



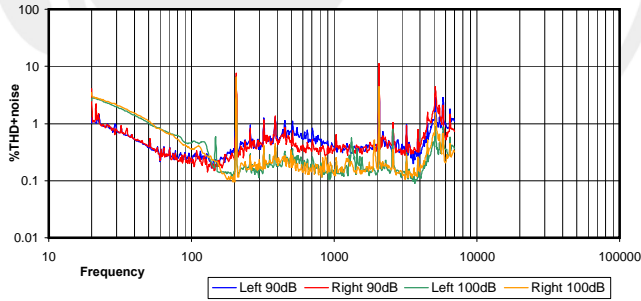
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



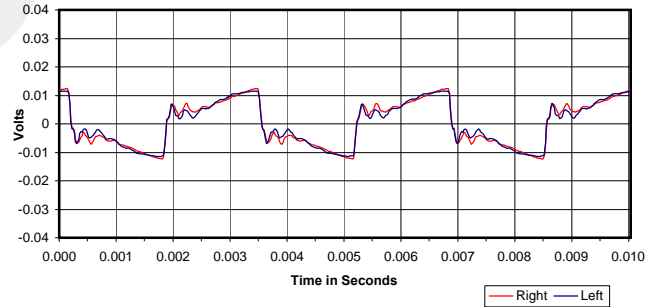
30 Hz Square Wave



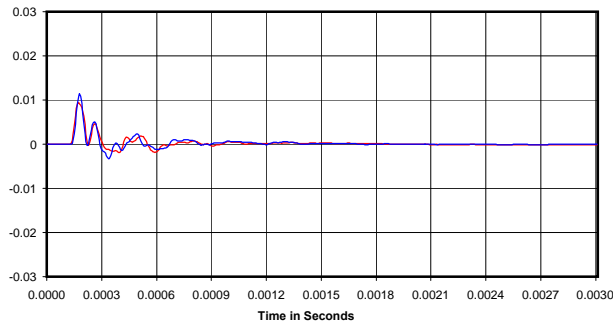
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

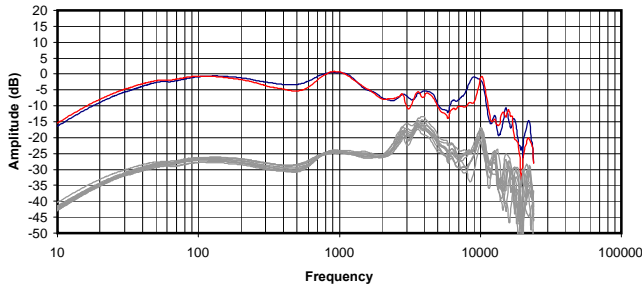


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

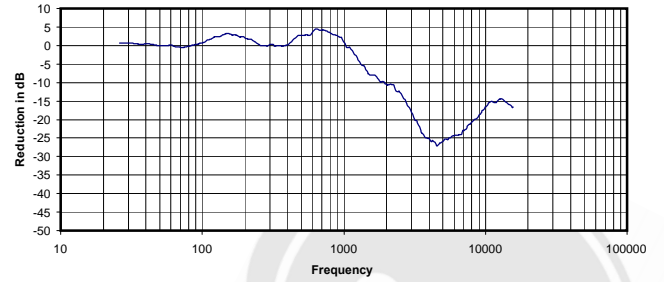
0.050 Vrms
35 Ohms
0.07 mW
-5 dB



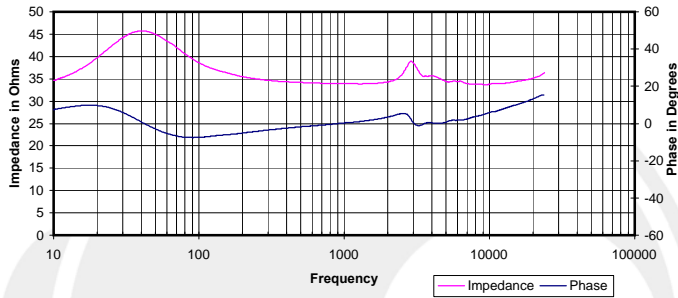
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



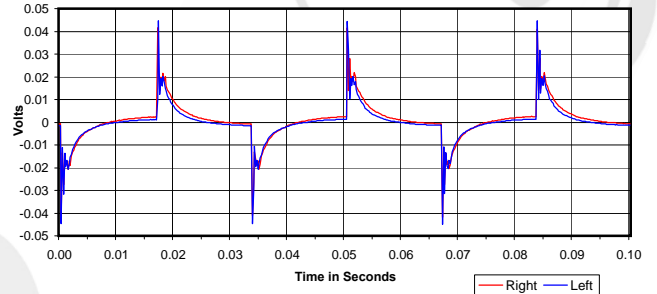
Isolation
 Attenuation of External Sound vs. Frequency



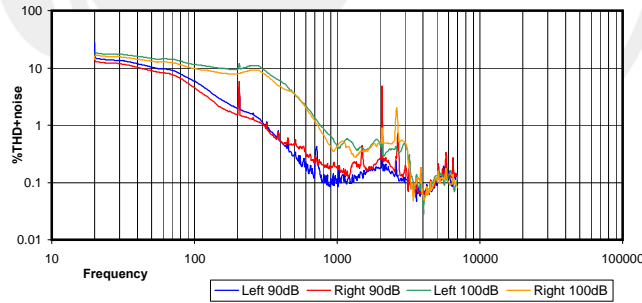
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



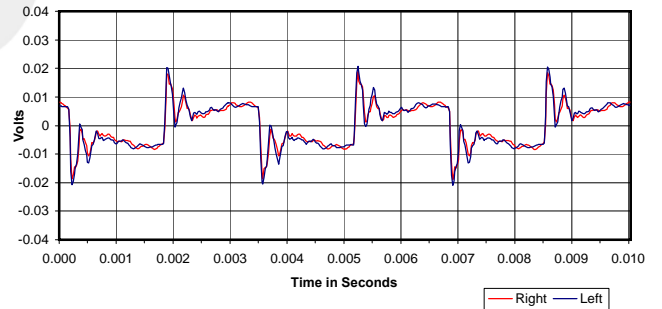
30 Hz Square Wave



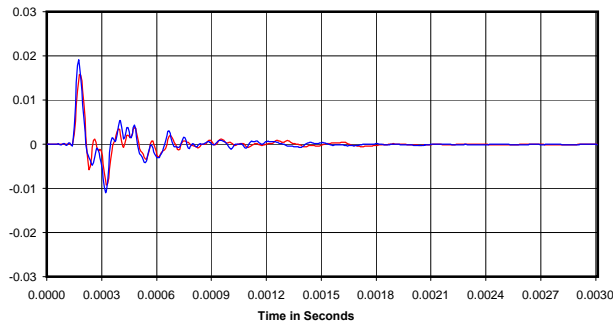
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

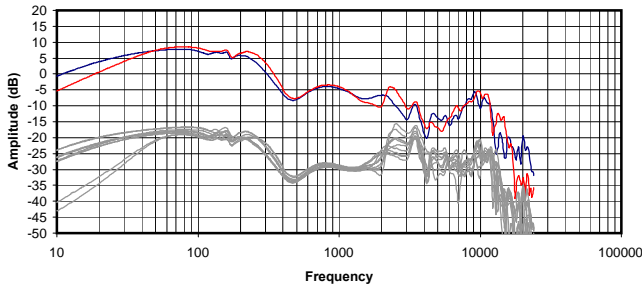


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

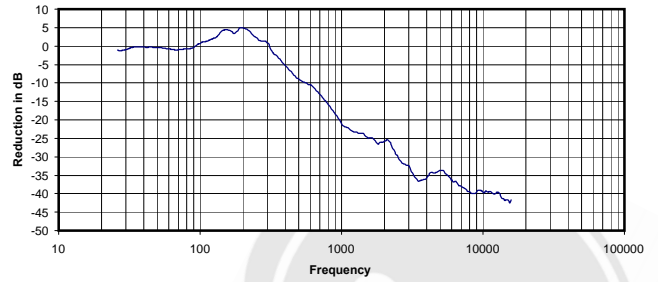
0.046 Vrms
 34 Ohms
 0.06 mW
 -5 dB



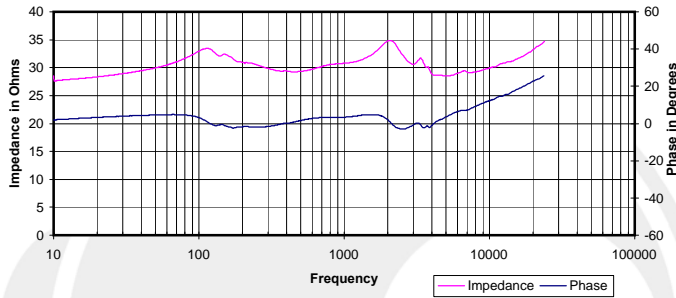
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



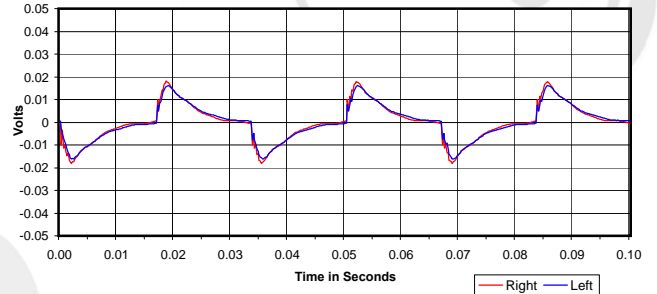
Isolation
 Attenuation of External Sound vs. Frequency



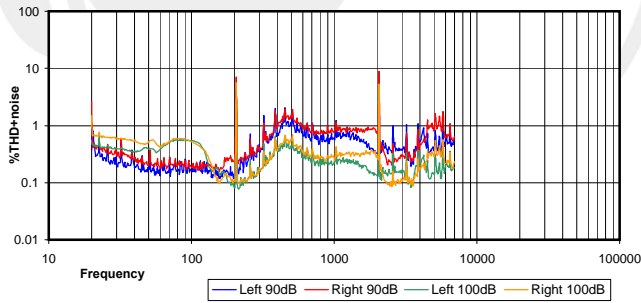
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



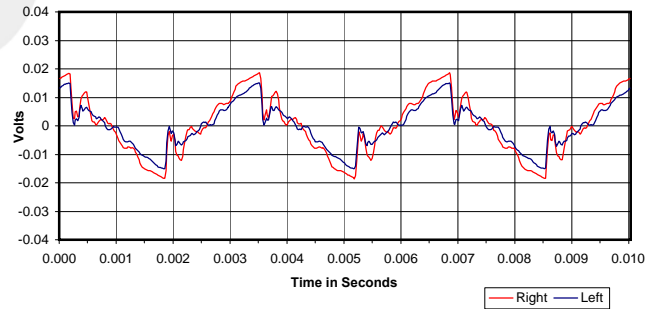
30 Hz Square Wave



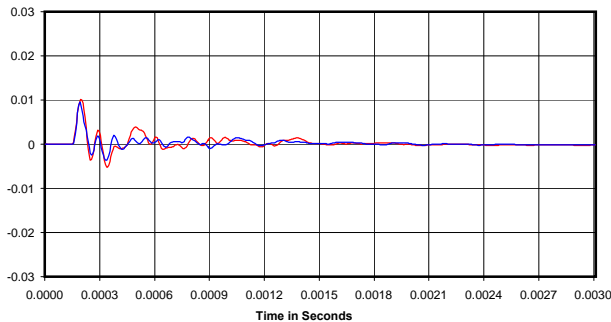
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

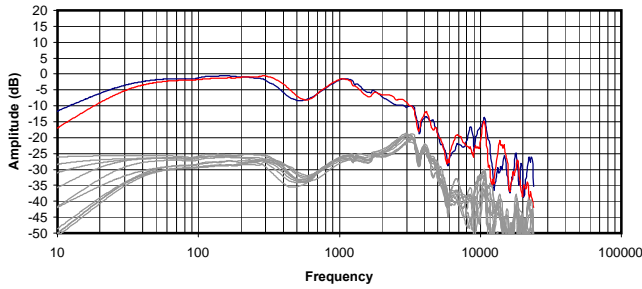


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

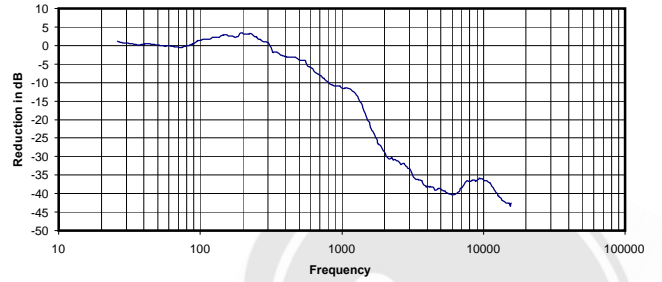
0.052 Vrms
 31 Ohms
 0.09 mW
 -15 dB



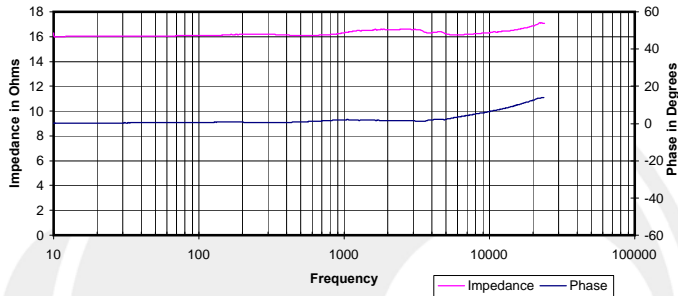
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



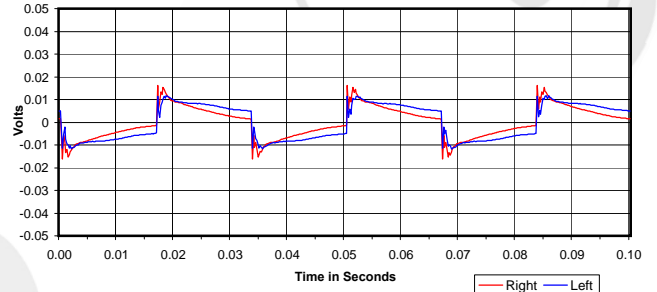
Isolation
Attenuation of External Sound vs. Frequency



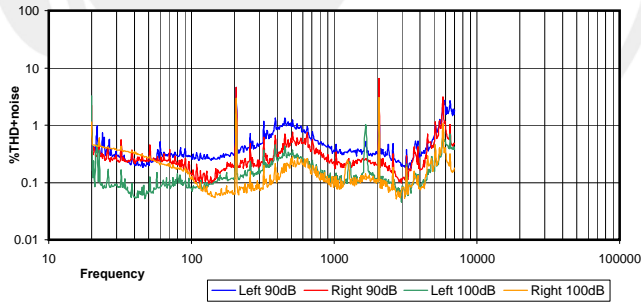
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



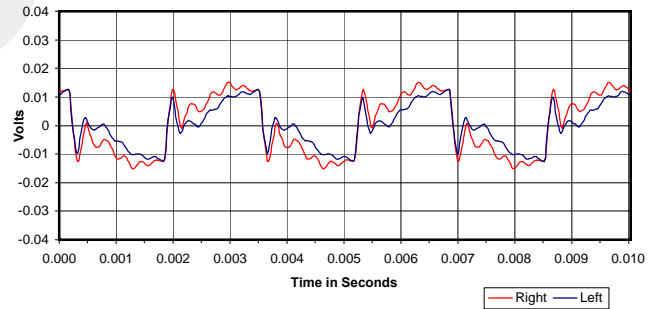
30 Hz Square Wave



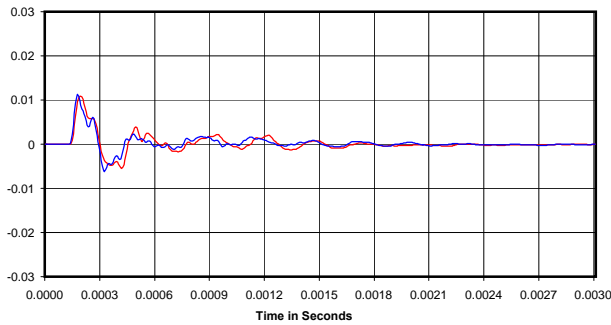
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

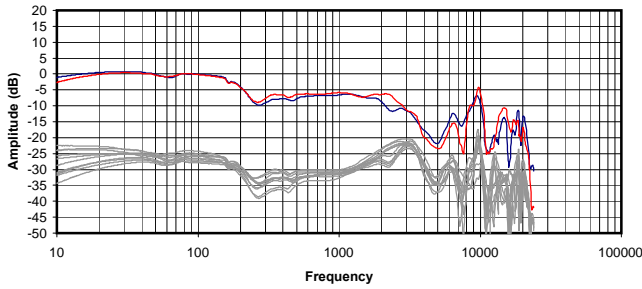


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

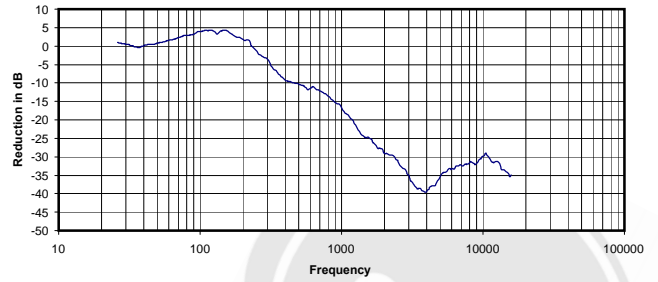
0.021 Vrms
16 Ohms
0.03 mW
-14 dB



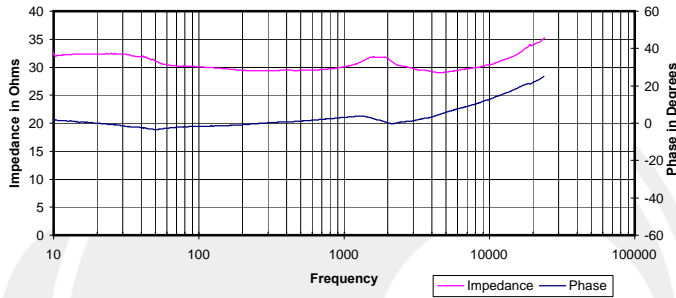
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



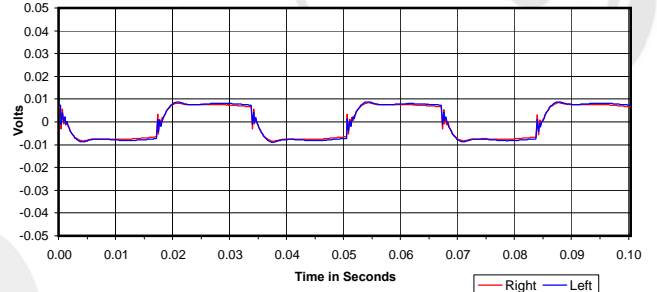
Isolation
Attenuation of External Sound vs. Frequency



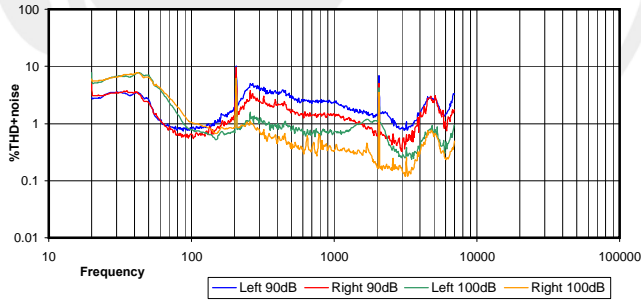
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



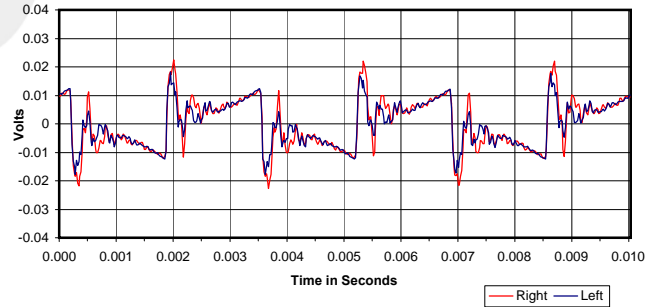
30 Hz Square Wave



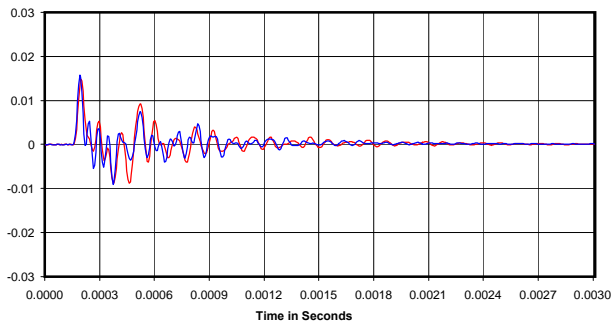
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

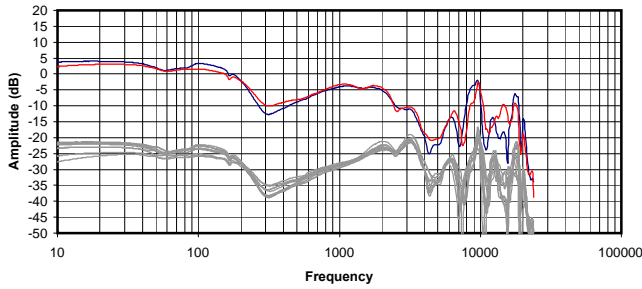


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

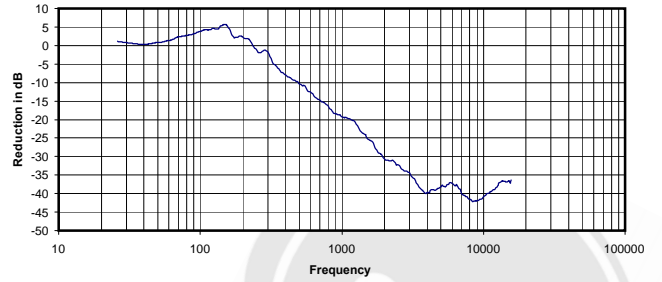
0.071 Vrms
30 Ohms
0.17 mW
-16 dB



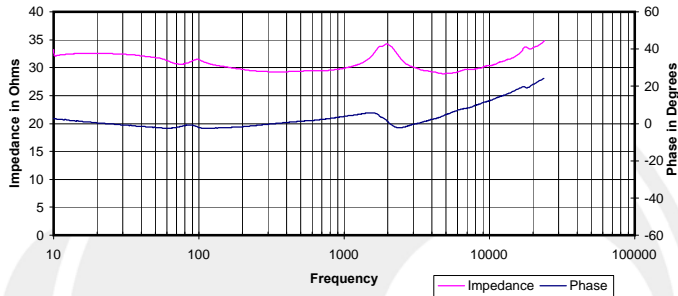
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



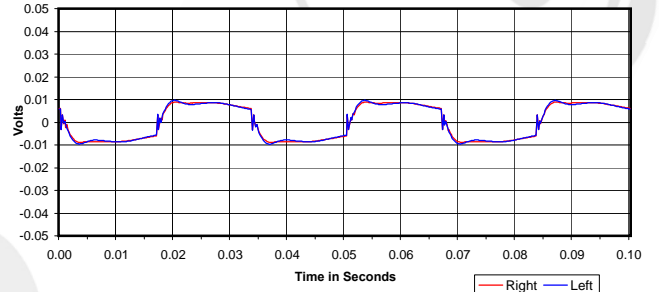
Isolation
 Attenuation of External Sound vs. Frequency



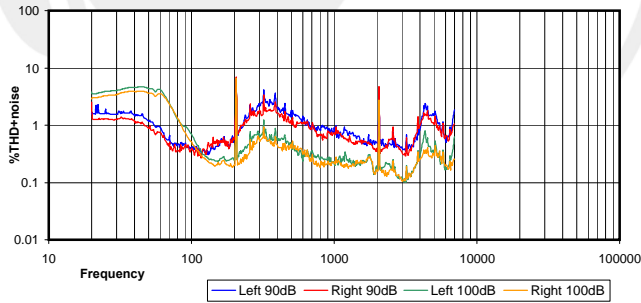
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



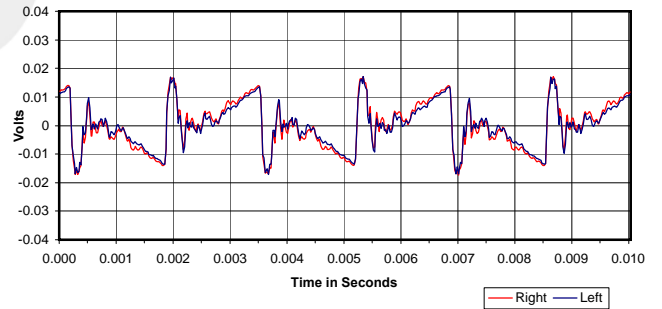
30 Hz Square Wave



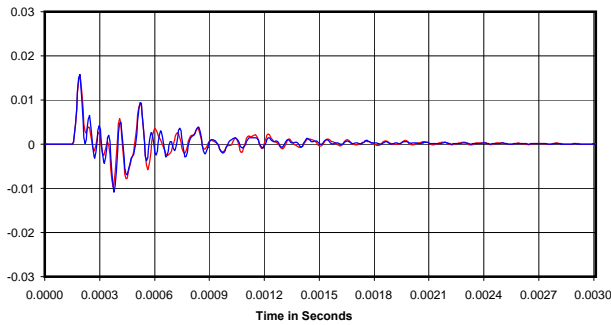
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

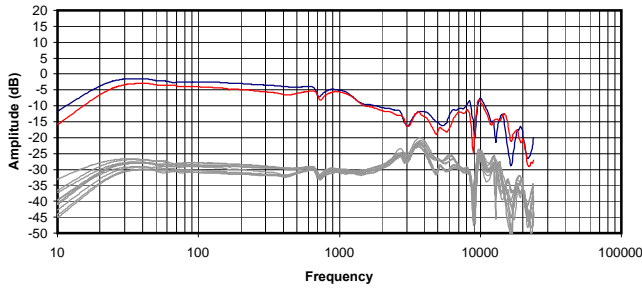


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

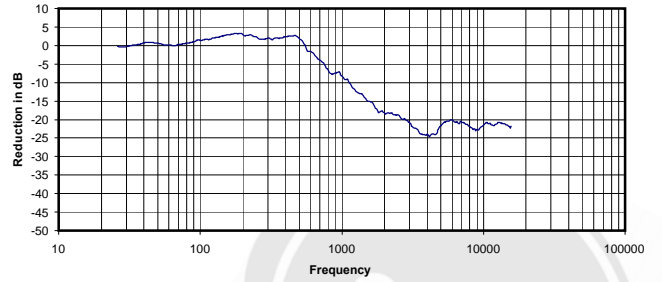
0.044 Vrms
 30 Ohms
 0.06 mW
 -16 dB



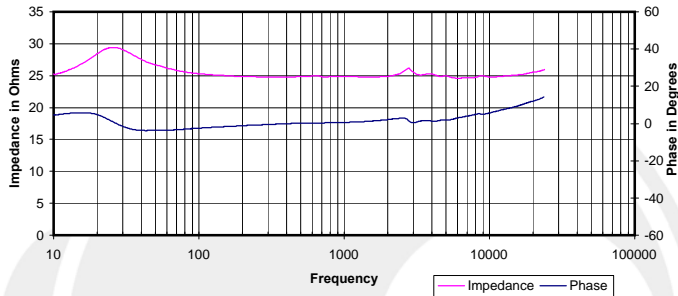
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



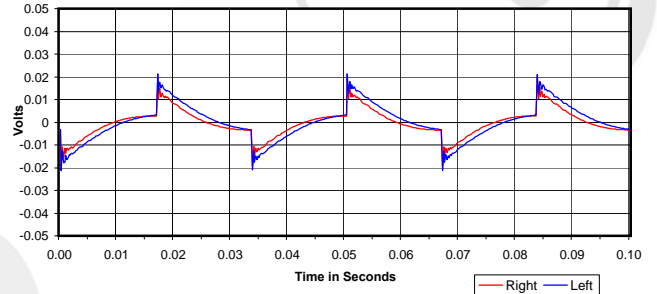
Isolation
 Attenuation of External Sound vs. Frequency



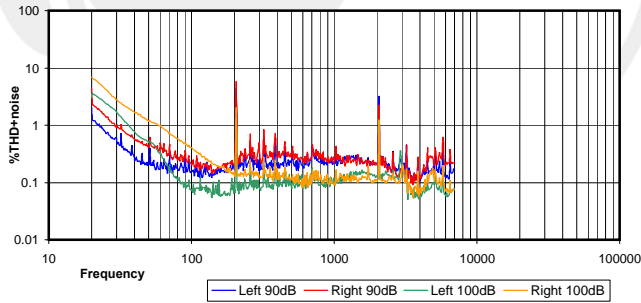
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



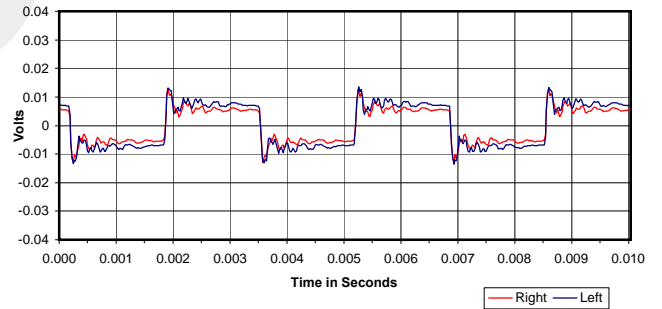
30 Hz Square Wave



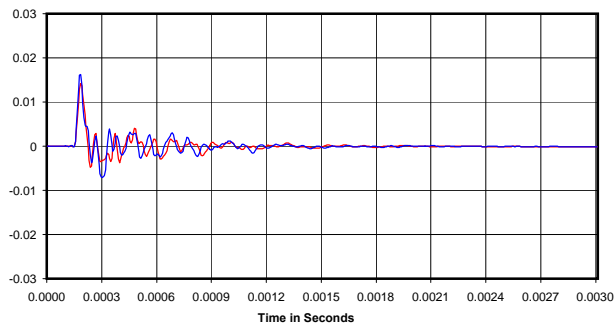
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

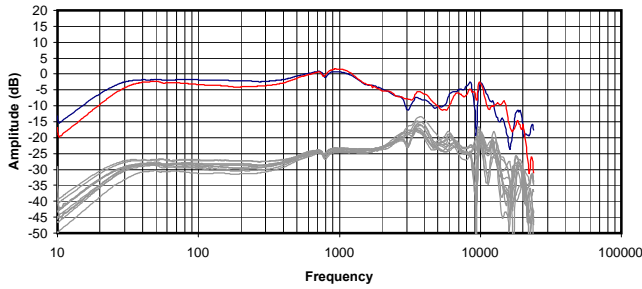


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

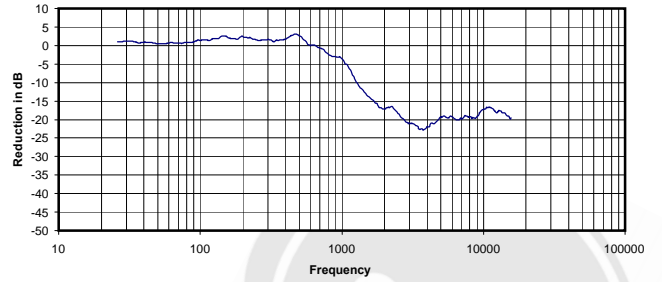
0.064 Vrms
 25 Ohms
 0.17 mW
 -8 dBr



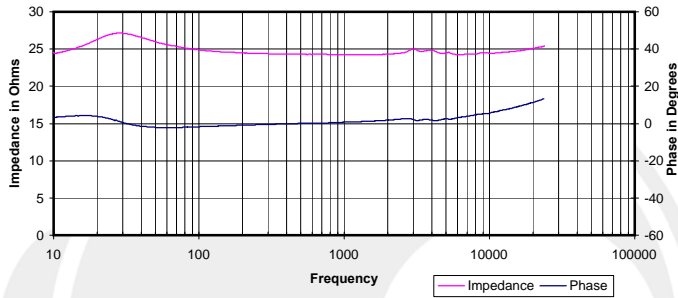
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



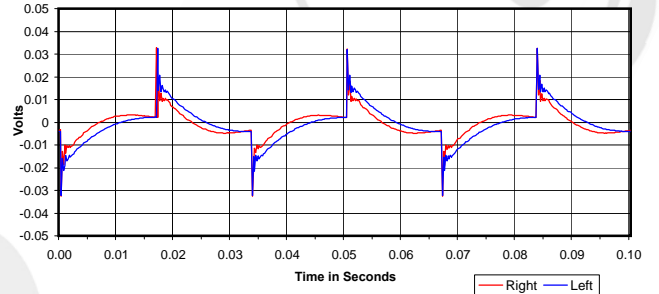
Isolation
 Attenuation of External Sound vs. Frequency



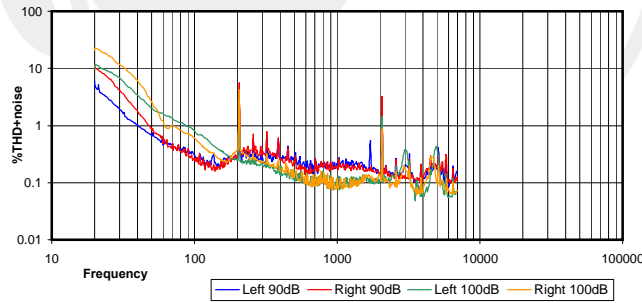
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



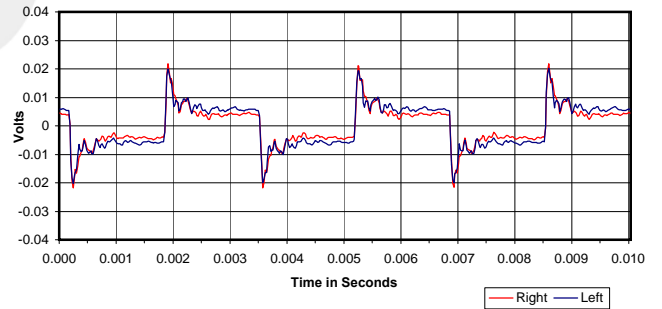
30 Hz Square Wave



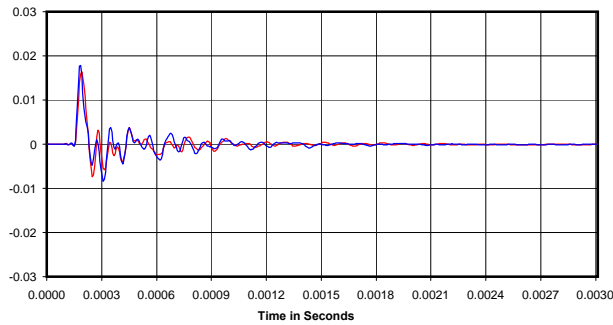
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

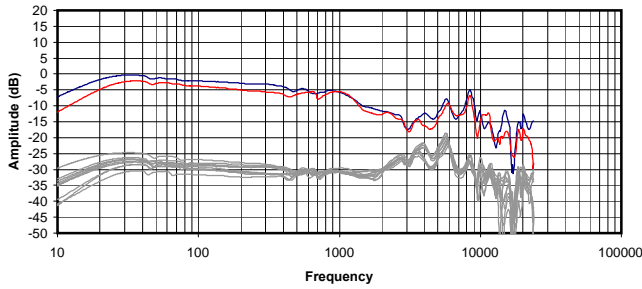


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

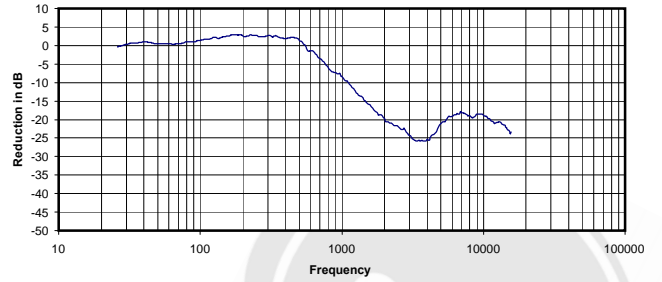
0.073 Vrms
 24 Ohms
 0.22 mW
 -7 dB



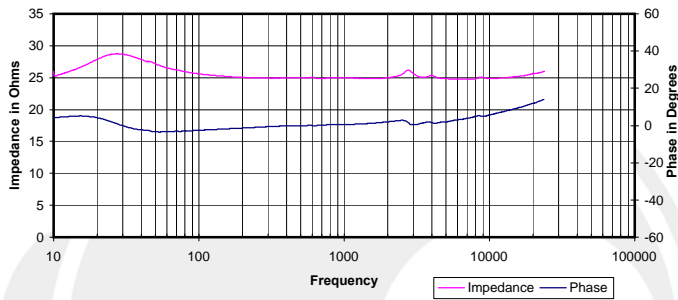
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



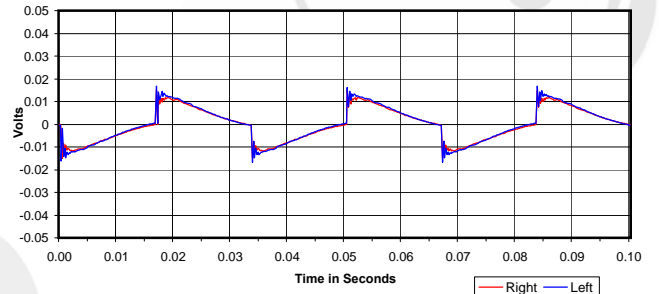
Isolation
Attenuation of External Sound vs. Frequency



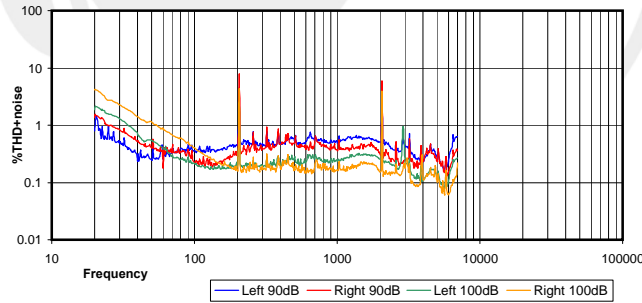
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



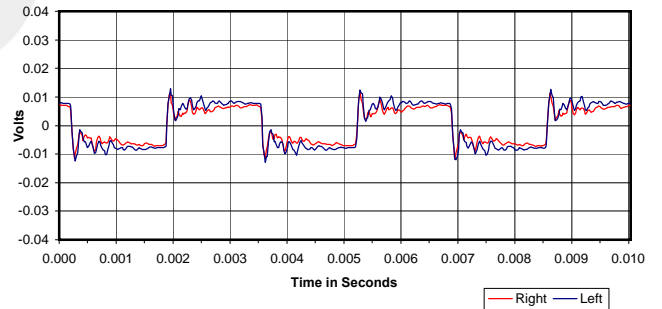
30 Hz Square Wave



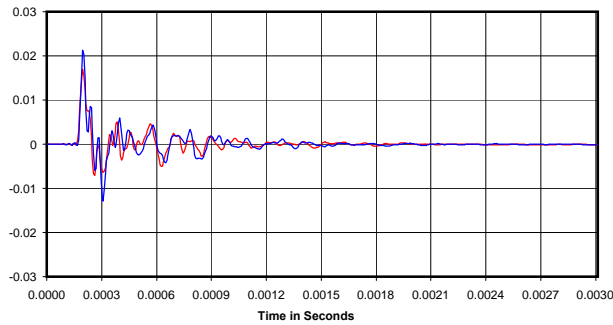
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

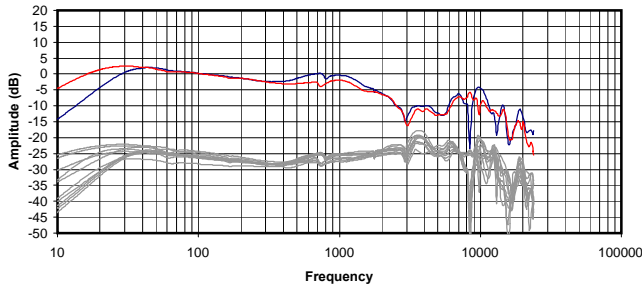


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

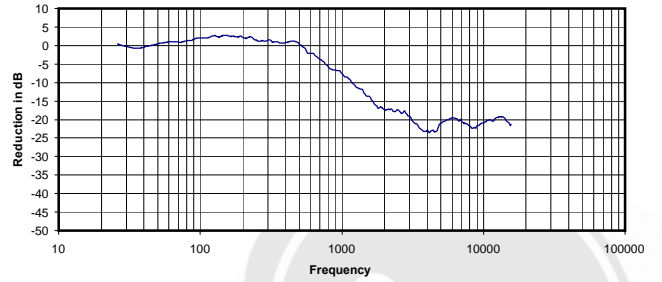
0.080 Vrms
25 Ohms
0.25 mW
-8 dBr



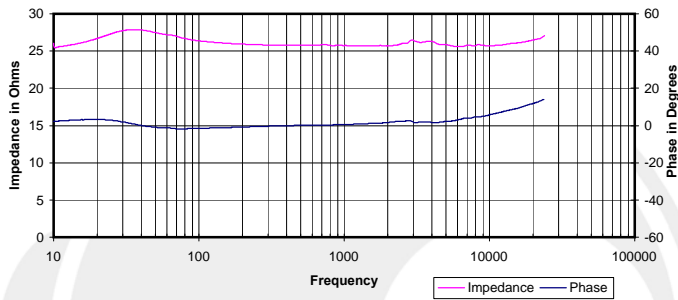
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



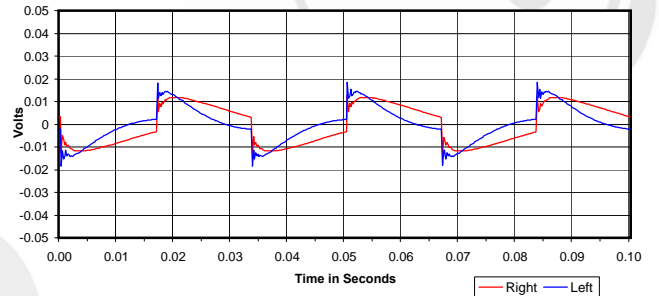
Isolation
Attenuation of External Sound vs. Frequency



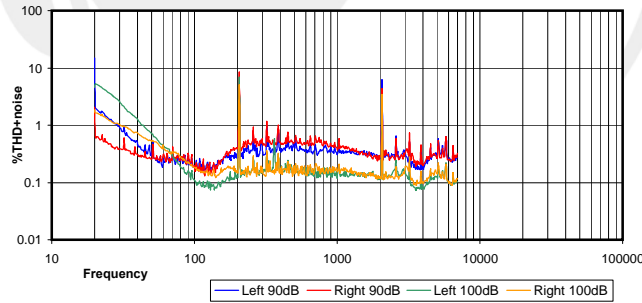
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



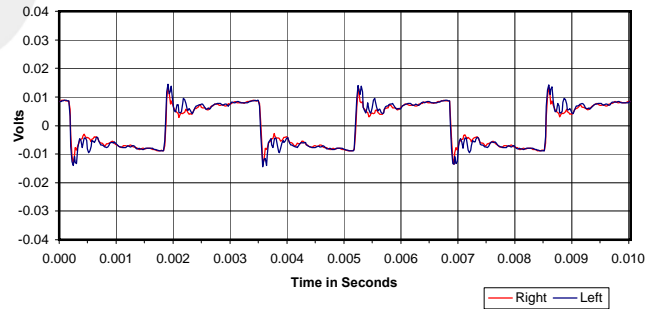
30 Hz Square Wave



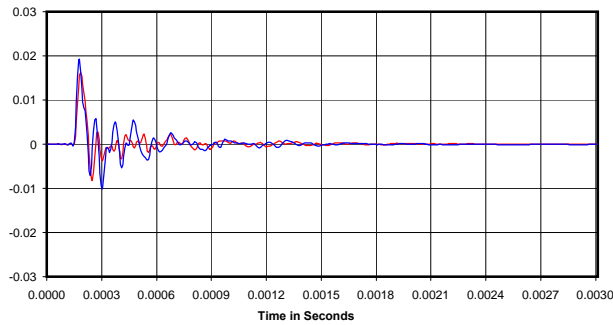
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

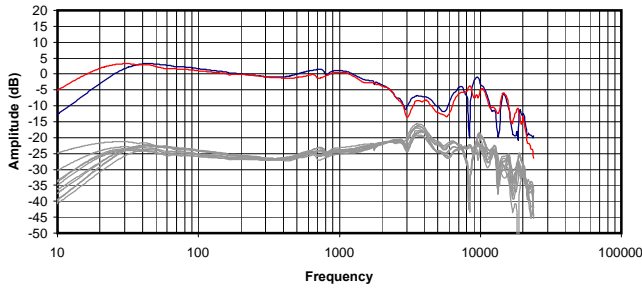


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

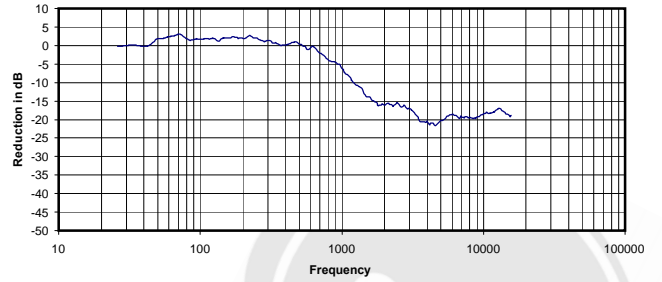
0.062 Vrms
26 Ohms
0.15 mW
-7 dB



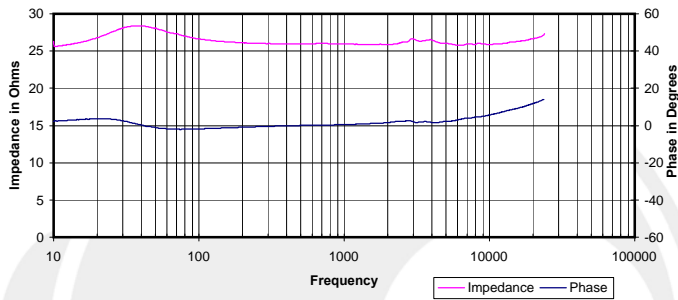
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



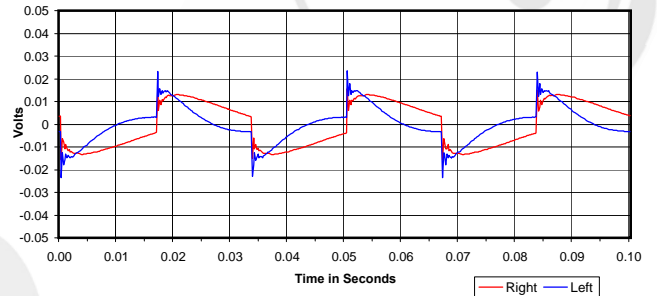
Isolation
 Attenuation of External Sound vs. Frequency



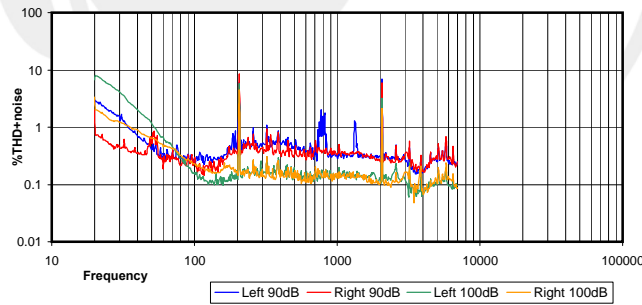
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



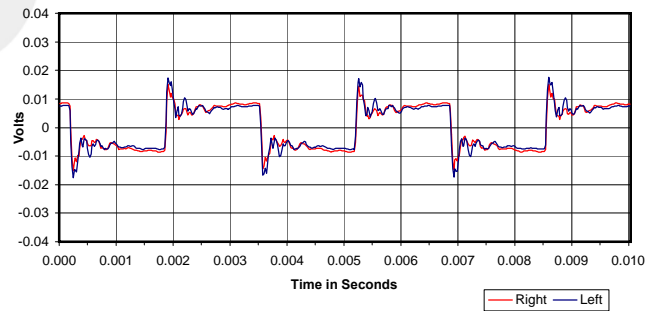
30 Hz Square Wave



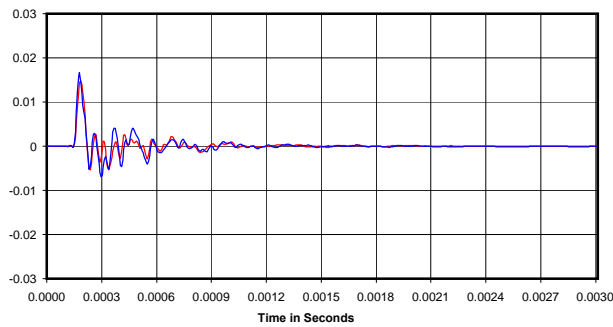
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

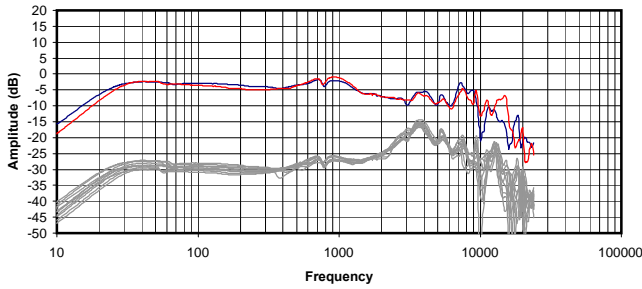


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

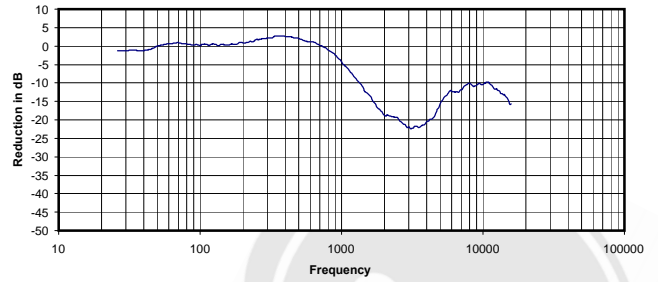
0.064 Vrms
 26 Ohms
 0.16 mW
 -7 dB



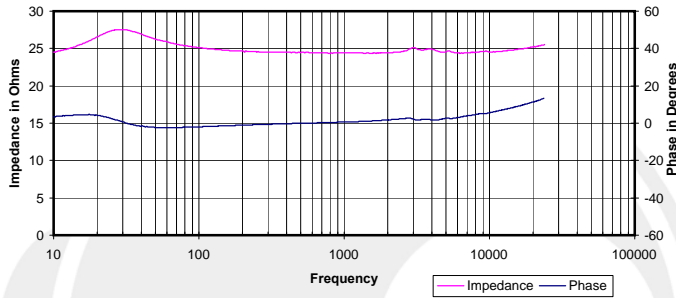
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



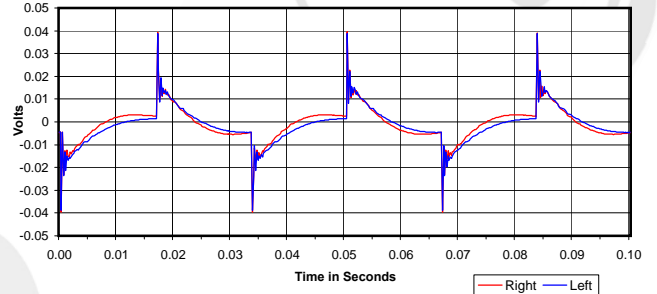
Isolation
Attenuation of External Sound vs. Frequency



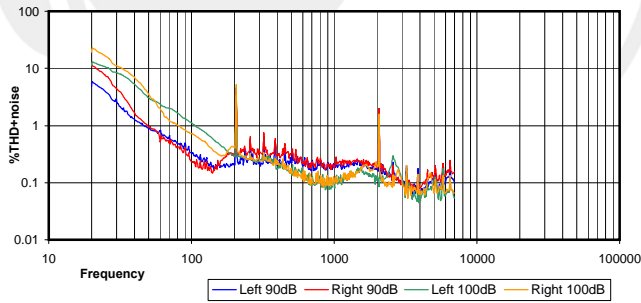
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



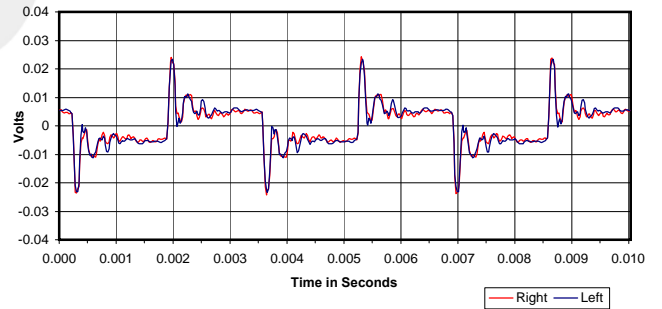
30 Hz Square Wave



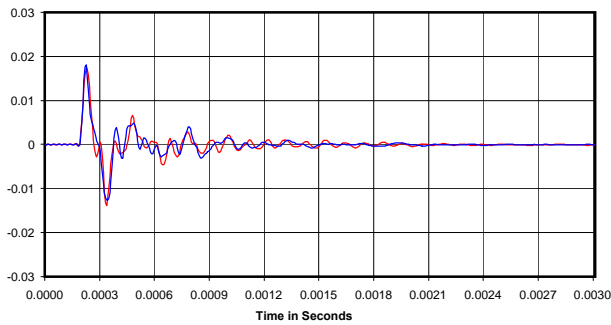
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

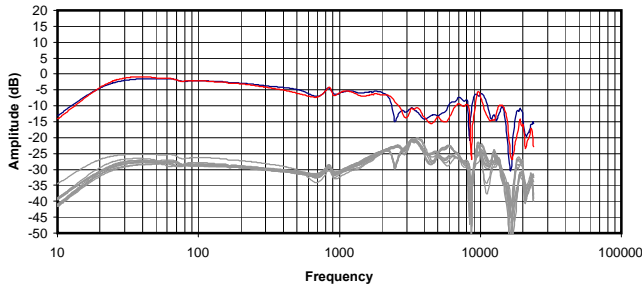


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

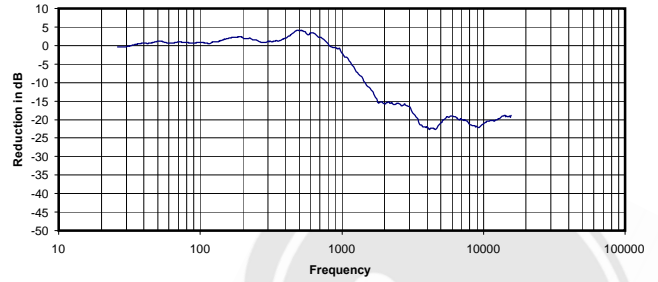
0.103 Vrms
24 Ohms
0.43 mW
-7 dB



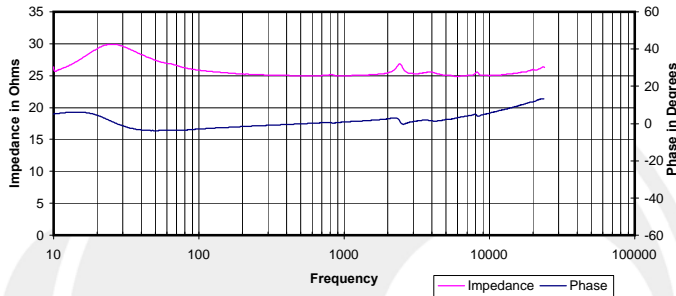
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



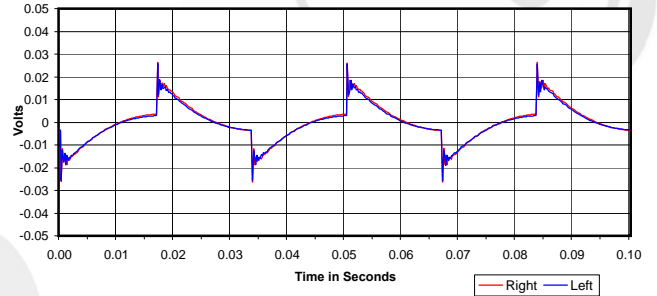
Isolation
 Attenuation of External Sound vs. Frequency



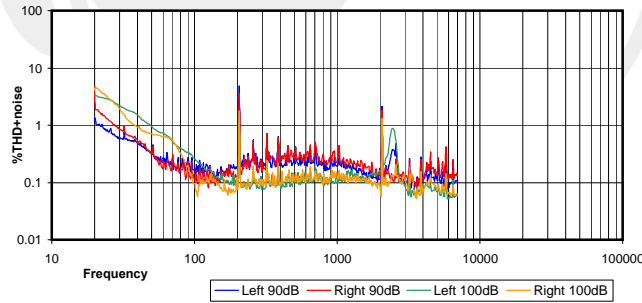
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



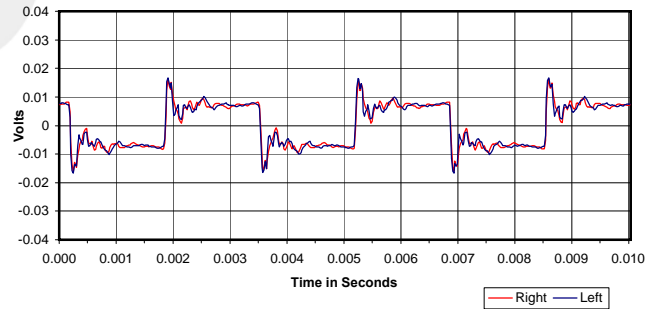
30 Hz Square Wave



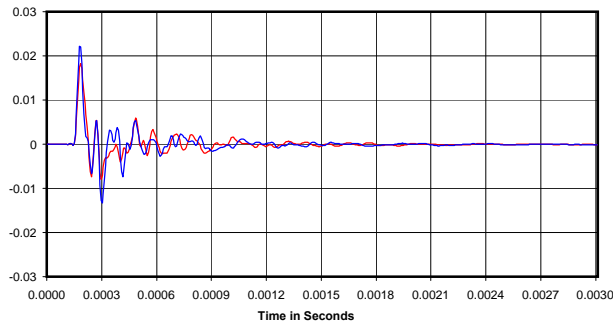
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



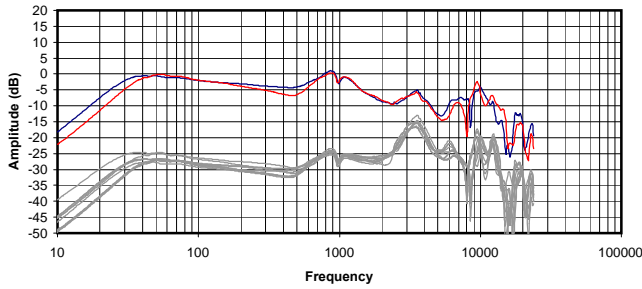
Impulse Response



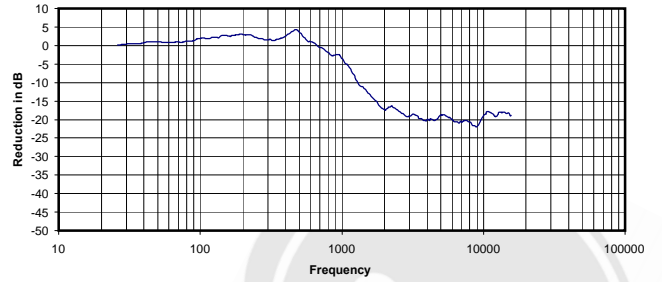
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.081 Vrms
 25 Ohms
 0.26 mW
 -6 dB

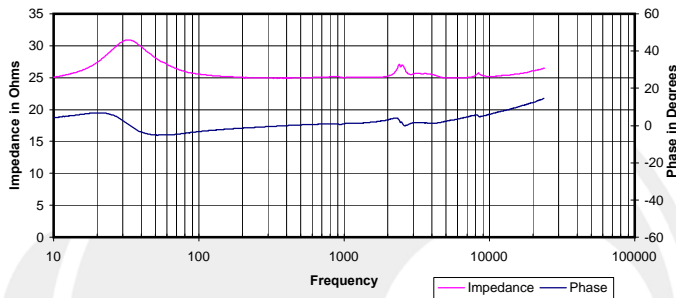
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



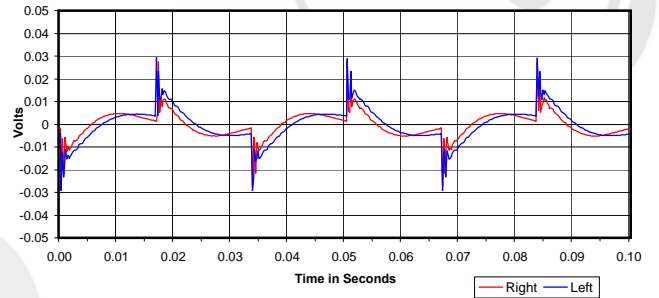
Isolation
 Attenuation of External Sound vs. Frequency



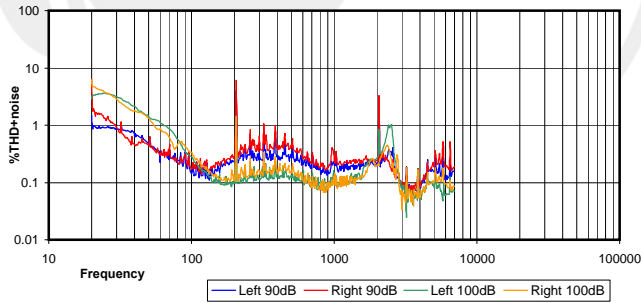
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



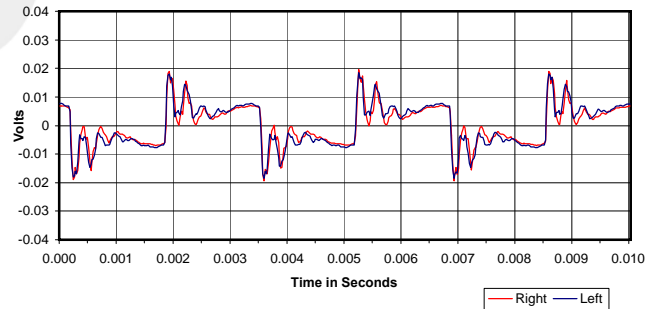
30 Hz Square Wave



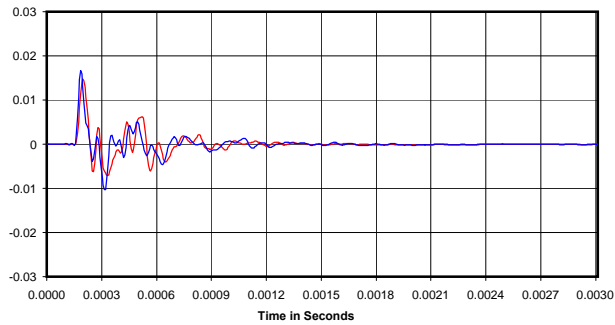
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

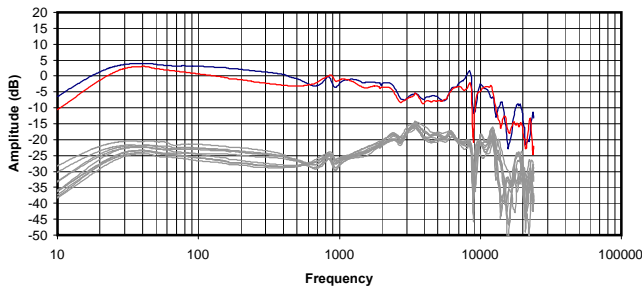


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

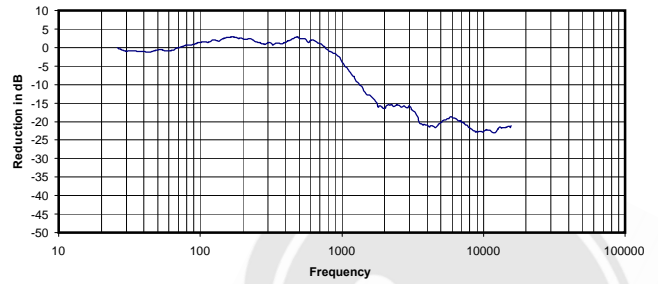
0.082 Vrms
 25 Ohms
 0.27 mW
 -6 dBr



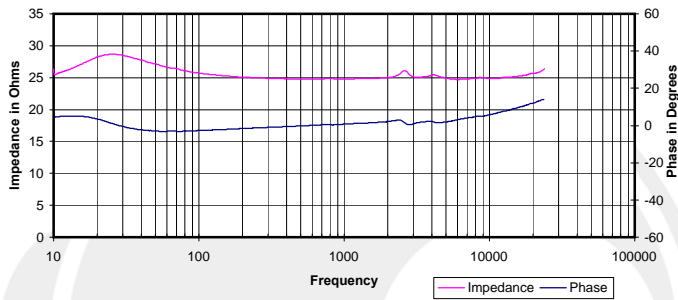
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



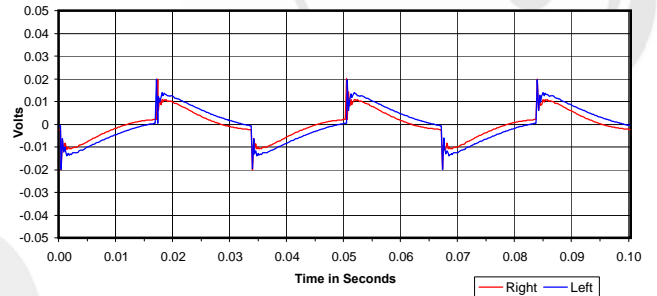
Isolation
Attenuation of External Sound vs. Frequency



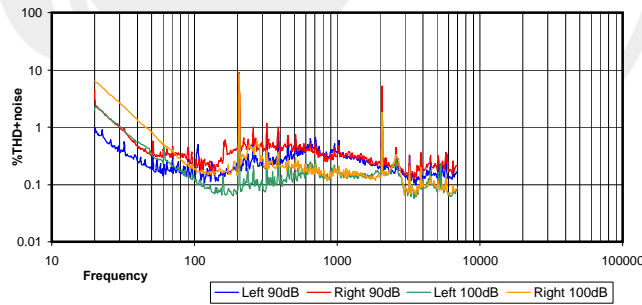
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



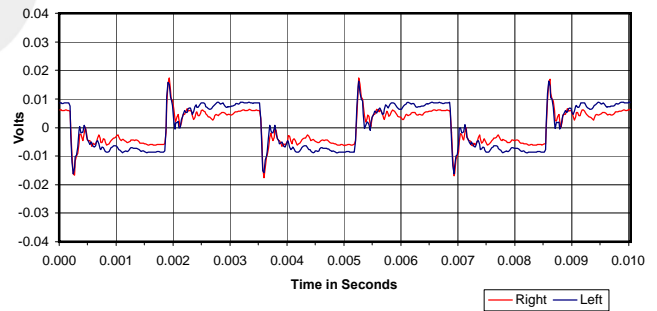
30 Hz Square Wave



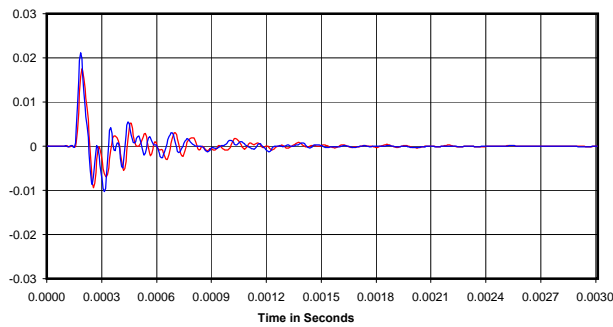
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

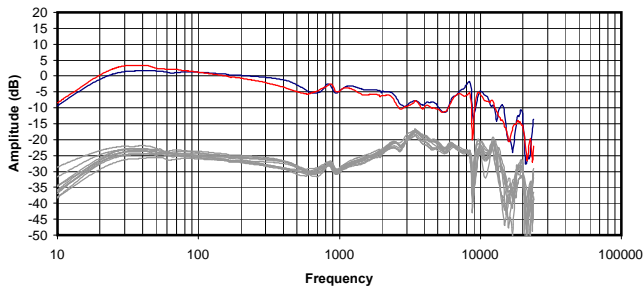


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

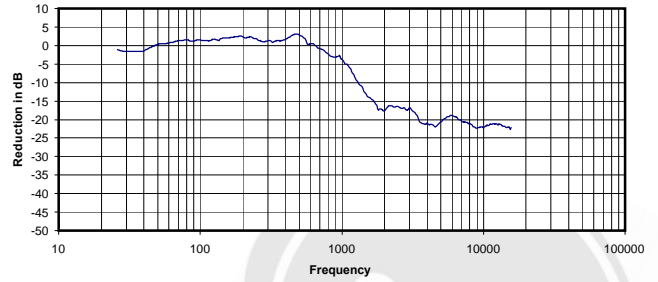
0.109 Vrms
25 Ohms
0.48 mW
-6 dBr



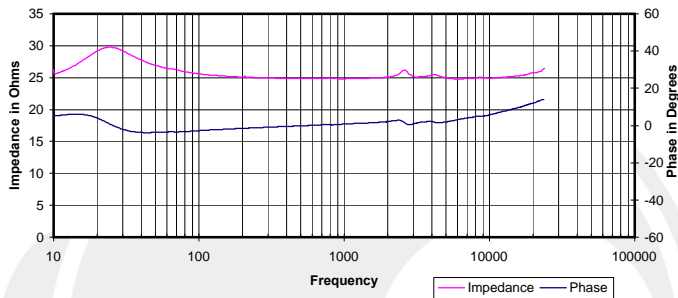
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



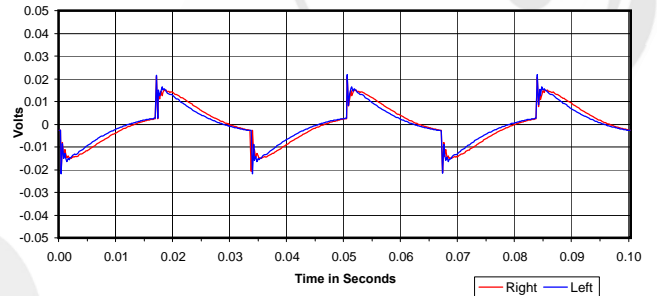
Isolation
 Attenuation of External Sound vs. Frequency



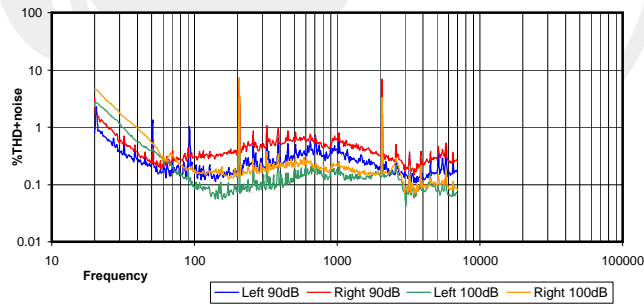
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



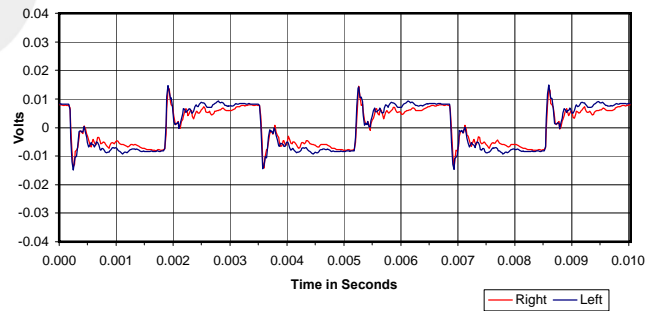
30 Hz Square Wave



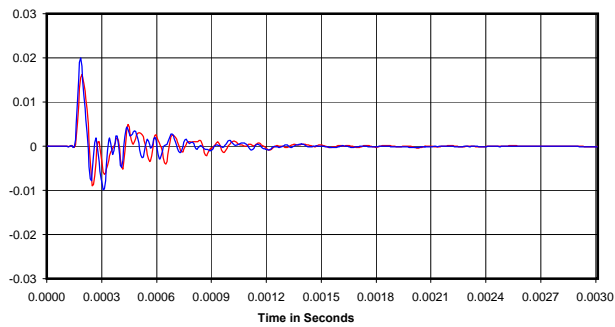
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

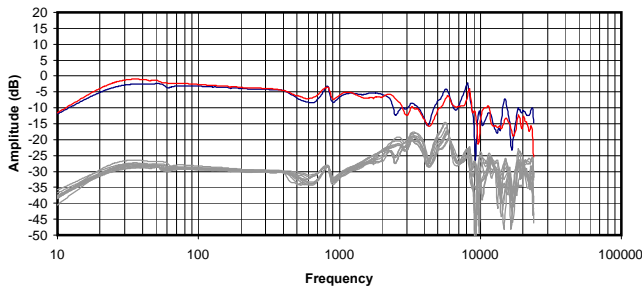


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

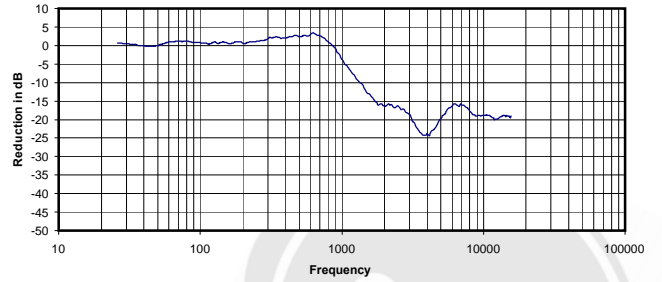
0.102 Vrms
 25 Ohms
 0.42 mW
 -6 dB



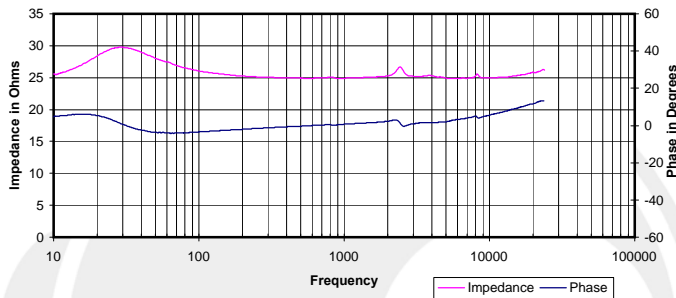
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



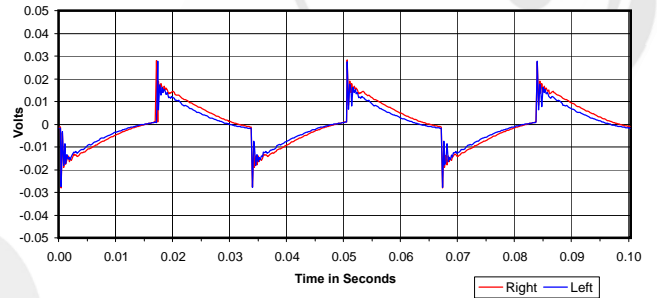
Isolation
 Attenuation of External Sound vs. Frequency



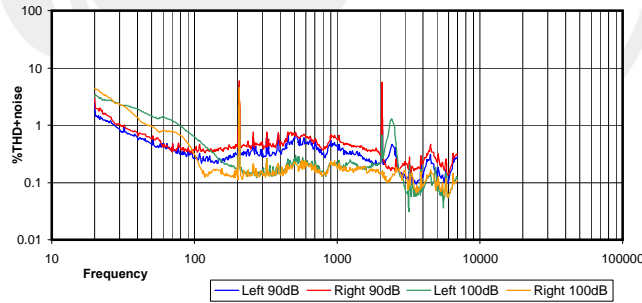
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



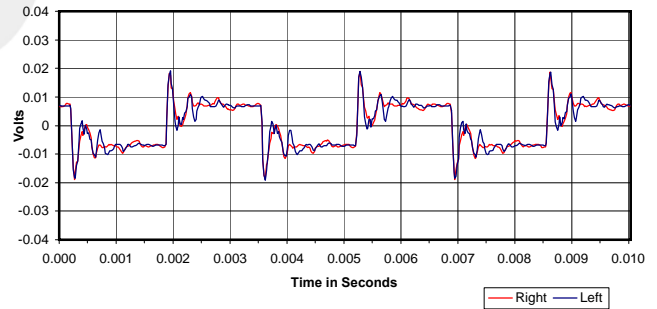
30 Hz Square Wave



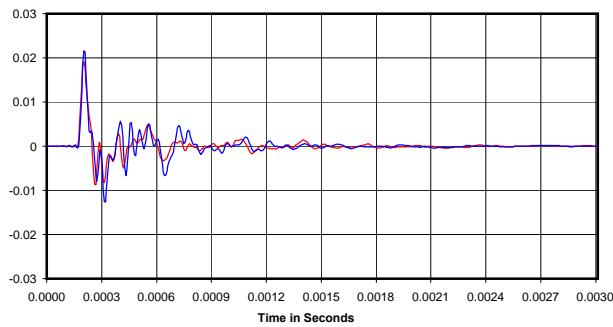
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



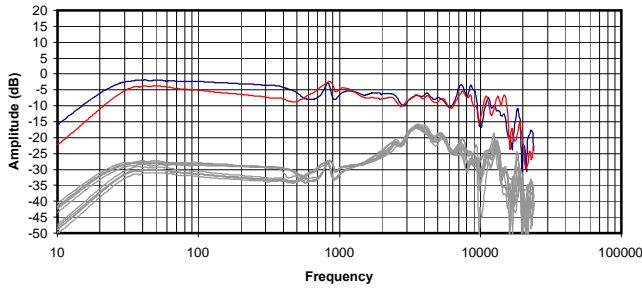
Impulse Response



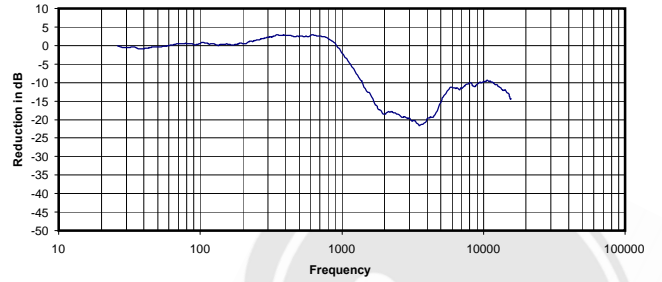
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.138 Vrms
 25 Ohms
 0.76 mW
 -6 dBr

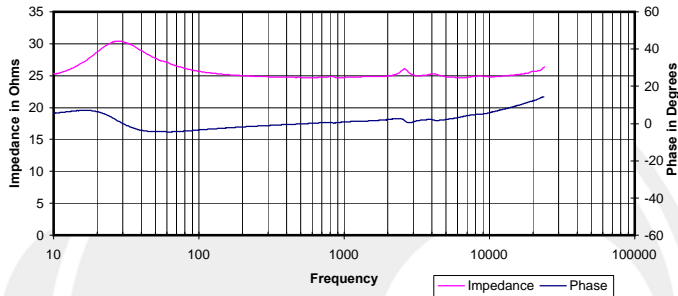
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



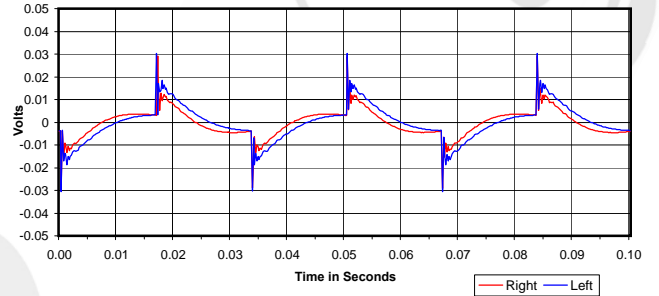
Isolation
 Attenuation of External Sound vs. Frequency



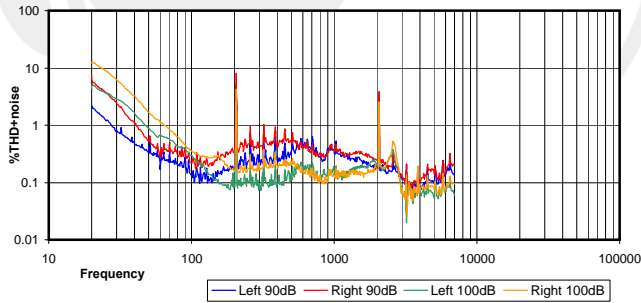
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



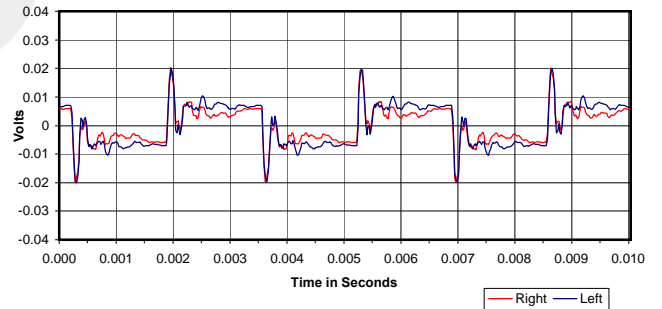
30 Hz Square Wave



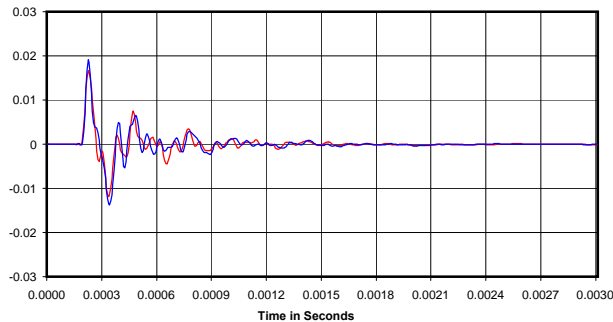
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

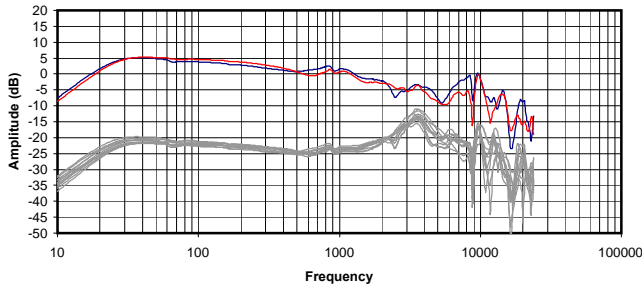


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

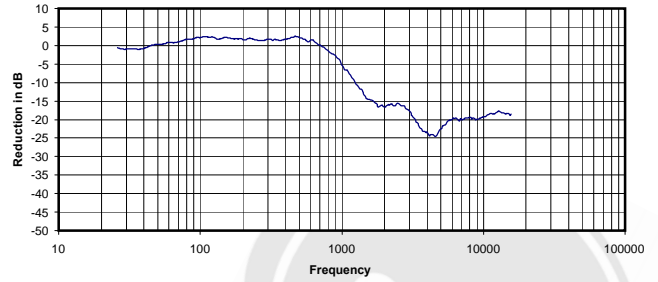
0.132 Vrms
 25 Ohms
 0.71 mW
 -6 dBr



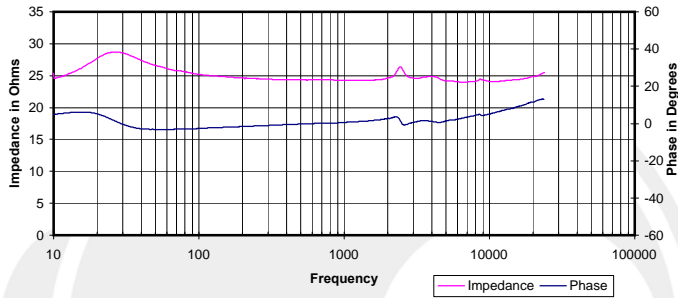
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



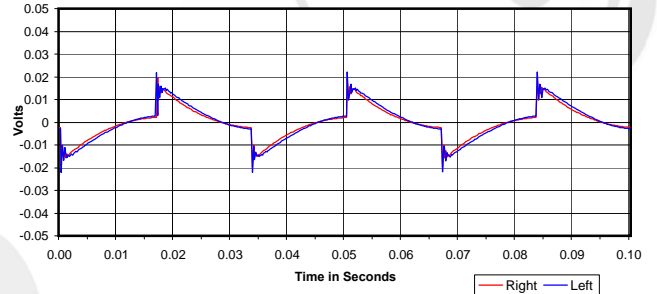
Isolation
 Attenuation of External Sound vs. Frequency



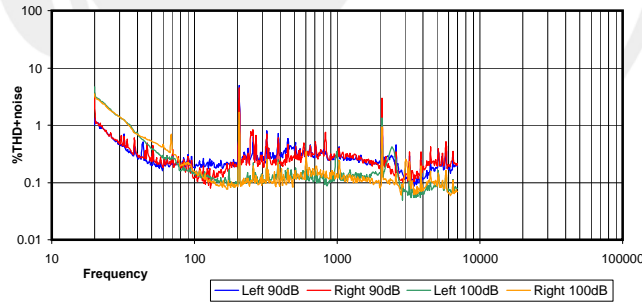
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



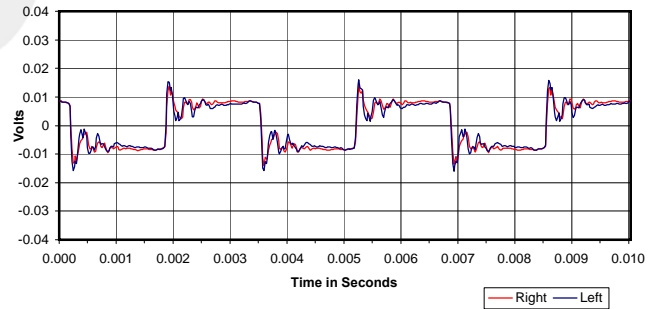
30 Hz Square Wave



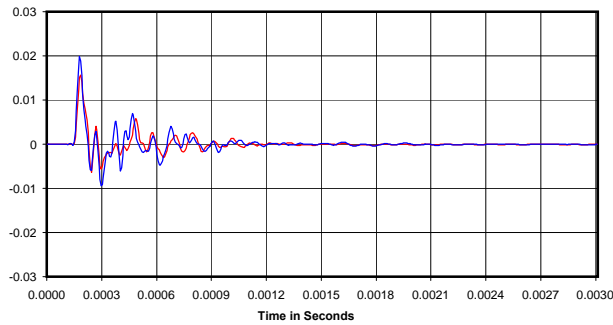
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

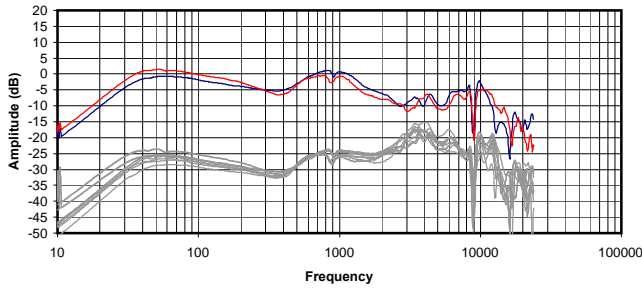


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

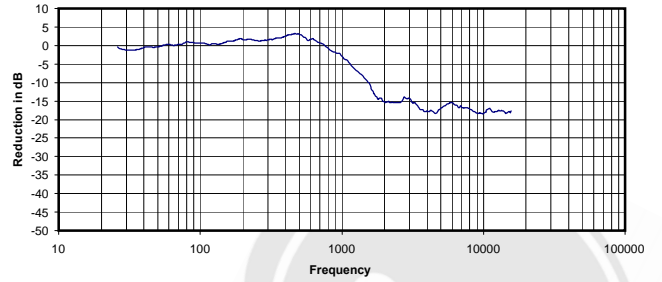
0.060 Vrms
 24 Ohms
 0.15 mW
 -7 dB



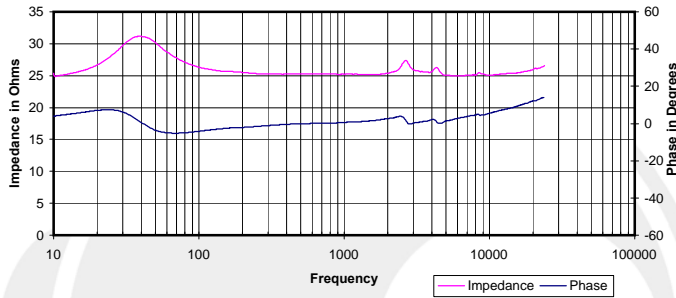
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



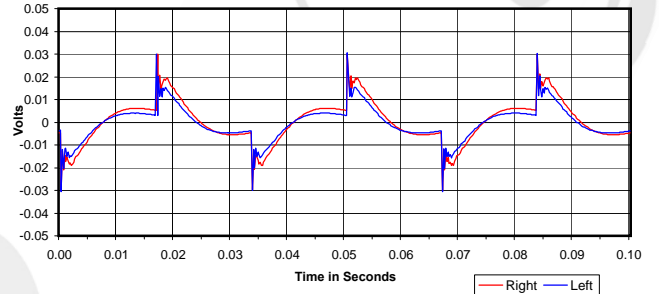
Isolation
 Attenuation of External Sound vs. Frequency



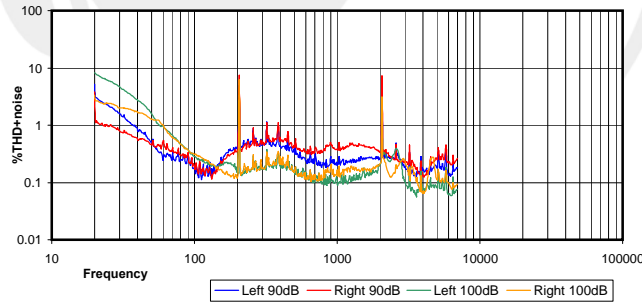
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



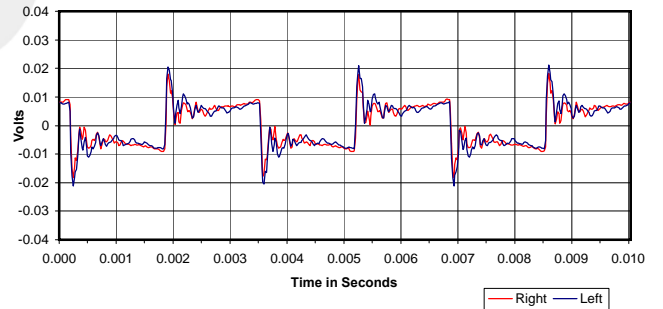
30 Hz Square Wave



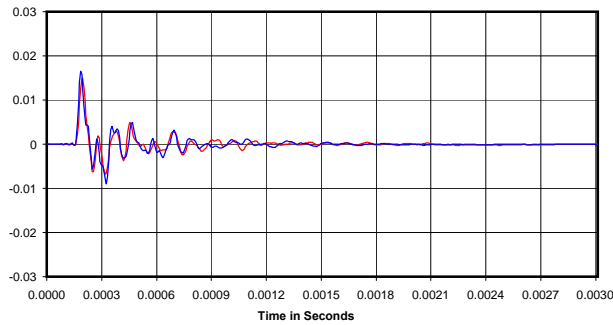
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

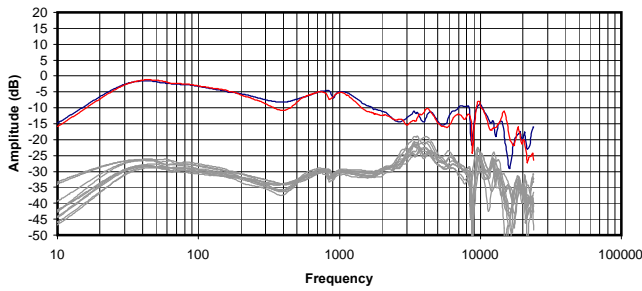


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

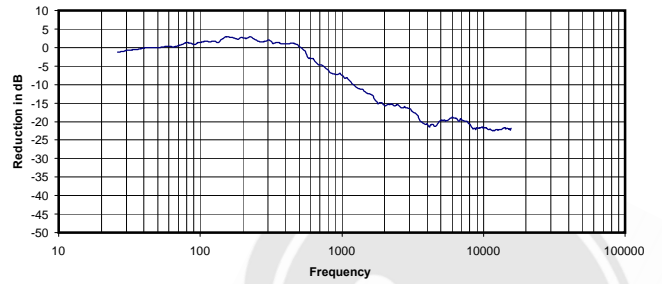
0.053 Vrms
 25 Ohms
 0.11 mW
 -5 dBr



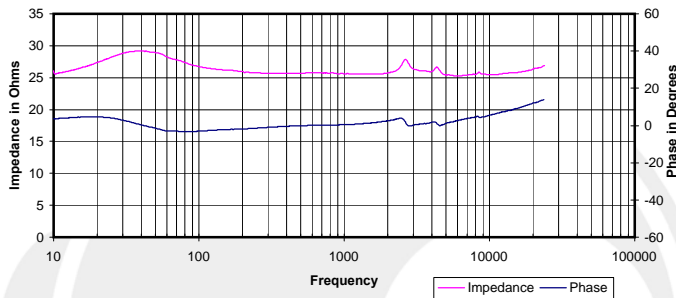
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



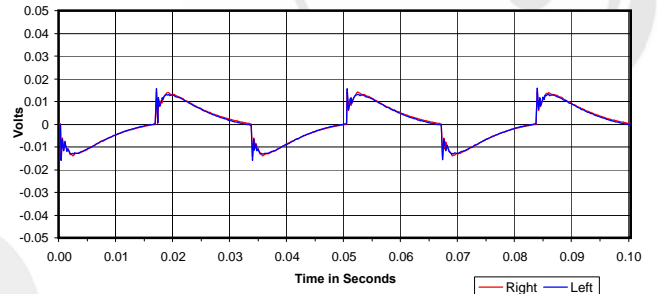
Isolation
 Attenuation of External Sound vs. Frequency



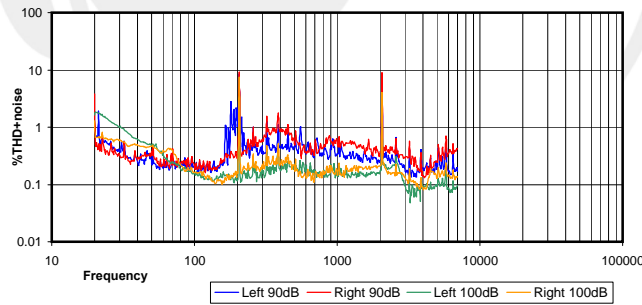
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



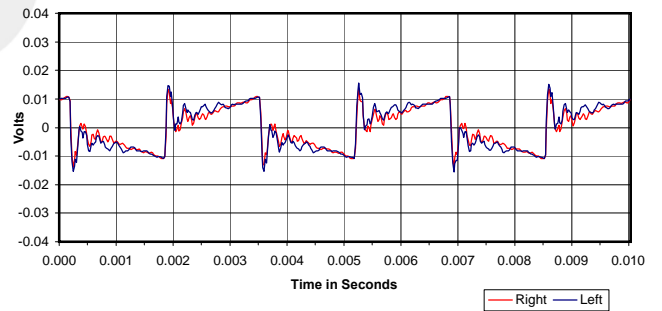
30 Hz Square Wave



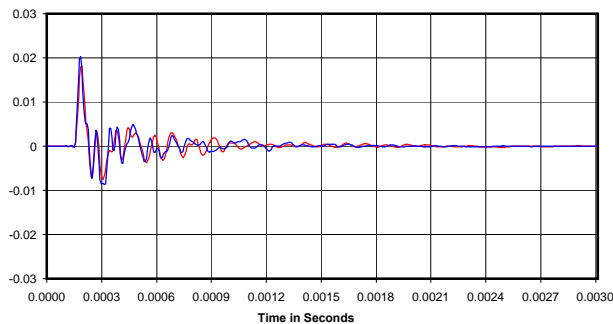
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

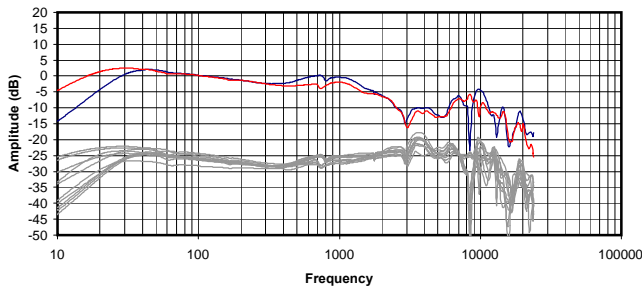


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

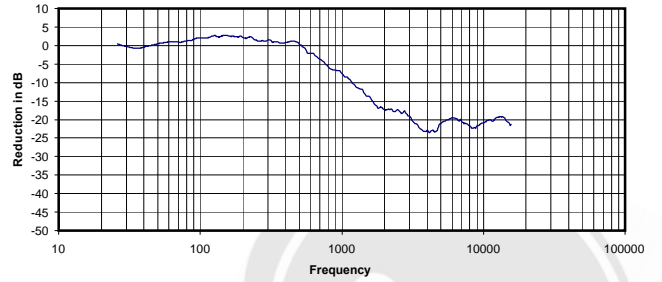
0.061 Vrms
 26 Ohms
 0.14 mW
 -7 dB



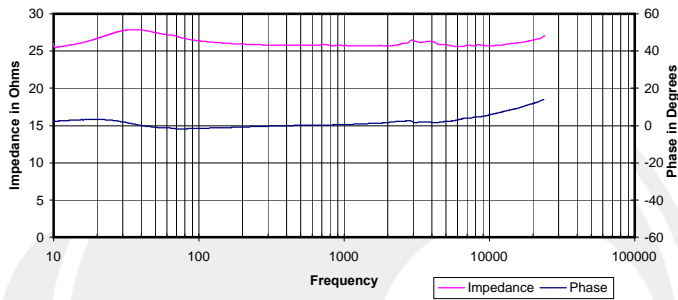
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



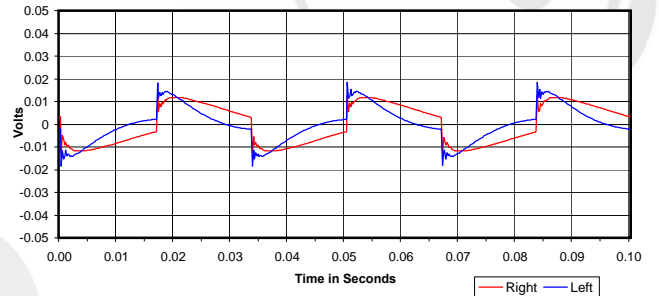
Isolation
Attenuation of External Sound vs. Frequency



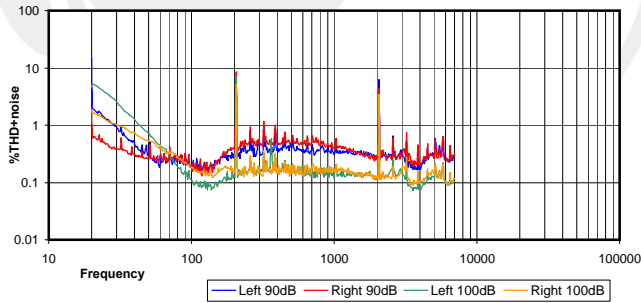
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



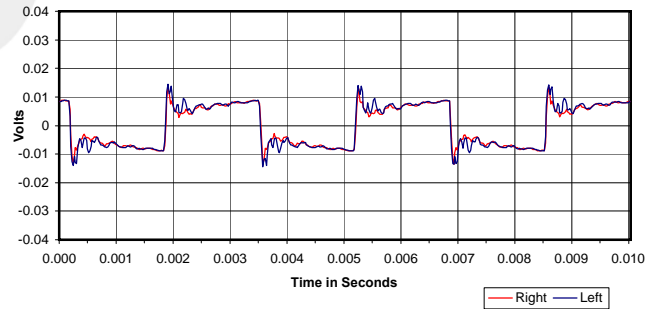
30 Hz Square Wave



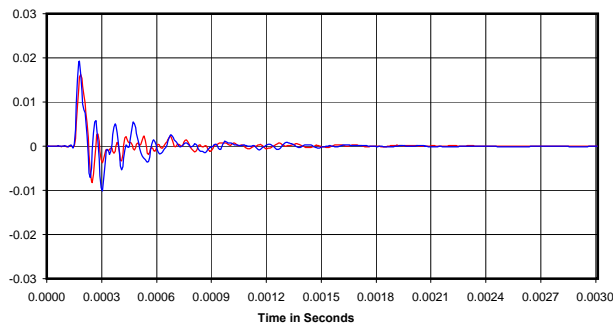
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

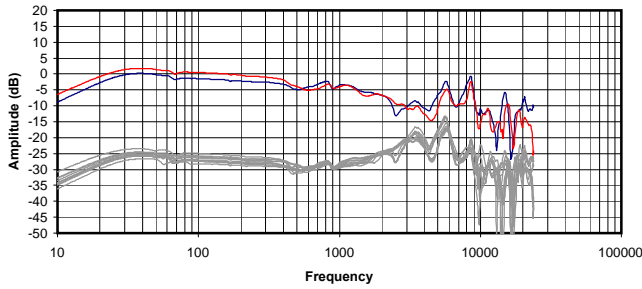


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

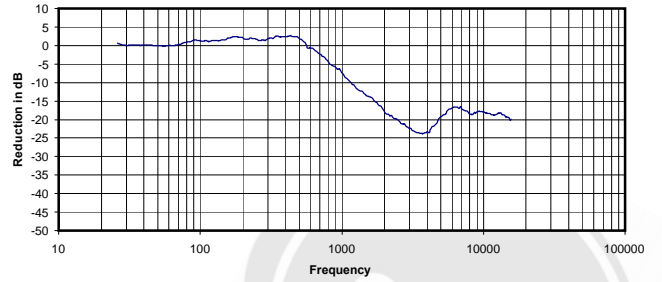
0.062 Vrms
26 Ohms
0.15 mW
-7 dB



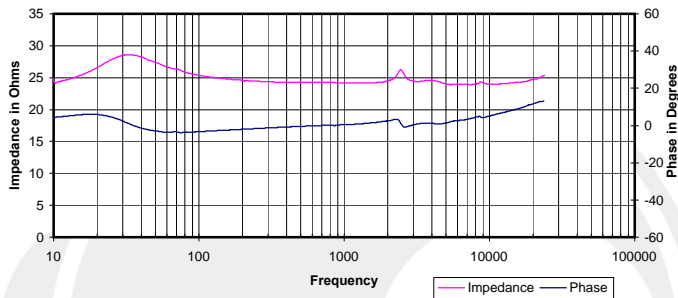
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



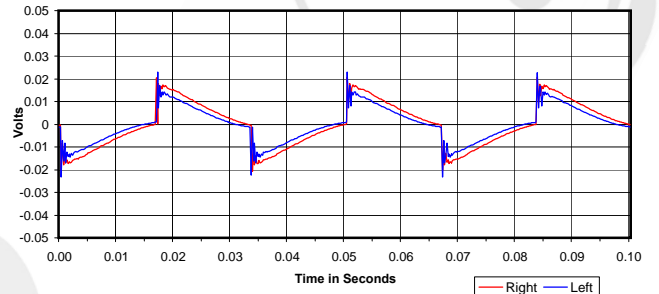
Isolation
 Attenuation of External Sound vs. Frequency



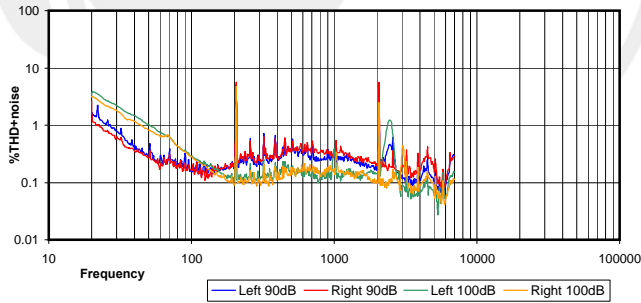
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



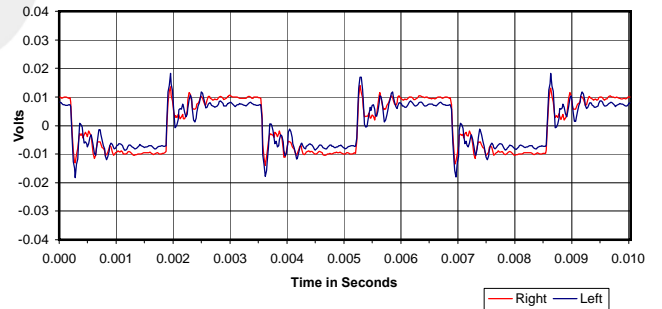
30 Hz Square Wave



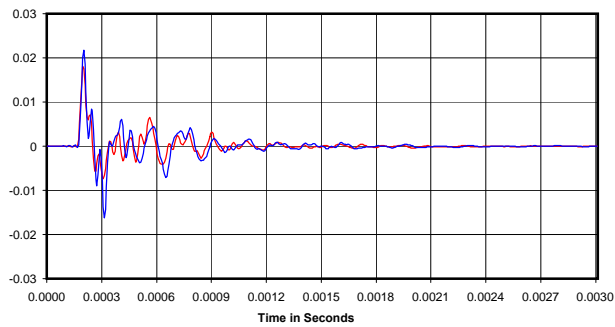
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



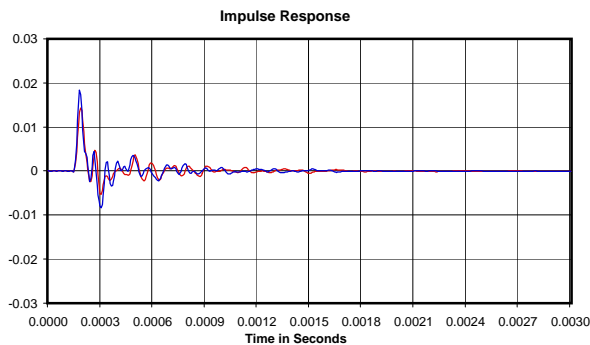
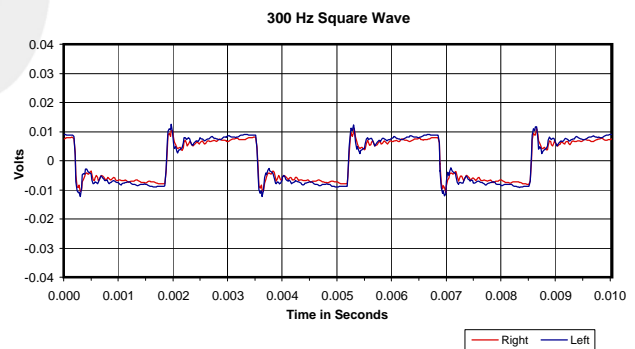
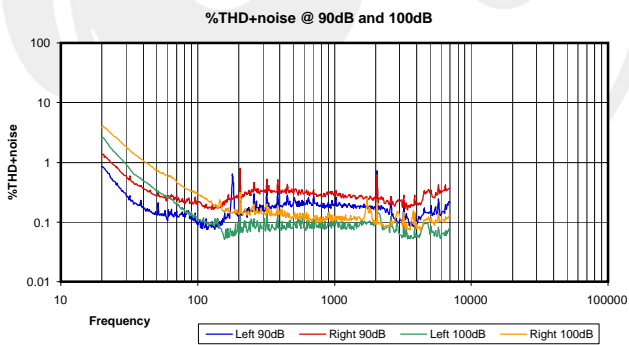
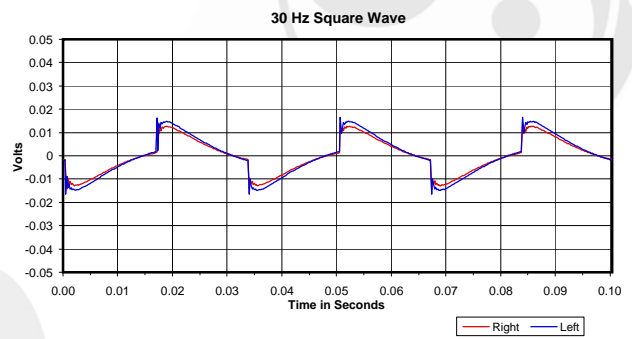
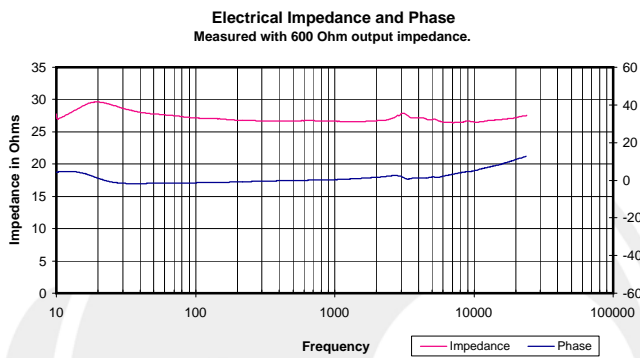
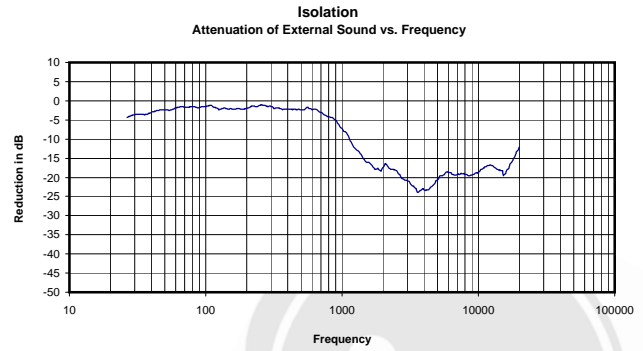
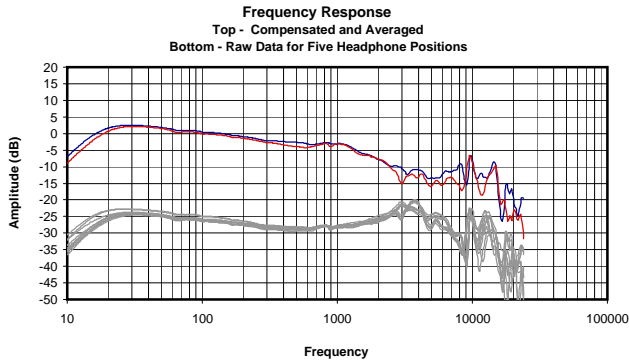
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.089 Vrms
 24 Ohms
 0.33 mW
 -7 dB

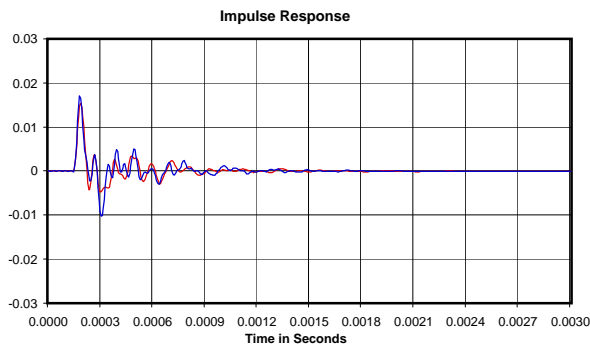
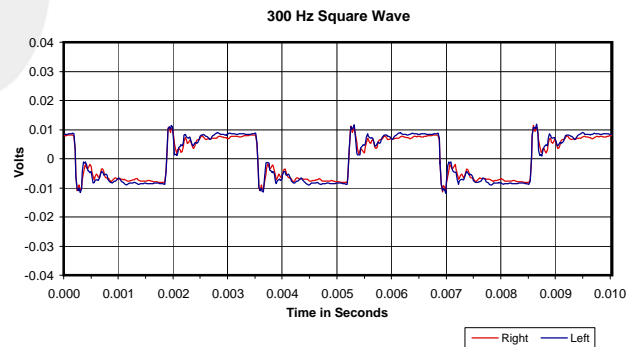
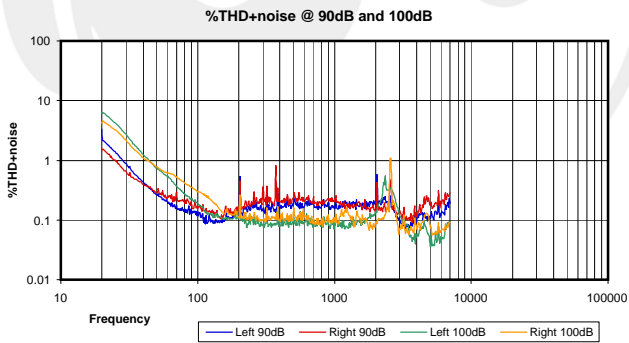
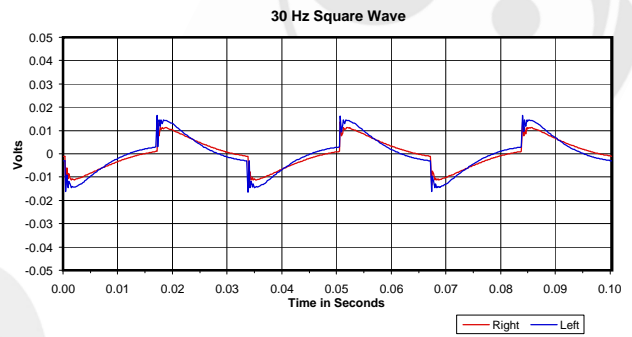
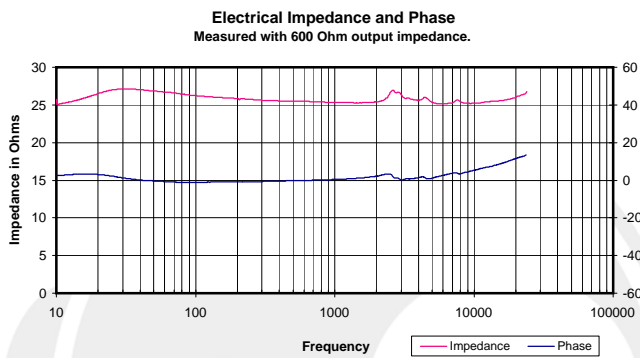
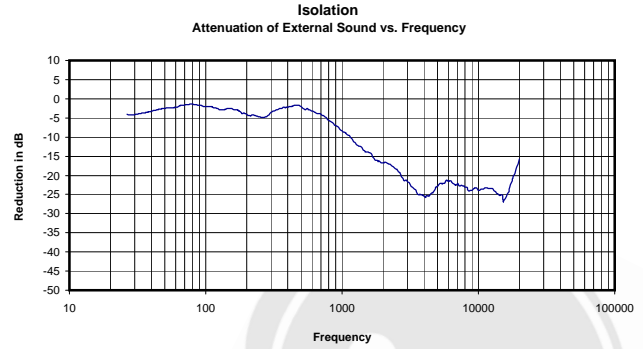
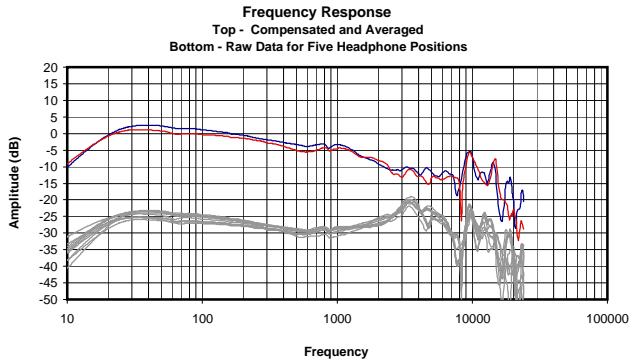




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
27 Ohms
0.11 mW
-10 dBr

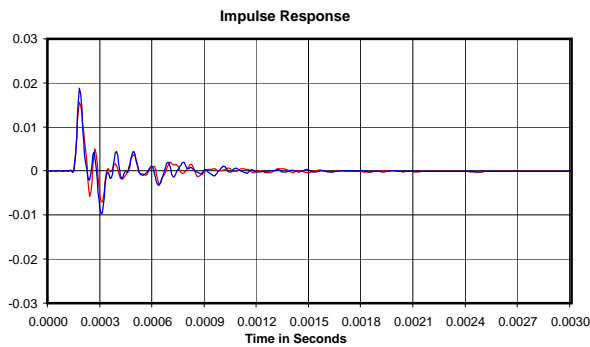
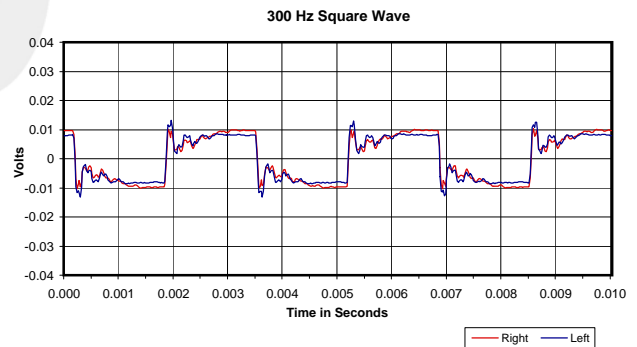
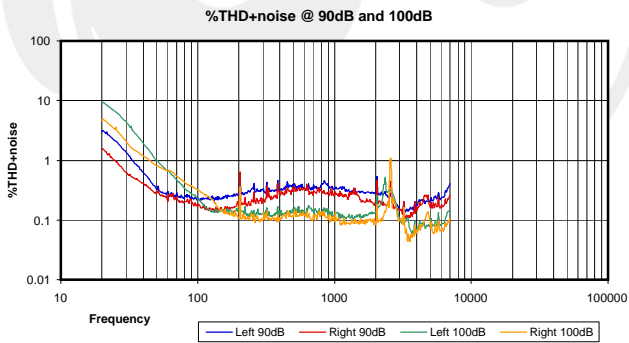
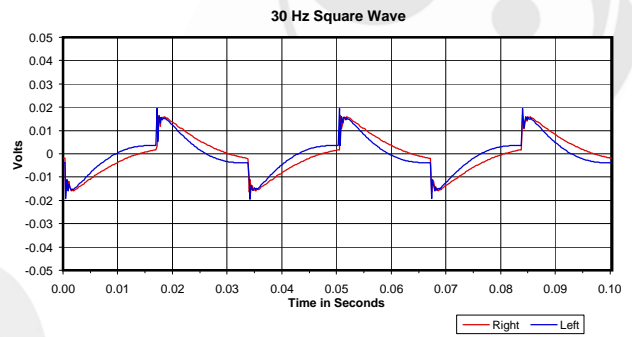
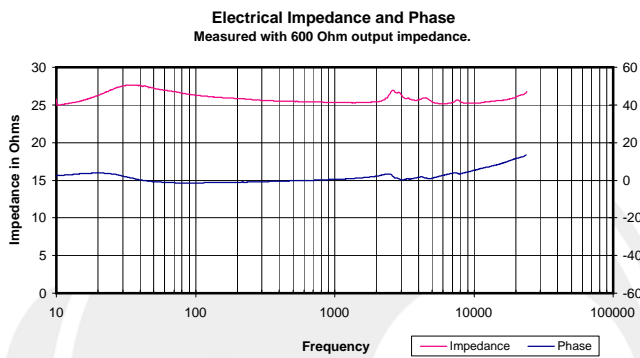
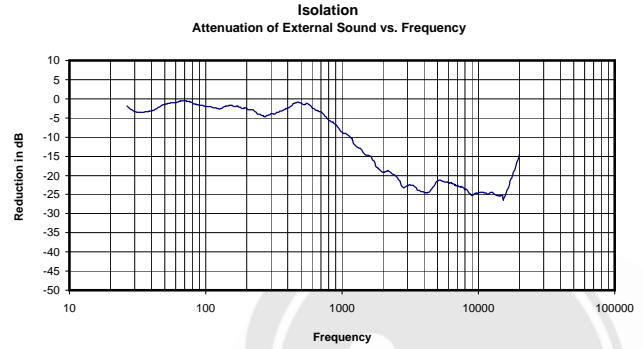
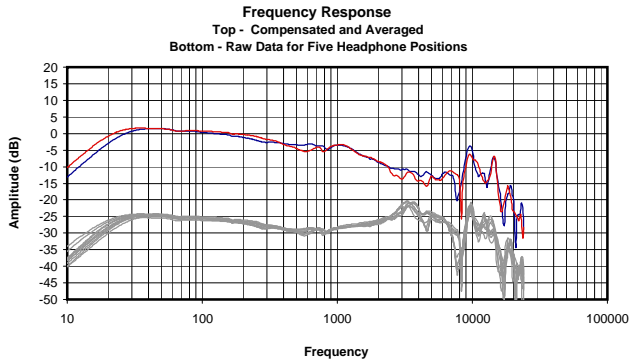




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
25 Ohms
0.12 mW
-12 dBr

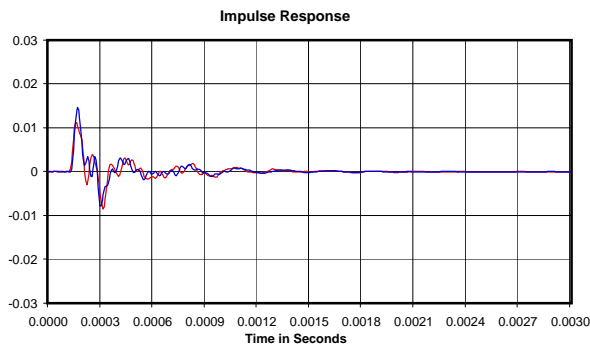
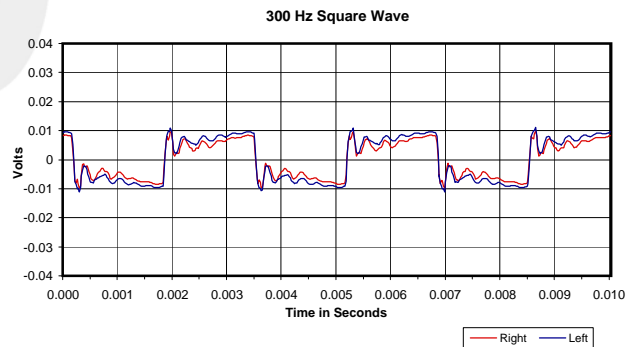
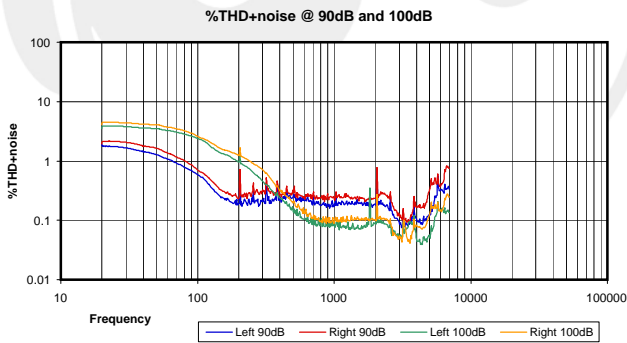
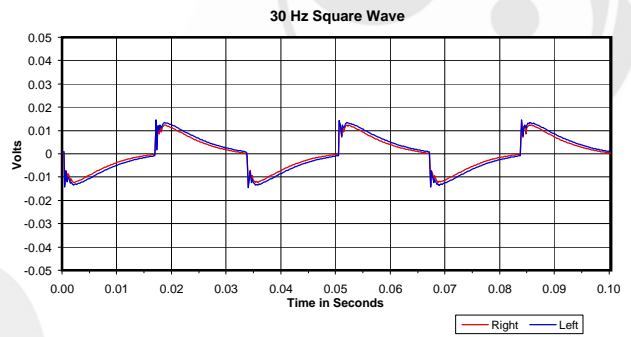
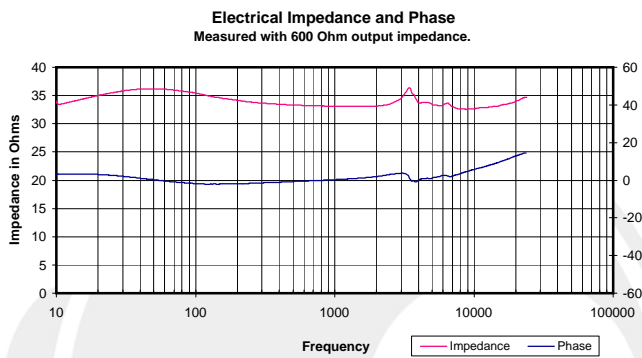
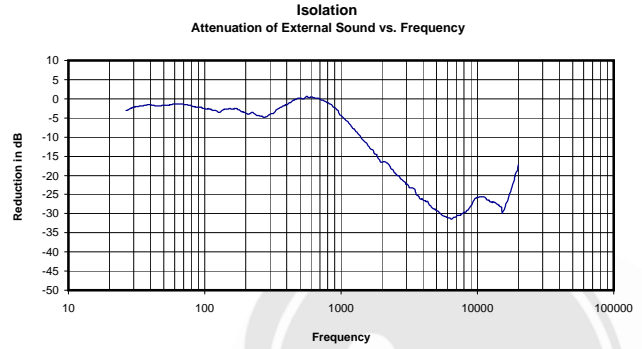
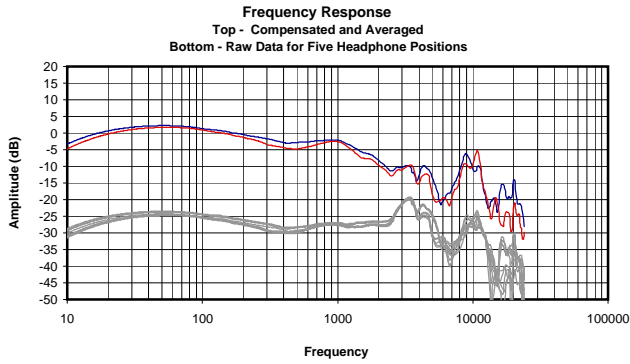




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.056 Vrms
25 Ohms
0.13 mW
-12 dBr



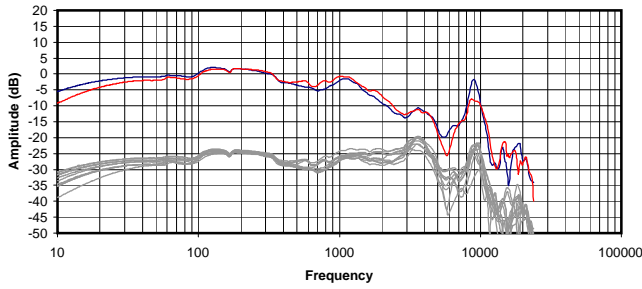


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

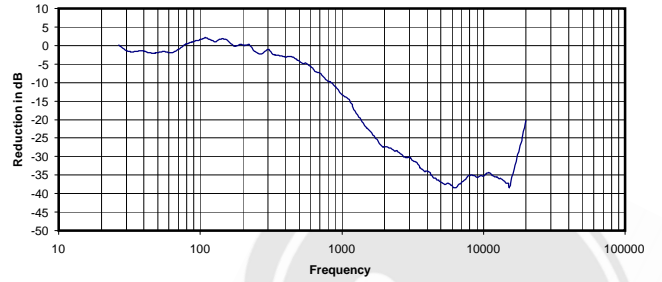
0.031 Vrms
33 Ohms
0.03 mW
-12 dBr



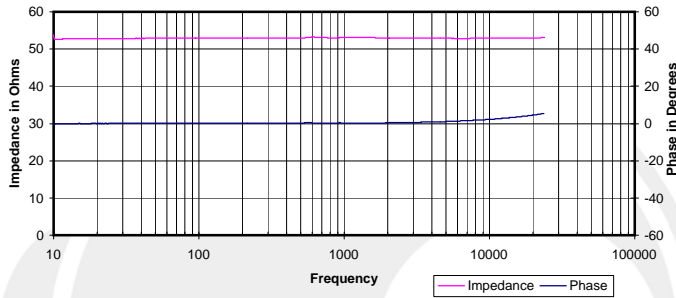
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



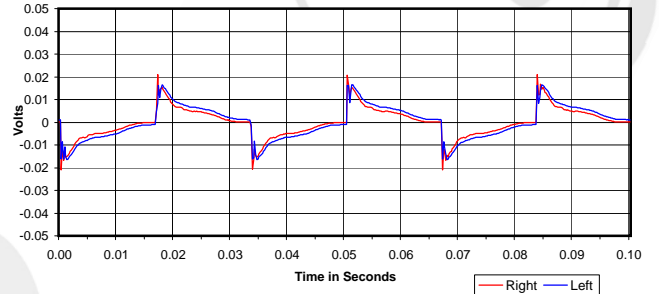
Isolation
 Attenuation of External Sound vs. Frequency



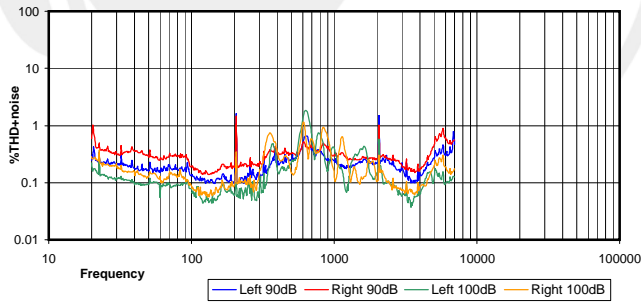
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



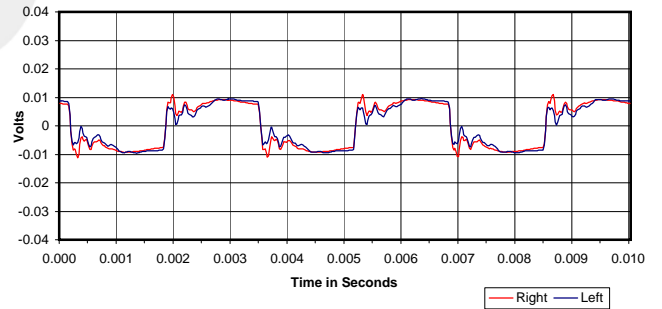
30 Hz Square Wave



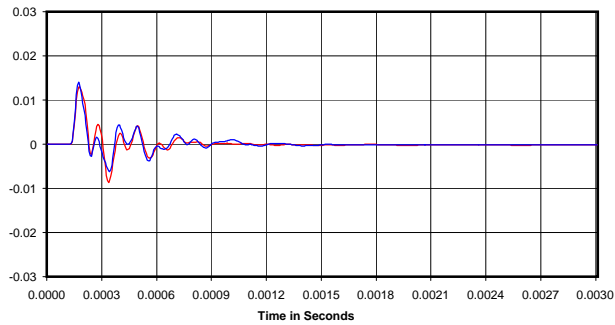
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

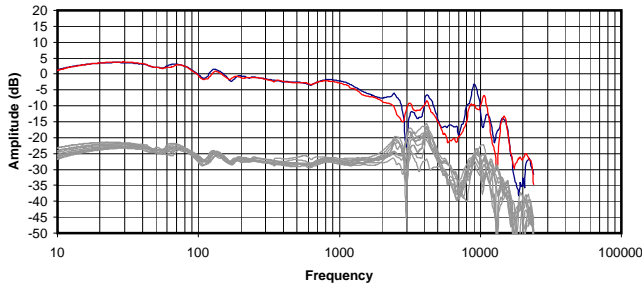


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

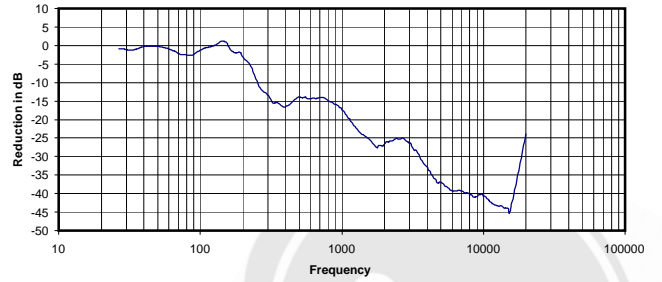
3.640 Vrms
 53 Ohms
 249.62 mW
 -16 dB



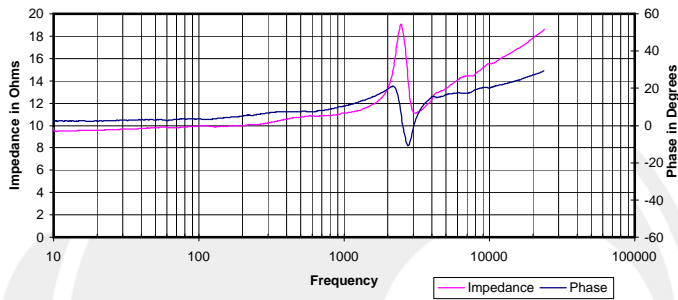
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



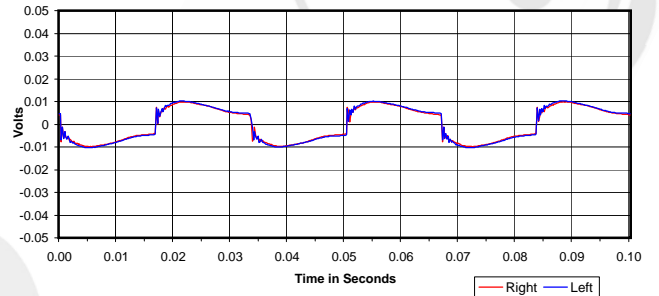
Isolation
Attenuation of External Sound vs. Frequency



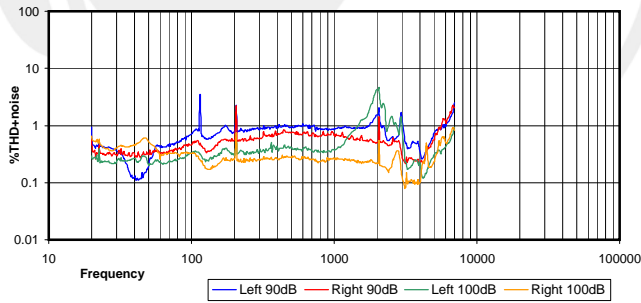
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



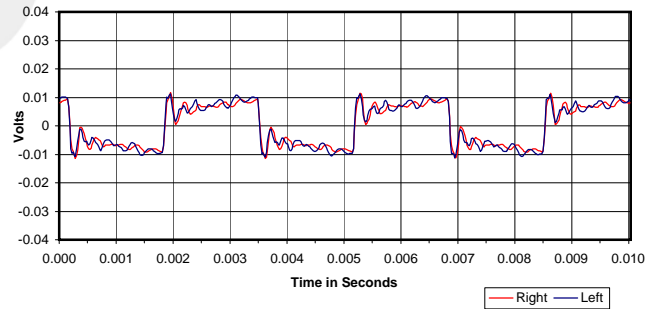
30 Hz Square Wave



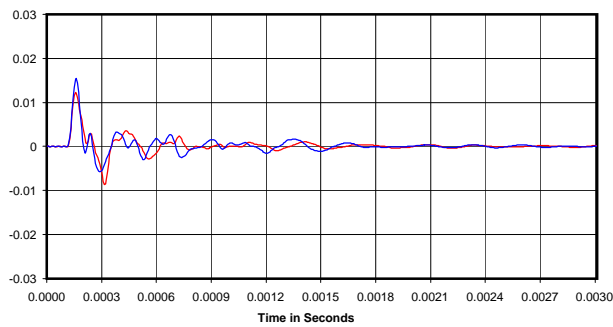
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

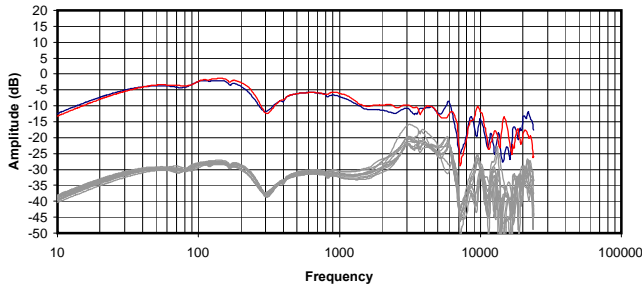


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

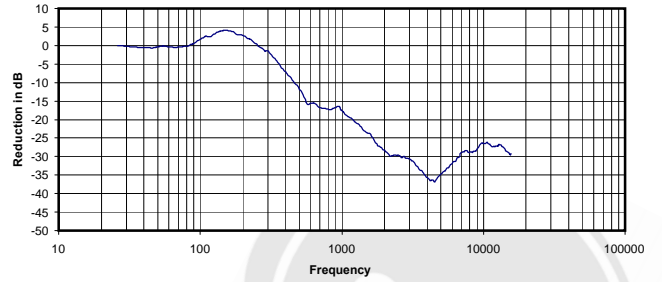
0.022 Vrms
11 Ohms
0.04 mW
-20 dB



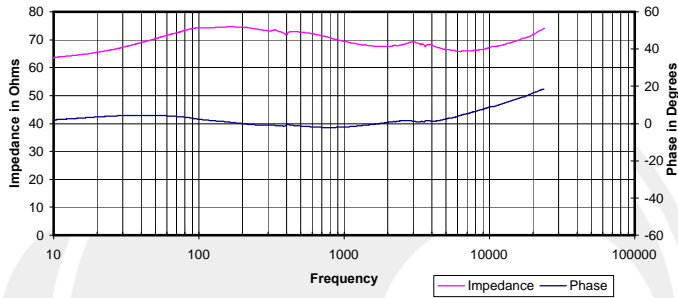
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



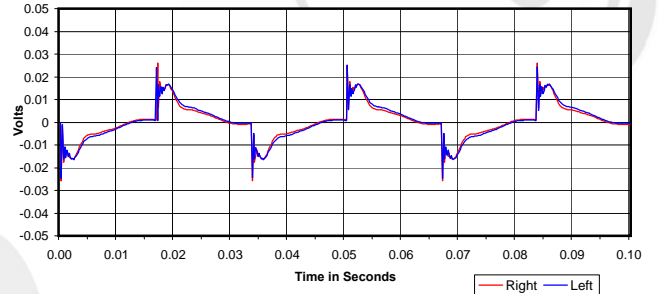
Isolation
 Attenuation of External Sound vs. Frequency



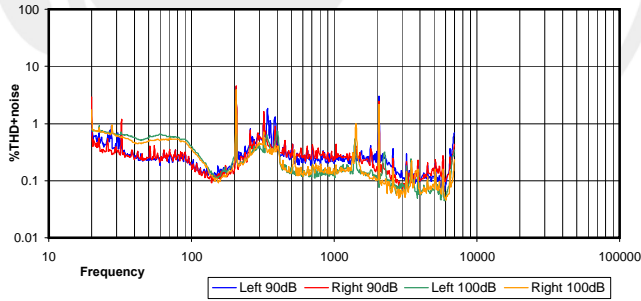
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



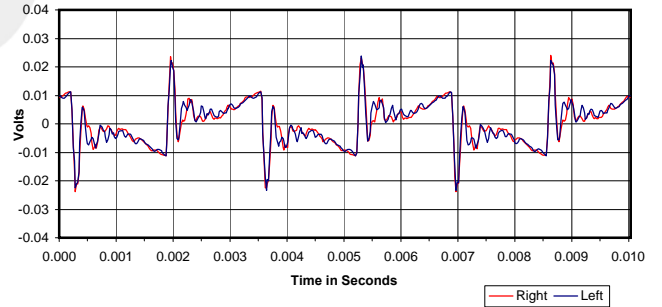
30 Hz Square Wave



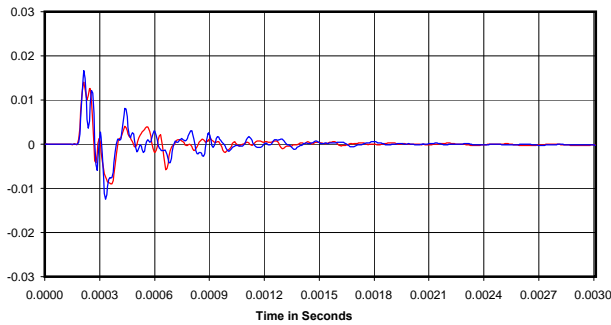
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

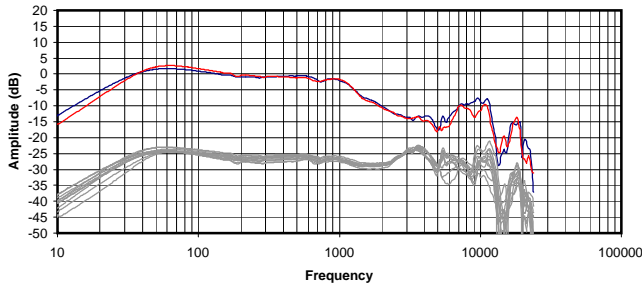


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

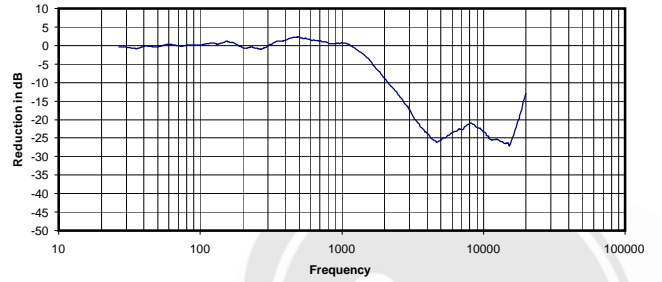
0.115 Vrms
 69 Ohms
 0.19 mW
 -15 dB



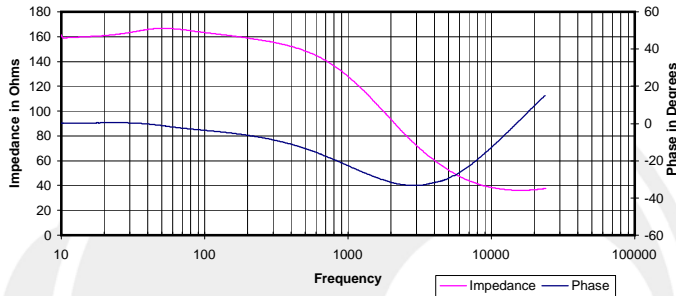
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



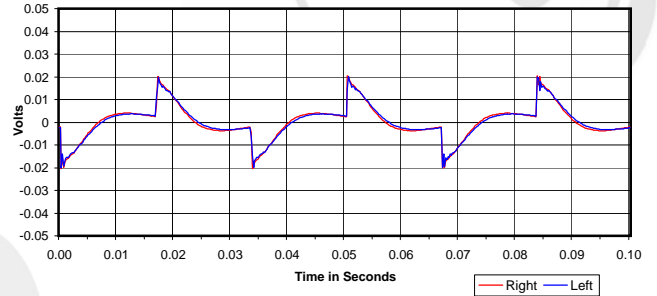
Isolation
 Attenuation of External Sound vs. Frequency



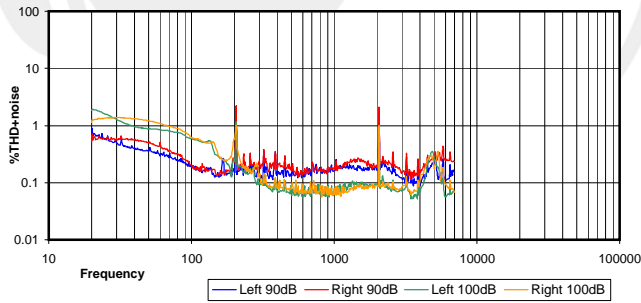
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



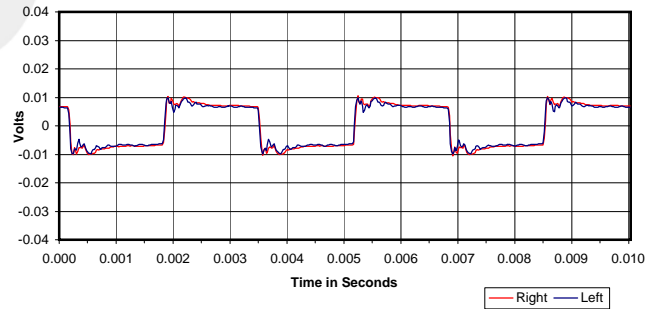
30 Hz Square Wave



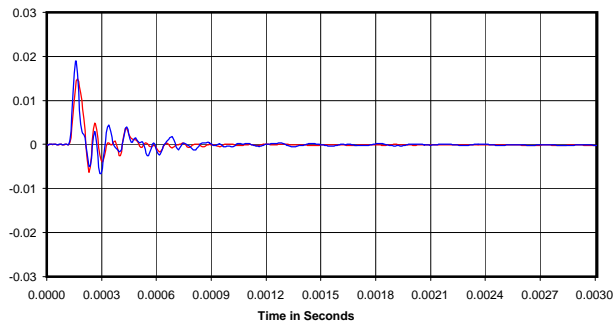
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

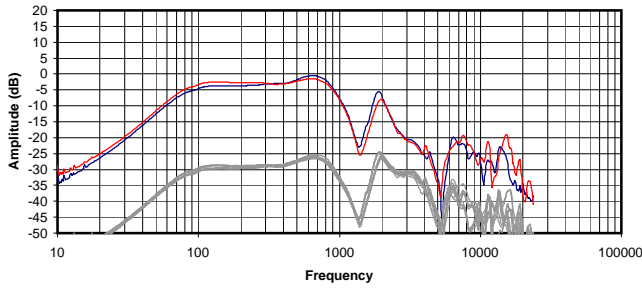


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

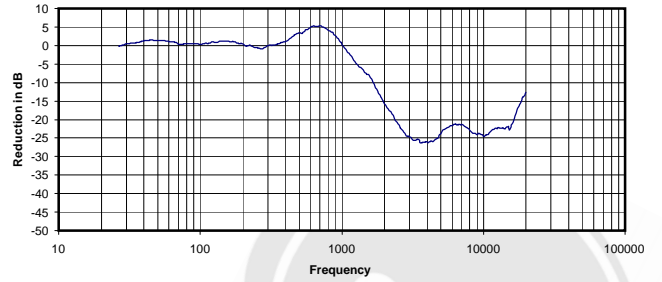
0.090 Vrms
 128 Ohms
 0.06 mW
 -7 dB



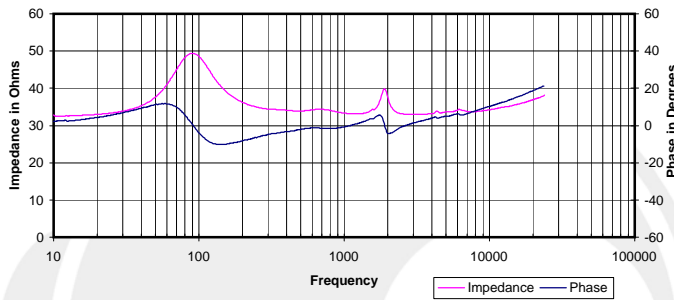
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



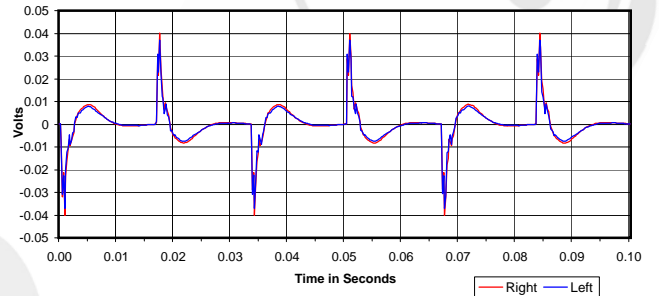
Isolation
 Attenuation of External Sound vs. Frequency



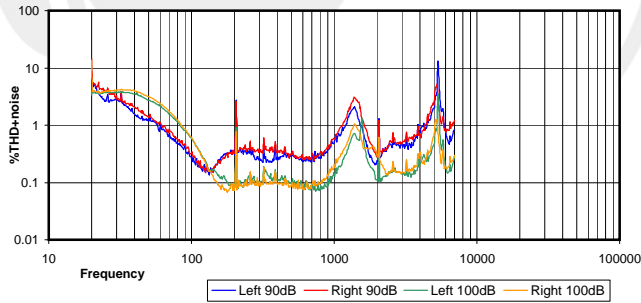
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



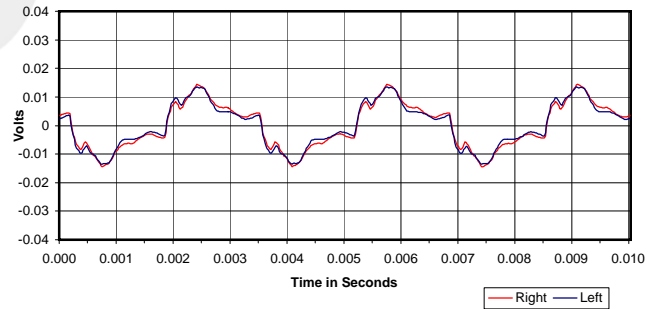
30 Hz Square Wave



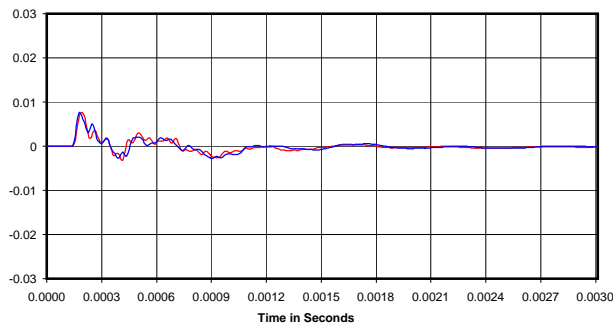
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



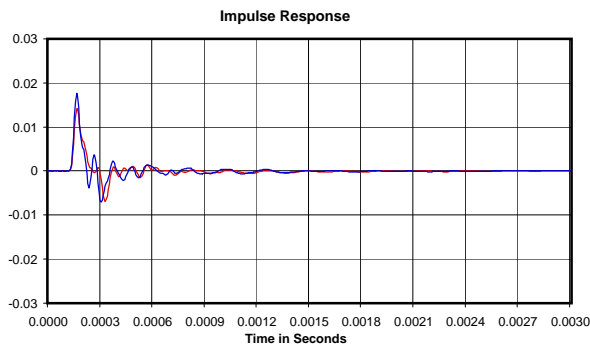
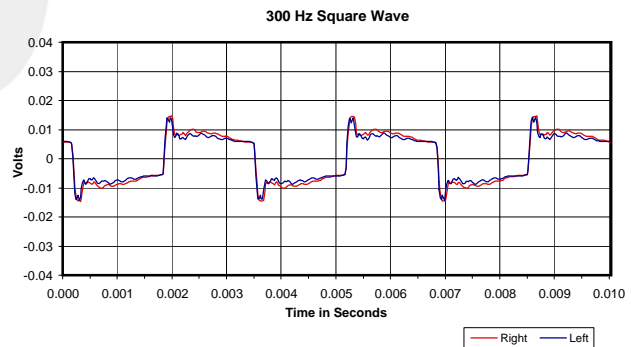
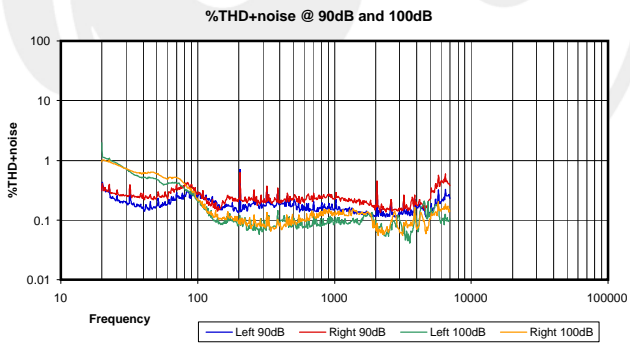
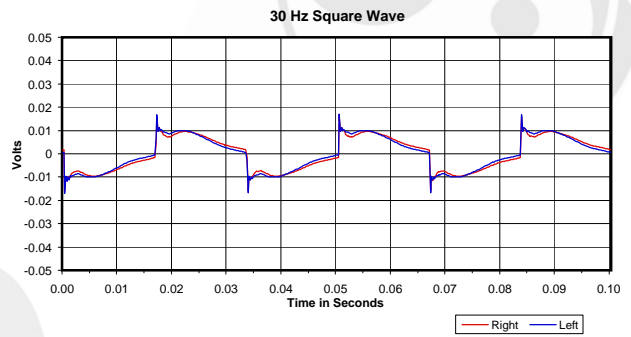
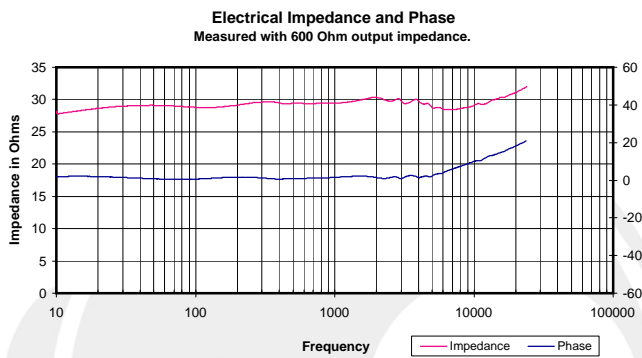
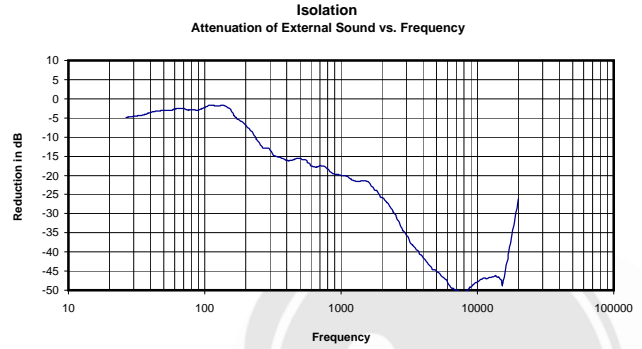
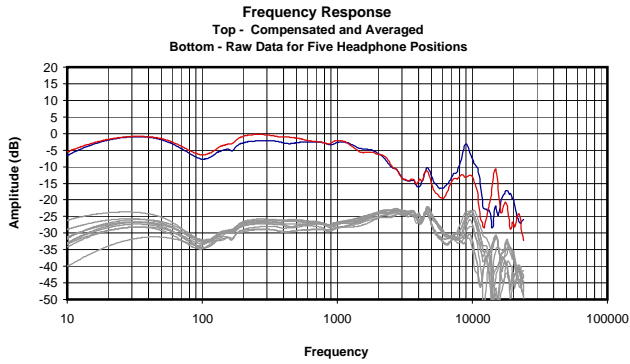
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
 33 Ohms
 0.03 mW
 -8 dB



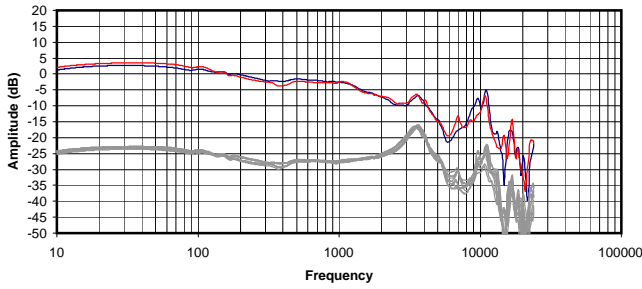


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

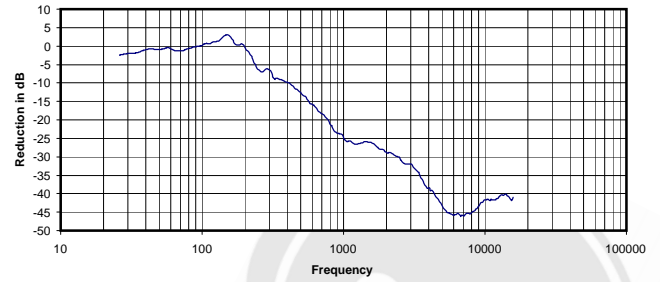
0.025 Vrms
29 Ohms
0.02 mW
-24 dBr



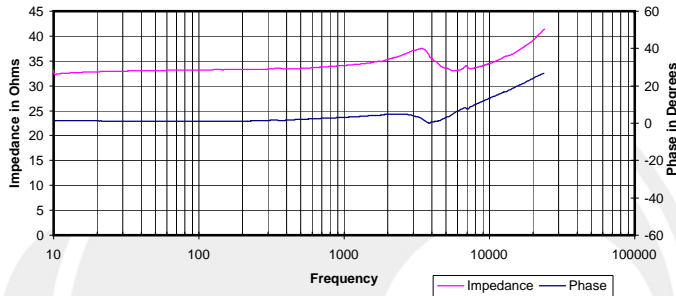
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



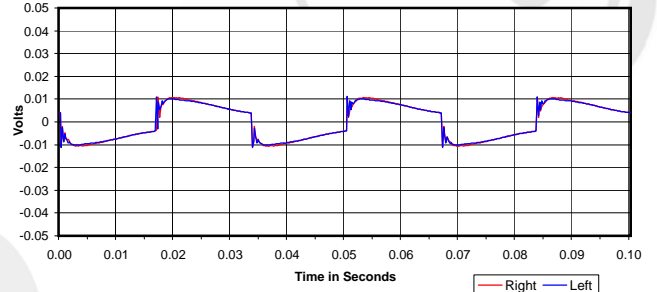
Isolation
 Attenuation of External Sound vs. Frequency



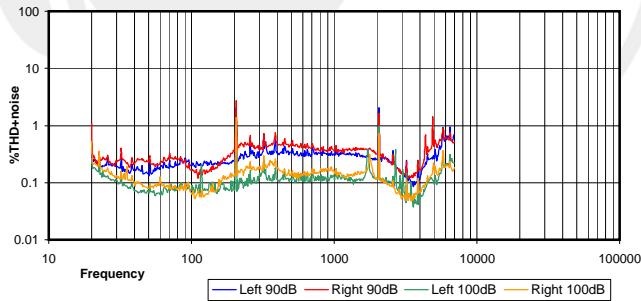
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



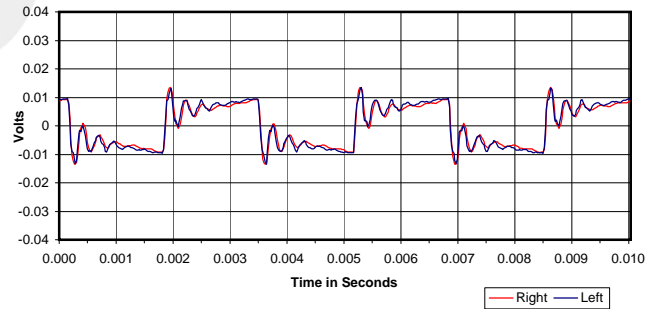
30 Hz Square Wave



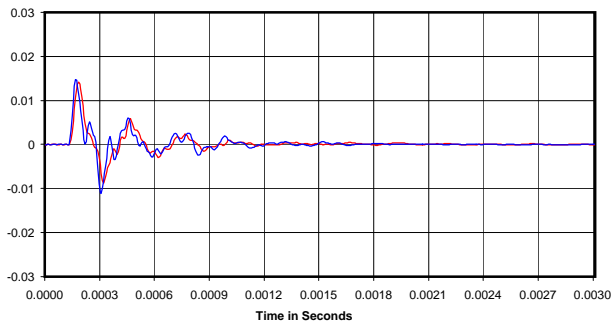
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



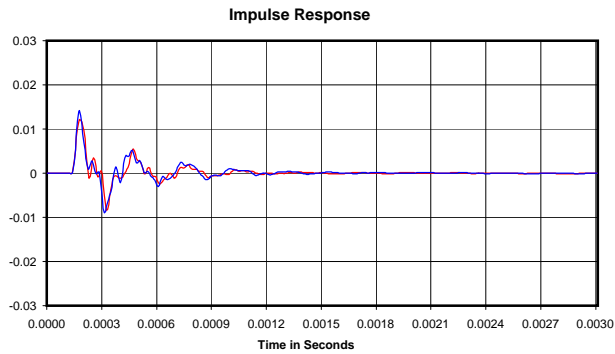
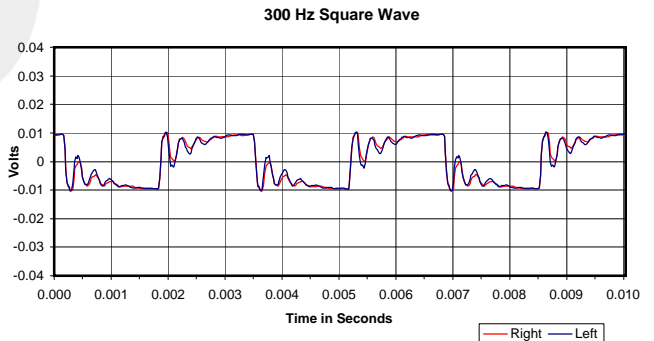
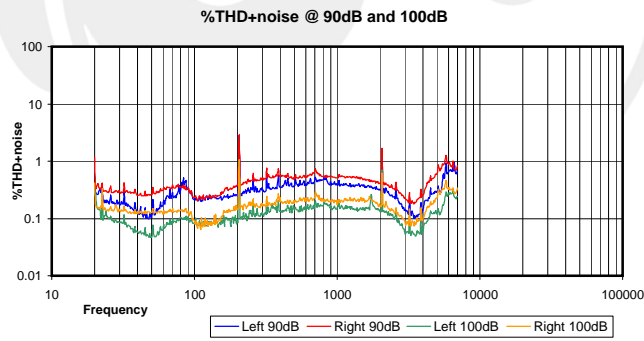
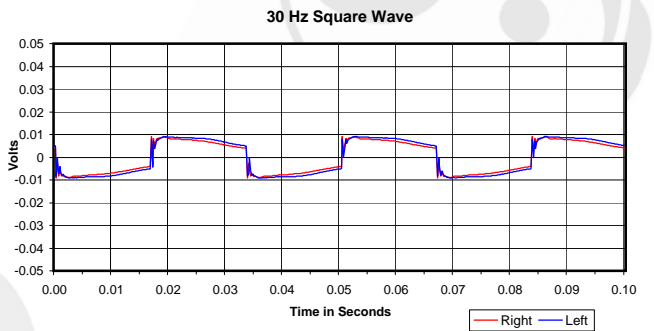
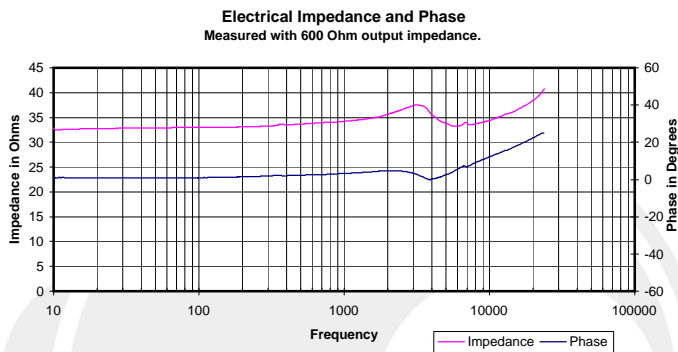
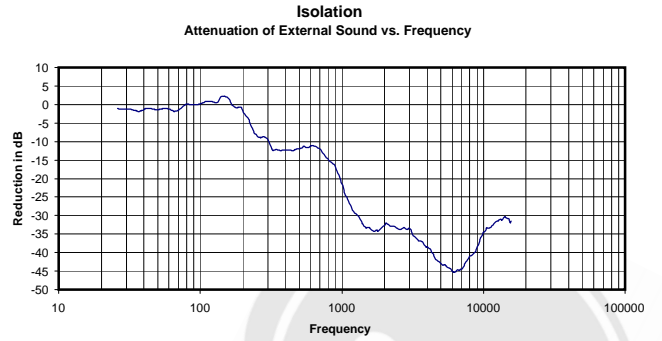
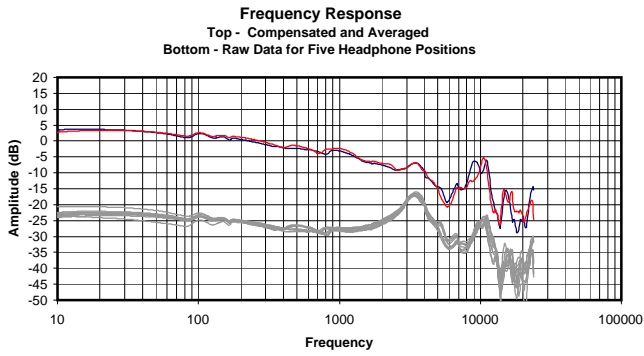
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
 34 Ohms
 0.04 mW
 -19 dB



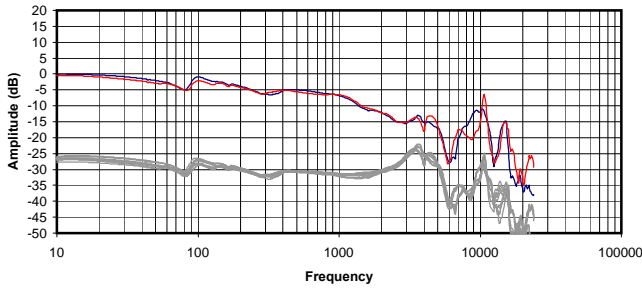


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

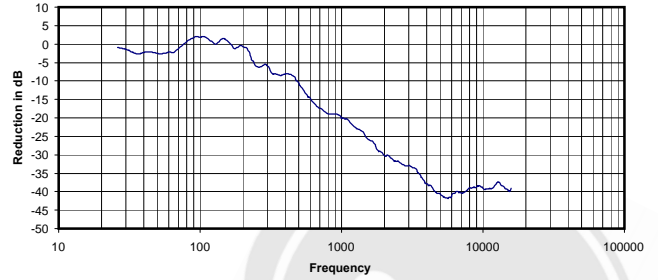
0.043 Vrms
34 Ohms
0.05 mW
-19 dB



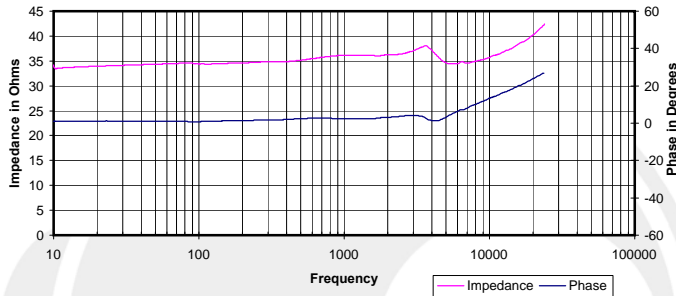
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



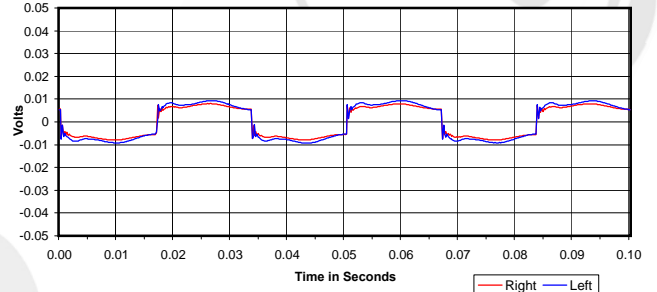
Isolation
 Attenuation of External Sound vs. Frequency



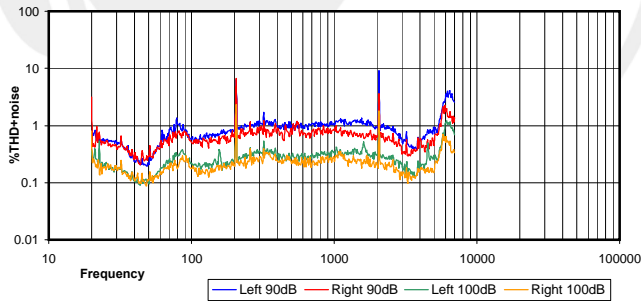
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



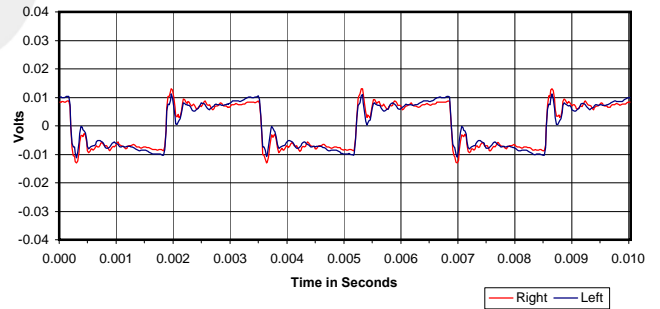
30 Hz Square Wave



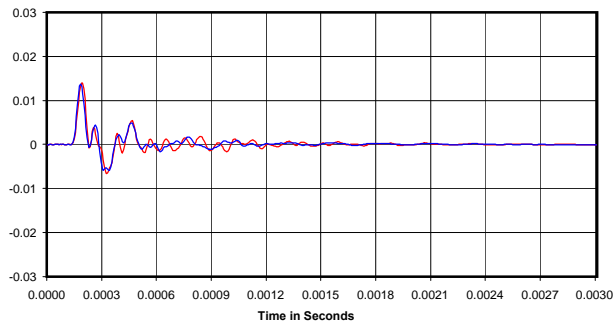
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

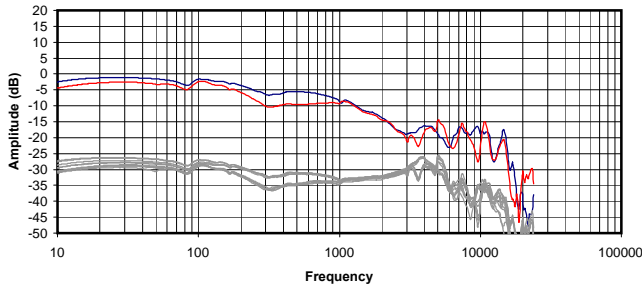


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

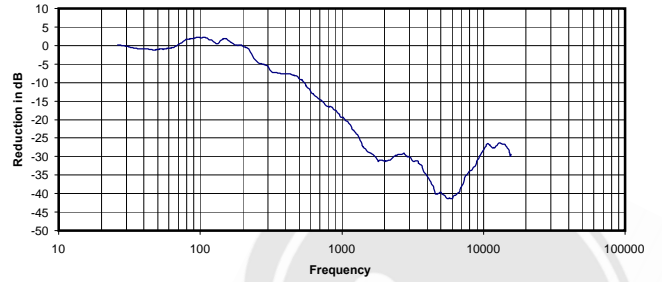
0.035 Vrms
 36 Ohms
 0.03 mW
 -18 dB



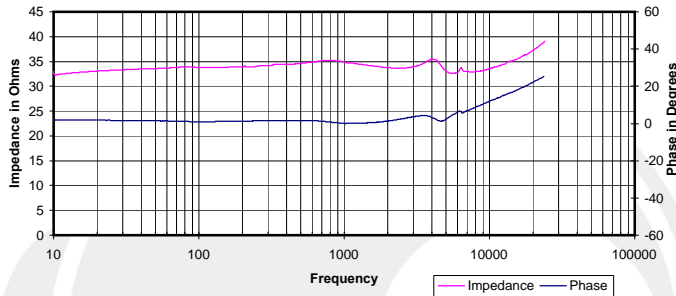
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



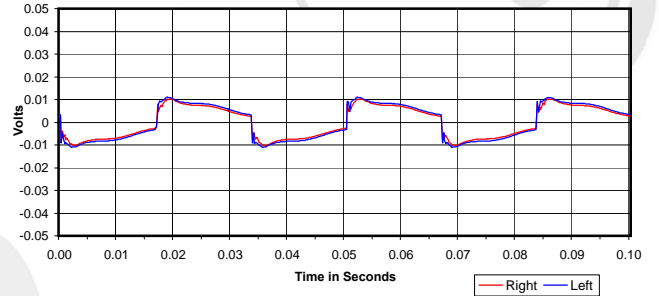
Isolation
 Attenuation of External Sound vs. Frequency



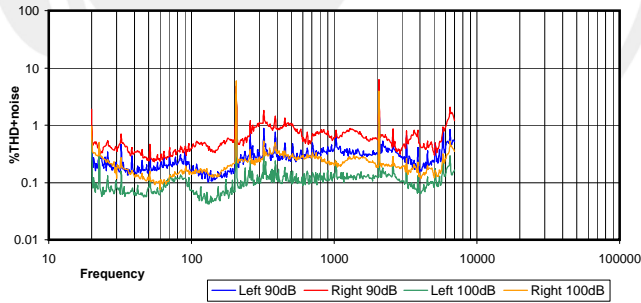
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



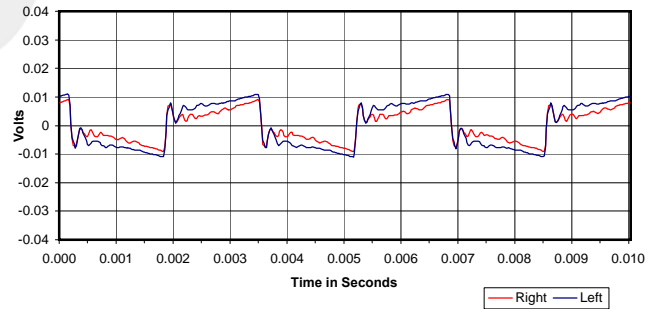
30 Hz Square Wave



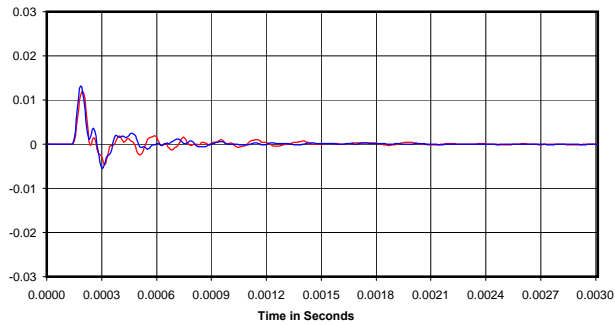
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



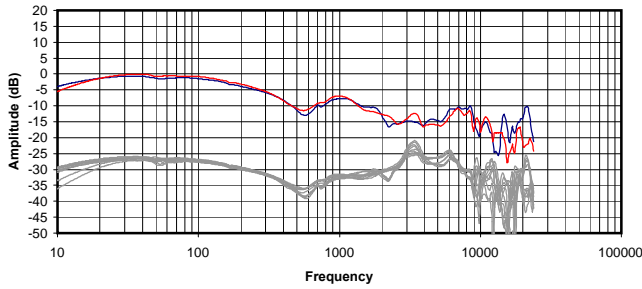
Impulse Response



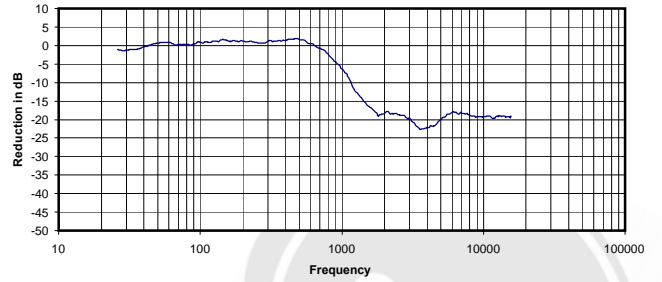
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
 35 Ohms
 0.03 mW
 -17 dB

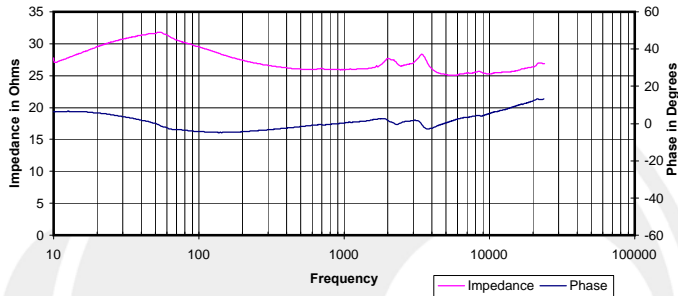
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



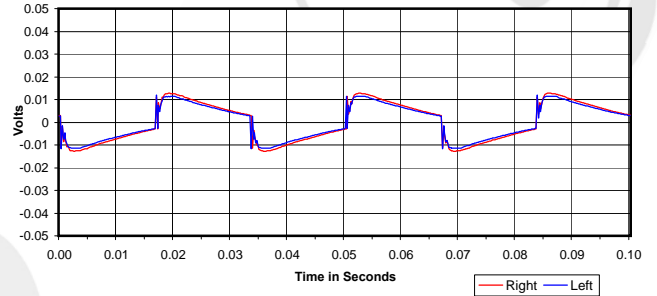
Isolation
 Attenuation of External Sound vs. Frequency



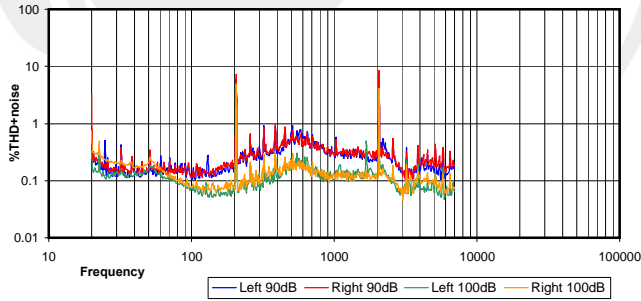
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



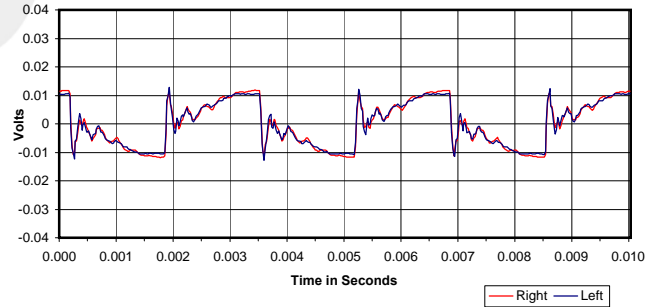
30 Hz Square Wave



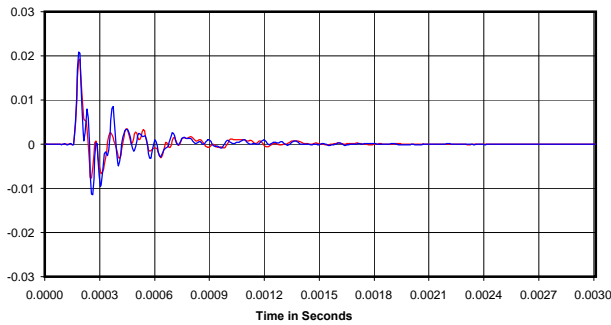
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



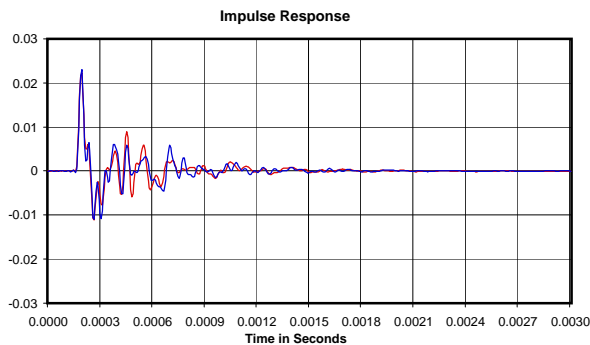
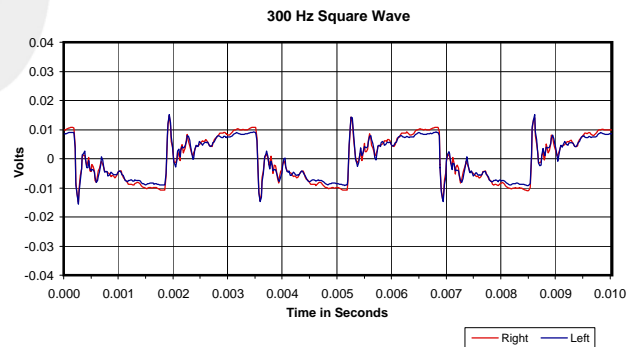
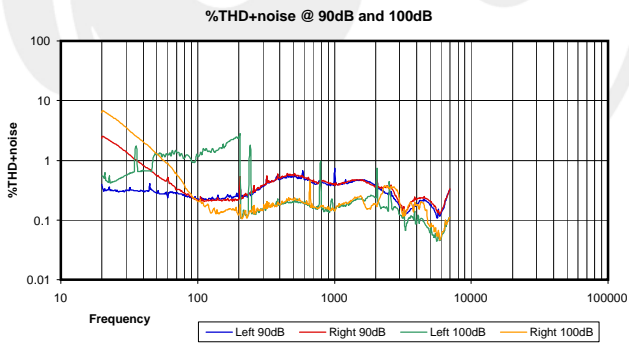
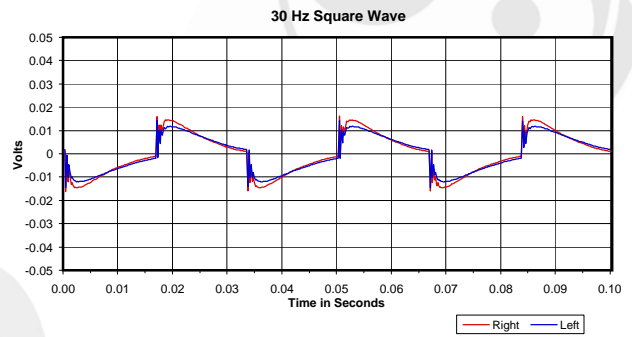
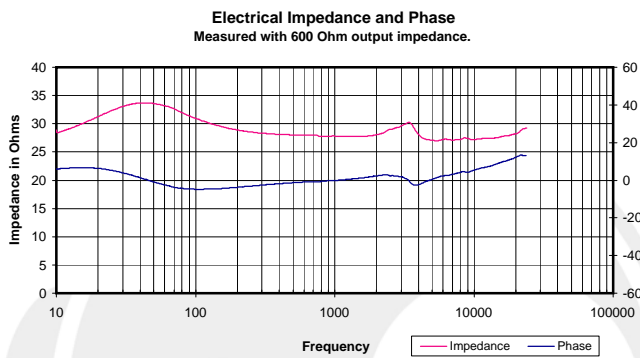
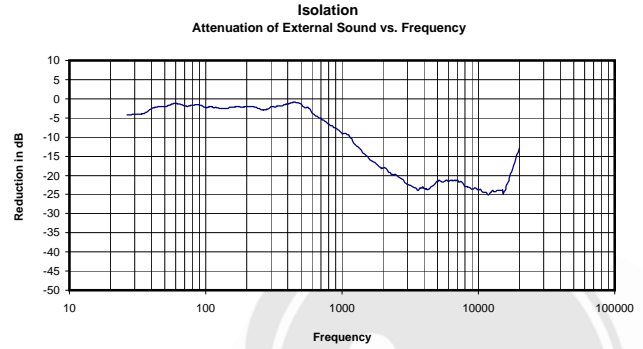
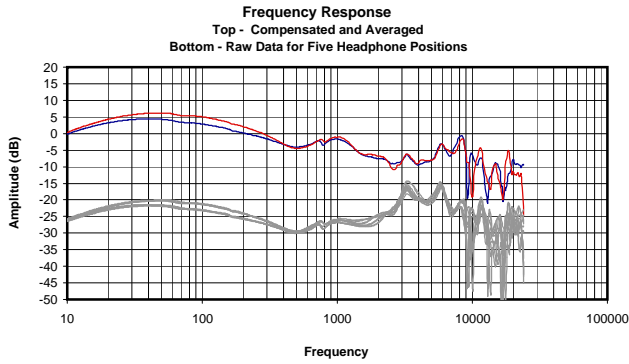
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

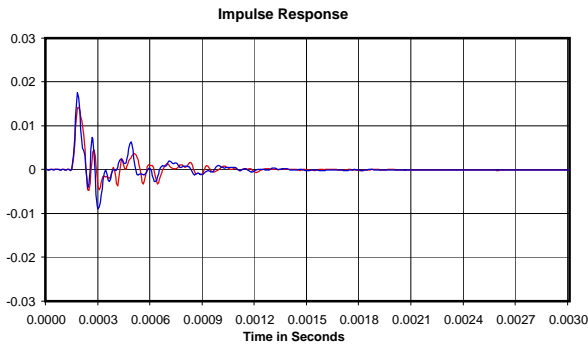
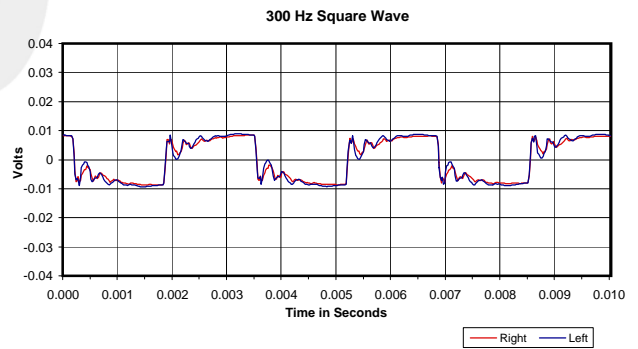
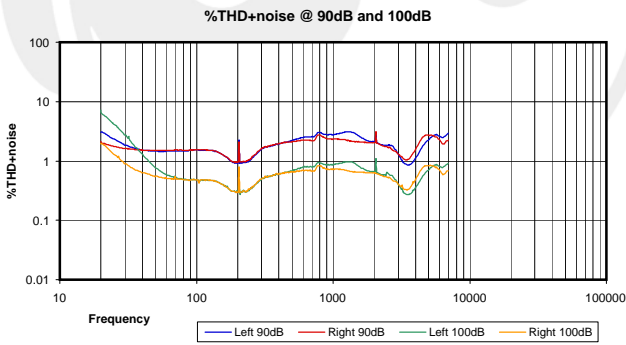
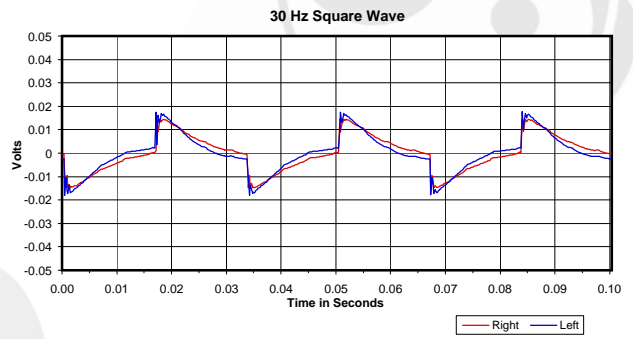
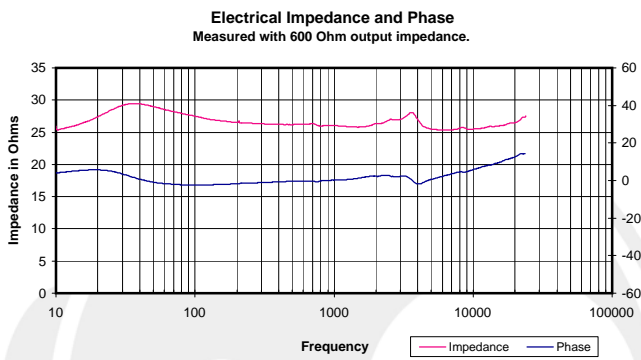
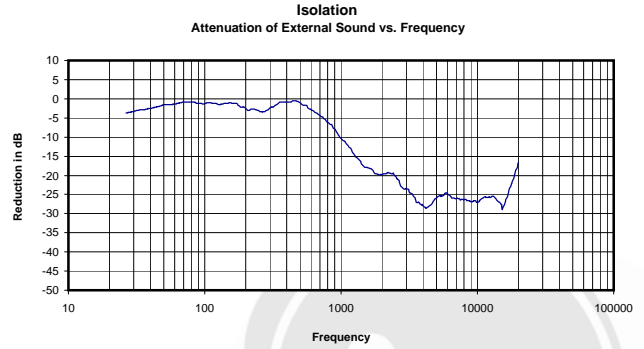
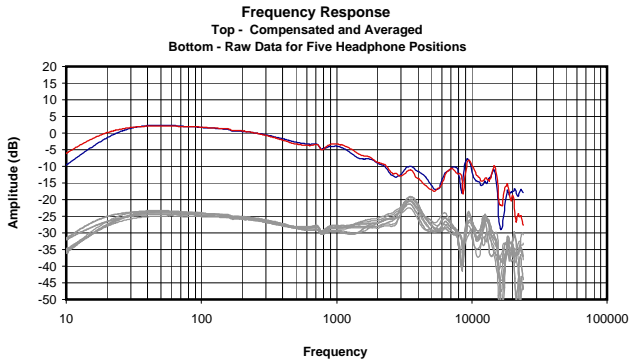
0.062 Vrms
 26 Ohms
 0.15 mW
 -7 dB





Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.078 Vrms
28 Ohms
0.22 mW
-11 dB

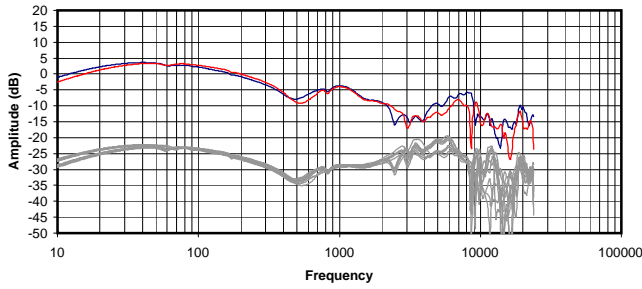


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

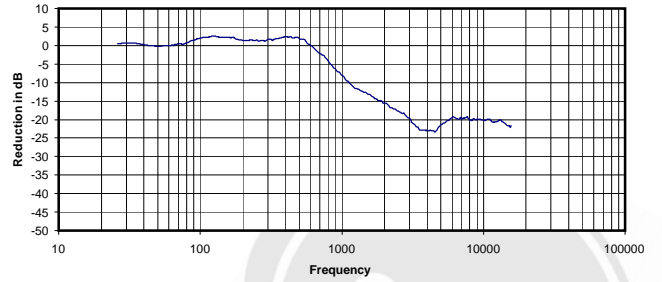
0.047 Vrms
26 Ohms
0.08 mW
-13 dBr



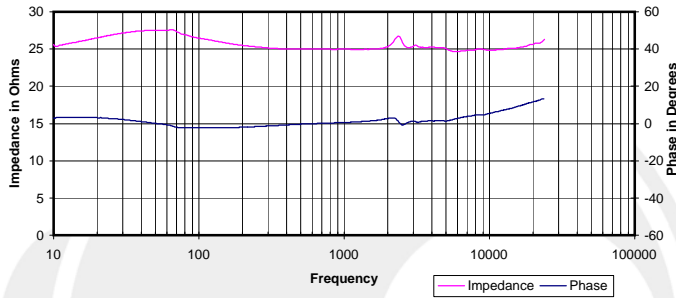
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



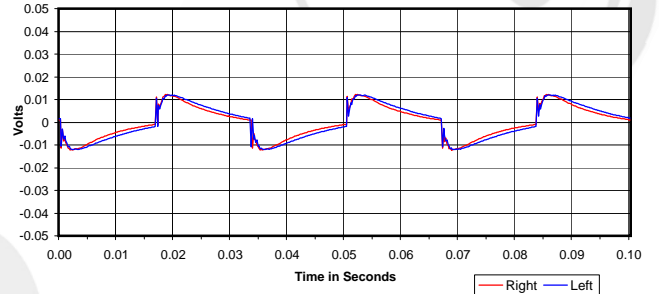
Isolation
 Attenuation of External Sound vs. Frequency



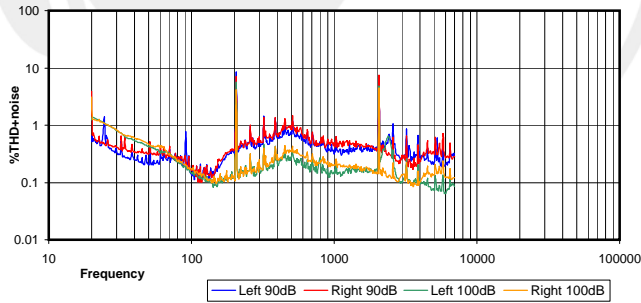
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



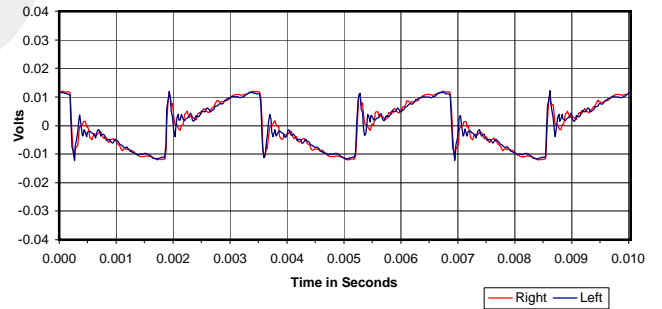
30 Hz Square Wave



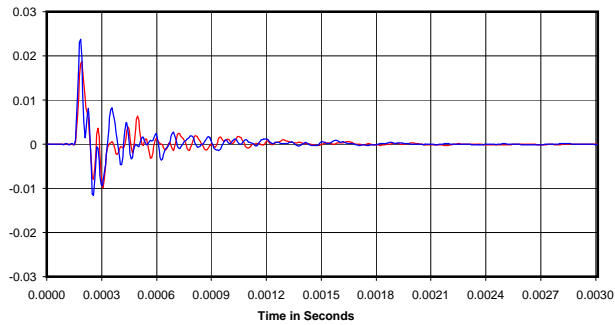
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



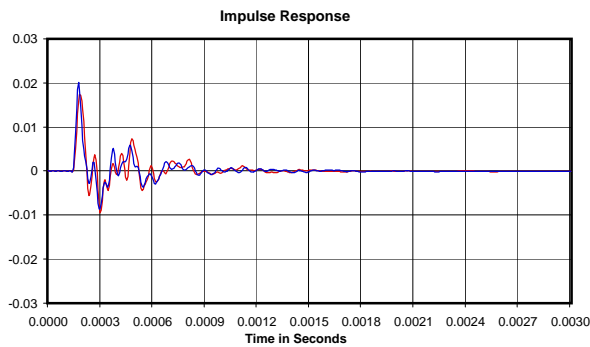
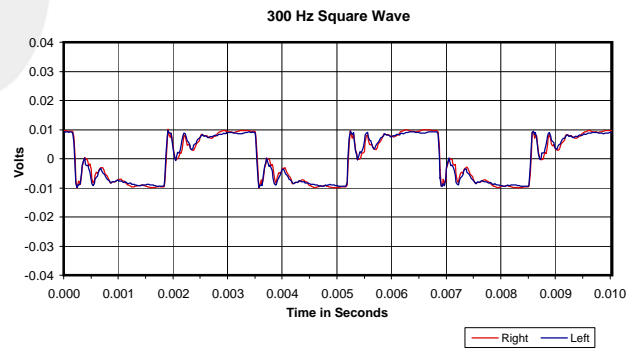
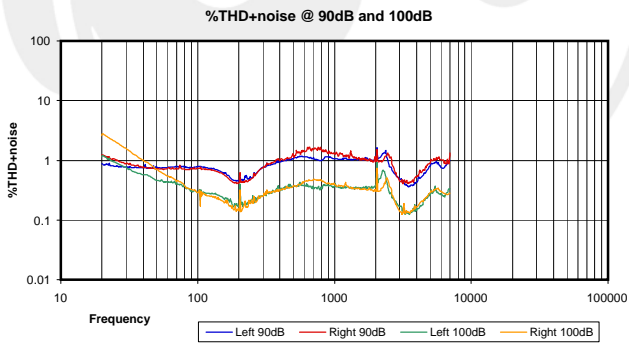
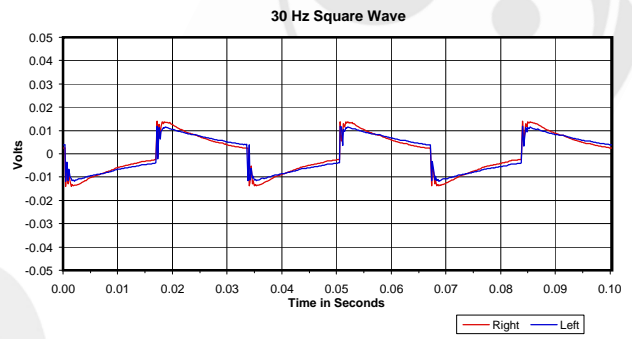
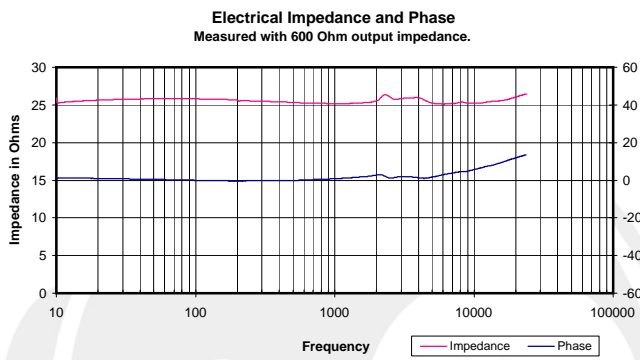
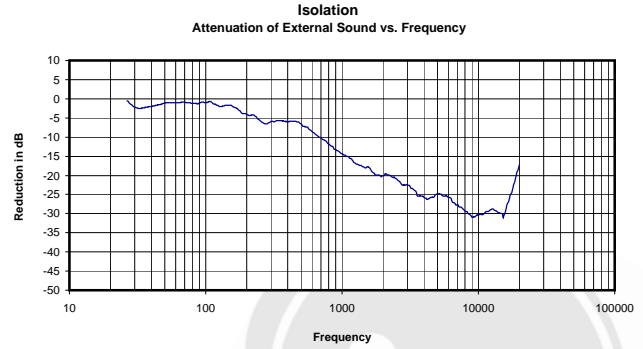
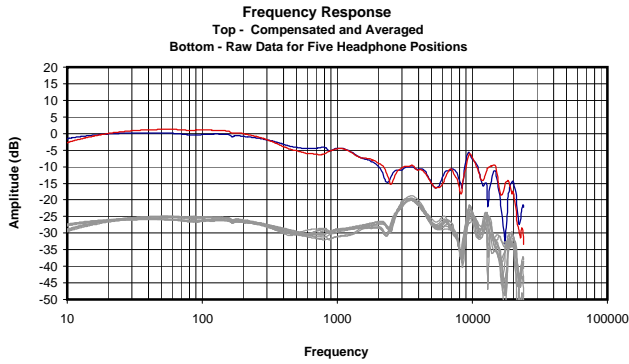
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

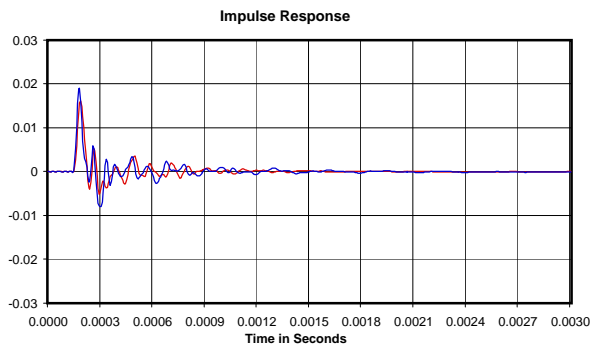
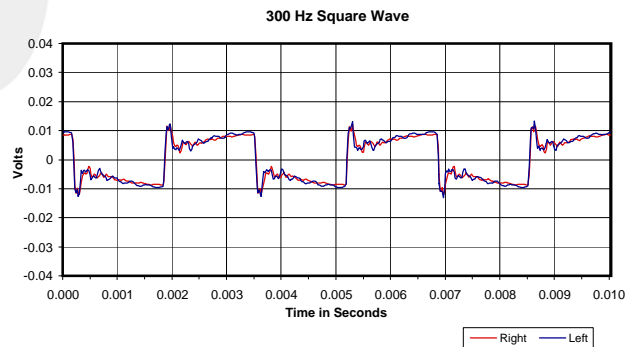
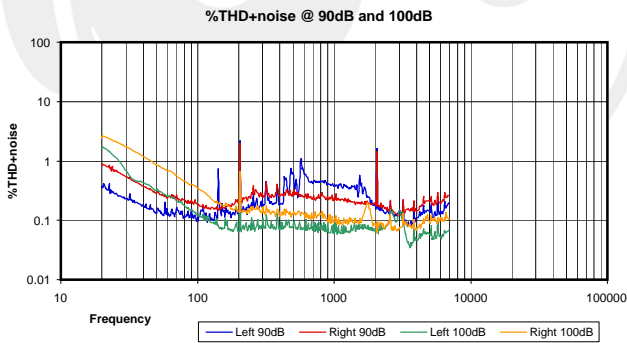
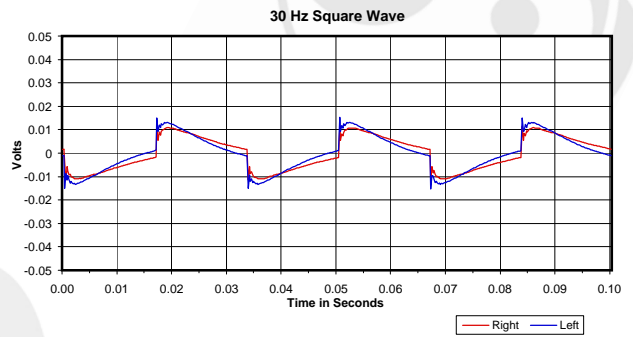
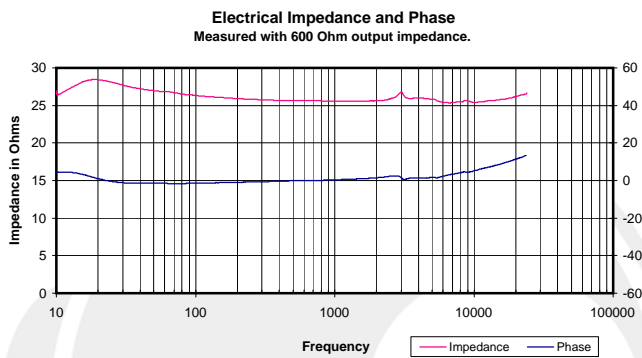
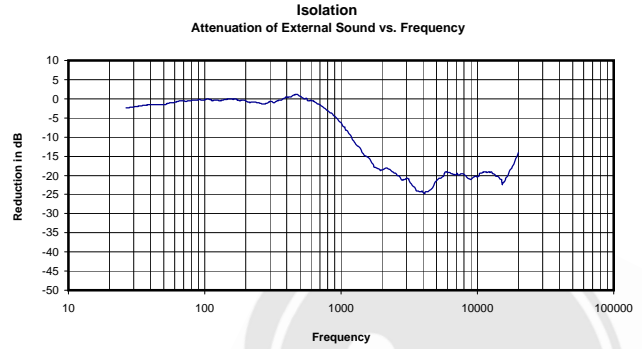
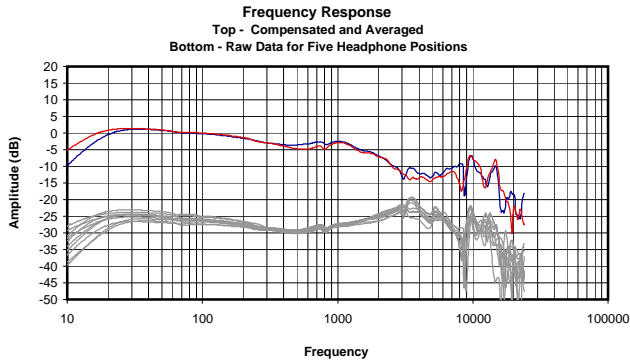
0.069 Vrms
 25 Ohms
 0.19 mW
 -7 dB





Volts RMS required to reach 90dB SPL: 0.000 Vrms
 Impedance @ 1kHz: 25 Ohms
 Power Needed for 90d BSPL: 0.00 mW
 Broadband Isolation in dB (100Hz to 10kHz): -15 dB



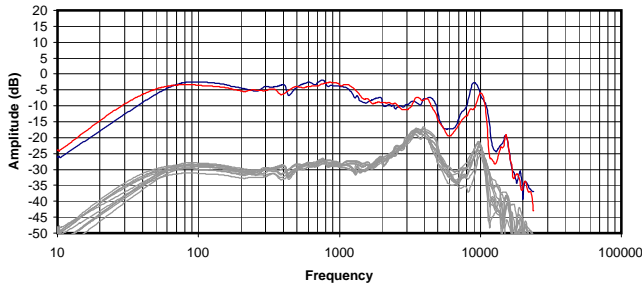


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

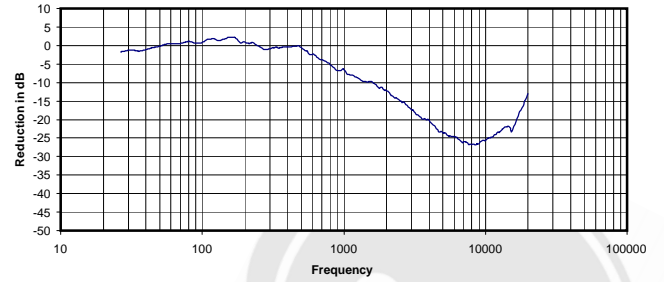
0.050 Vrms
26 Ohms
0.10 mW
-10 dBr



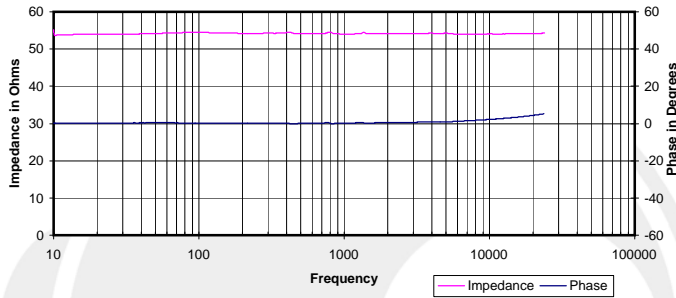
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



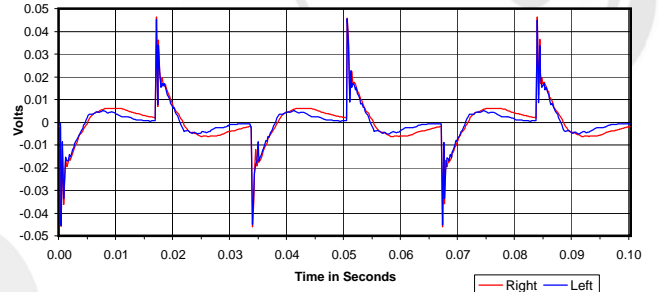
Isolation
 Attenuation of External Sound vs. Frequency



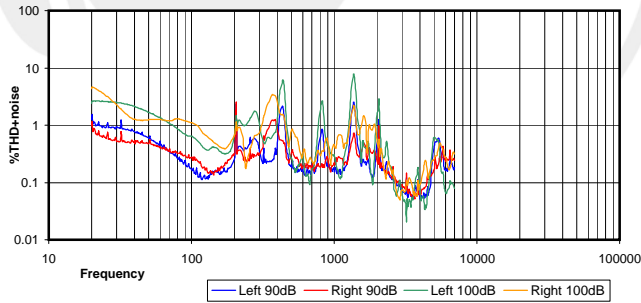
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



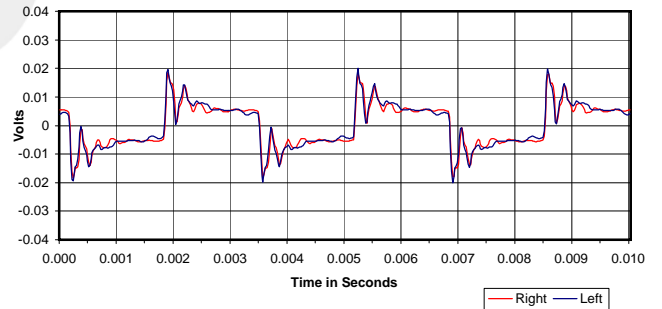
30 Hz Square Wave



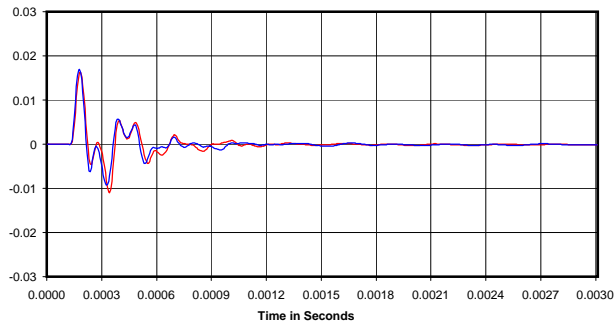
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

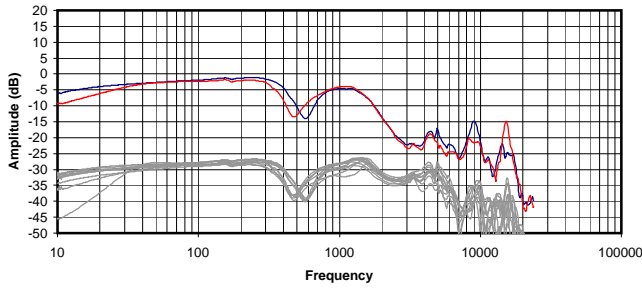


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

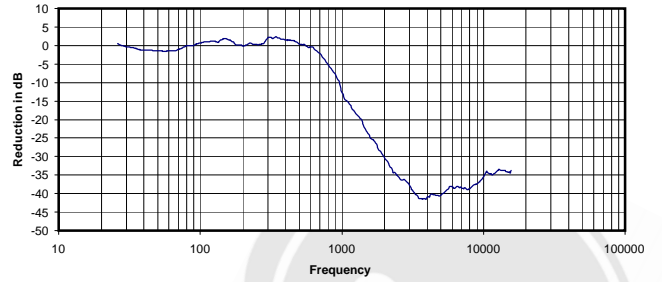
0.206 Vrms
 54 Ohms
 0.78 mW
 -9 dB



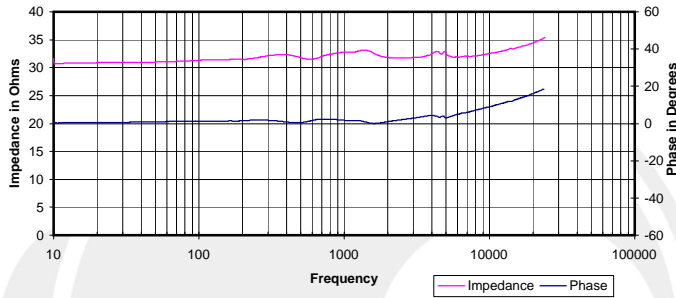
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



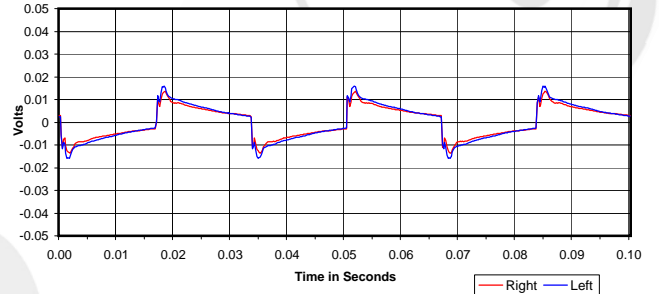
Isolation
 Attenuation of External Sound vs. Frequency



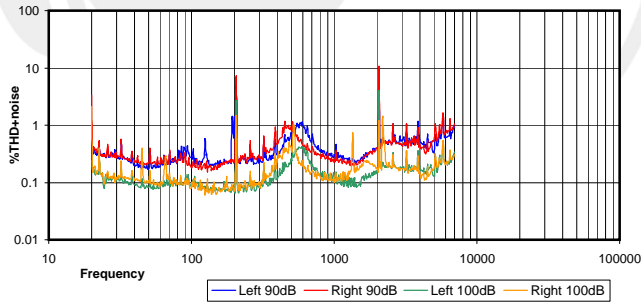
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



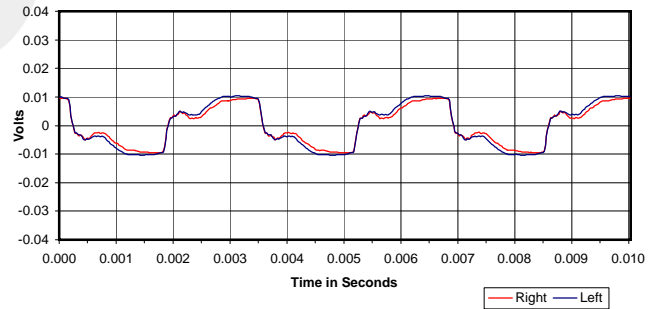
30 Hz Square Wave



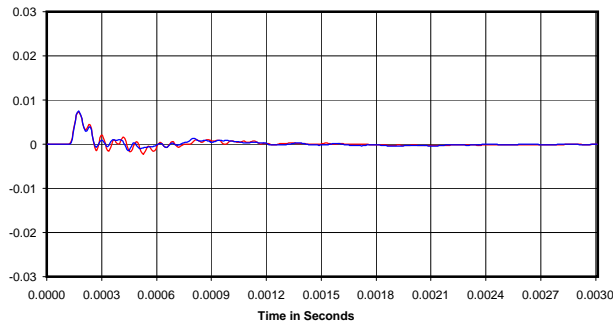
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

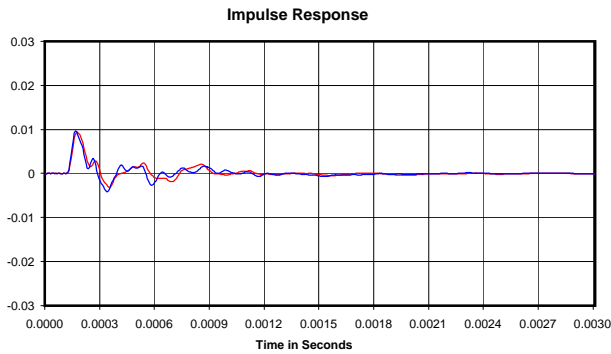
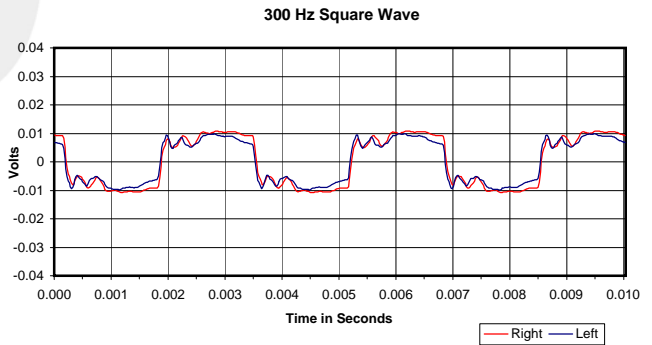
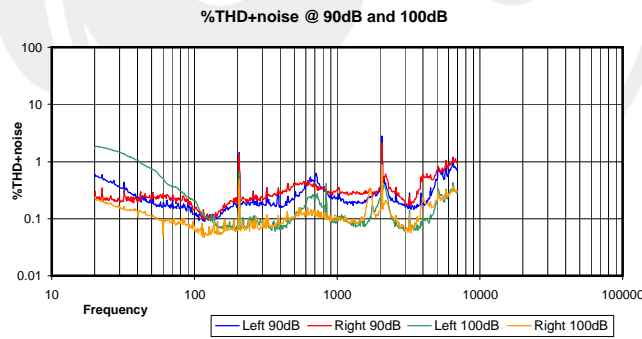
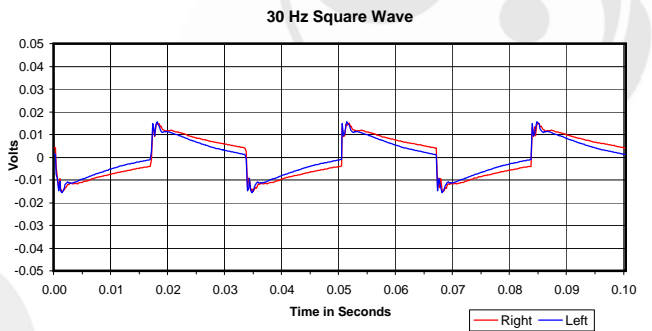
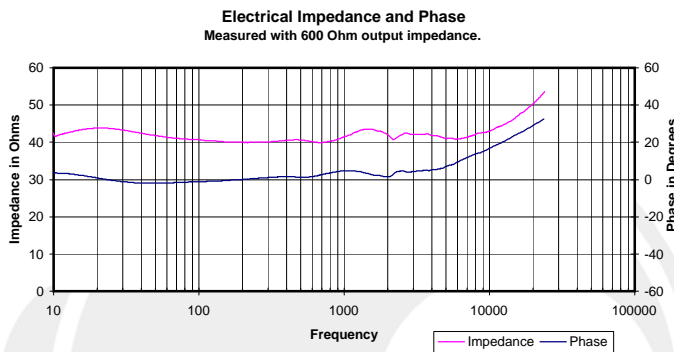
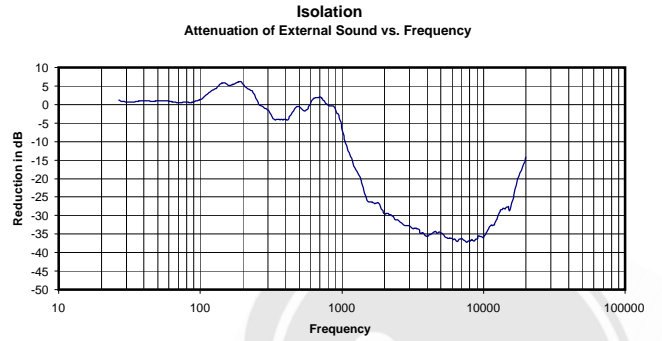
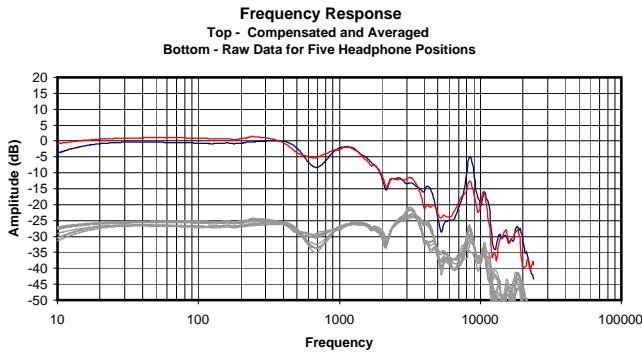


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
 33 Ohms
 0.02 mW
 -14 dB

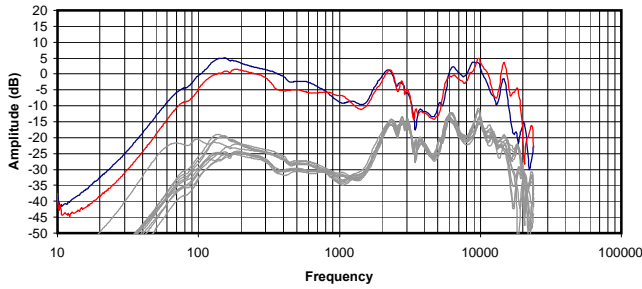


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

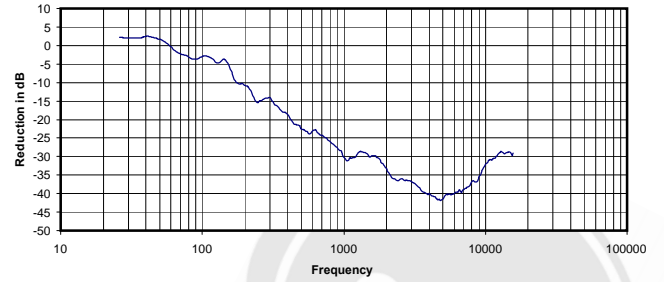
0.016 Vrms
41 Ohms
0.01 mW
-15 dB



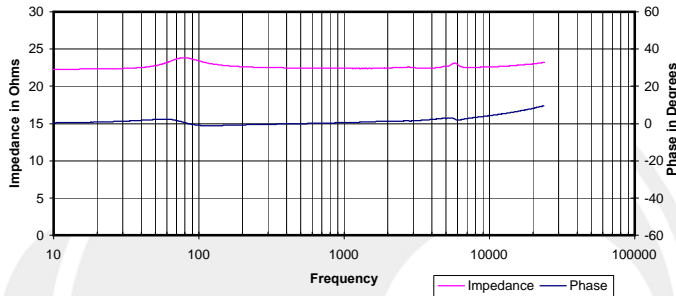
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



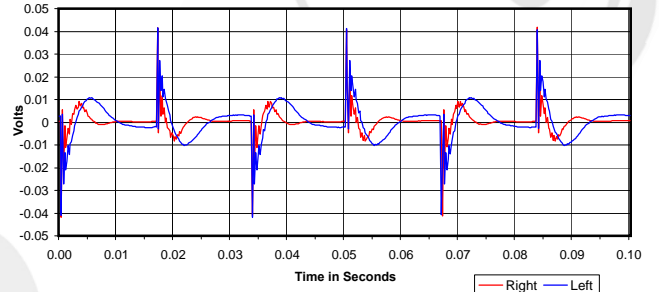
Isolation
 Attenuation of External Sound vs. Frequency



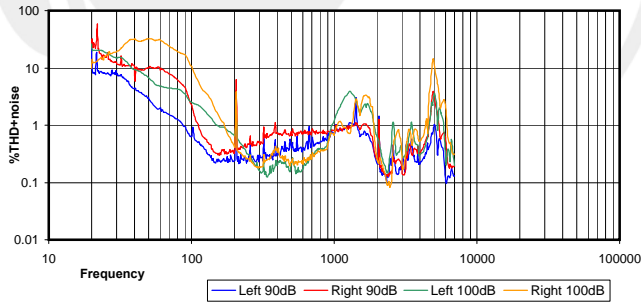
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



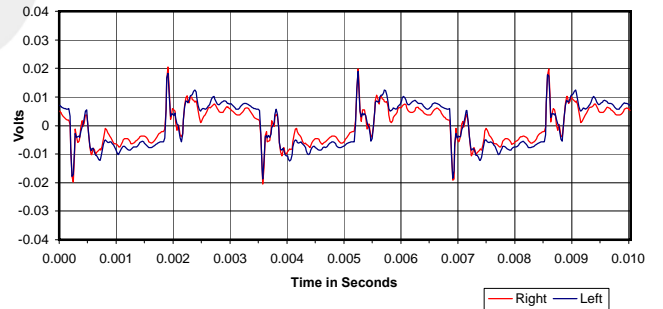
30 Hz Square Wave



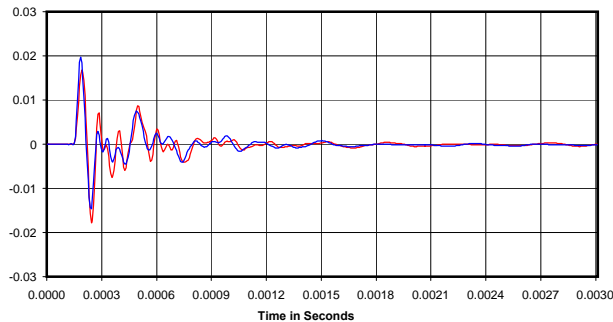
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

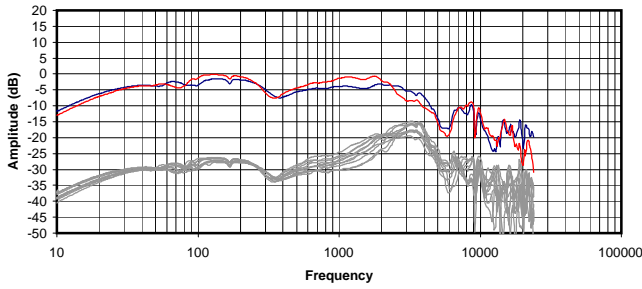


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

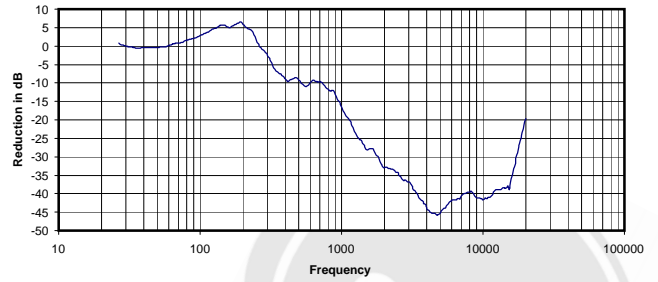
0.370 Vrms
 22 Ohms
 6.13 mW
 -24 dB



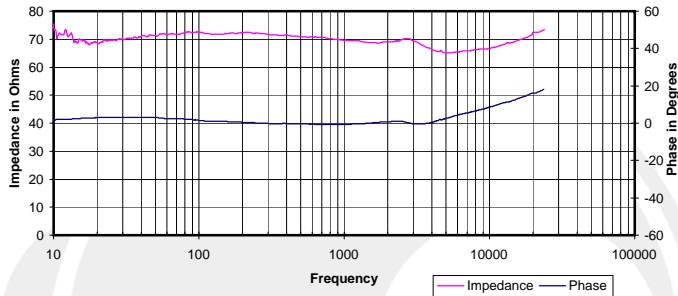
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



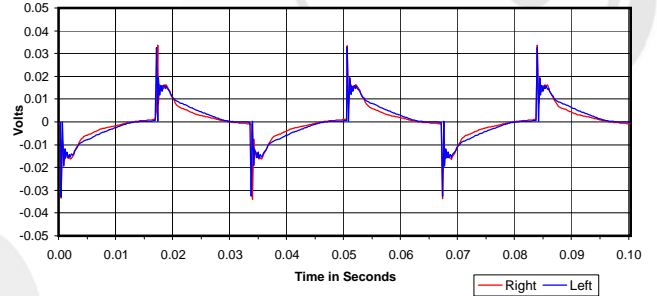
Isolation
 Attenuation of External Sound vs. Frequency



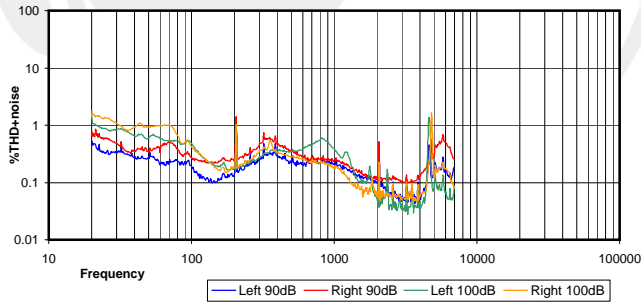
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



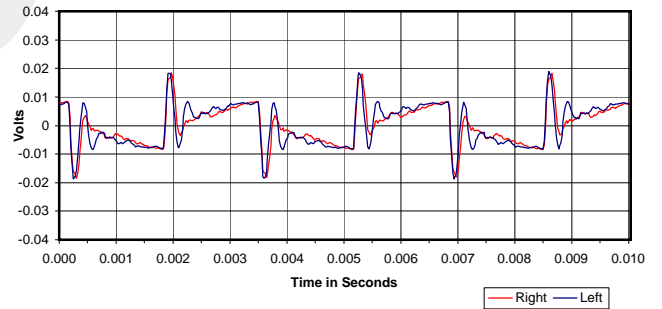
30 Hz Square Wave



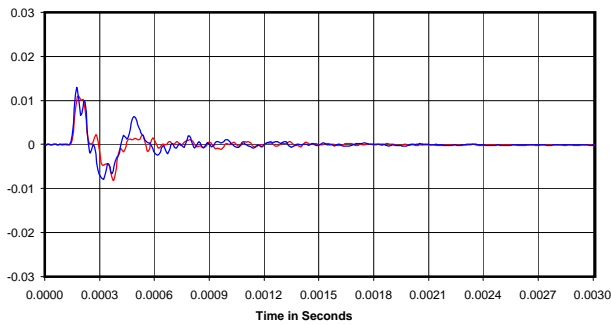
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

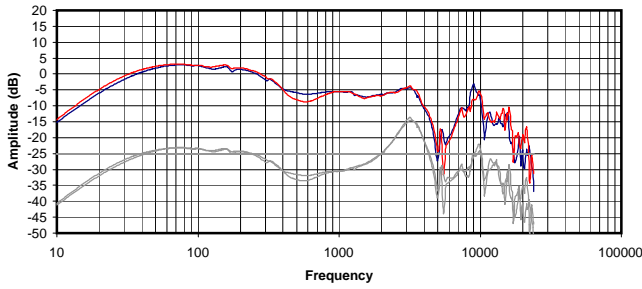


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

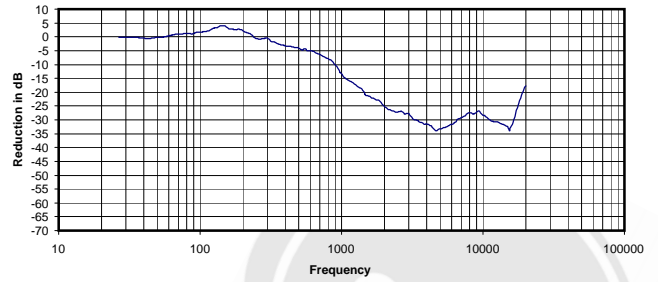
0.068 Vrms
 70 Ohms
 0.07 mW
 -19 dB



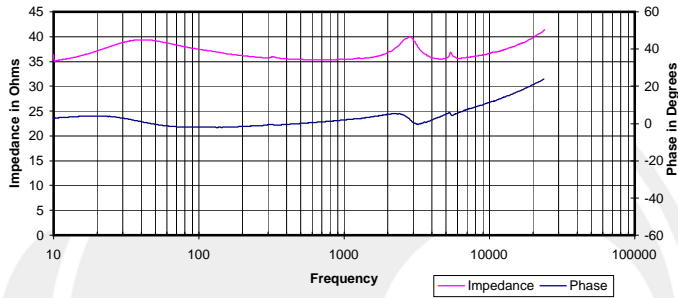
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



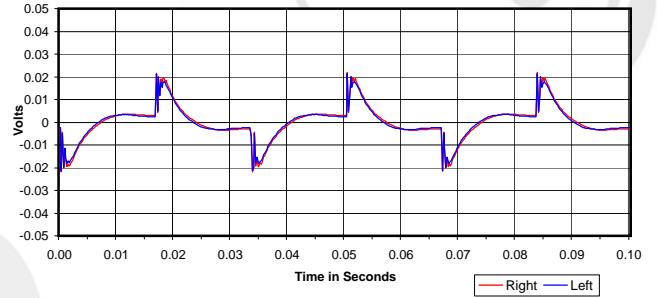
Isolation
Attenuation of External Sound vs. Frequency



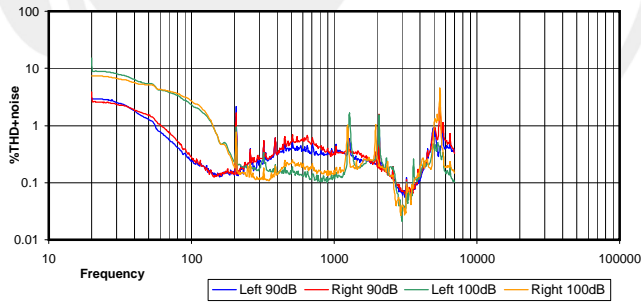
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



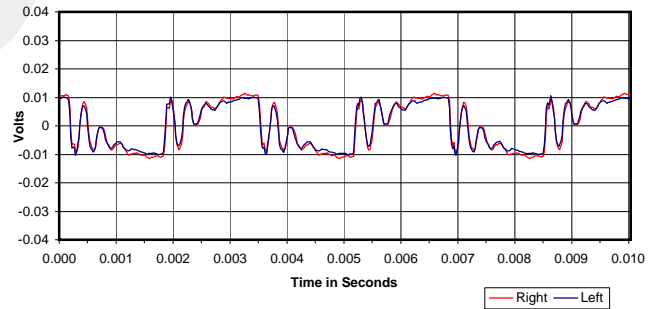
30 Hz Square Wave



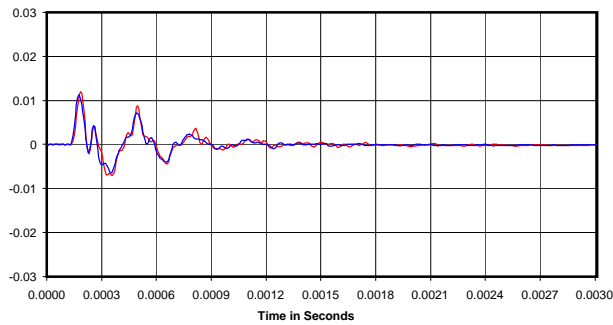
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

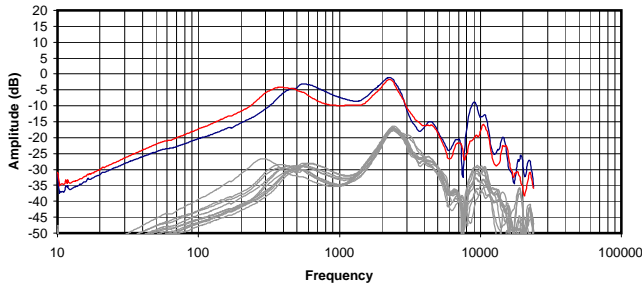


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

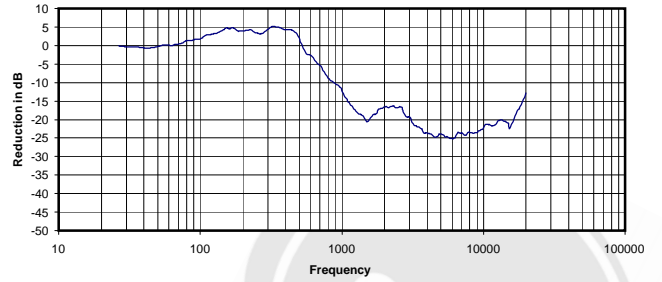
0.003 Vrms
35 Ohms
0.00 mW
-14 dB



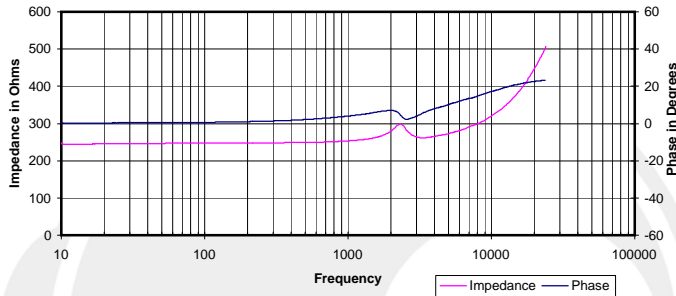
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



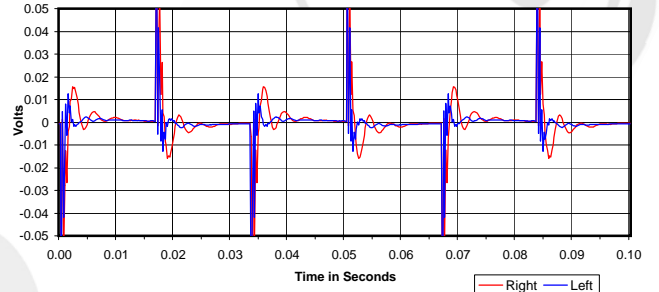
Isolation
 Attenuation of External Sound vs. Frequency



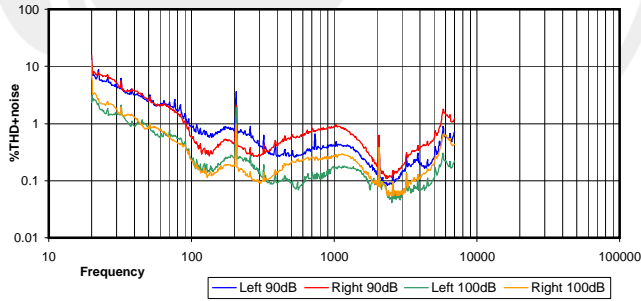
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



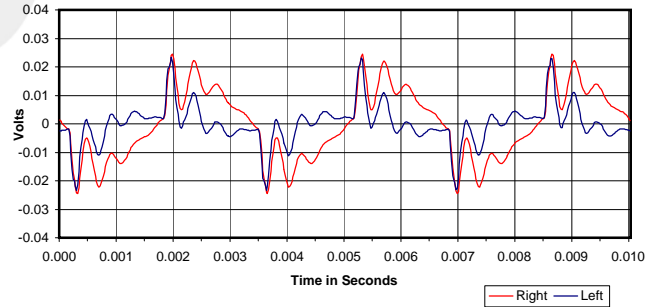
30 Hz Square Wave



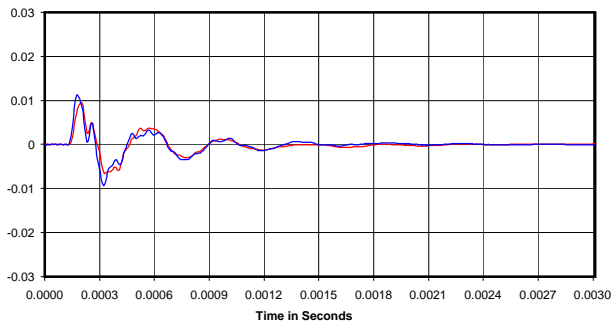
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

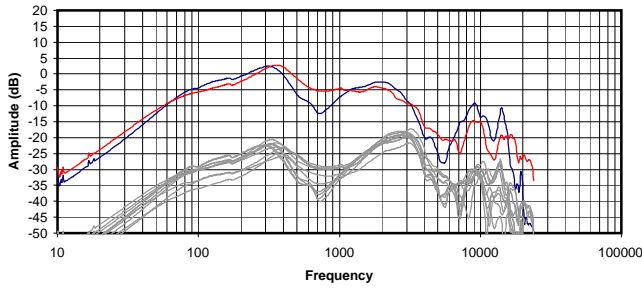


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

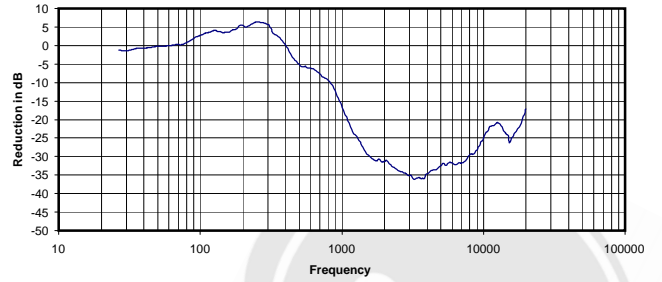
0.210 Vrms
 253 Ohms
 0.17 mW
 -10 dB



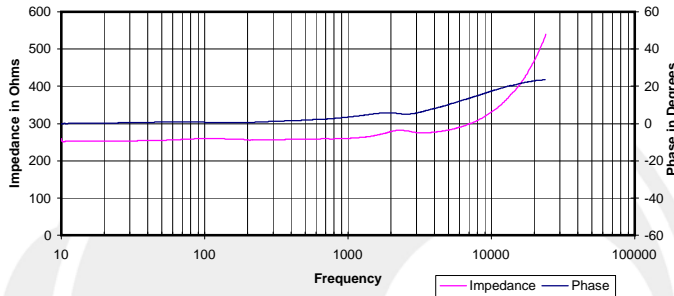
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



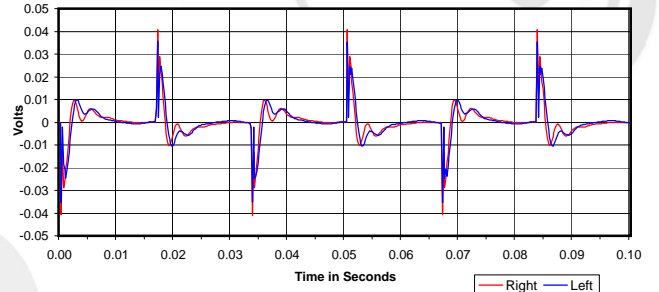
Isolation
 Attenuation of External Sound vs. Frequency



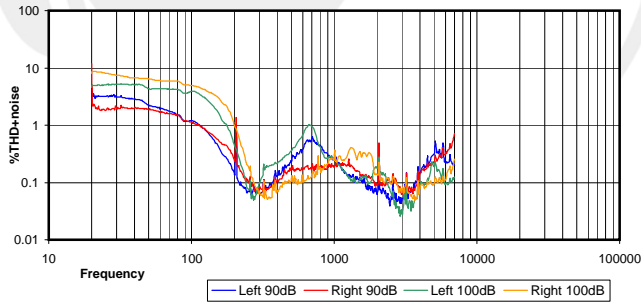
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



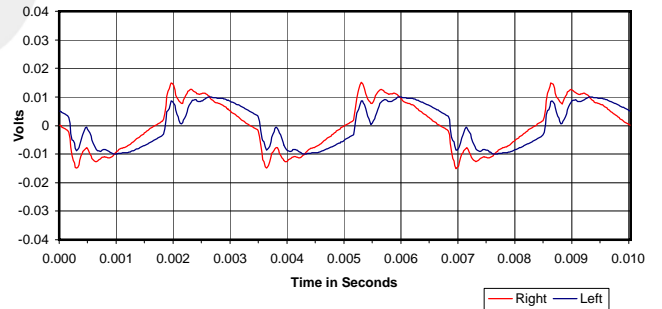
30 Hz Square Wave



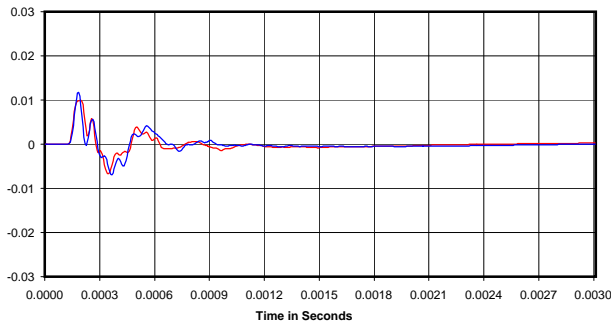
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

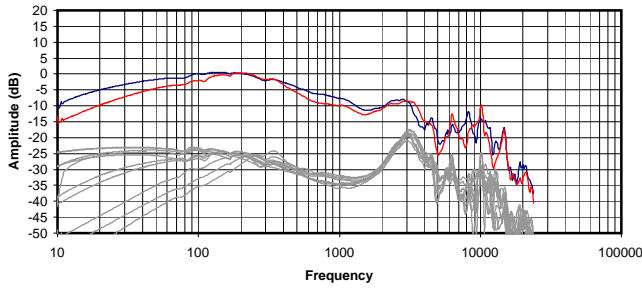


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

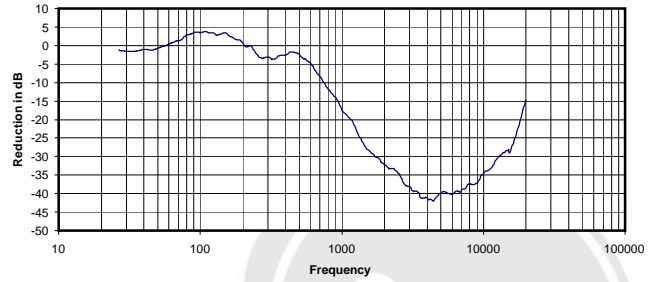
0.205 Vrms
 260 Ohms
 0.16 mW
 -16 dB



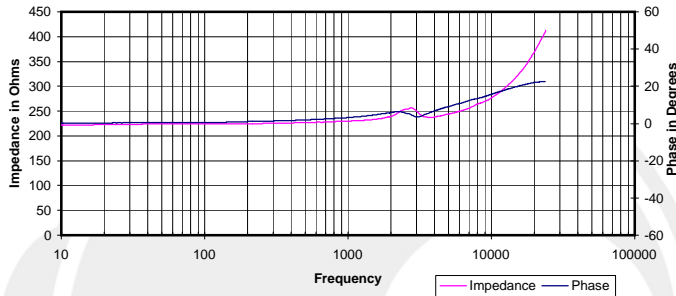
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



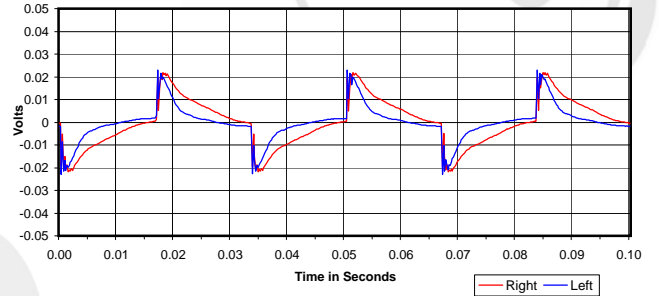
Isolation
 Attenuation of External Sound vs. Frequency



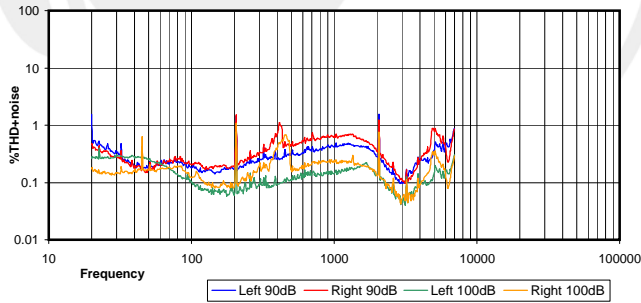
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



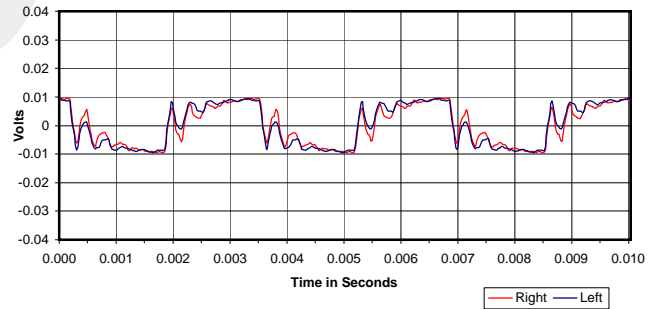
30 Hz Square Wave



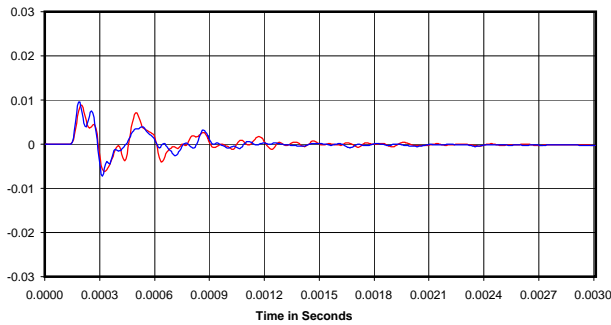
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

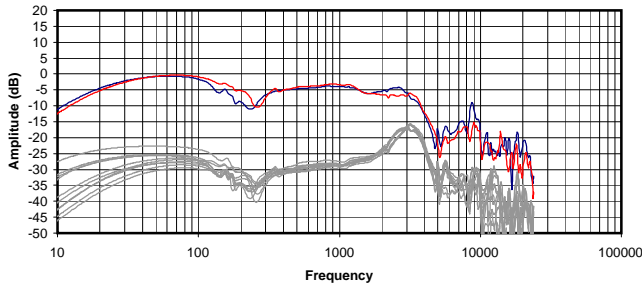


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

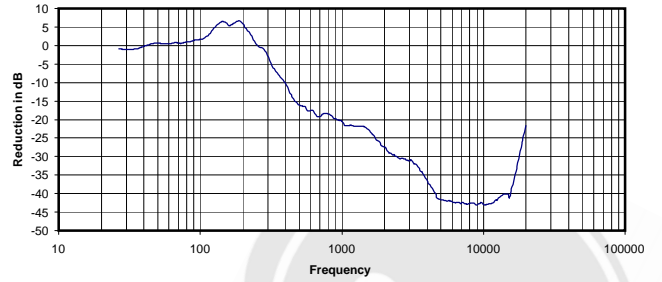
0.130 Vrms
 230 Ohms
 0.07 mW
 -19 dB



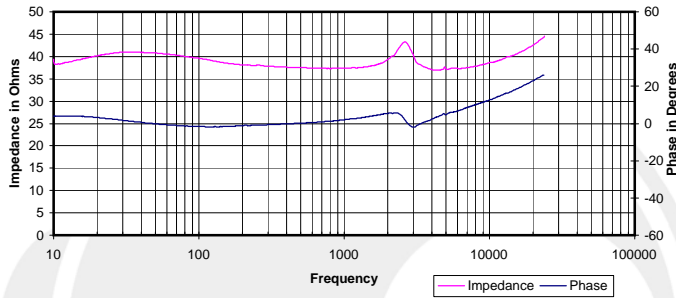
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



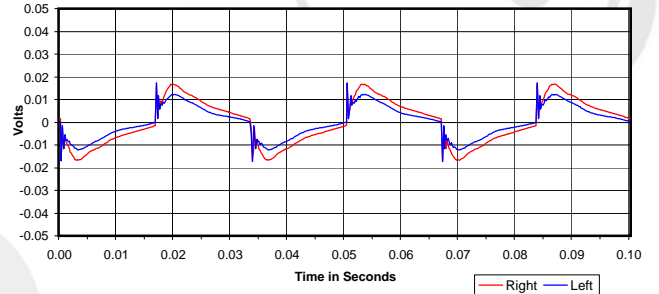
Isolation
 Attenuation of External Sound vs. Frequency



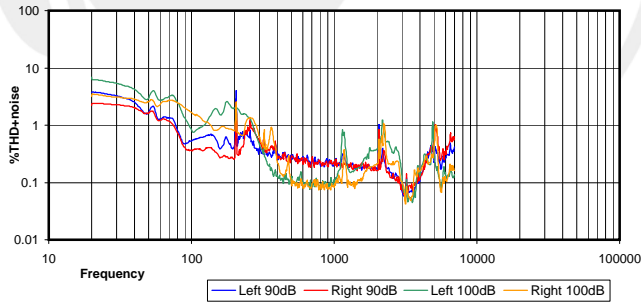
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



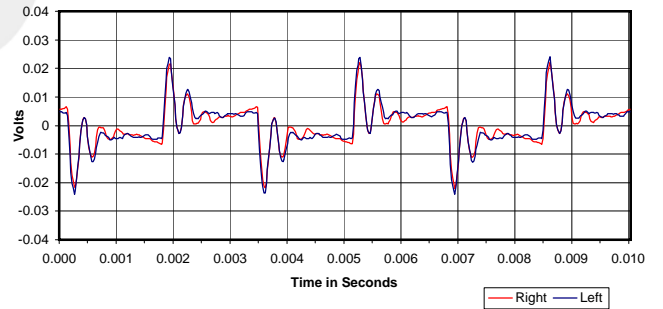
30 Hz Square Wave



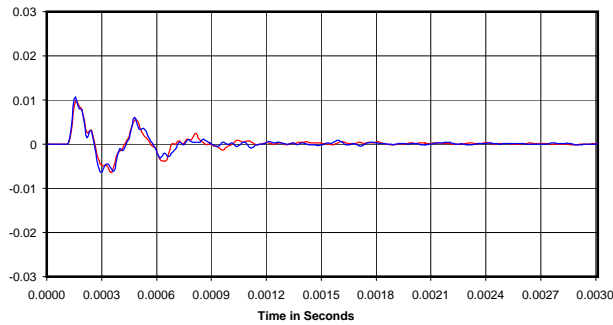
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

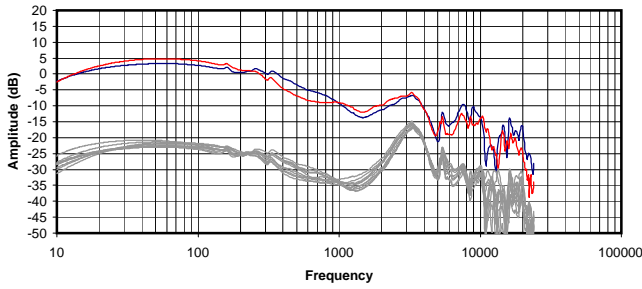


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

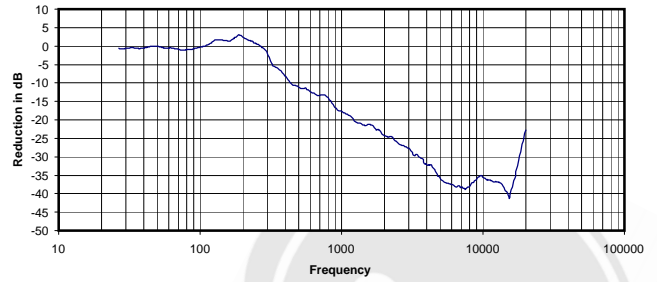
0.038 Vrms
 37 Ohms
 0.04 mW
 -20 dB



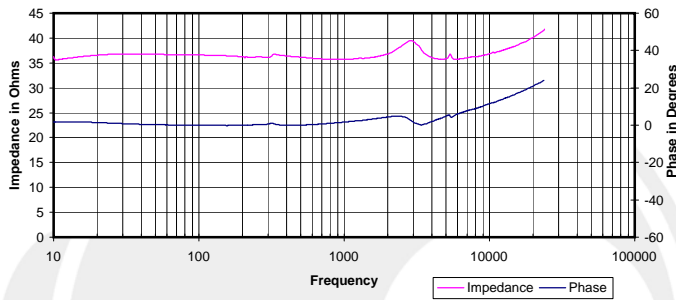
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



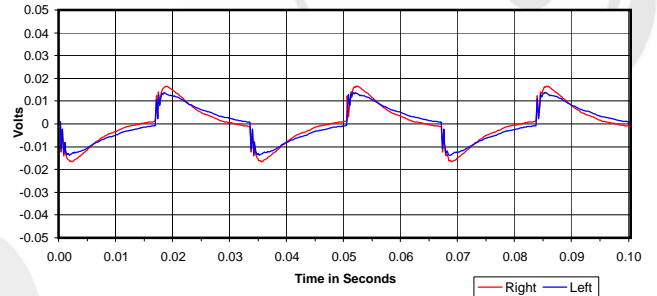
Isolation
Attenuation of External Sound vs. Frequency



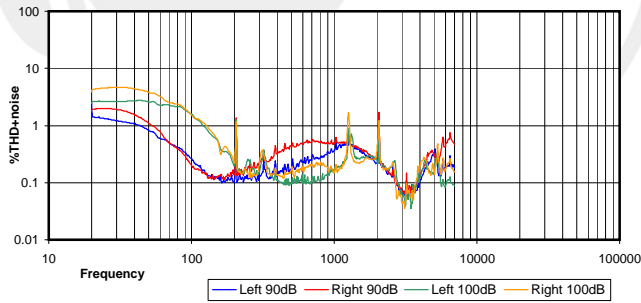
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



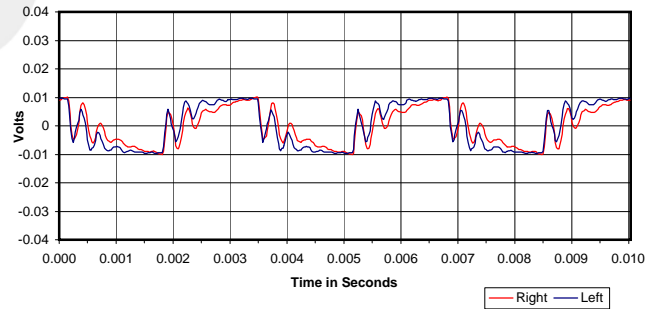
30 Hz Square Wave



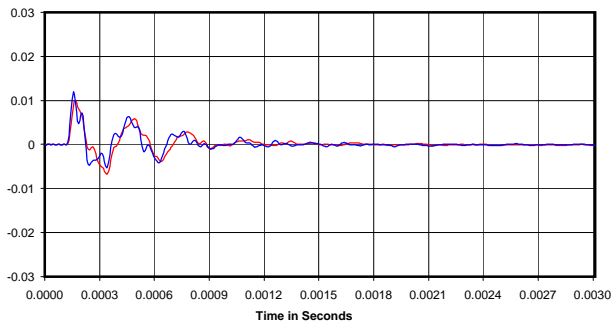
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



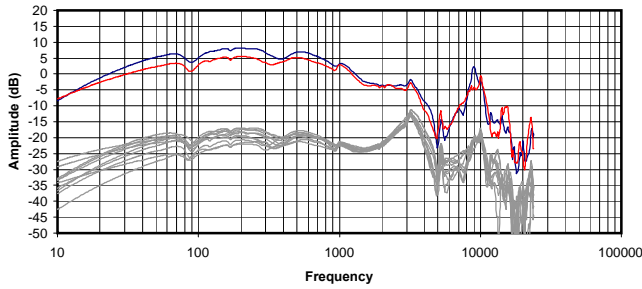
Impulse Response



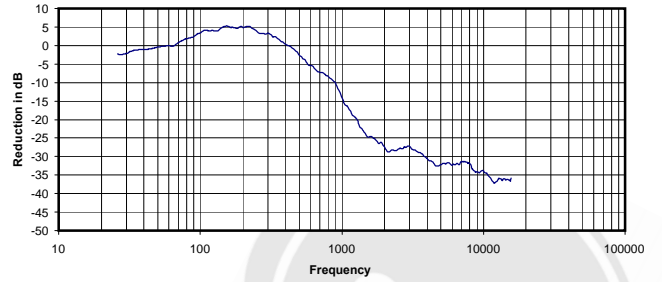
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.084 Vrms
36 Ohms
0.20 mW
-17 dB

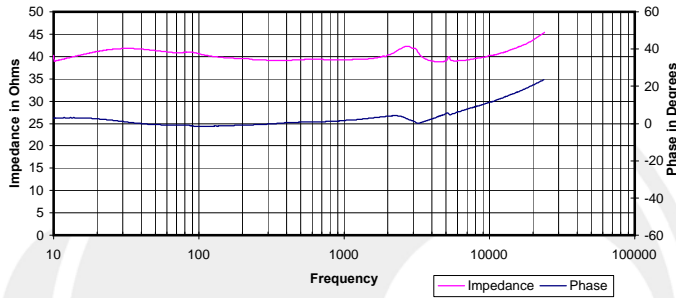
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



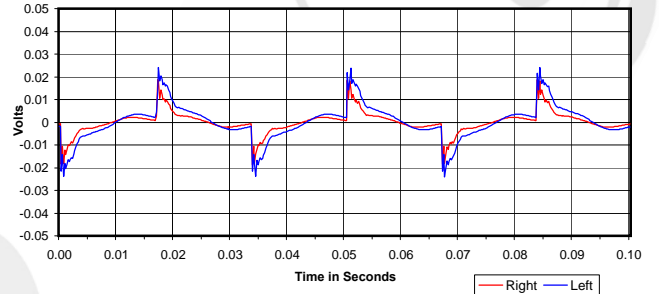
Isolation
 Attenuation of External Sound vs. Frequency



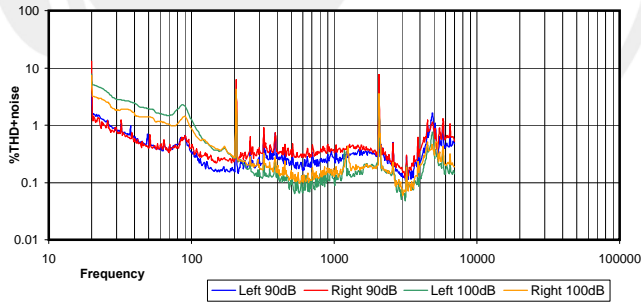
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



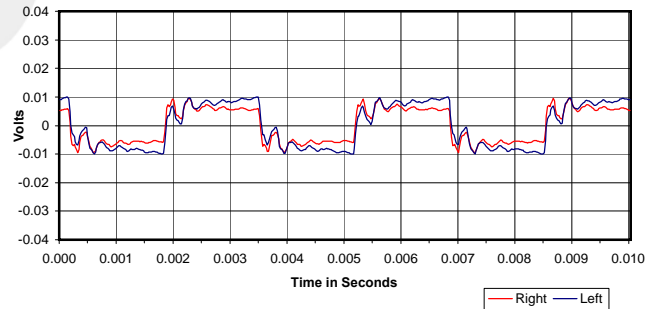
30 Hz Square Wave



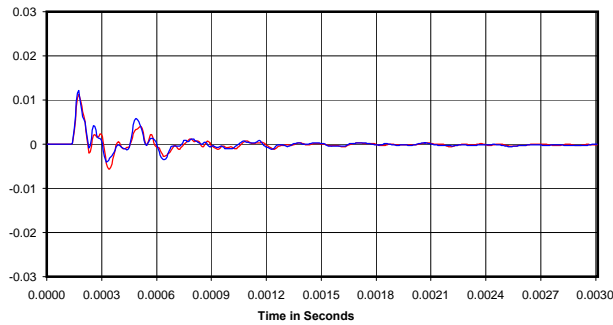
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

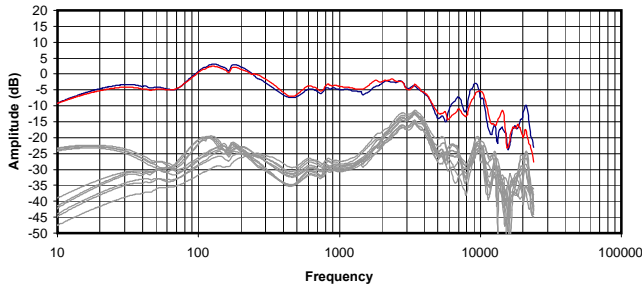


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

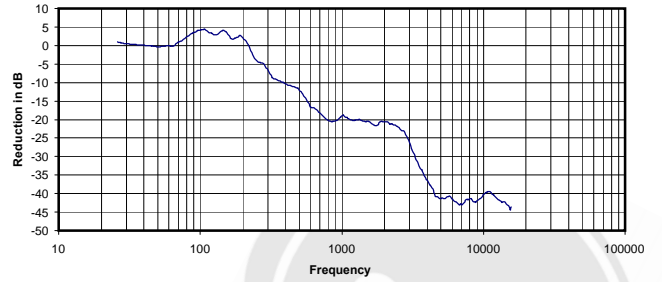
0.050 Vrms
 39 Ohms
 0.06 mW
 -12 dB



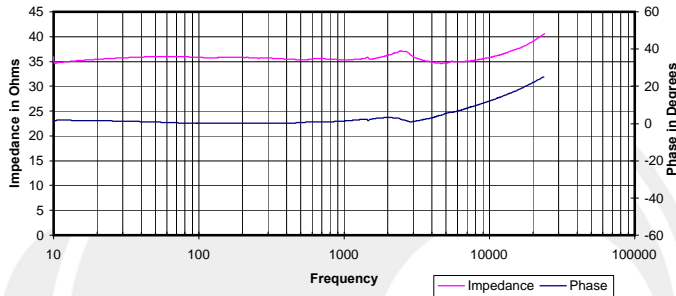
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



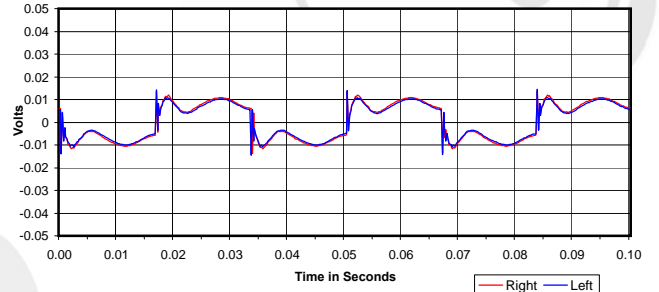
Isolation
 Attenuation of External Sound vs. Frequency



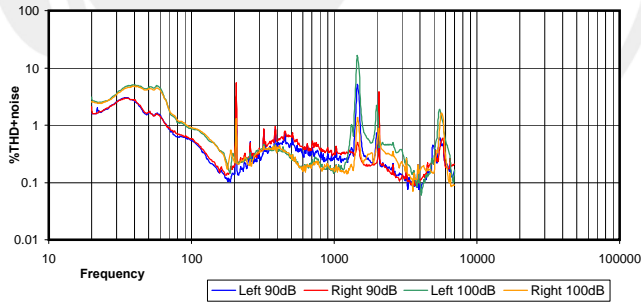
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



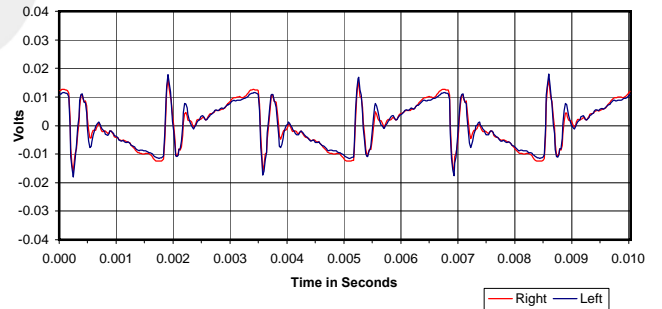
30 Hz Square Wave



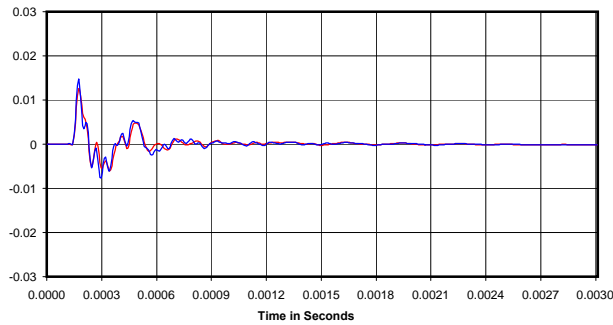
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

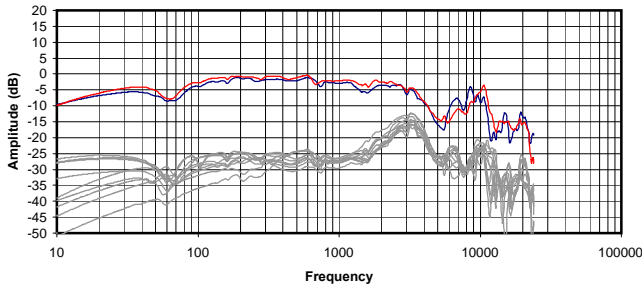


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

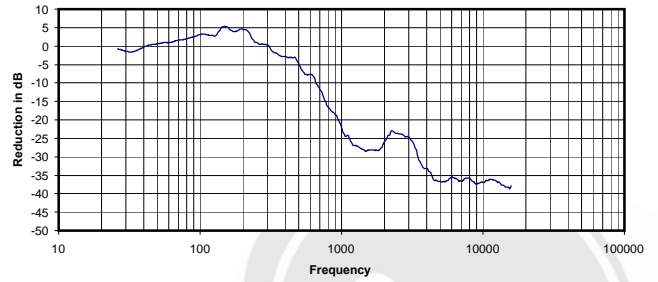
0.139 Vrms
 35 Ohms
 0.55 mW
 -16 dB



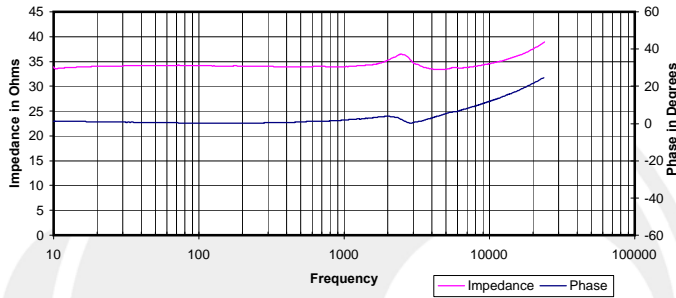
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



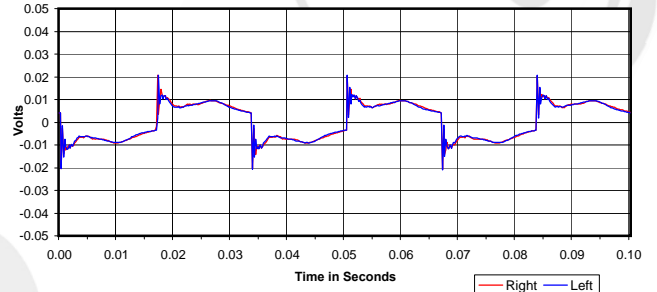
Isolation
 Attenuation of External Sound vs. Frequency



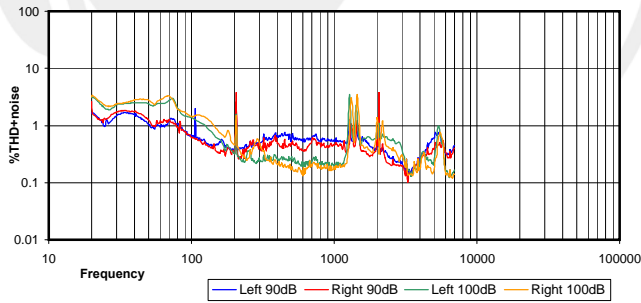
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



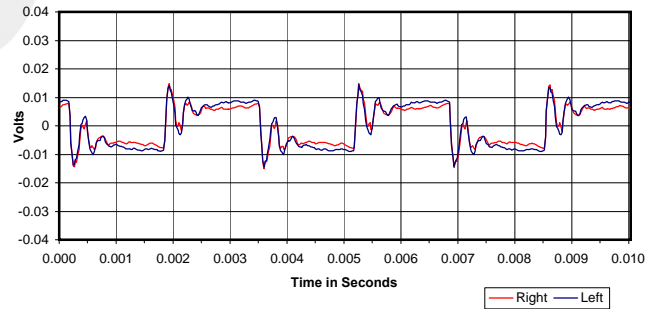
30 Hz Square Wave



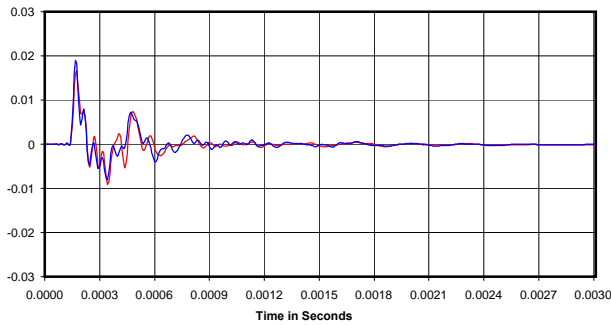
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

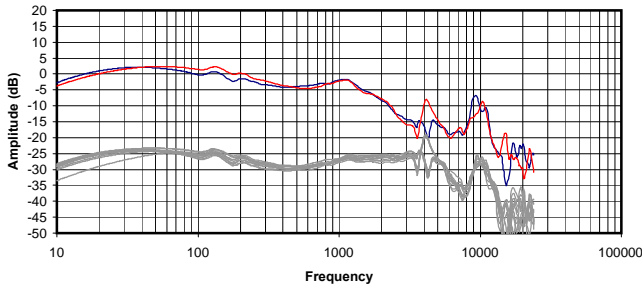


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

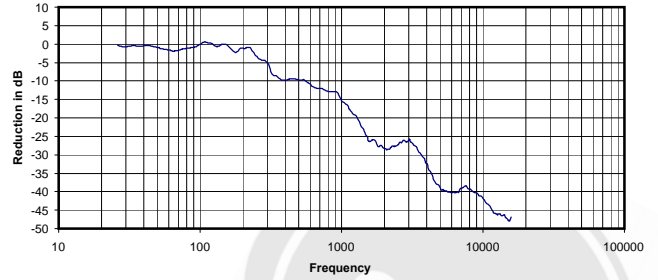
0.091 Vrms
 34 Ohms
 0.24 mW
 -14 dB



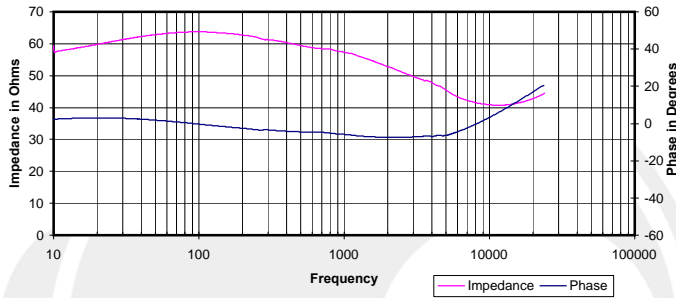
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



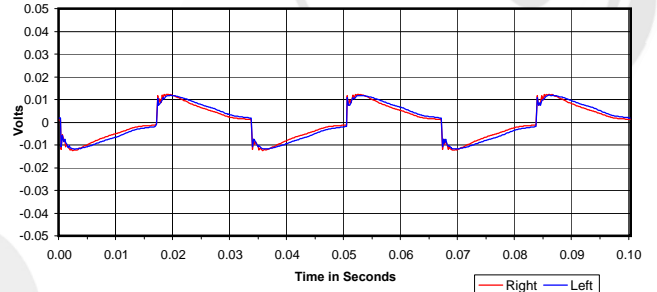
Isolation
 Attenuation of External Sound vs. Frequency



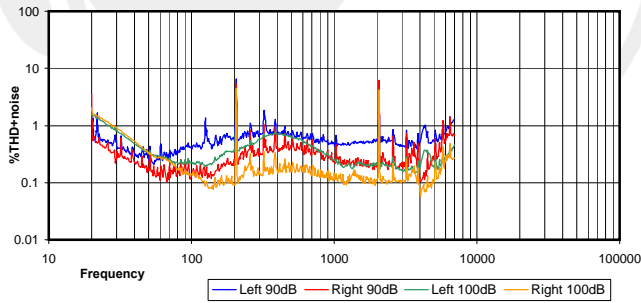
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



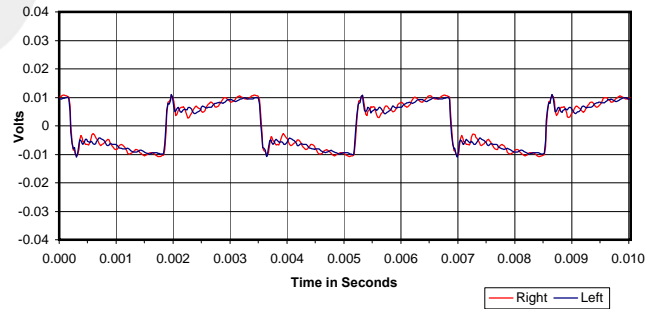
30 Hz Square Wave



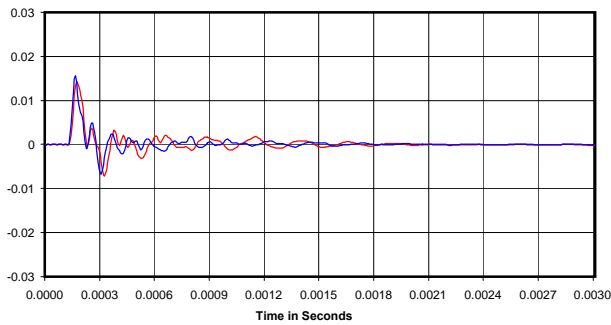
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

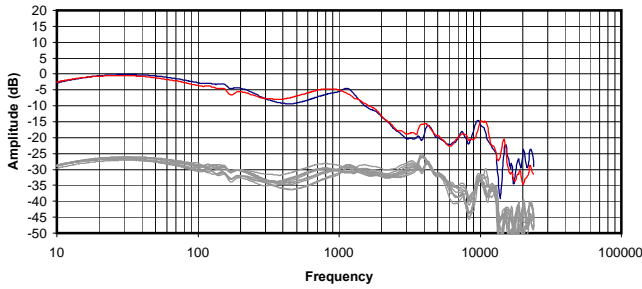


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

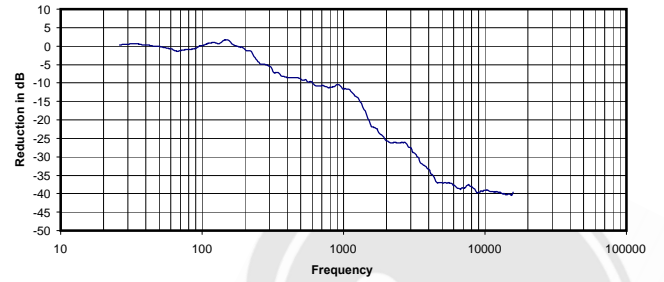
0.052 Vrms
 57 Ohms
 0.05 mW
 -16 dB



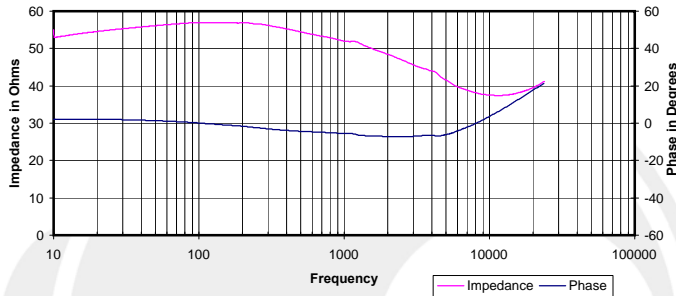
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



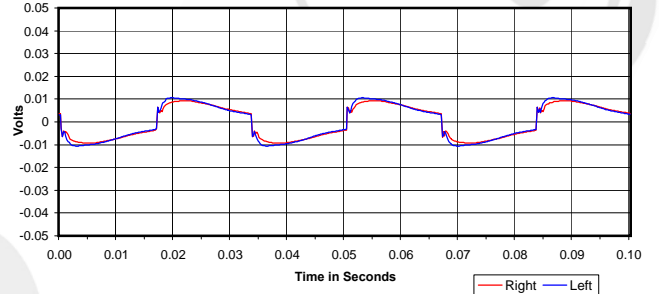
Isolation
 Attenuation of External Sound vs. Frequency



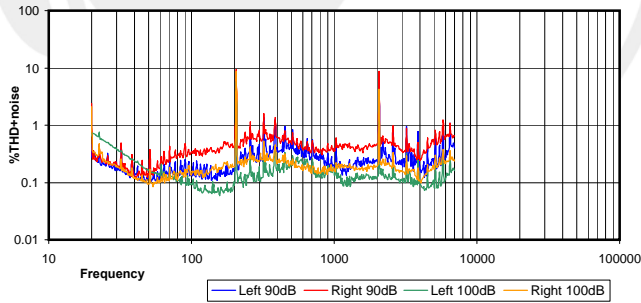
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



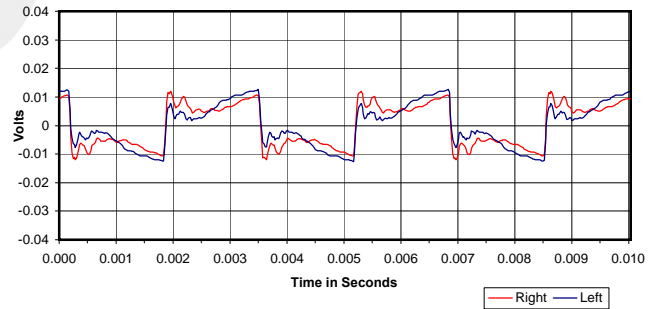
30 Hz Square Wave



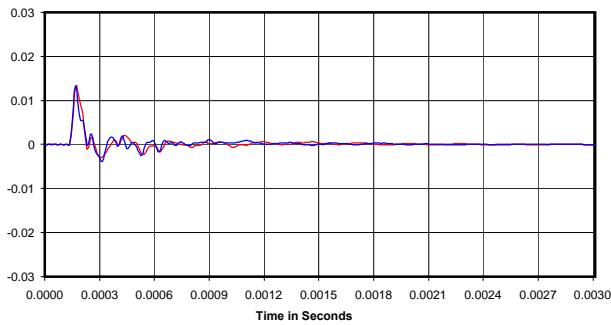
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



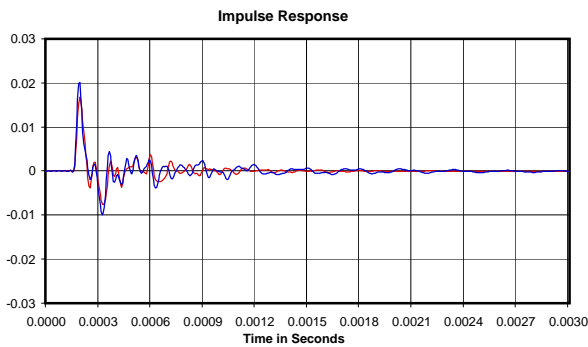
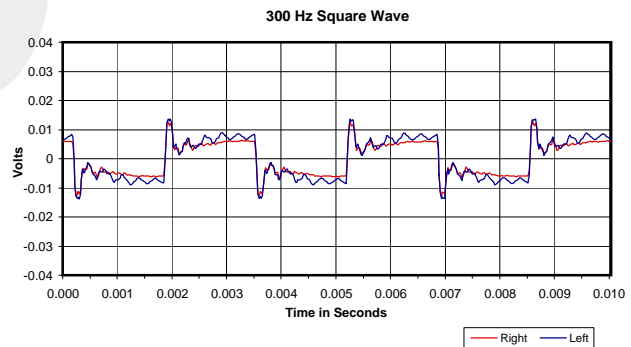
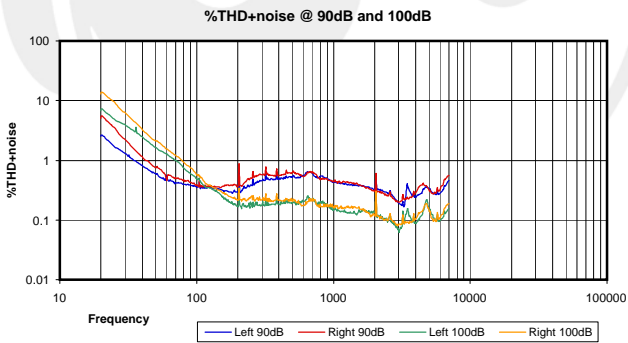
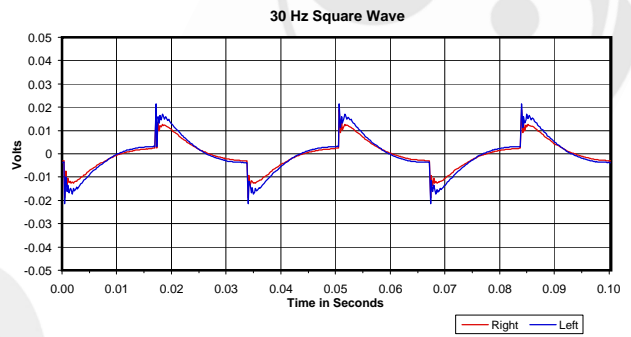
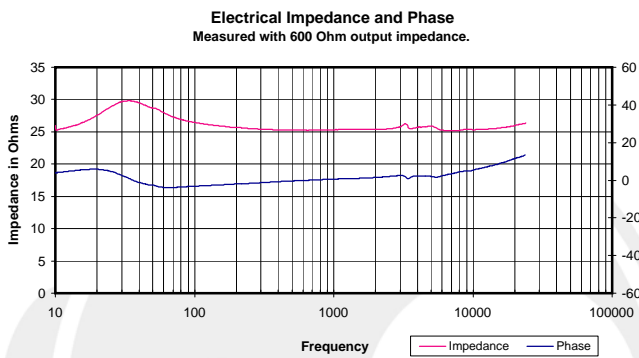
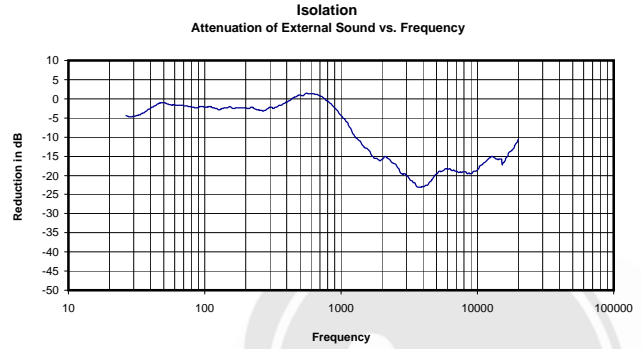
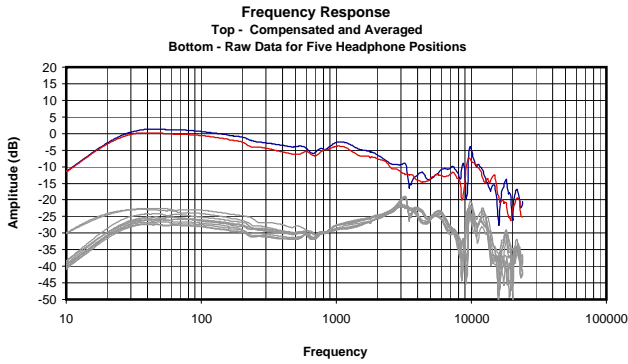
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.053 Vrms
 52 Ohms
 0.05 mW
 -14 dB

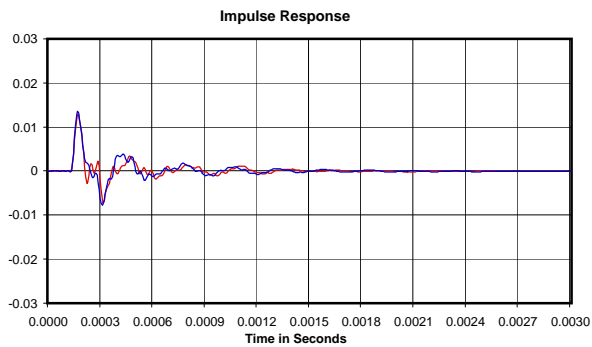
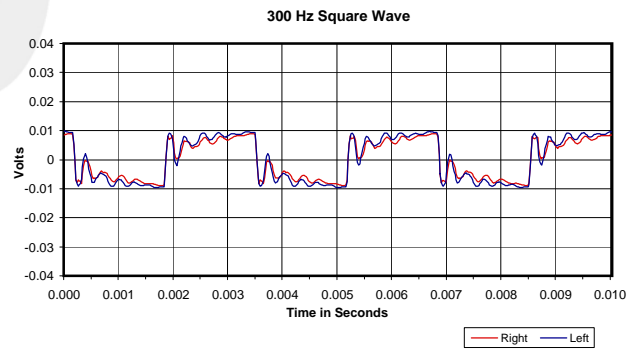
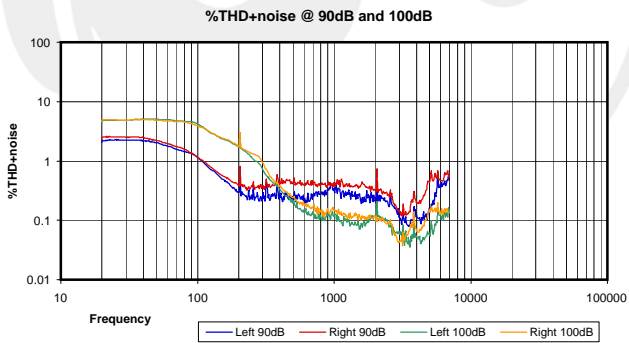
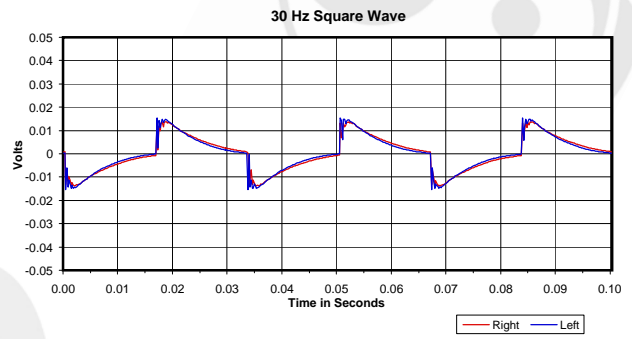
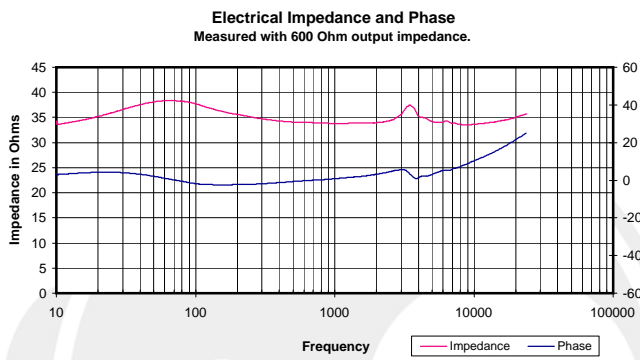
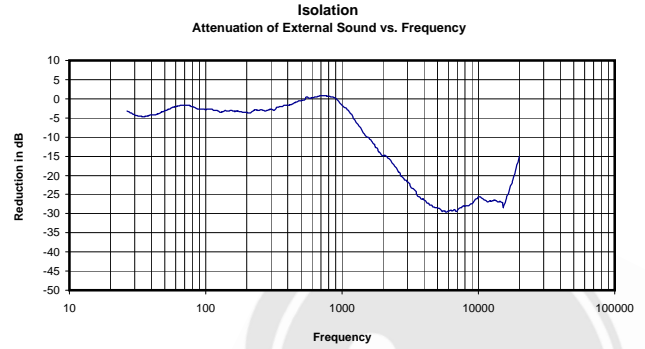
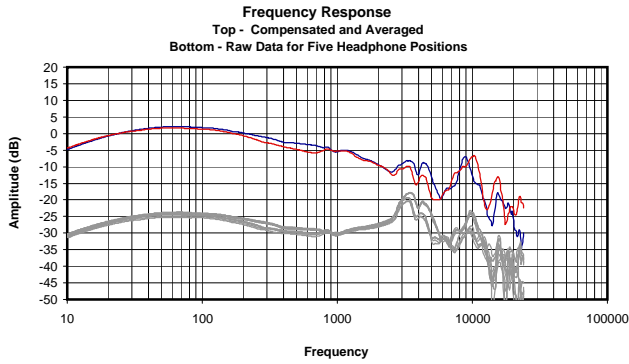




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.068 Vrms
25 Ohms
0.18 mW
-9 dBr



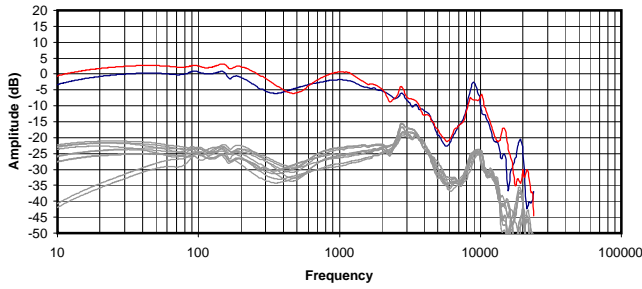


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

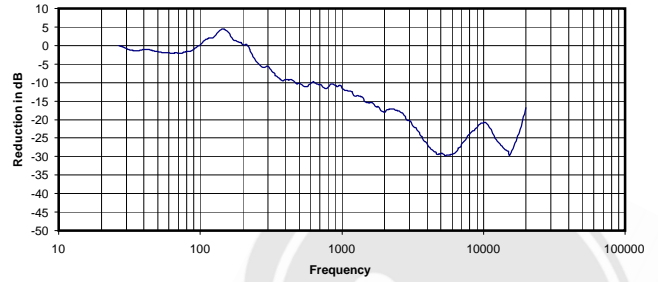
0.052 Vrms
34 Ohms
0.08 mW
-11 dBr



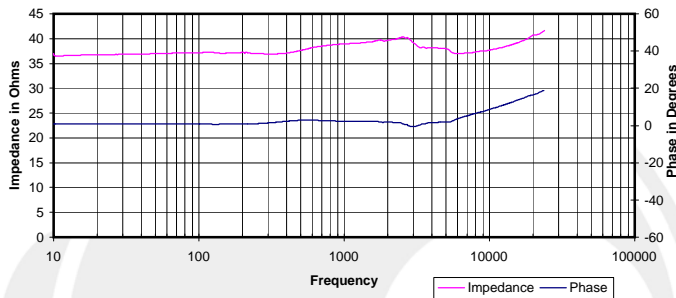
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



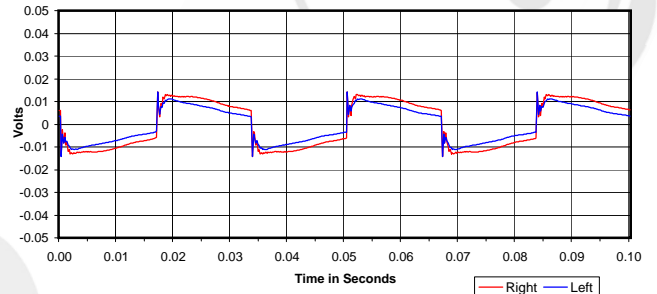
Isolation
 Attenuation of External Sound vs. Frequency



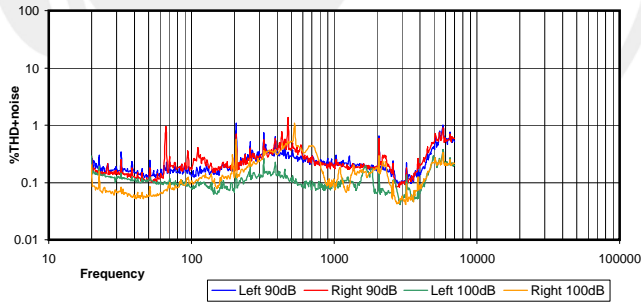
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



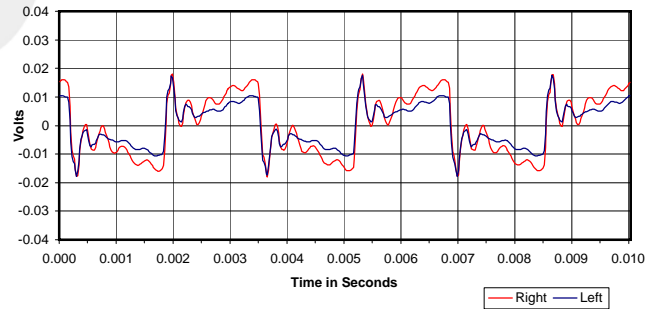
30 Hz Square Wave



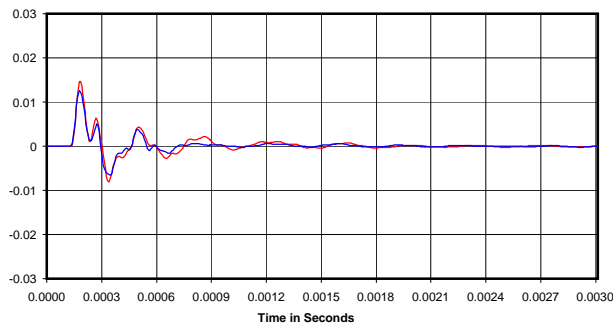
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

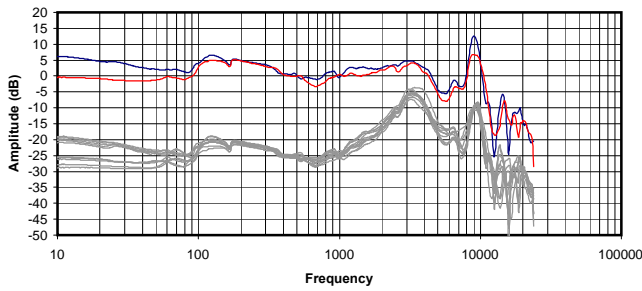


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

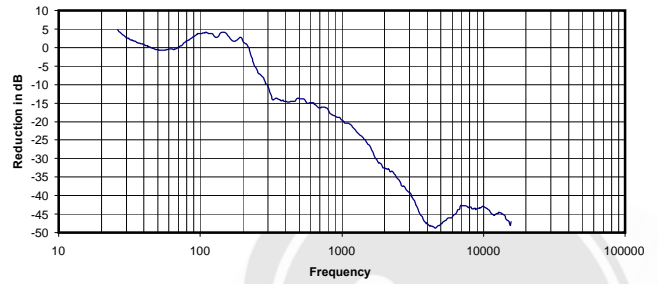
0.028 Vrms
 39 Ohms
 0.02 mW
 -13 dB



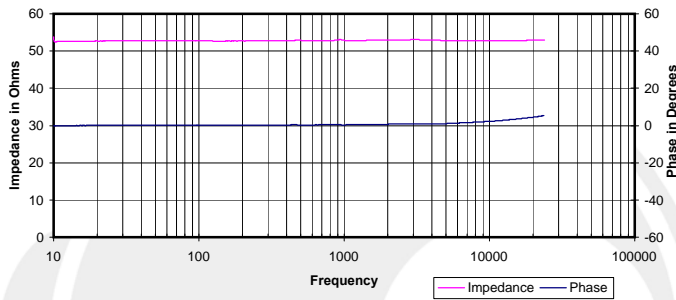
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



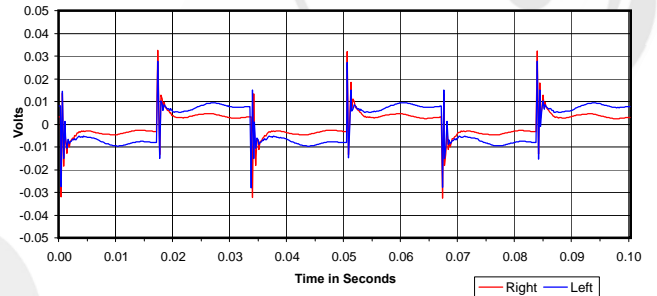
Isolation
Attenuation of External Sound vs. Frequency



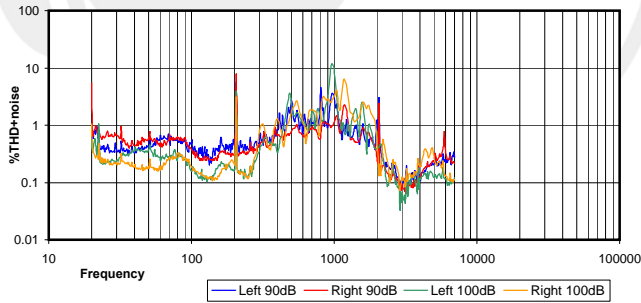
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



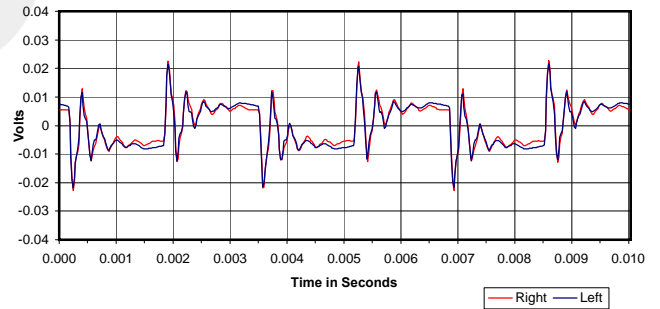
30 Hz Square Wave



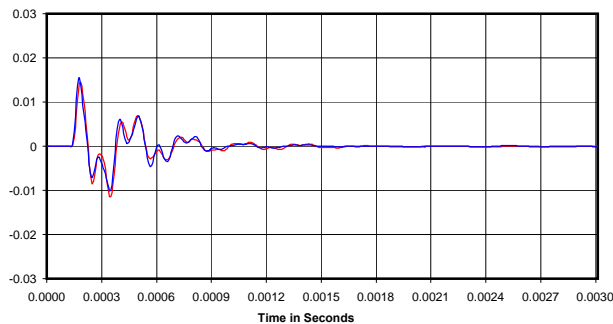
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

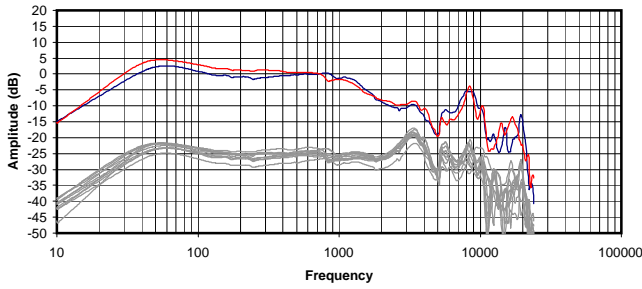


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

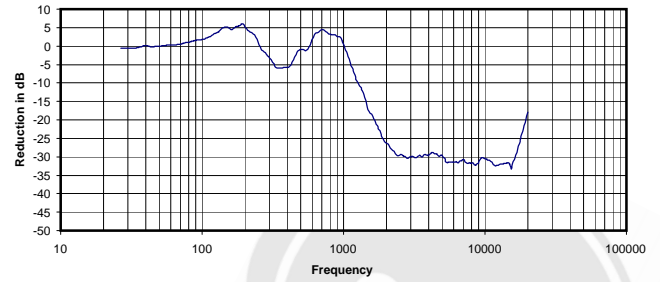
0.458 Vrms
53 Ohms
3.97 mW
-20 dB



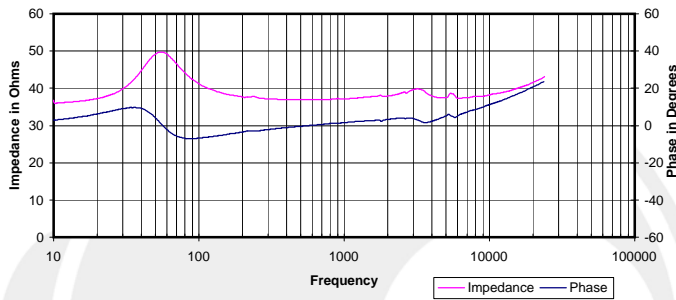
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



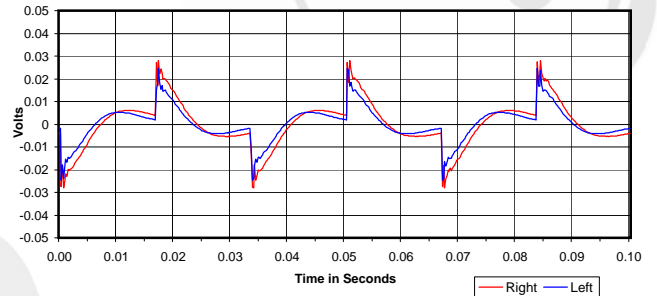
Isolation
Attenuation of External Sound vs. Frequency



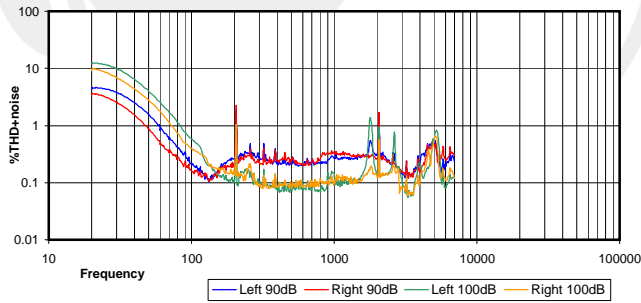
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



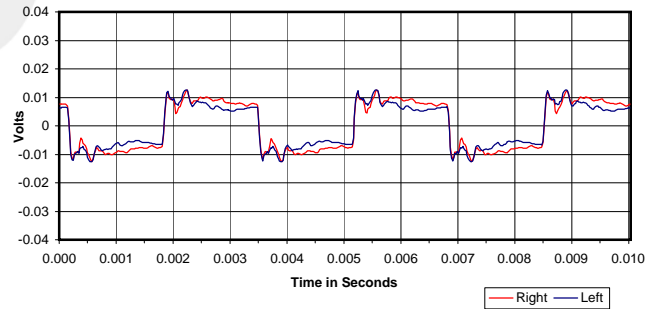
30 Hz Square Wave



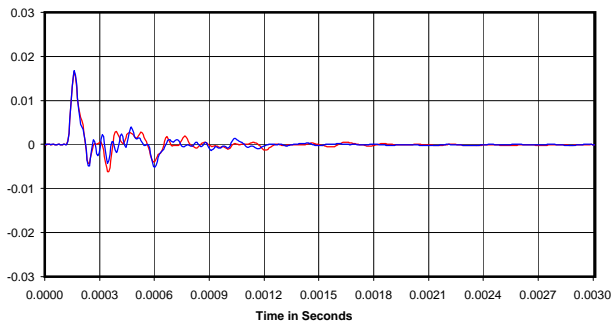
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

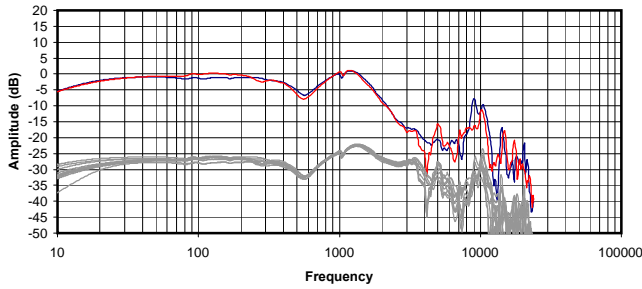


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

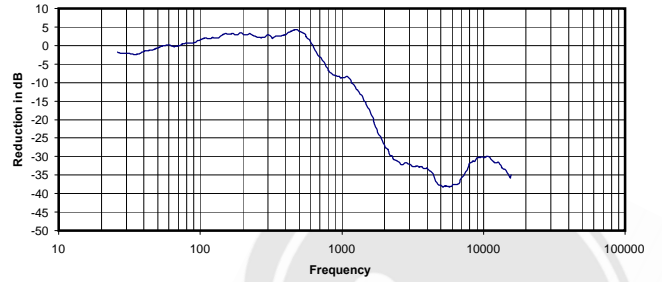
0.031 Vrms
37 Ohms
0.03 mW
-12 dB



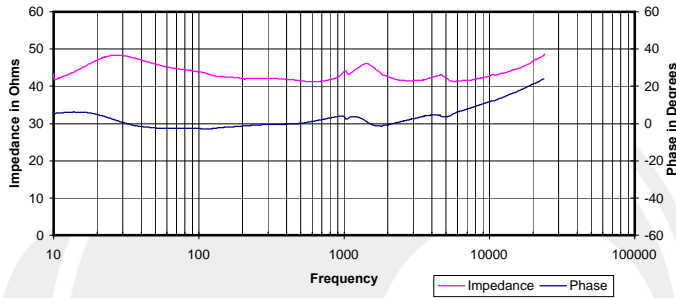
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



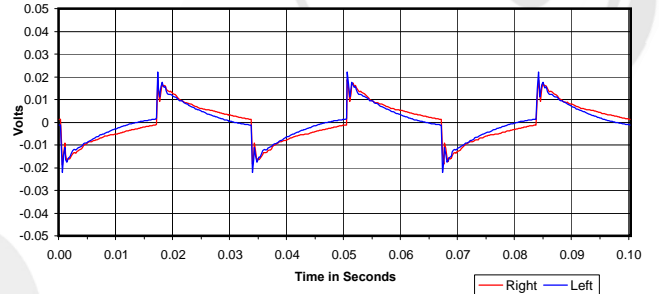
Isolation
Attenuation of External Sound vs. Frequency



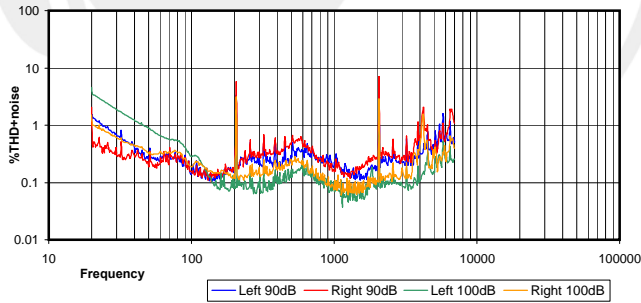
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



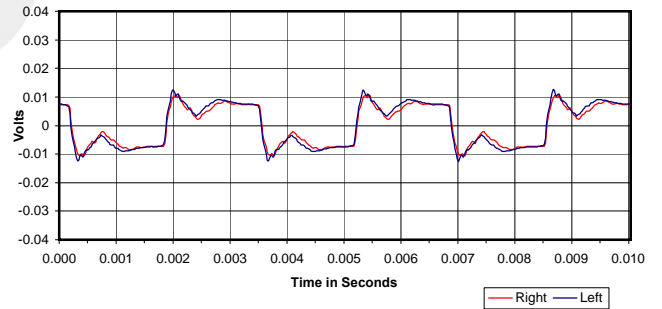
30 Hz Square Wave



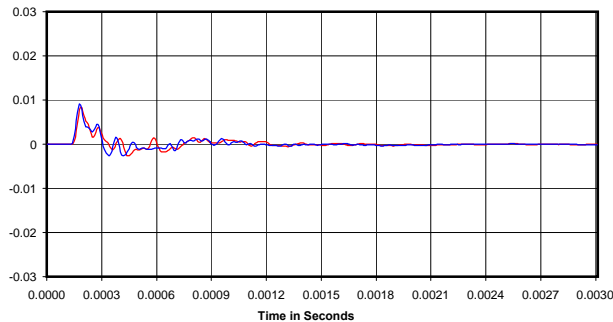
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



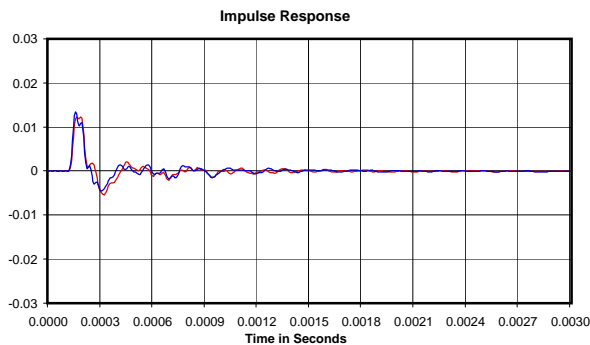
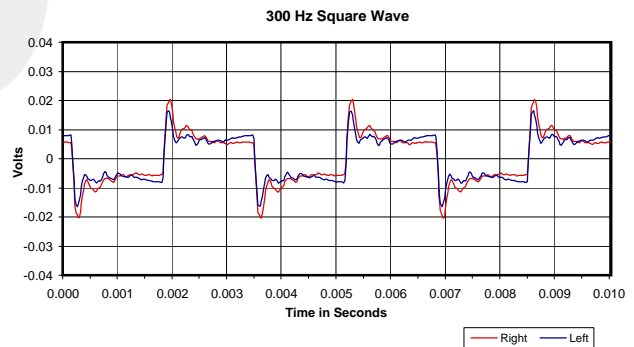
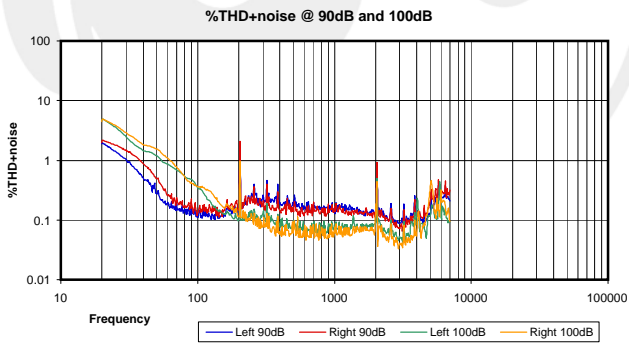
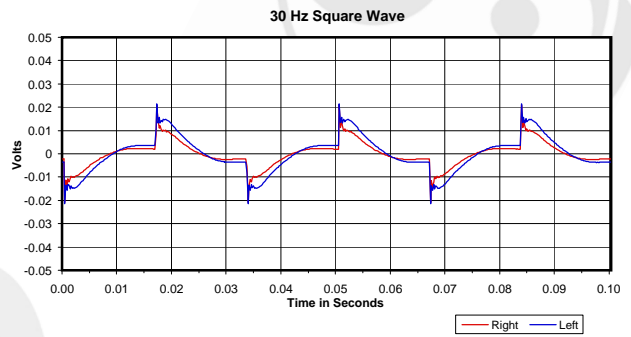
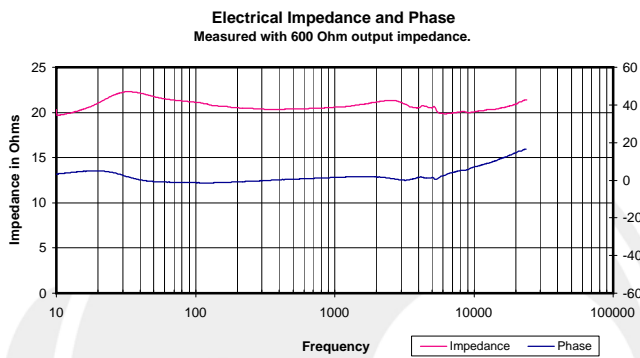
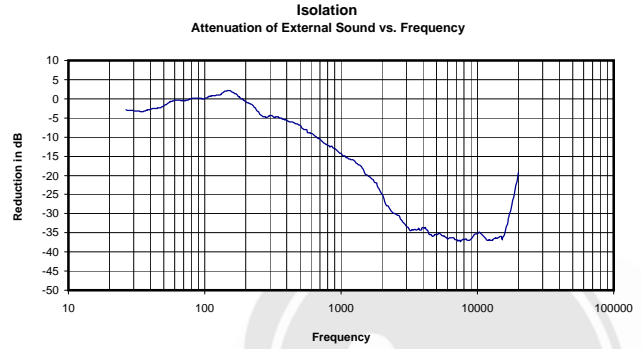
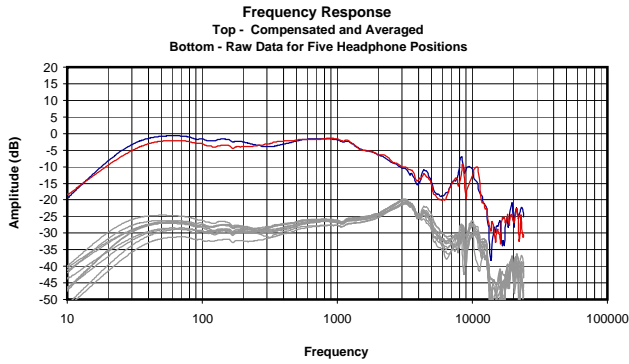
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
43 Ohms
0.01 mW
-11 dB

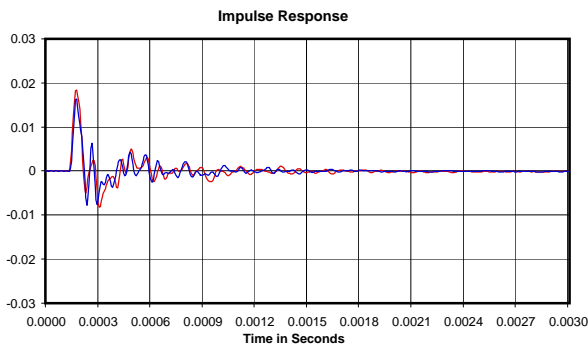
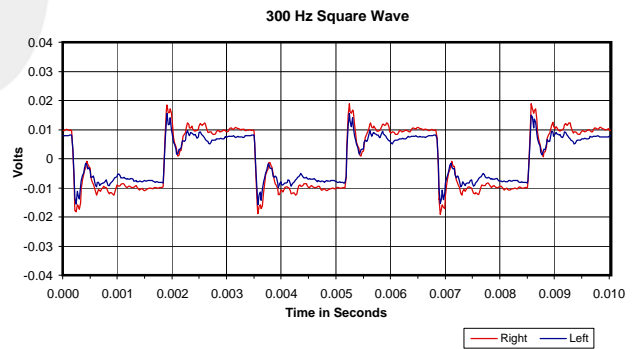
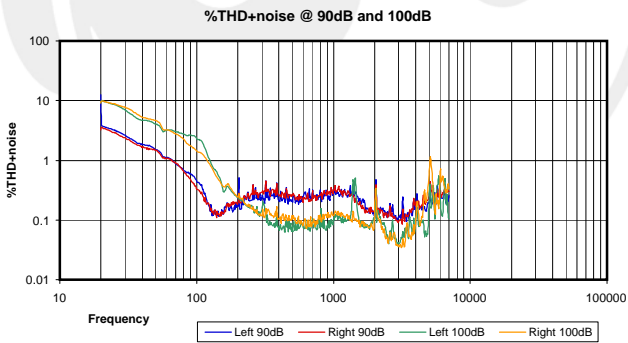
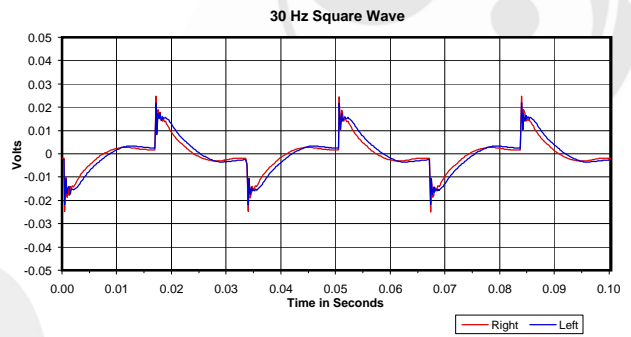
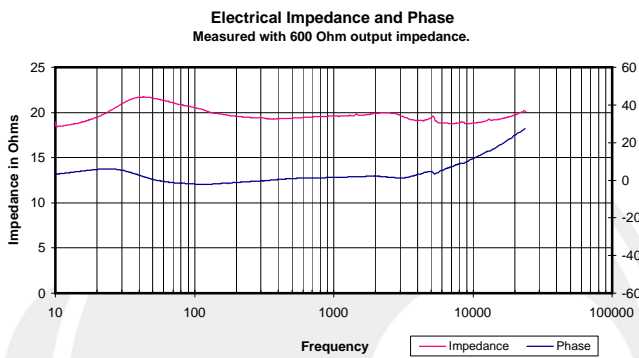
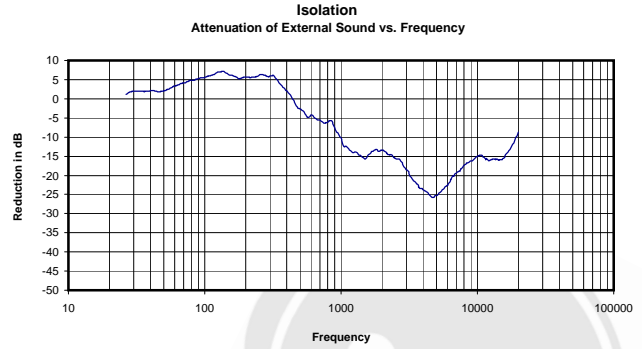
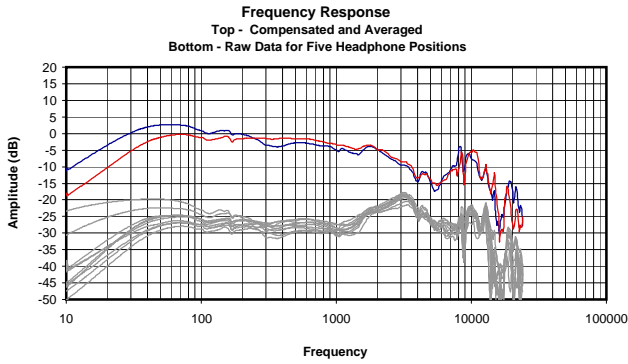




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
21 Ohms
0.02 mW
-17 dB

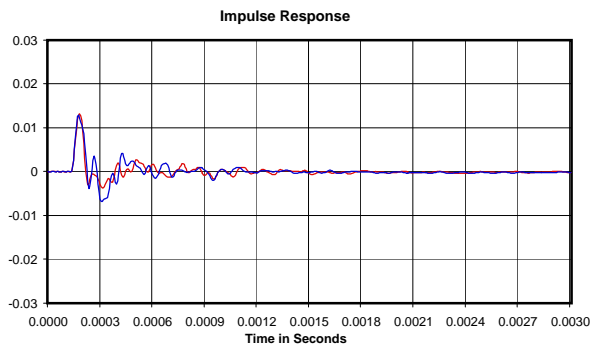
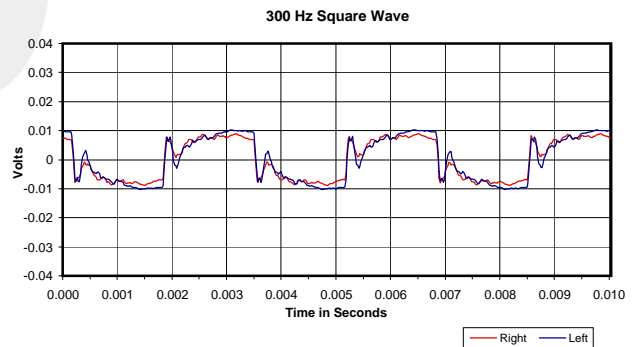
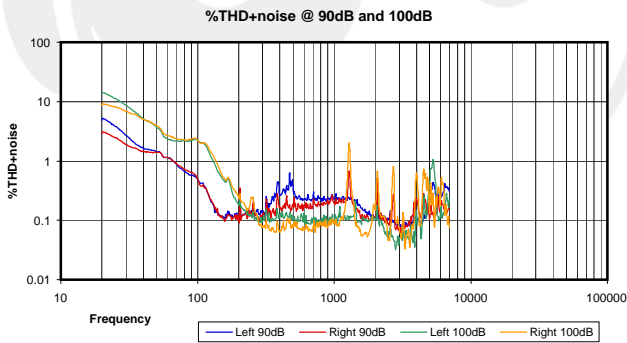
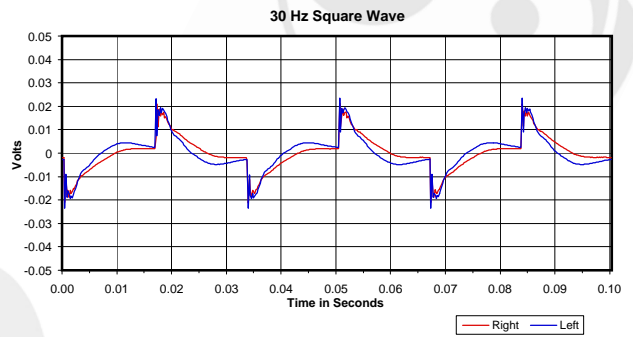
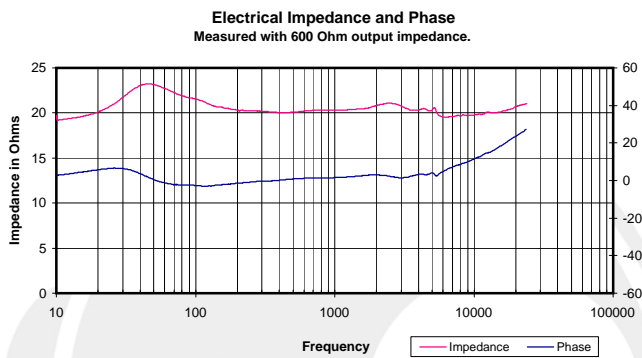
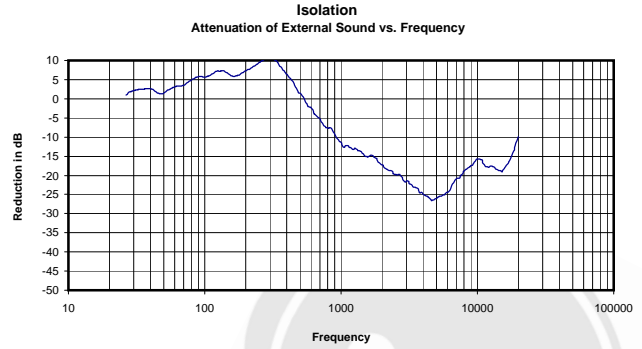
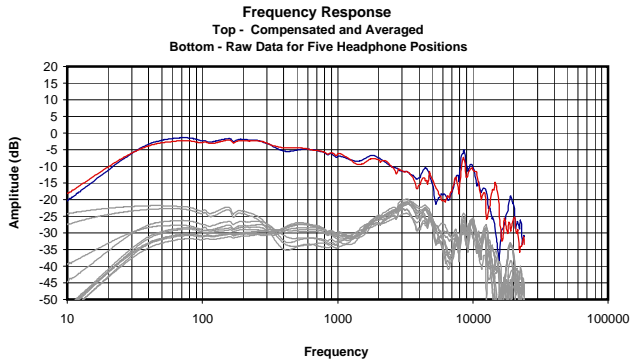




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
20 Ohms
0.10 mW
-8 dBr

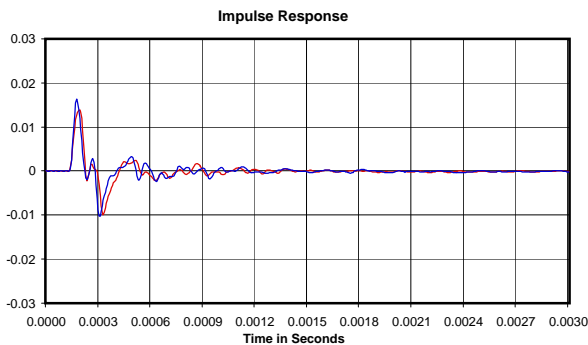
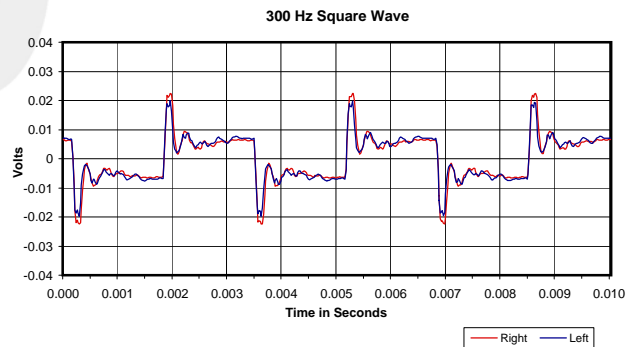
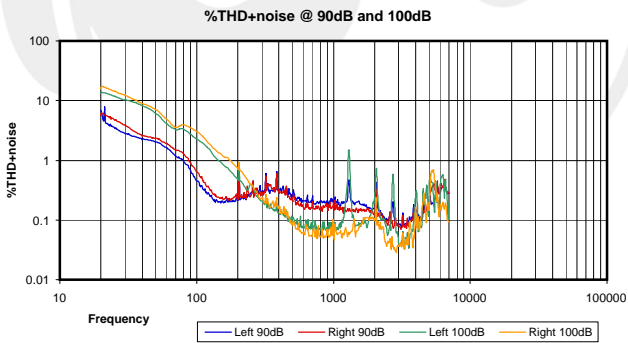
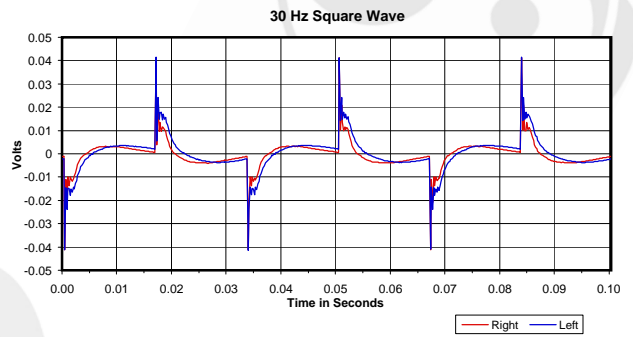
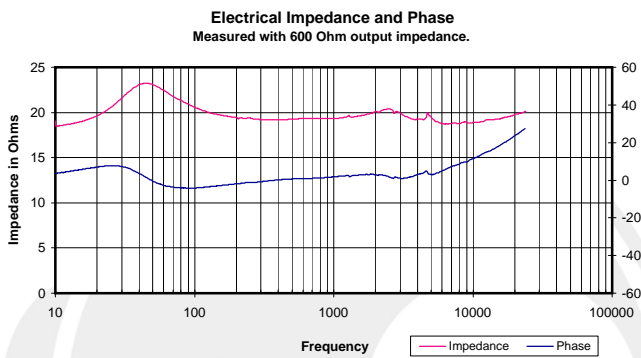
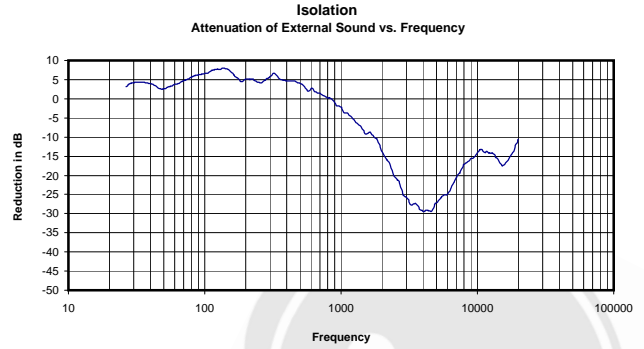
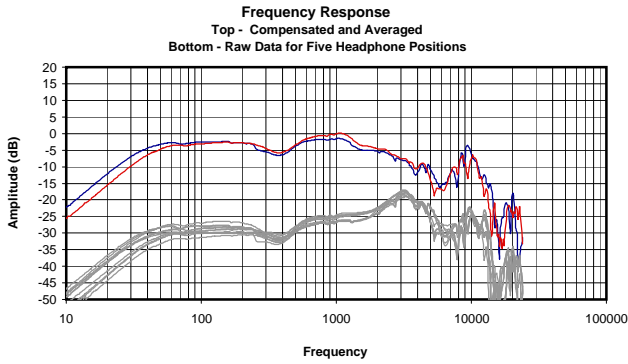




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
20 Ohms
0.08 mW
-8 dBr



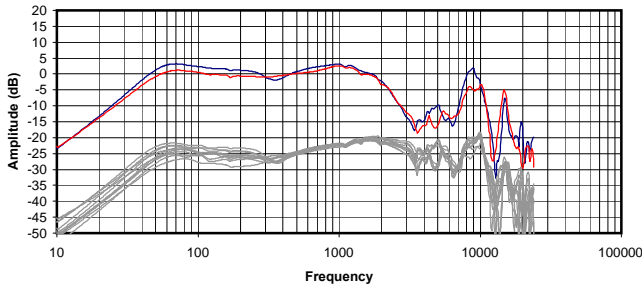


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

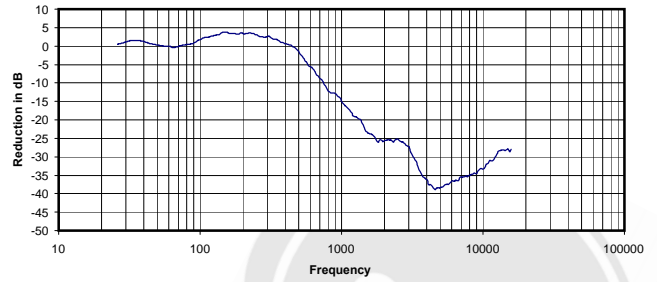
0.027 Vrms
19 Ohms
0.04 mW
-7 dBr



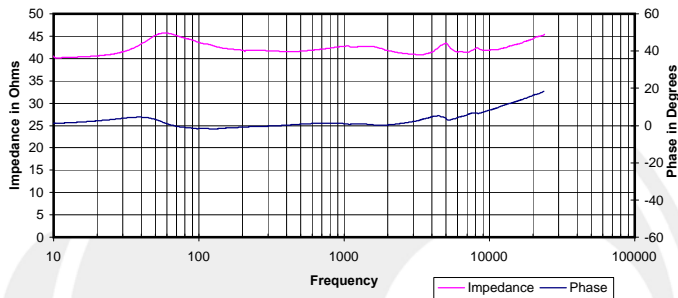
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



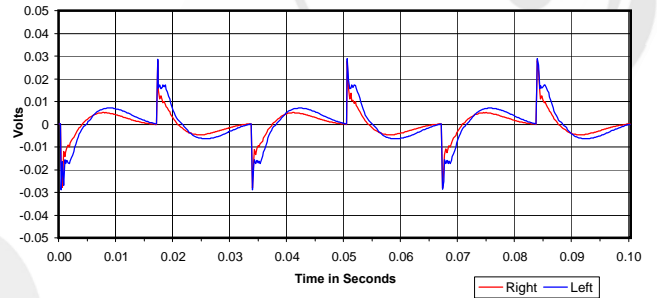
Isolation
 Attenuation of External Sound vs. Frequency



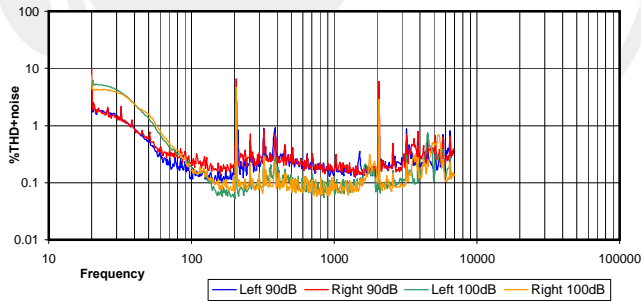
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



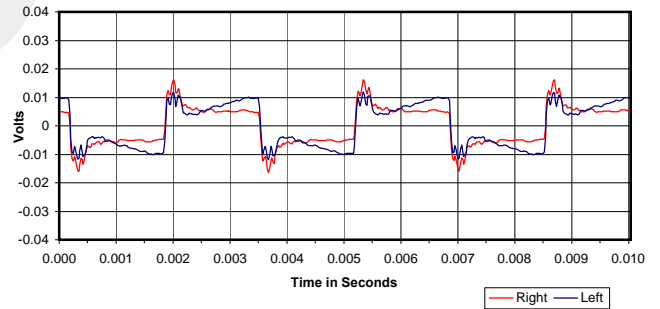
30 Hz Square Wave



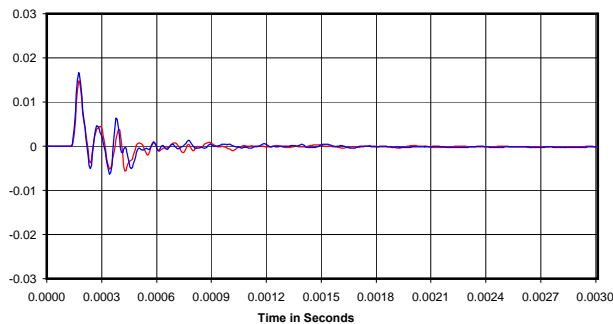
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

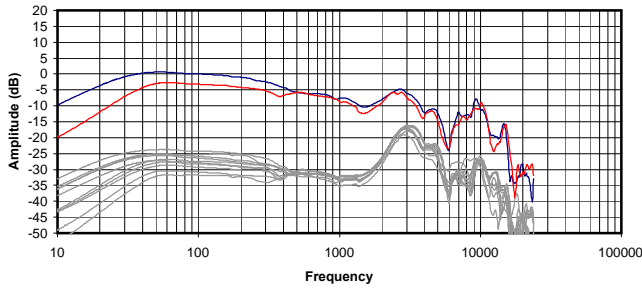


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

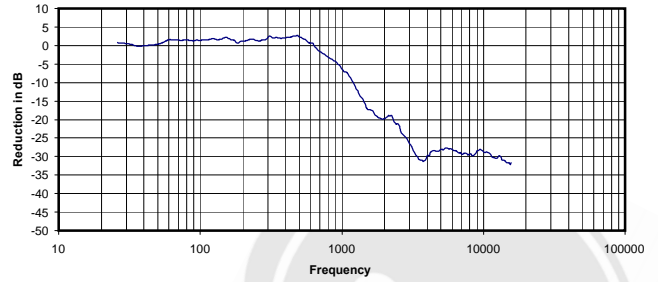
0.025 Vrms
 43 Ohms
 0.01 mW
 -13 dB



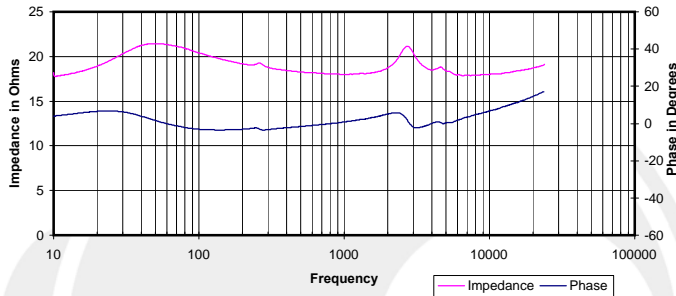
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



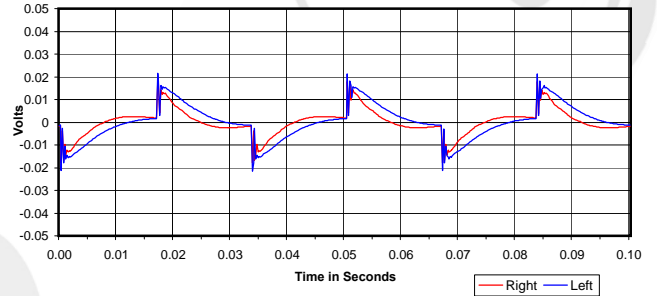
Isolation
Attenuation of External Sound vs. Frequency



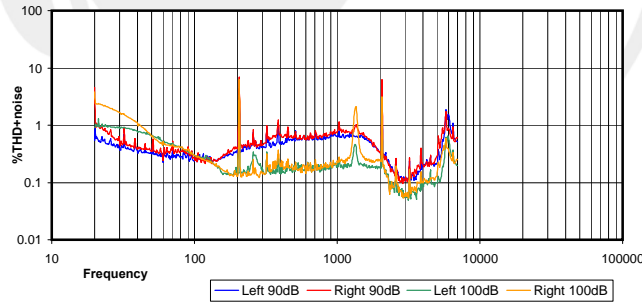
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



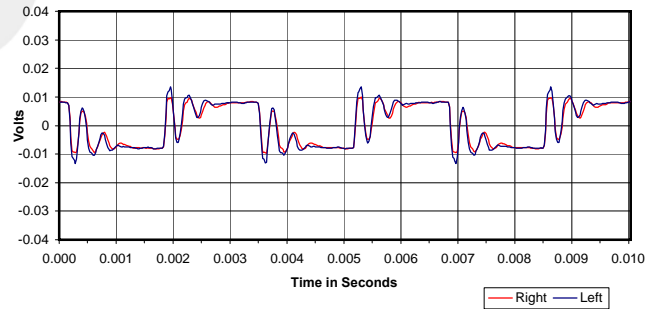
30 Hz Square Wave



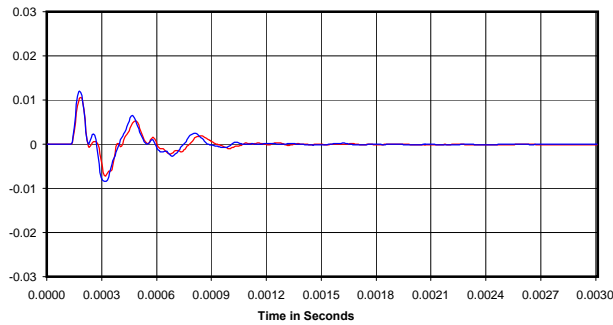
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

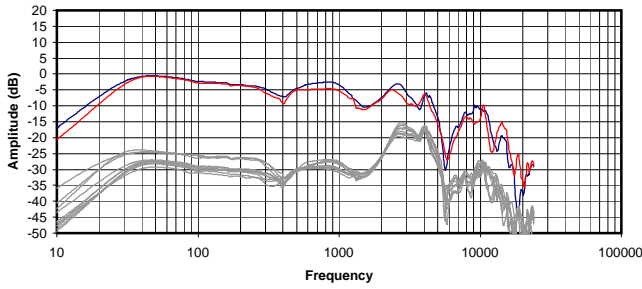


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

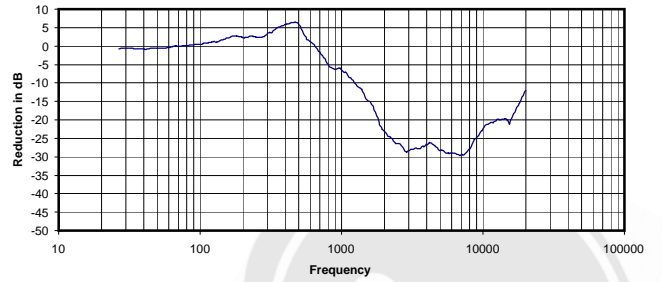
0.034 Vrms
18 Ohms
0.06 mW
-9 dBr



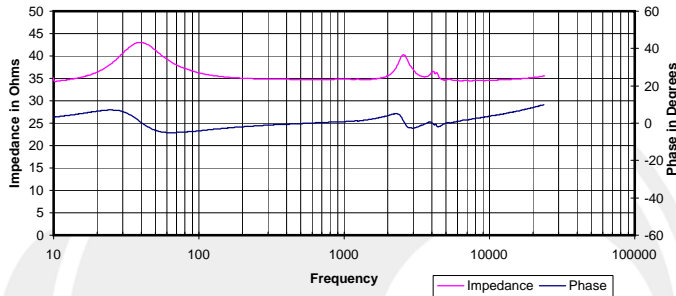
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



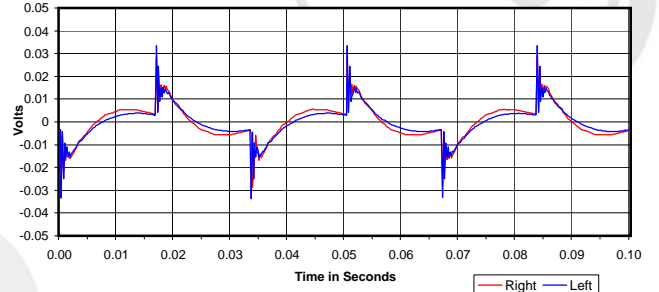
Isolation
 Attenuation of External Sound vs. Frequency



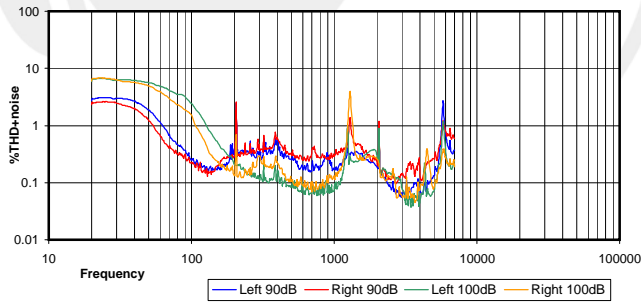
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



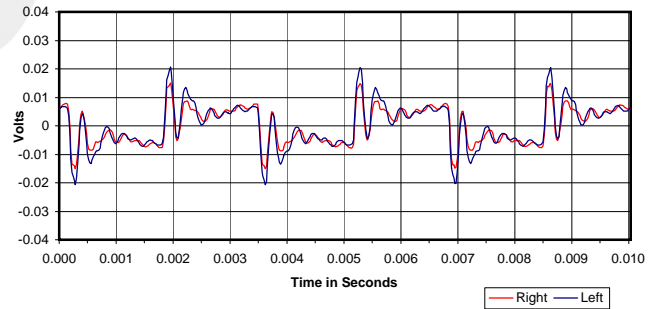
30 Hz Square Wave



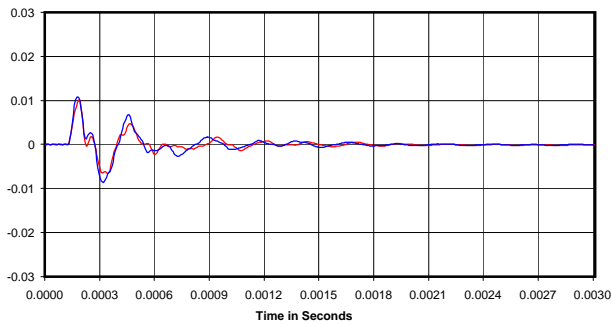
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

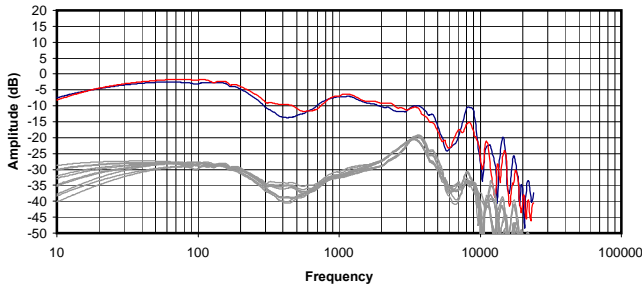


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

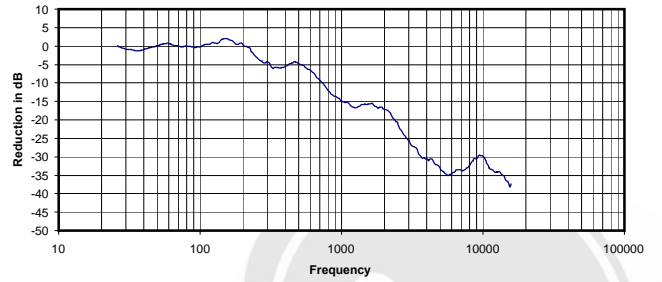
0.028 Vrms
 35 Ohms
 0.02 mW
 -11 dB



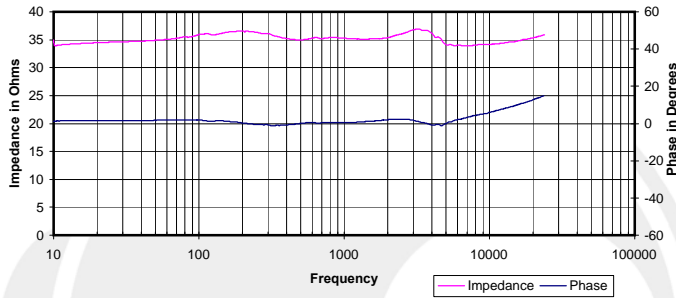
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



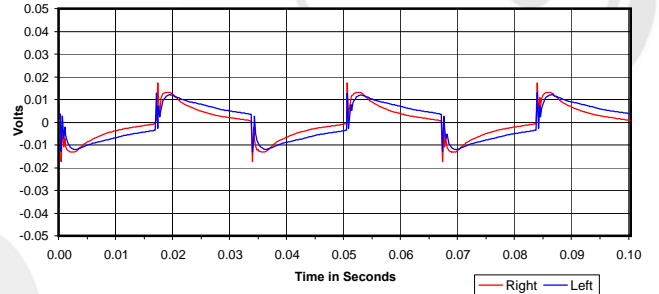
Isolation
 Attenuation of External Sound vs. Frequency



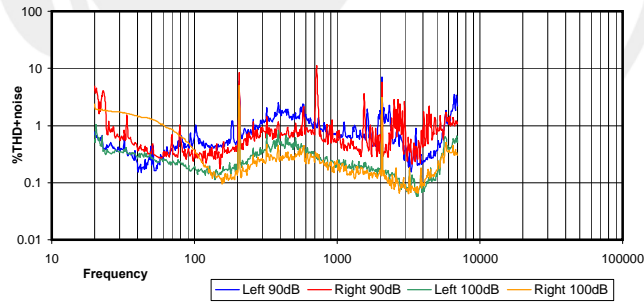
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



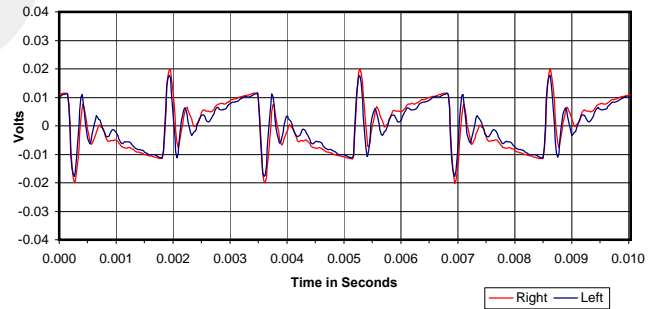
30 Hz Square Wave



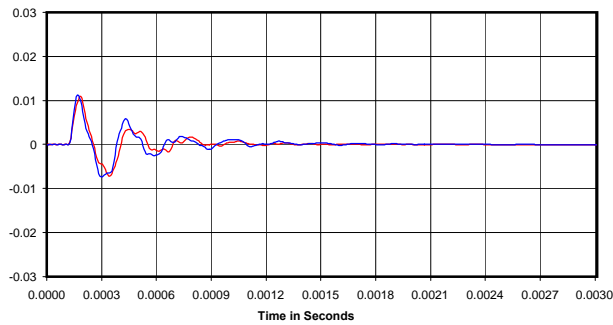
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



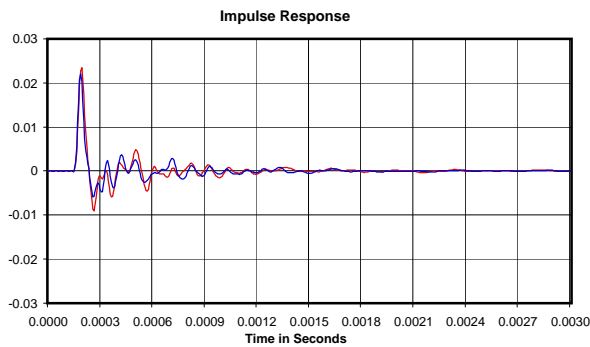
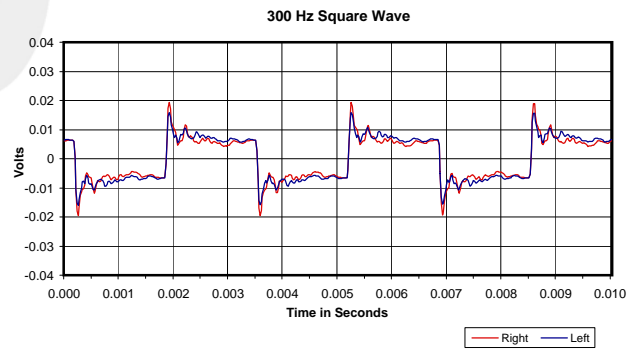
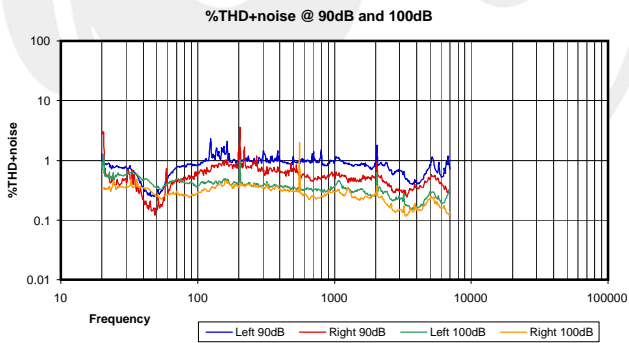
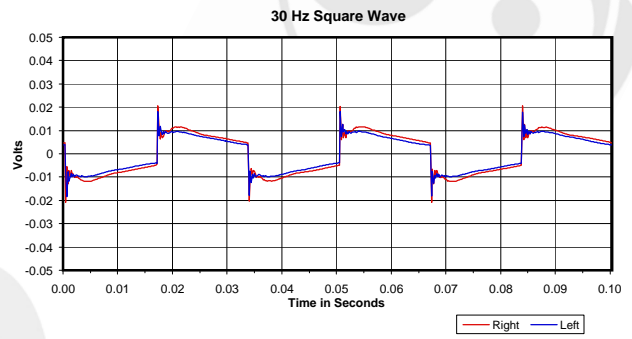
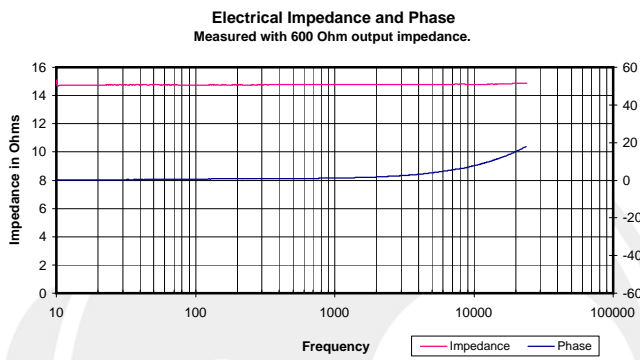
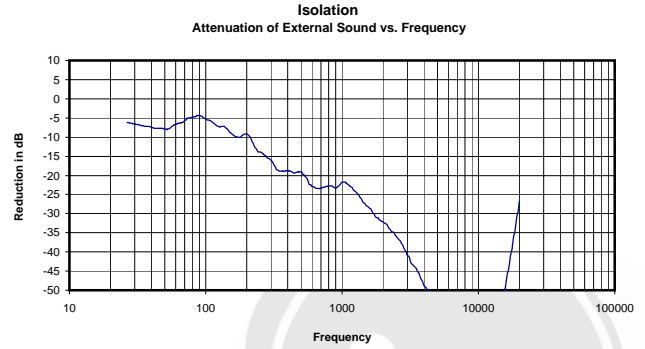
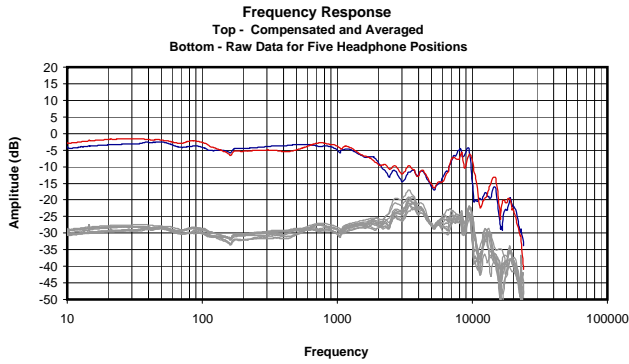
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
 35 Ohms
 0.02 mW
 -12 dB

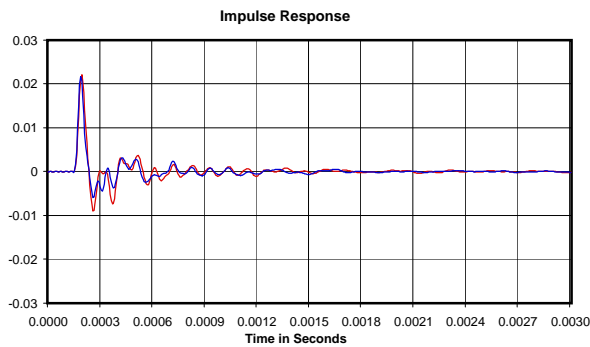
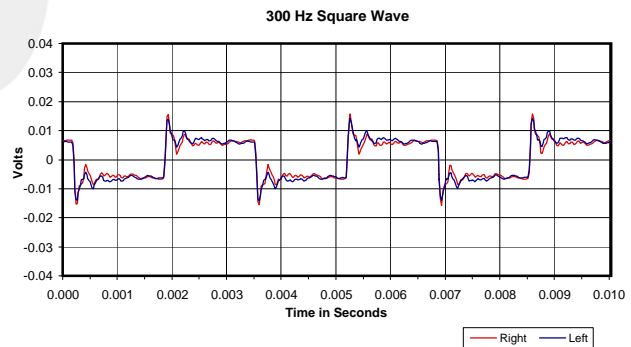
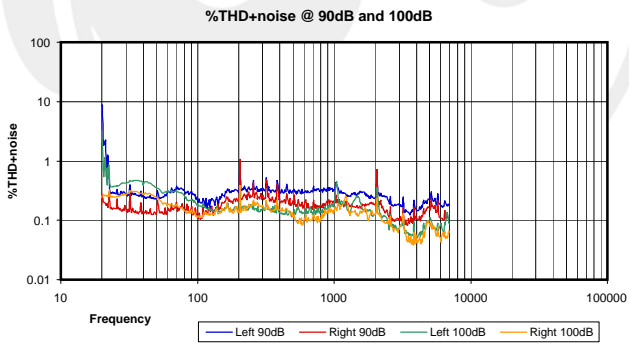
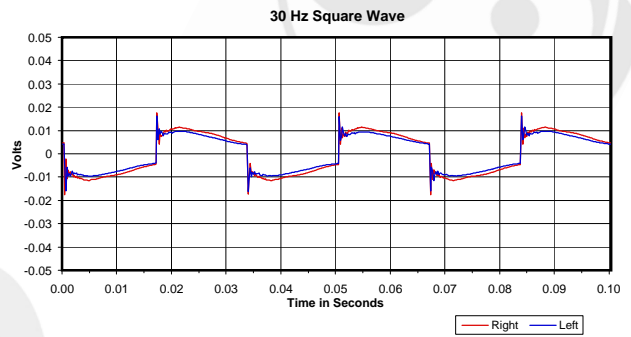
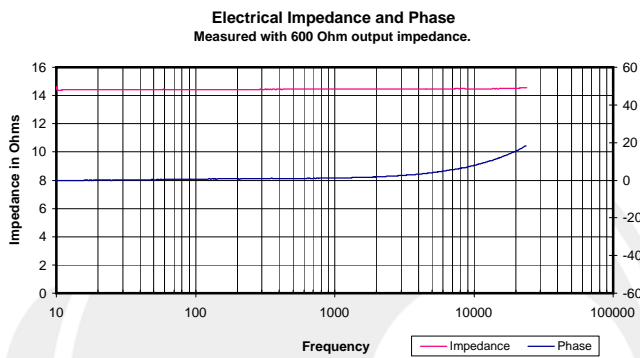
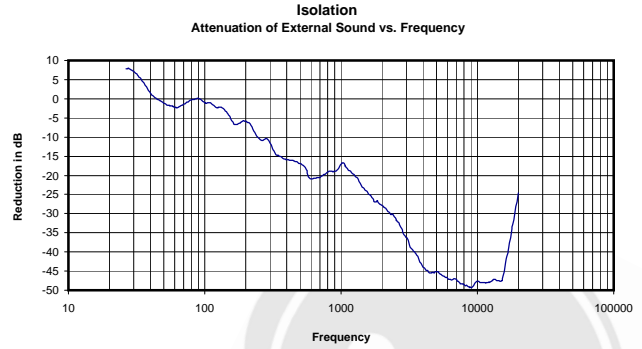
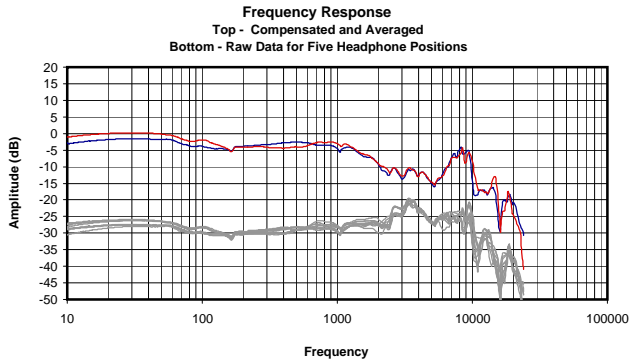




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.445 Vrms
15 Ohms
13.42 mW
-28 dB

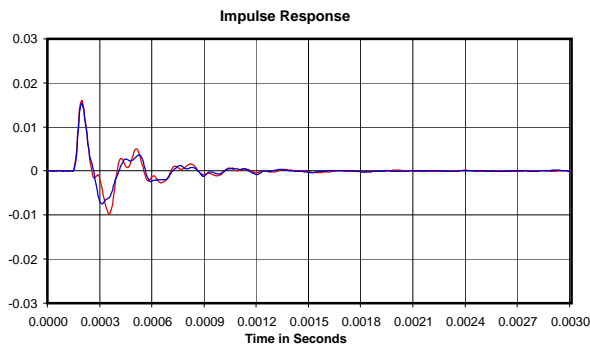
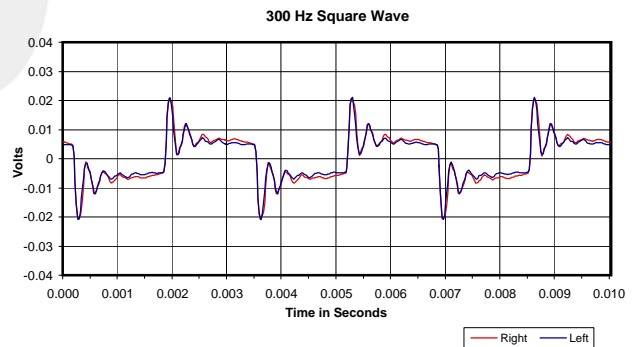
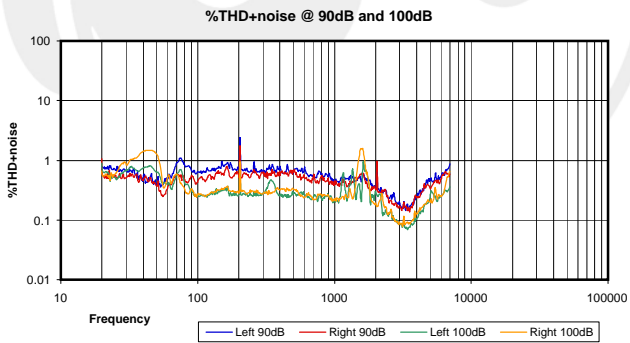
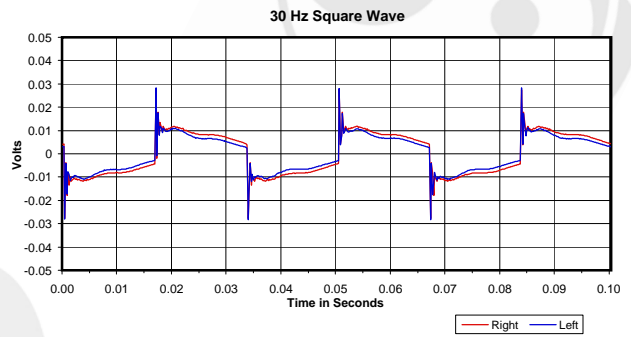
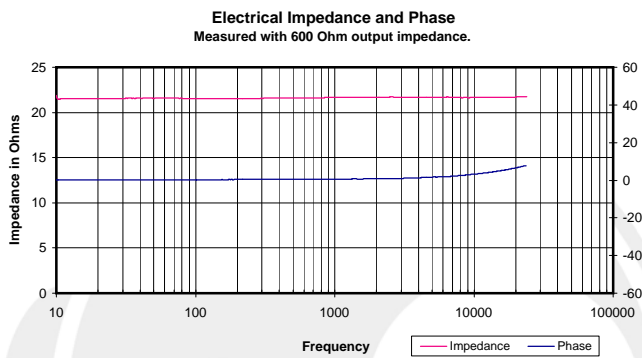
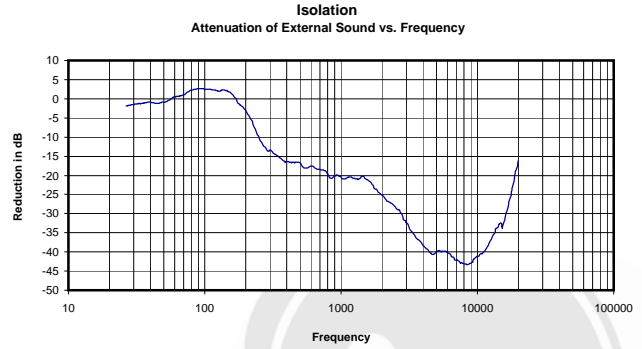
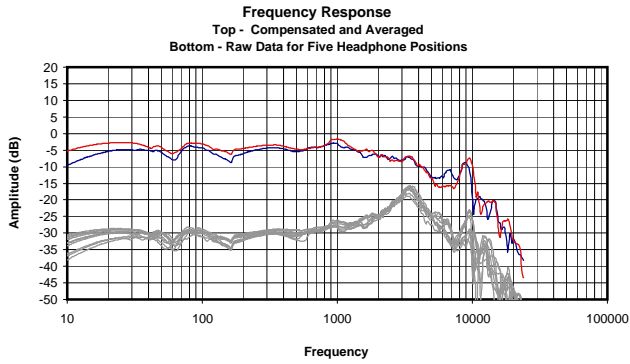




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.196 Vrms
14 Ohms
2.65 mW
-24 dB

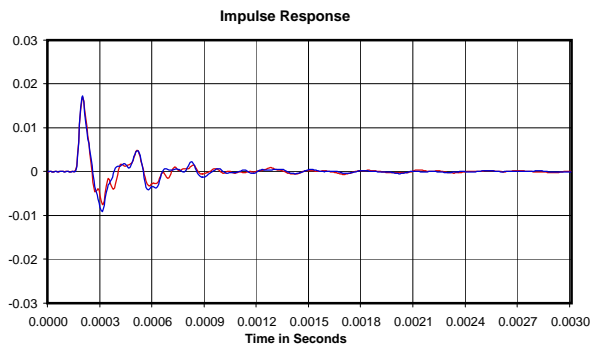
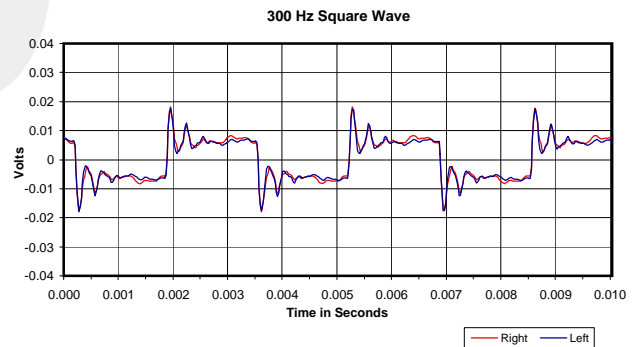
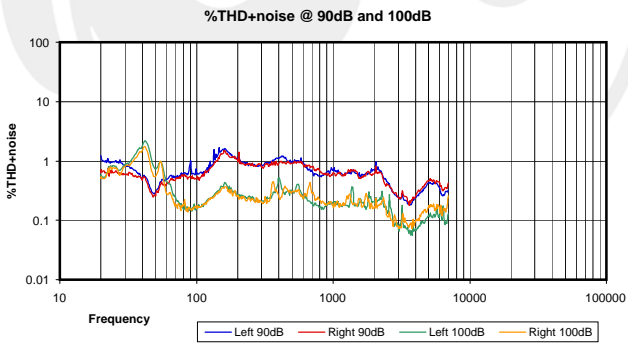
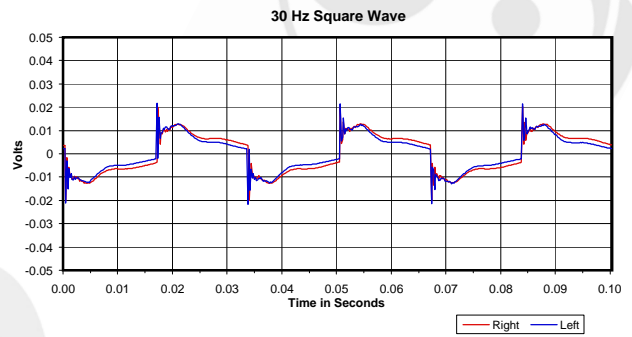
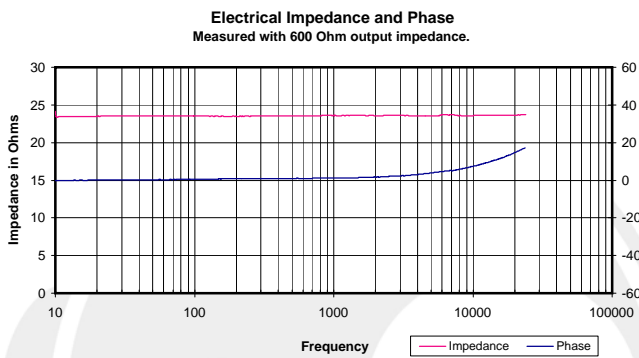
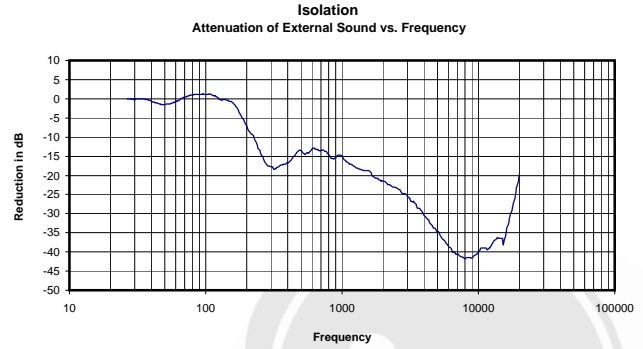
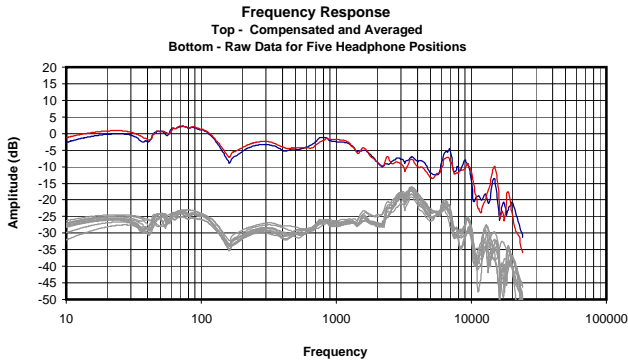




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.117 Vrms
22 Ohms
0.64 mW
-22 dB

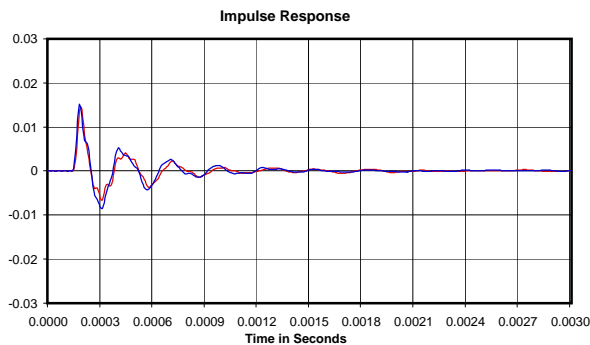
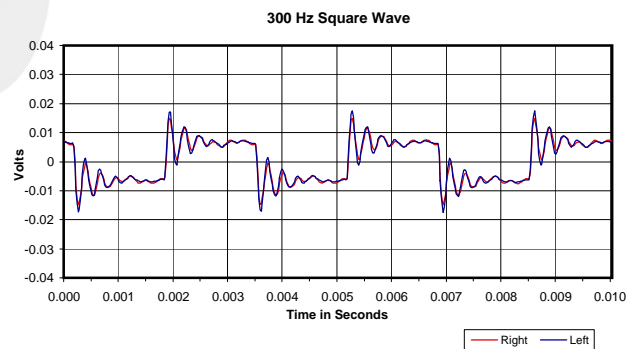
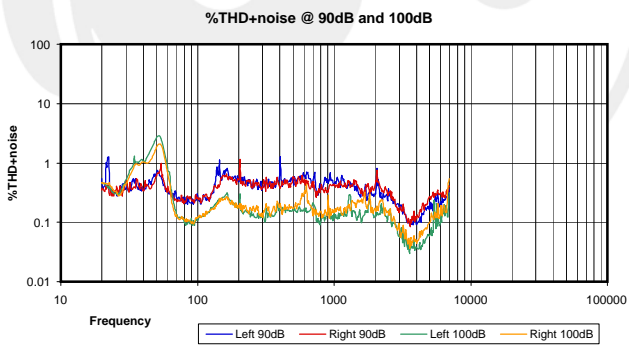
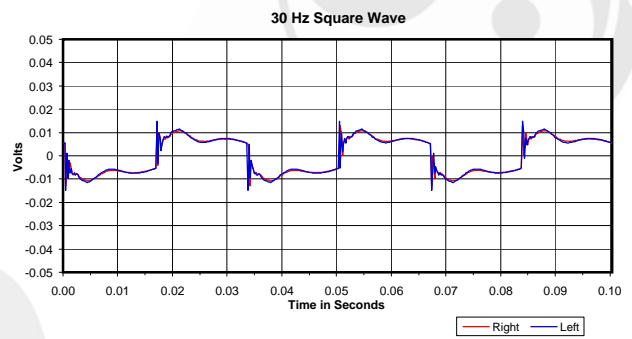
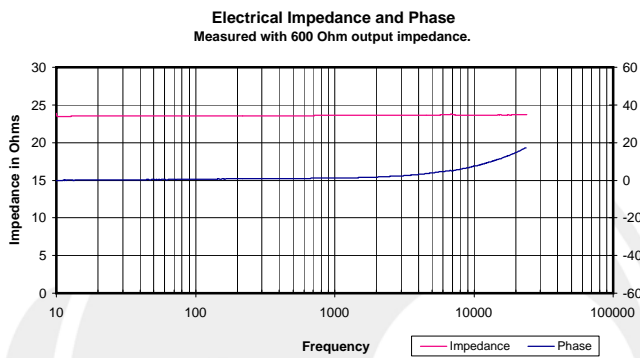
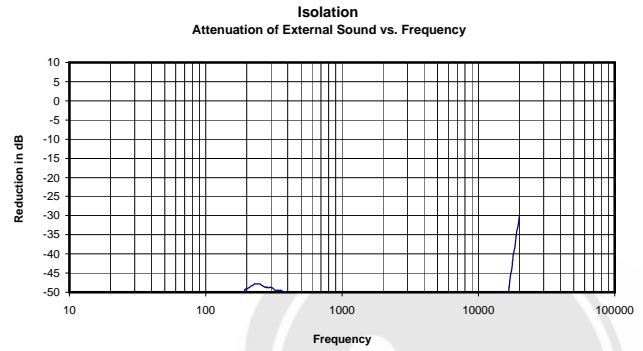
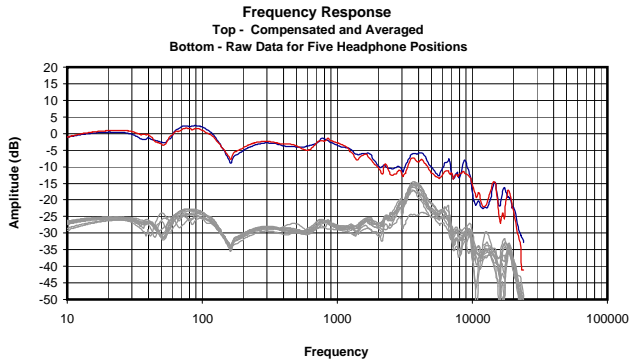




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.230 Vrms
24 Ohms
2.25 mW
-20 dBr

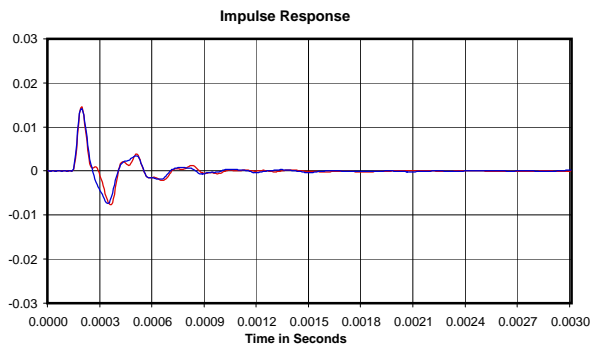
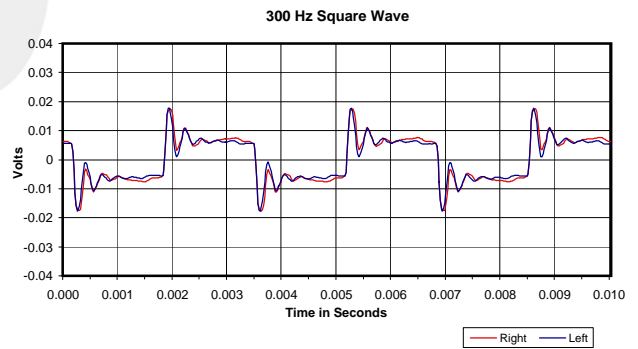
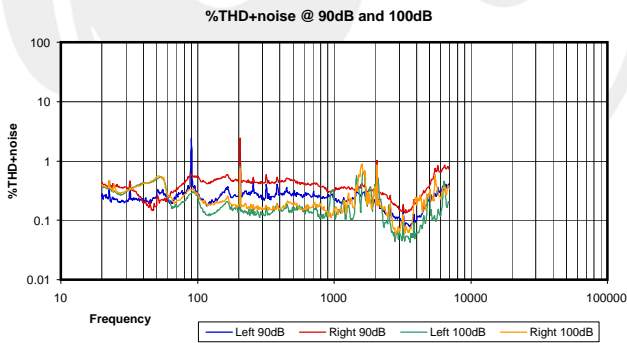
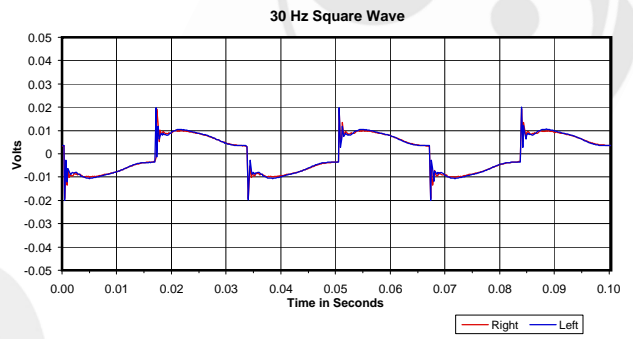
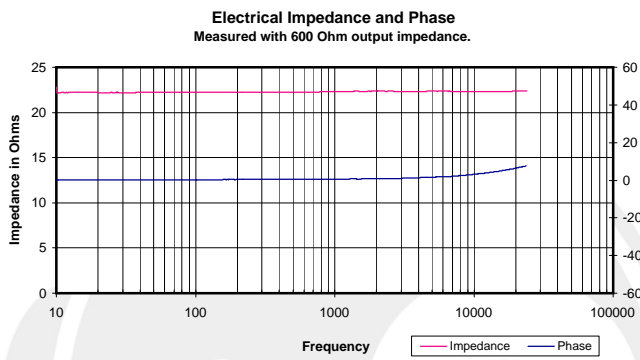
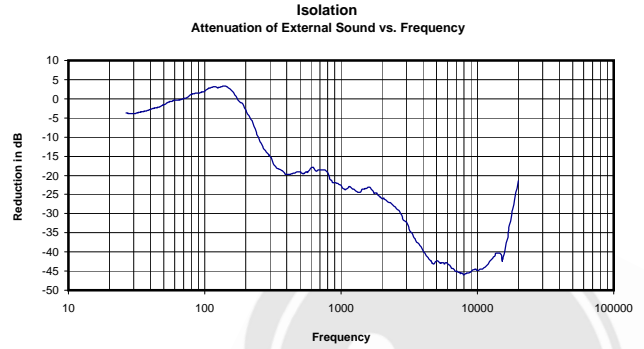
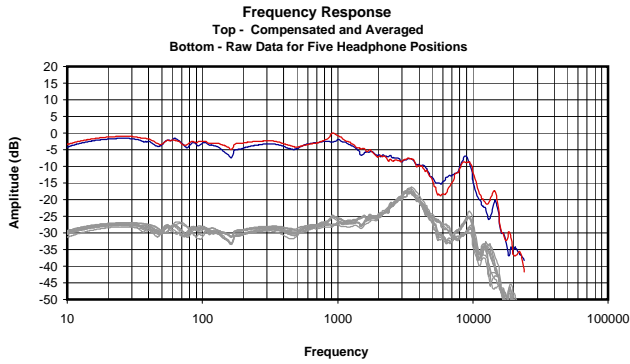




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.228 Vrms
24 Ohms
2.21 mW
-59 dBr

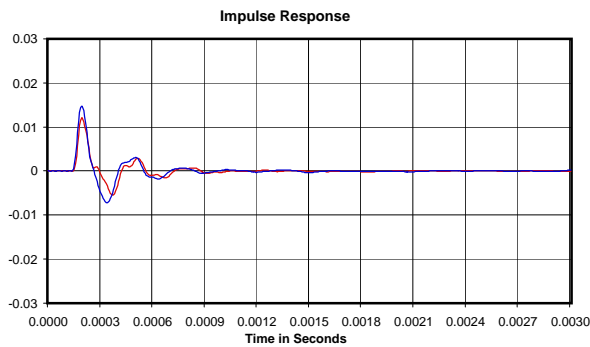
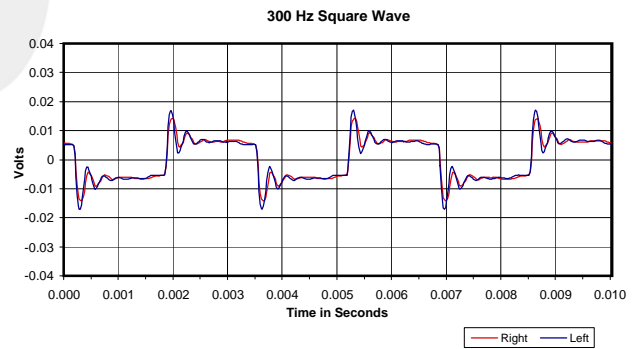
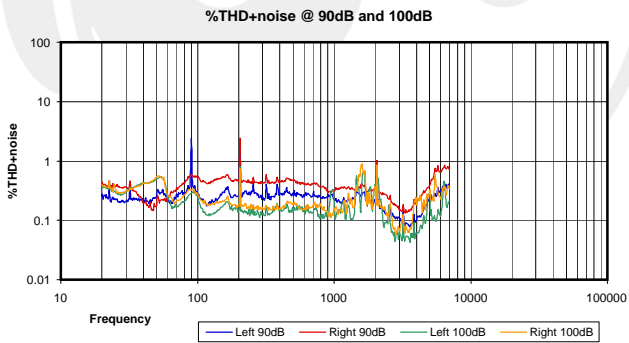
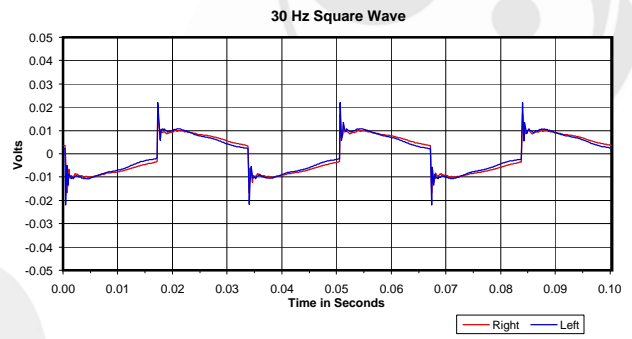
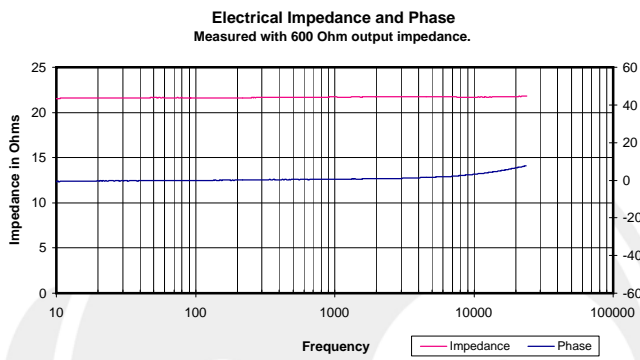
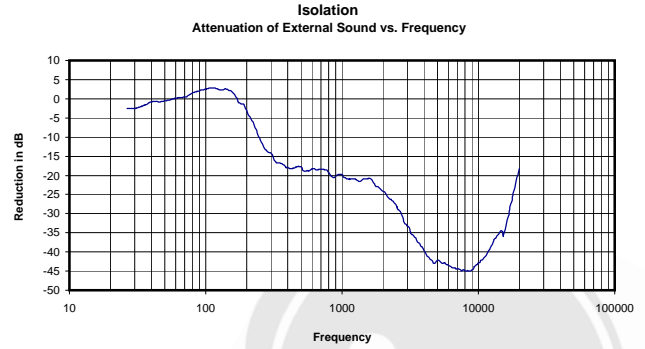
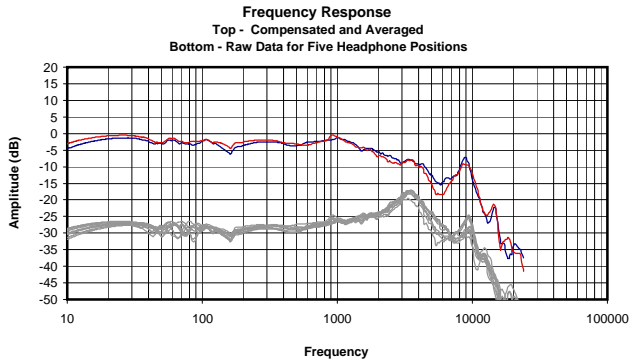




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.133 Vrms
22 Ohms
0.79 mW
-23 dBr

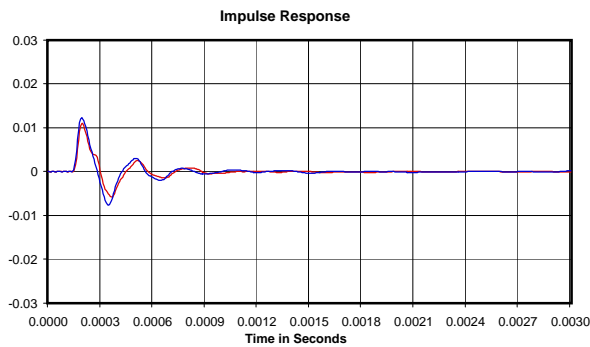
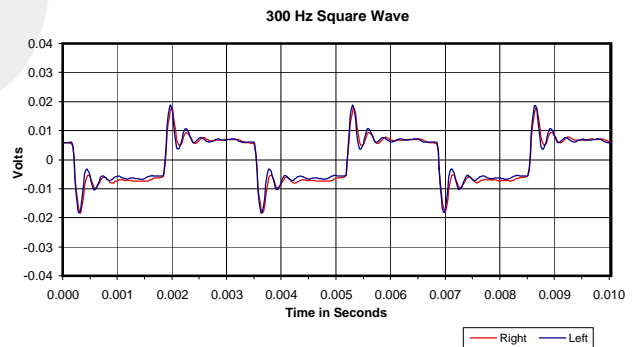
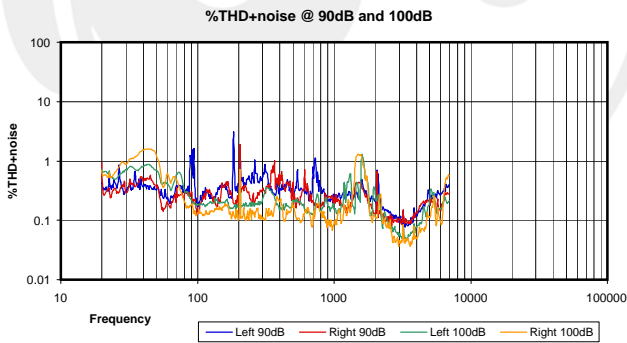
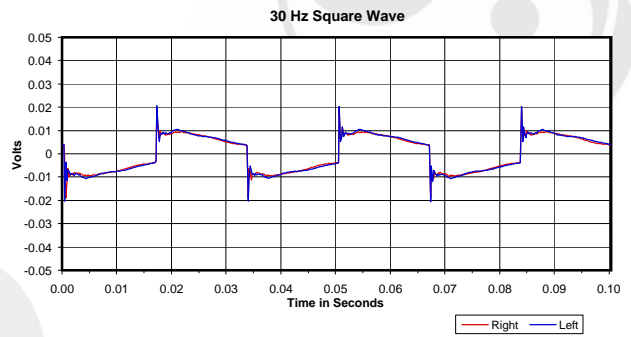
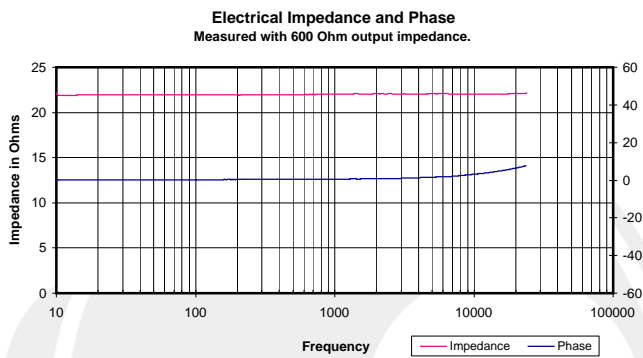
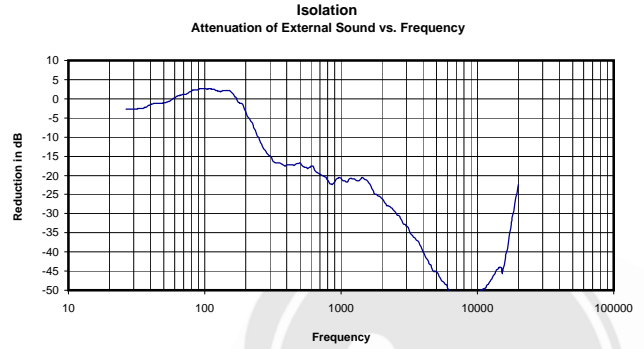
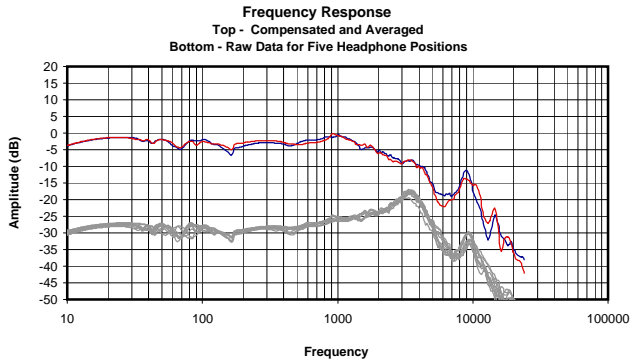




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.127 Vrms
22 Ohms
0.74 mW
-22 dB



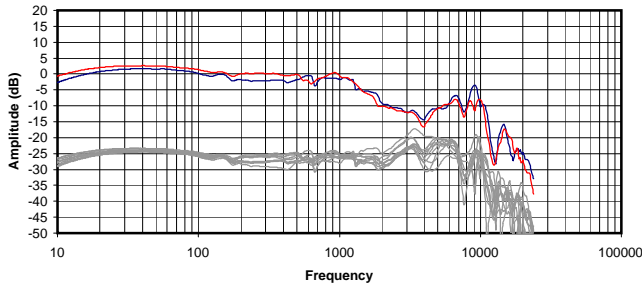


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

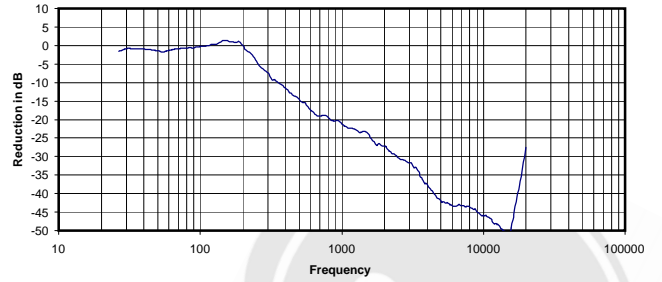
0.113 Vrms
22 Ohms
0.58 mW
-24 dB



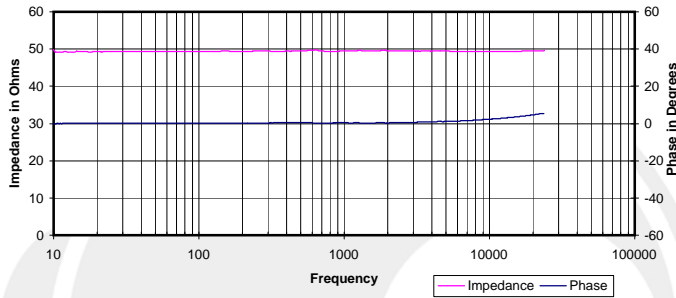
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



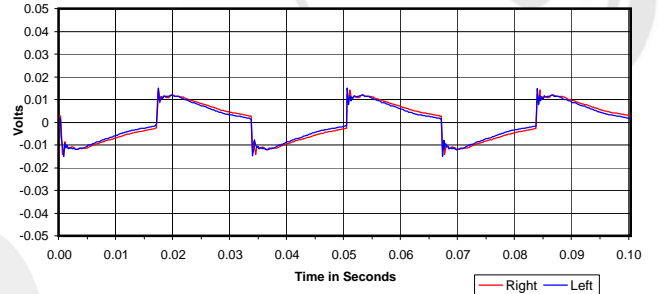
Isolation
 Attenuation of External Sound vs. Frequency



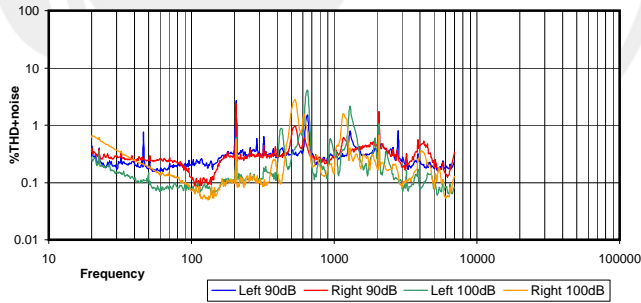
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



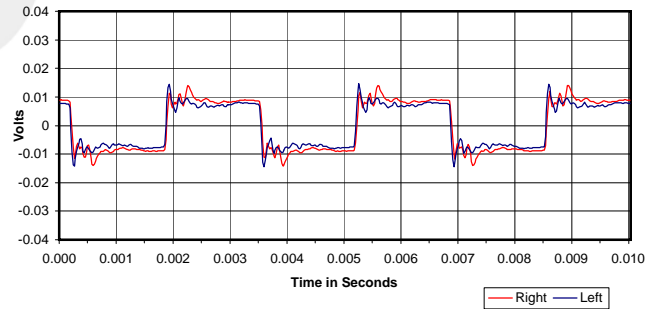
30 Hz Square Wave



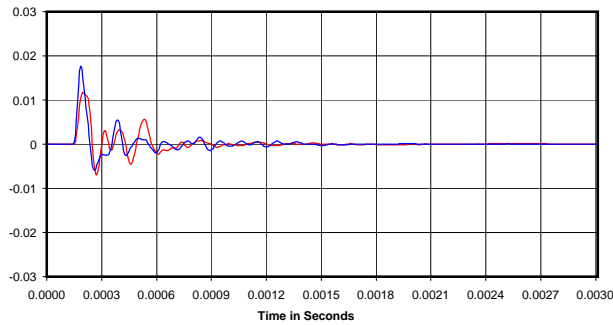
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



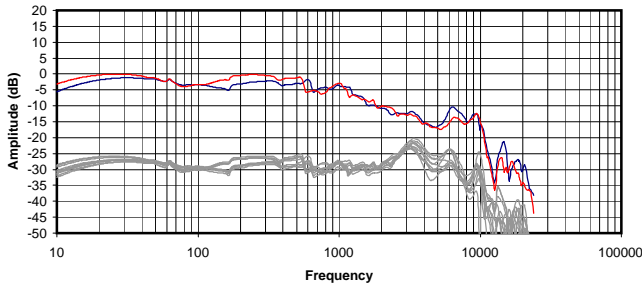
Impulse Response



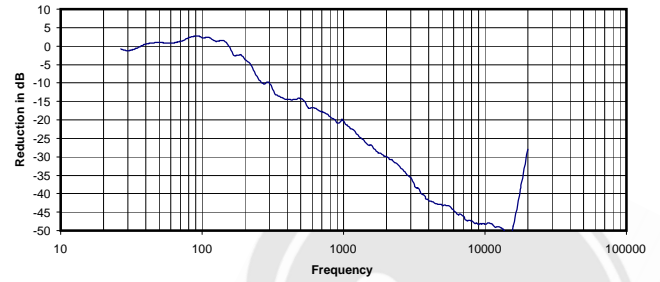
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.174 Vrms
 49 Ohms
 0.61 mW
 -21 dB

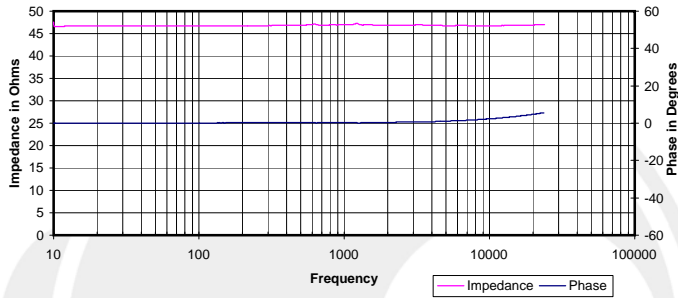
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



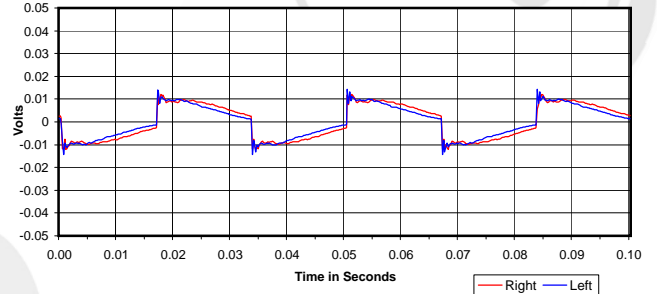
Isolation
 Attenuation of External Sound vs. Frequency



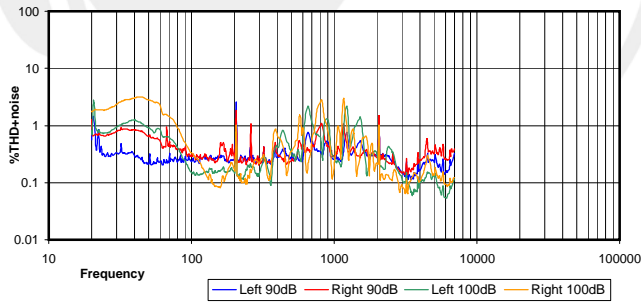
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



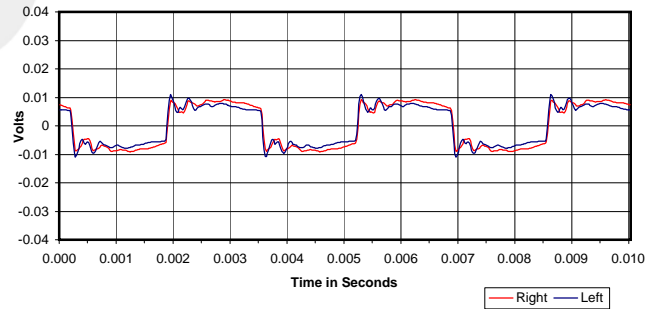
30 Hz Square Wave



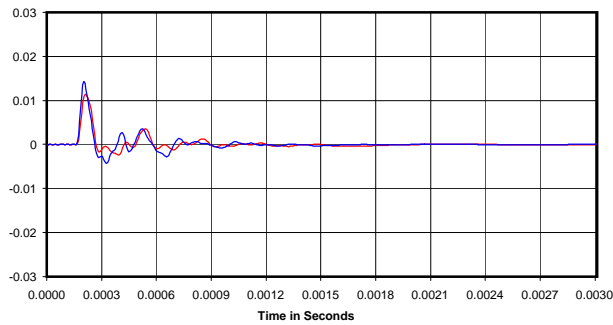
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



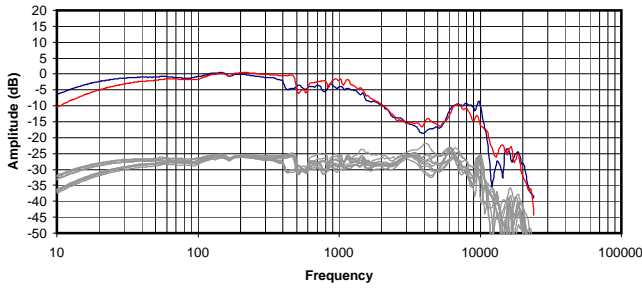
Impulse Response



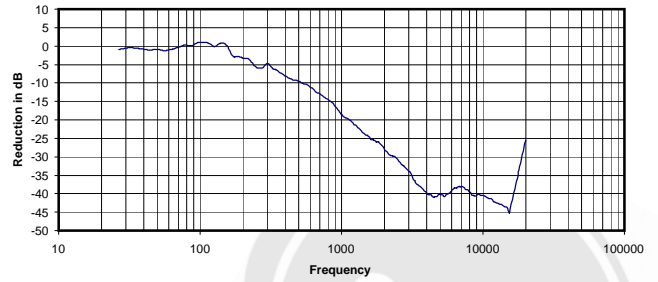
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.208 Vrms
 47 Ohms
 0.92 mW
 -23 dB

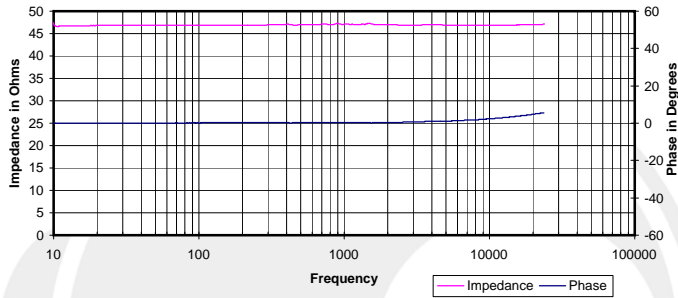
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



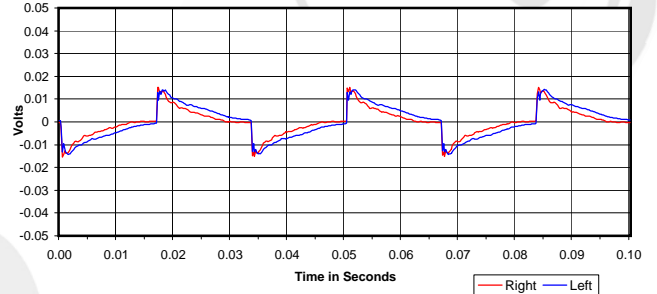
Isolation
 Attenuation of External Sound vs. Frequency



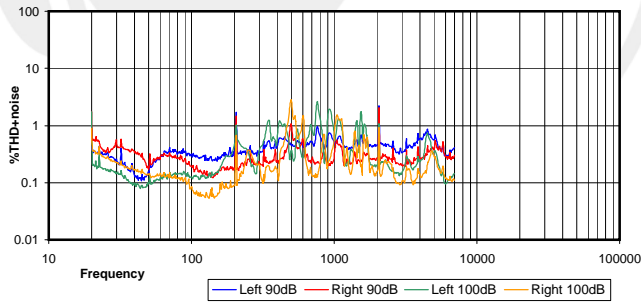
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



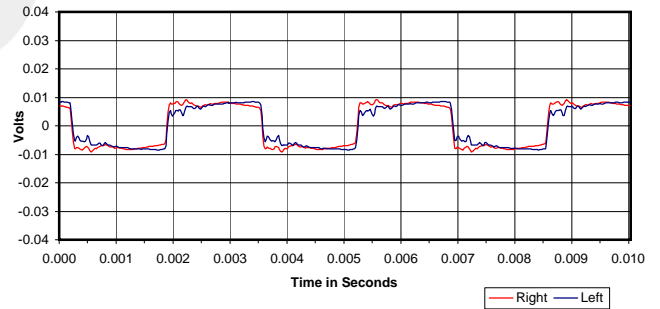
30 Hz Square Wave



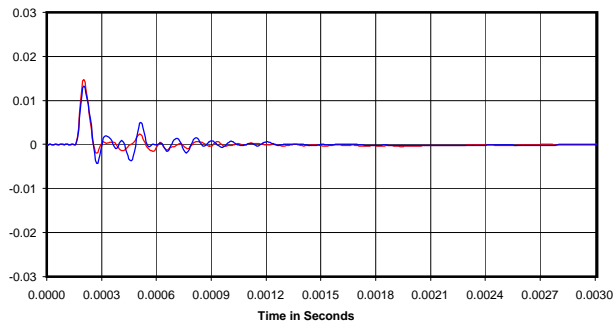
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



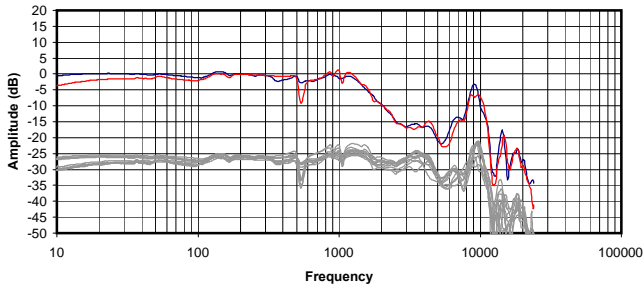
Impulse Response



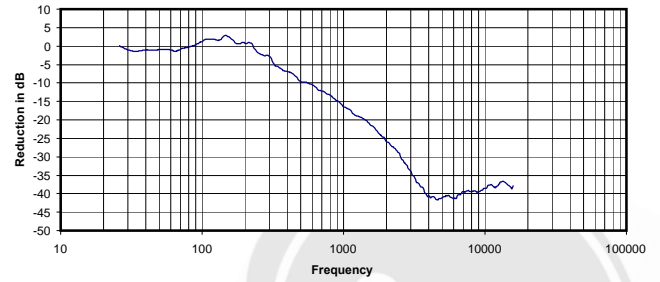
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.208 Vrms
 47 Ohms
 0.92 mW
 -20 dB

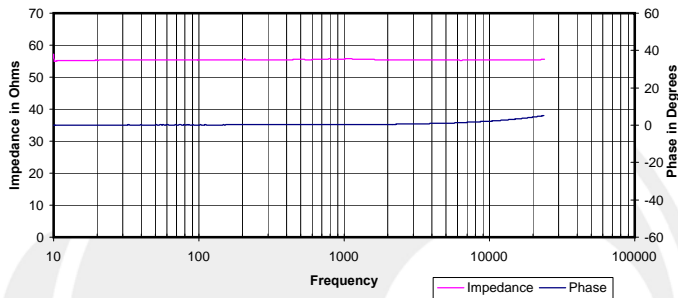
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



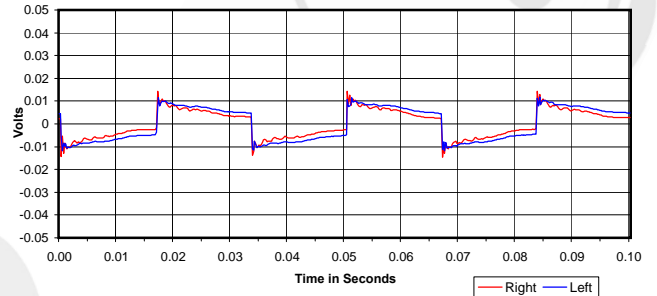
Isolation
 Attenuation of External Sound vs. Frequency



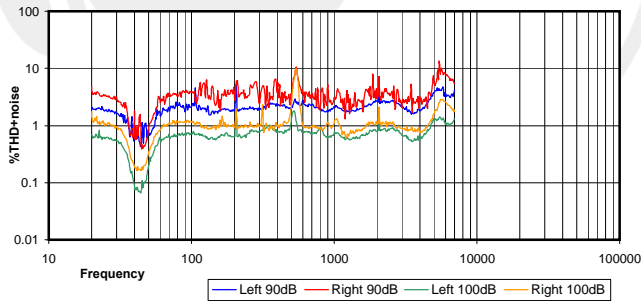
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



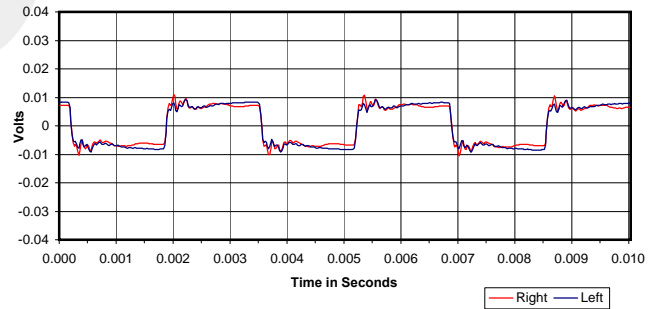
30 Hz Square Wave



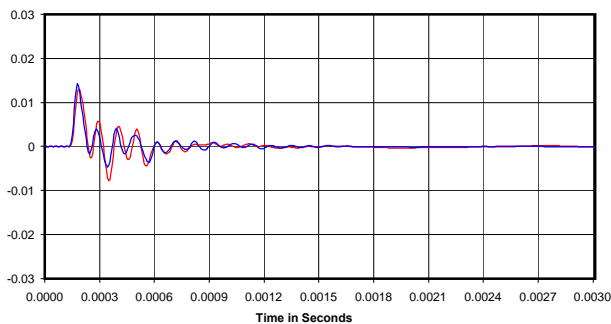
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

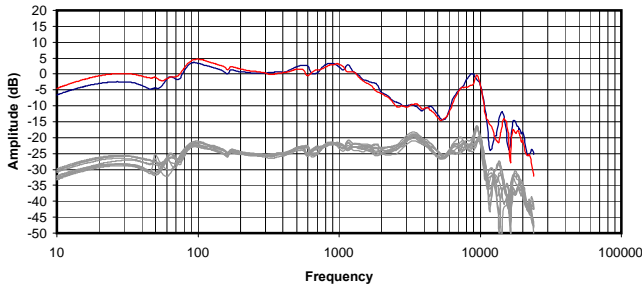


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

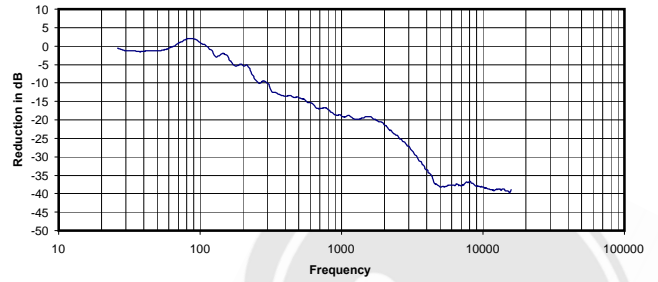
0.127 Vrms
 56 Ohms
 0.29 mW
 -16 dB



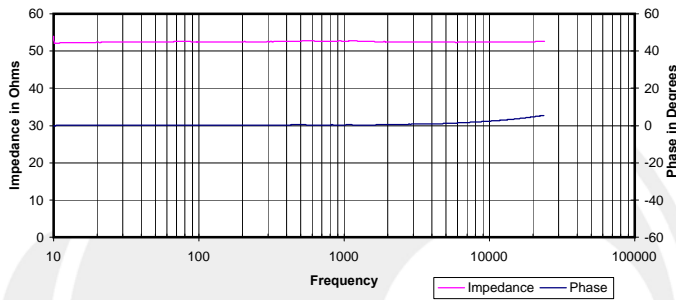
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



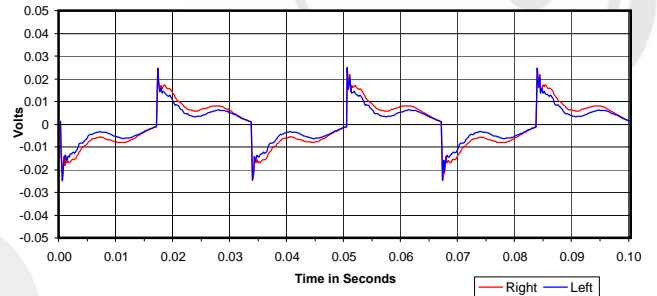
Isolation
 Attenuation of External Sound vs. Frequency



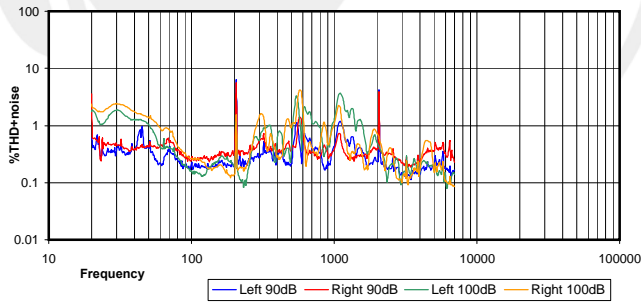
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



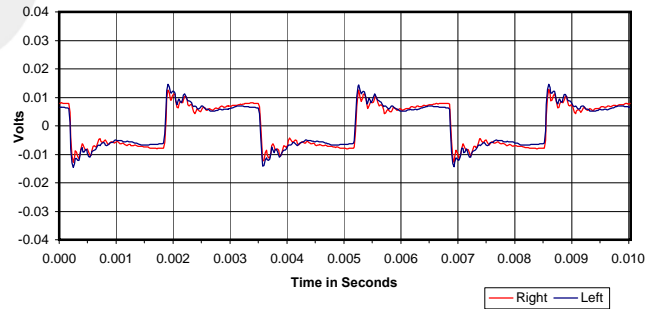
30 Hz Square Wave



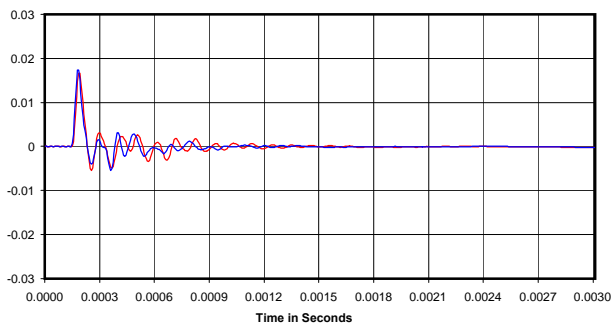
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



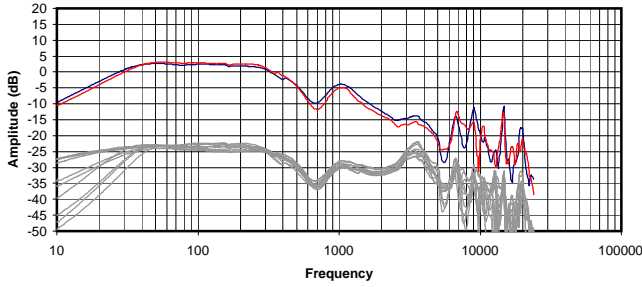
Impulse Response



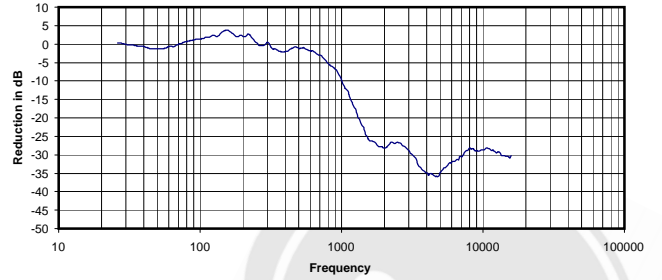
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.166 Vrms
 53 Ohms
 0.52 mW
 -17 dB

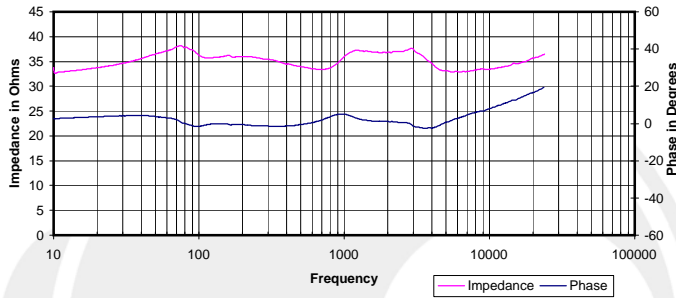
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



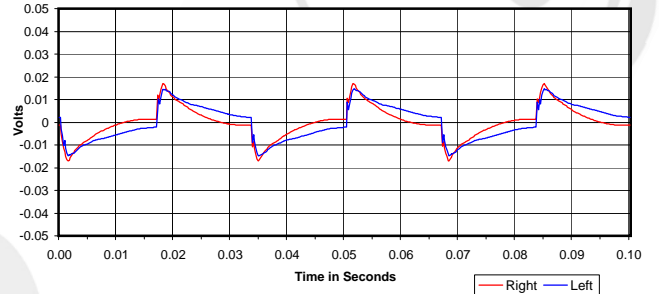
Isolation
 Attenuation of External Sound vs. Frequency



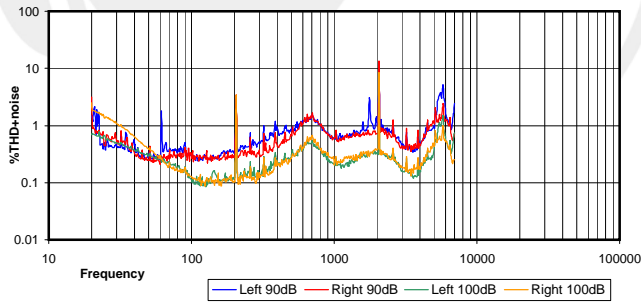
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



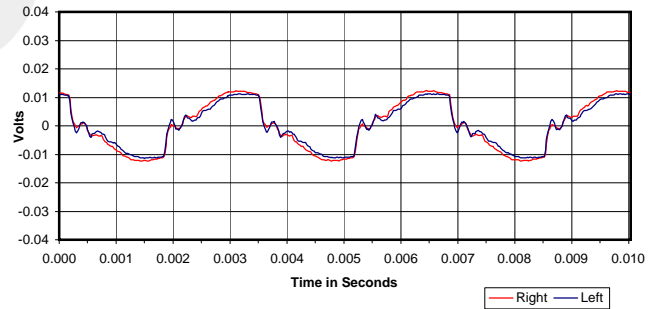
30 Hz Square Wave



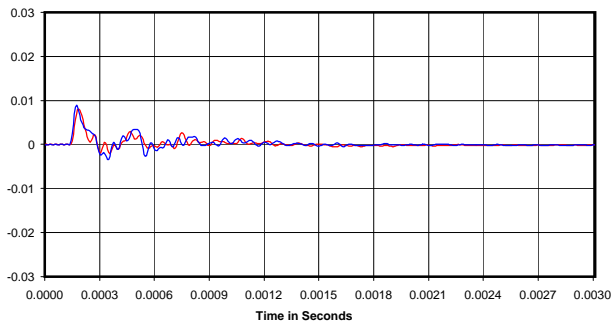
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

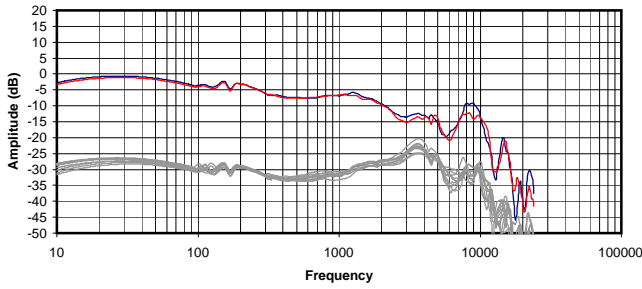


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

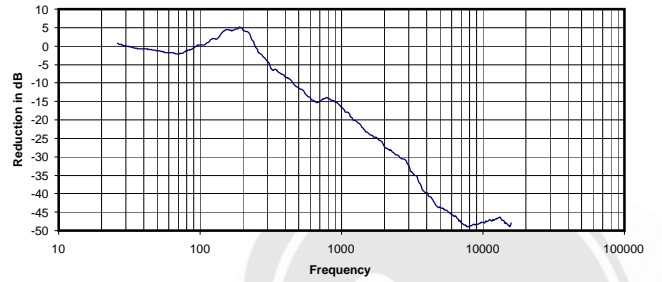
0.021 Vrms
 36 Ohms
 0.01 mW
 -12 dB



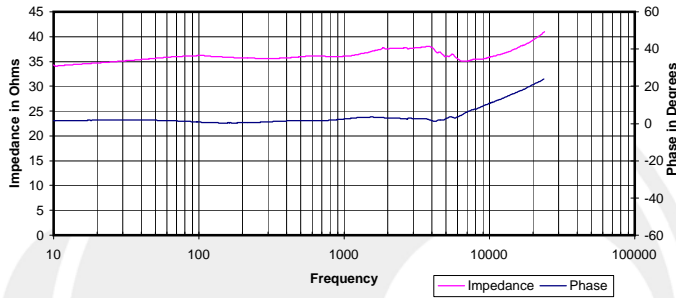
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



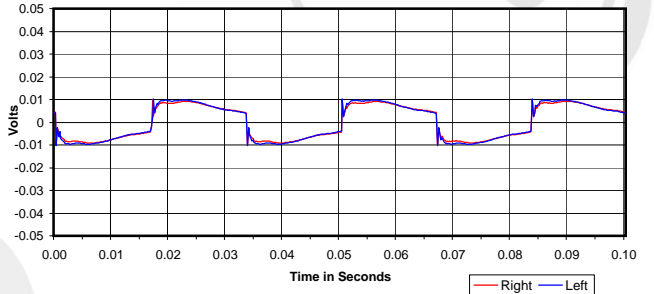
Isolation
Attenuation of External Sound vs. Frequency



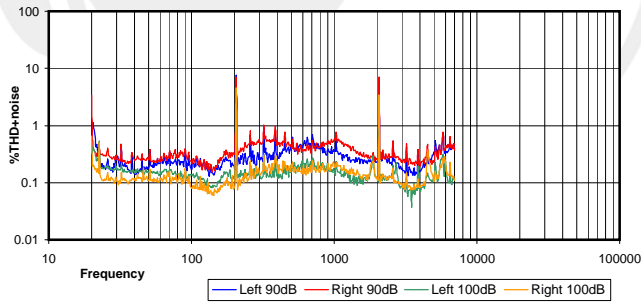
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



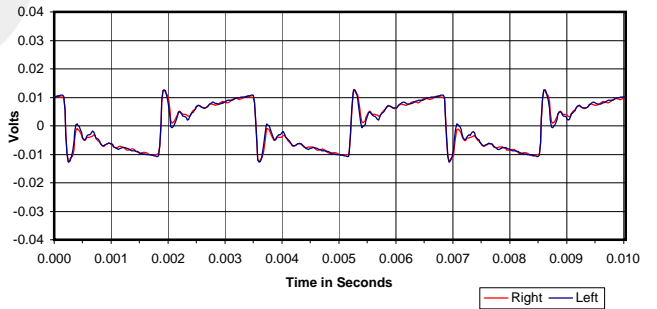
30 Hz Square Wave



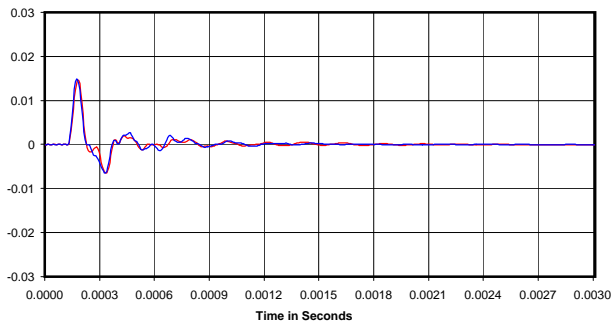
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

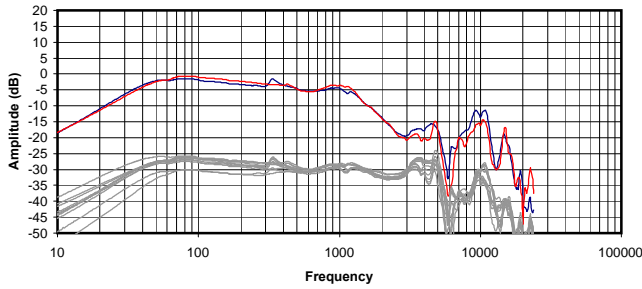


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

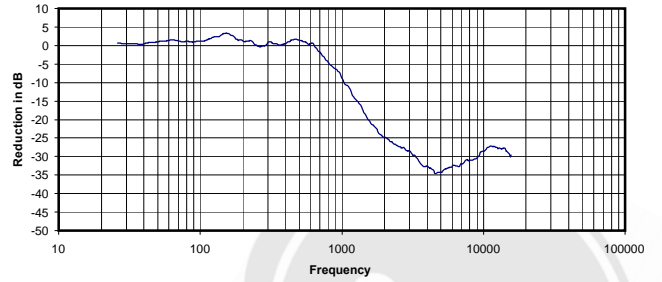
0.037 Vrms
36 Ohms
0.04 mW
-16 dB



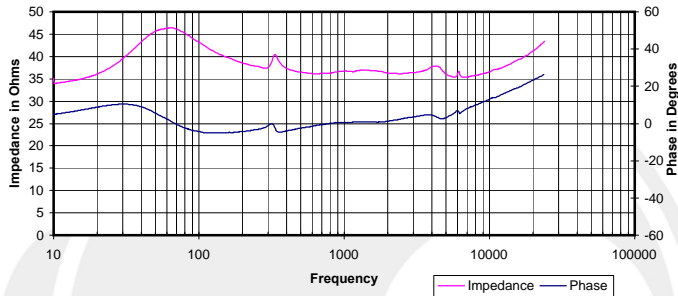
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



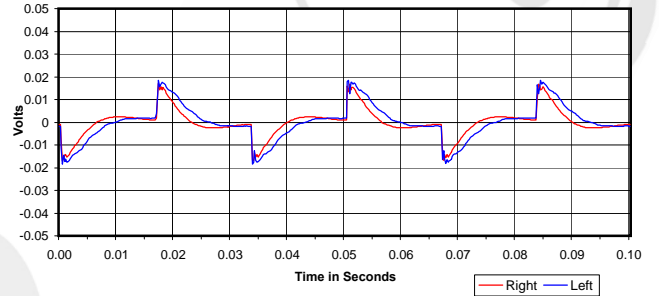
Isolation
 Attenuation of External Sound vs. Frequency



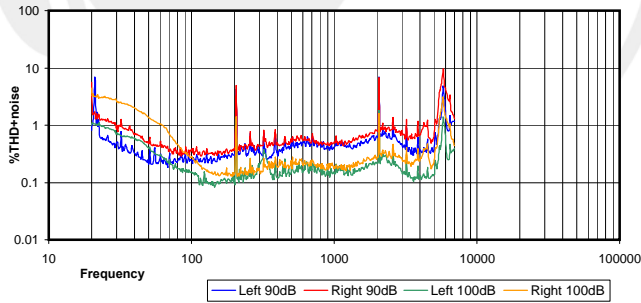
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



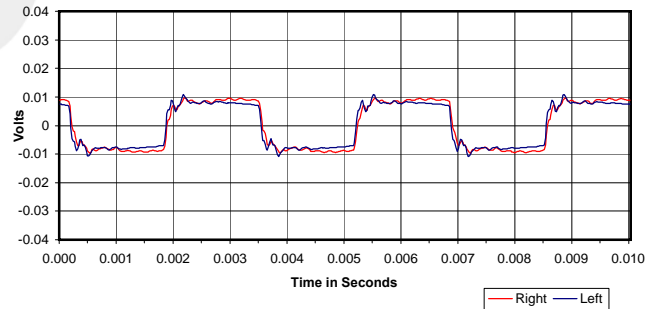
30 Hz Square Wave



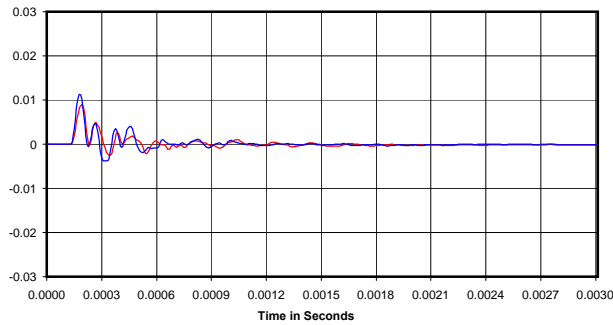
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



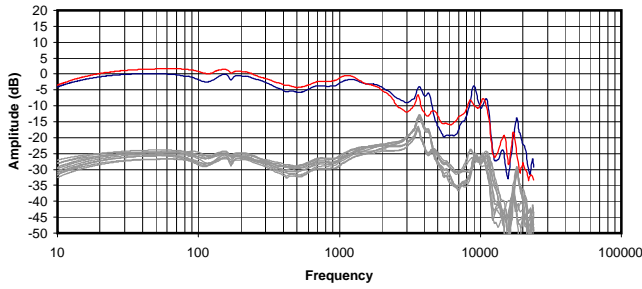
Impulse Response



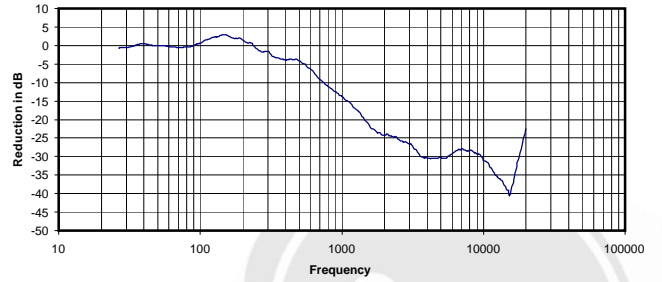
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
 37 Ohms
 0.01 mW
 -11 dB

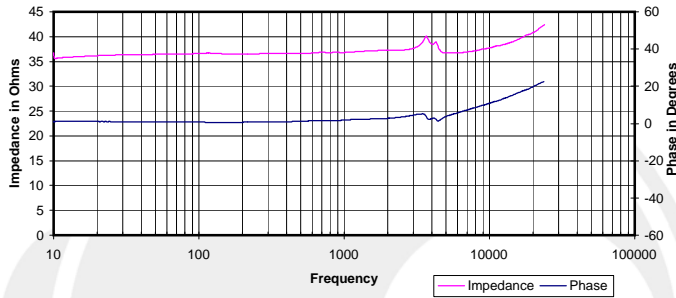
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



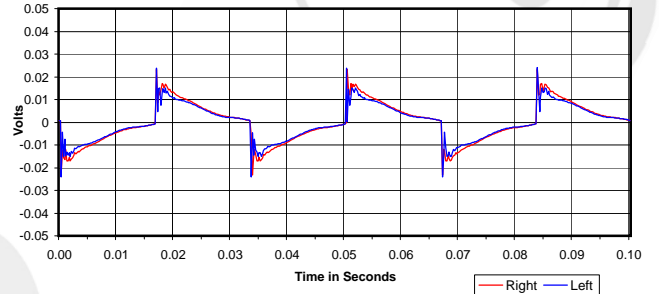
Isolation
 Attenuation of External Sound vs. Frequency



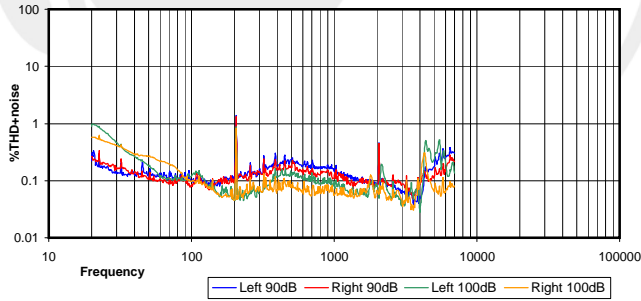
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



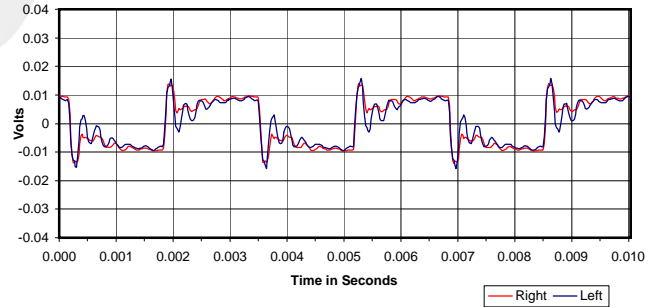
30 Hz Square Wave



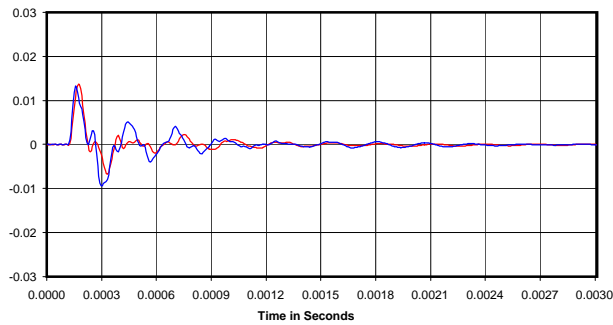
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

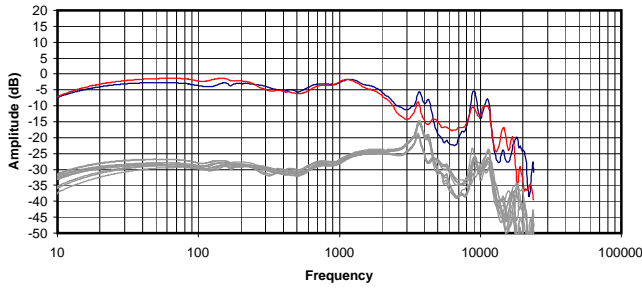


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

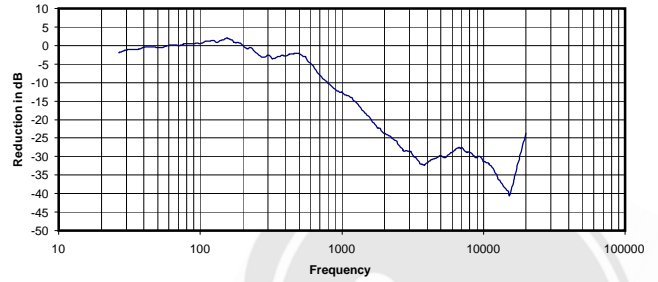
0.039 Vrms
 37 Ohms
 0.04 mW
 -14 dB



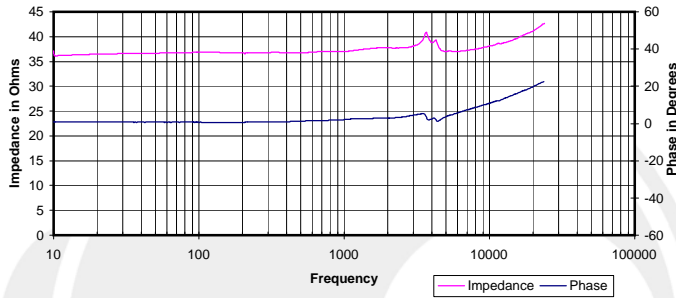
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



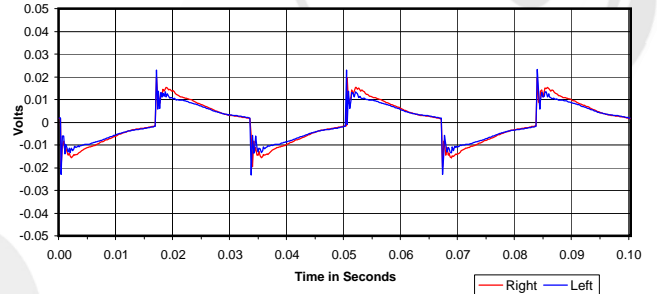
Isolation
Attenuation of External Sound vs. Frequency



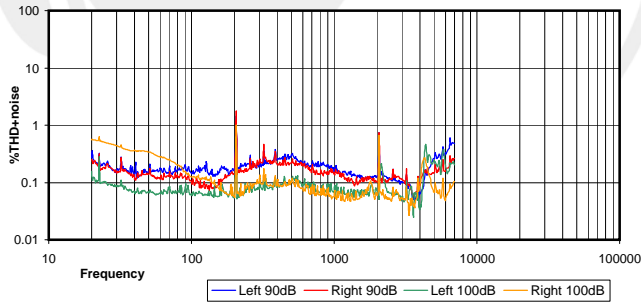
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



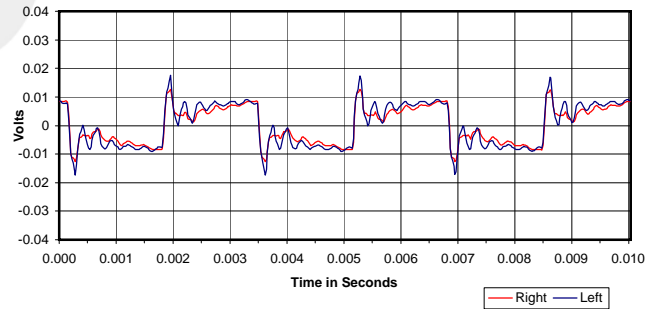
30 Hz Square Wave



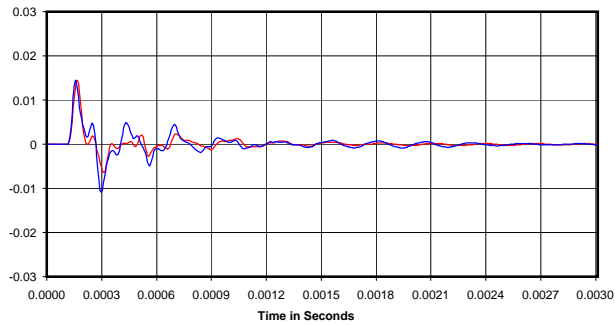
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

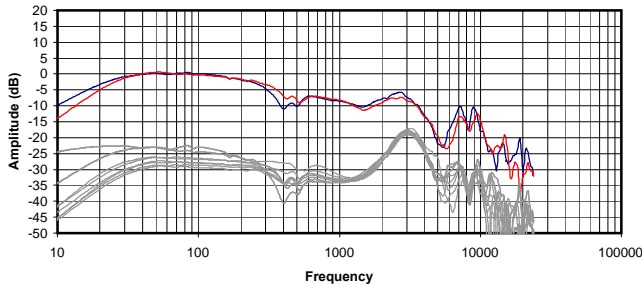


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

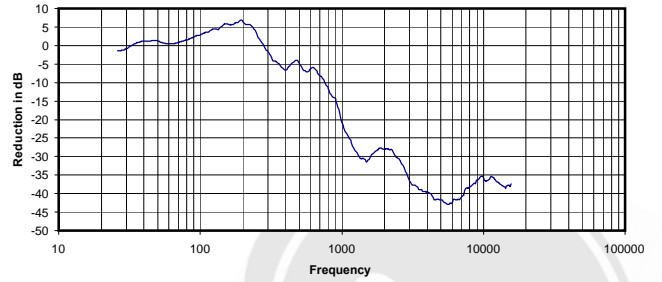
0.032 Vrms
37 Ohms
0.03 mW
-14 dB



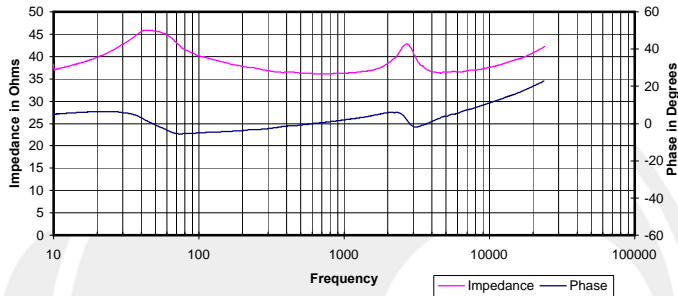
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



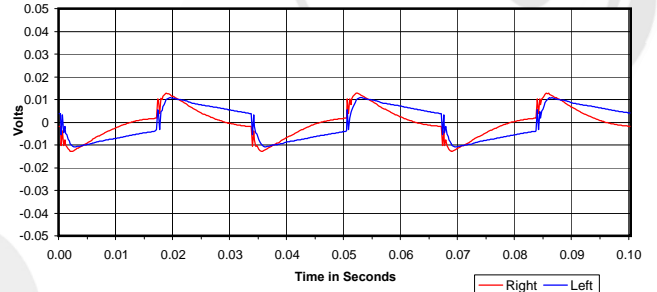
Isolation
 Attenuation of External Sound vs. Frequency



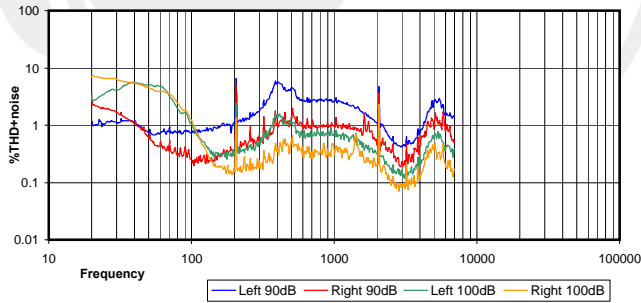
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



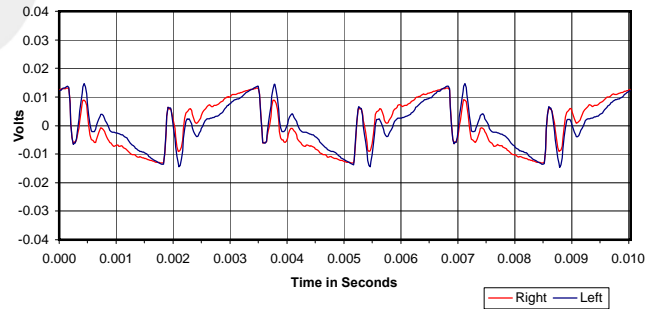
30 Hz Square Wave



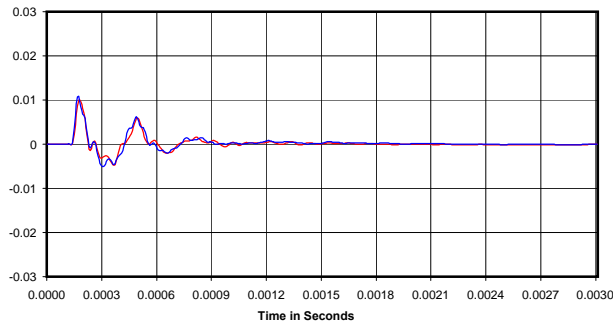
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

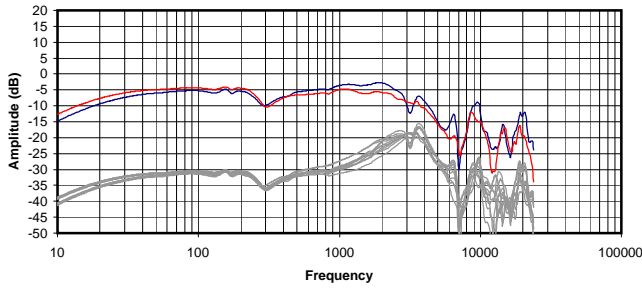


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

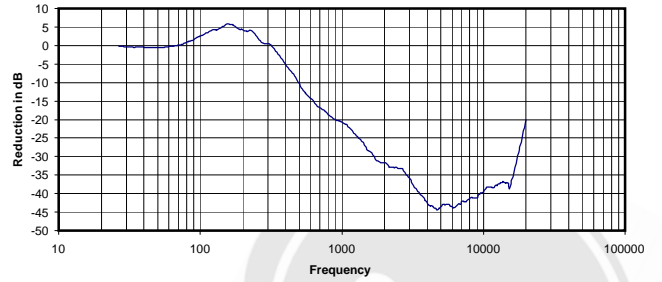
0.068 Vrms
 36 Ohms
 0.13 mW
 -16 dB



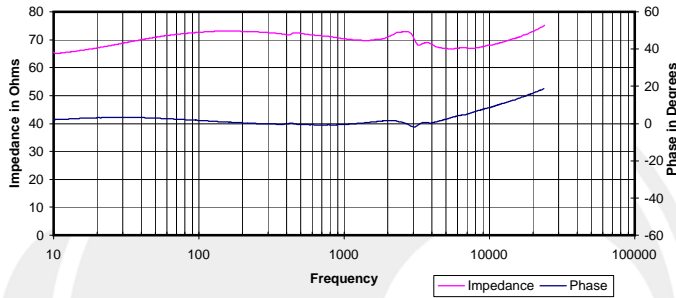
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



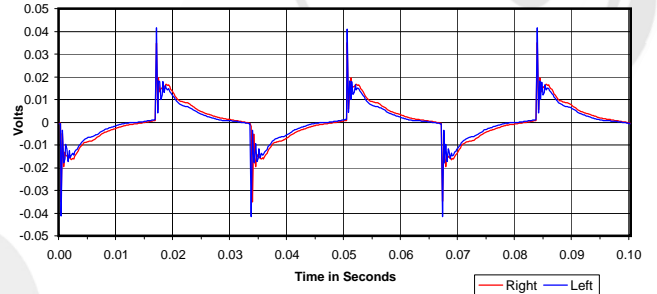
Isolation
Attenuation of External Sound vs. Frequency



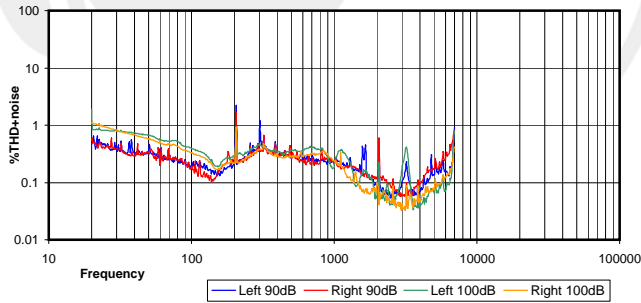
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



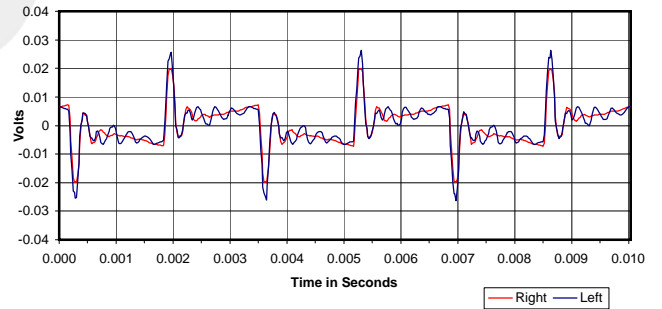
30 Hz Square Wave



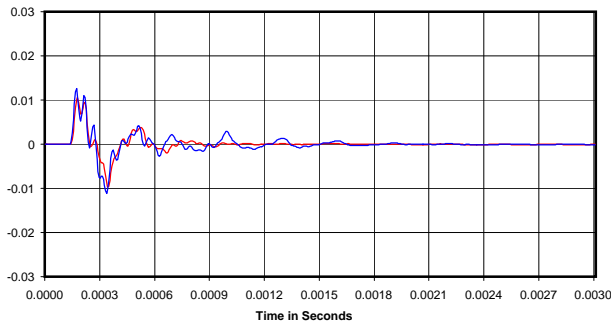
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

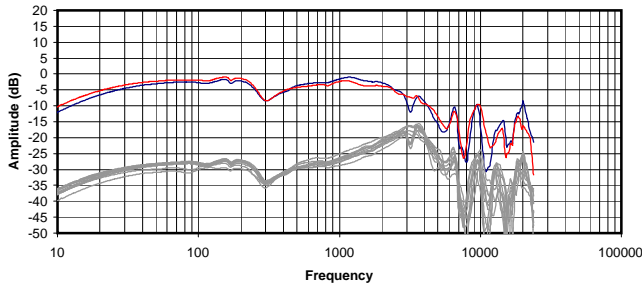


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

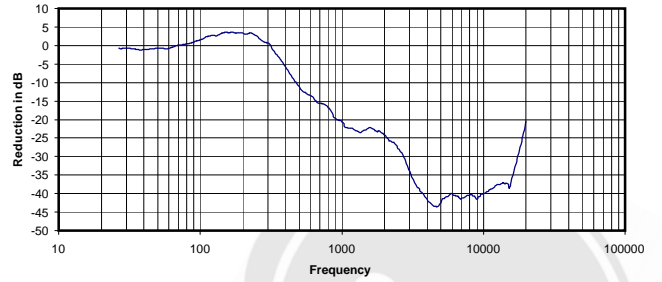
0.068 Vrms
70 Ohms
0.07 mW
-20 dB



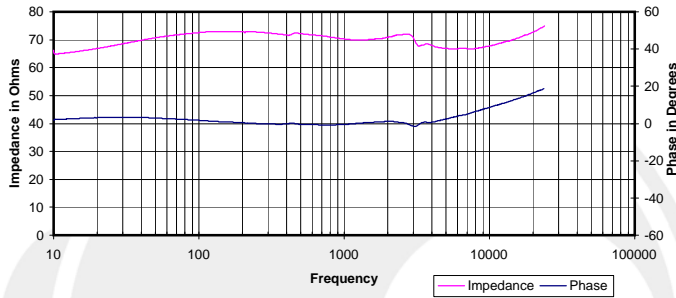
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



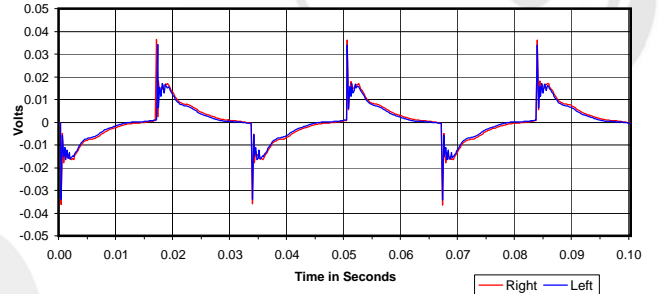
Isolation
Attenuation of External Sound vs. Frequency



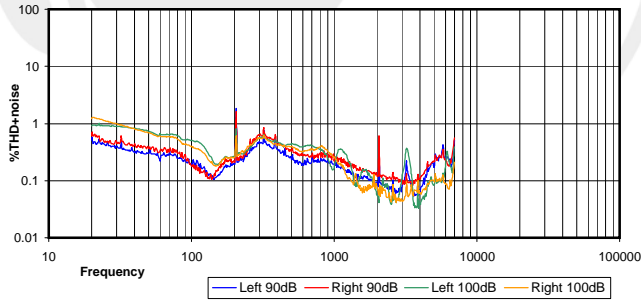
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



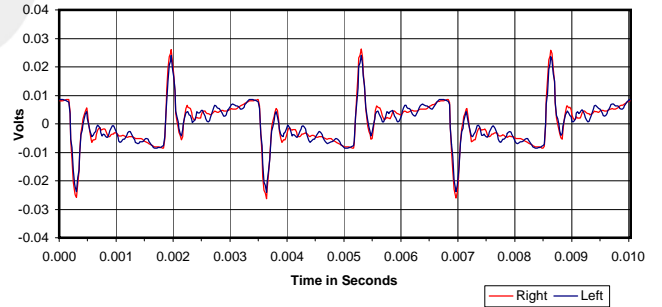
30 Hz Square Wave



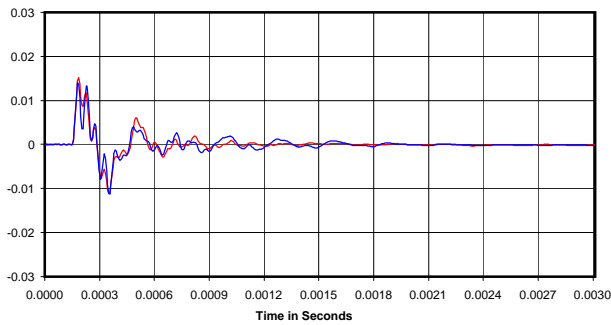
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

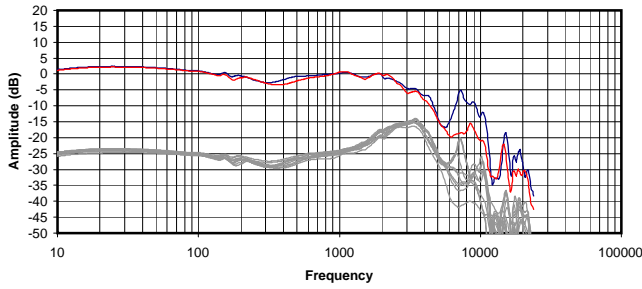


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

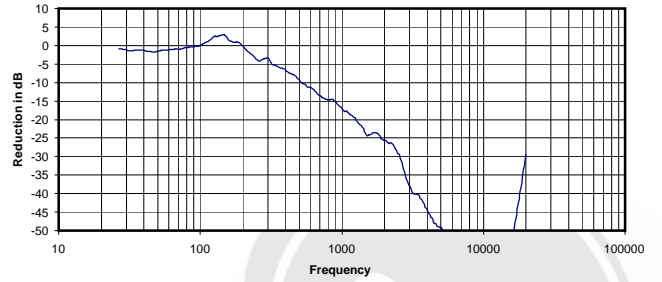
0.071 Vrms
70 Ohms
0.07 mW
-19 dB



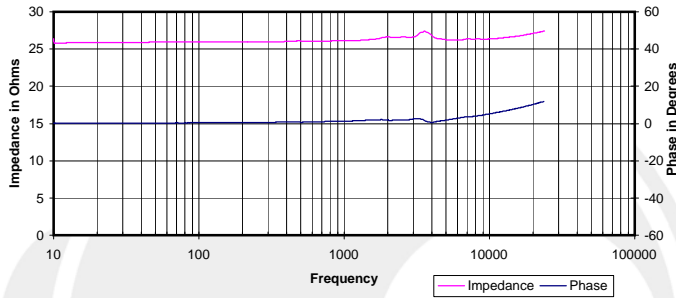
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



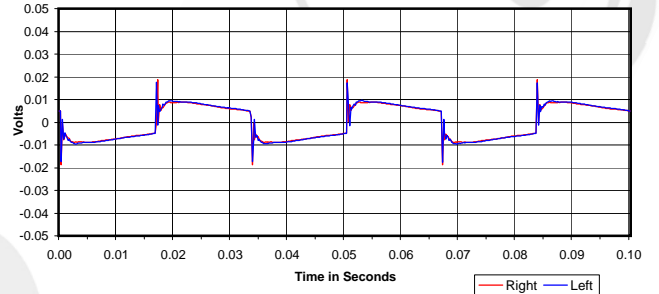
Isolation
Attenuation of External Sound vs. Frequency



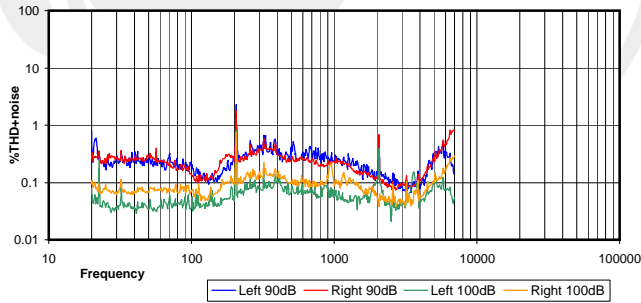
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



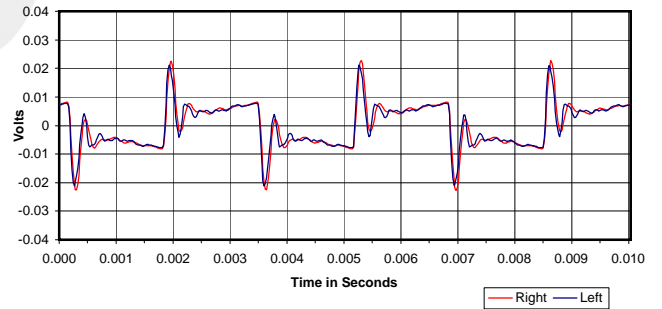
30 Hz Square Wave



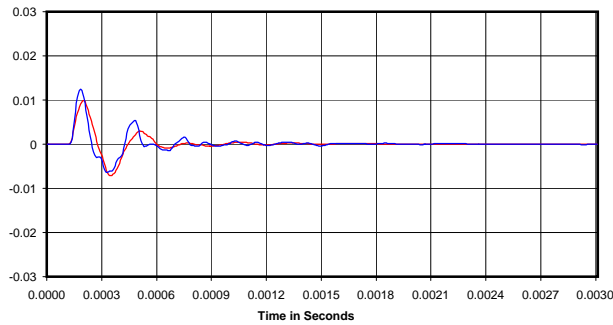
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

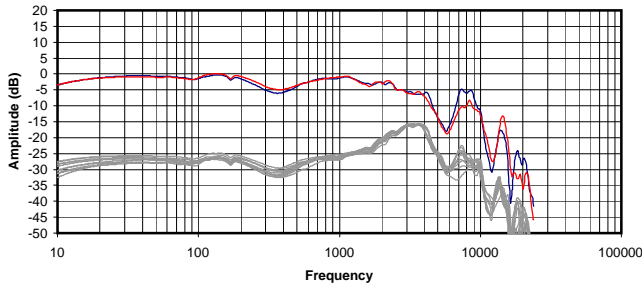


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

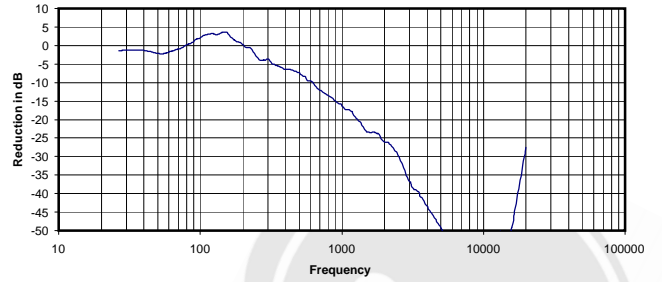
0.037 Vrms
26 Ohms
0.05 mW
-22 dB



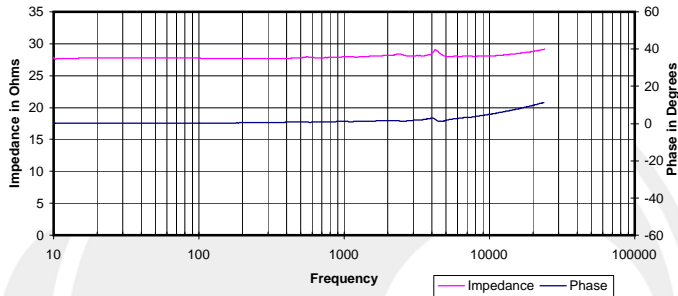
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



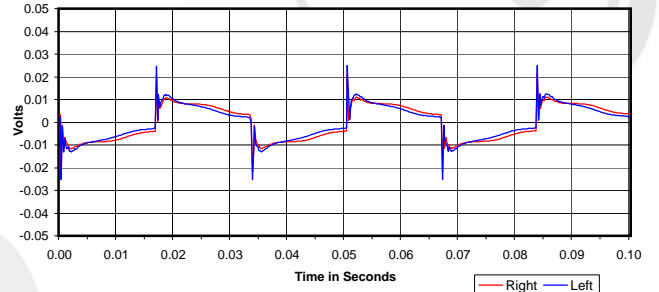
Isolation
Attenuation of External Sound vs. Frequency



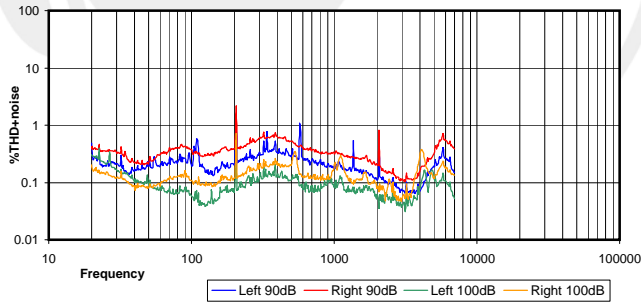
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



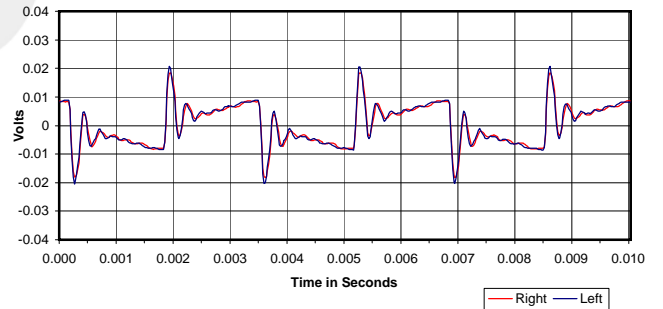
30 Hz Square Wave



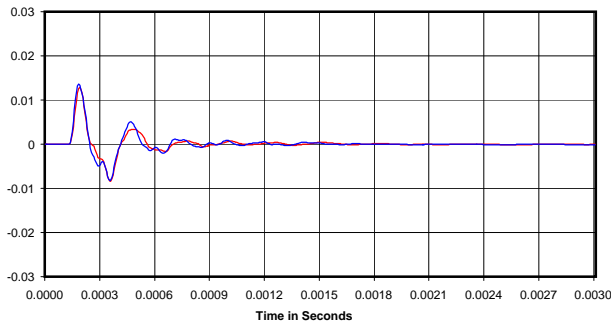
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

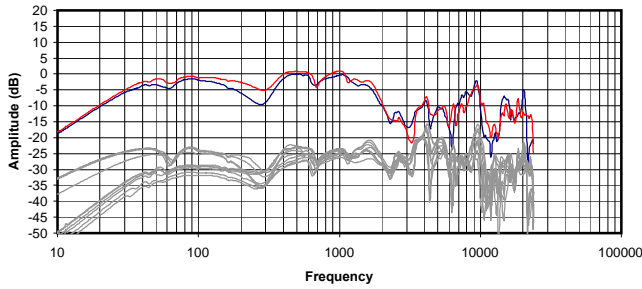


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

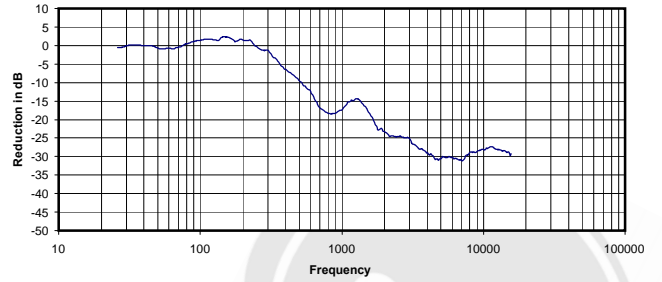
0.049 Vrms
28 Ohms
0.09 mW
-21 dB



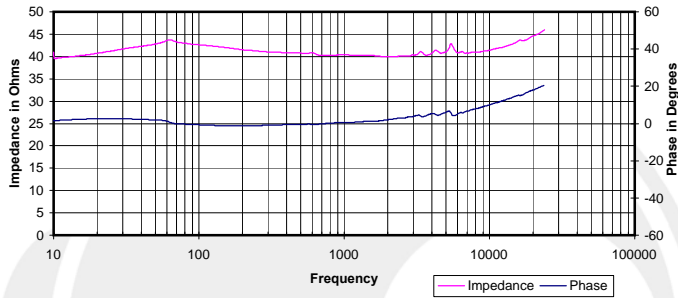
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



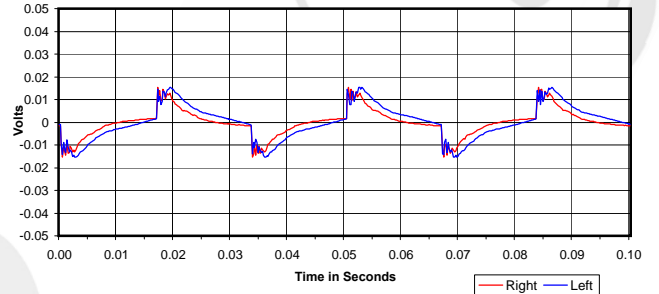
Isolation
Attenuation of External Sound vs. Frequency



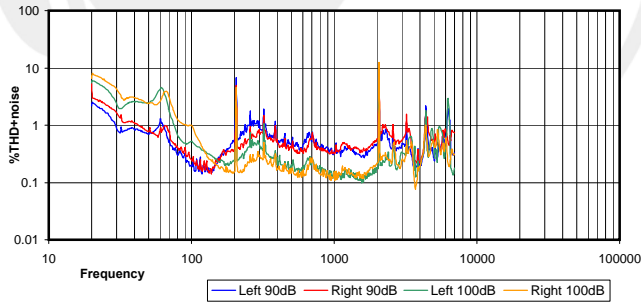
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



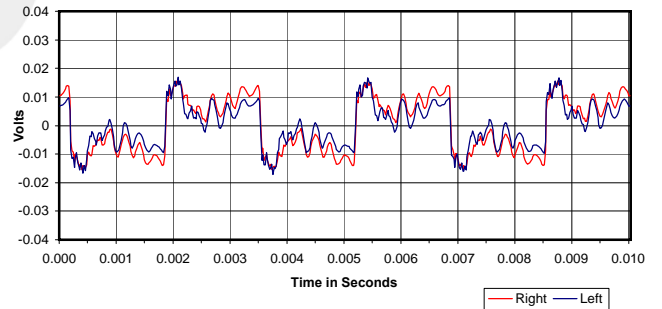
30 Hz Square Wave



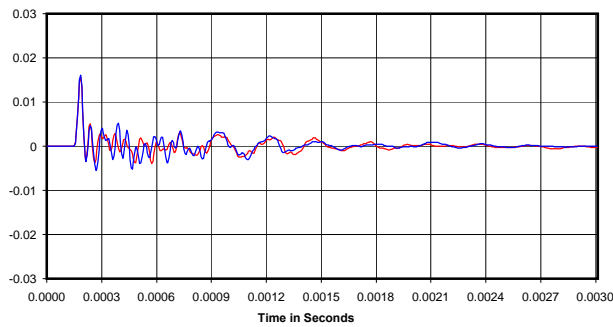
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

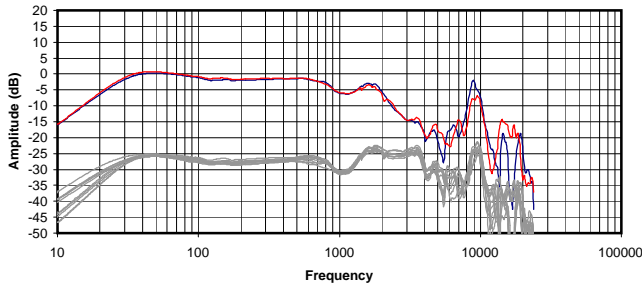


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

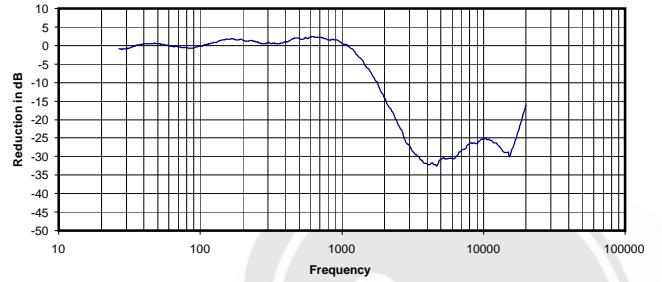
0.069 Vrms
40 Ohms
0.12 mW
-13 dB



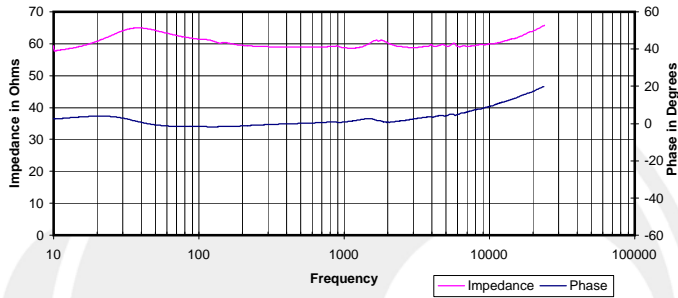
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



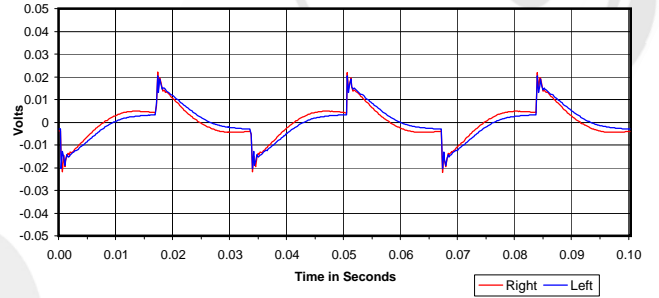
Isolation
 Attenuation of External Sound vs. Frequency



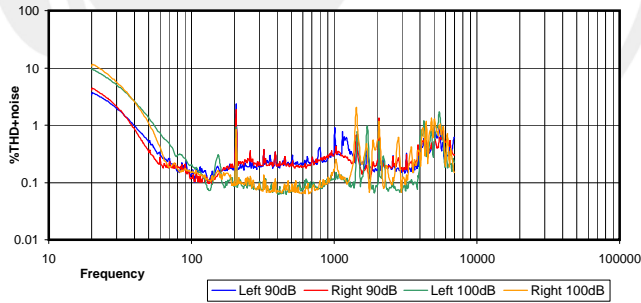
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



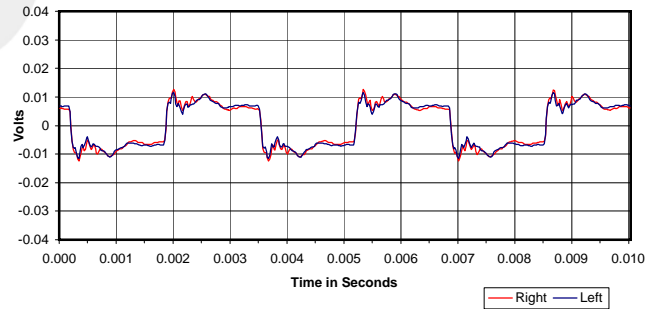
30 Hz Square Wave



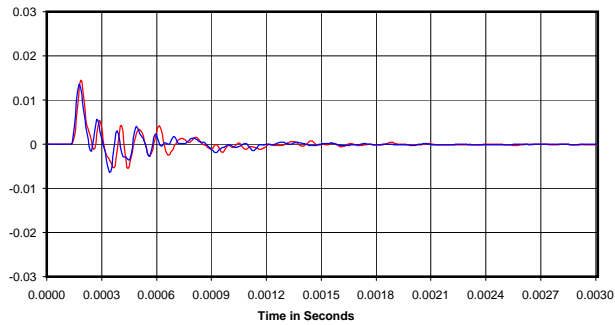
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



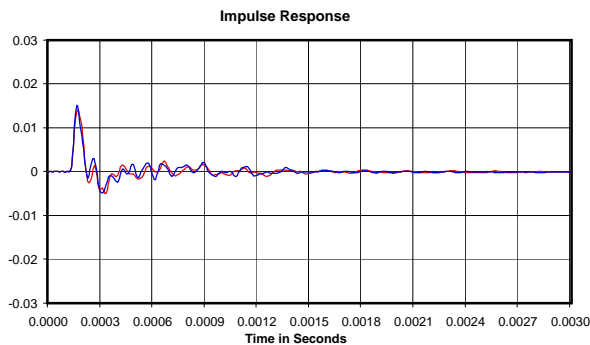
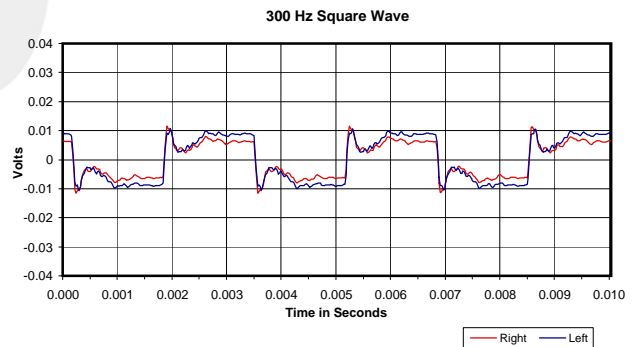
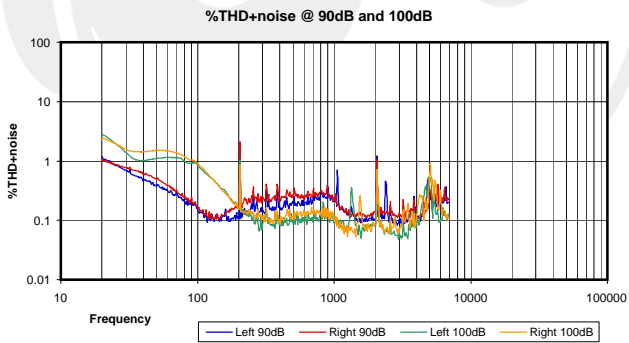
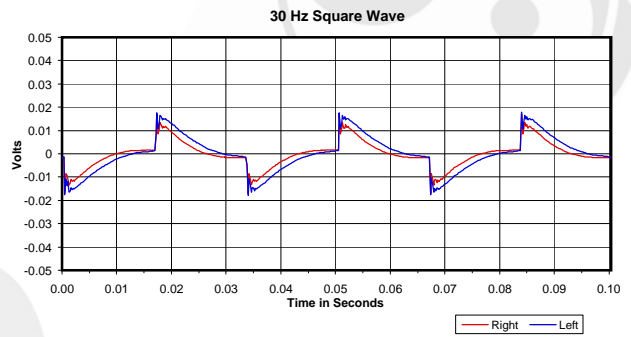
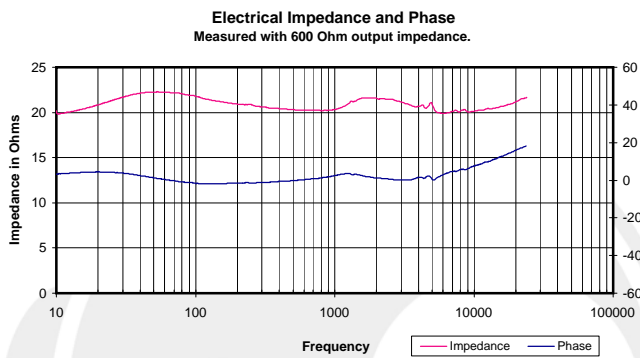
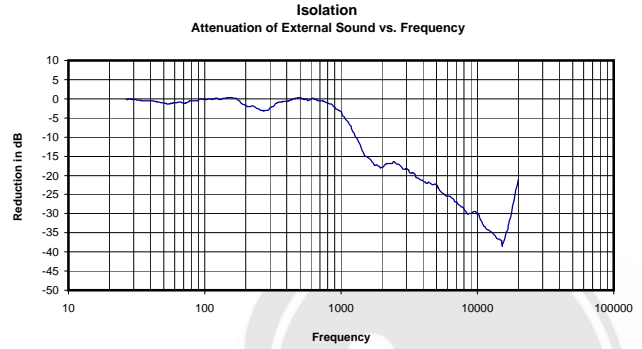
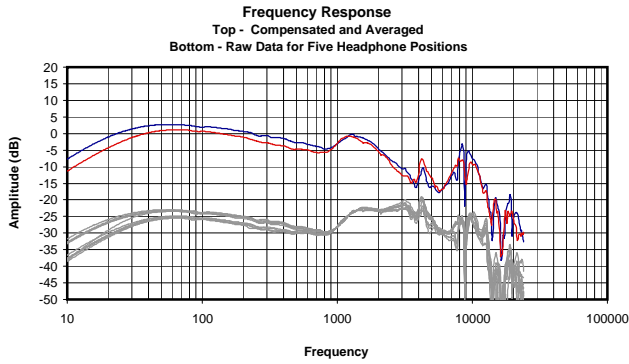
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.054 Vrms
 59 Ohms
 0.05 mW
 -10 dB



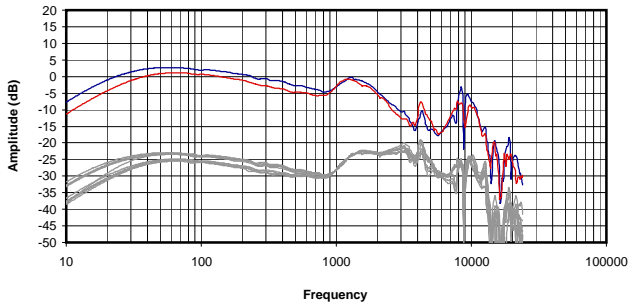


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

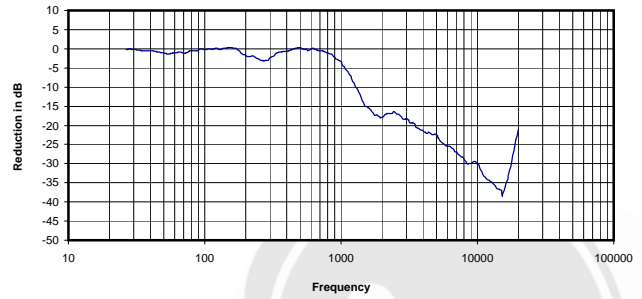
0.027 Vrms
20 Ohms
0.04 mW
-10 dBr



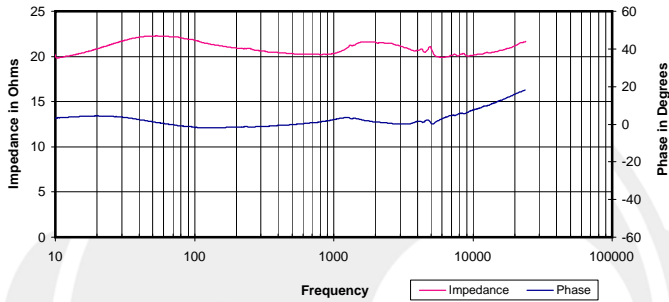
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



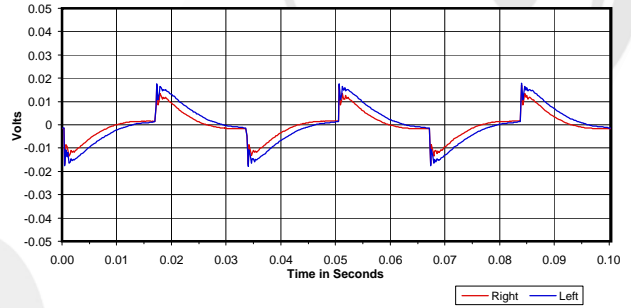
Isolation
Attenuation of External Sound vs. Frequency



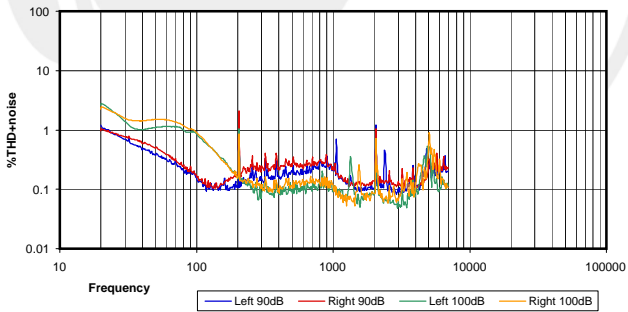
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



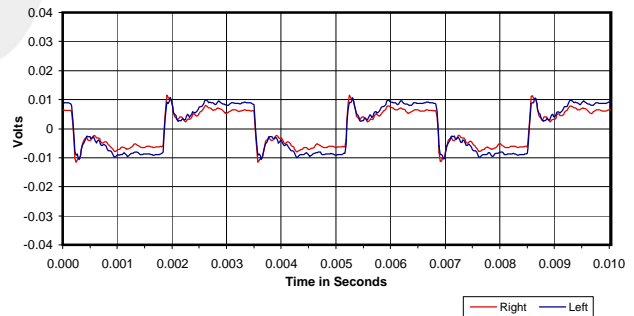
30 Hz Square Wave



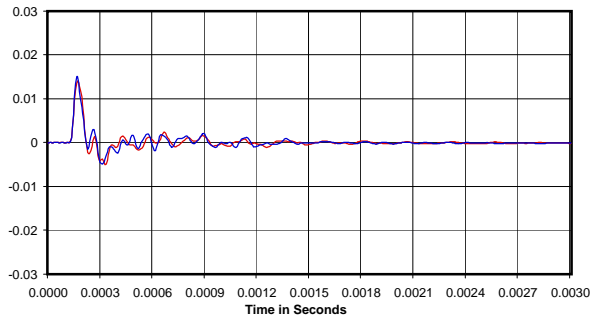
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

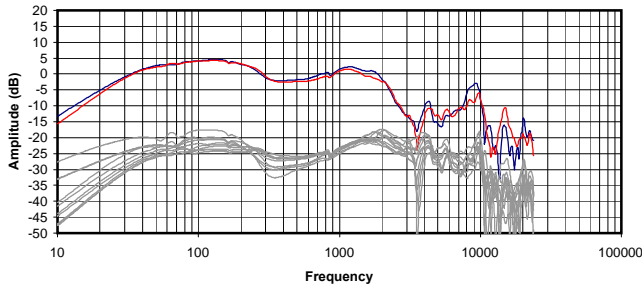


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

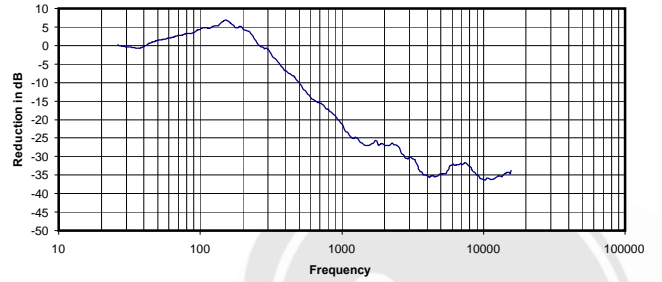
0.027 Vrms
20 Ohms
0.04 mW
-10 dBr



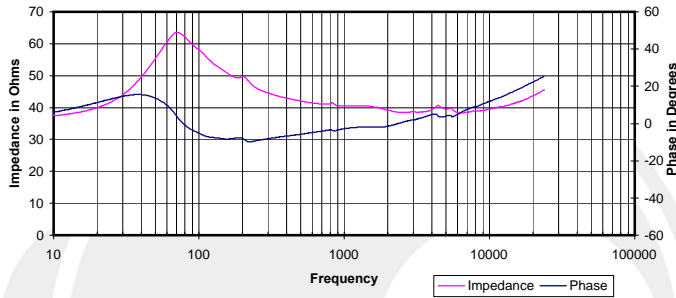
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



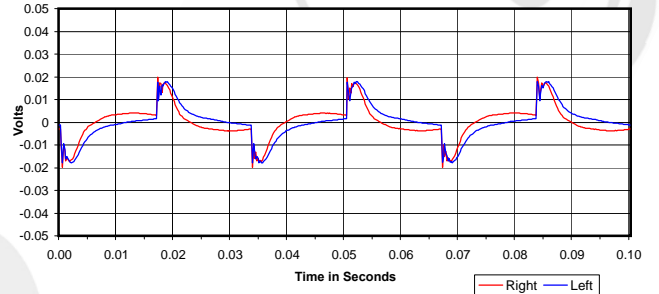
Isolation
Attenuation of External Sound vs. Frequency



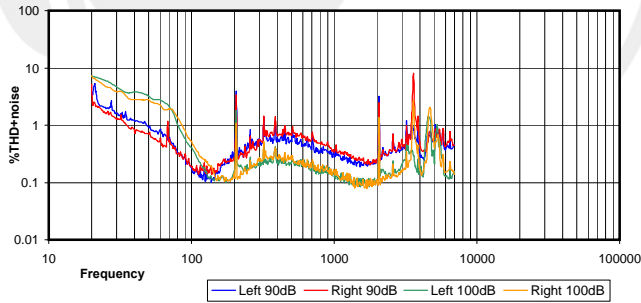
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



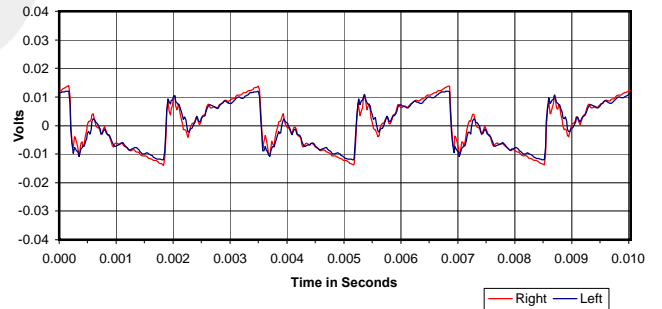
30 Hz Square Wave



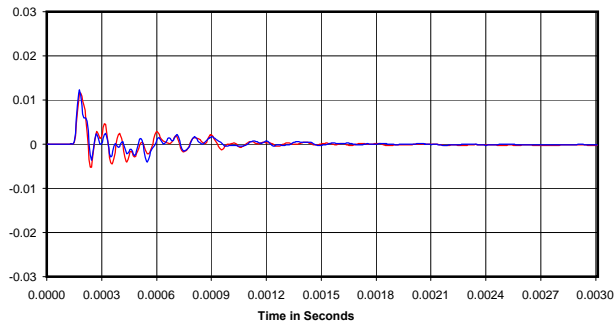
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

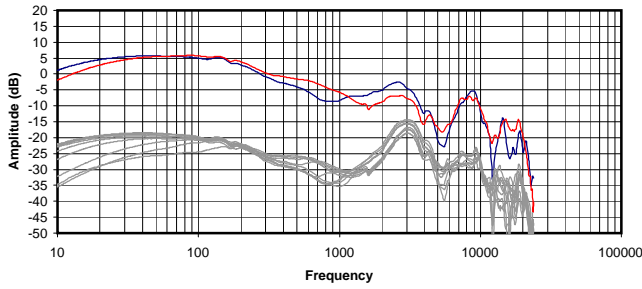


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

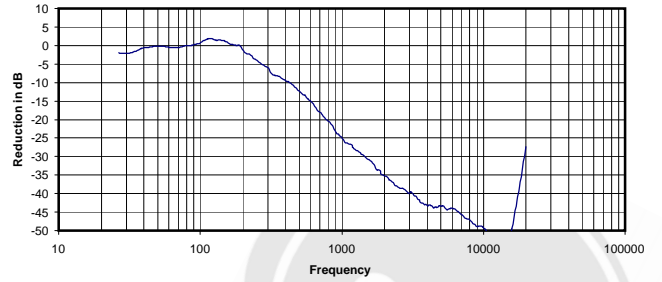
0.039 Vrms
40 Ohms
0.04 mW
-15 dB



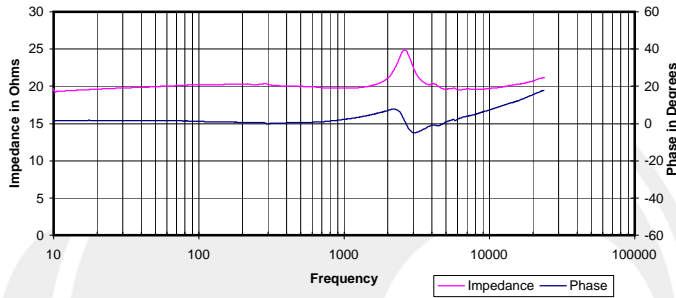
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



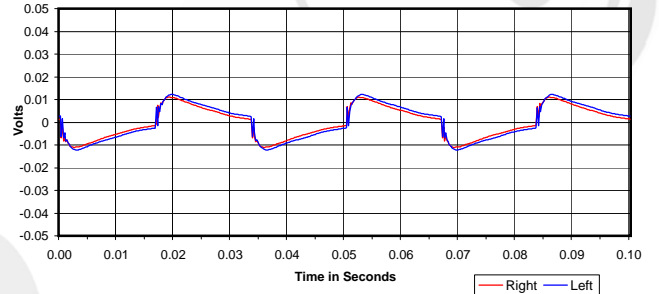
Isolation
Attenuation of External Sound vs. Frequency



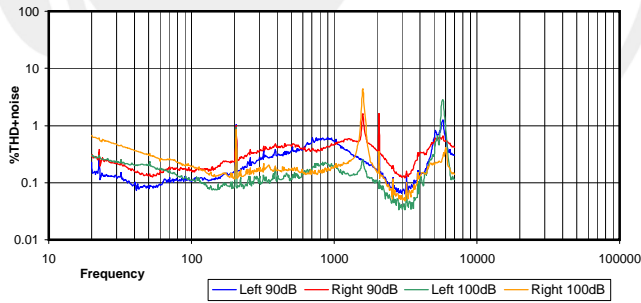
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



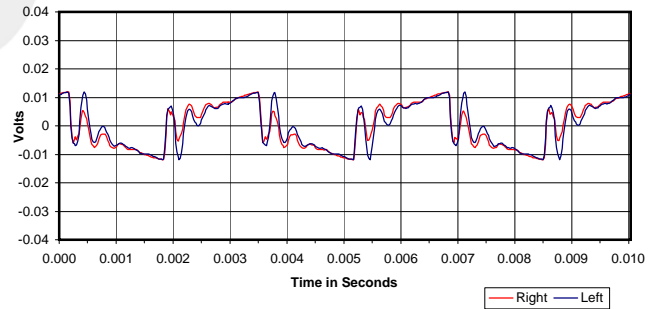
30 Hz Square Wave



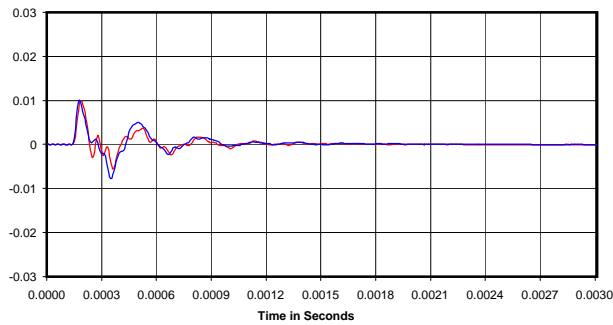
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

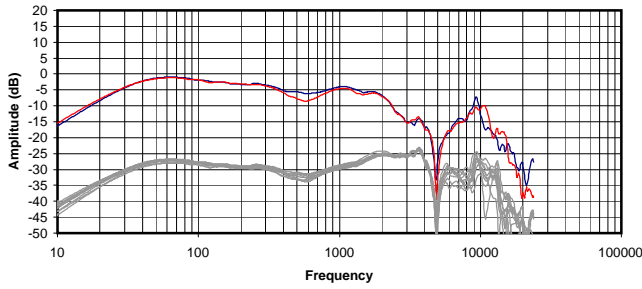


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

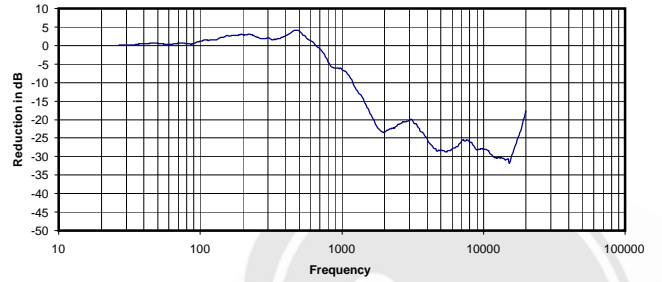
0.068 Vrms
20 Ohms
0.23 mW
-24 dB



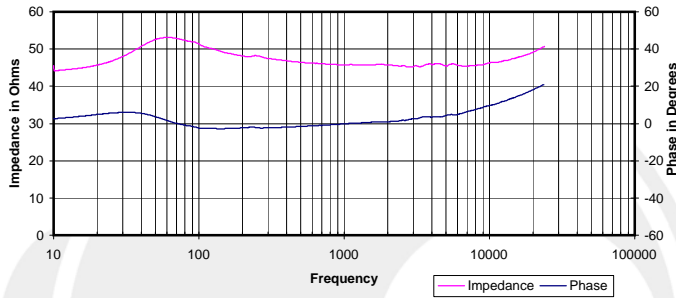
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



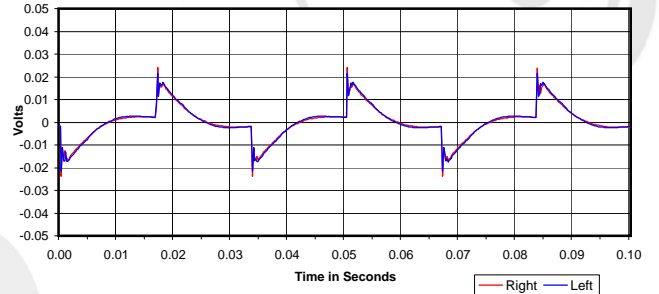
Isolation
 Attenuation of External Sound vs. Frequency



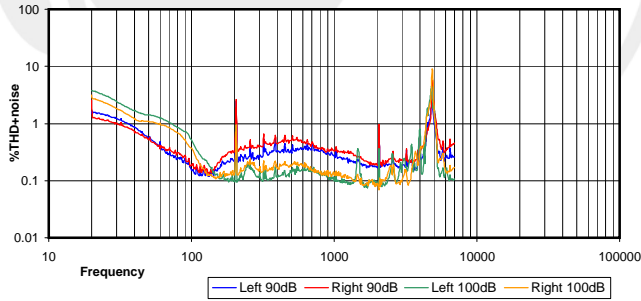
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



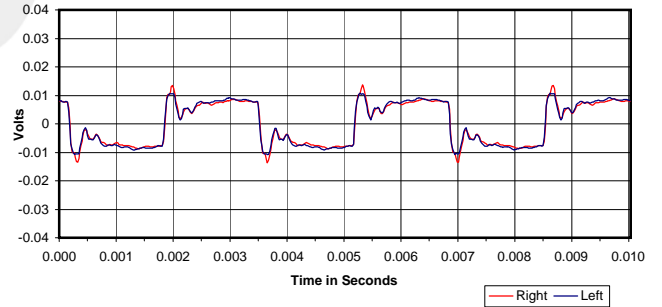
30 Hz Square Wave



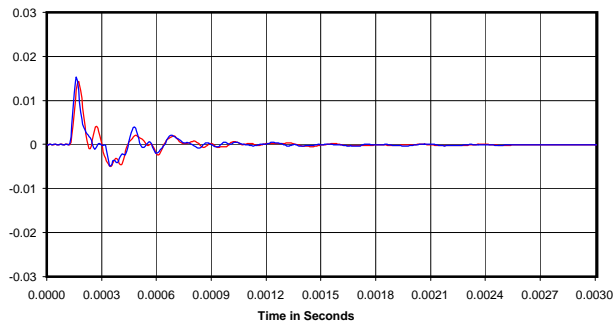
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



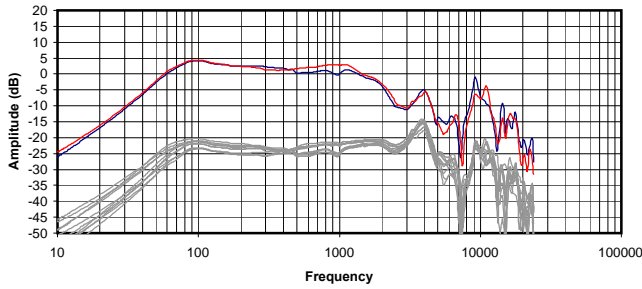
Impulse Response



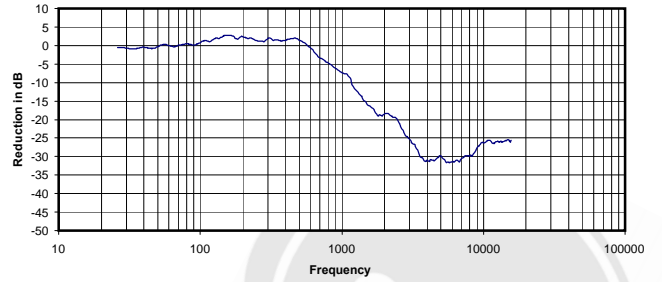
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
 46 Ohms
 0.03 mW
 -10 dB

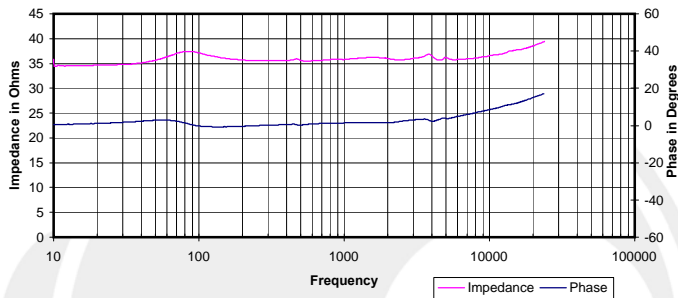
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



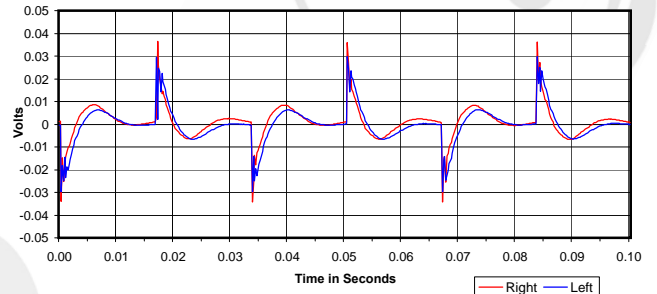
Isolation
 Attenuation of External Sound vs. Frequency



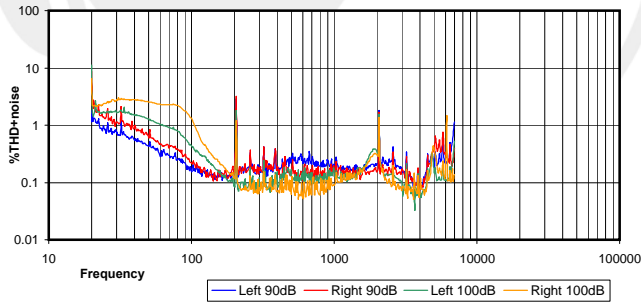
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



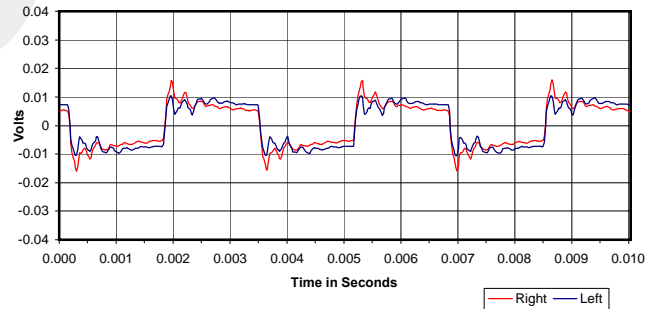
30 Hz Square Wave



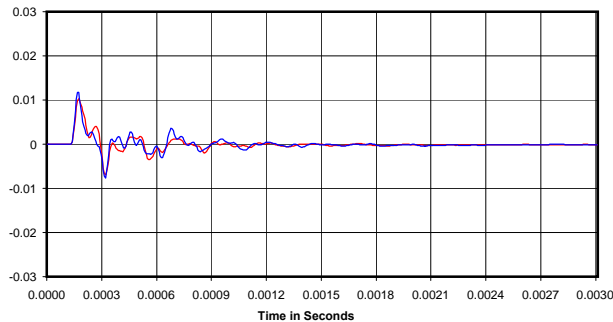
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

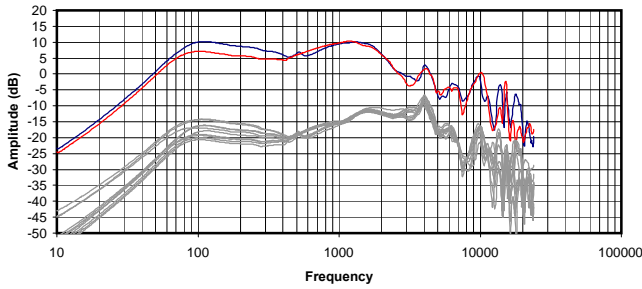


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

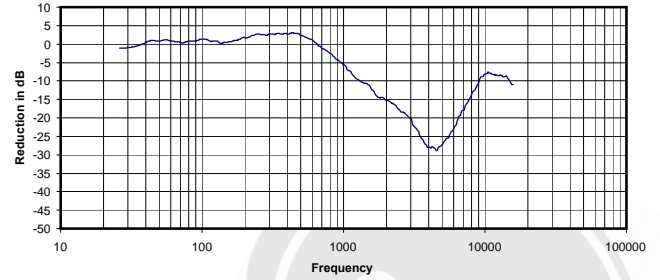
0.049 Vrms
 36 Ohms
 0.07 mW
 -9 dB



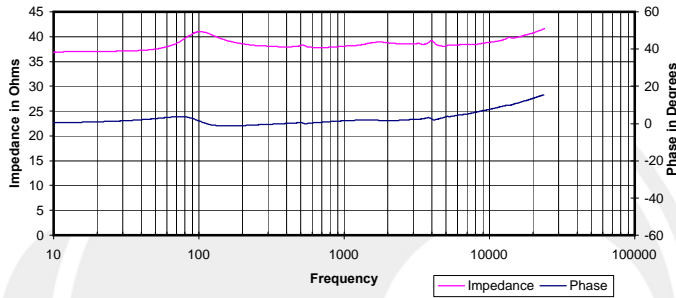
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



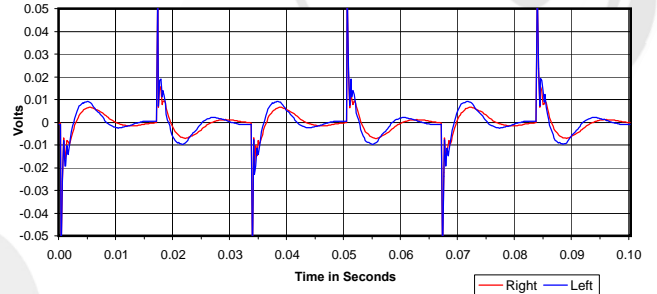
Isolation
 Attenuation of External Sound vs. Frequency



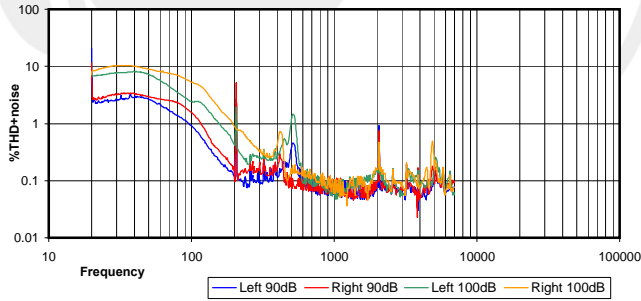
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



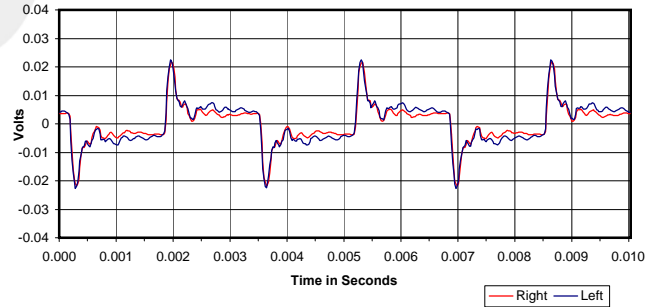
30 Hz Square Wave



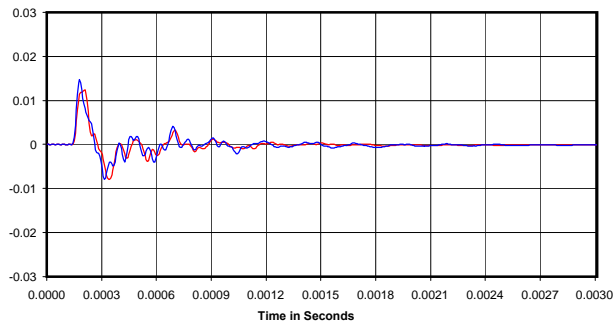
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

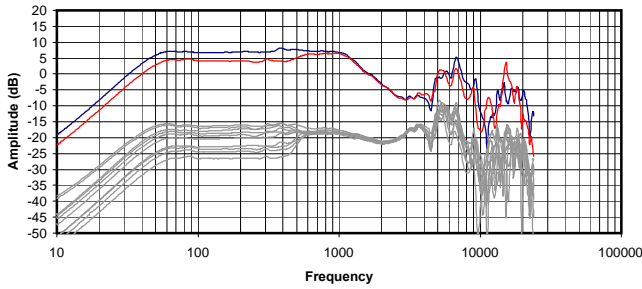


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

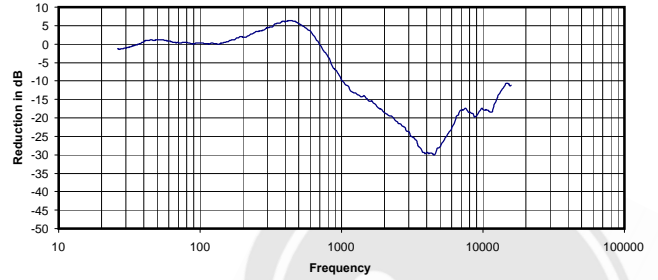
0.037 Vrms
 38 Ohms
 0.04 mW
 -8 dB



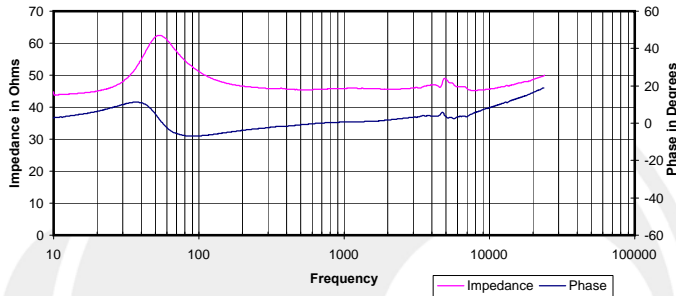
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



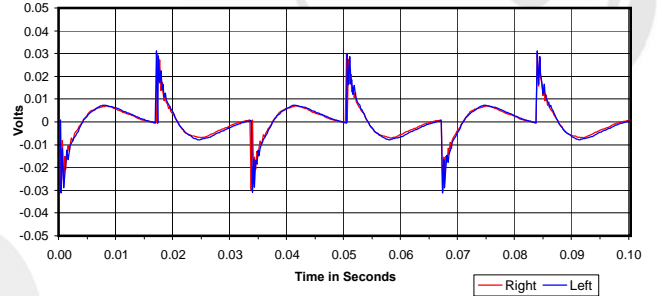
Isolation
 Attenuation of External Sound vs. Frequency



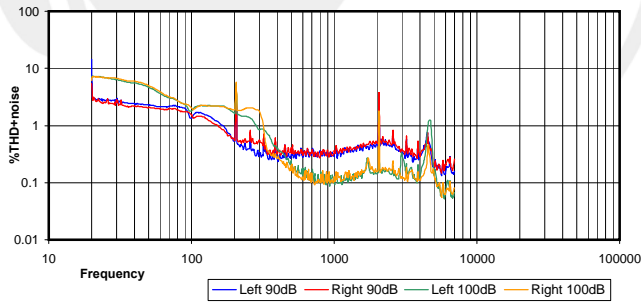
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



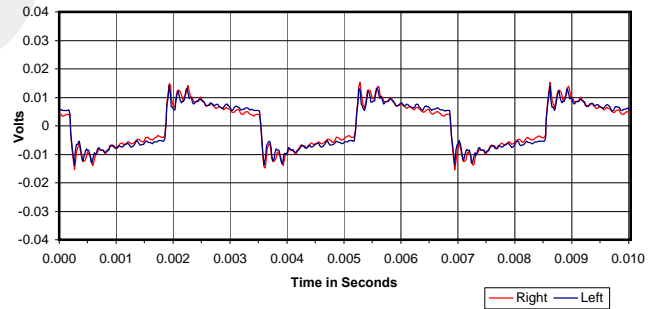
30 Hz Square Wave



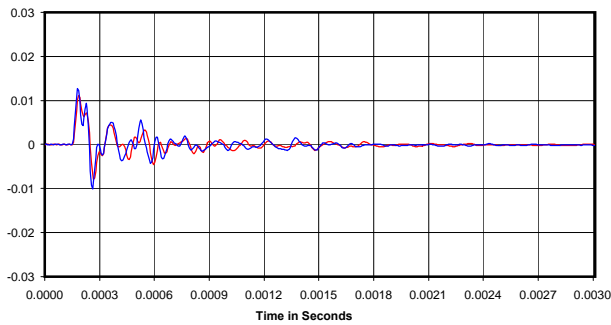
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

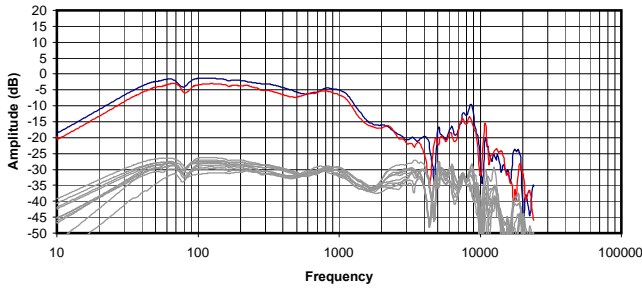


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

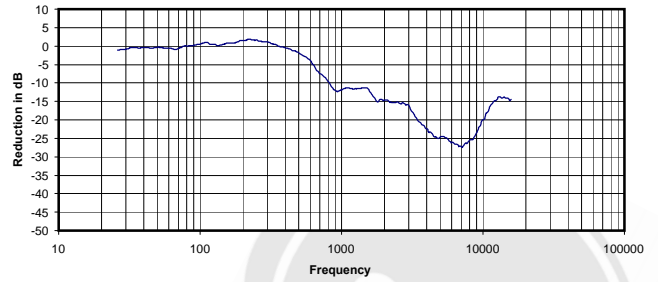
0.036 Vrms
 46 Ohms
 0.03 mW
 -8 dB



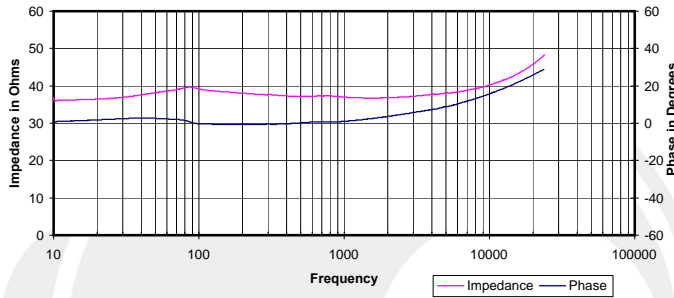
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



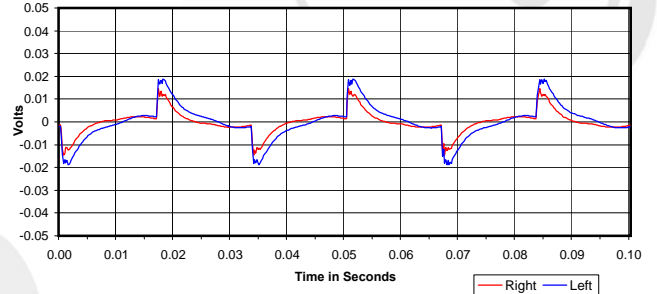
Isolation
 Attenuation of External Sound vs. Frequency



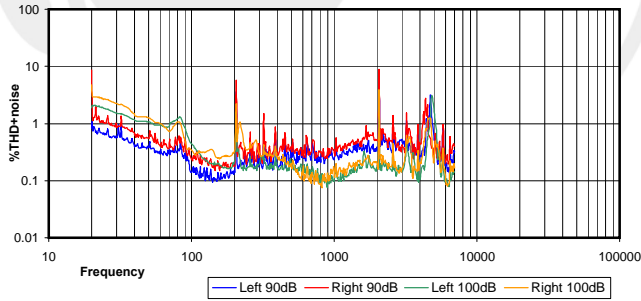
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



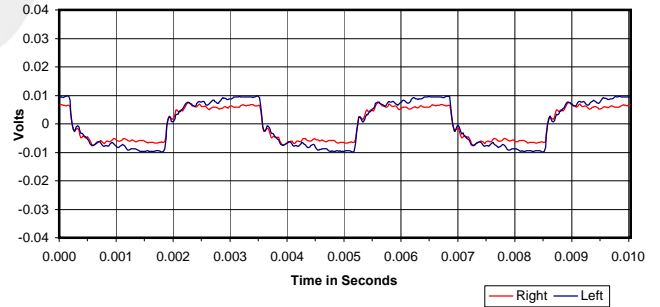
30 Hz Square Wave



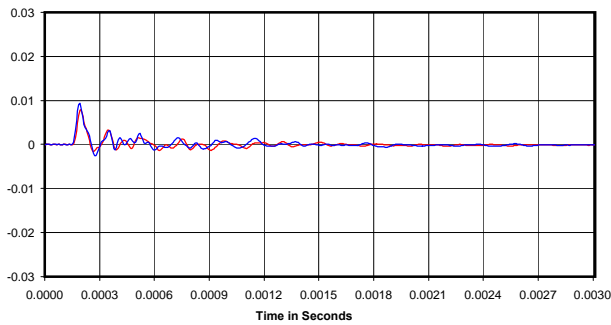
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

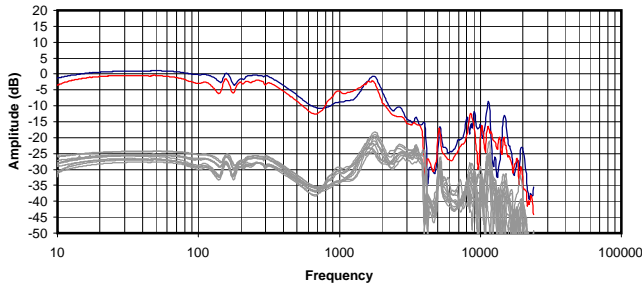


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

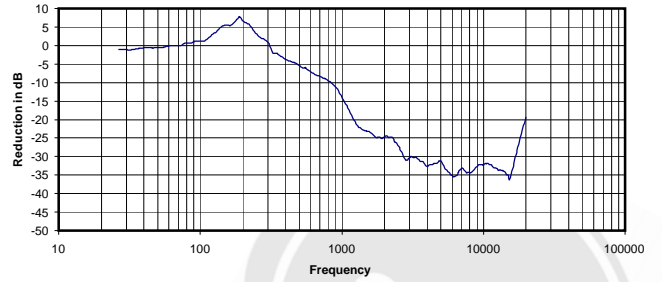
0.091 Vrms
 37 Ohms
 0.22 mW
 -8 dB



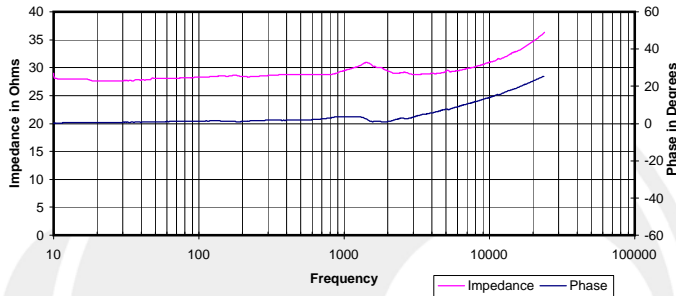
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



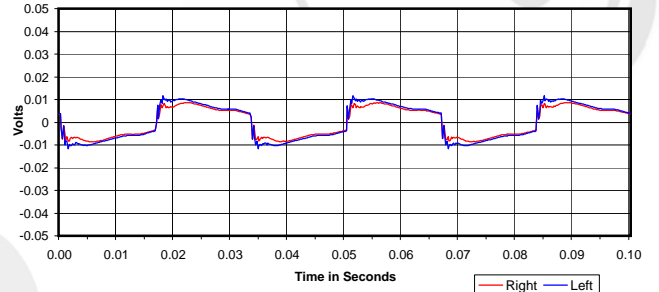
Isolation
 Attenuation of External Sound vs. Frequency



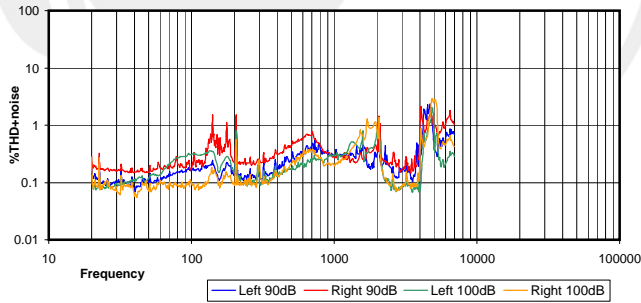
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



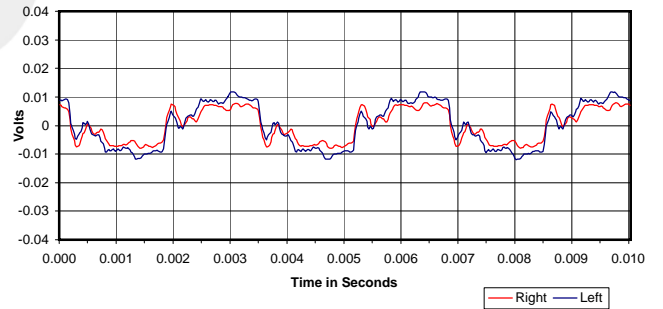
30 Hz Square Wave



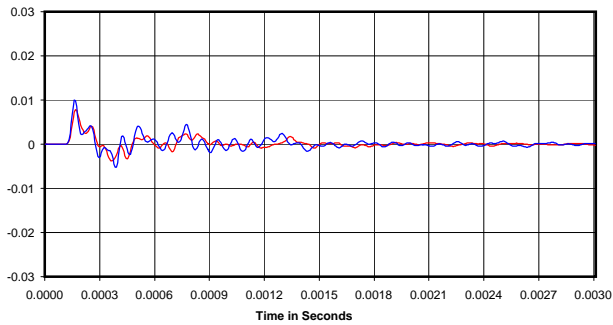
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

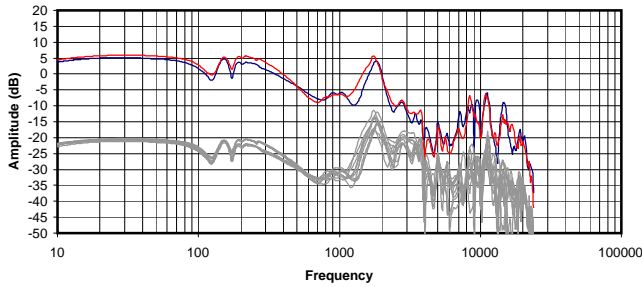


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

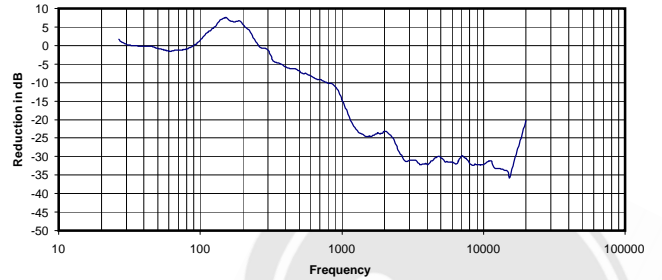
0.055 Vrms
 29 Ohms
 0.10 mW
 -15 dB



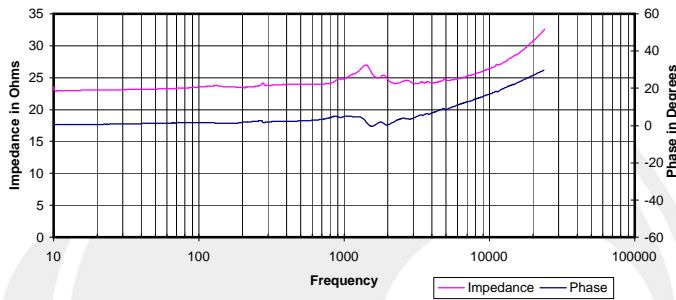
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



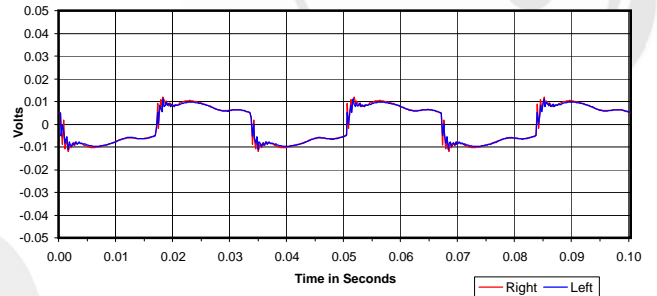
Isolation
Attenuation of External Sound vs. Frequency



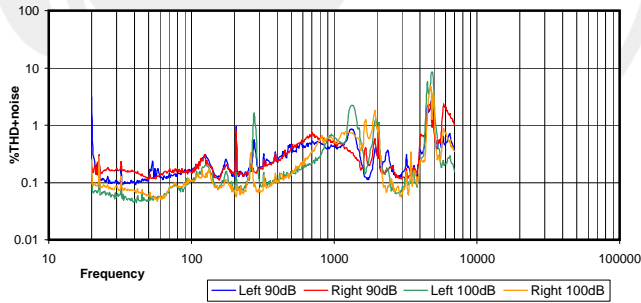
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



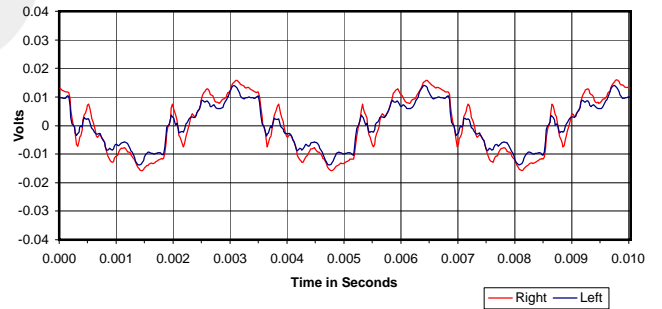
30 Hz Square Wave



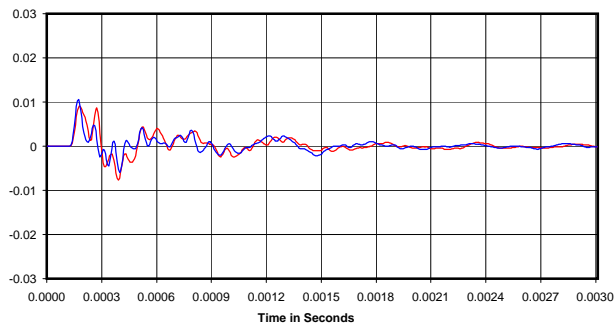
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

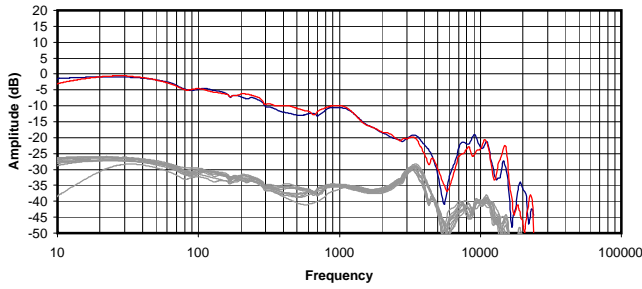


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

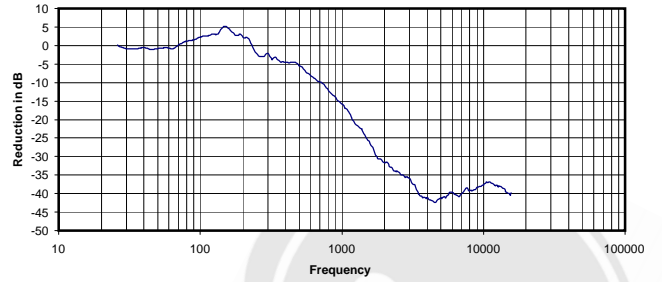
0.048 Vrms
25 Ohms
0.09 mW
-15 dB



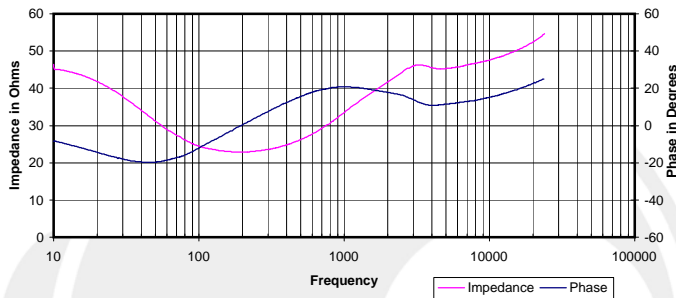
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



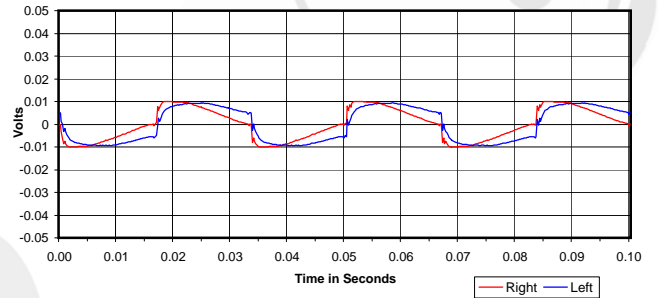
Isolation
 Attenuation of External Sound vs. Frequency



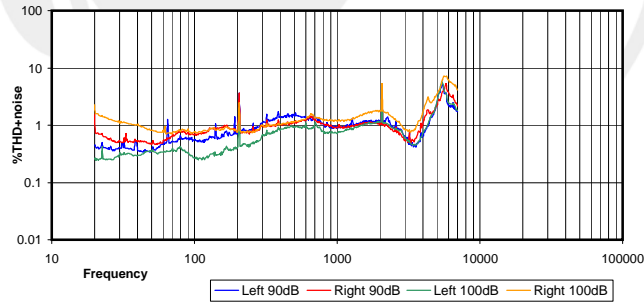
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



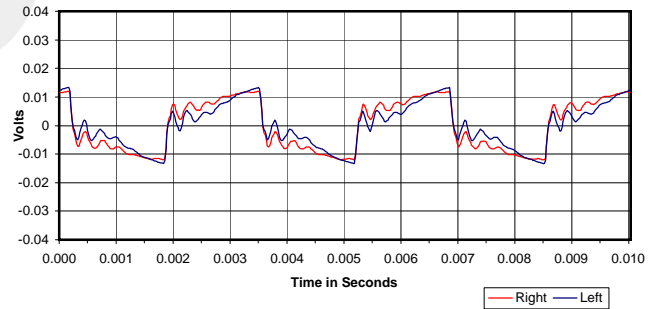
30 Hz Square Wave



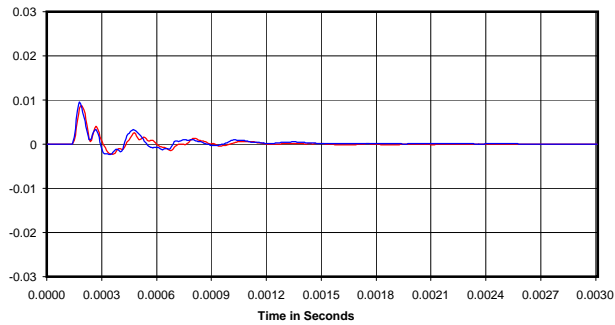
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

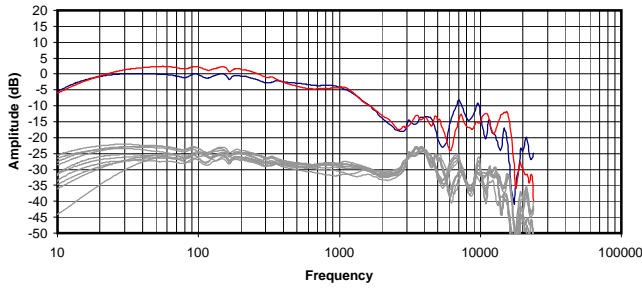


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

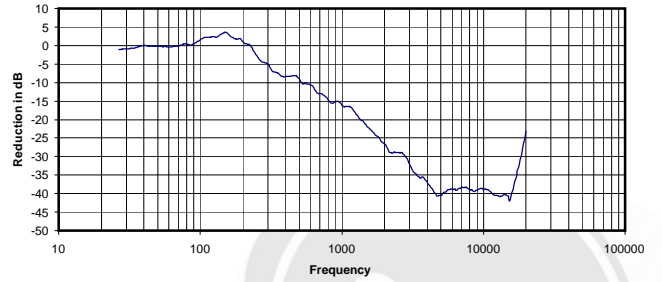
0.040 Vrms
 34 Ohms
 0.05 mW
 -16 dB



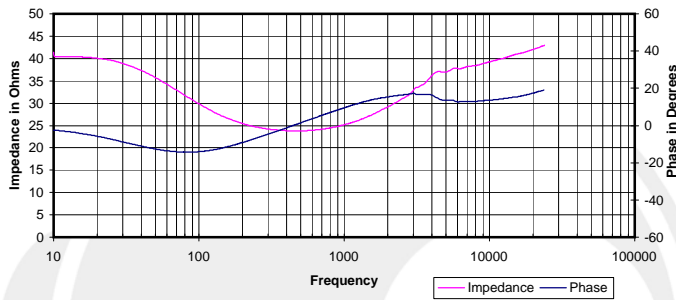
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



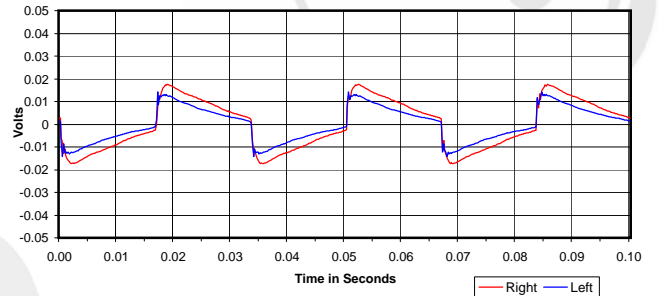
Isolation
 Attenuation of External Sound vs. Frequency



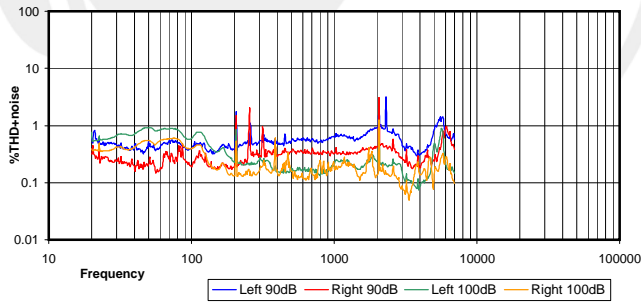
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



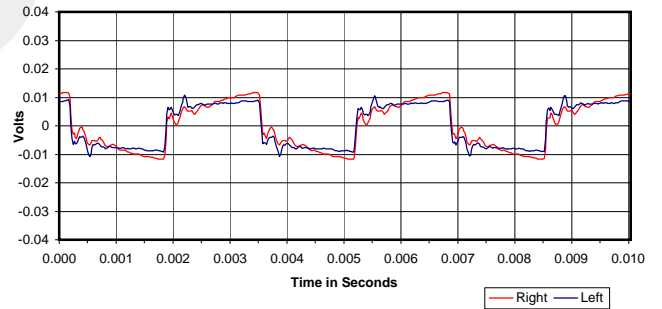
30 Hz Square Wave



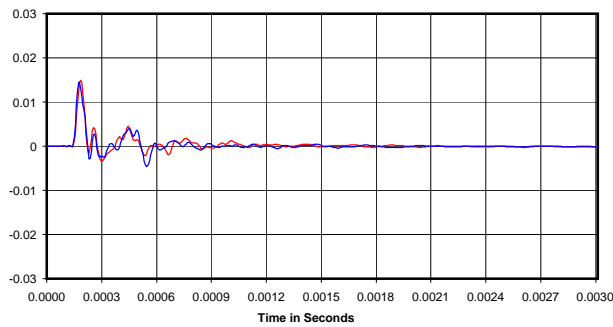
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

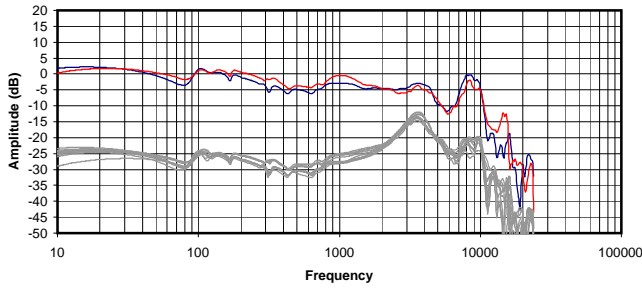


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

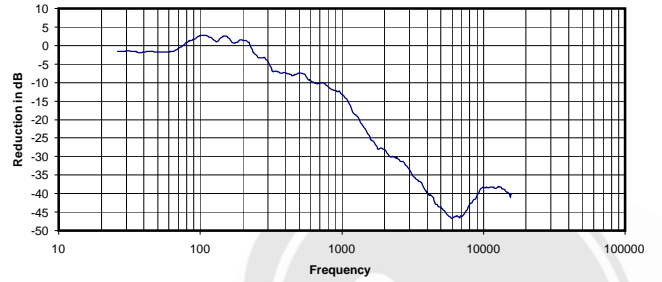
0.048 Vrms
 25 Ohms
 0.09 mW
 -18 dB



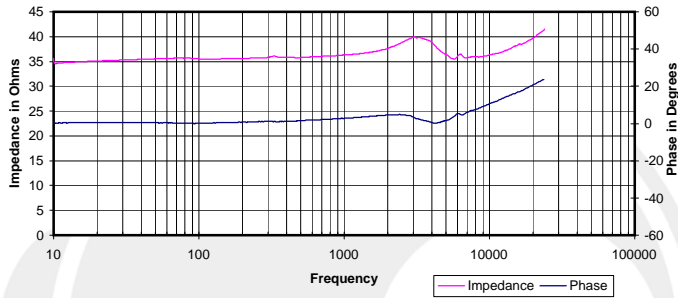
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



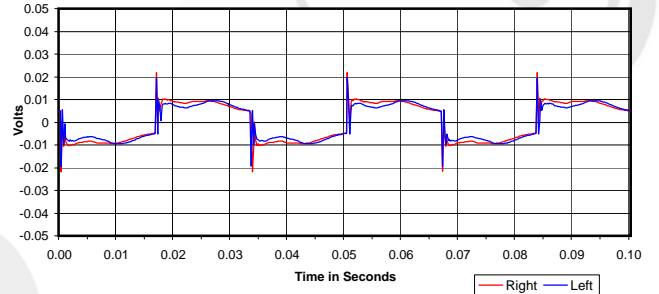
Isolation
 Attenuation of External Sound vs. Frequency



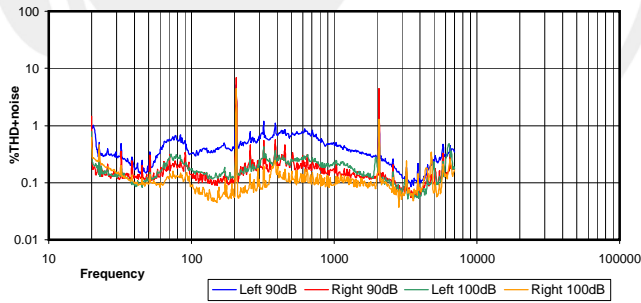
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



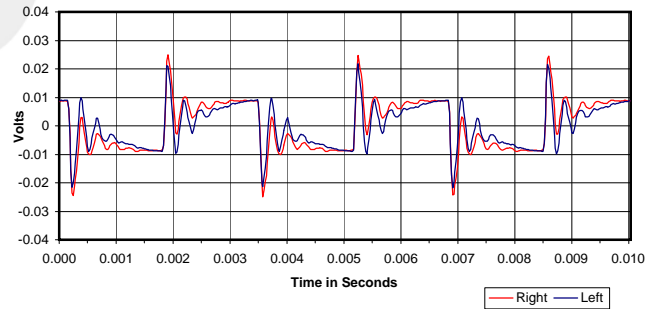
30 Hz Square Wave



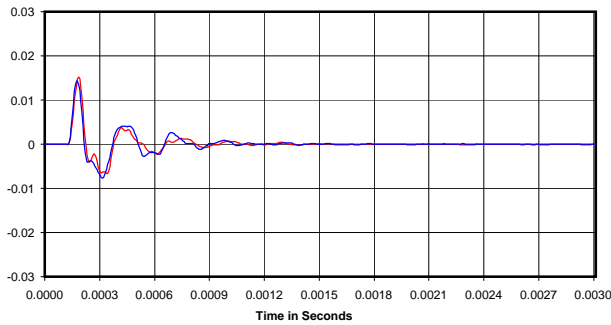
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

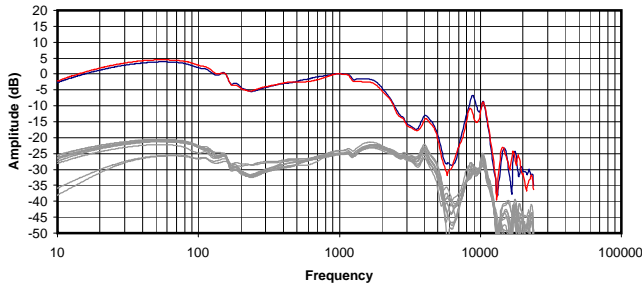


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

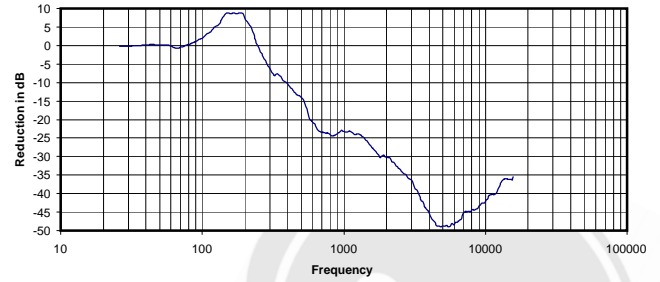
0.045 Vrms
 36 Ohms
 0.06 mW
 -16 dB



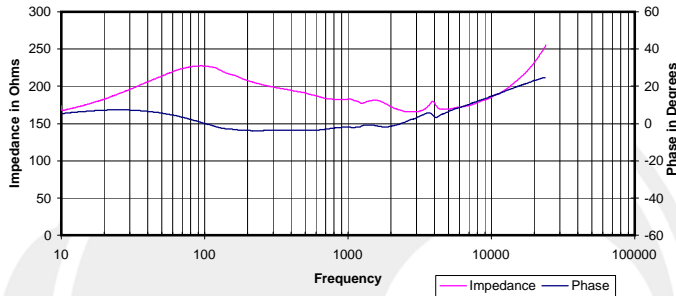
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



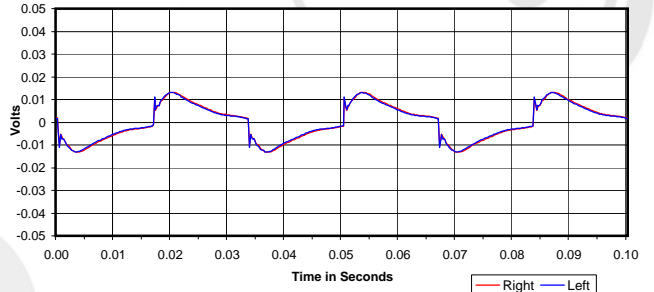
Isolation
 Attenuation of External Sound vs. Frequency



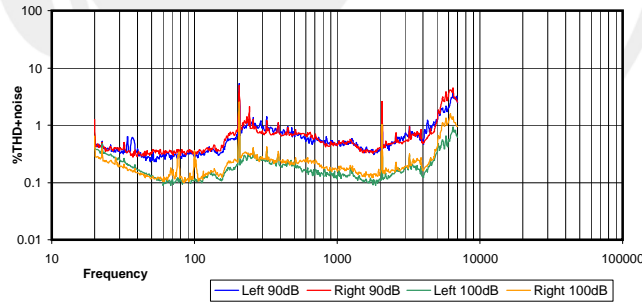
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



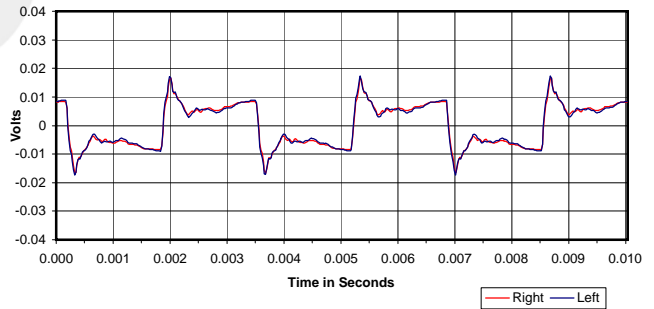
30 Hz Square Wave



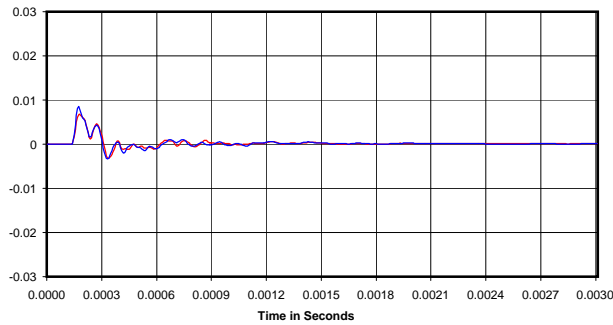
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

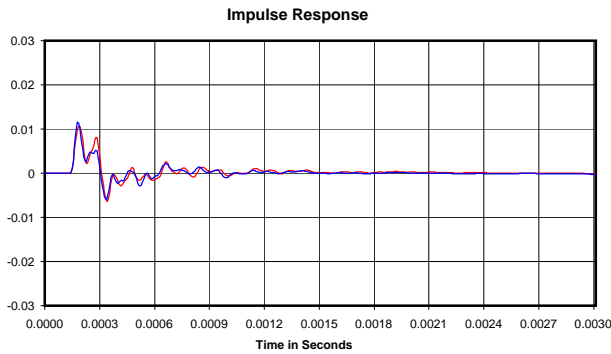
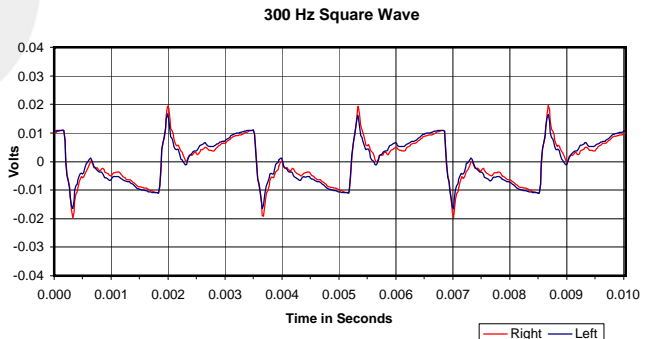
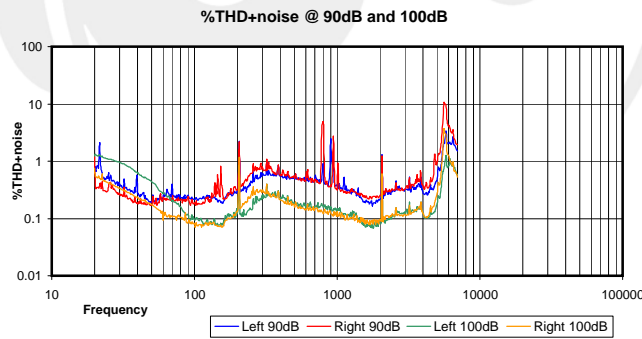
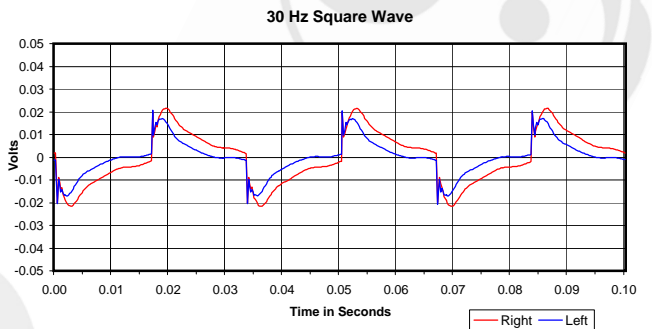
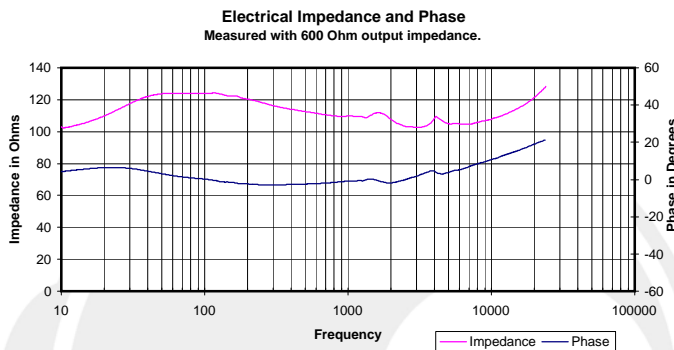
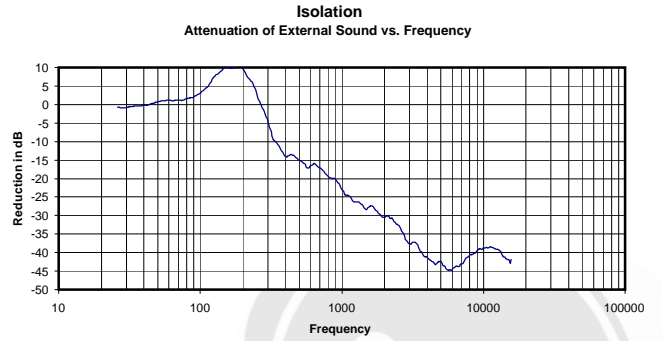
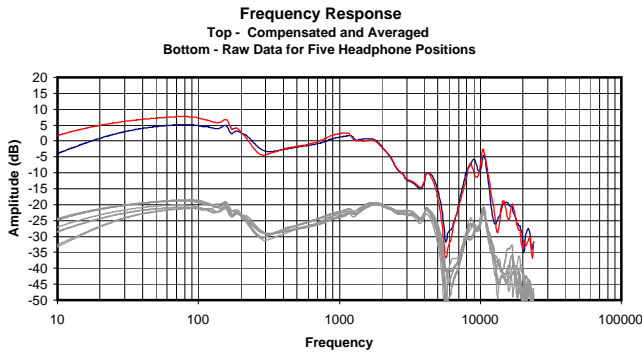


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

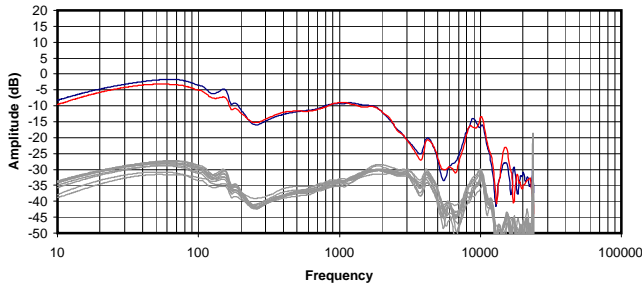
0.040 Vrms
 182 Ohms
 0.01 mW
 -19 dB



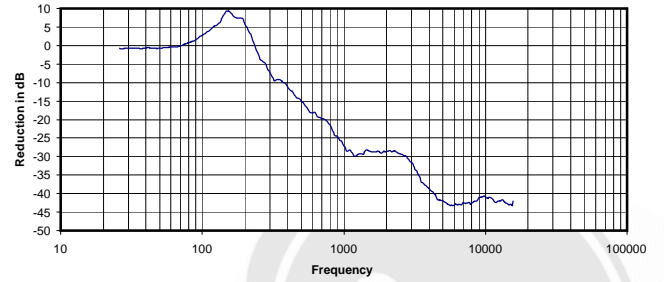
Volts RMS required to reach 90dB SPL:	0.035 Vrms
Impedance @ 1kHz:	110 Ohms
Power Needed for 90d BSPL	0.01 mW
Broadband Isolation in dB (100Hz to 10kHz):	-18 dB



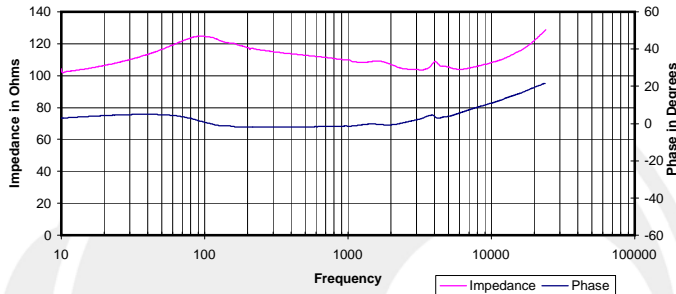
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



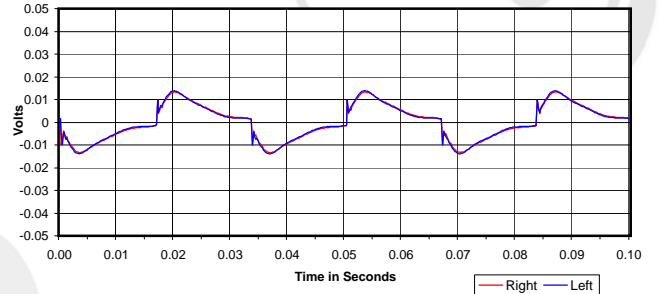
Isolation
 Attenuation of External Sound vs. Frequency



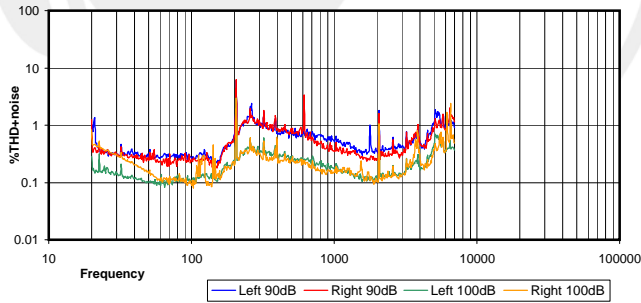
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



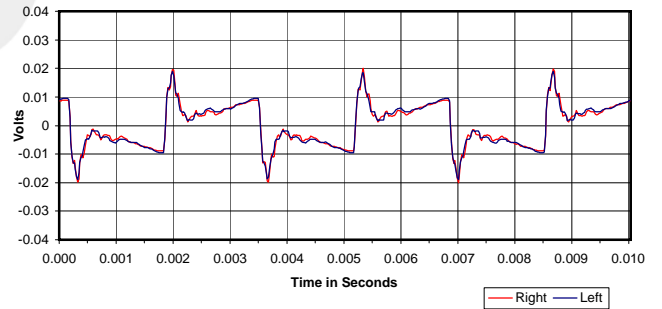
30 Hz Square Wave



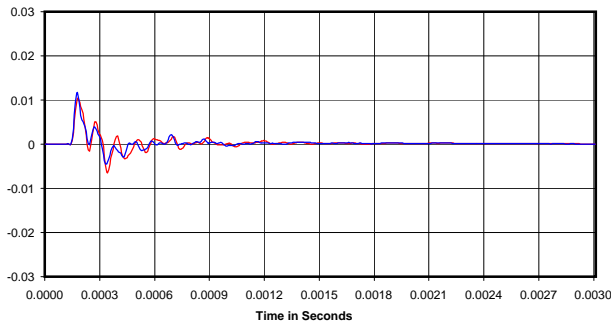
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



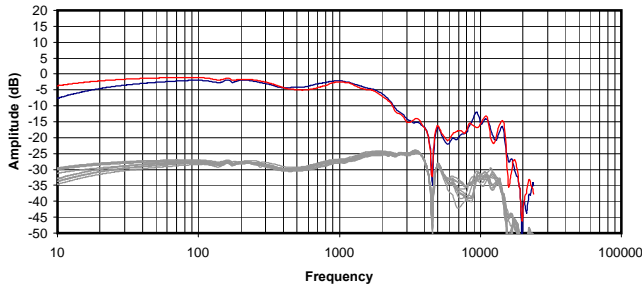
Impulse Response



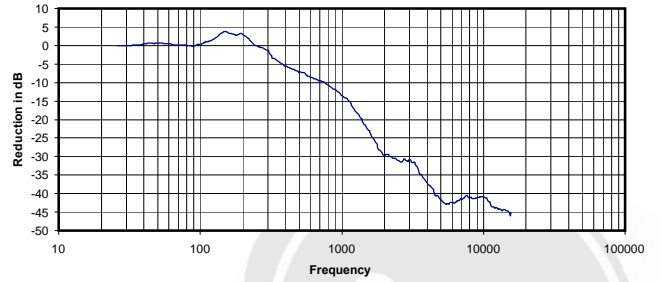
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
 110 Ohms
 0.02 mW
 -18 dB

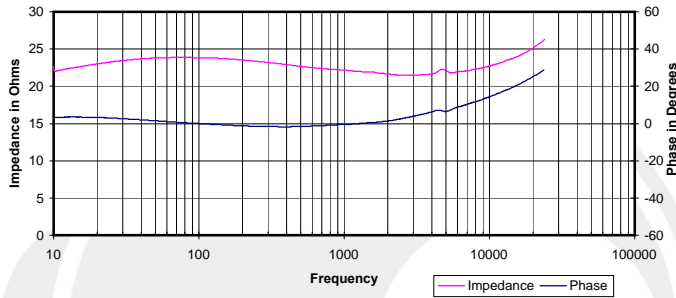
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



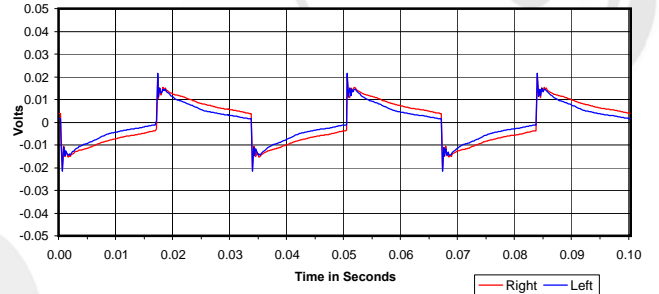
Isolation
 Attenuation of External Sound vs. Frequency



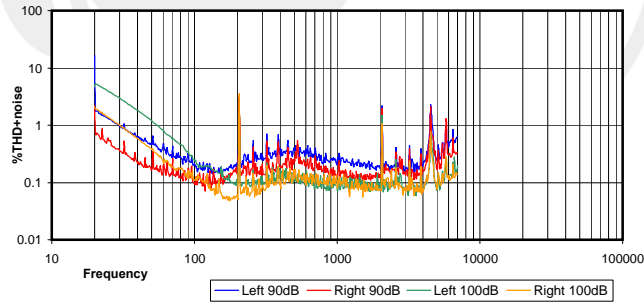
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



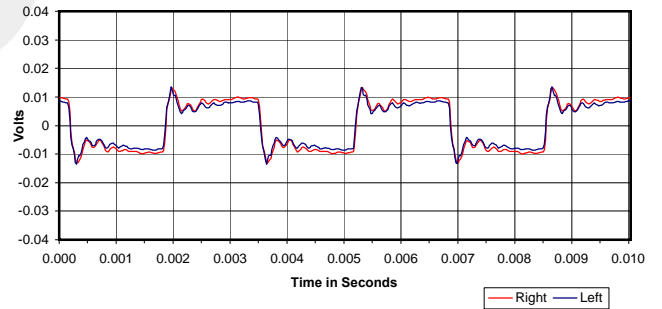
30 Hz Square Wave



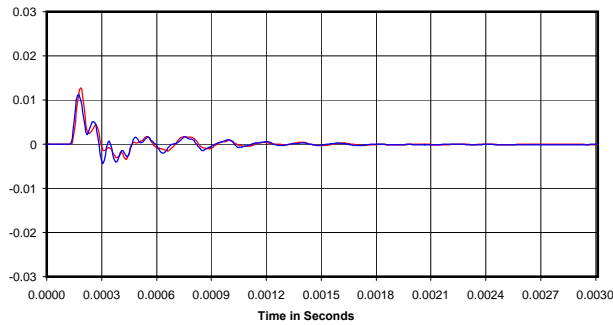
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

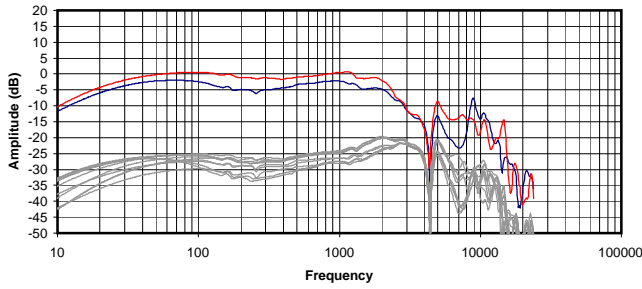


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

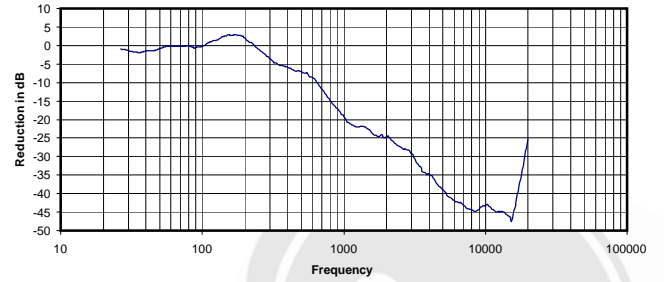
0.022 Vrms
 22 Ohms
 0.02 mW
 -15 dB



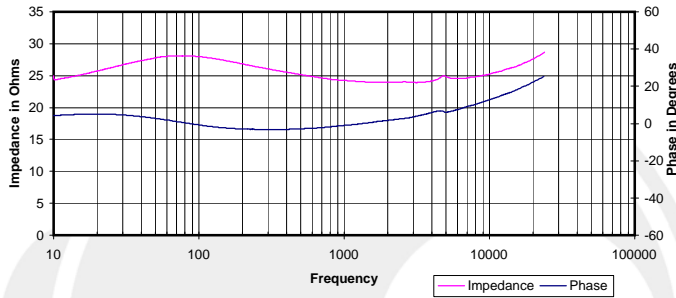
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



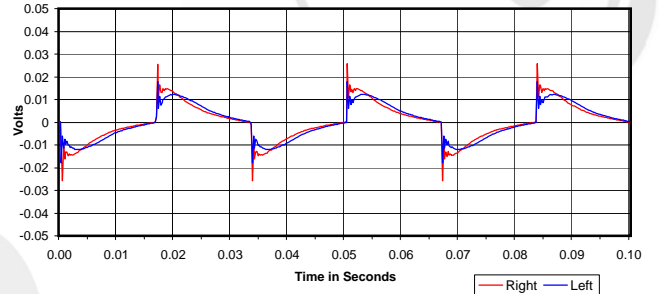
Isolation
 Attenuation of External Sound vs. Frequency



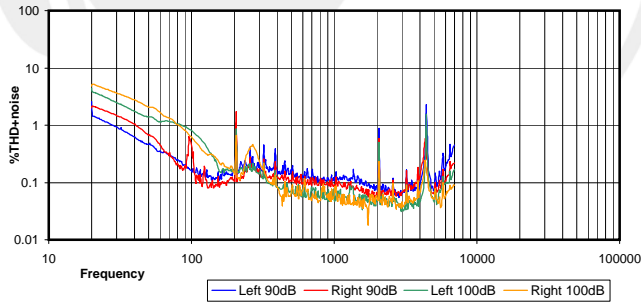
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



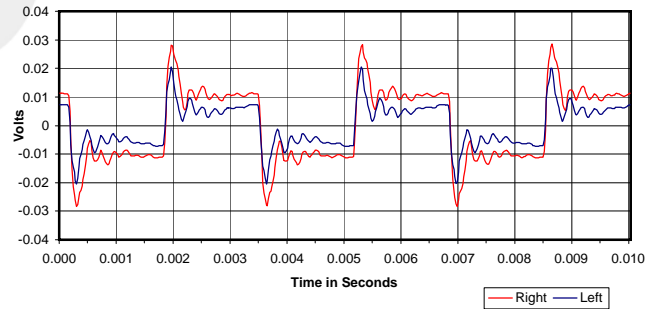
30 Hz Square Wave



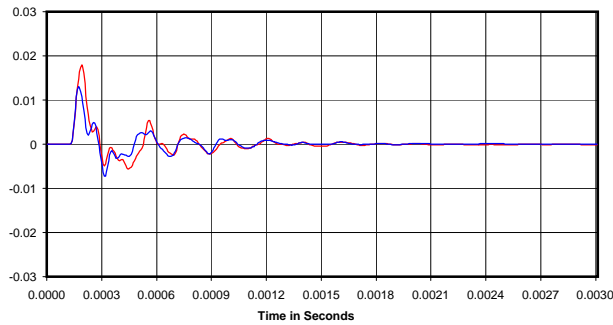
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

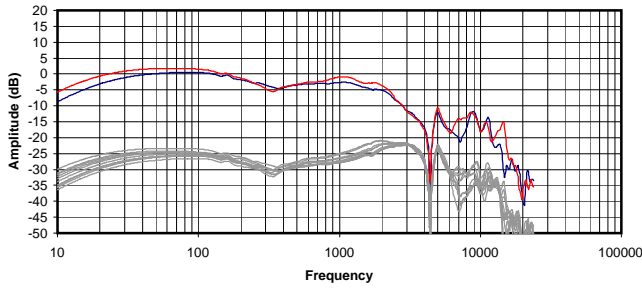


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

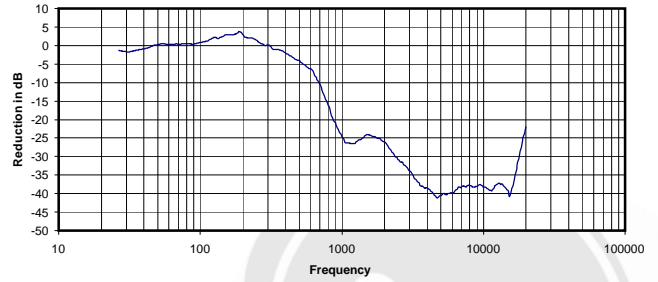
0.030 Vrms
 24 Ohms
 0.04 mW
 -18 dB



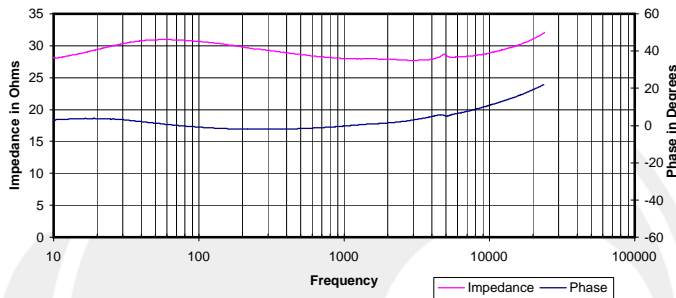
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



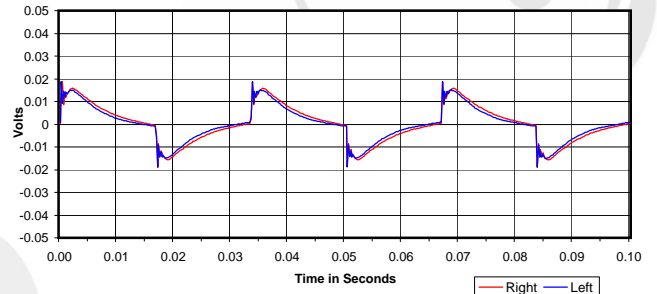
Isolation
Attenuation of External Sound vs. Frequency



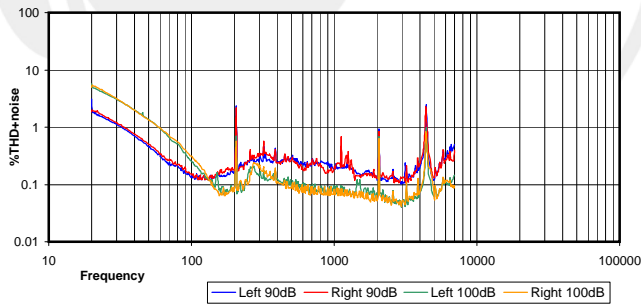
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



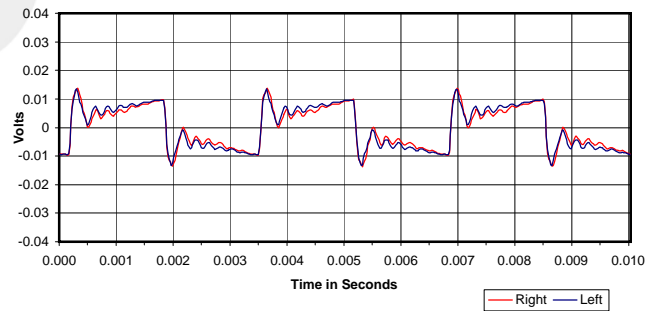
30 Hz Square Wave



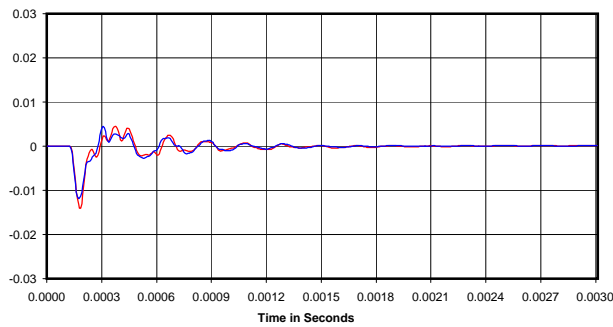
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

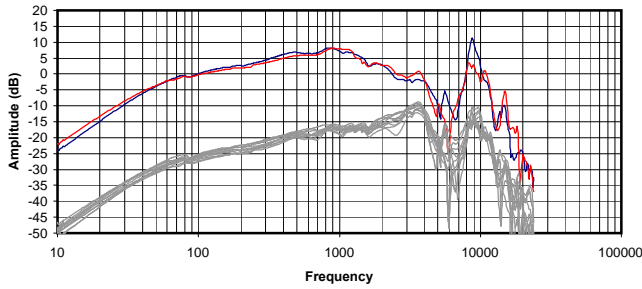


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

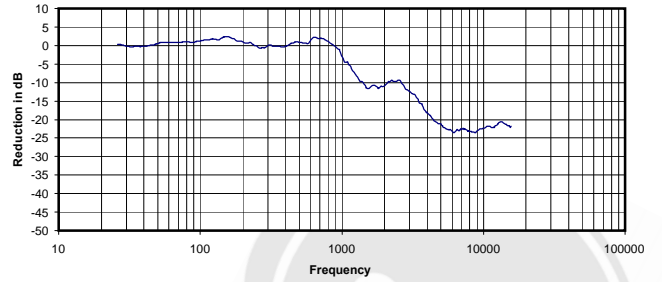
0.035 Vrms
28 Ohms
0.04 mW
-18 dB



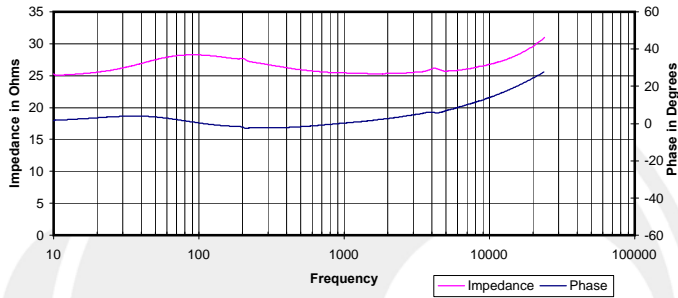
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



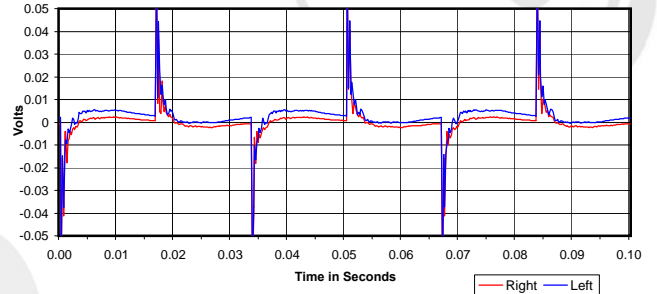
Isolation
Attenuation of External Sound vs. Frequency



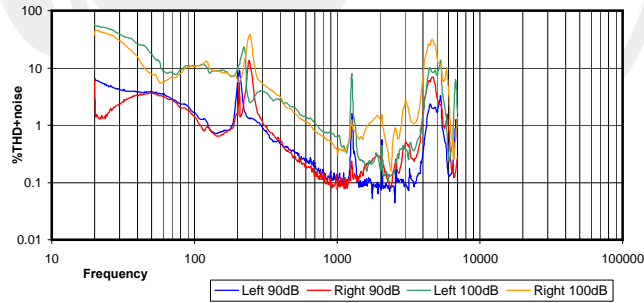
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



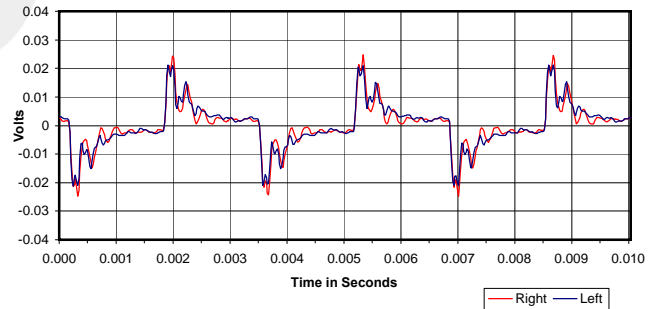
30 Hz Square Wave



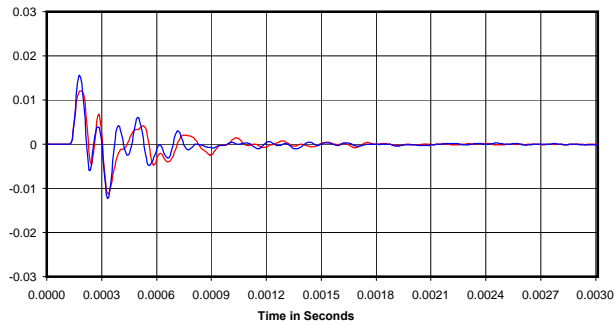
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



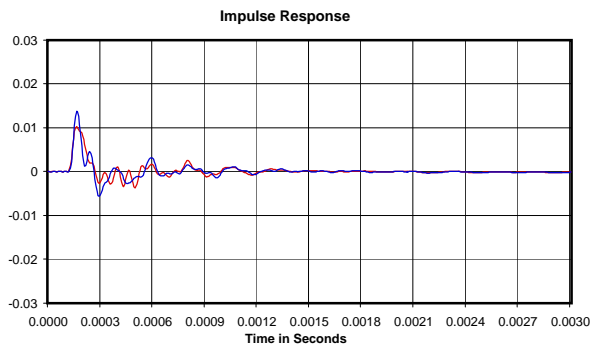
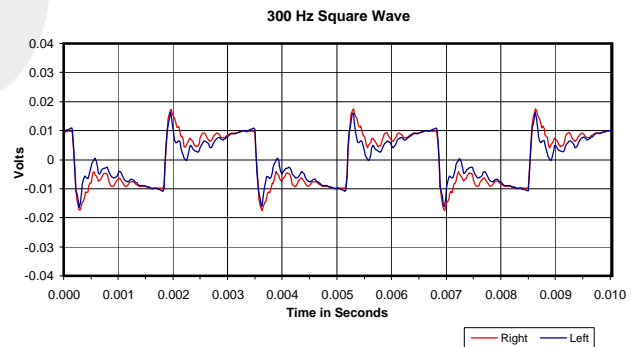
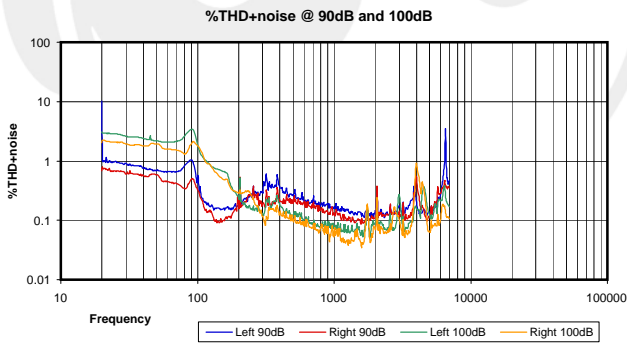
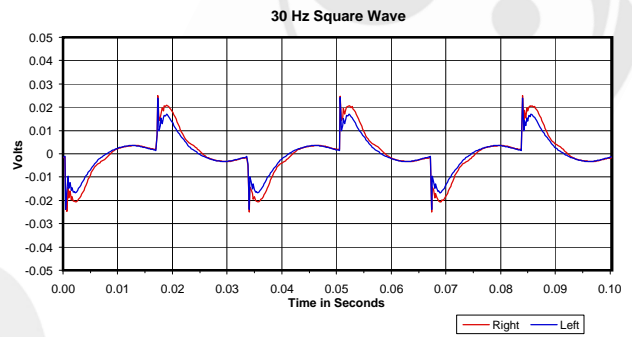
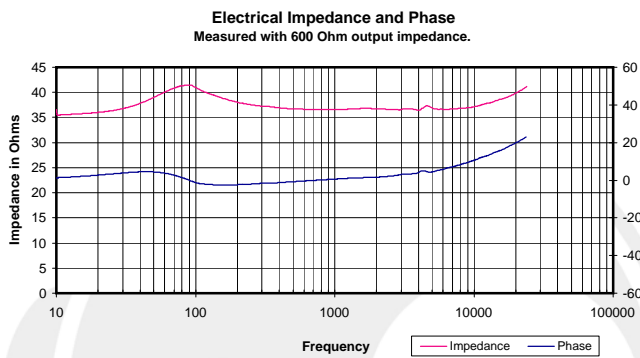
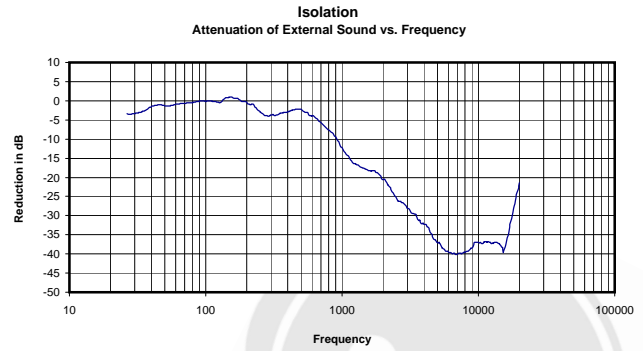
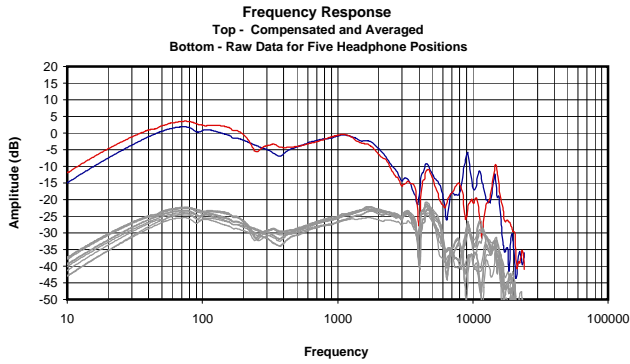
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.074 Vrms
25 Ohms
0.22 mW
-5 dB



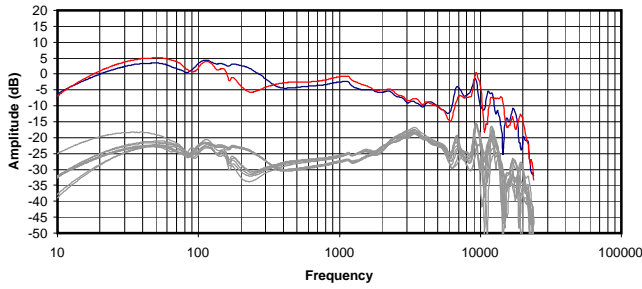


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

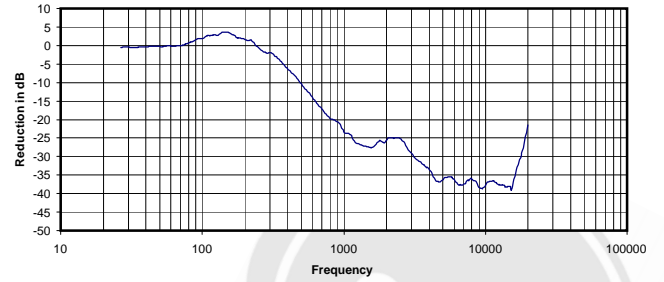
0.032 Vrms
37 Ohms
0.03 mW
-16 dB



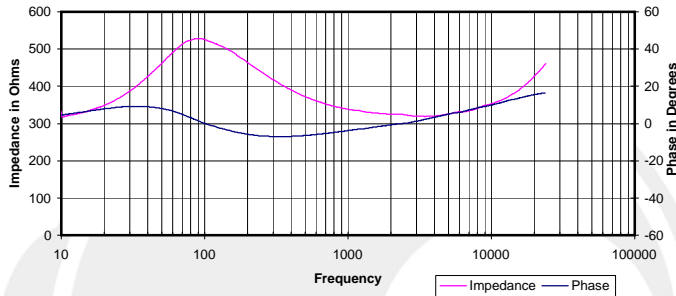
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



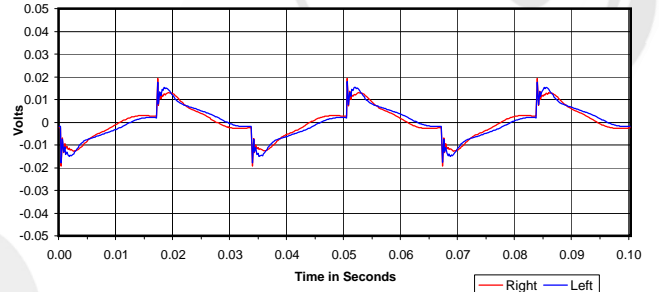
Isolation
 Attenuation of External Sound vs. Frequency



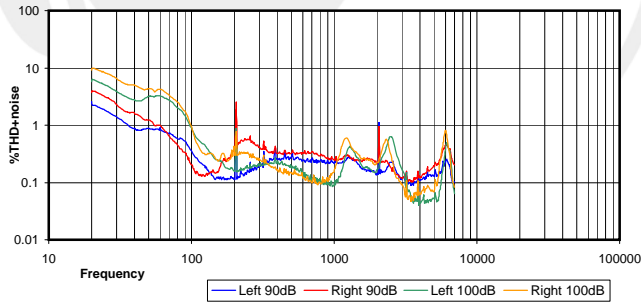
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



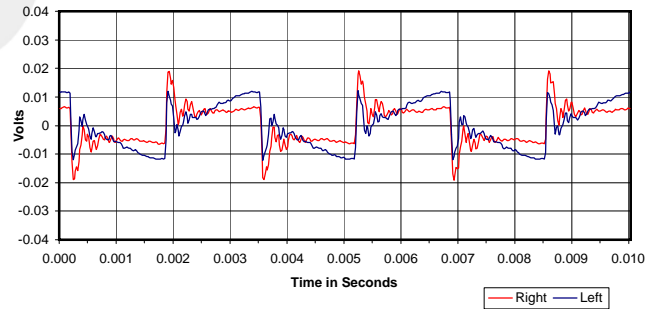
30 Hz Square Wave



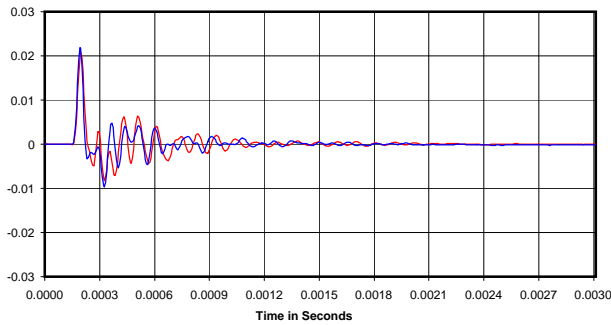
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



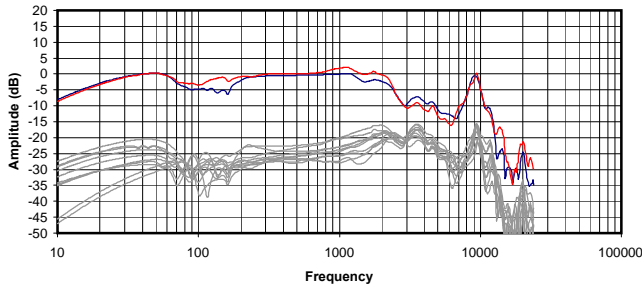
Impulse Response



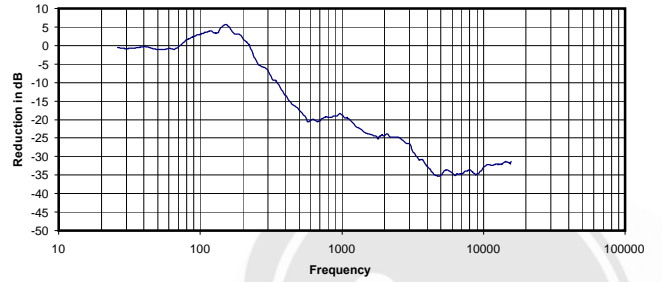
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.258 Vrms
 338 Ohms
 0.20 mW
 -18 dB

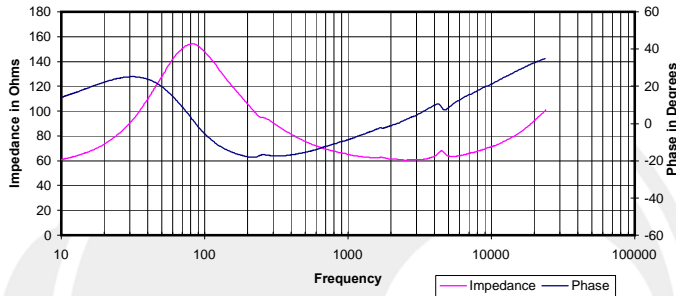
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



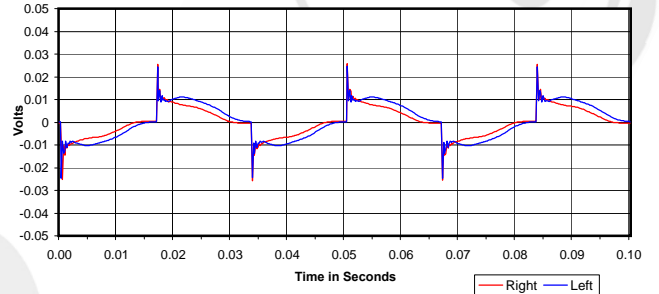
Isolation
 Attenuation of External Sound vs. Frequency



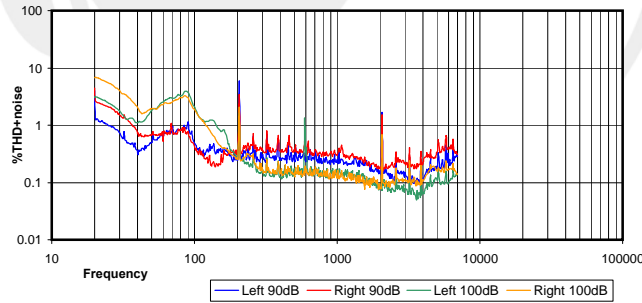
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



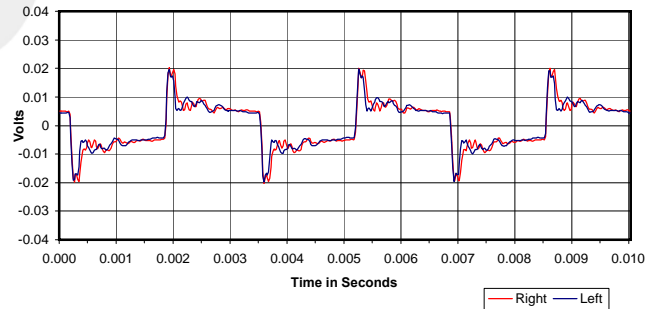
30 Hz Square Wave



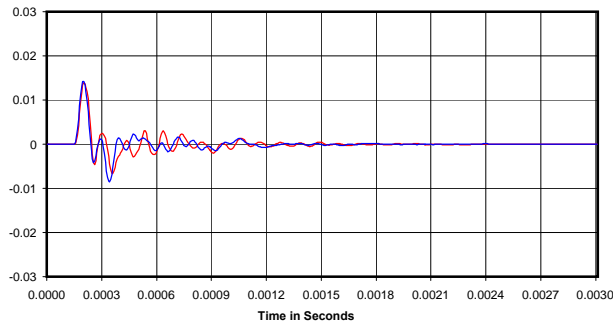
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



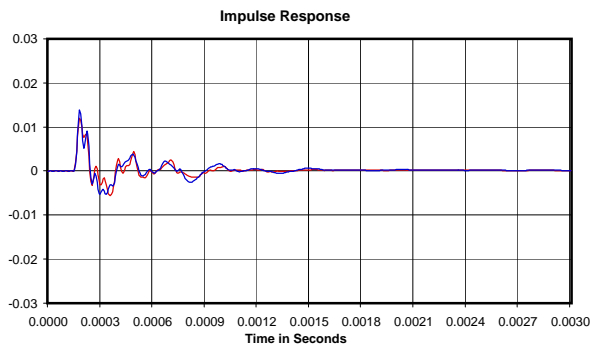
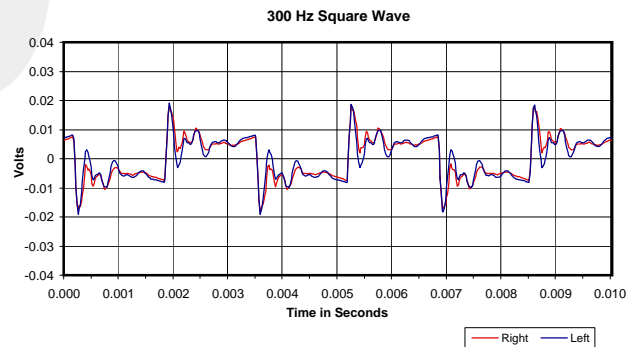
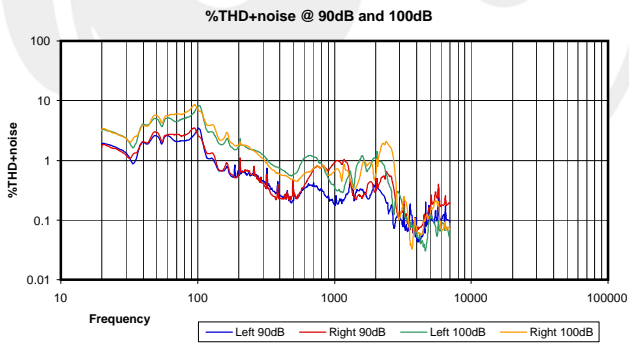
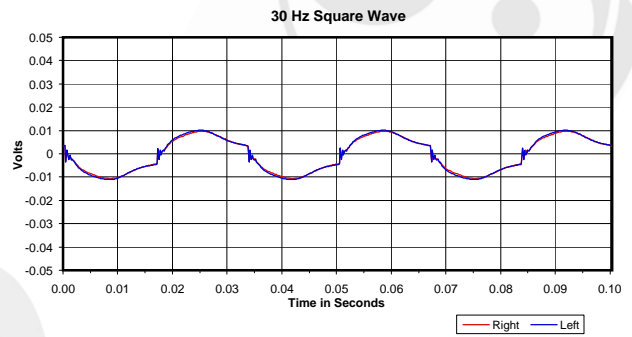
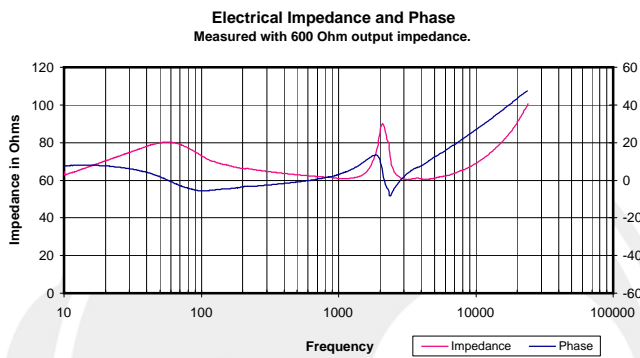
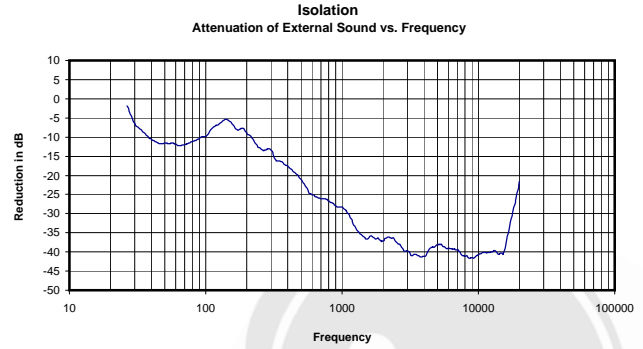
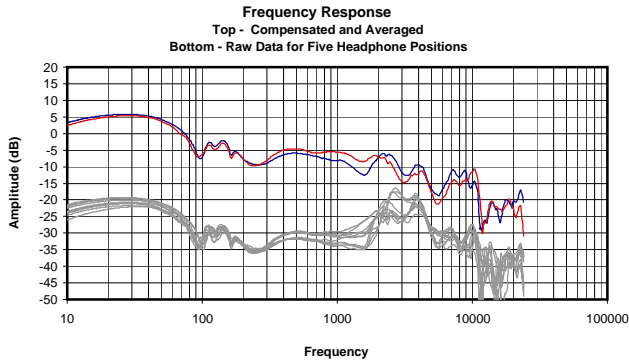
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
 65 Ohms
 0.06 mW
 -16 dB



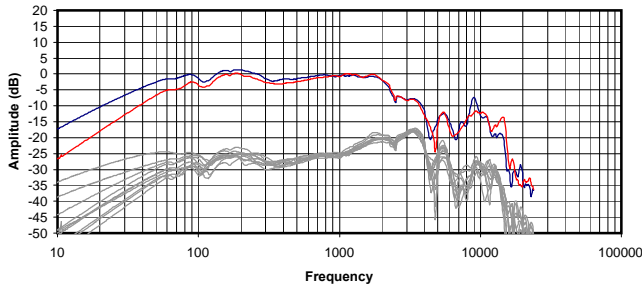


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

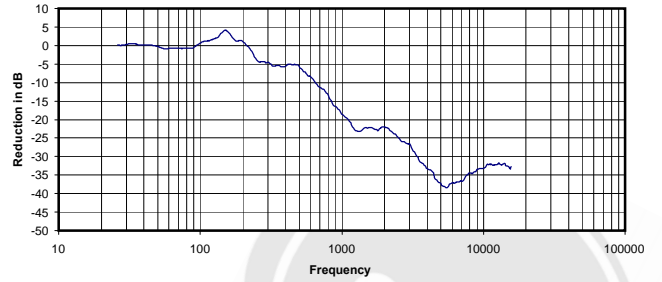
0.310 Vrms
61 Ohms
1.57 mW
-27 dB



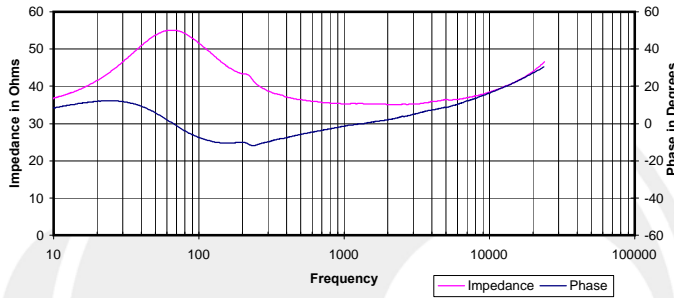
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



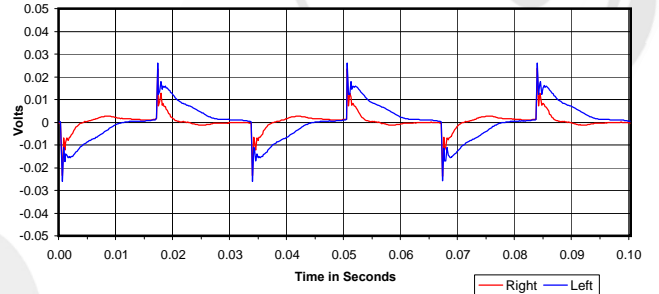
Isolation
Attenuation of External Sound vs. Frequency



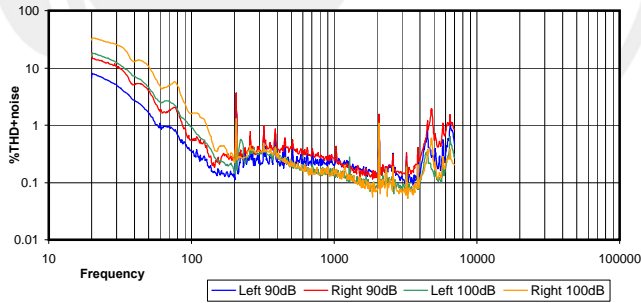
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



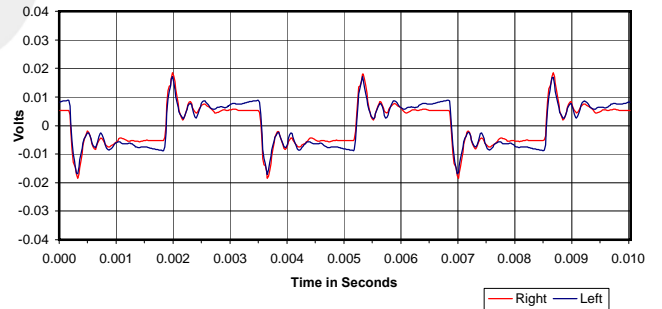
30 Hz Square Wave



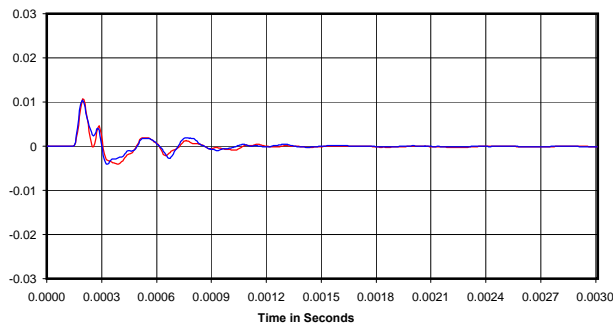
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

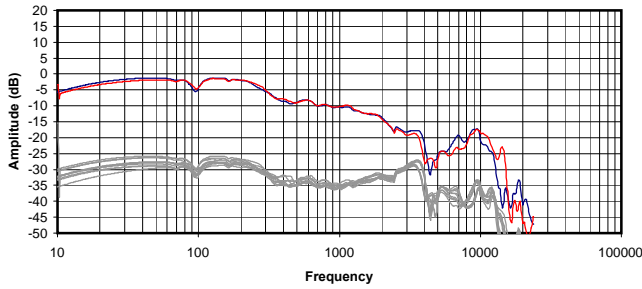


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

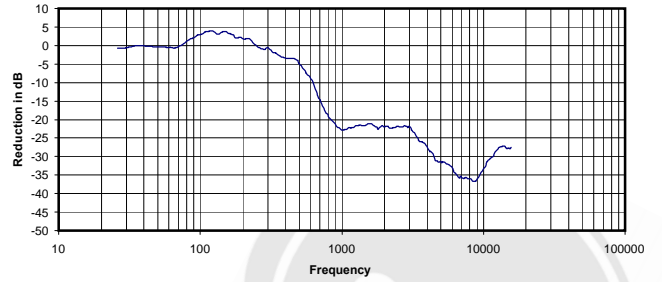
0.059 Vrms
35 Ohms
0.10 mW
-14 dB



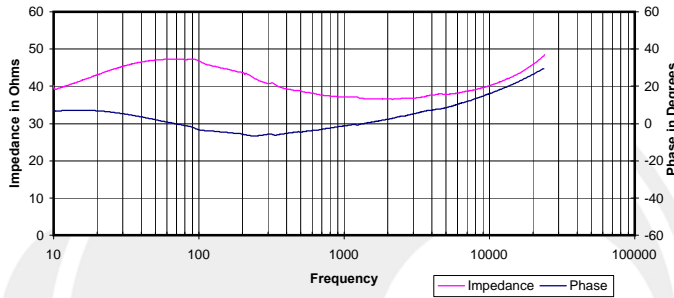
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



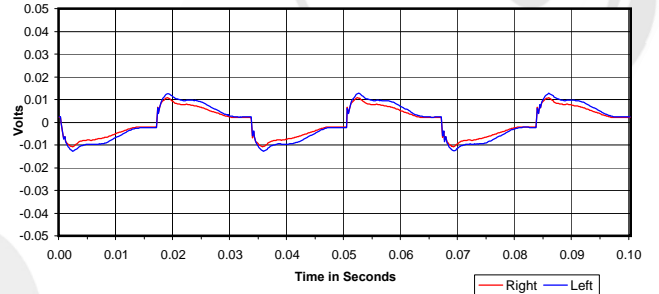
Isolation
 Attenuation of External Sound vs. Frequency



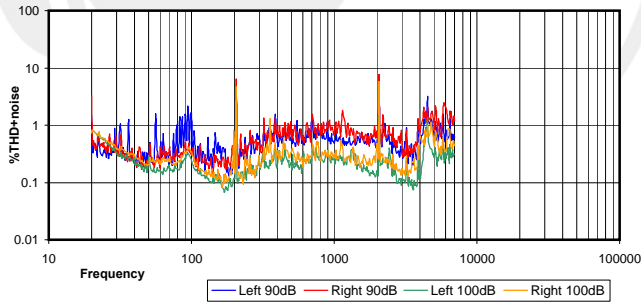
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



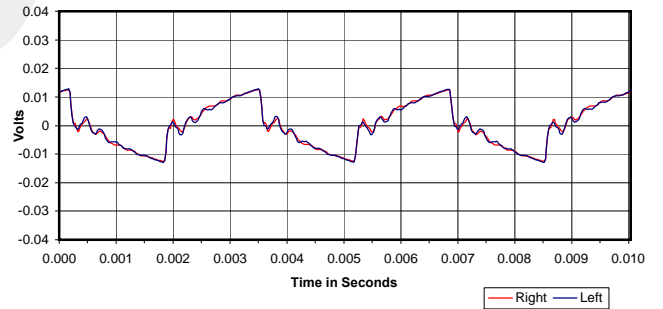
30 Hz Square Wave



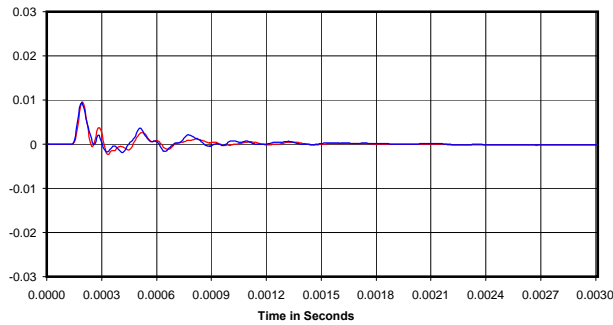
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



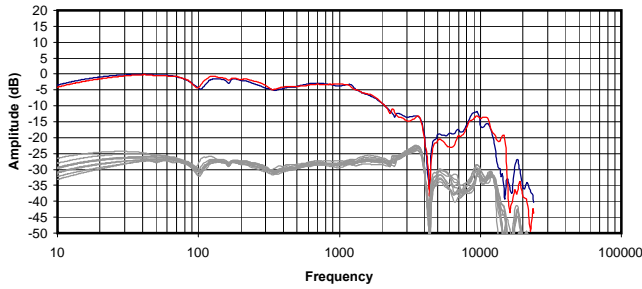
Impulse Response



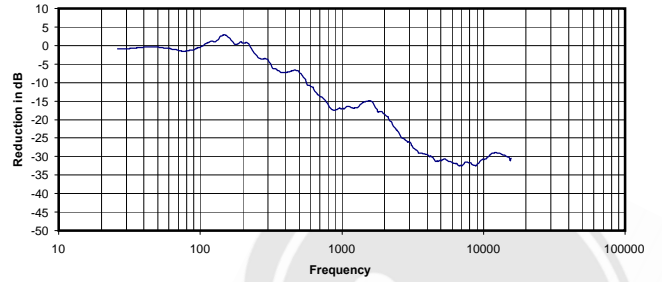
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.081 Vrms
 37 Ohms
 0.18 mW
 -13 dB

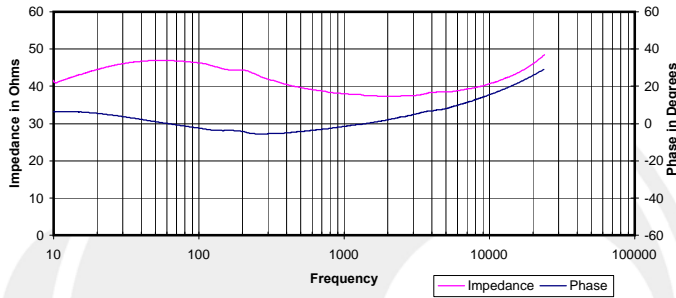
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



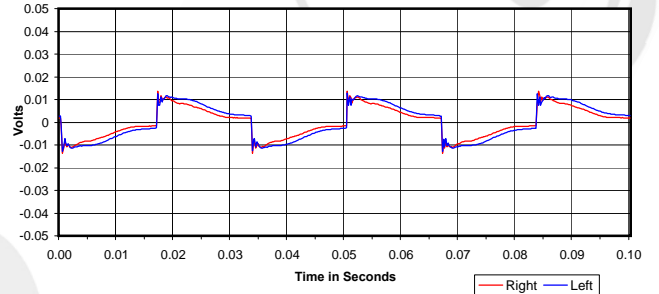
Isolation
Attenuation of External Sound vs. Frequency



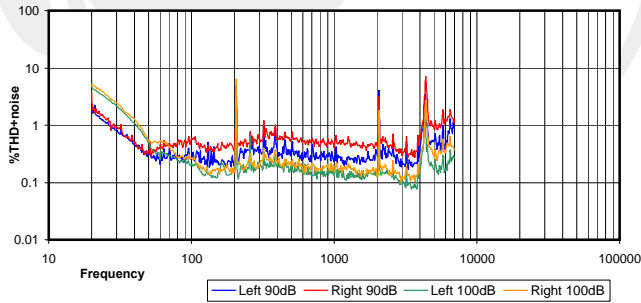
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



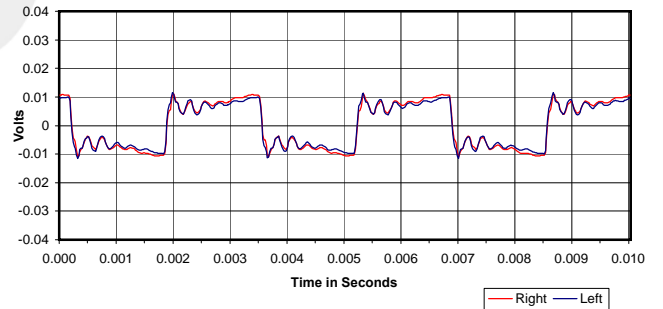
30 Hz Square Wave



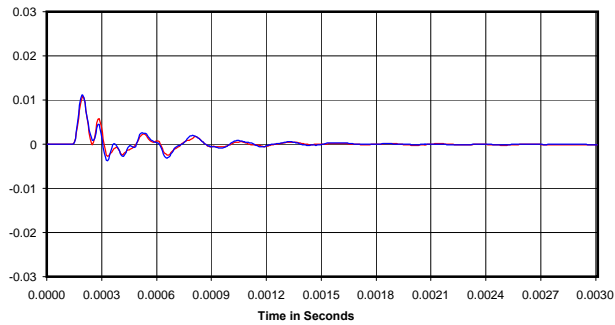
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



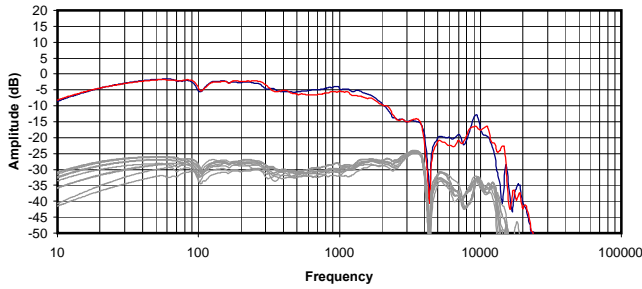
Impulse Response



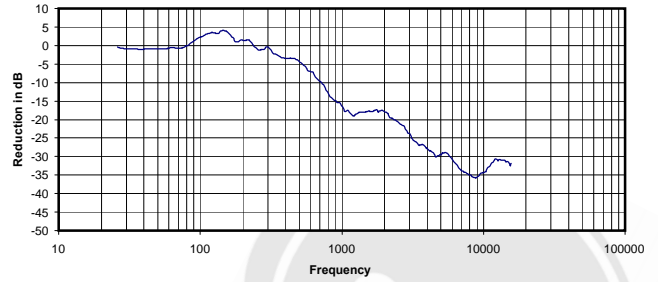
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
38 Ohms
0.10 mW
-13 dB

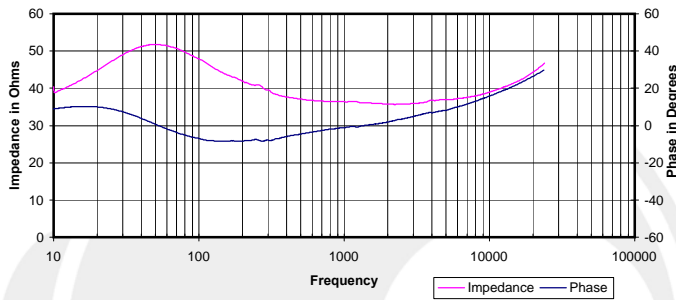
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



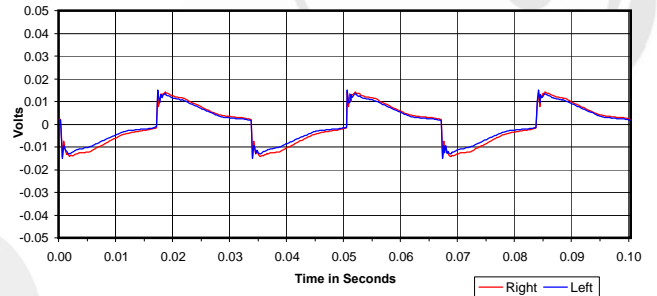
Isolation
 Attenuation of External Sound vs. Frequency



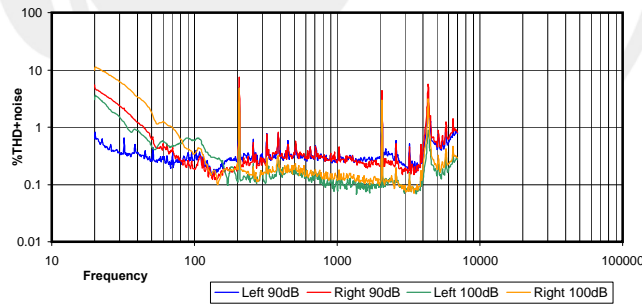
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



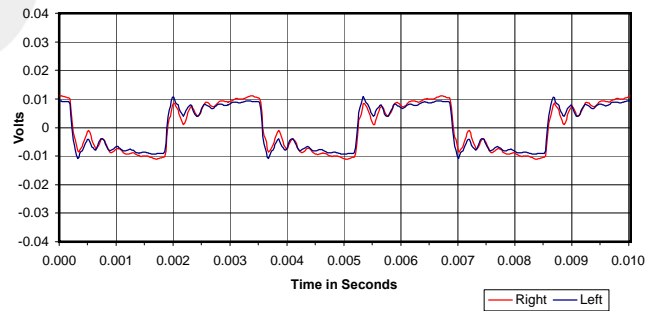
30 Hz Square Wave



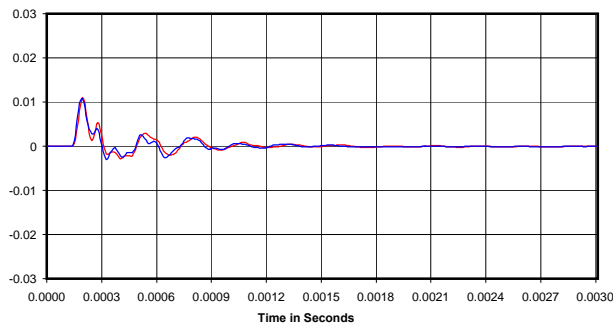
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

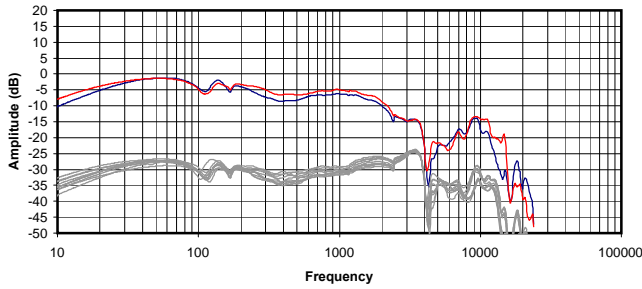


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

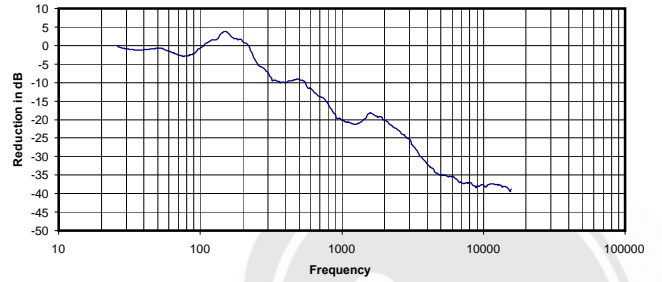
0.047 Vrms
 36 Ohms
 0.06 mW
 -11 dB



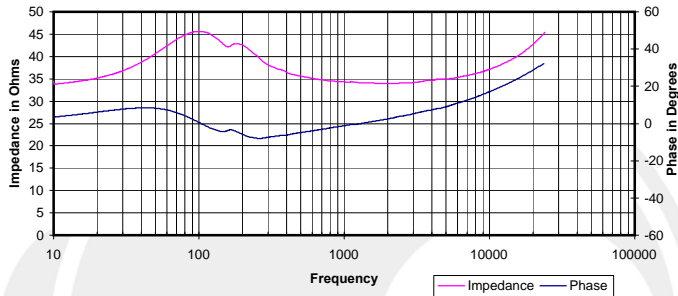
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



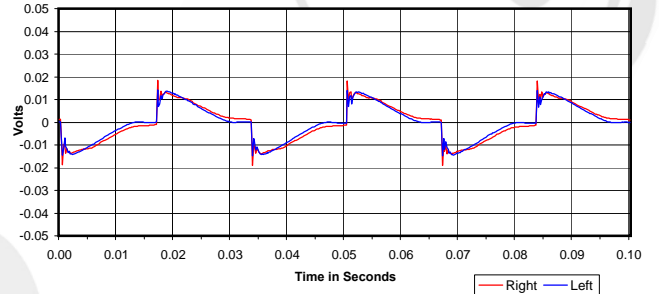
Isolation
 Attenuation of External Sound vs. Frequency



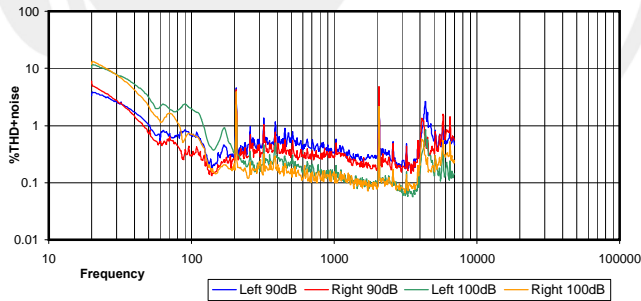
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



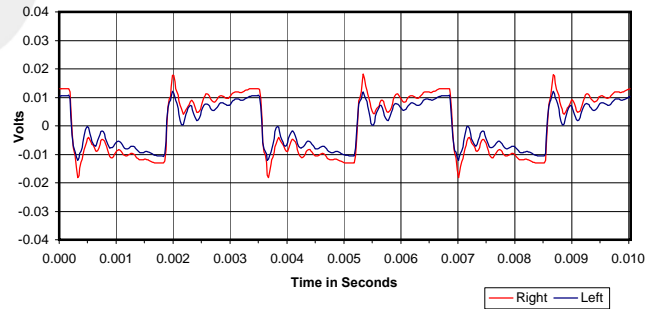
30 Hz Square Wave



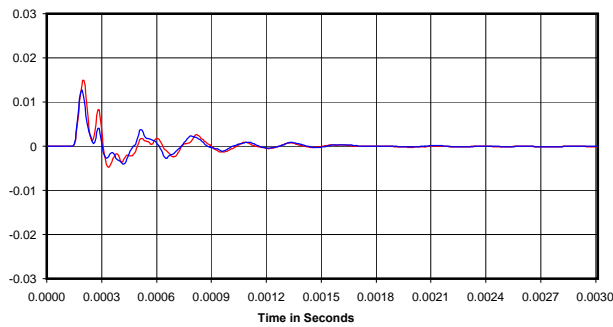
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



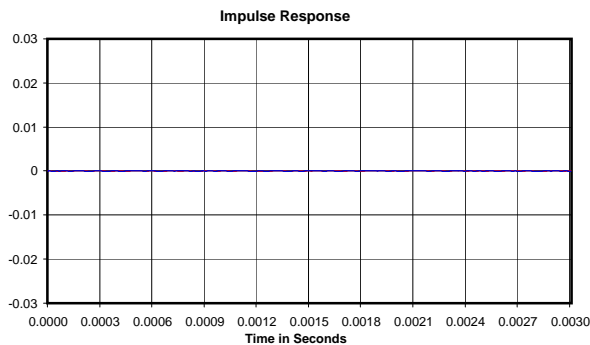
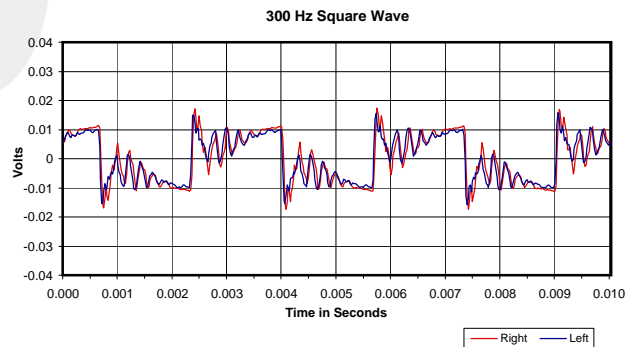
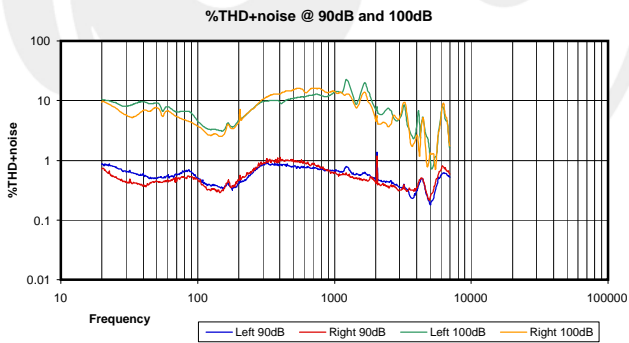
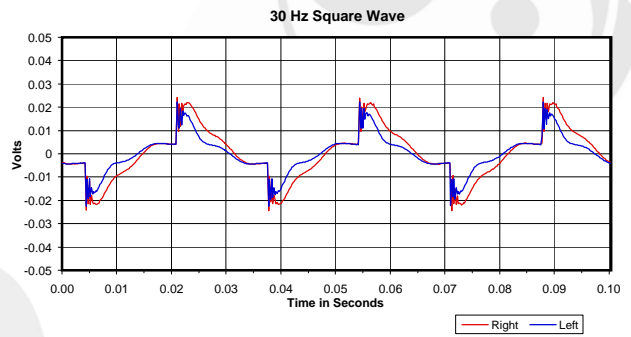
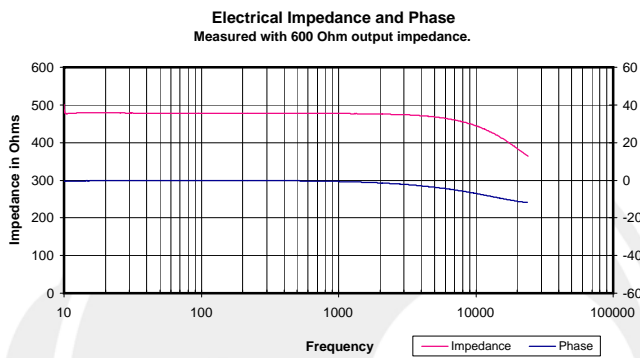
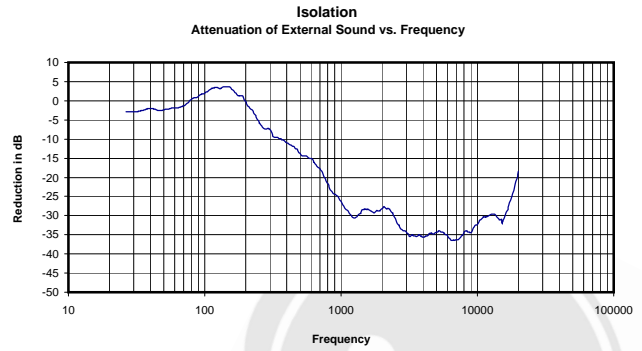
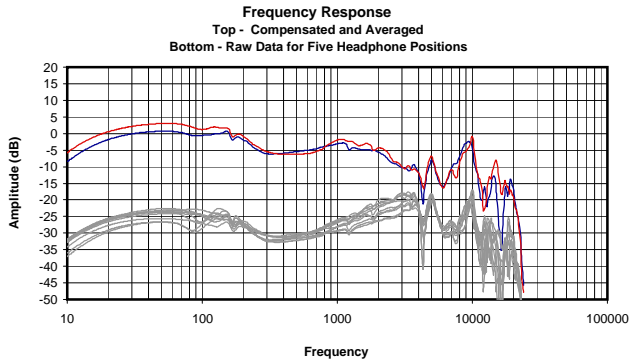
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.070 Vrms
 34 Ohms
 0.14 mW
 -15 dB

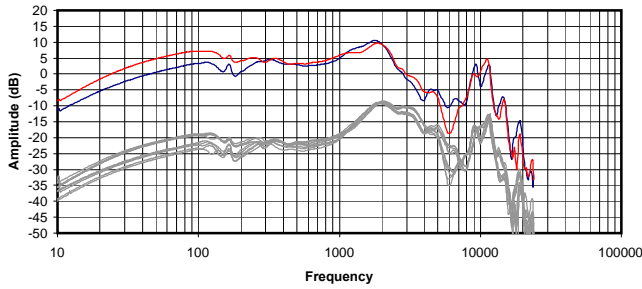




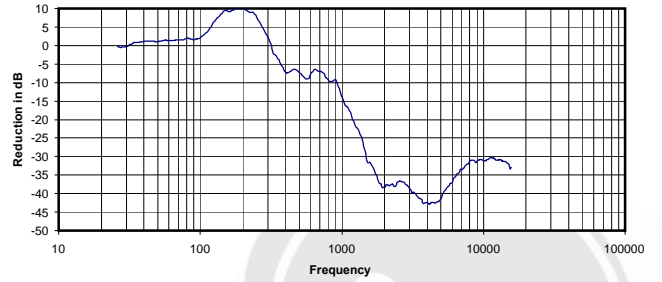
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.351 Vrms
477 Ohms
0.26 mW
-20 dB

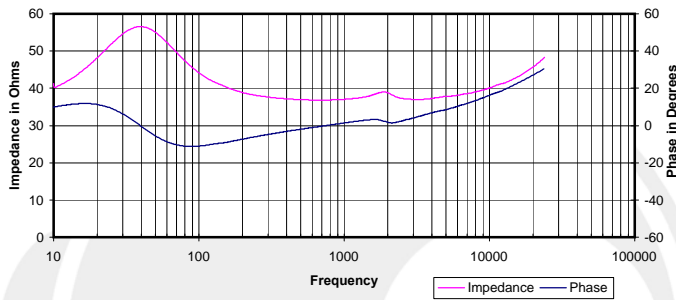
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



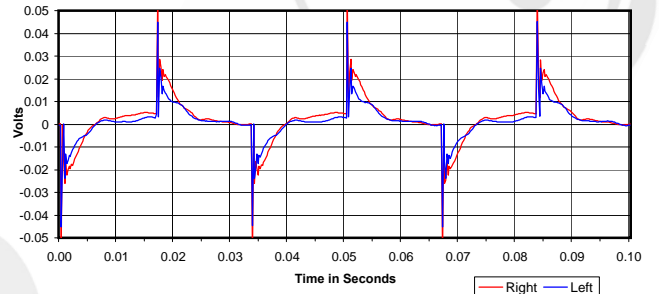
Isolation
 Attenuation of External Sound vs. Frequency



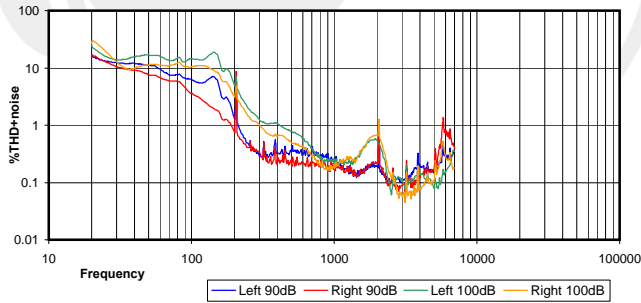
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



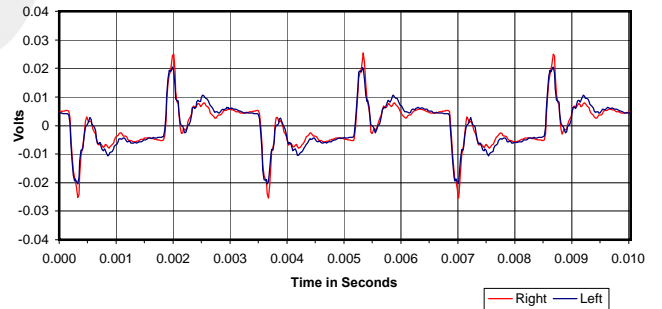
30 Hz Square Wave



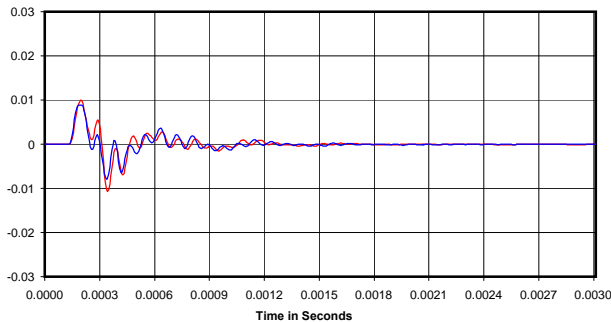
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

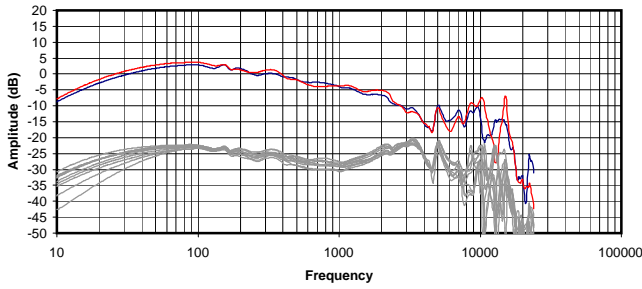


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

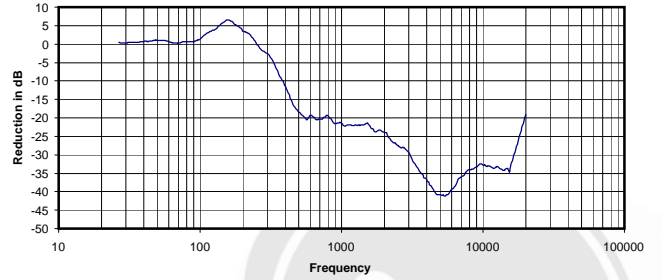
0.079 Vrms
 37 Ohms
 0.17 mW
 -15 dB



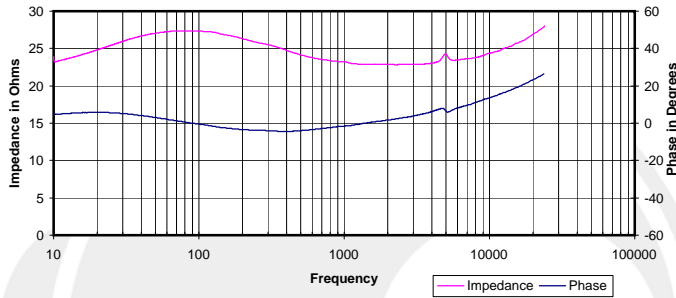
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



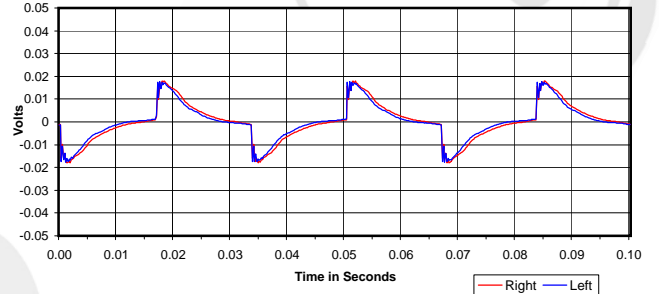
Isolation
 Attenuation of External Sound vs. Frequency



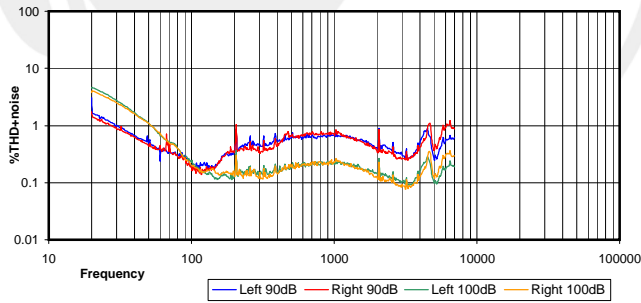
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



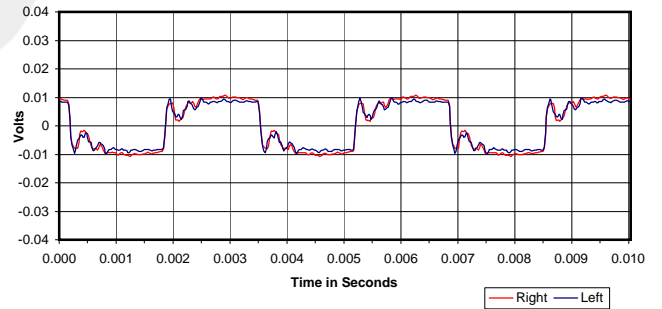
30 Hz Square Wave



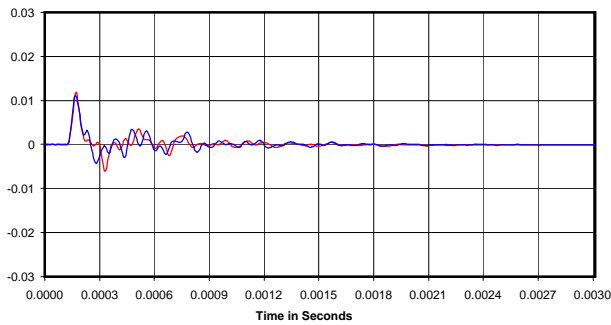
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

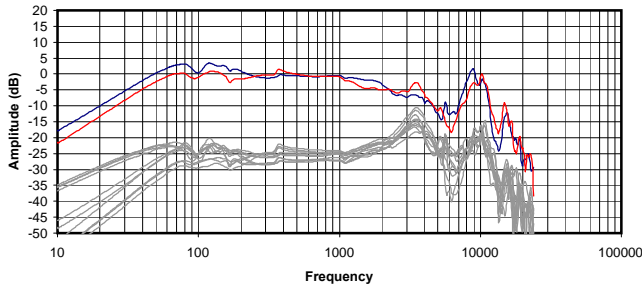


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

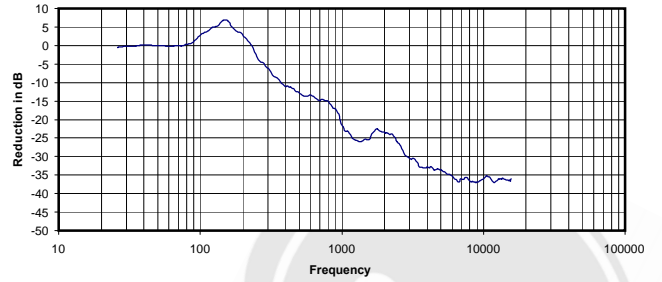
0.041 Vrms
 23 Ohms
 0.07 mW
 -19 dB



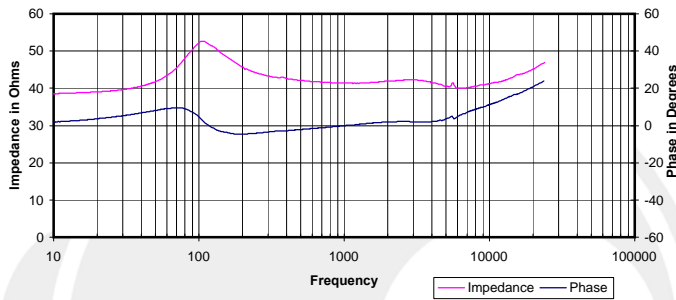
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



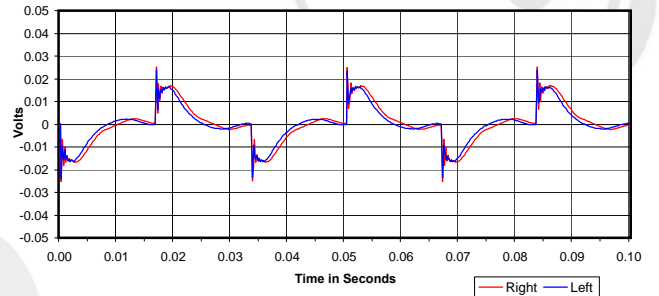
Isolation
 Attenuation of External Sound vs. Frequency



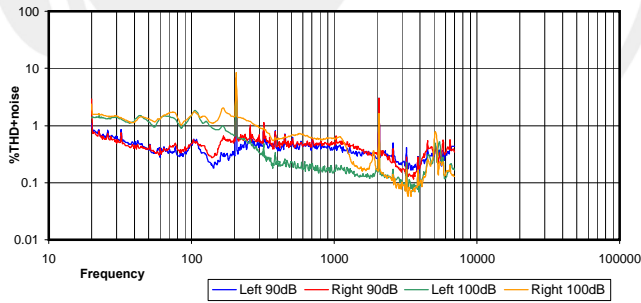
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



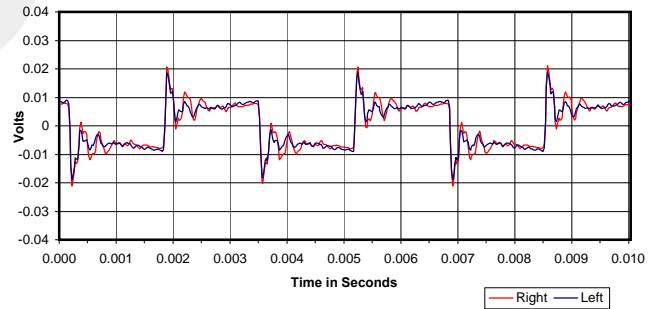
30 Hz Square Wave



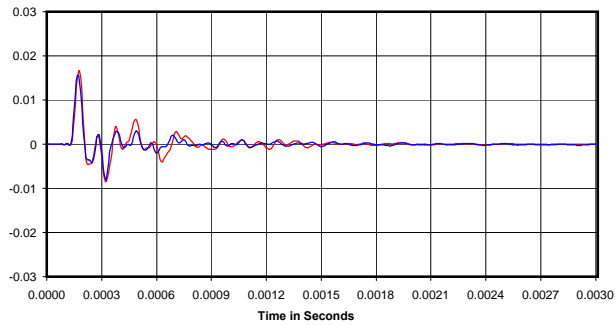
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

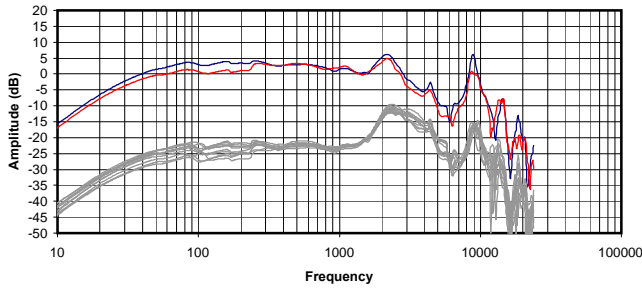


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

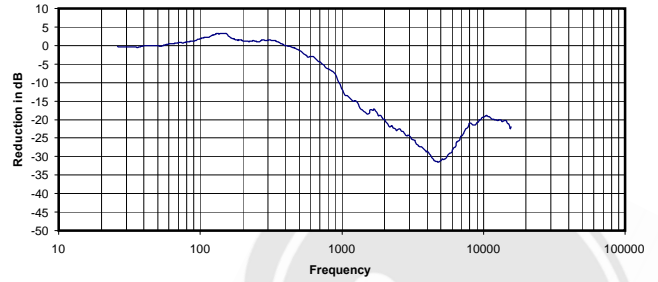
0.050 Vrms
 41 Ohms
 0.06 mW
 -15 dB



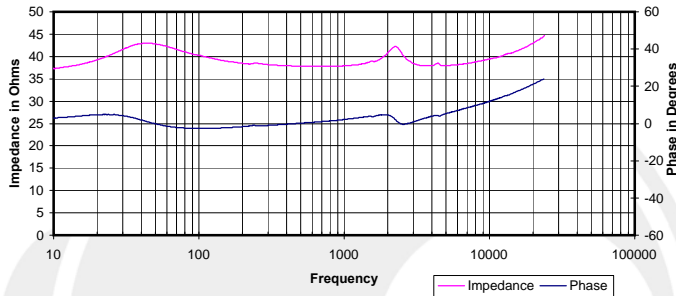
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



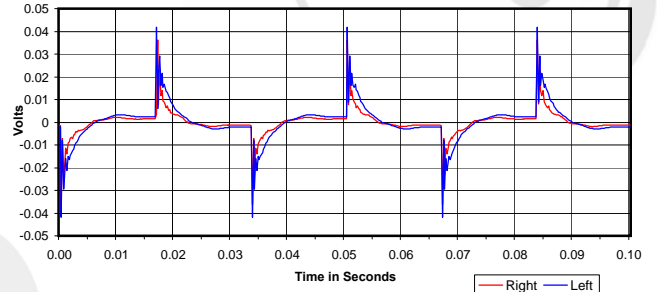
Isolation
 Attenuation of External Sound vs. Frequency



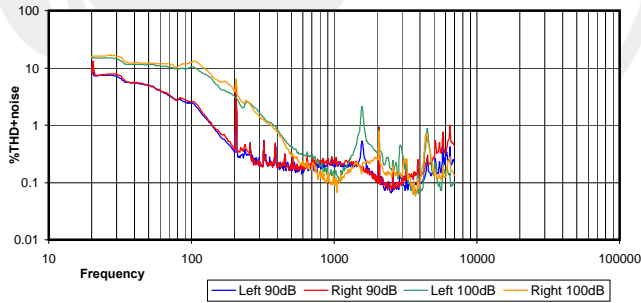
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



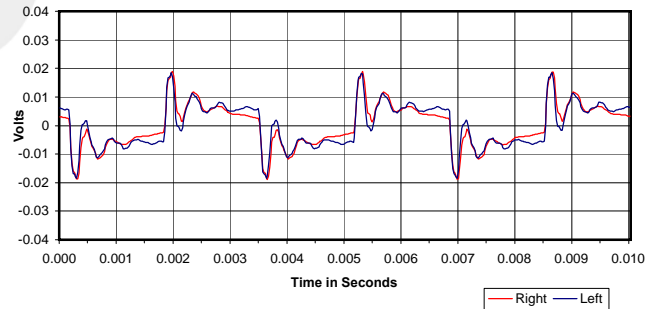
30 Hz Square Wave



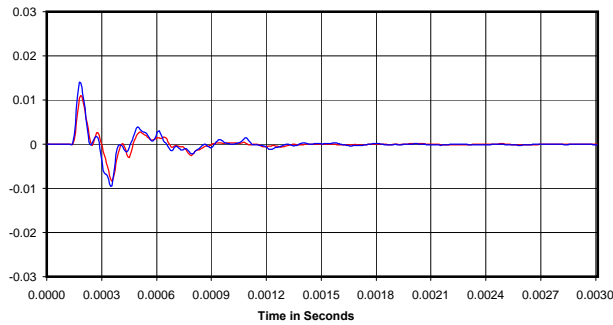
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

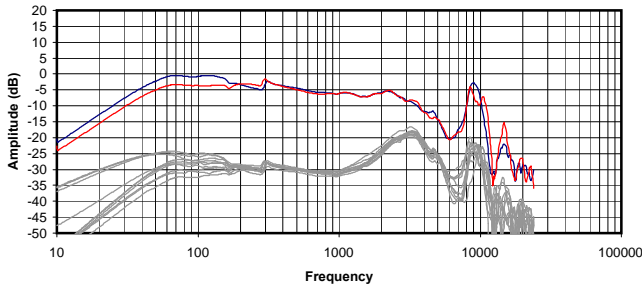


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

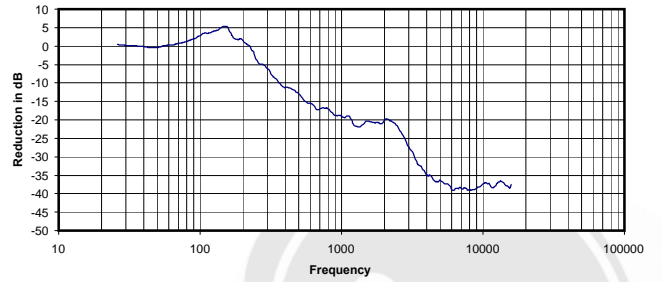
0.087 Vrms
 38 Ohms
 0.20 mW
 -10 dB



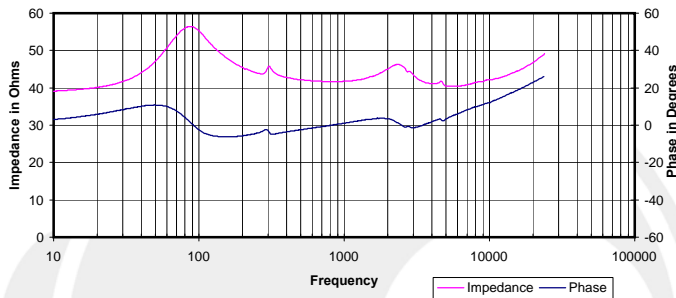
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



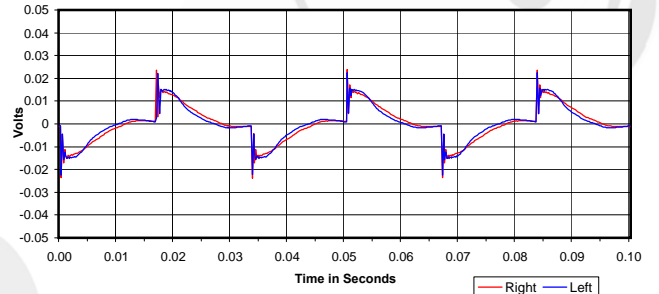
Isolation
 Attenuation of External Sound vs. Frequency



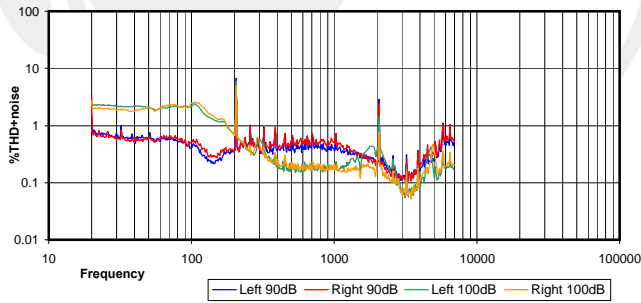
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



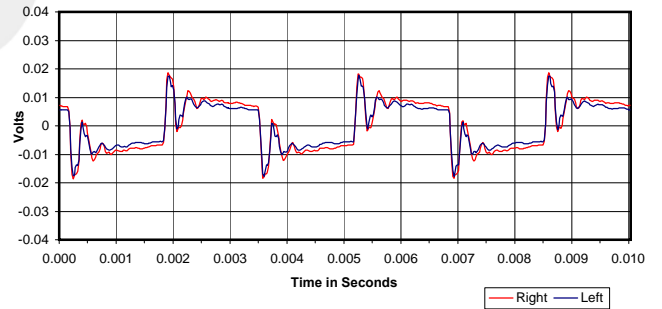
30 Hz Square Wave



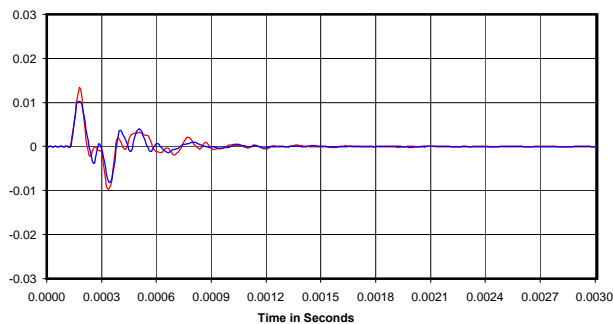
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

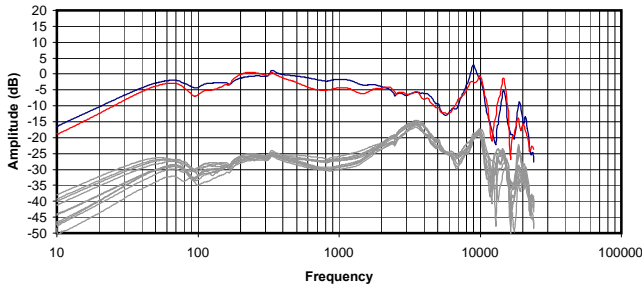


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

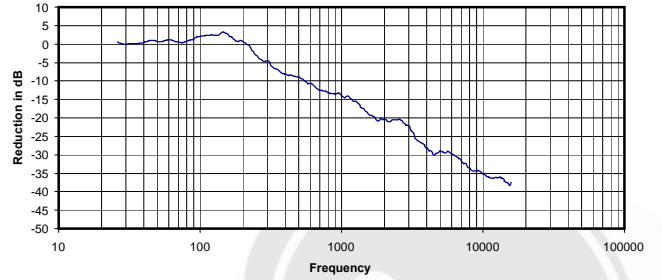
0.066 Vrms
 42 Ohms
 0.11 mW
 -15 dB



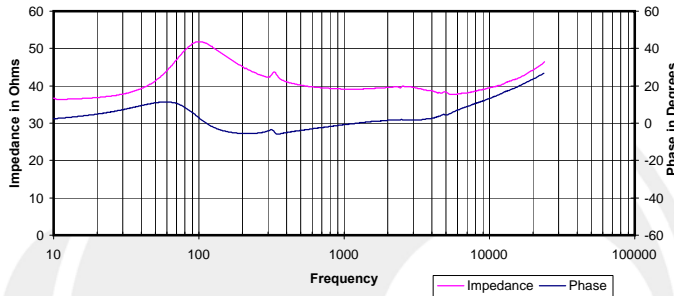
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



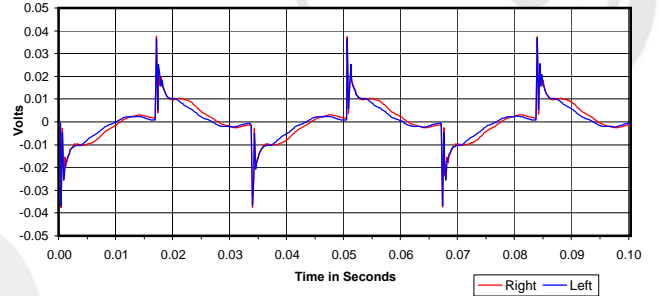
Isolation
 Attenuation of External Sound vs. Frequency



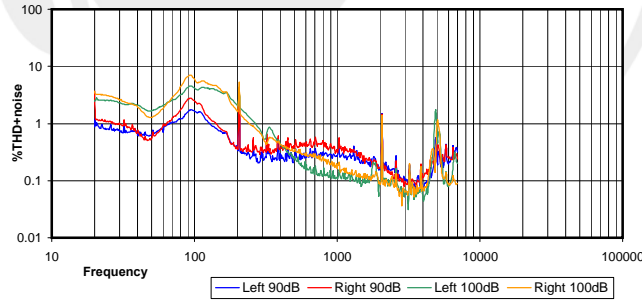
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



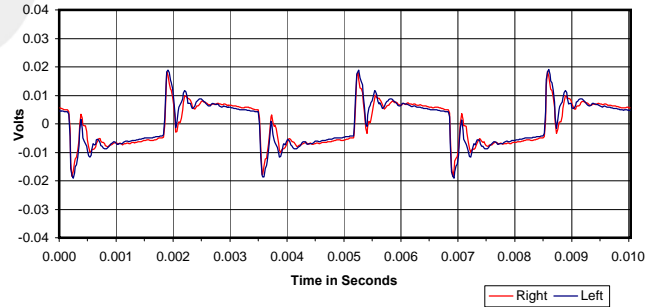
30 Hz Square Wave



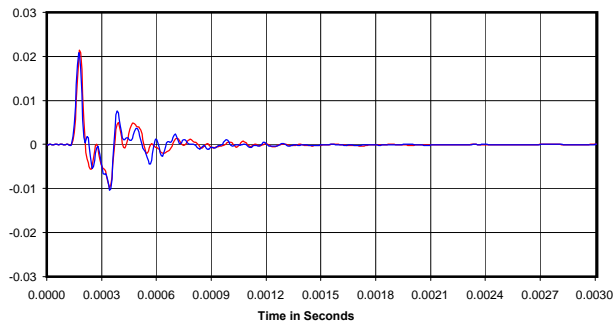
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

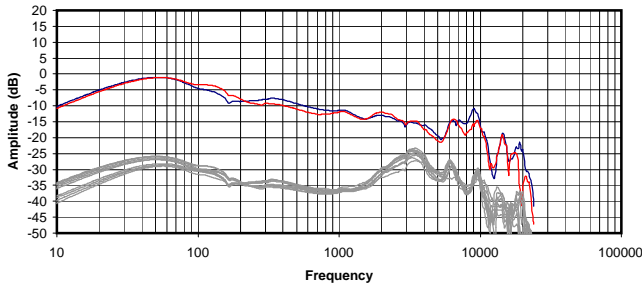


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

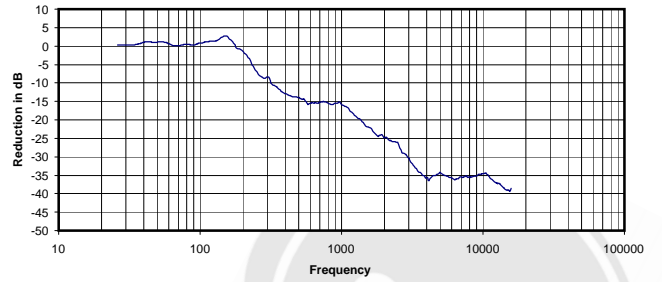
0.066 Vrms
 39 Ohms
 0.11 mW
 -12 dB



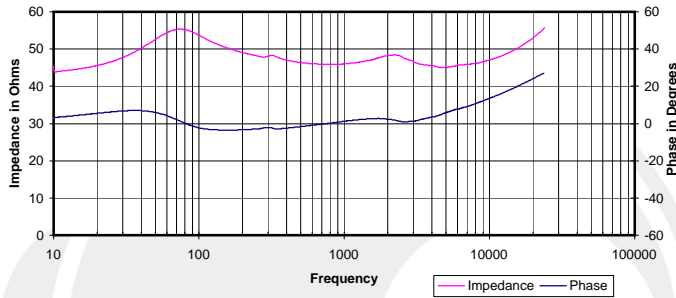
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



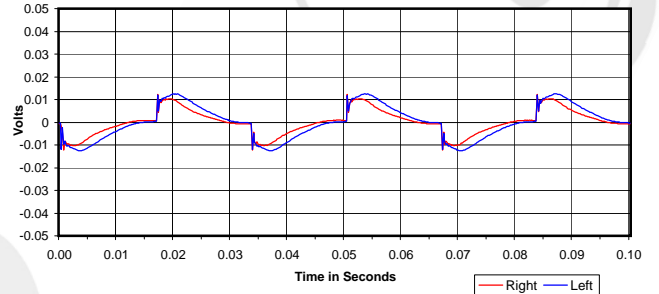
Isolation
 Attenuation of External Sound vs. Frequency



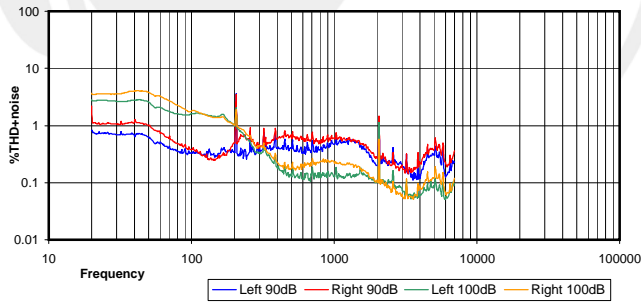
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



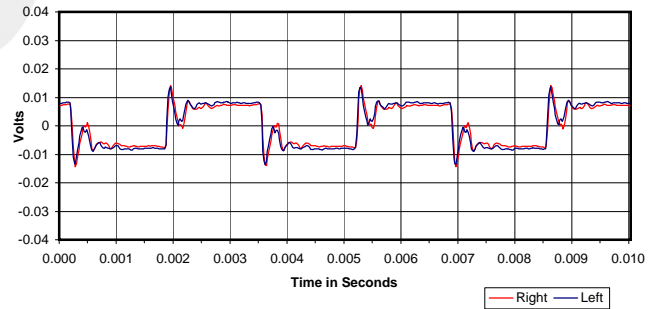
30 Hz Square Wave



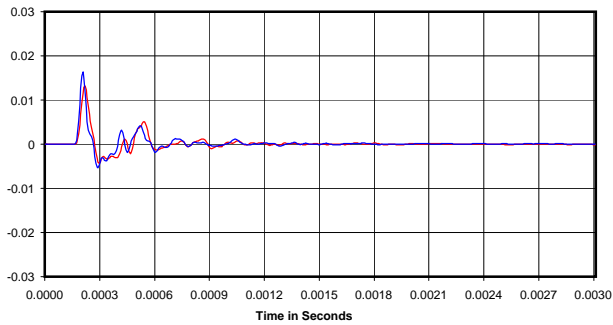
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



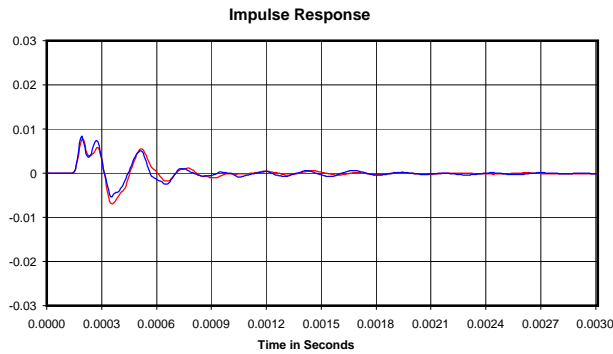
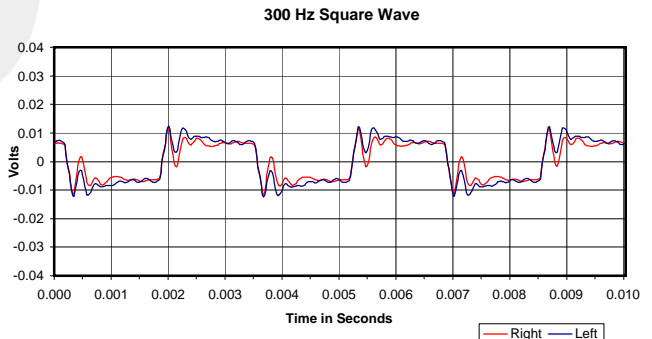
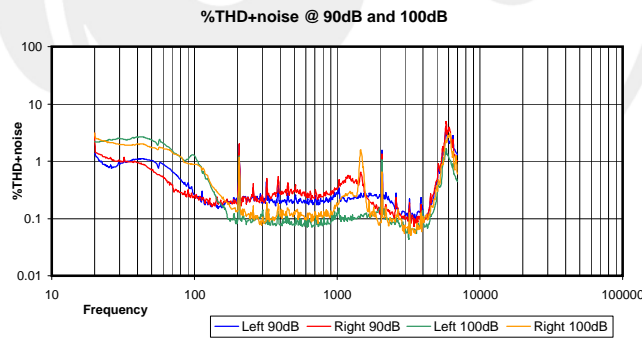
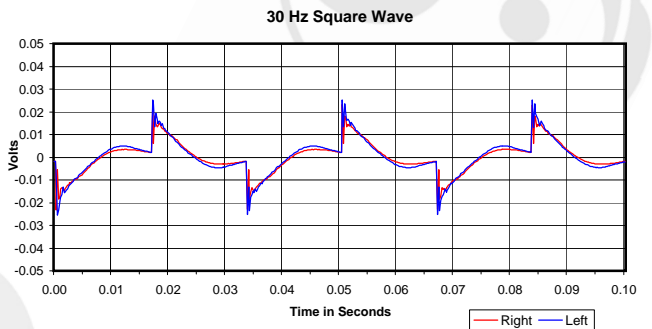
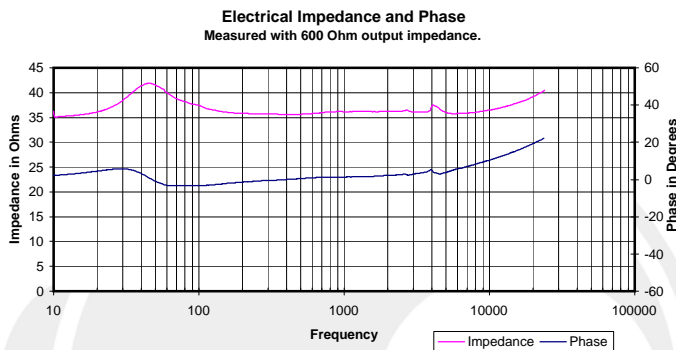
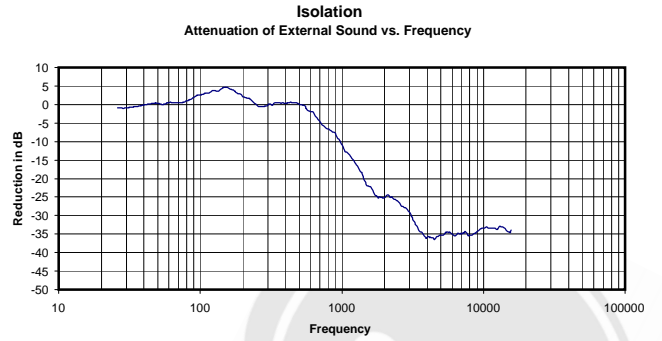
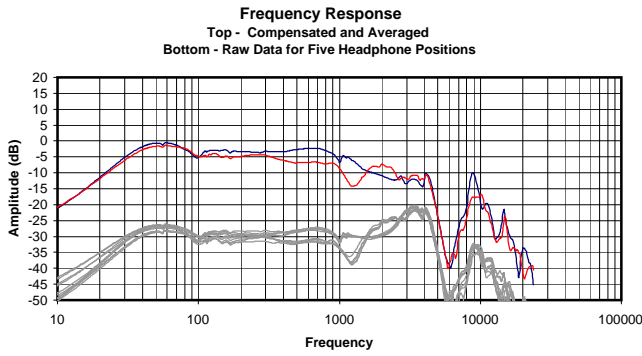
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.109 Vrms
 46 Ohms
 0.26 mW
 -16 dB



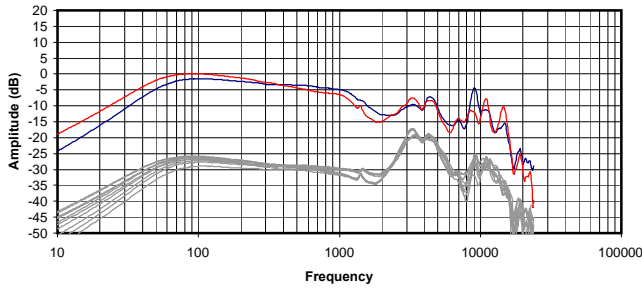


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

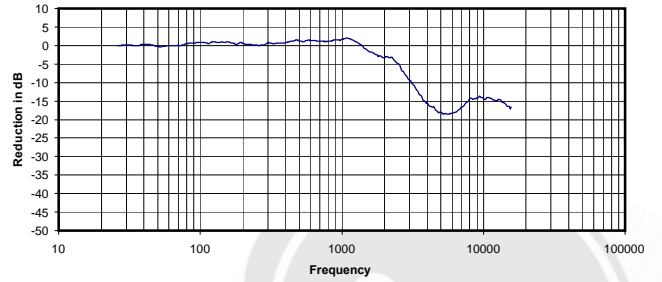
0.043 Vrms
36 Ohms
0.05 mW
-12 dB



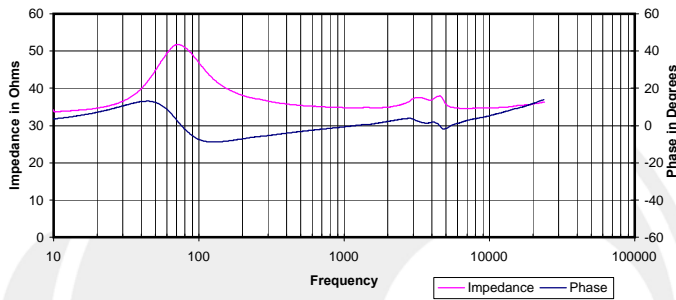
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



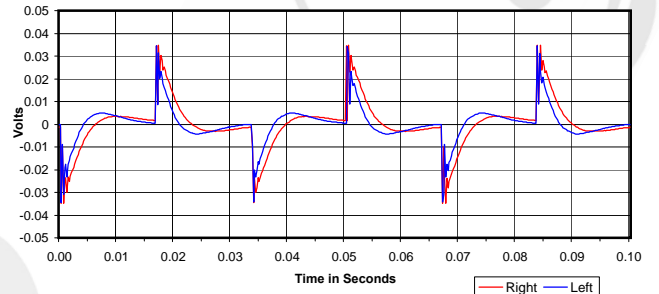
Isolation
Attenuation of External Sound vs. Frequency



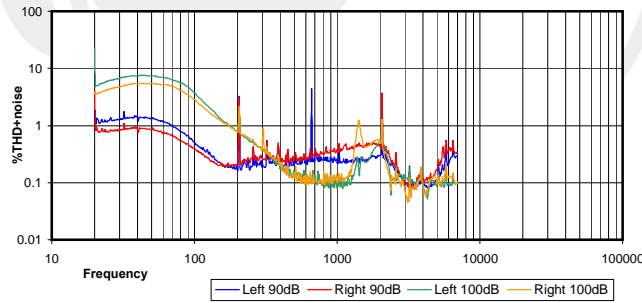
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



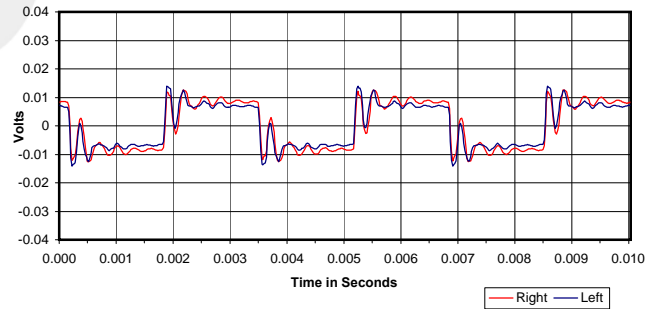
30 Hz Square Wave



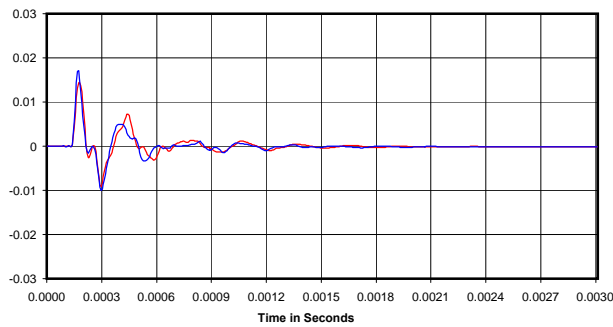
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

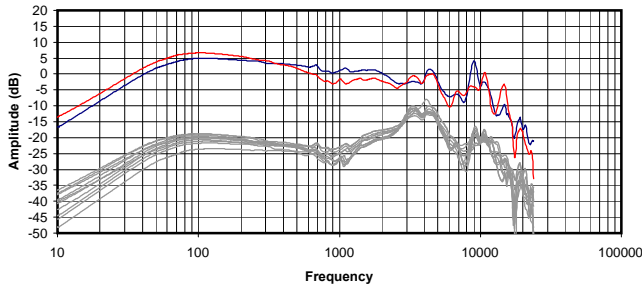


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

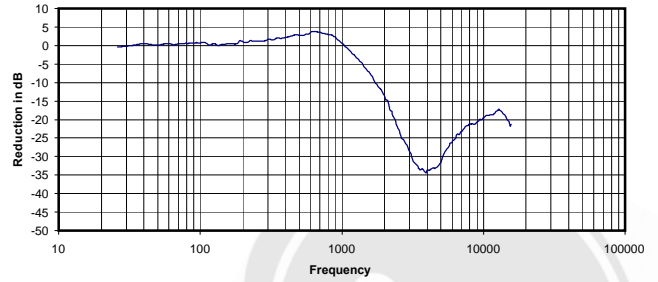
0.037 Vrms
35 Ohms
0.04 mW
-3 dB



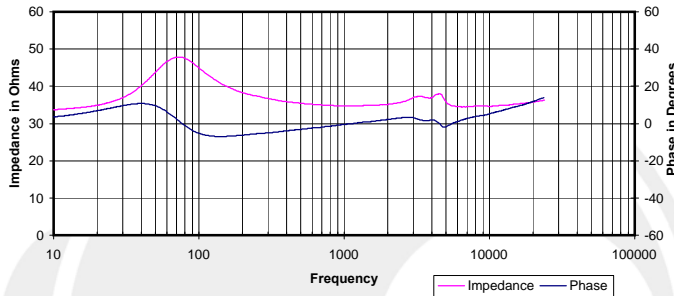
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



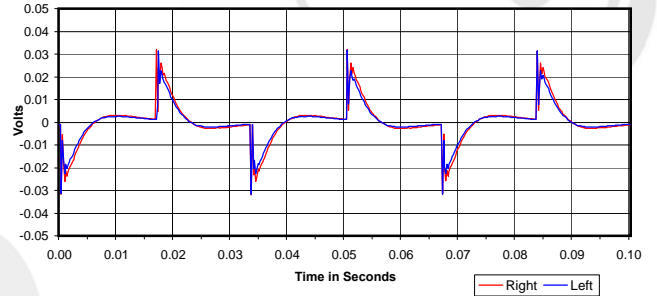
Isolation
 Attenuation of External Sound vs. Frequency



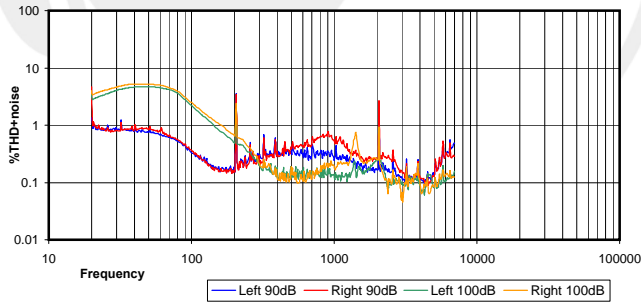
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



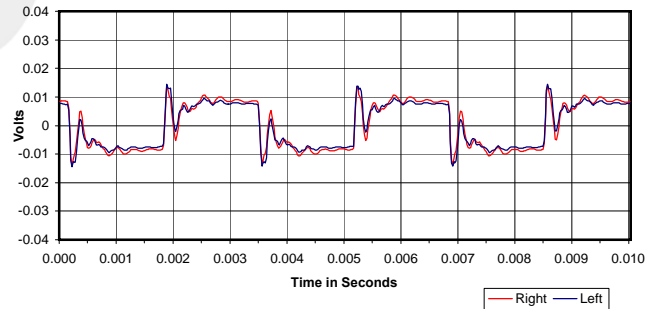
30 Hz Square Wave



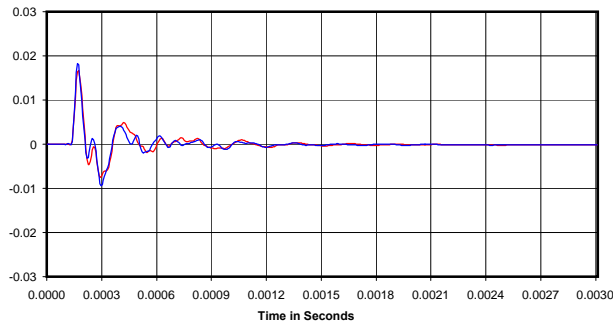
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

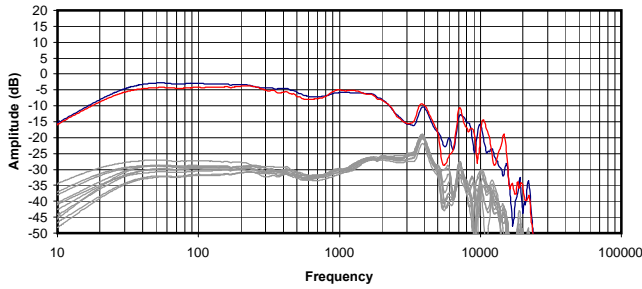


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

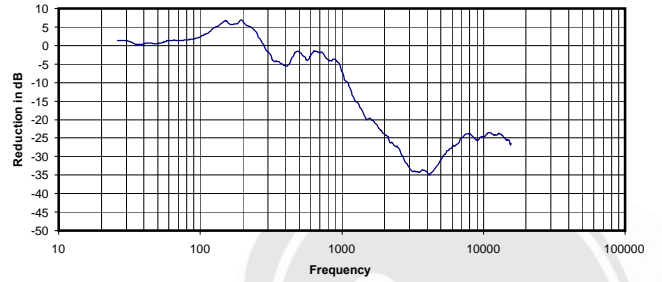
0.055 Vrms
 35 Ohms
 0.09 mW
 -8 dB



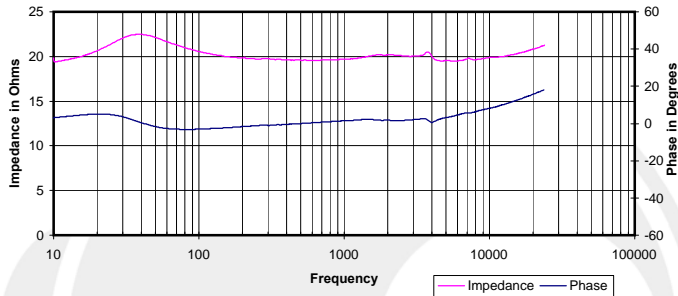
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



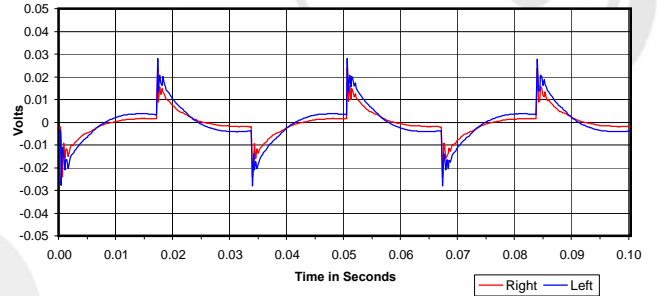
Isolation
Attenuation of External Sound vs. Frequency



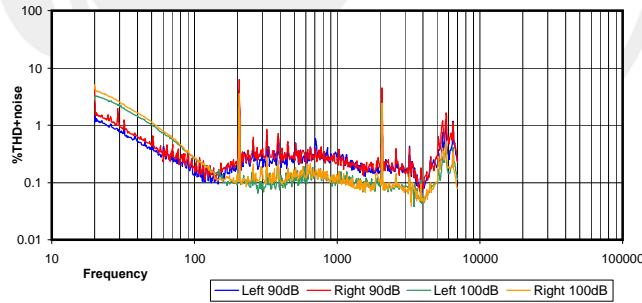
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



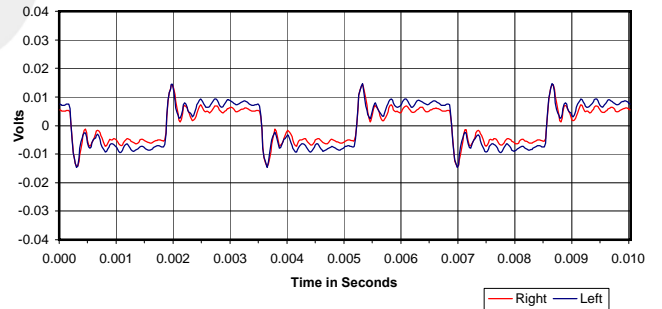
30 Hz Square Wave



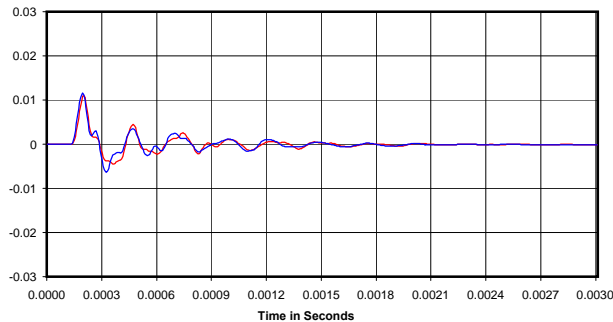
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

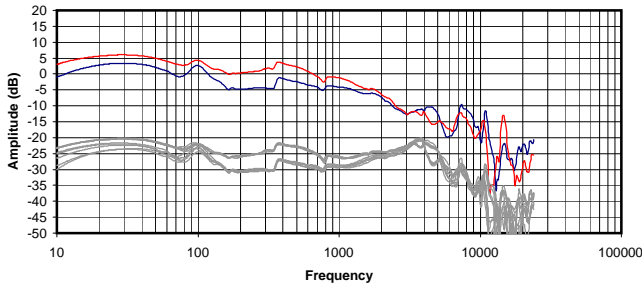


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

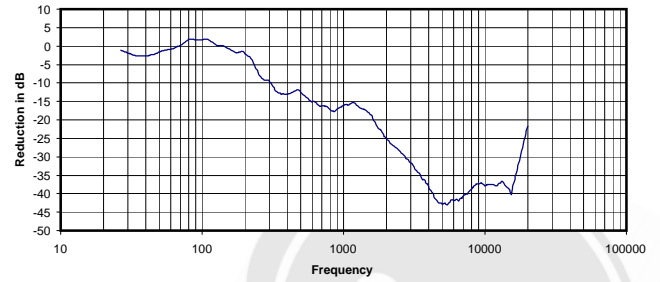
0.027 Vrms
20 Ohms
0.04 mW
-11 dB



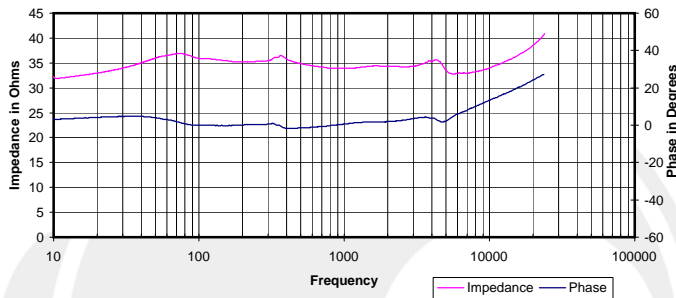
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



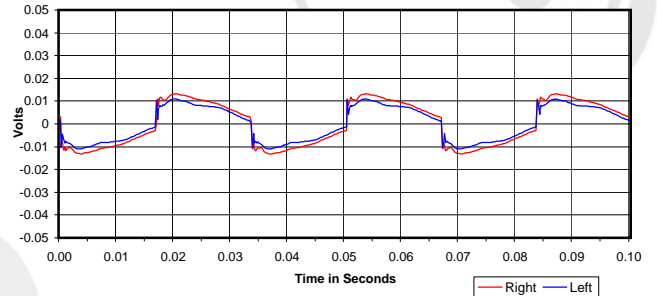
Isolation
 Attenuation of External Sound vs. Frequency



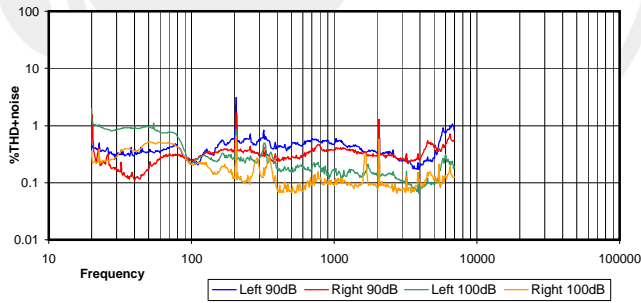
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



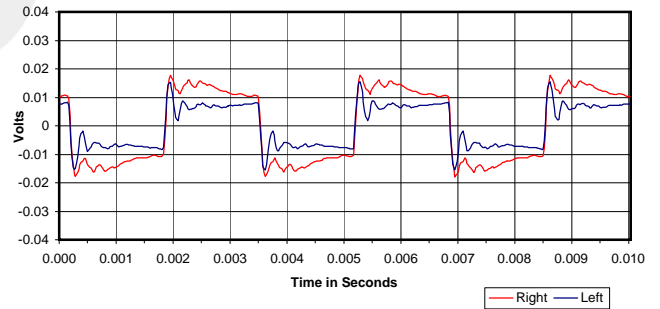
30 Hz Square Wave



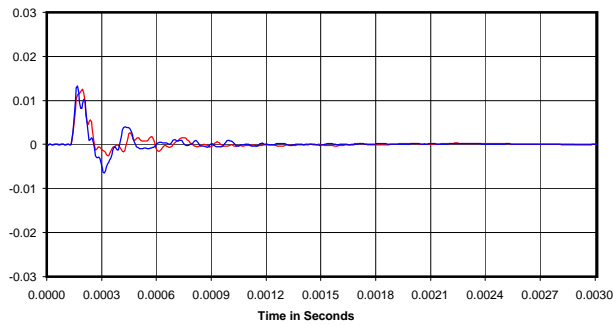
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

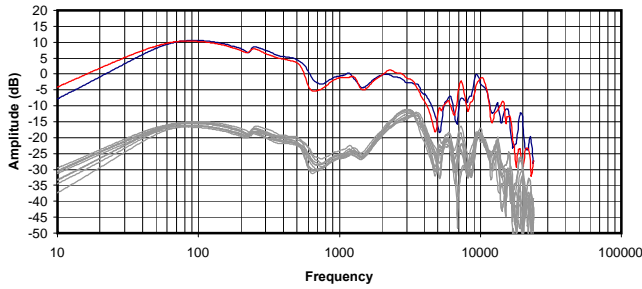


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

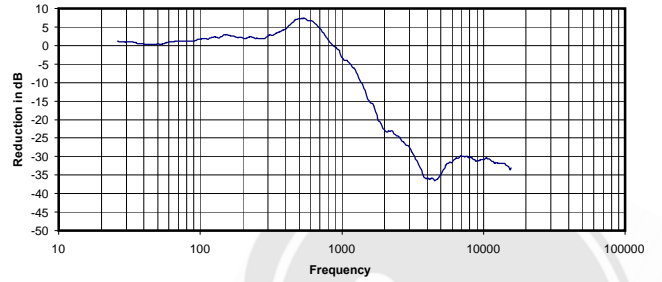
0.039 Vrms
 34 Ohms
 0.04 mW
 -20 dB



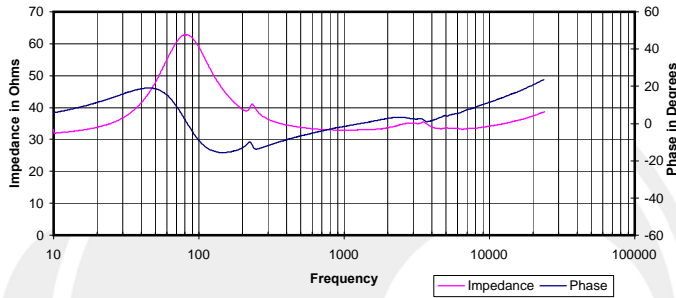
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



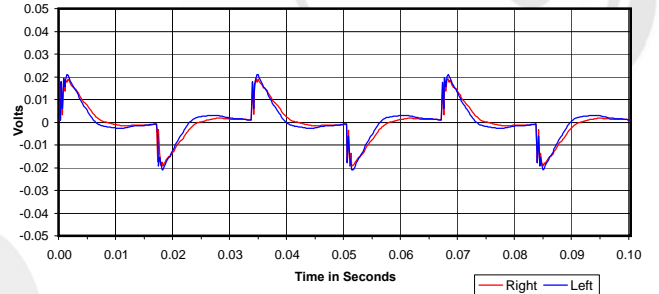
Isolation
 Attenuation of External Sound vs. Frequency



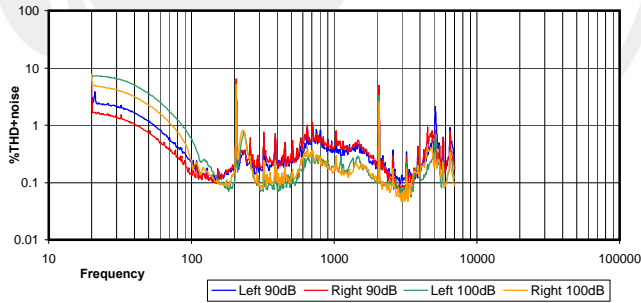
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



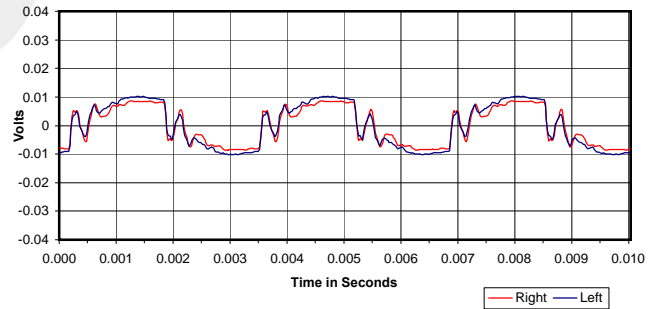
30 Hz Square Wave



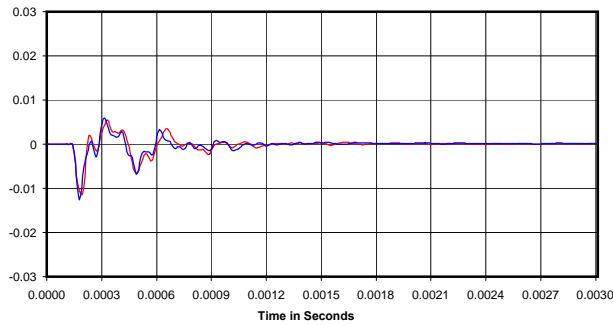
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

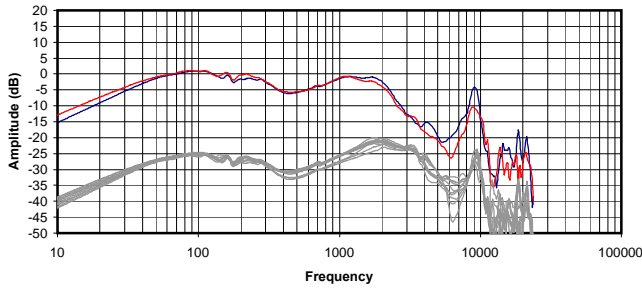


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

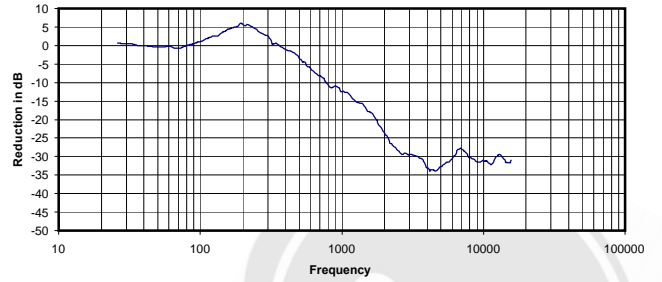
0.061 Vrms
 33 Ohms
 0.11 mW
 -8 dB



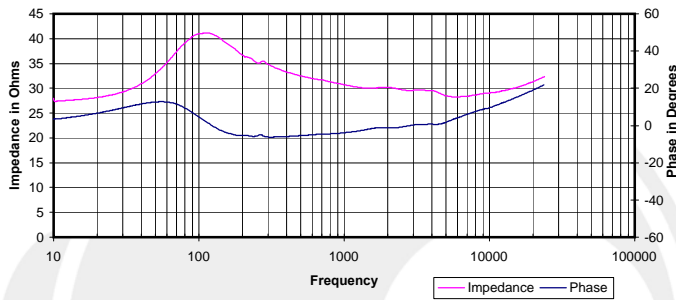
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



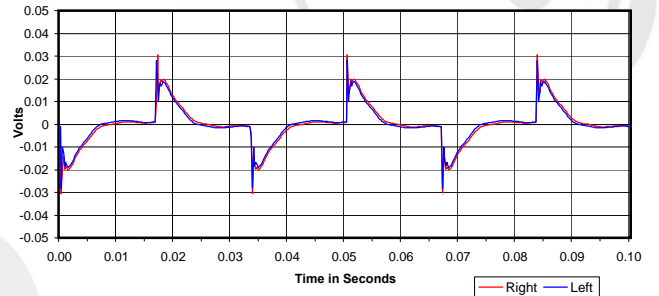
Isolation
 Attenuation of External Sound vs. Frequency



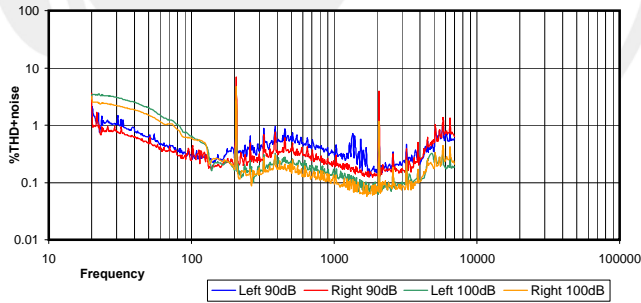
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



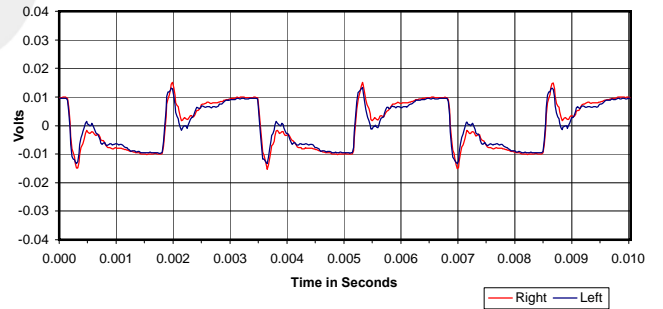
30 Hz Square Wave



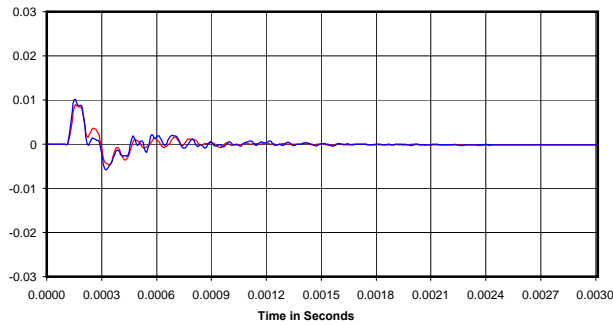
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

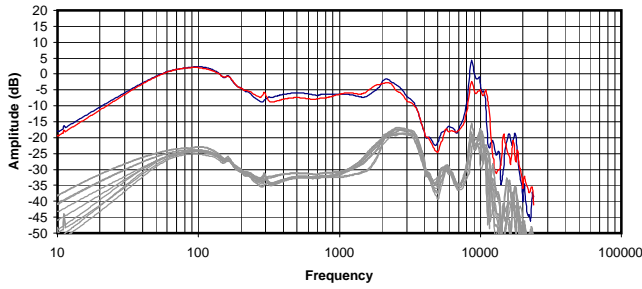


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

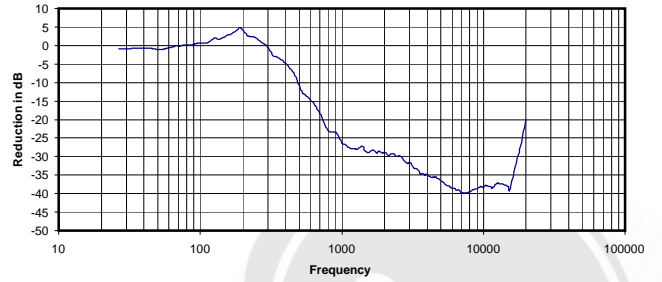
0.024 Vrms
 31 Ohms
 0.02 mW
 -11 dB



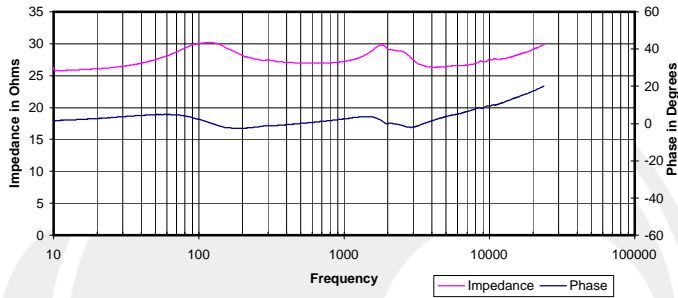
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



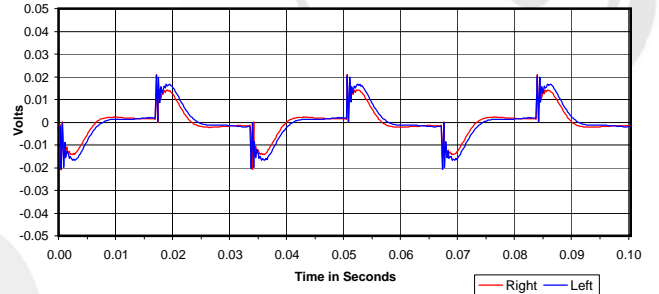
Isolation
 Attenuation of External Sound vs. Frequency



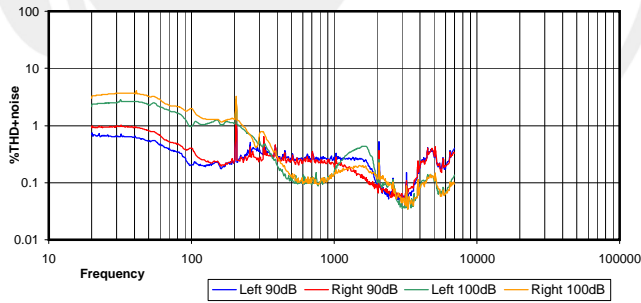
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



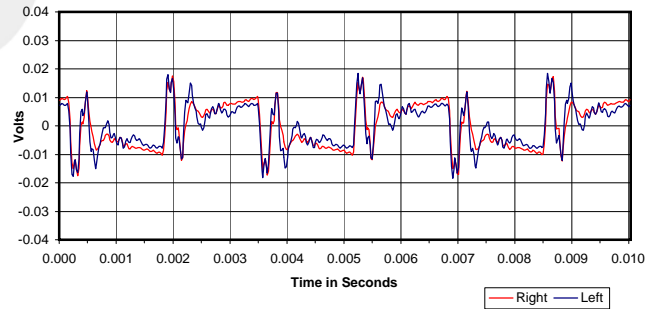
30 Hz Square Wave



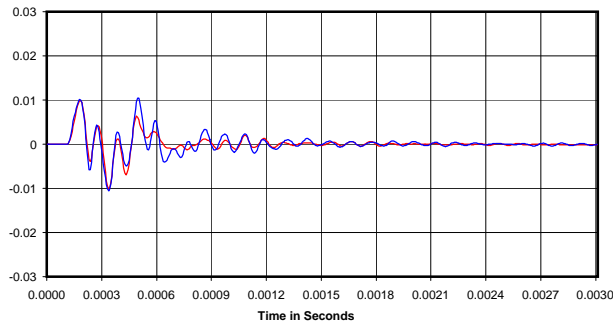
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

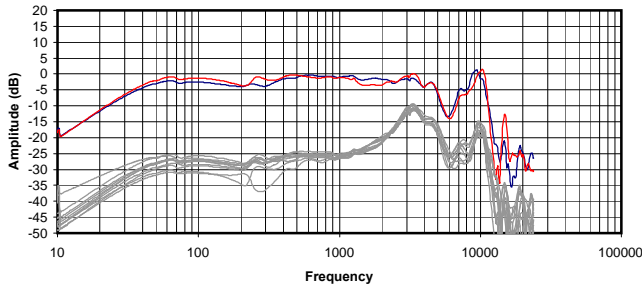


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

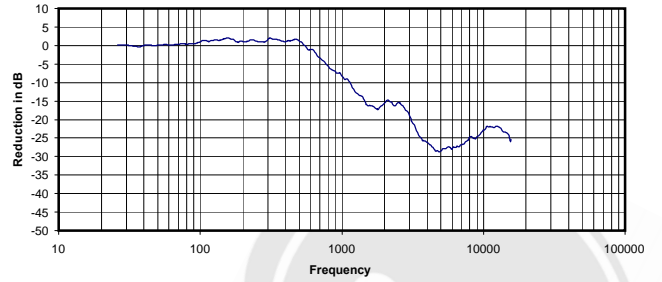
0.055 Vrms
 27 Ohms
 0.11 mW
 -20 dB



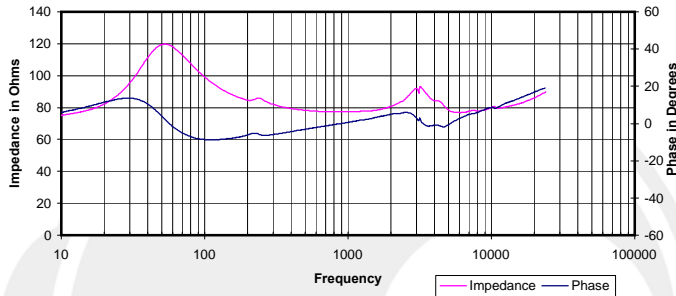
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



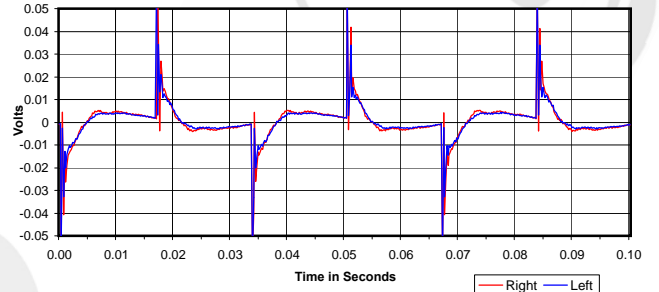
Isolation
 Attenuation of External Sound vs. Frequency



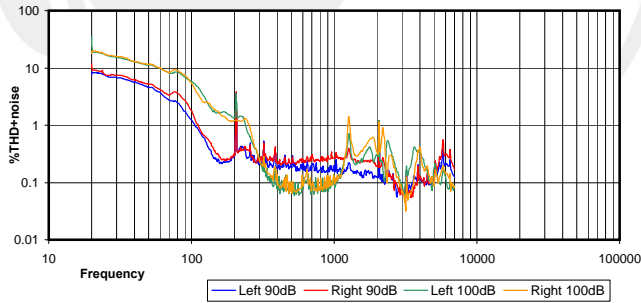
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



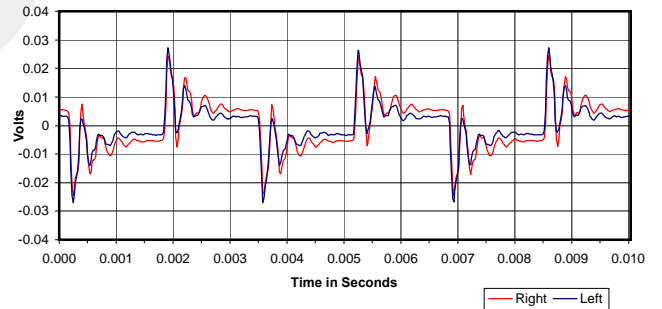
30 Hz Square Wave



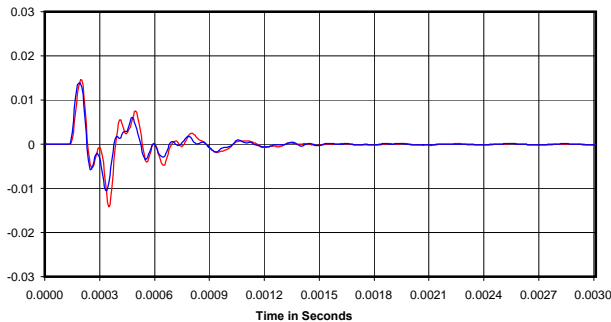
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



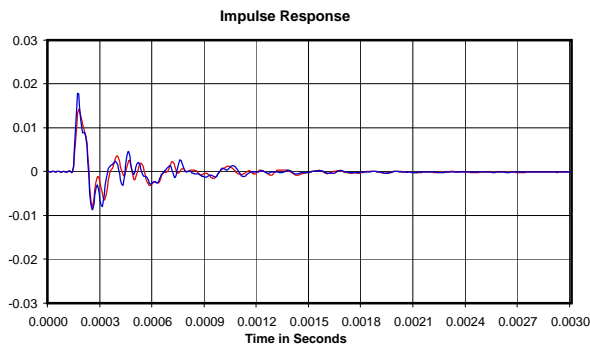
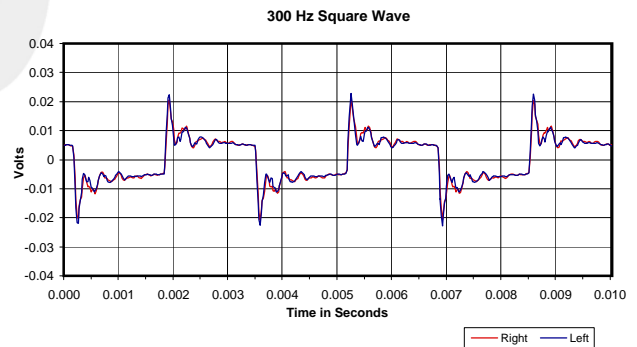
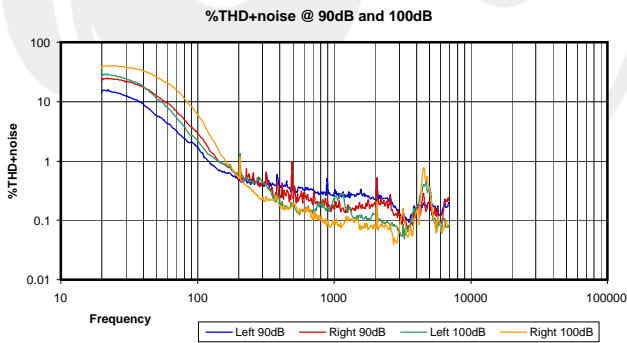
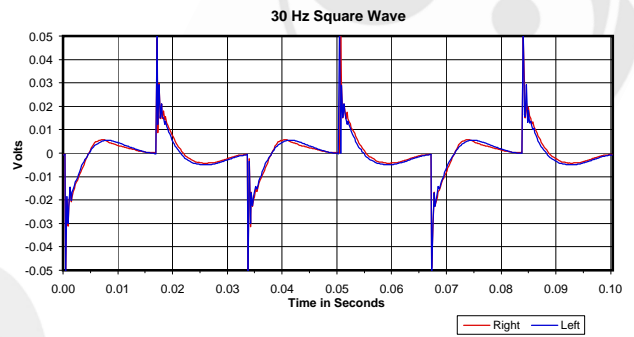
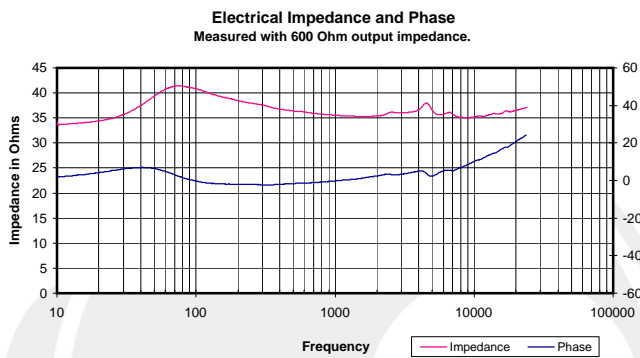
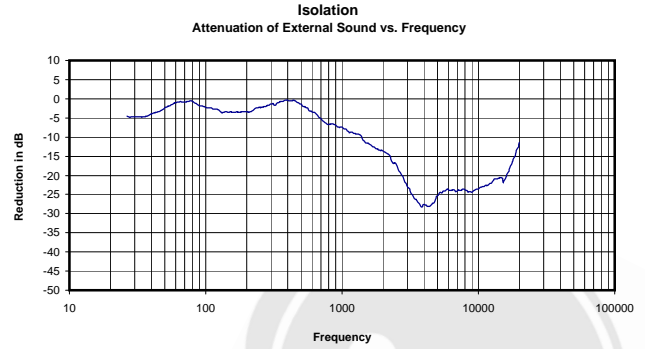
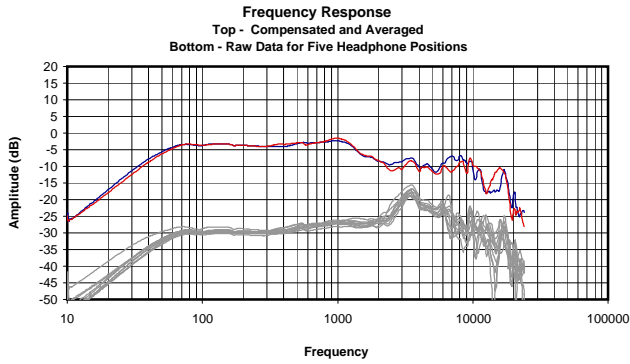
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.061 Vrms
 77 Ohms
 0.05 mW
 -8 dBr



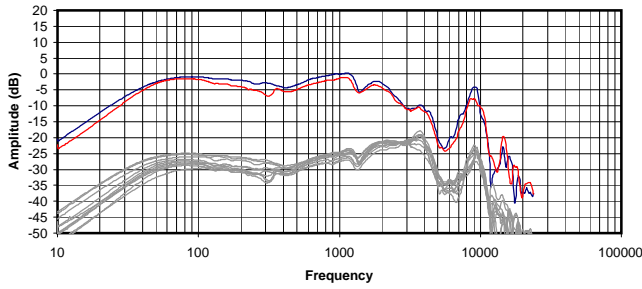


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

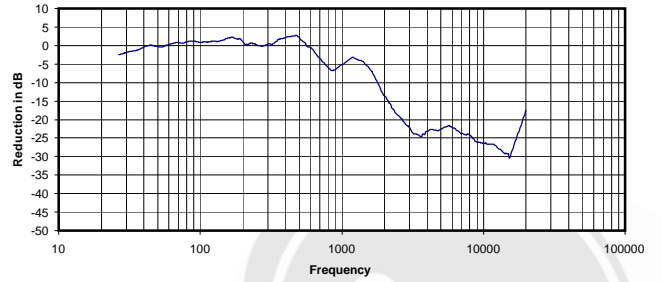
0.045 Vrms
36 Ohms
0.06 mW
-11 dB



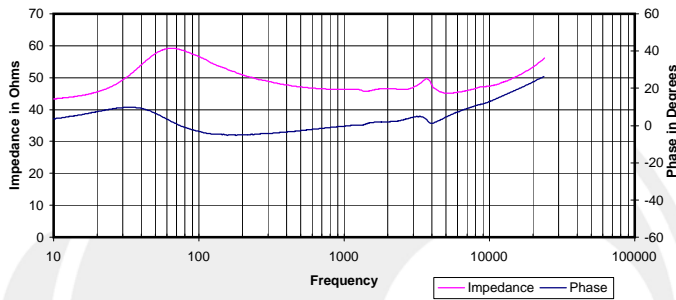
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



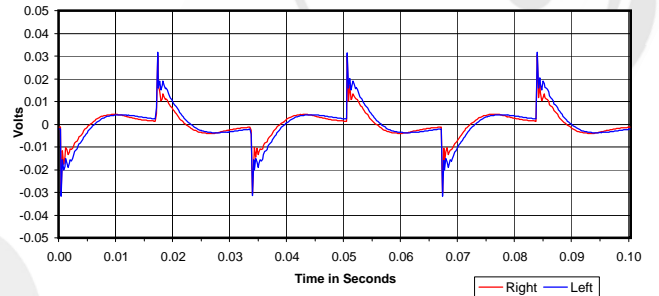
Isolation
 Attenuation of External Sound vs. Frequency



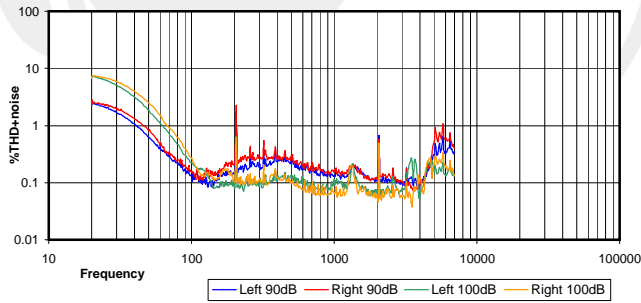
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



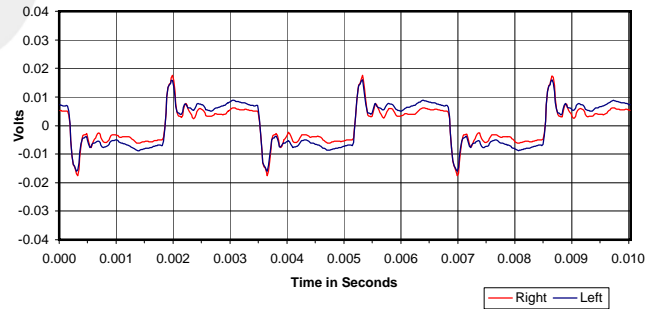
30 Hz Square Wave



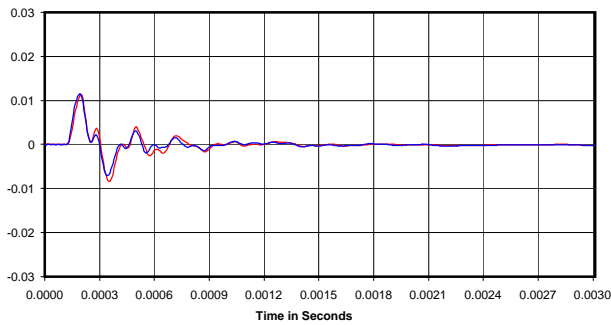
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

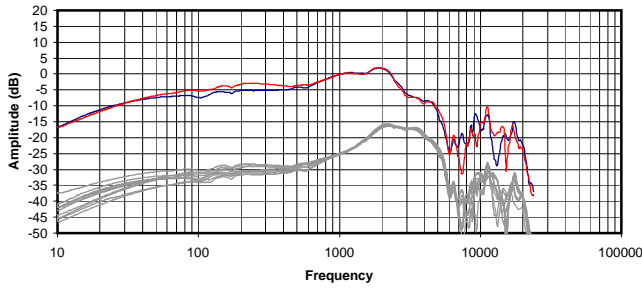


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

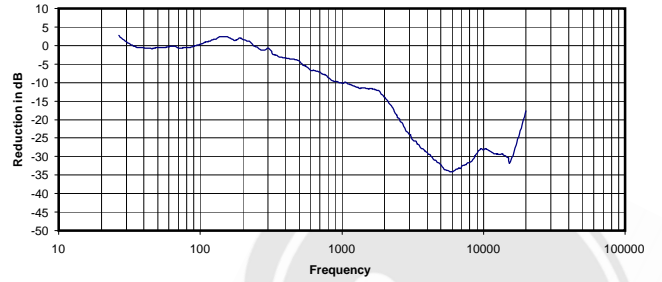
0.025 Vrms
 46 Ohms
 0.01 mW
 -9 dB



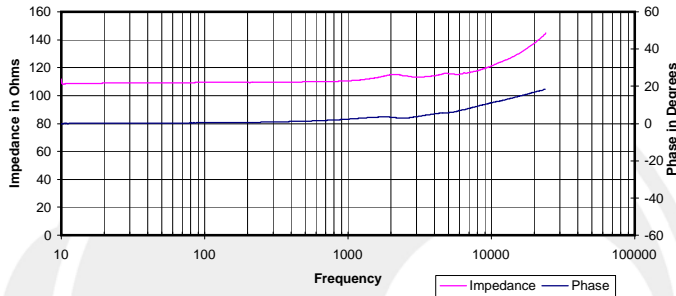
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



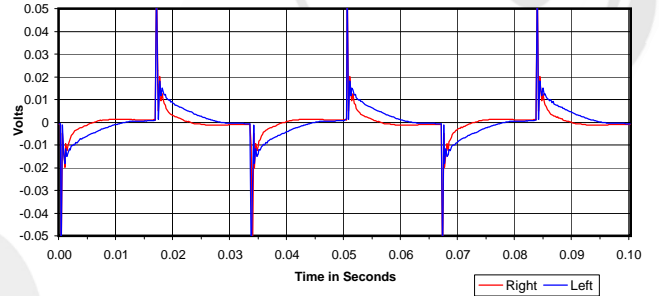
Isolation
Attenuation of External Sound vs. Frequency



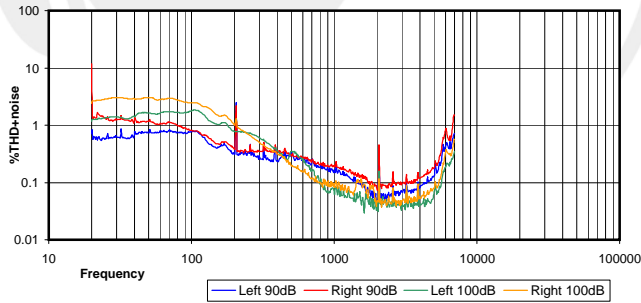
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



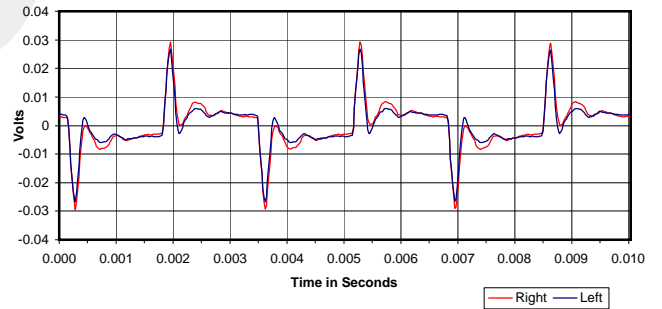
30 Hz Square Wave



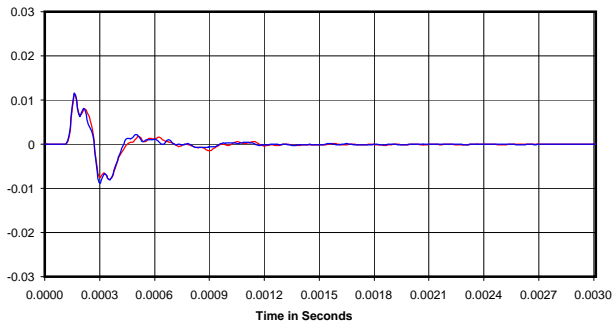
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

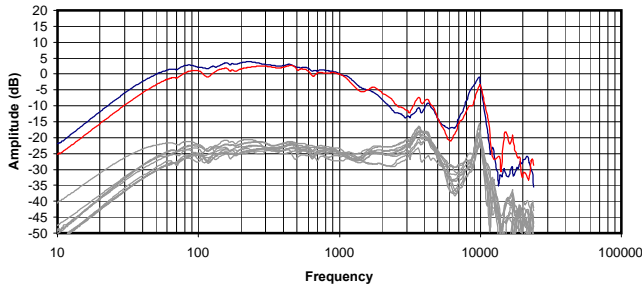


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

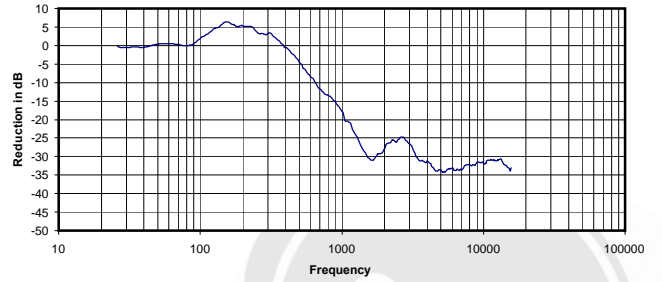
0.063 Vrms
111 Ohms
0.04 mW
-13 dB



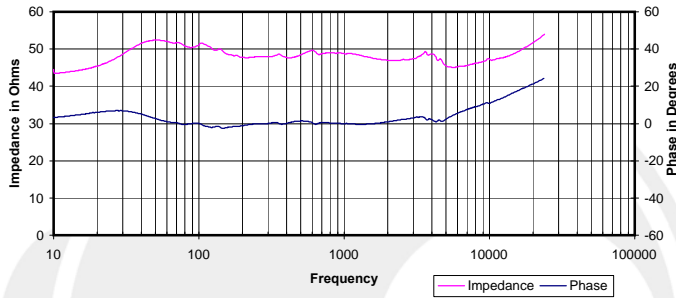
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



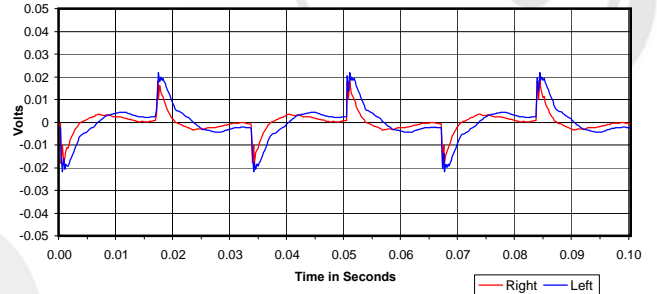
Isolation
 Attenuation of External Sound vs. Frequency



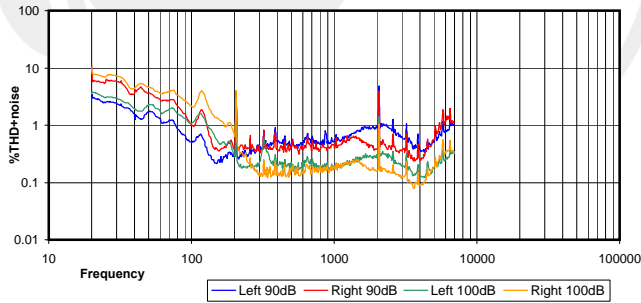
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



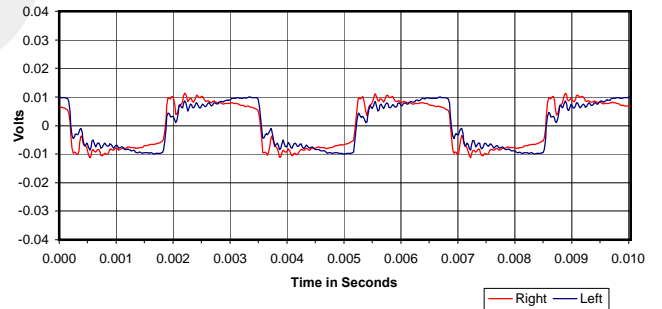
30 Hz Square Wave



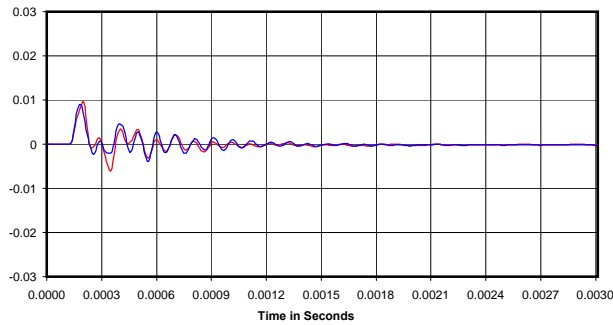
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



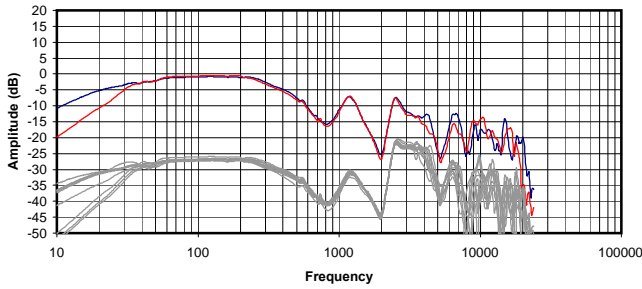
Impulse Response



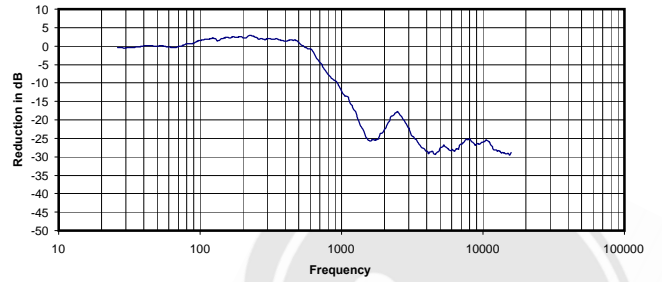
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
 49 Ohms
 0.02 mW
 -13 dB

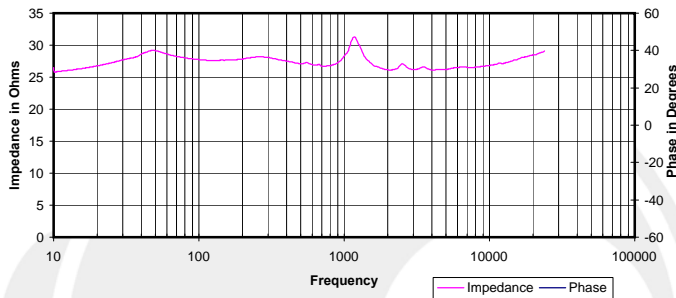
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



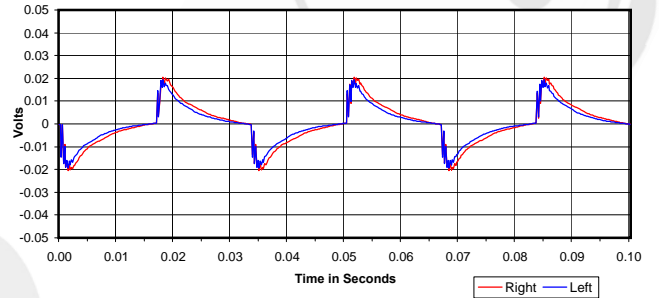
Isolation
 Attenuation of External Sound vs. Frequency



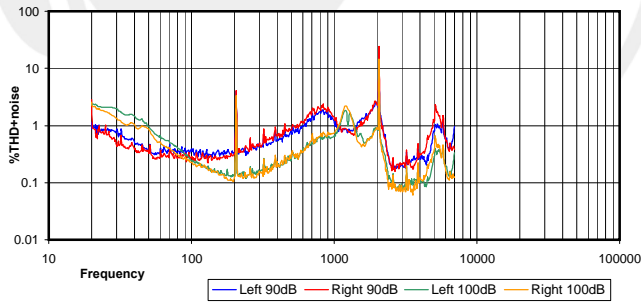
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



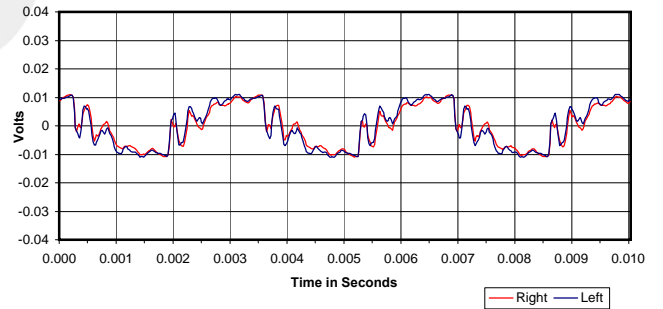
30 Hz Square Wave



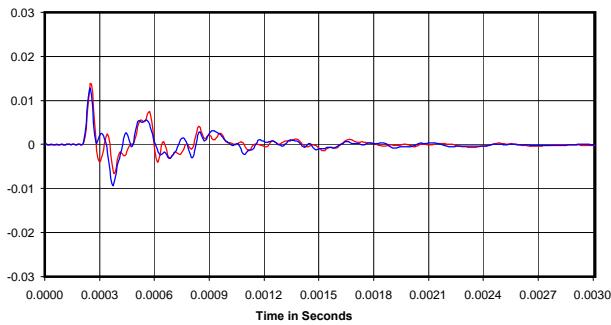
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

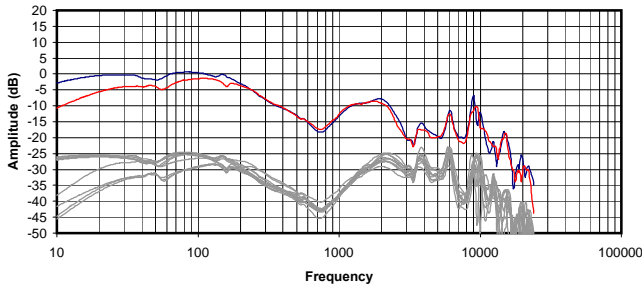


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

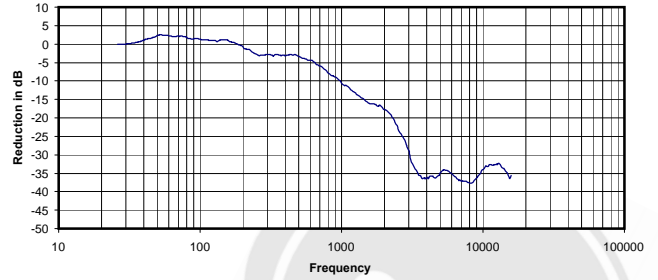
0.090 Vrms
 28 Ohms
 0.28 mW
 -10 dB



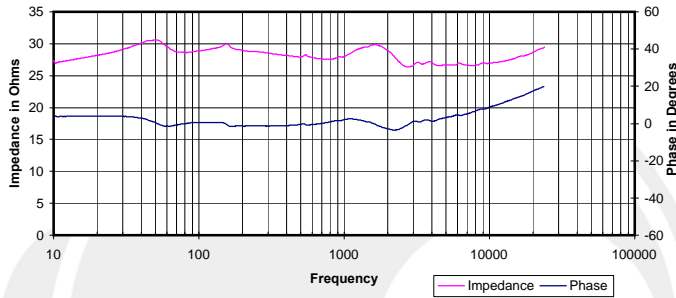
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



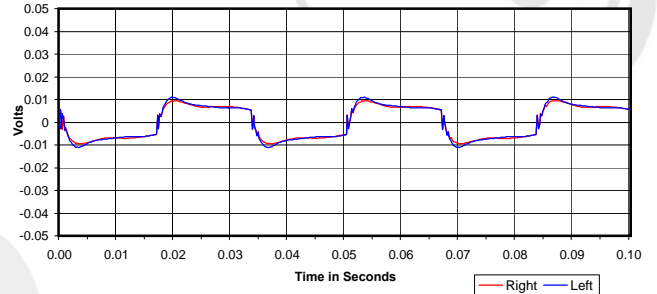
Isolation
 Attenuation of External Sound vs. Frequency



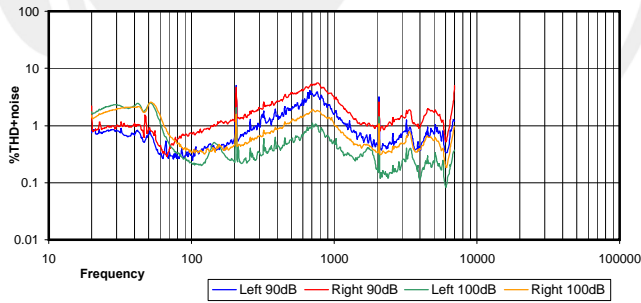
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



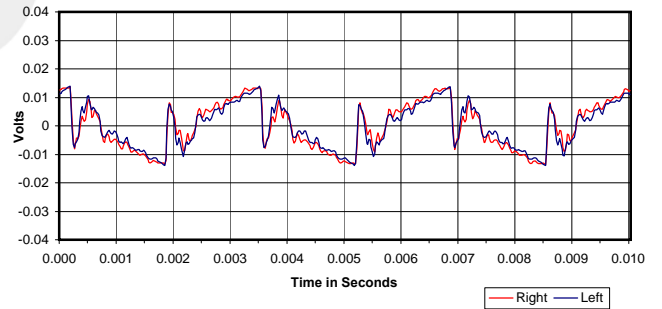
30 Hz Square Wave



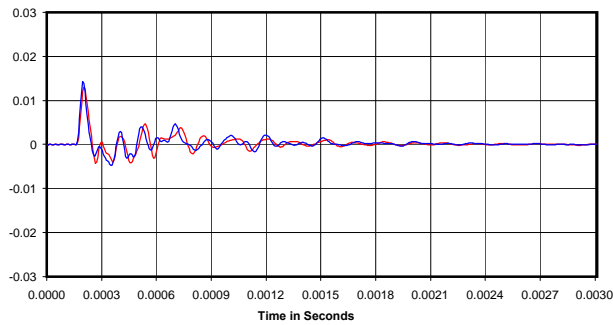
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

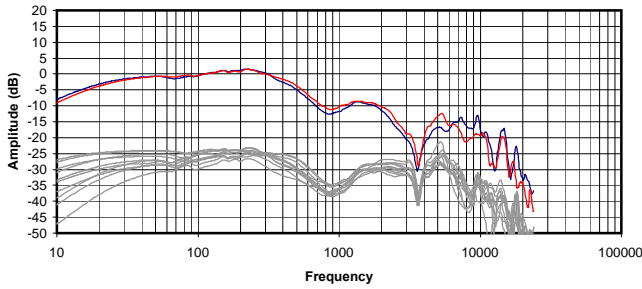


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

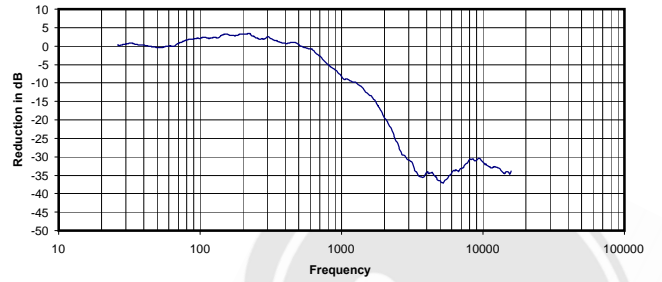
0.072 Vrms
 28 Ohms
 0.19 mW
 -12 dB



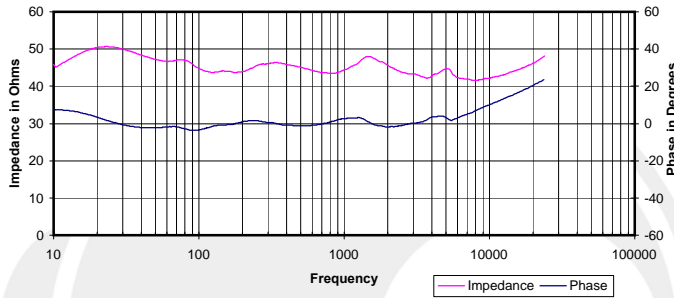
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



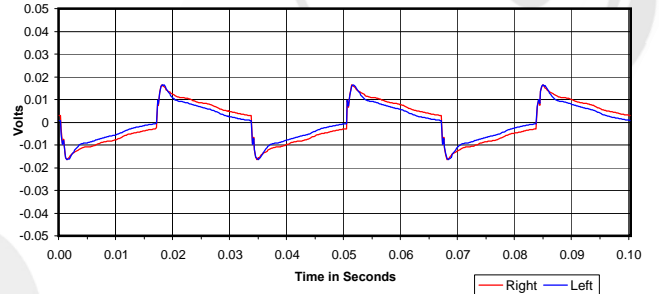
Isolation
 Attenuation of External Sound vs. Frequency



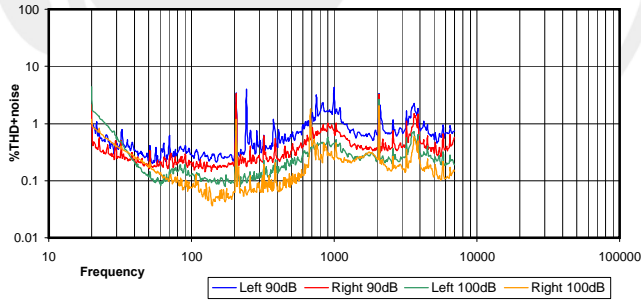
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



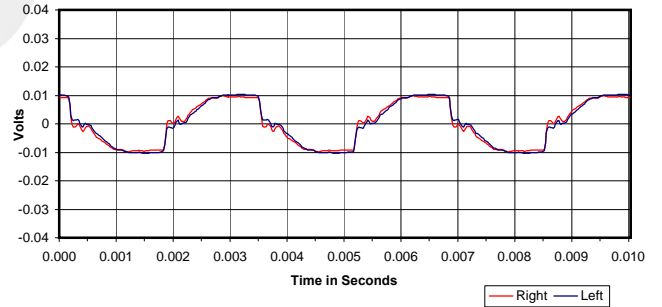
30 Hz Square Wave



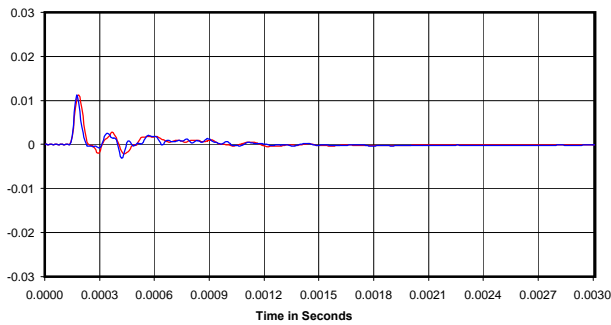
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



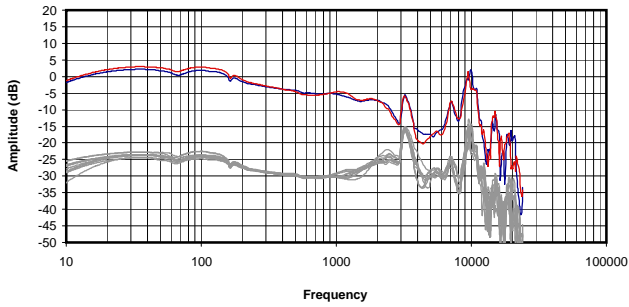
Impulse Response



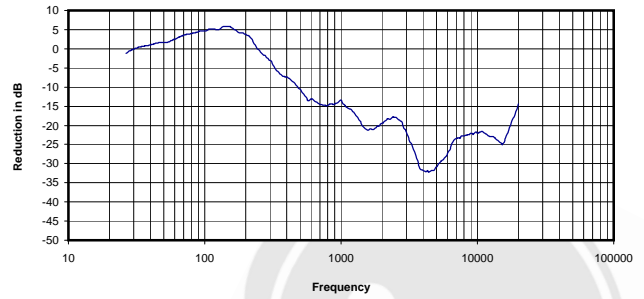
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
 44 Ohms
 0.05 mW
 -10 dB

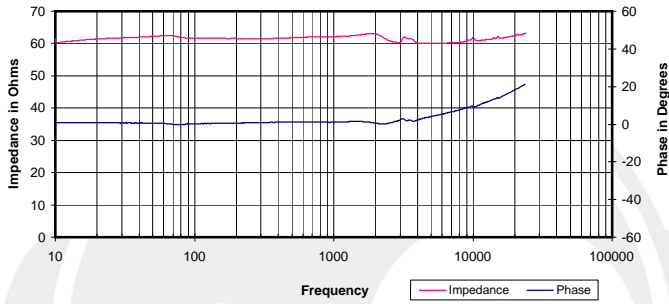
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



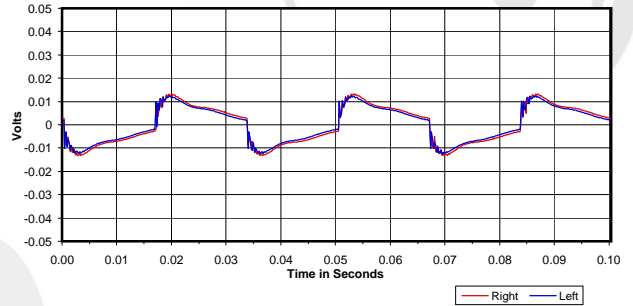
Isolation
Attenuation of External Sound vs. Frequency



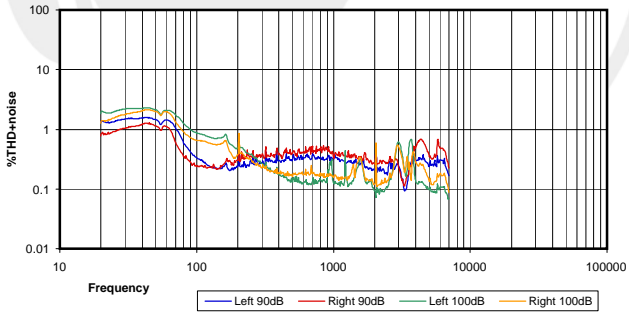
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



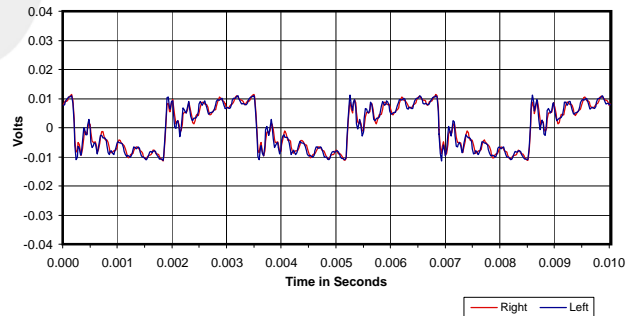
30 Hz Square Wave



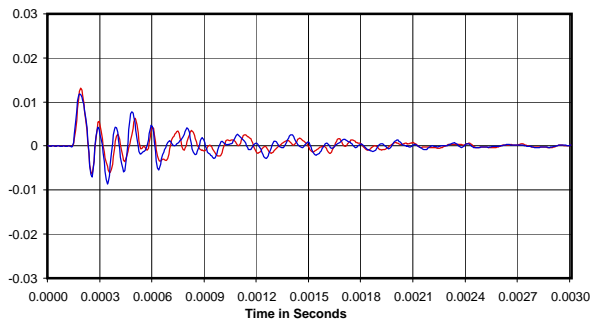
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



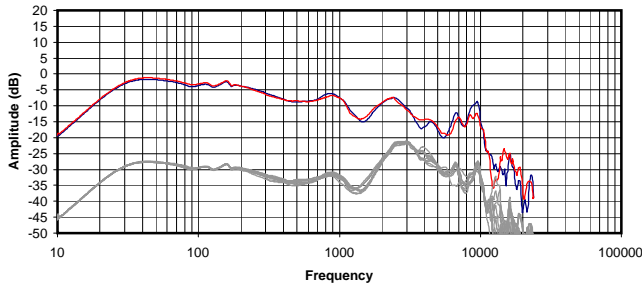
Impulse Response



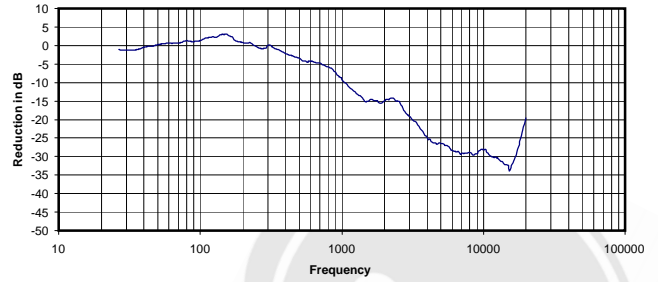
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.106 Vrms
62 Ohms
0.18 mW
-14 dBr

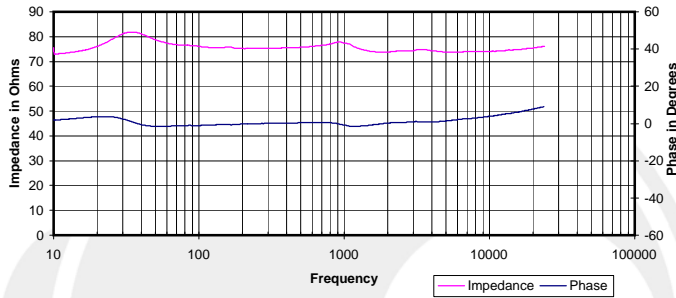
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



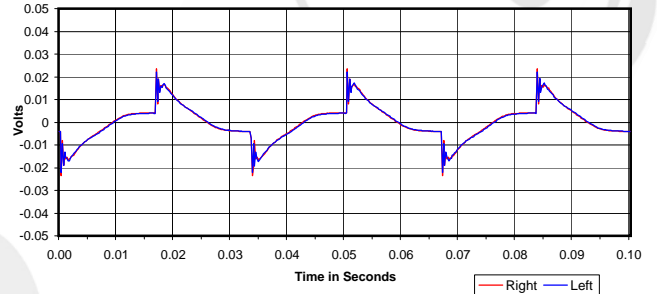
Isolation
 Attenuation of External Sound vs. Frequency



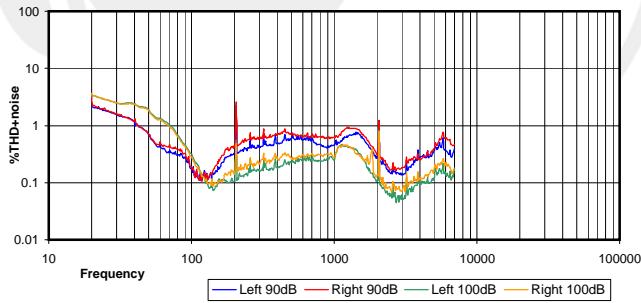
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



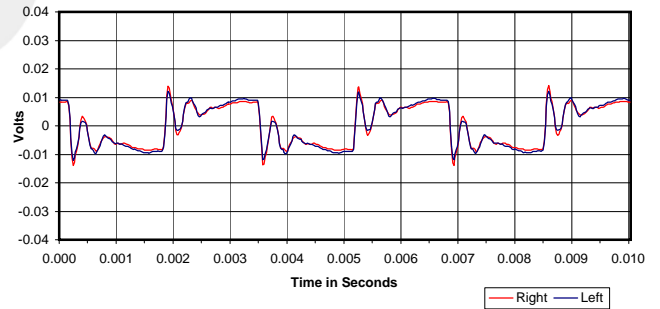
30 Hz Square Wave



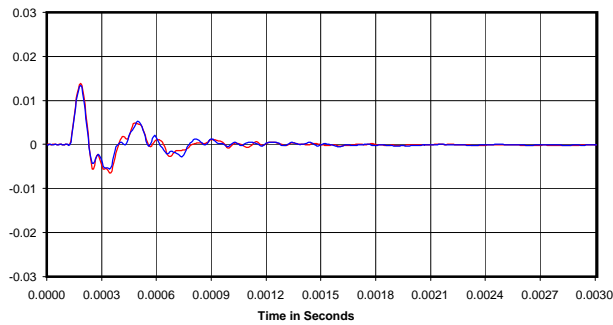
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

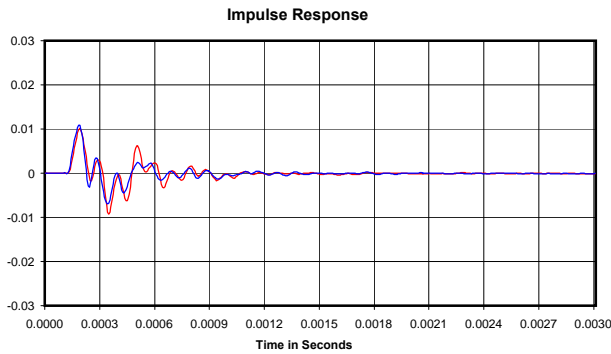
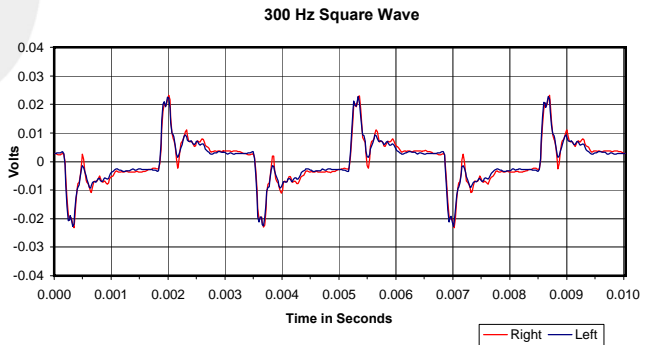
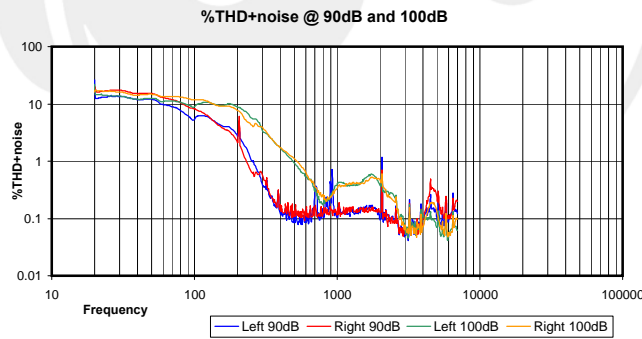
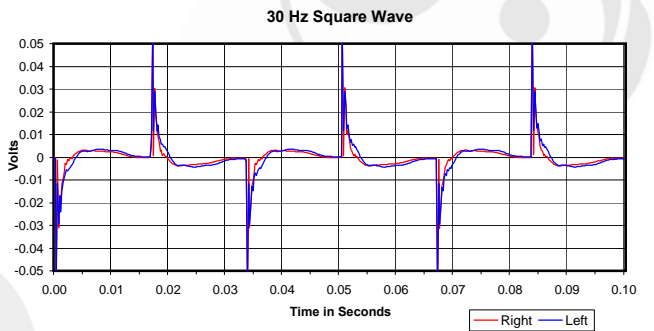
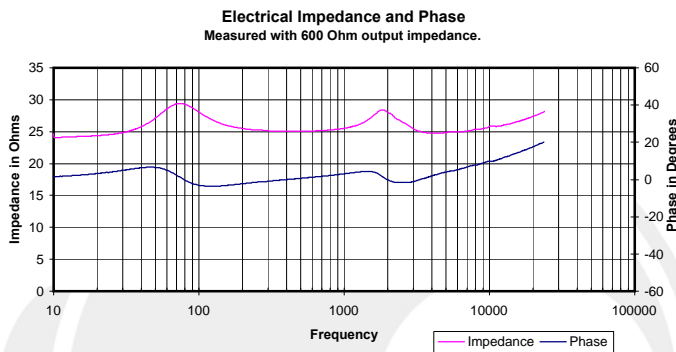
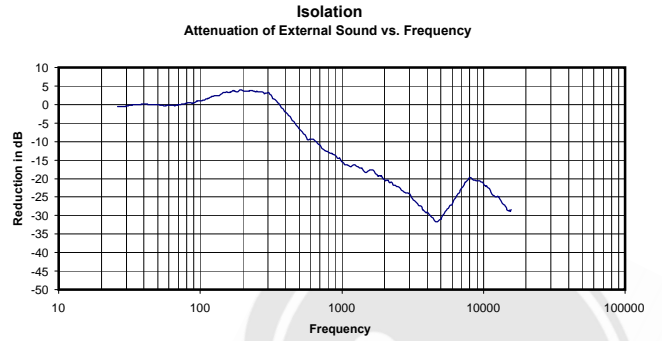
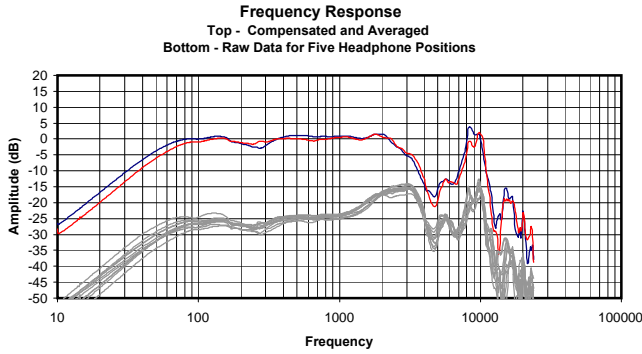


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

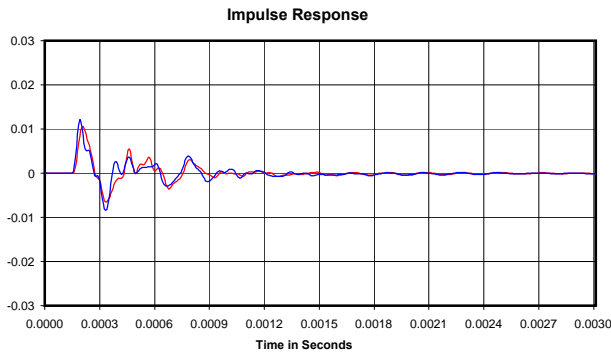
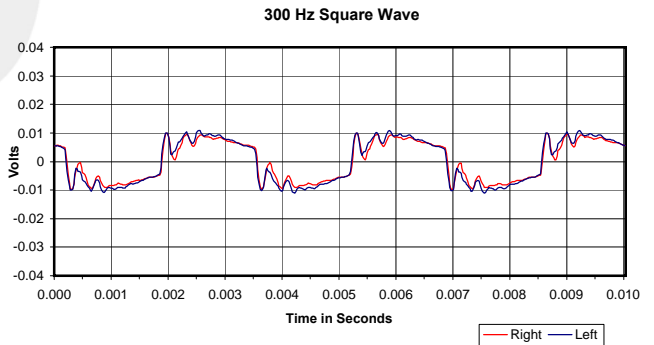
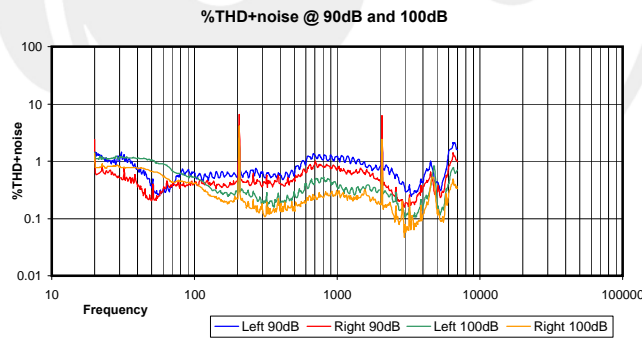
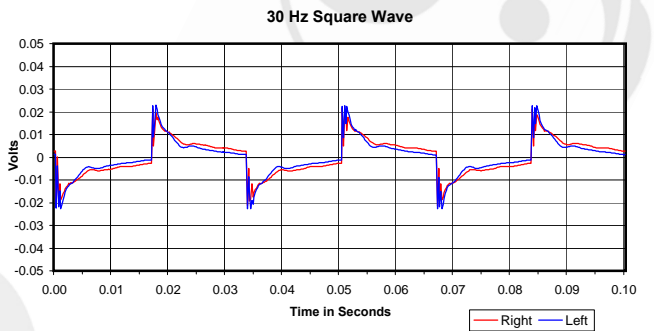
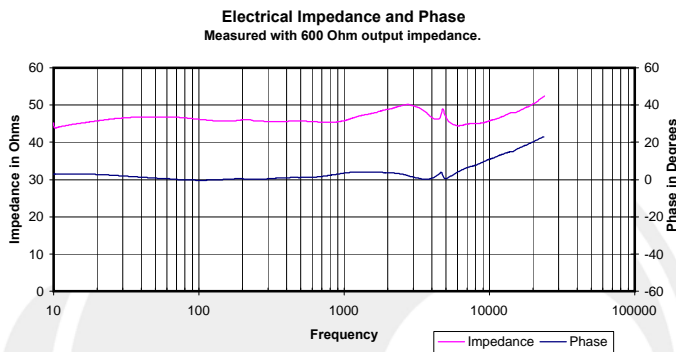
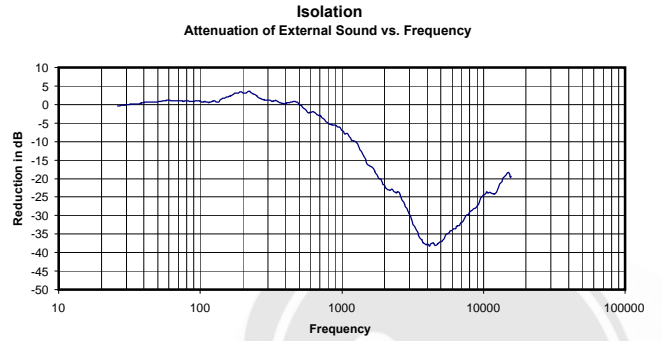
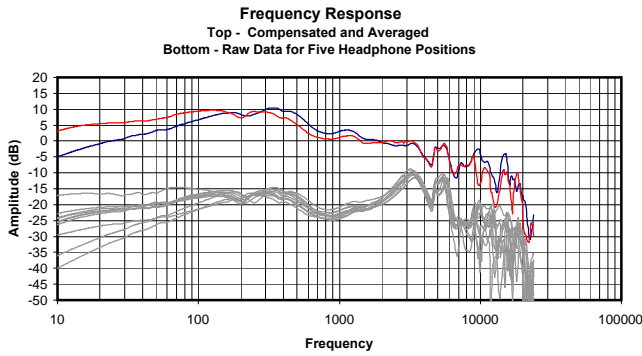
0.072 Vrms
 77 Ohms
 0.07 mW
 -11 dB



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
26 Ohms
0.05 mW
-11 dB

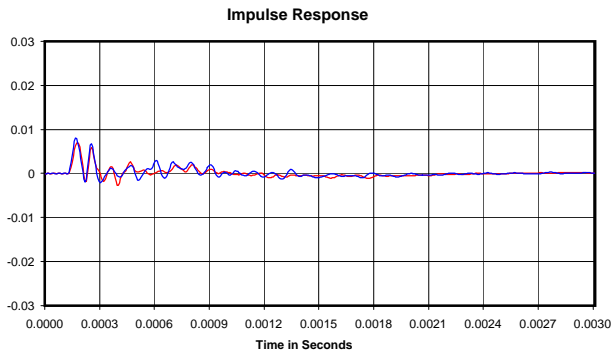
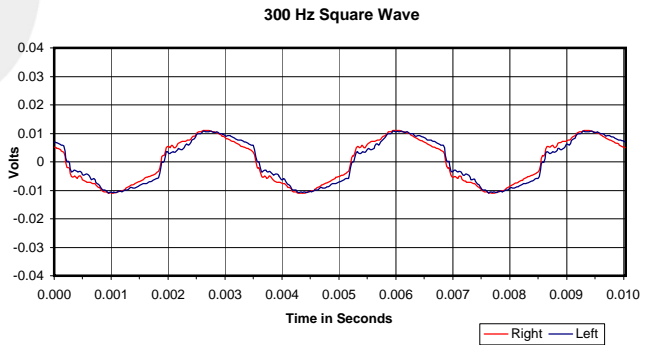
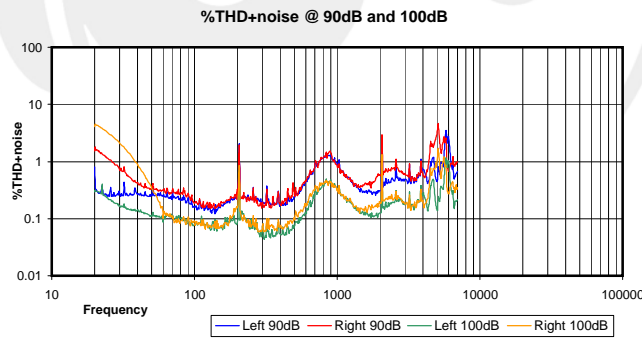
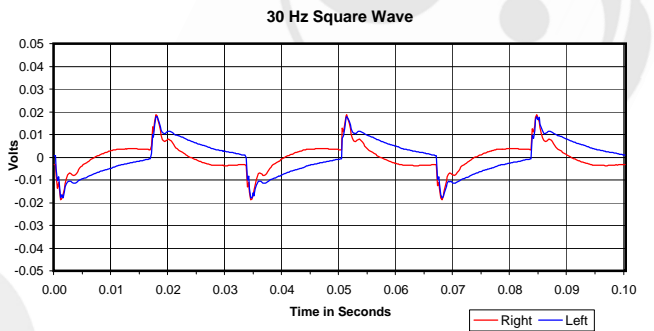
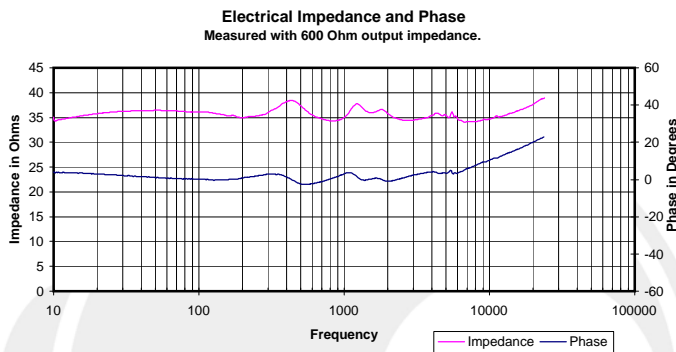
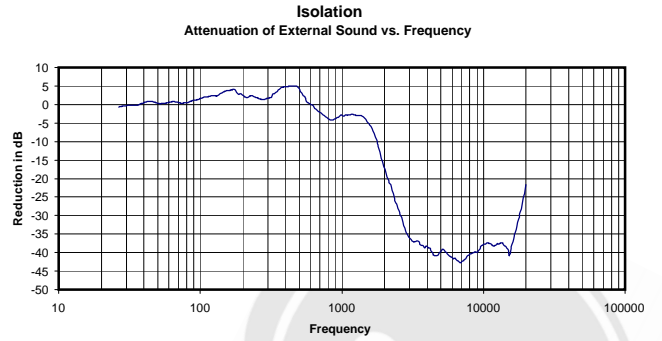
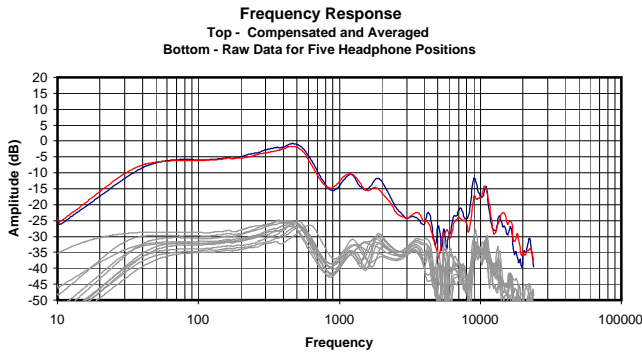




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
46 Ohms
0.03 mW
-11 dB



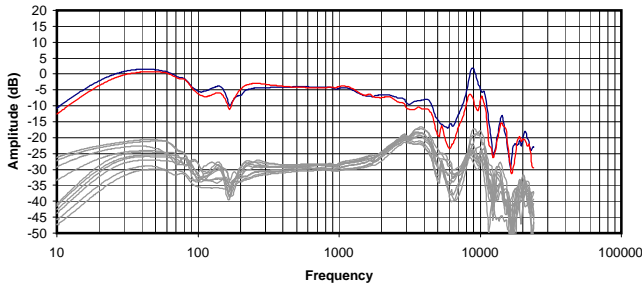


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

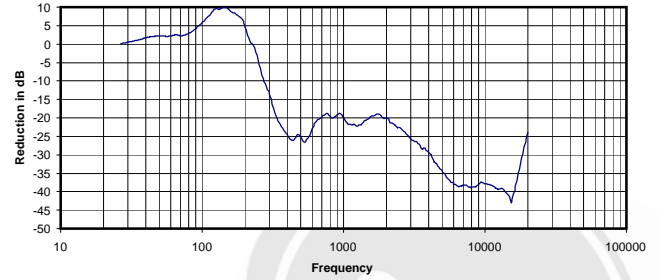
0.041 Vrms
35 Ohms
0.05 mW
-13 dB



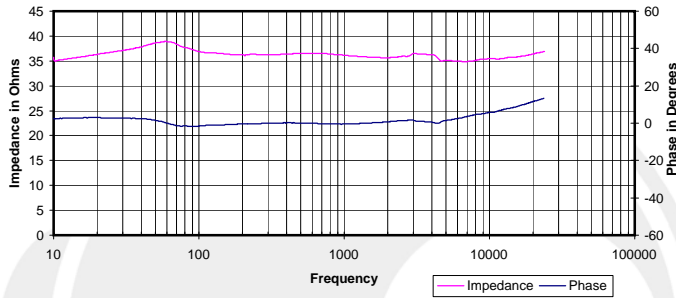
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



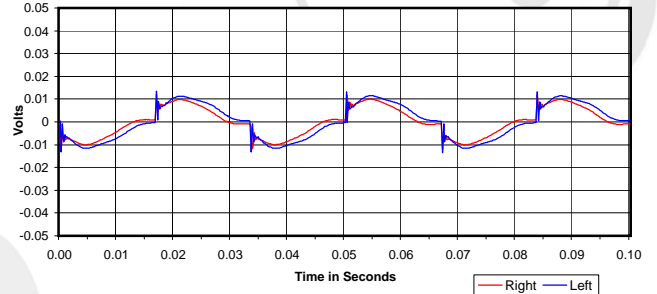
Isolation
Attenuation of External Sound vs. Frequency



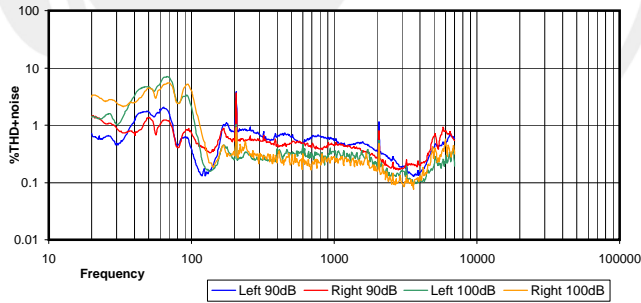
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



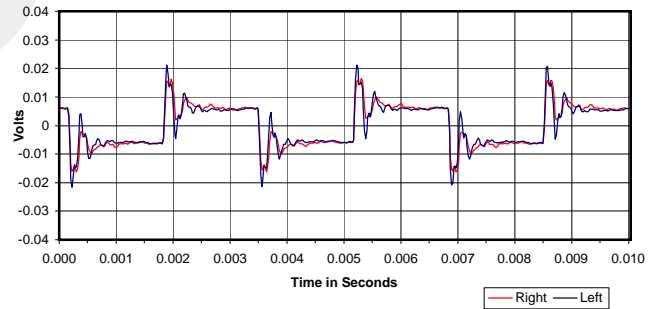
30 Hz Square Wave



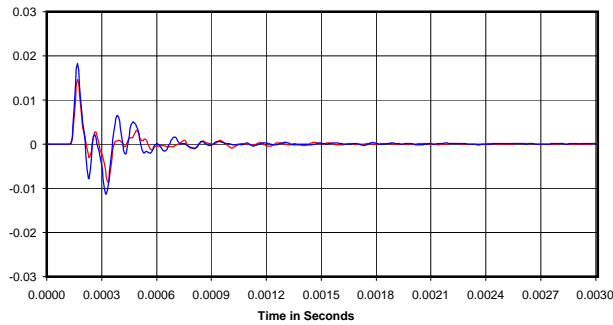
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



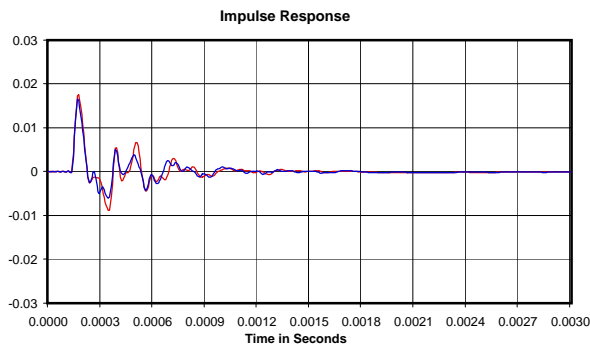
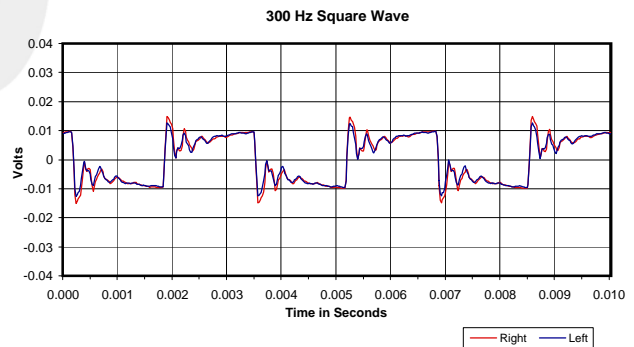
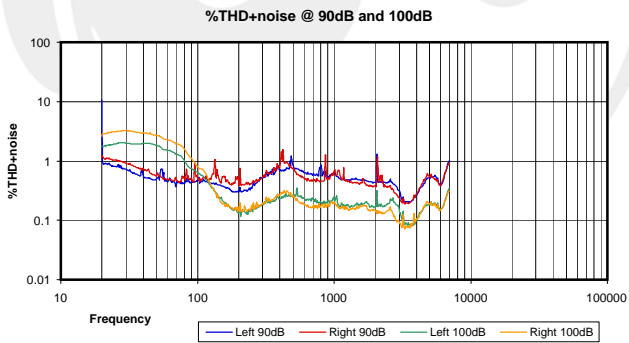
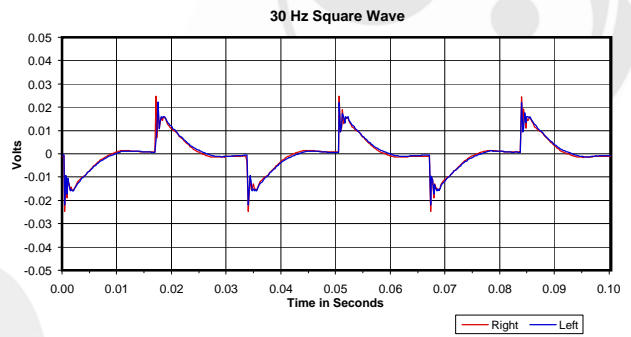
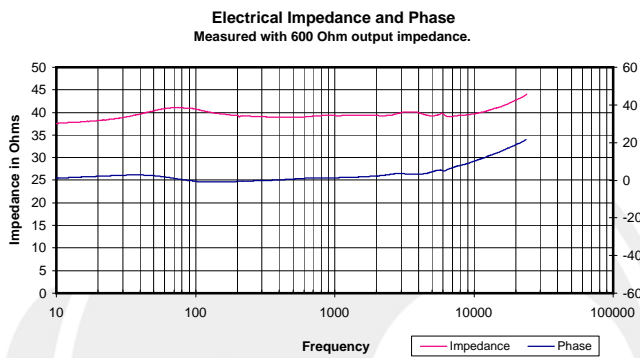
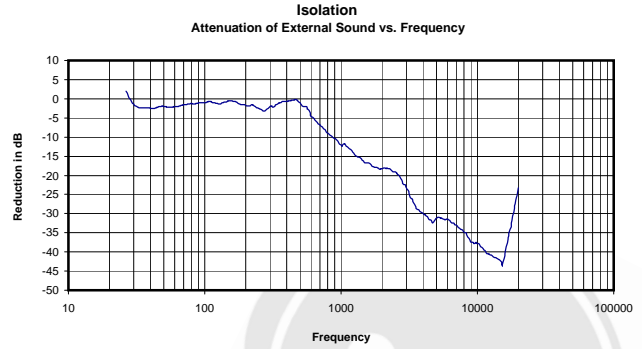
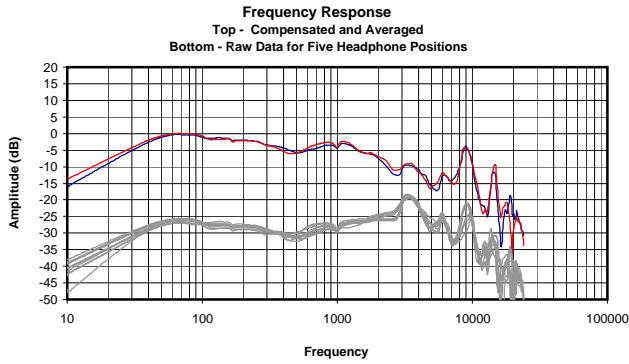
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.069 Vrms
36 Ohms
0.13 mW
-19 dB

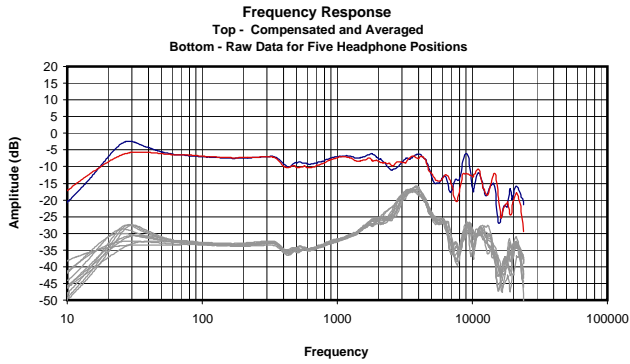




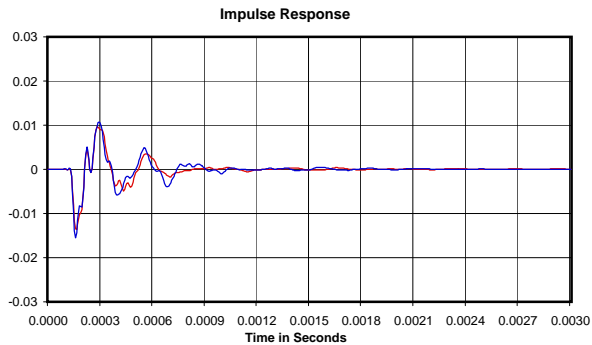
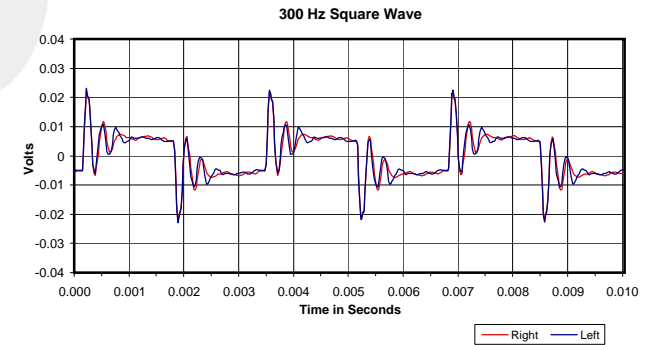
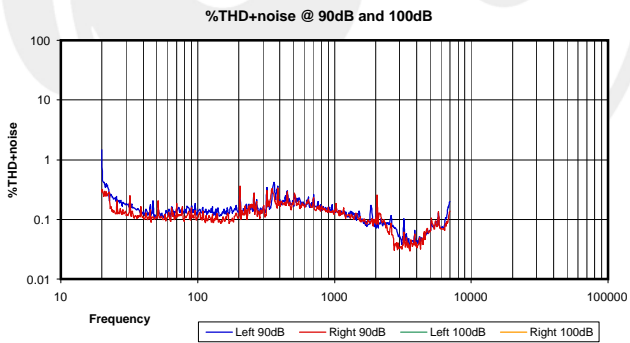
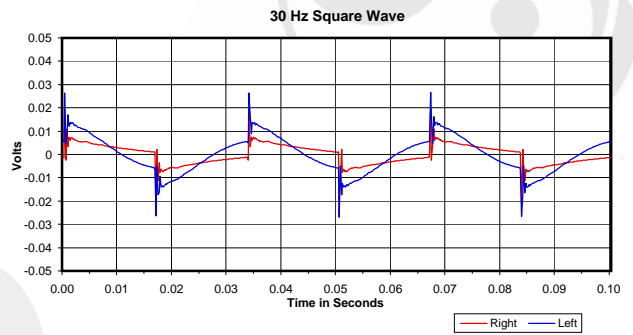
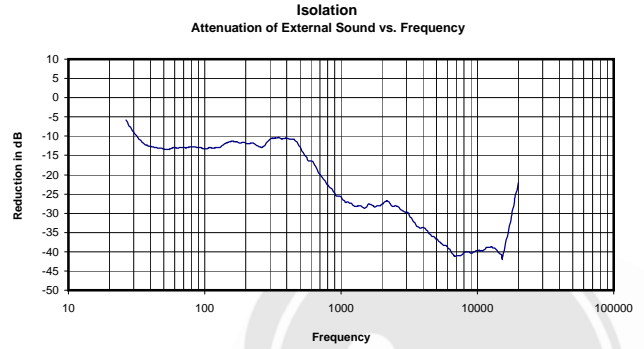
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.068 Vrms
39 Ohms
0.12 mW
-14 dBr





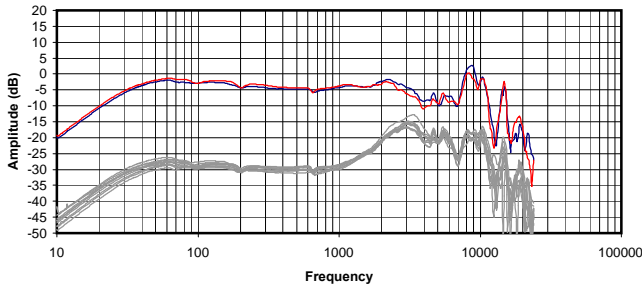
Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones



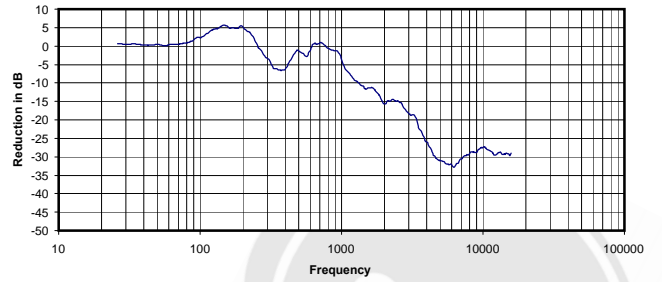
Broadband Isolation in dB (100Hz to 10kHz):

-24 dBr

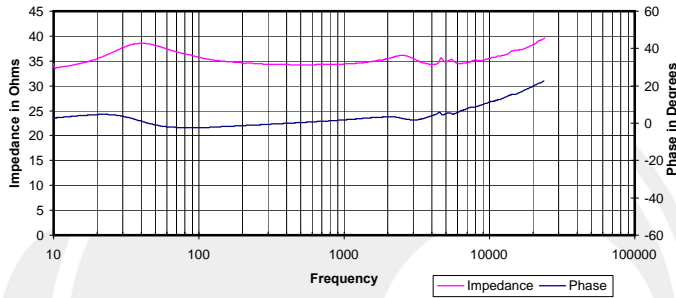
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



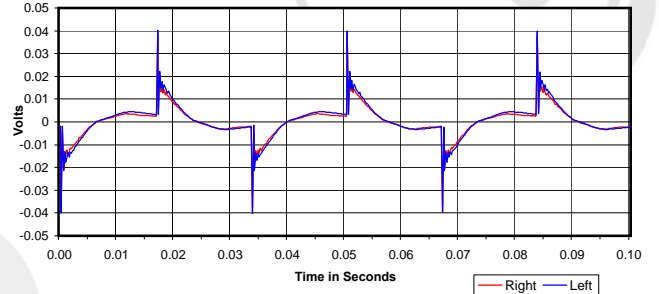
Isolation
Attenuation of External Sound vs. Frequency



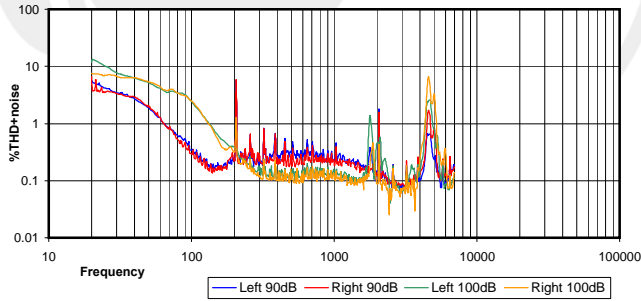
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



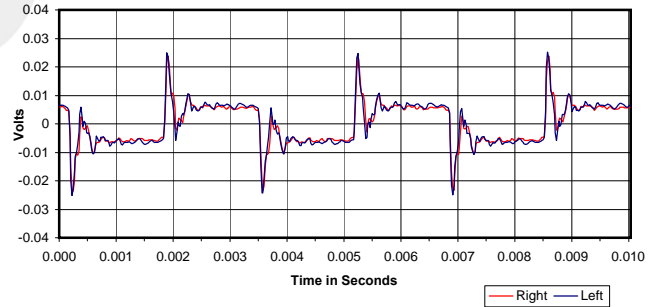
30 Hz Square Wave



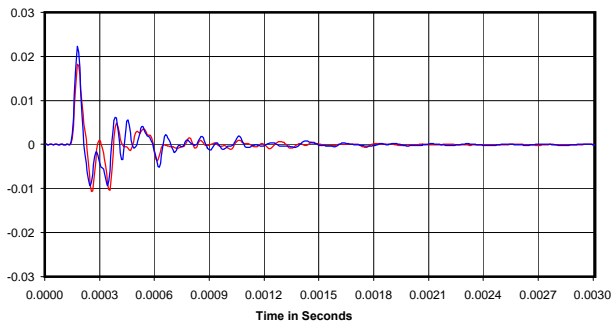
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

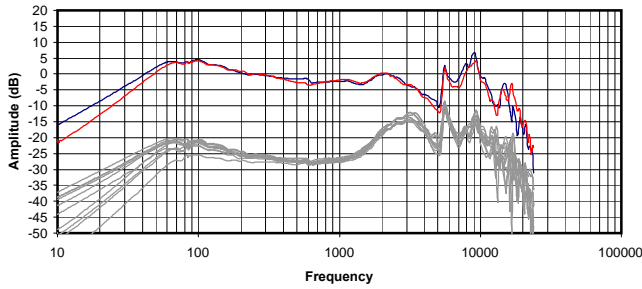


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

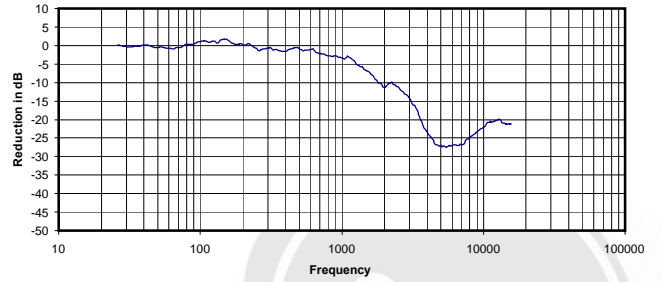
0.110 Vrms
34 Ohms
0.35 mW
-8 dB



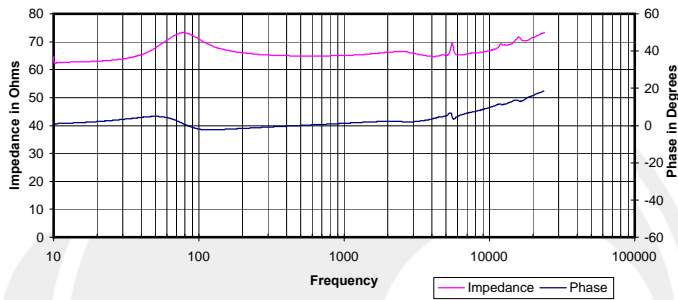
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



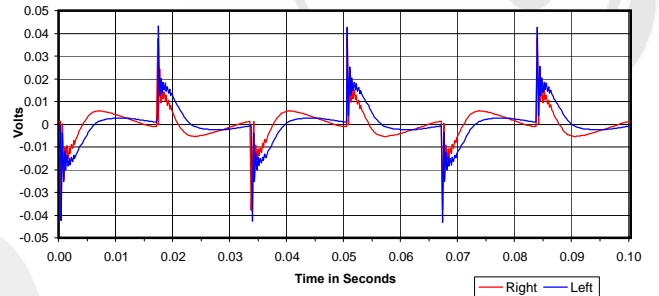
Isolation
Attenuation of External Sound vs. Frequency



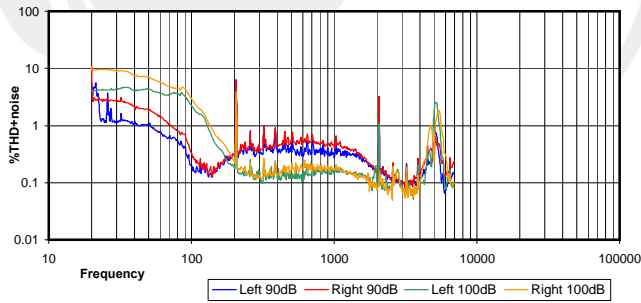
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



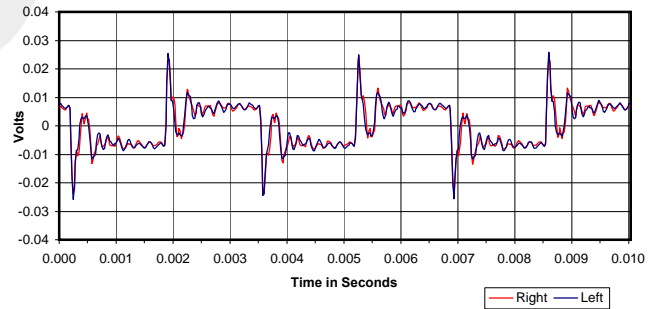
30 Hz Square Wave



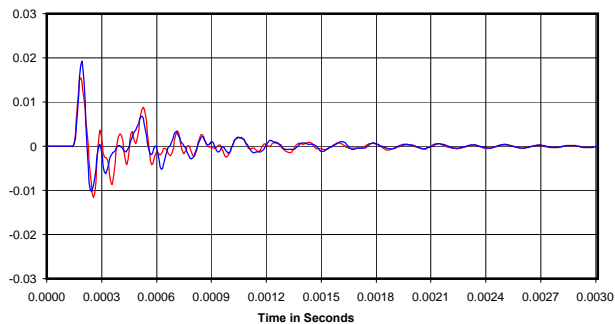
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

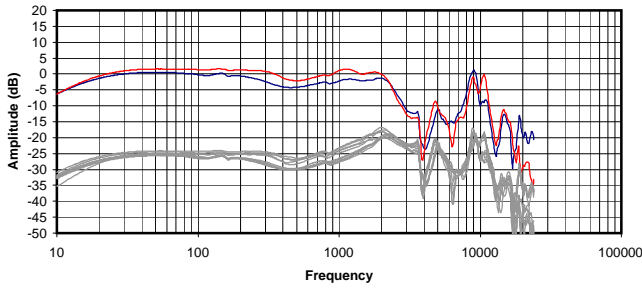


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

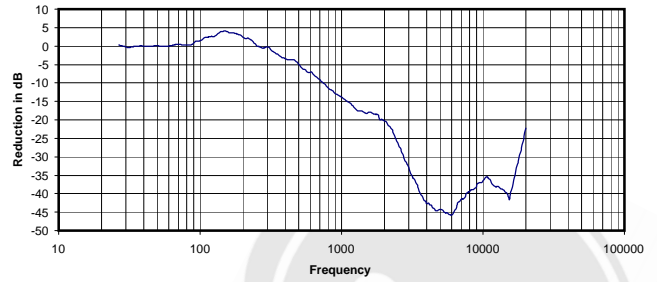
0.181 Vrms
65 Ohms
0.50 mW
-7 dB



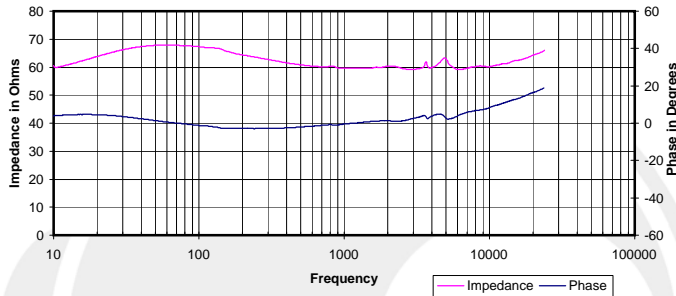
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



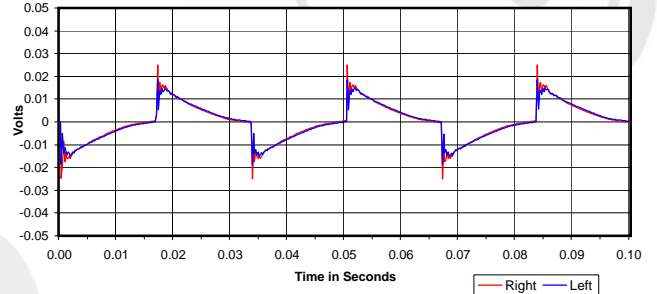
Isolation
 Attenuation of External Sound vs. Frequency



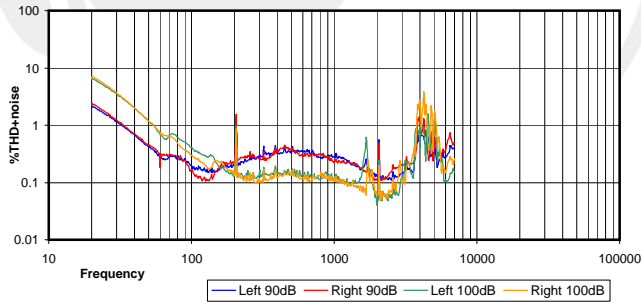
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



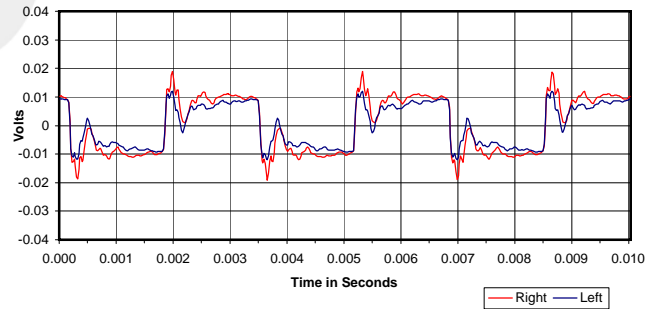
30 Hz Square Wave



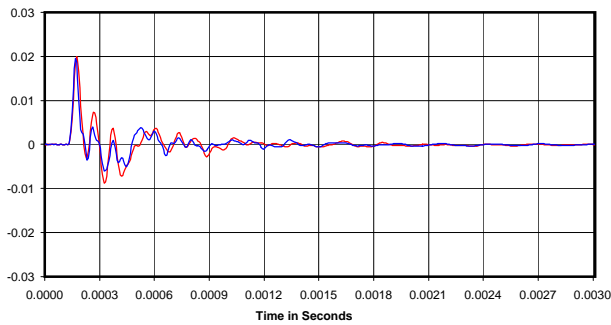
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

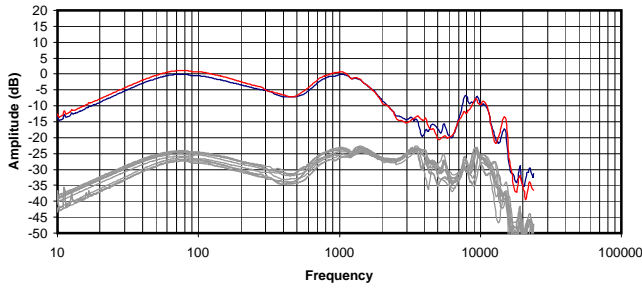


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

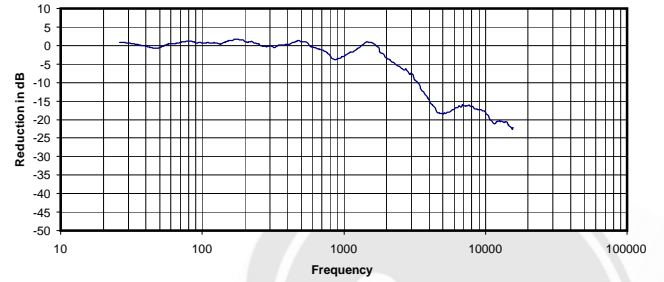
0.042 Vrms
 60 Ohms
 0.03 mW
 -17 dB



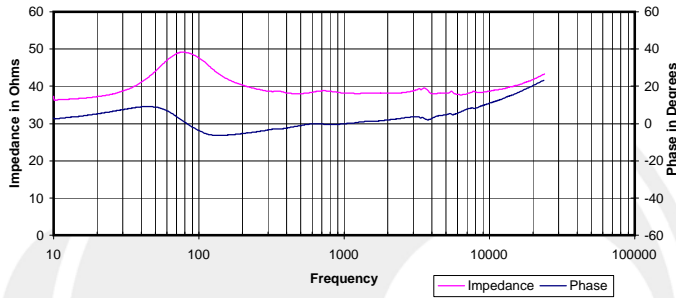
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



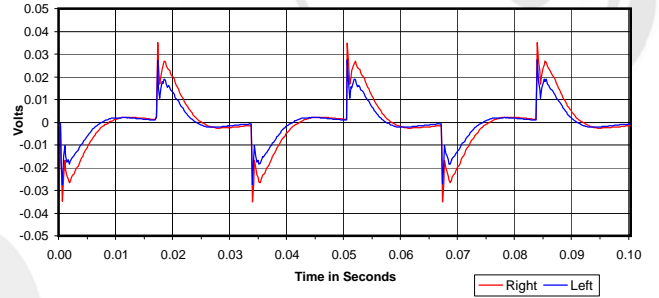
Isolation
 Attenuation of External Sound vs. Frequency



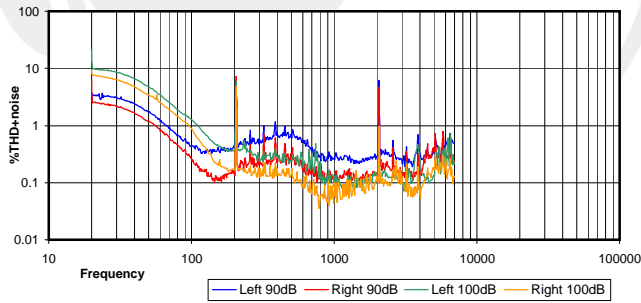
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



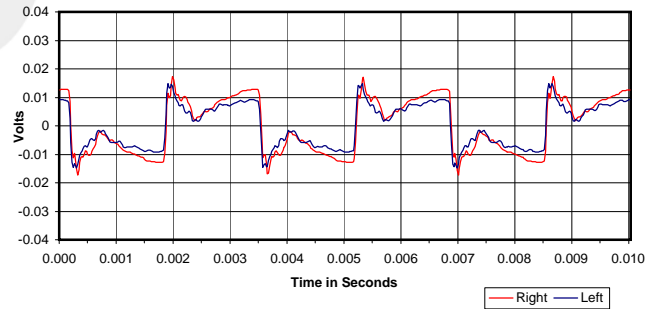
30 Hz Square Wave



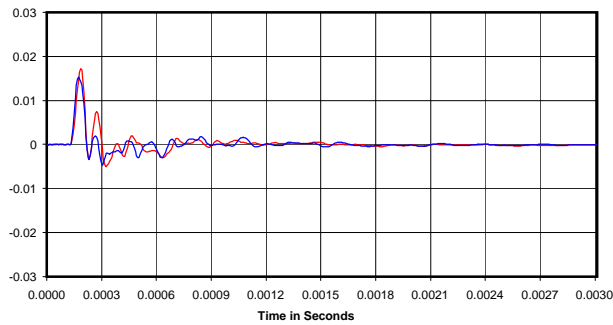
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



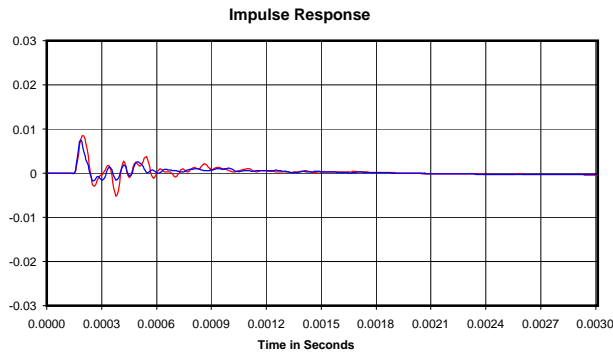
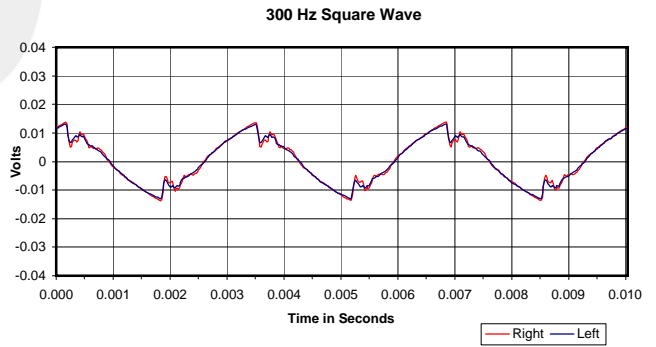
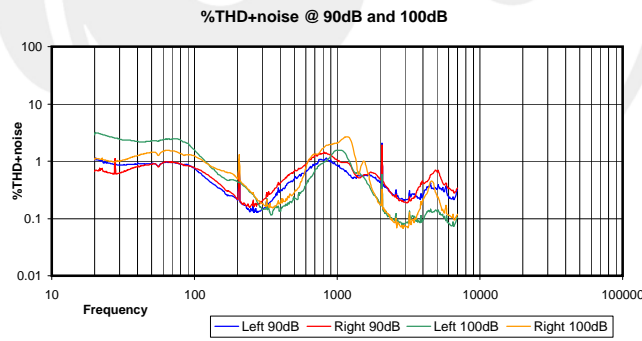
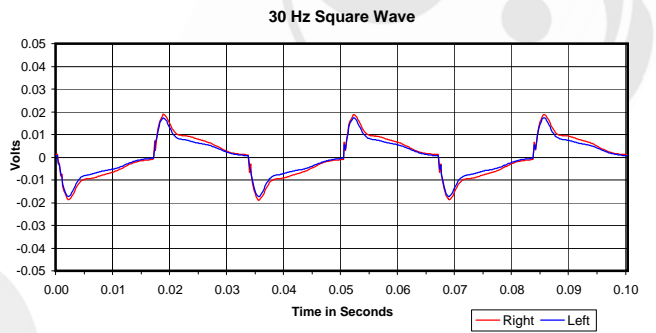
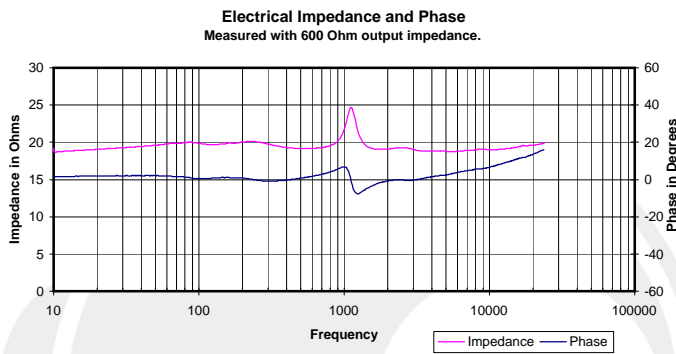
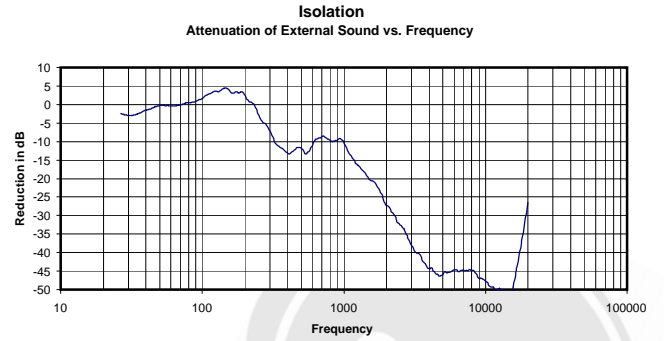
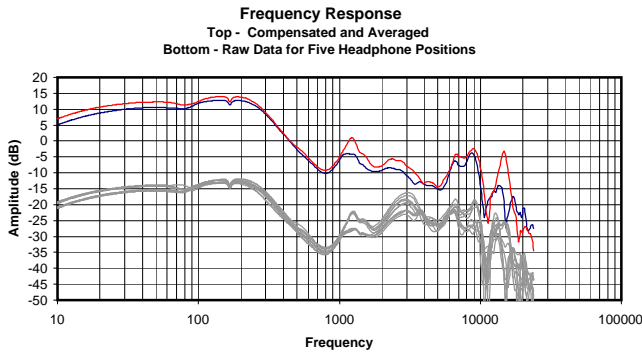
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
 38 Ohms
 0.02 mW
 -3 dB



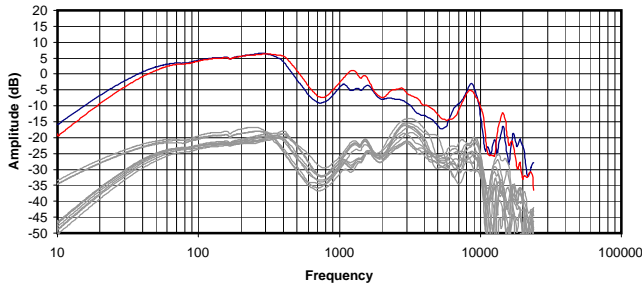


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

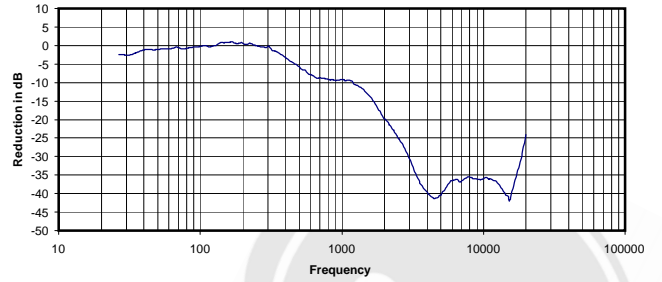
0.117 Vrms
22 Ohms
0.63 mW
-20 dB



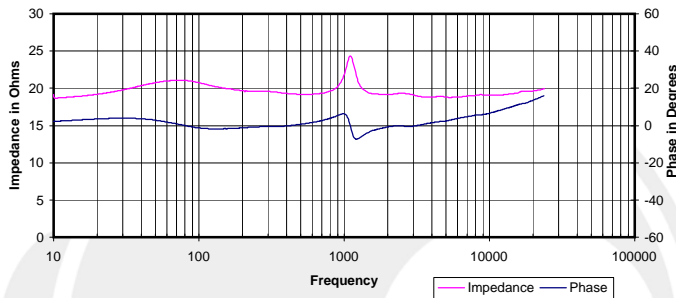
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



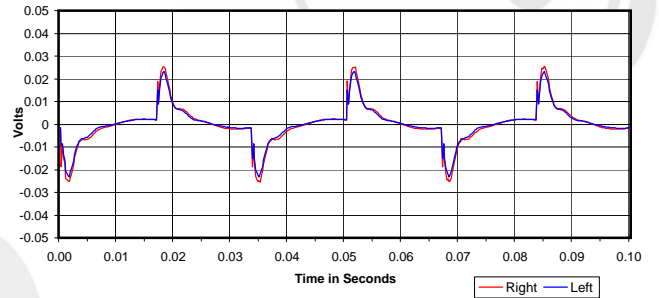
Isolation
 Attenuation of External Sound vs. Frequency



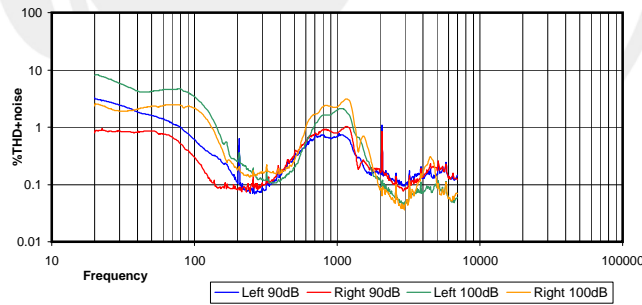
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



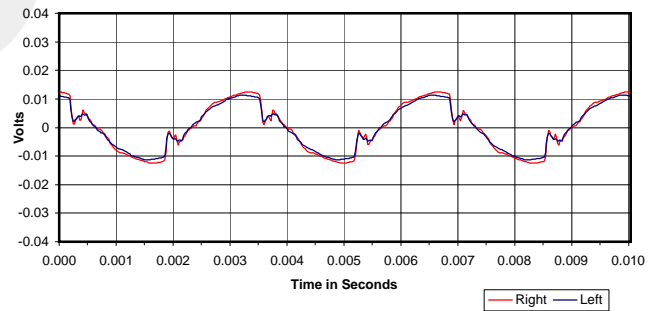
30 Hz Square Wave



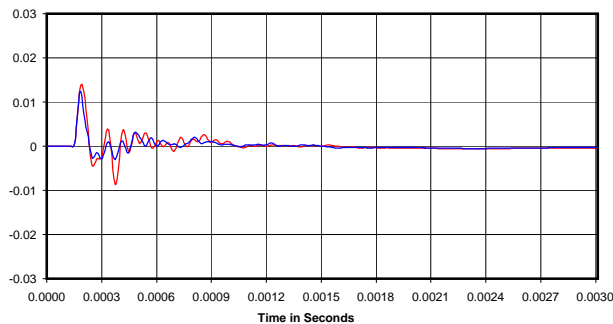
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



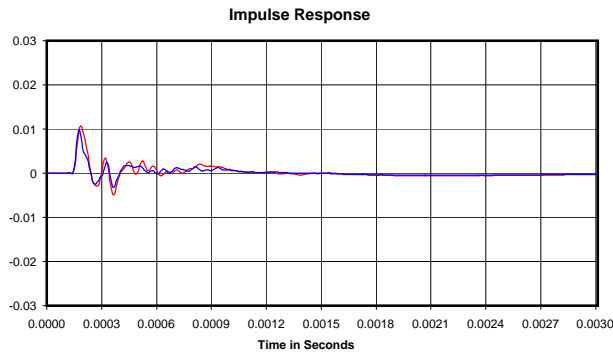
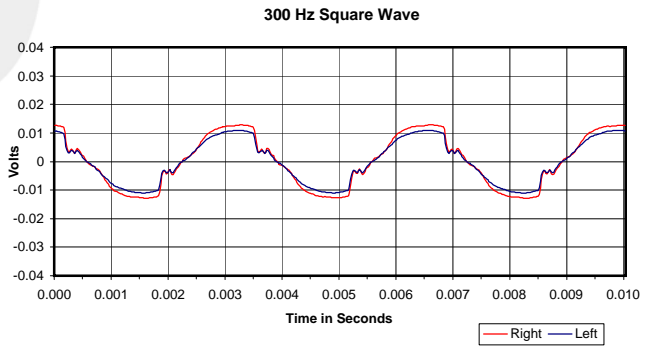
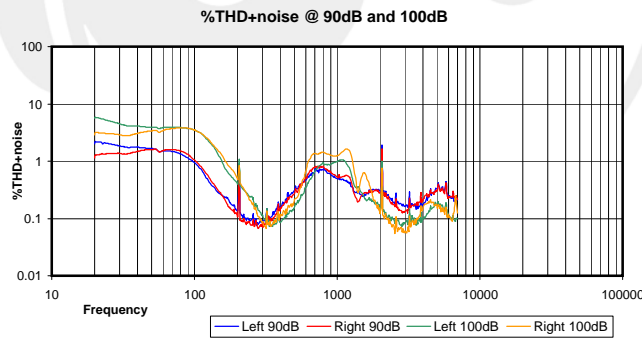
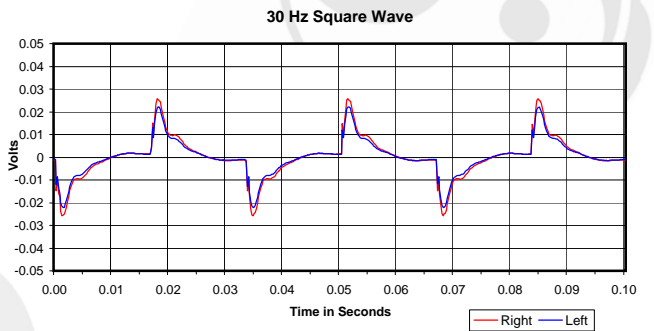
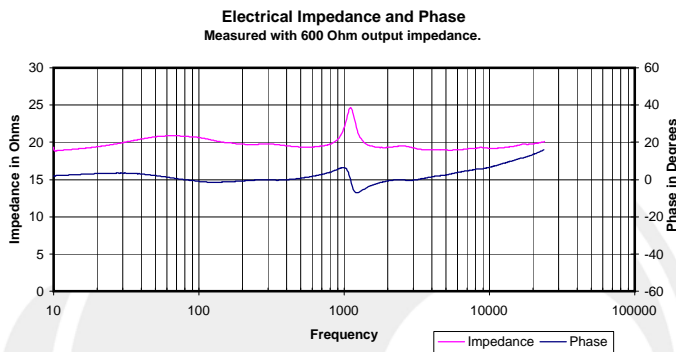
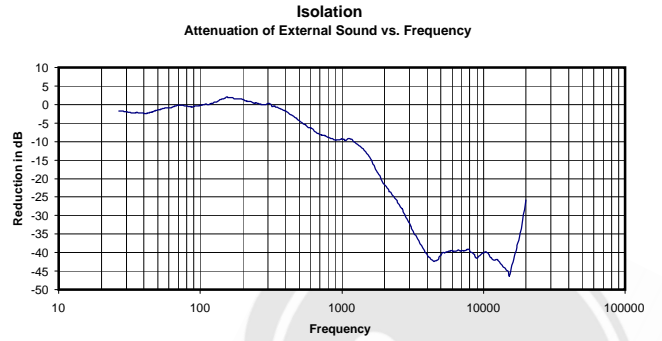
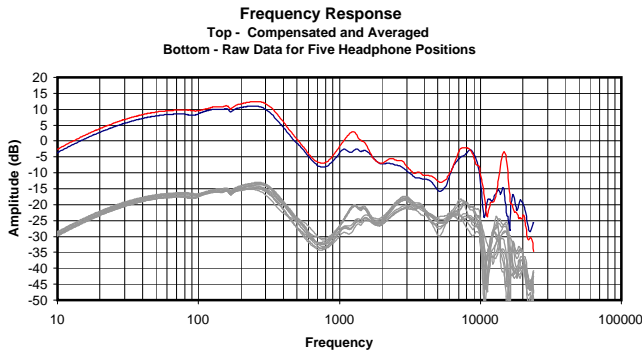
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.112 Vrms
 22 Ohms
 0.57 mW
 -15 dB



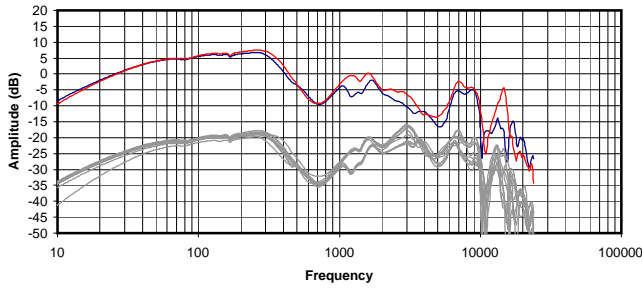


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

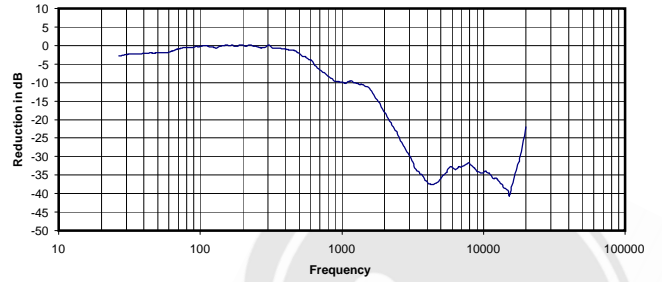
0.088 Vrms
22 Ohms
0.34 mW
-16 dB



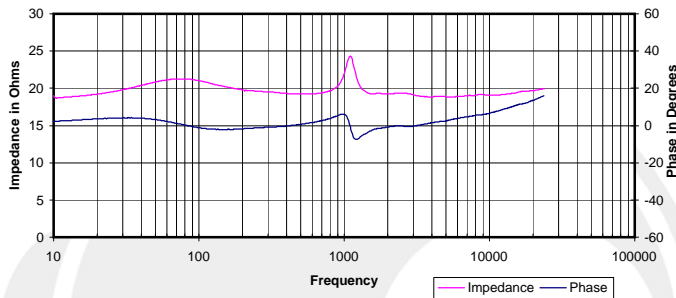
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



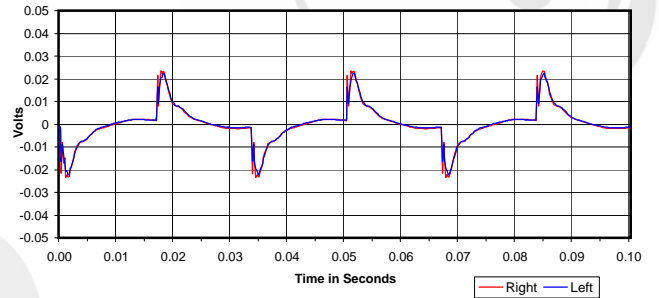
Isolation
 Attenuation of External Sound vs. Frequency



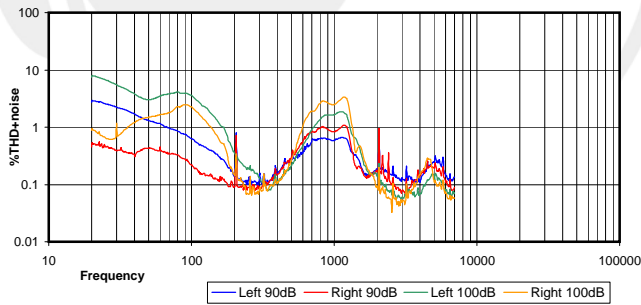
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



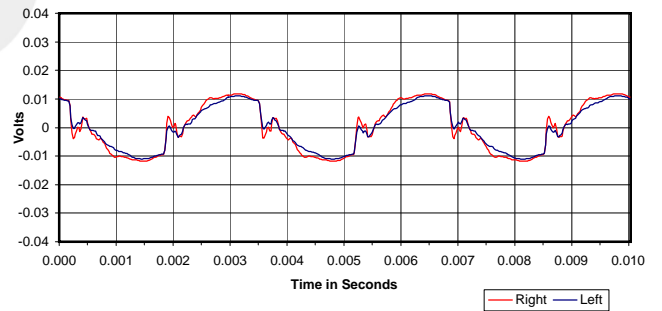
30 Hz Square Wave



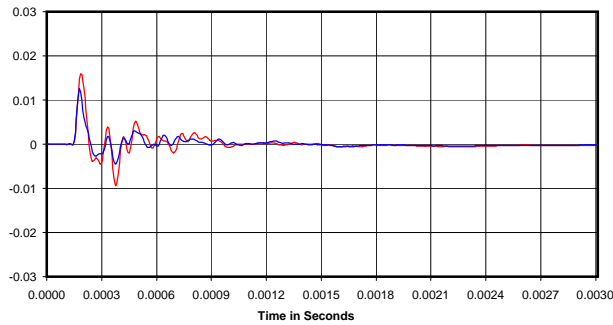
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

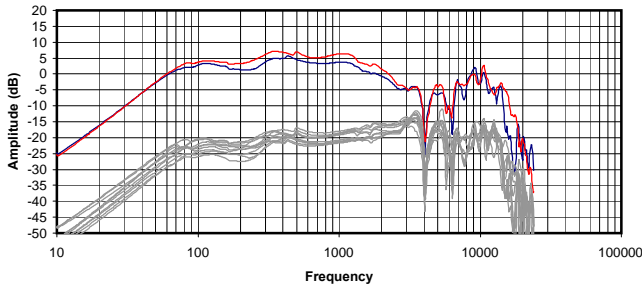


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

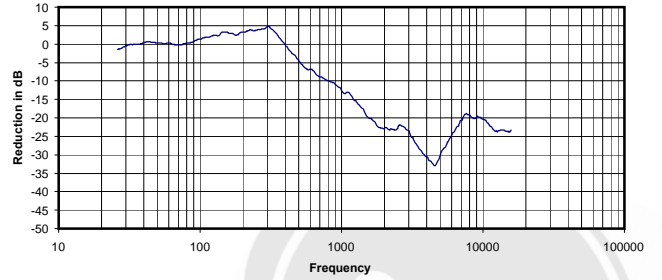
0.096 Vrms
 22 Ohms
 0.42 mW
 -14 dB



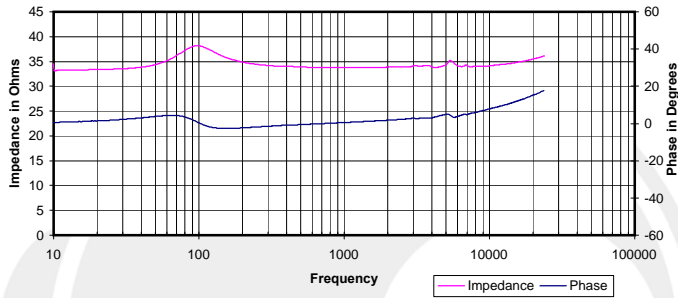
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



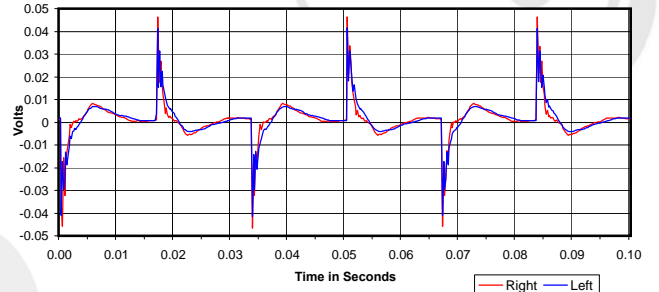
Isolation
Attenuation of External Sound vs. Frequency



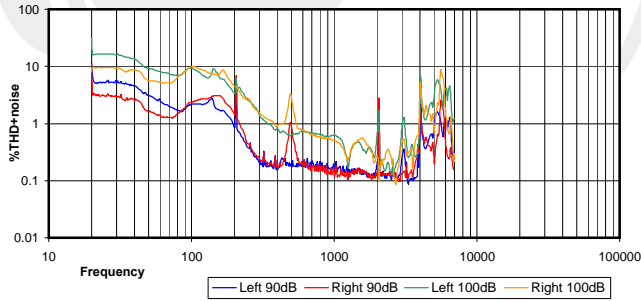
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



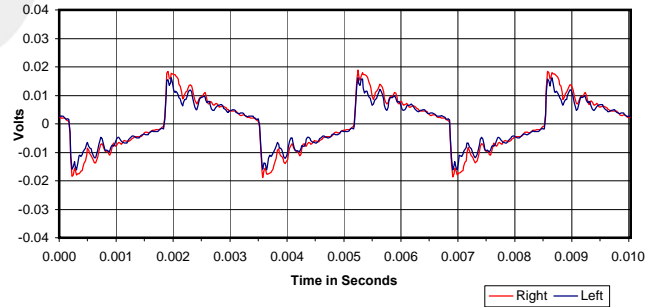
30 Hz Square Wave



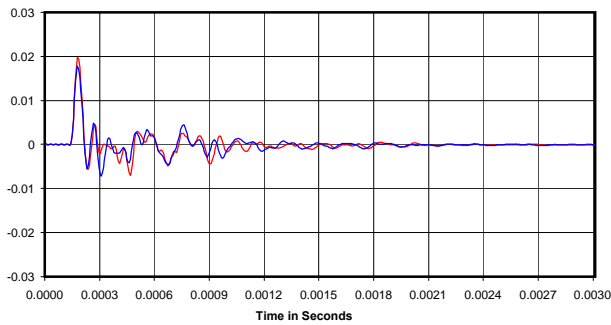
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

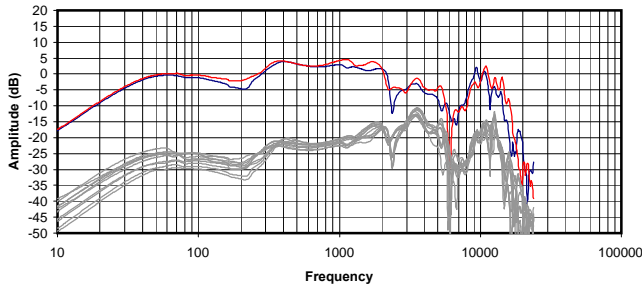


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

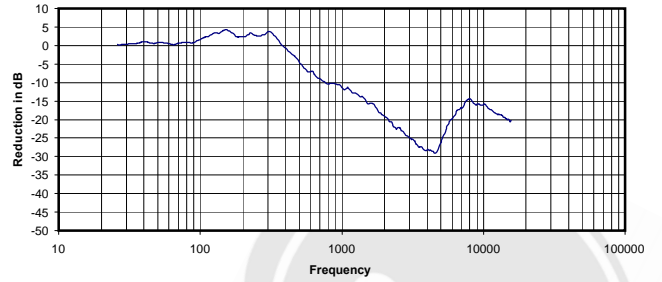
0.091 Vrms
34 Ohms
0.25 mW
-11 dB



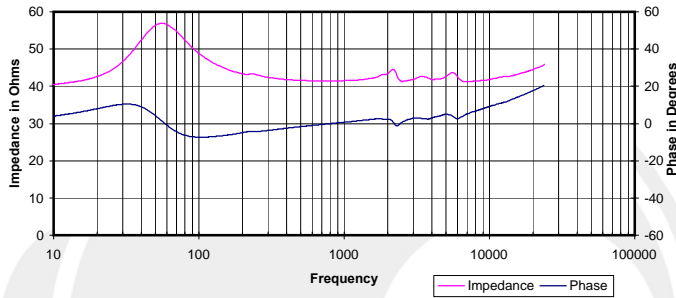
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



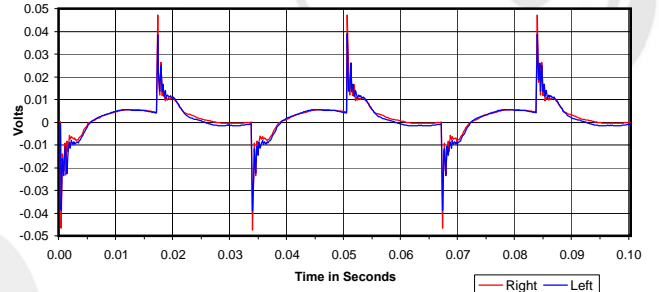
Isolation
Attenuation of External Sound vs. Frequency



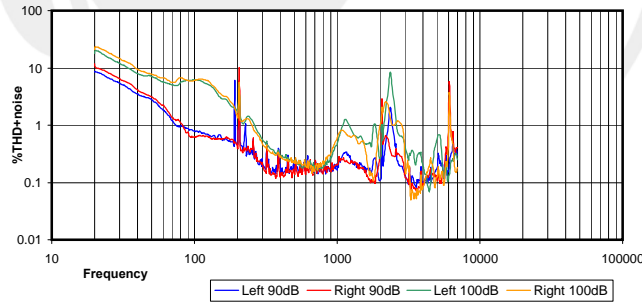
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



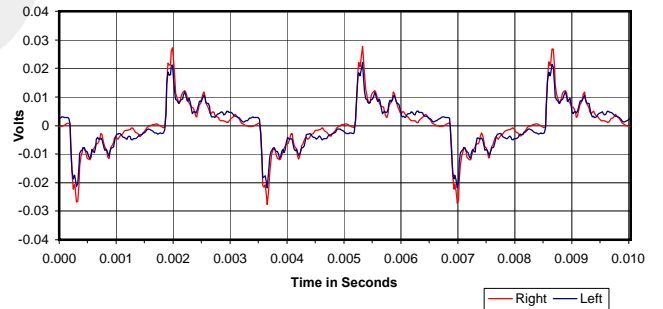
30 Hz Square Wave



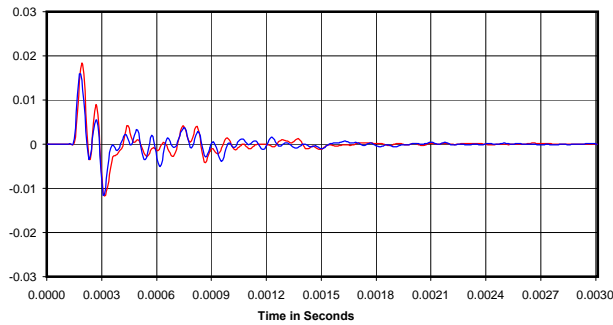
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

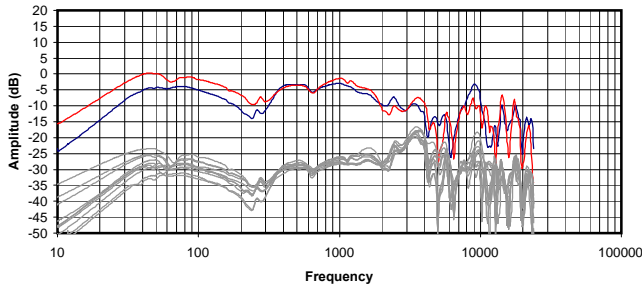


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

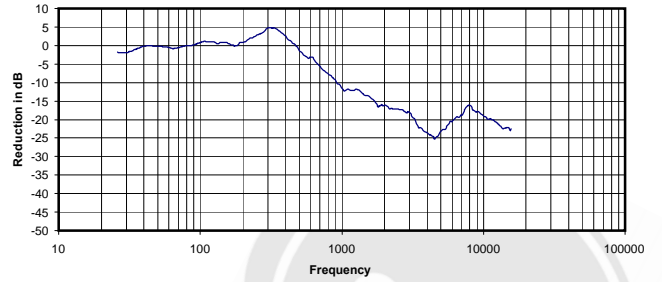
0.061 Vrms
42 Ohms
0.09 mW
-10 dB



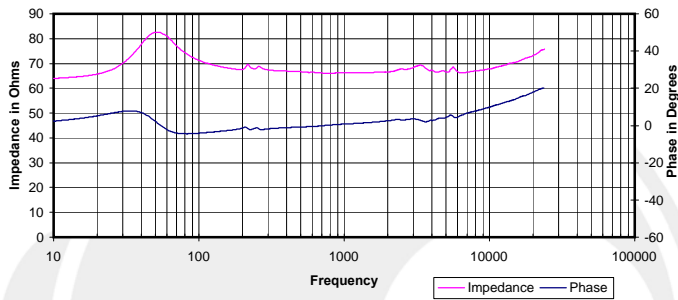
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



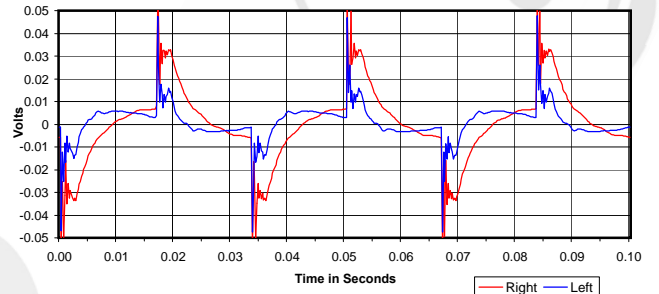
Isolation
Attenuation of External Sound vs. Frequency



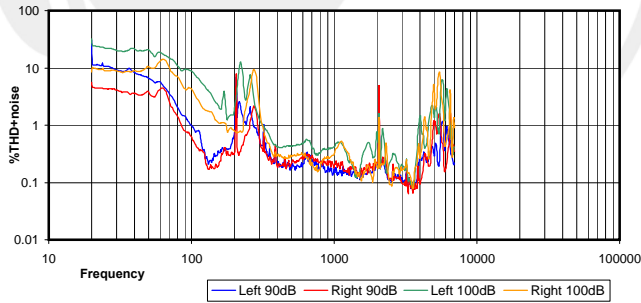
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



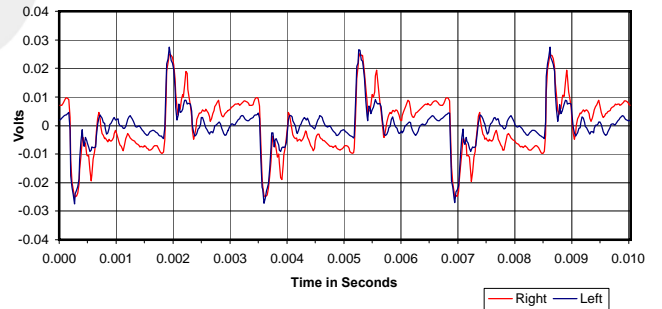
30 Hz Square Wave



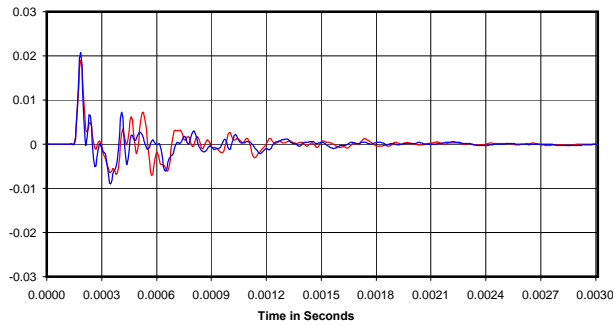
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

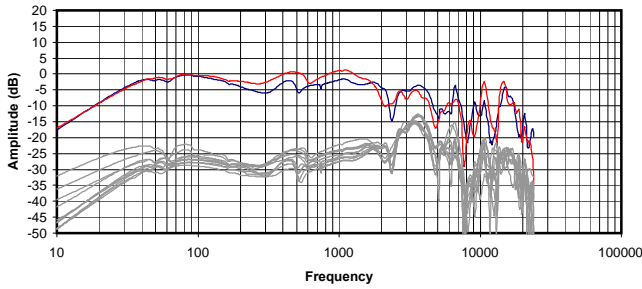


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

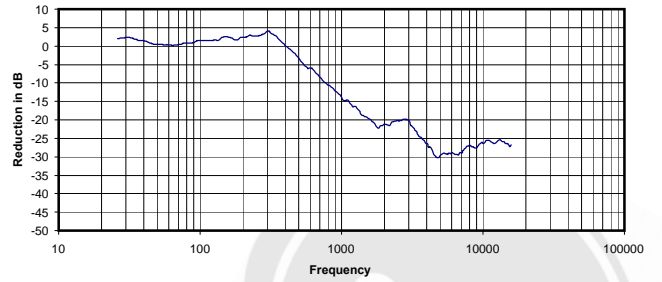
0.083 Vrms
66 Ohms
0.10 mW
-8 dBr



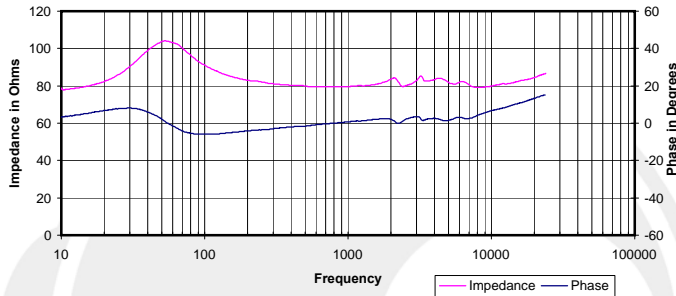
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



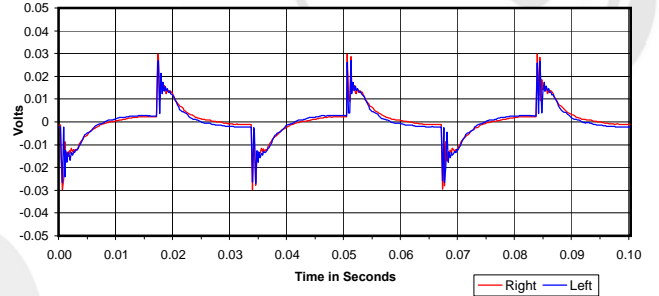
Isolation
 Attenuation of External Sound vs. Frequency



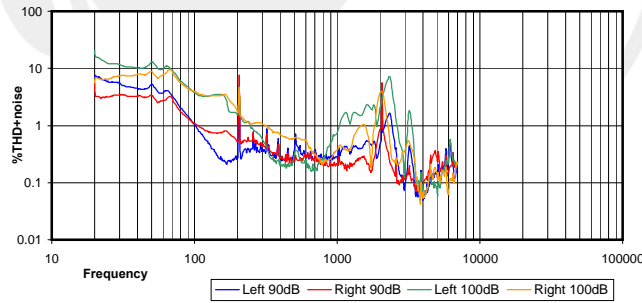
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



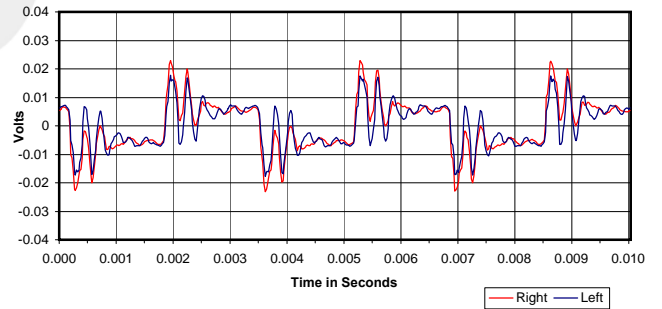
30 Hz Square Wave



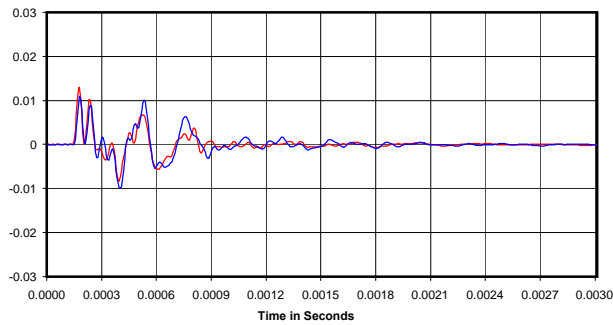
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

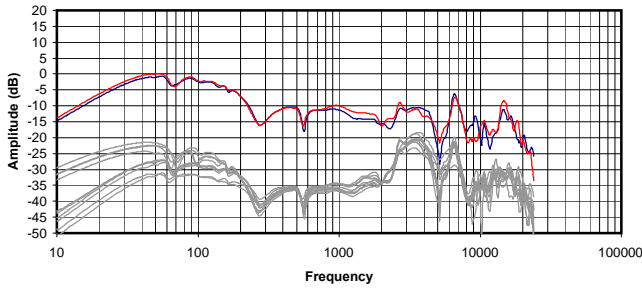


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

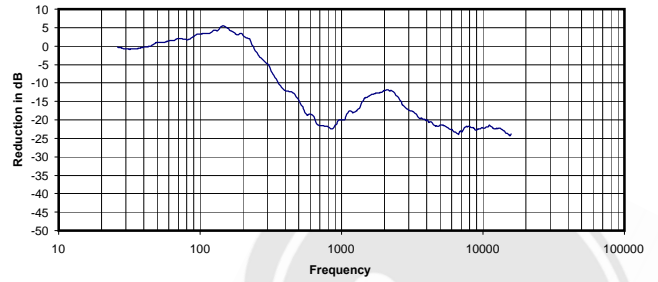
0.129 Vrms
 80 Ohms
 0.21 mW
 -10 dB



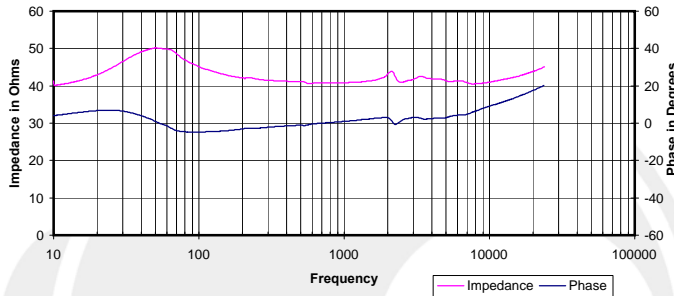
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



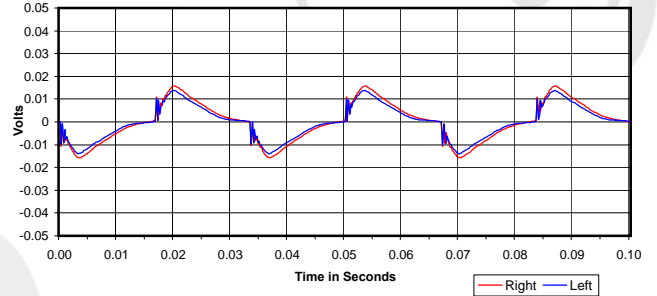
Isolation
 Attenuation of External Sound vs. Frequency



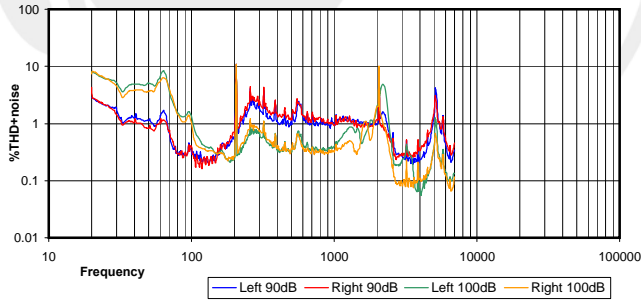
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



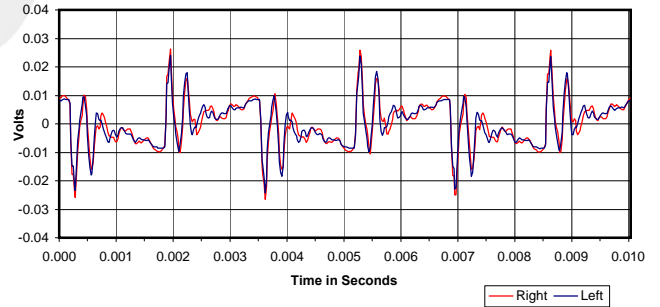
30 Hz Square Wave



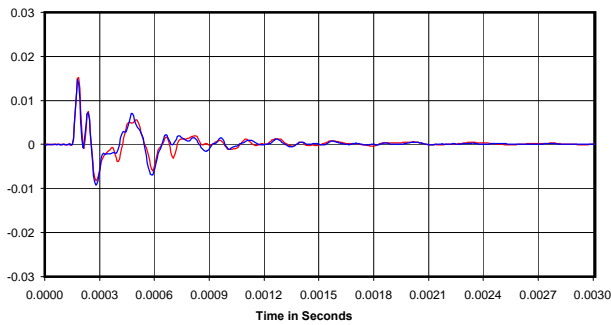
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

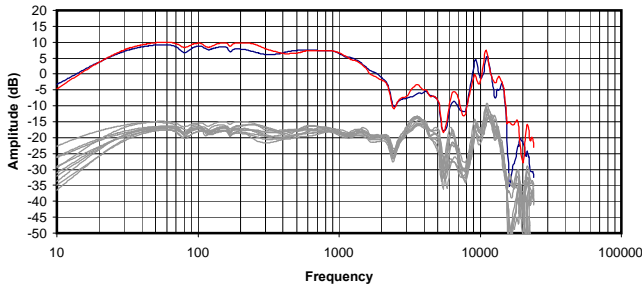


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

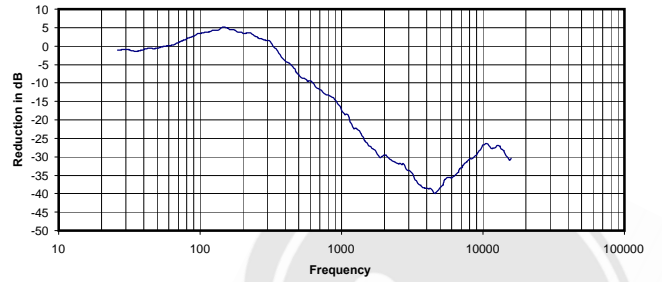
0.175 Vrms
 41 Ohms
 0.75 mW
 -11 dB



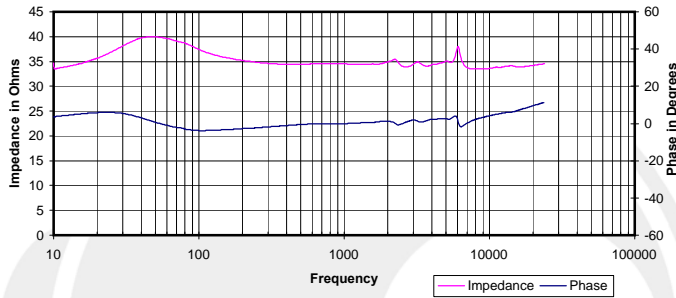
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



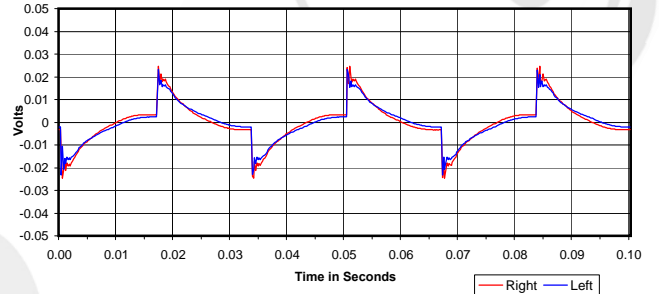
Isolation
Attenuation of External Sound vs. Frequency



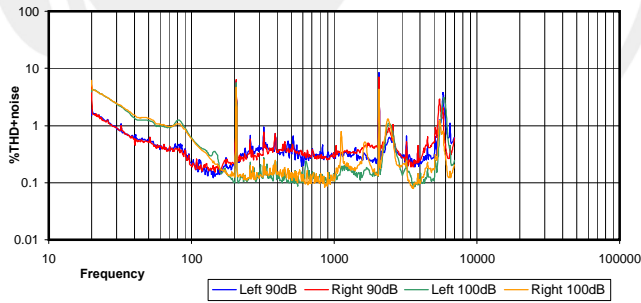
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



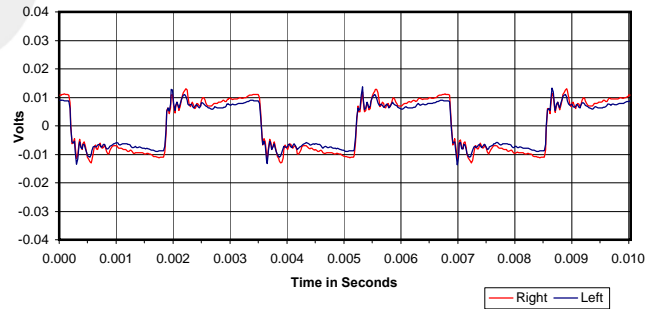
30 Hz Square Wave



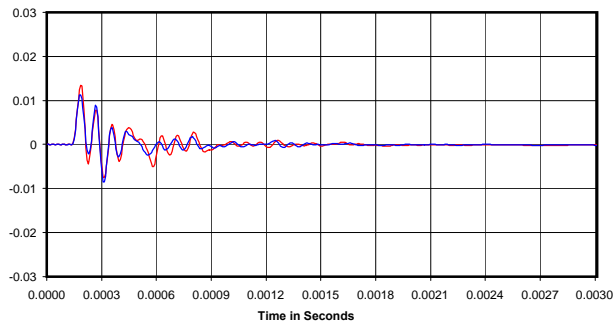
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

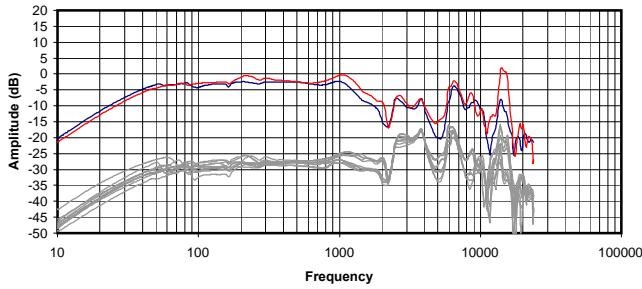


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

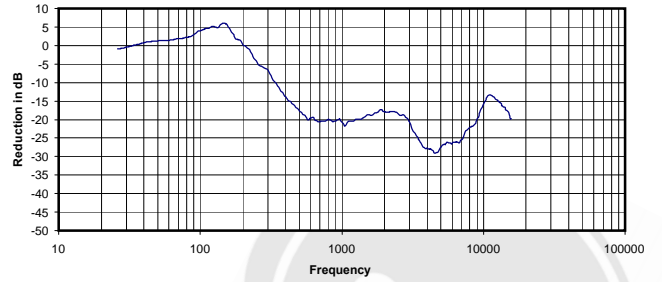
0.033 Vrms
35 Ohms
0.03 mW
-15 dB



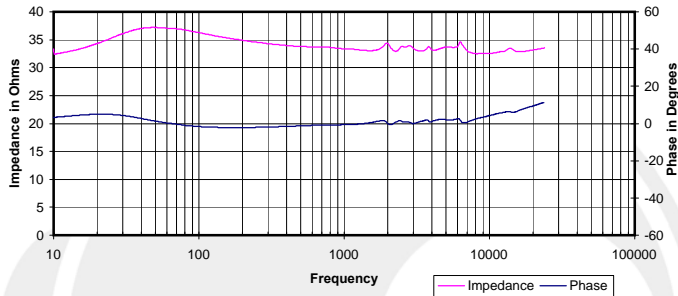
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



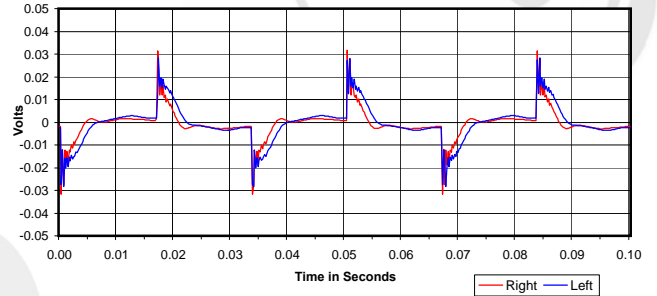
Isolation
 Attenuation of External Sound vs. Frequency



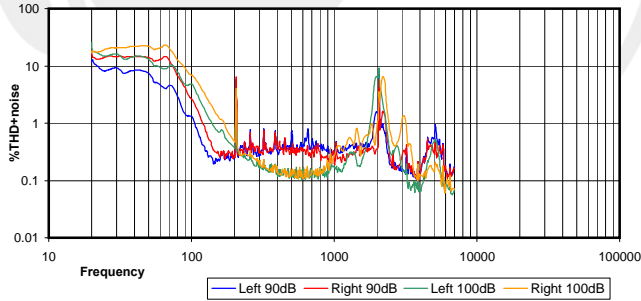
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



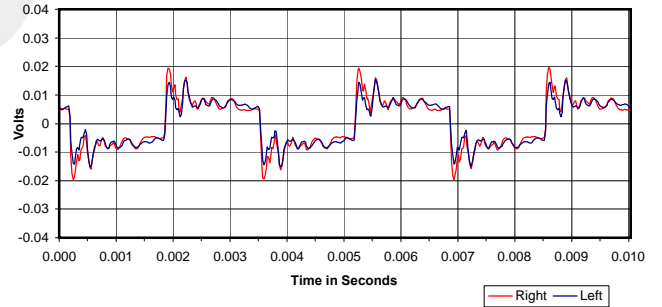
30 Hz Square Wave



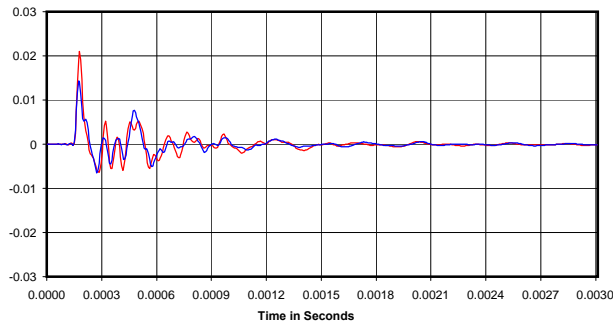
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

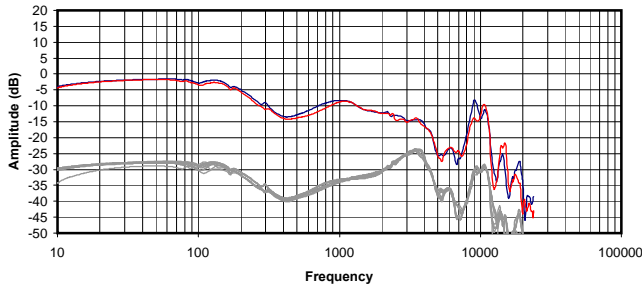


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

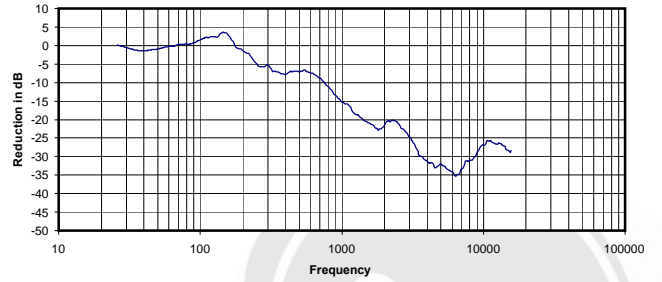
0.065 Vrms
 33 Ohms
 0.13 mW
 -14 dB



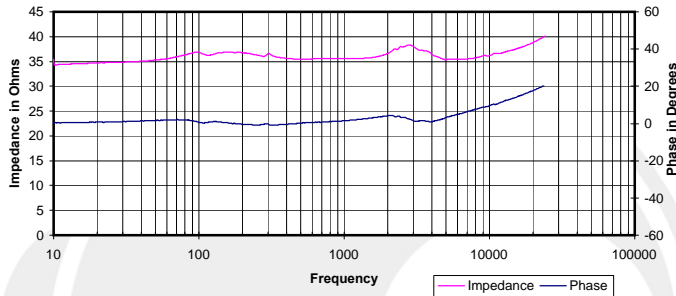
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



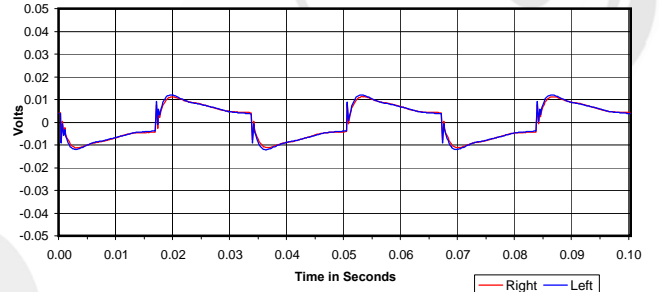
Isolation
Attenuation of External Sound vs. Frequency



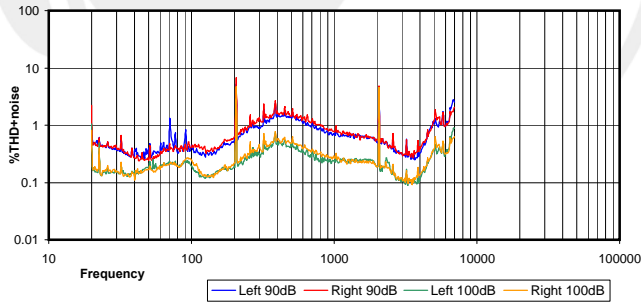
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



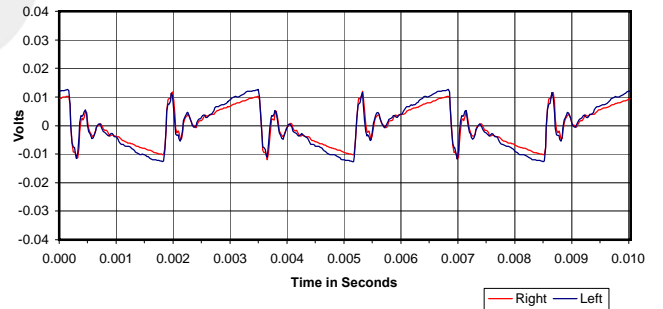
30 Hz Square Wave



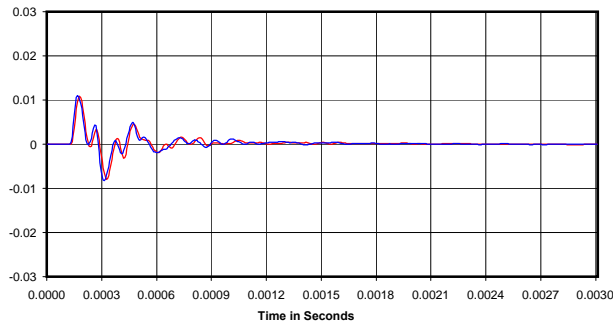
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

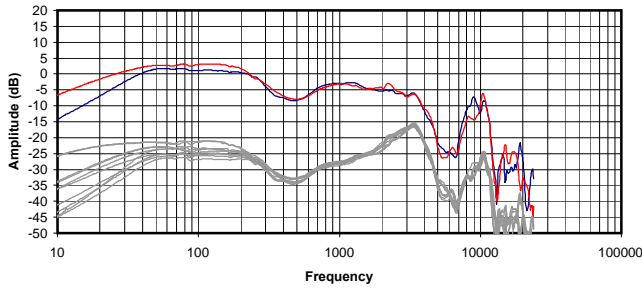


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

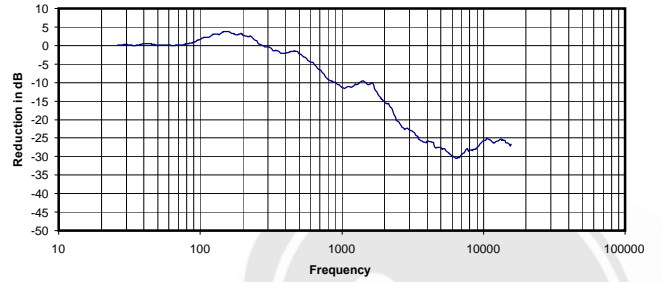
0.031 Vrms
36 Ohms
0.03 mW
-13 dB



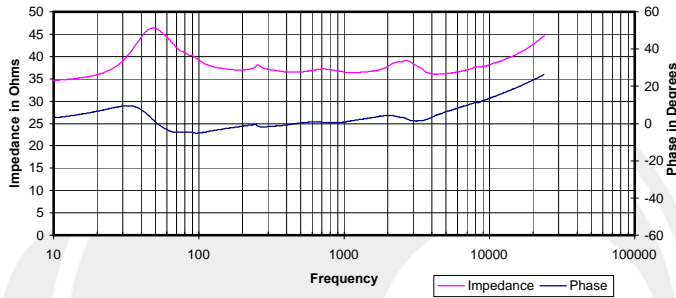
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



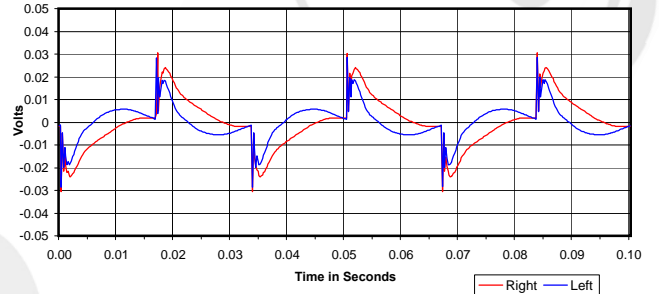
Isolation
Attenuation of External Sound vs. Frequency



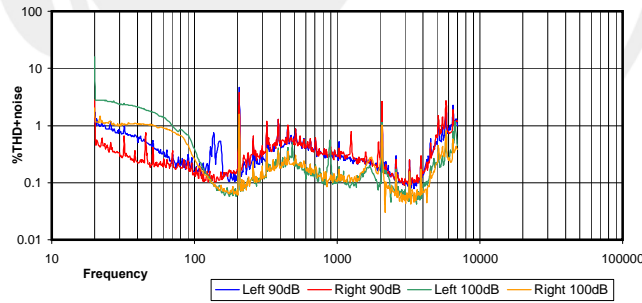
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



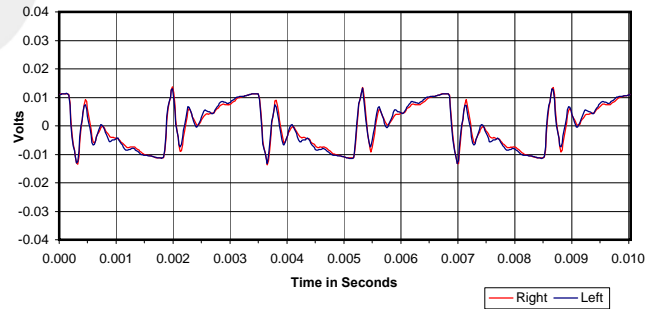
30 Hz Square Wave



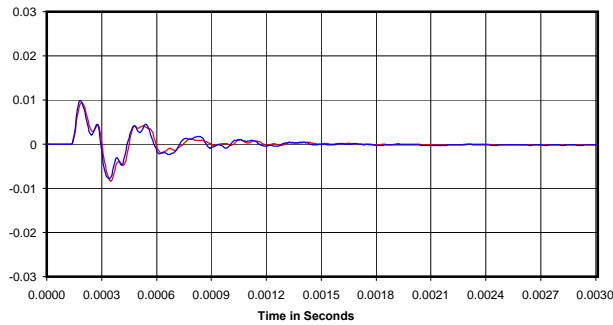
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

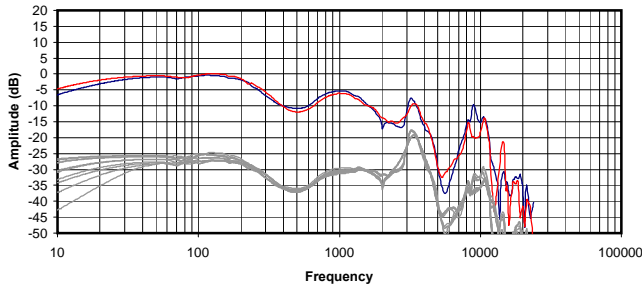


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

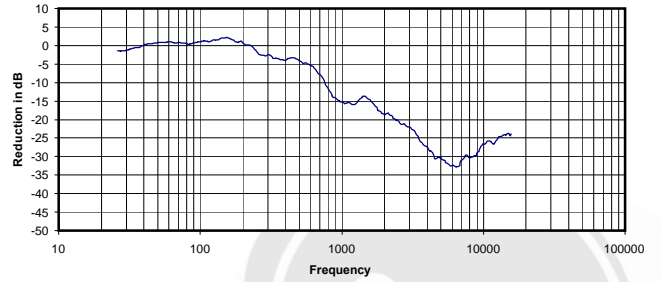
0.034 Vrms
37 Ohms
0.03 mW
-9 dB



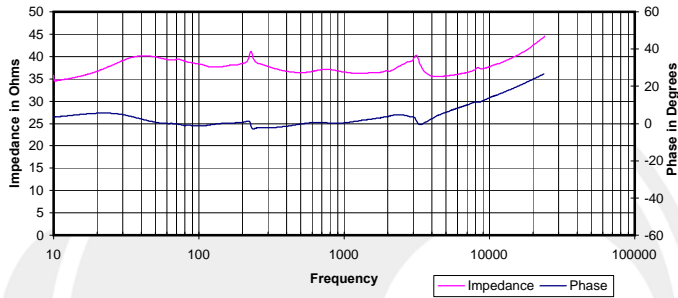
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



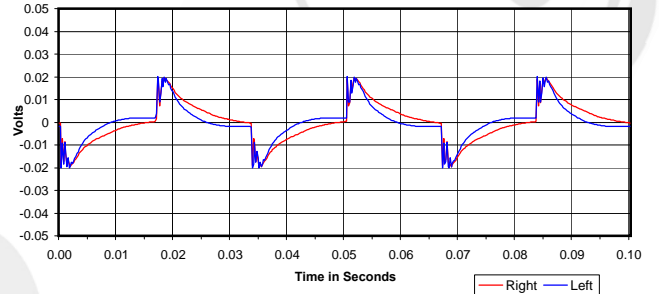
Isolation
 Attenuation of External Sound vs. Frequency



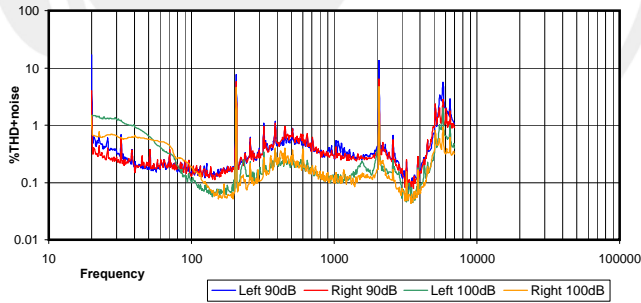
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



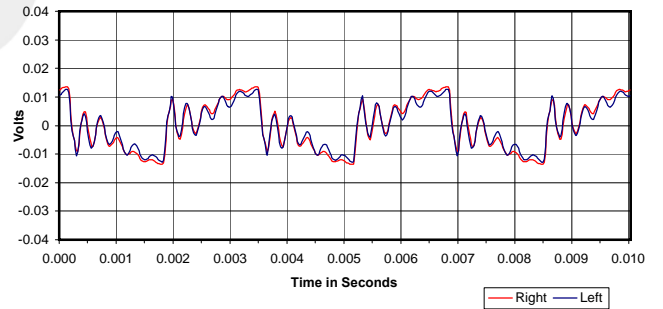
30 Hz Square Wave



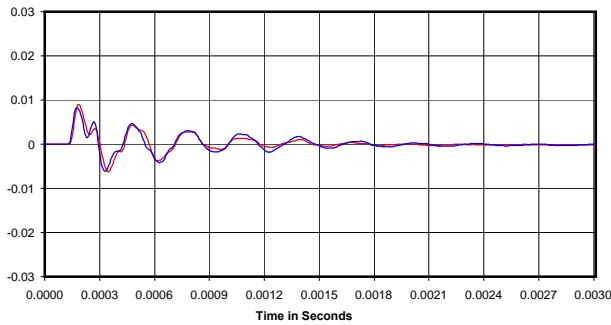
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



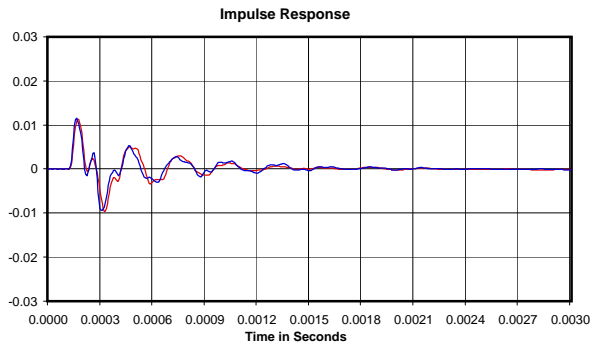
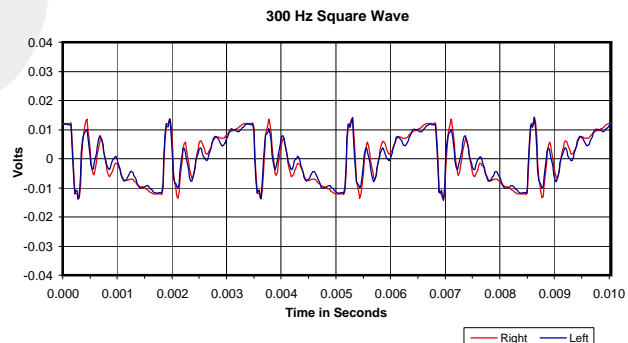
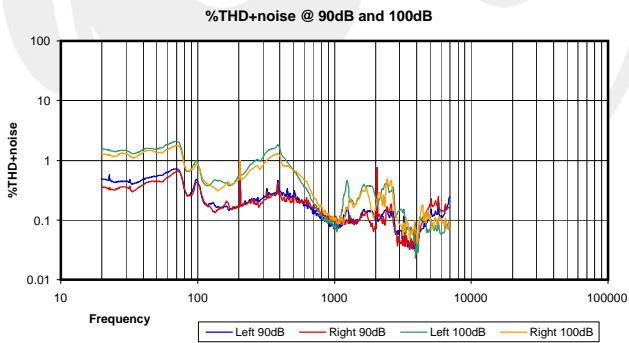
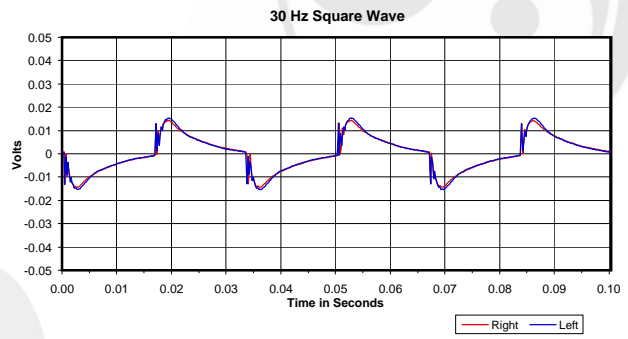
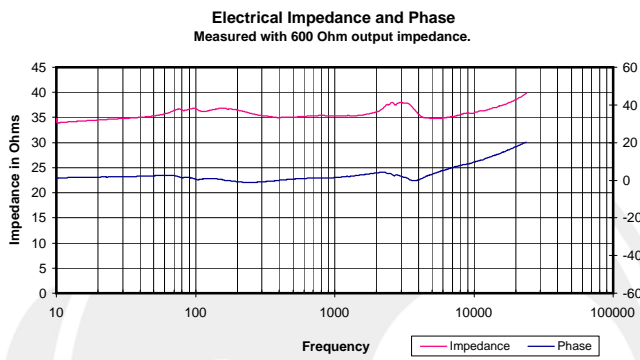
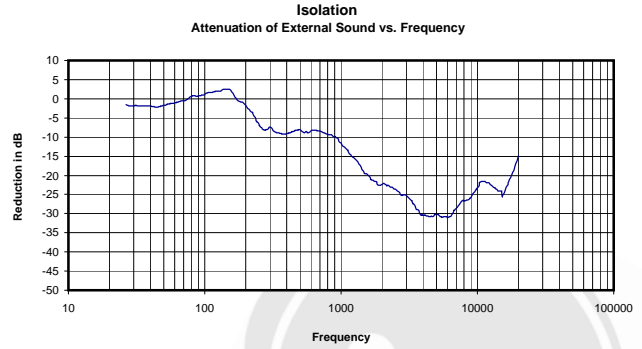
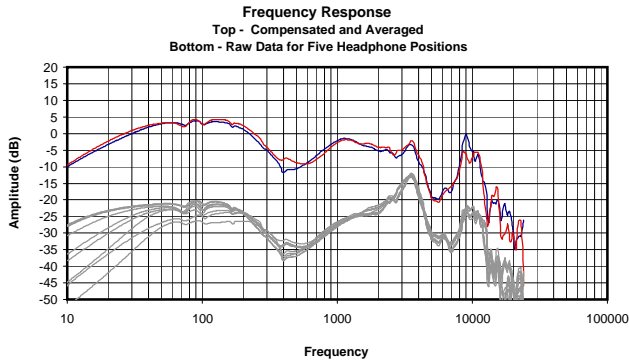
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
 37 Ohms
 0.02 mW
 -11 dB



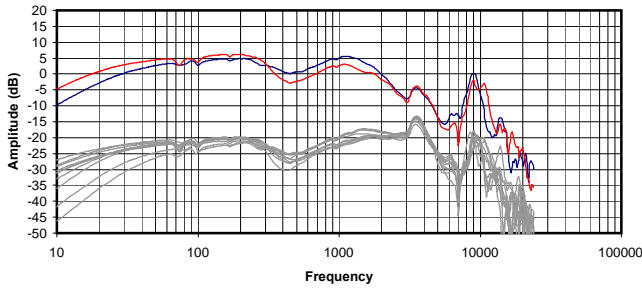


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

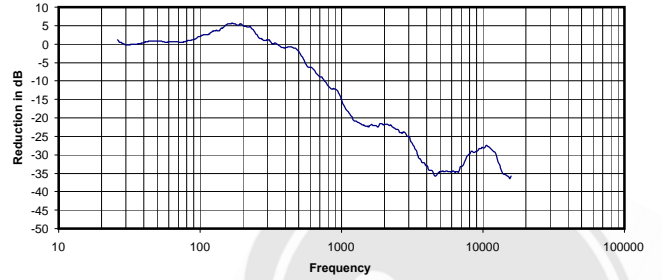
0.035 Vrms
35 Ohms
0.03 mW
-15 dB



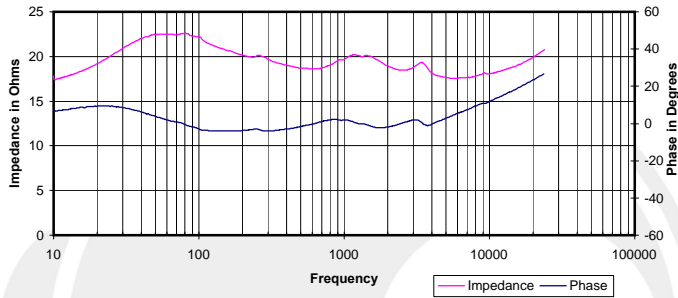
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



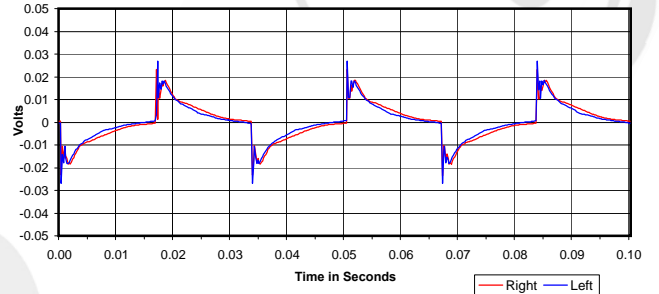
Isolation
 Attenuation of External Sound vs. Frequency



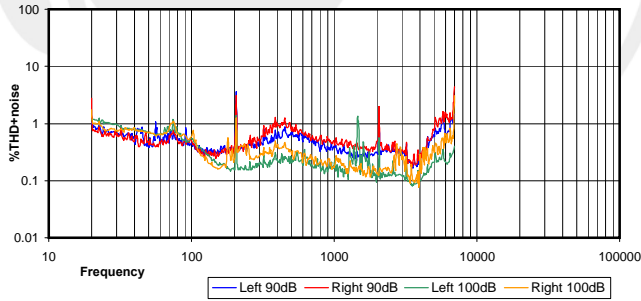
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



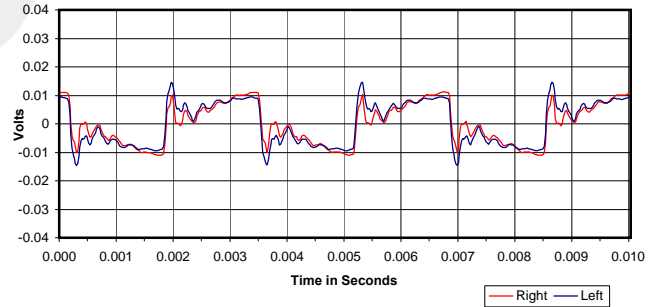
30 Hz Square Wave



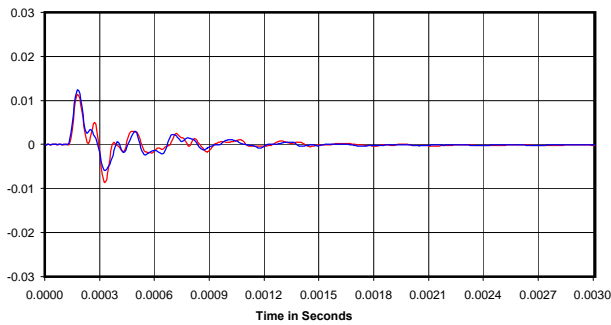
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

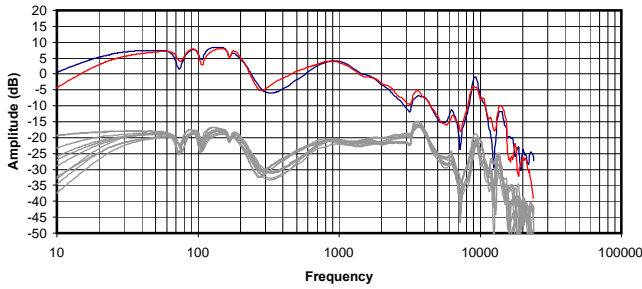


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

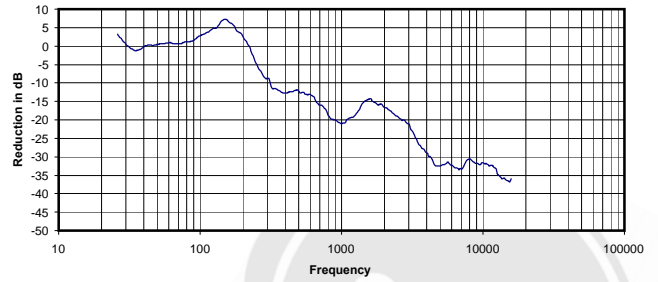
0.013 Vrms
 20 Ohms
 0.01 mW
 -12 dB



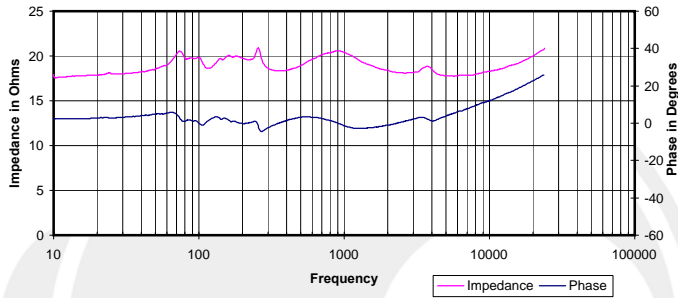
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



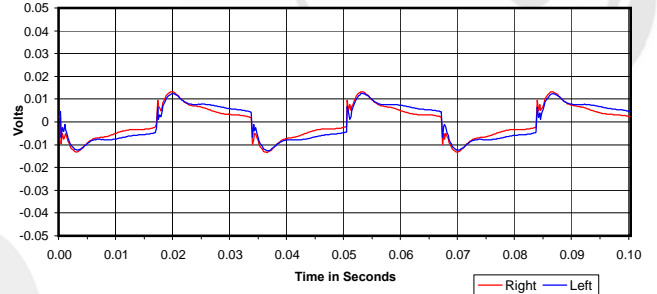
Isolation
Attenuation of External Sound vs. Frequency



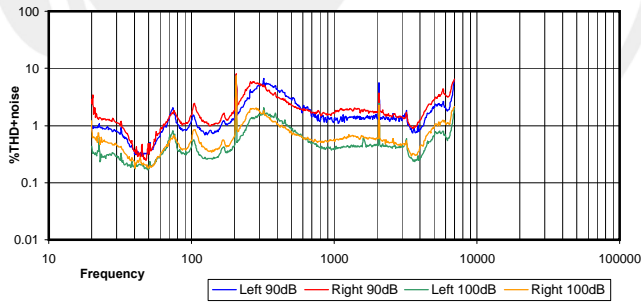
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



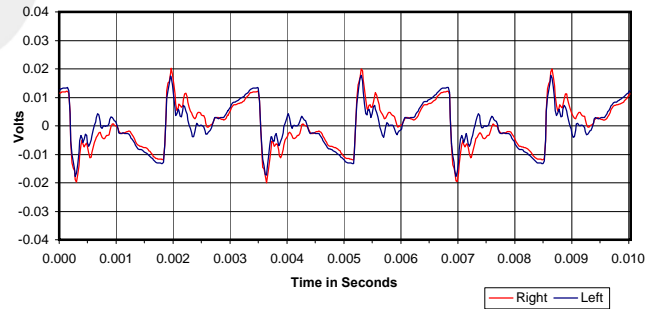
30 Hz Square Wave



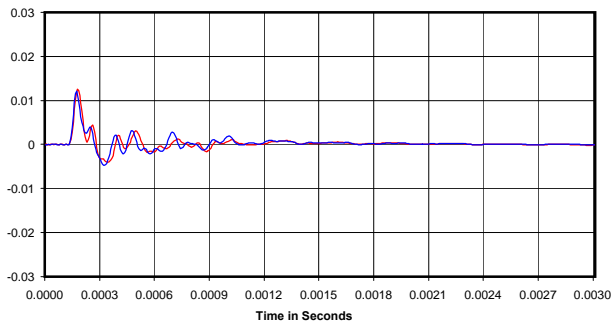
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



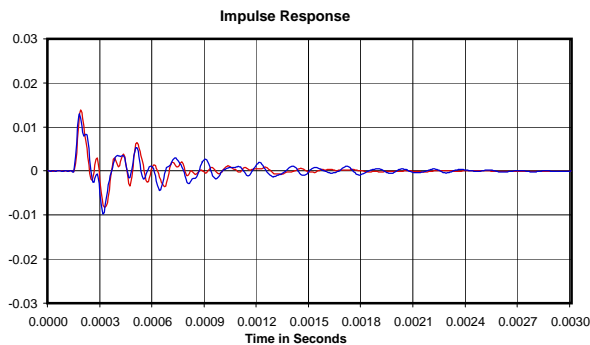
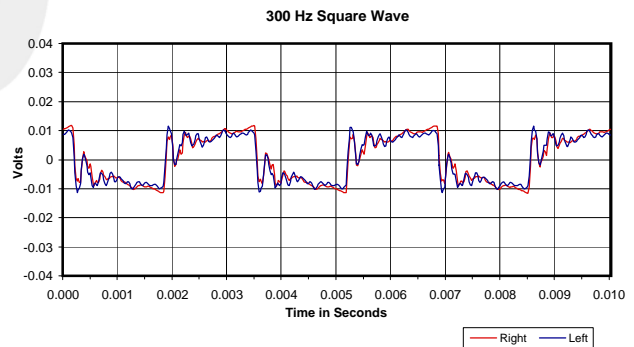
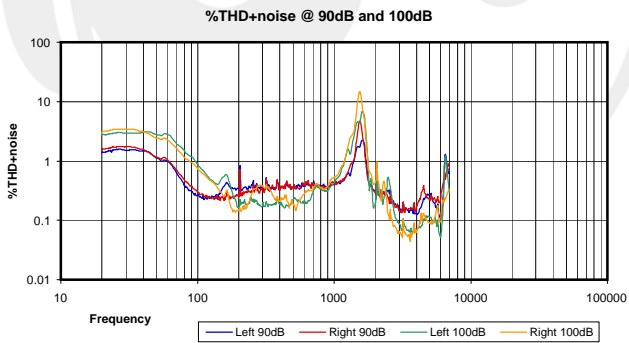
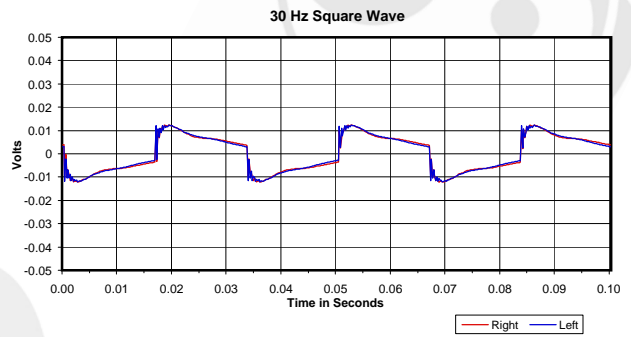
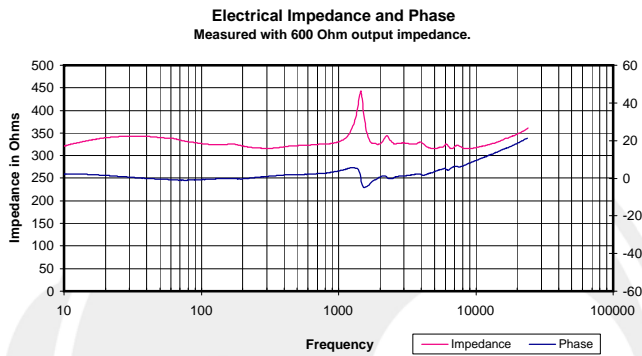
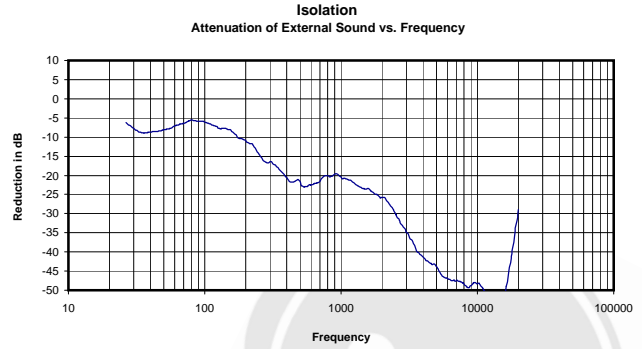
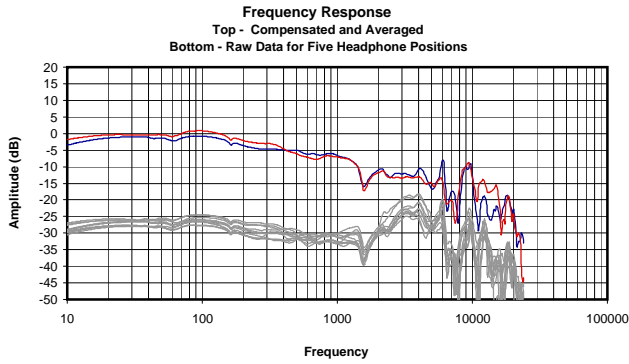
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
20 Ohms
0.01 mW
-13 dB

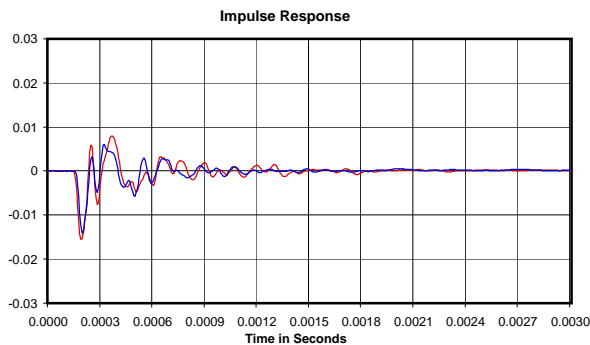
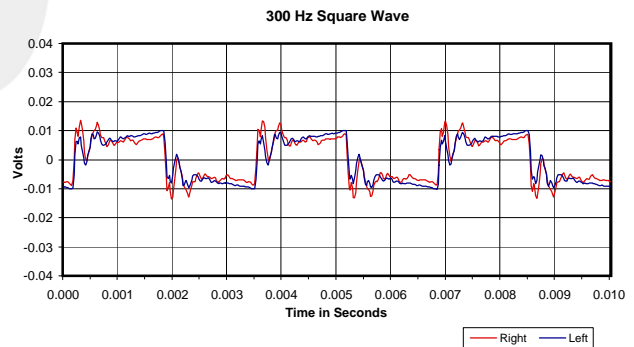
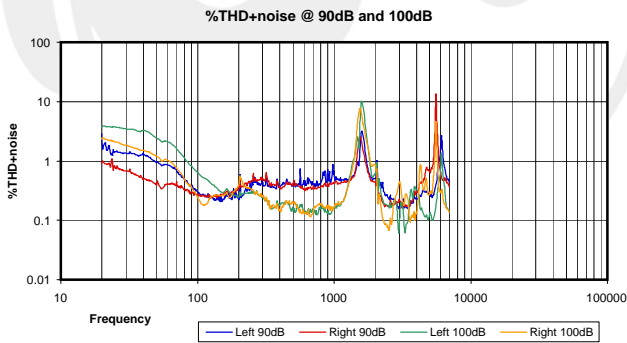
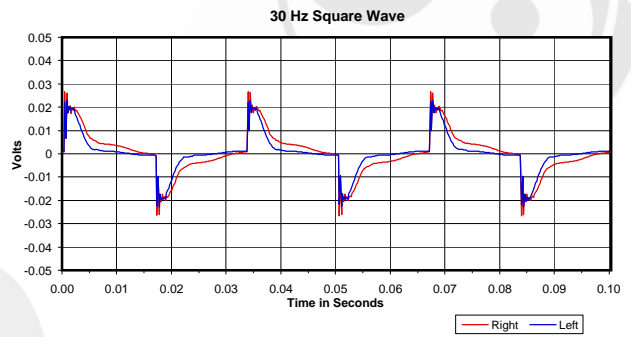
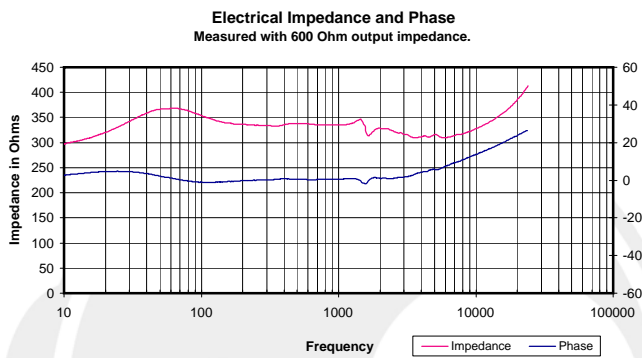
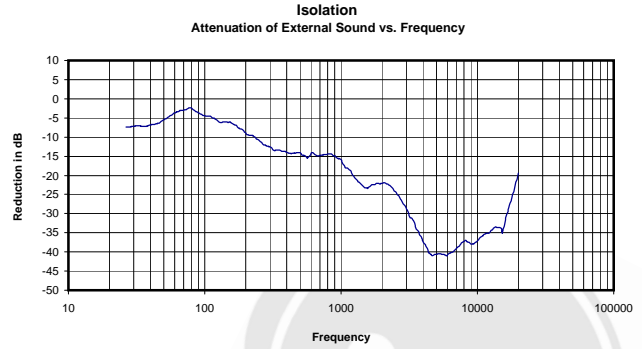
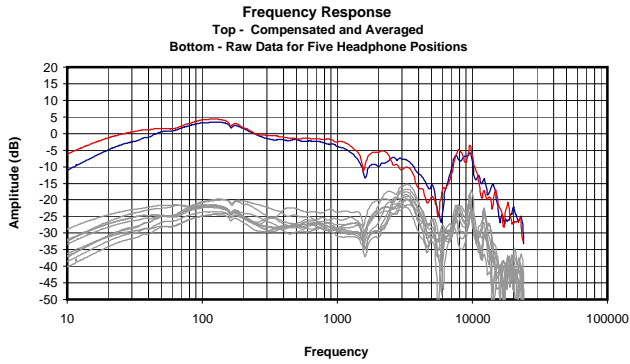




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.291 Vrms
331 Ohms
0.25 mW
-26 dB





Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.238 Vrms
335 Ohms
0.17 mW
-21 dB



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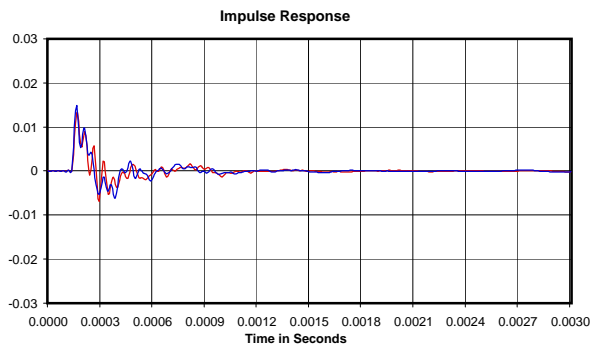
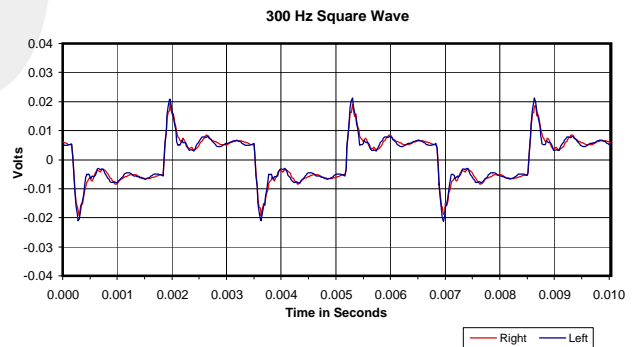
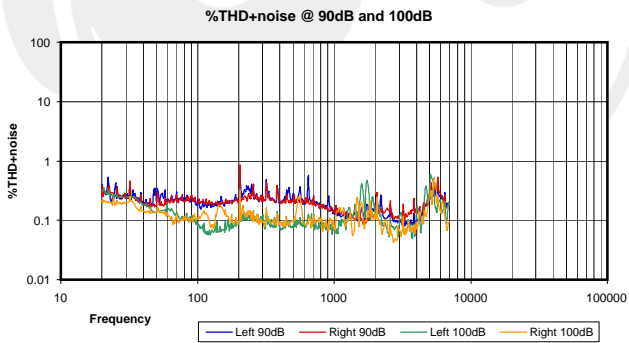
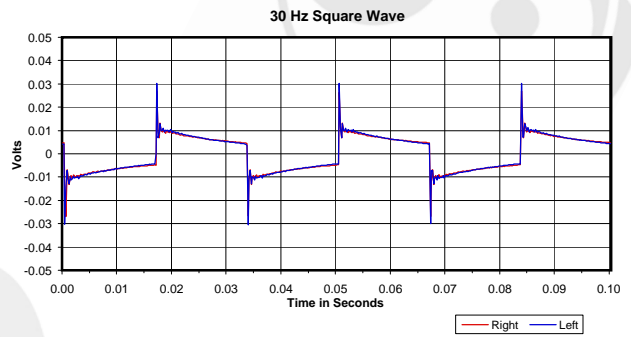
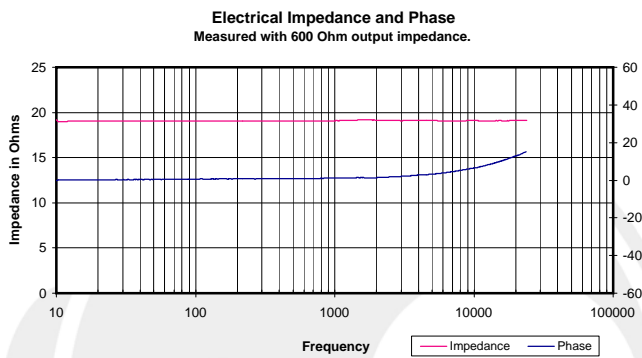
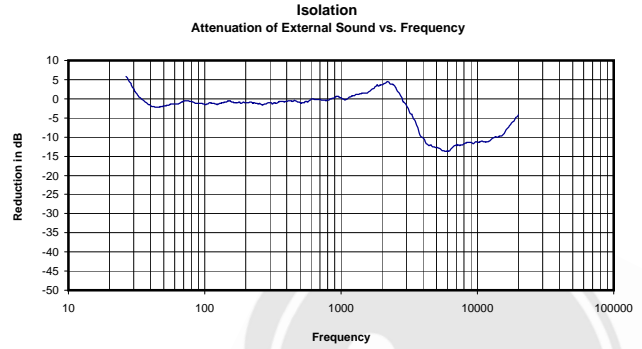
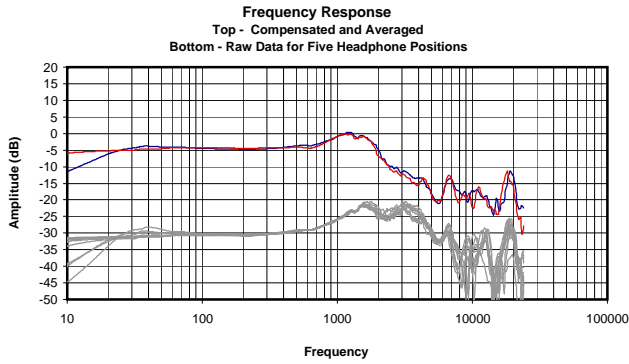
Headphone Measurement Datasheets

Earpad Open



<http://www.innerfidelity.com>

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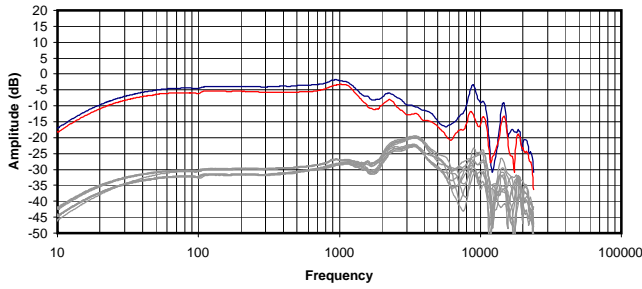


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

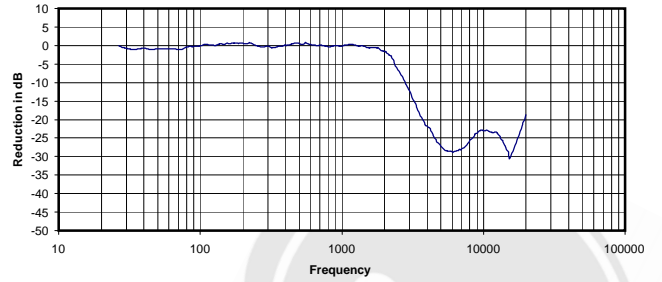
0.047 Vrms
19 Ohms
0.12 mW
-3 dBr



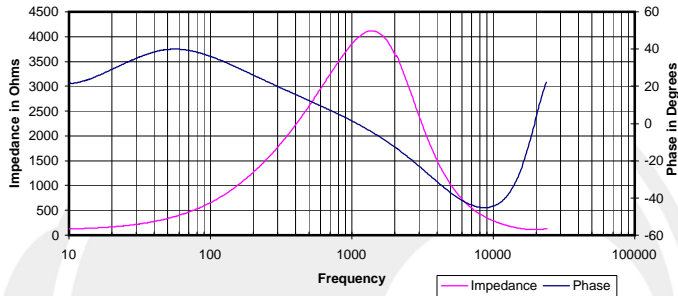
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



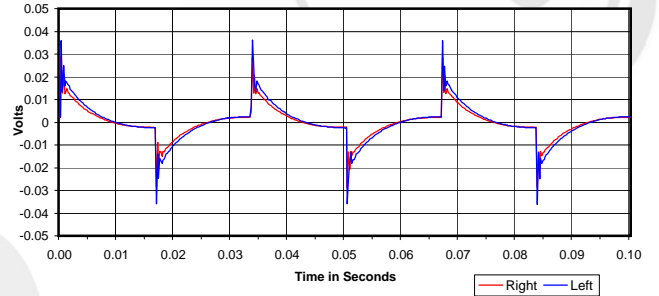
Isolation
 Attenuation of External Sound vs. Frequency



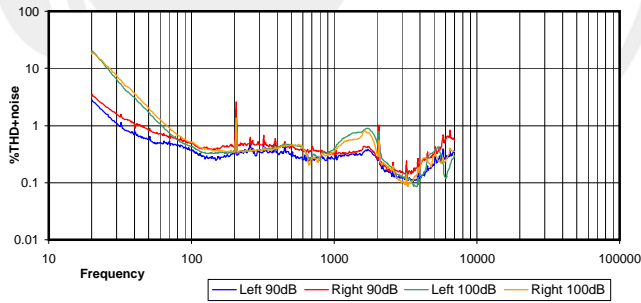
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



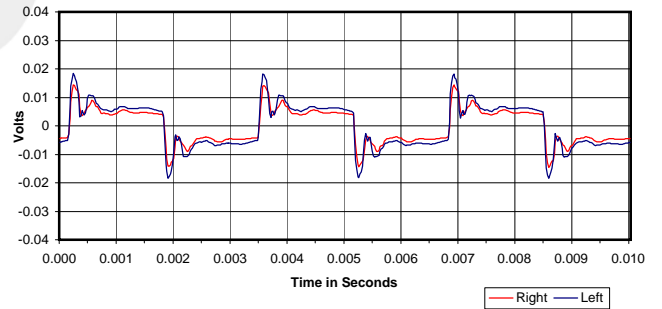
30 Hz Square Wave



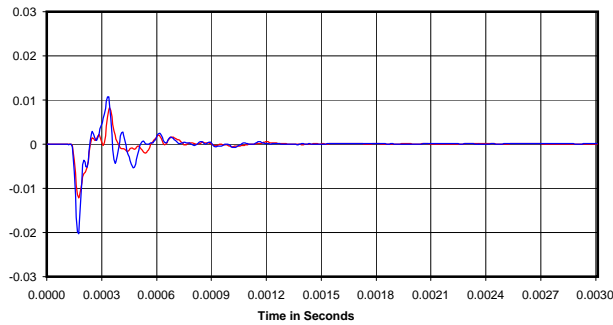
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



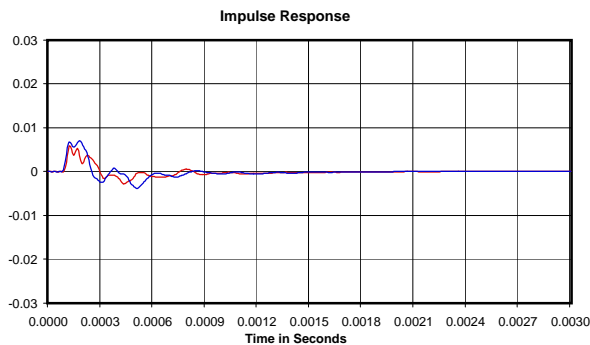
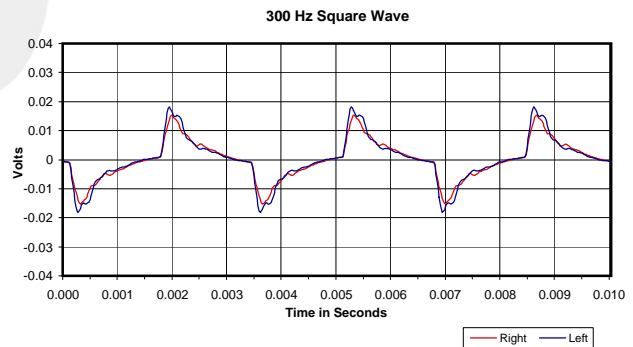
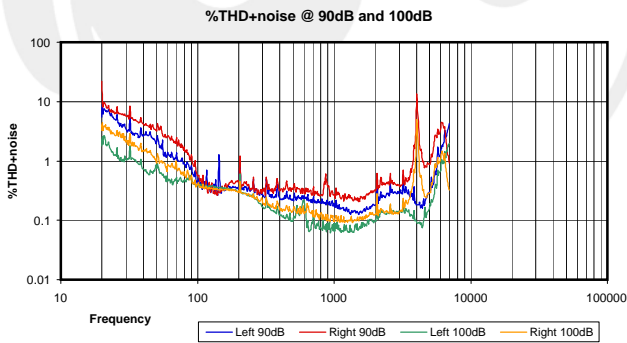
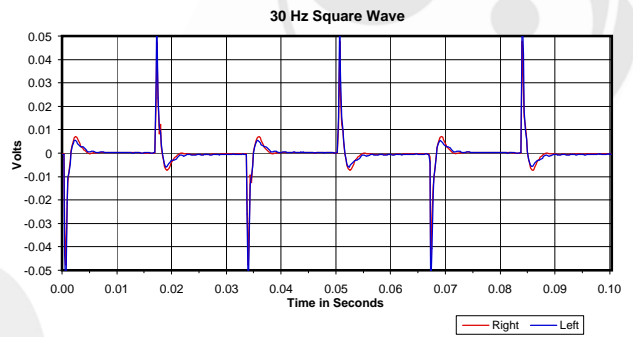
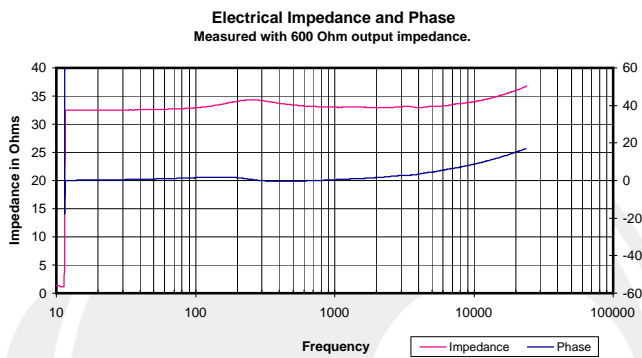
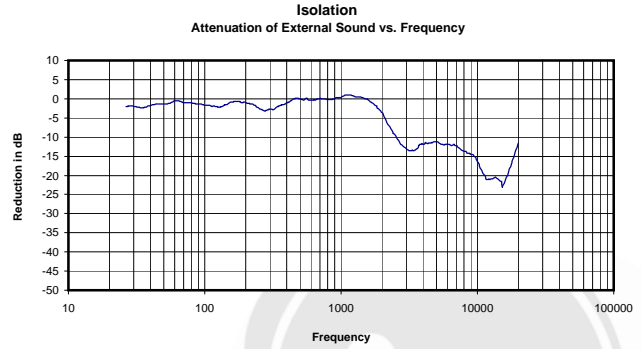
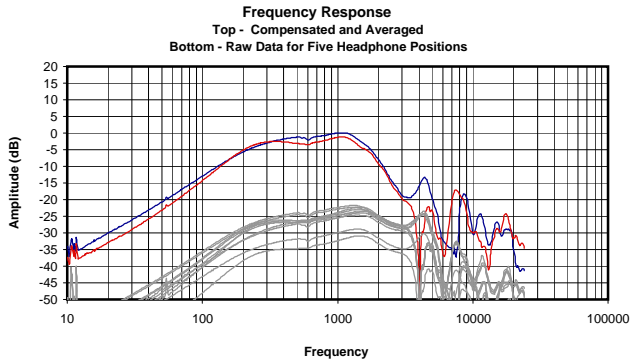
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.581 Vrms
 3853 Ohms
 0.09 mW
 -7 dB

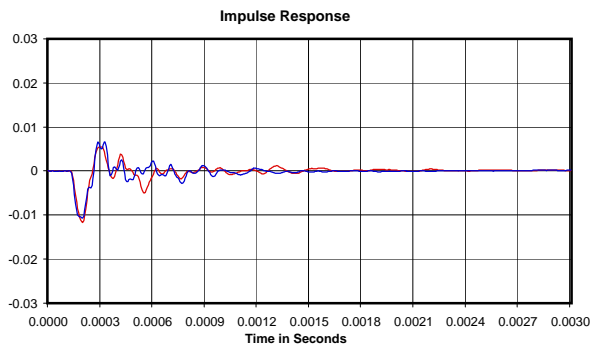
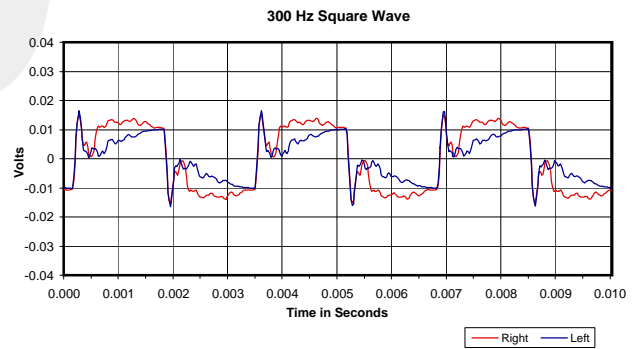
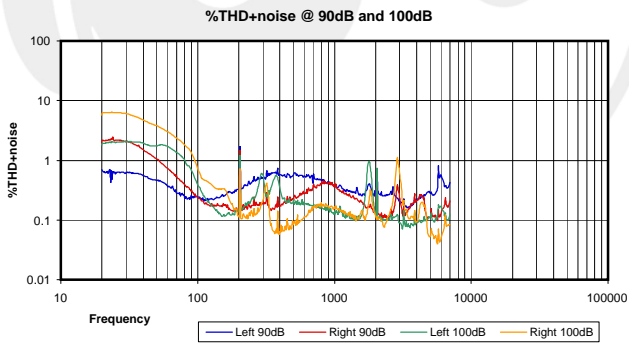
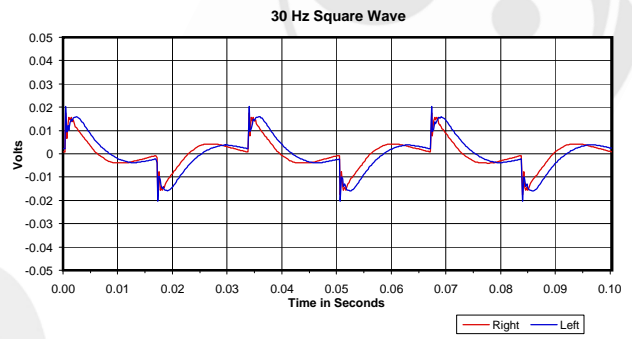
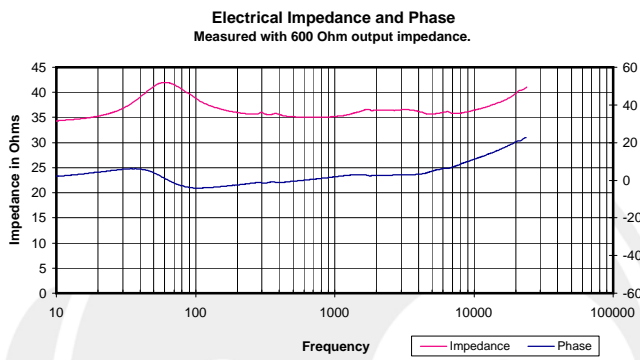
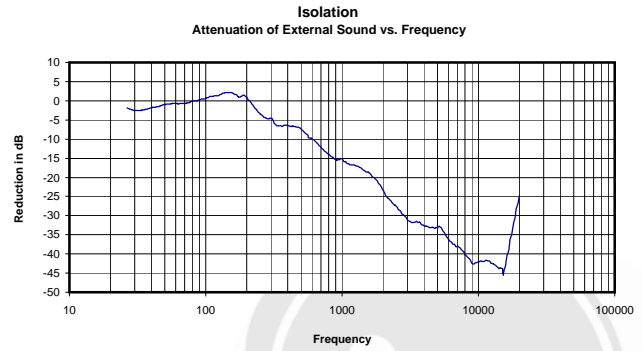
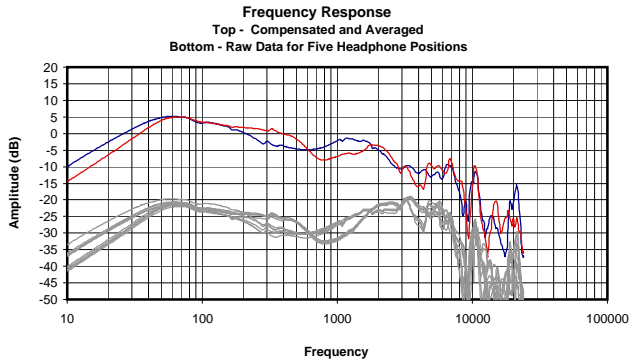




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
33 Ohms
0.03 mW
-5 dBr



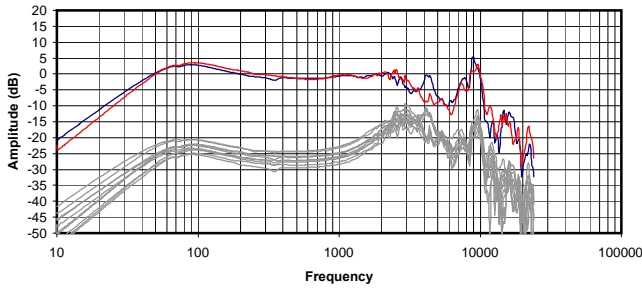


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

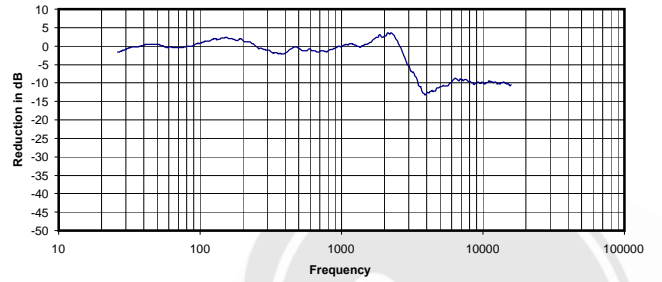
0.038 Vrms
35 Ohms
0.04 mW
-17 dB



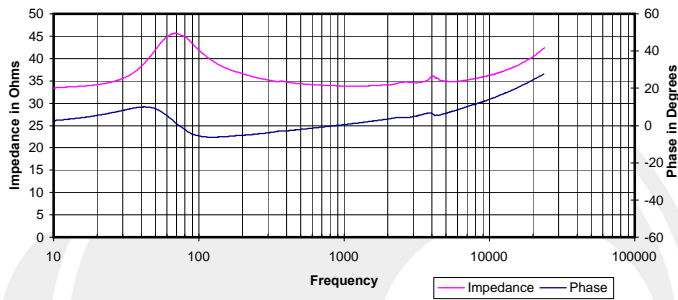
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



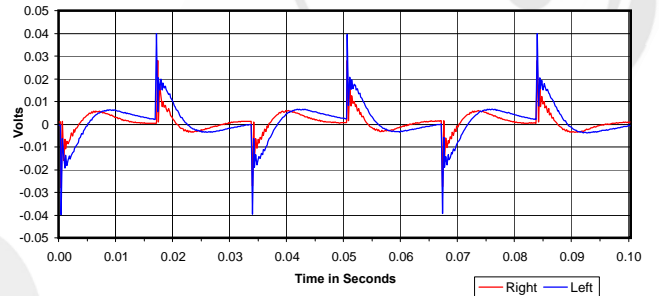
Isolation
Attenuation of External Sound vs. Frequency



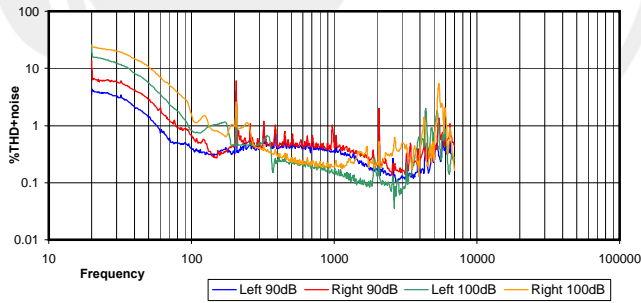
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



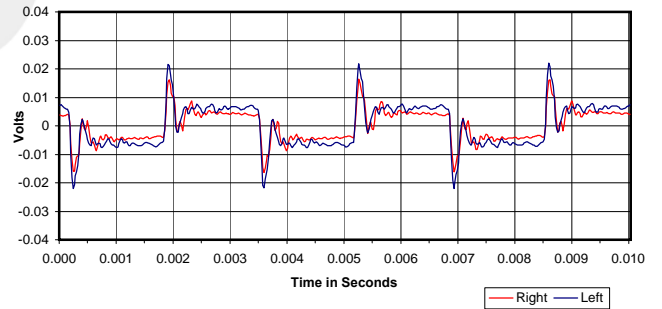
30 Hz Square Wave



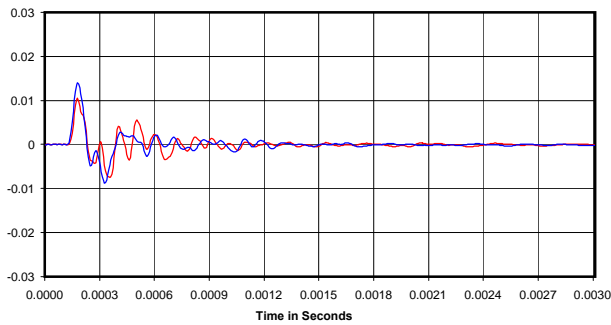
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

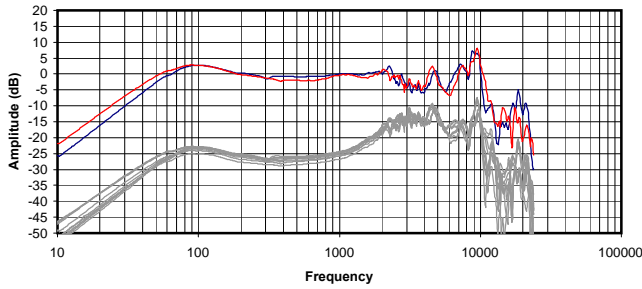


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

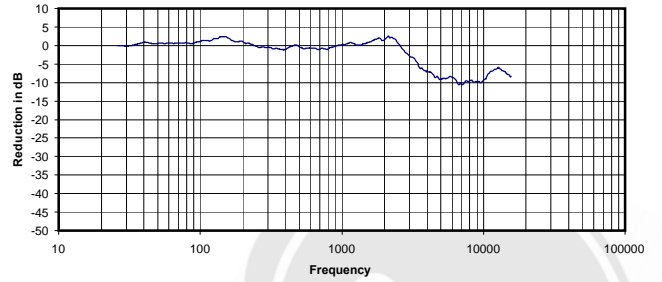
0.073 Vrms
34 Ohms
0.16 mW
-2 dB



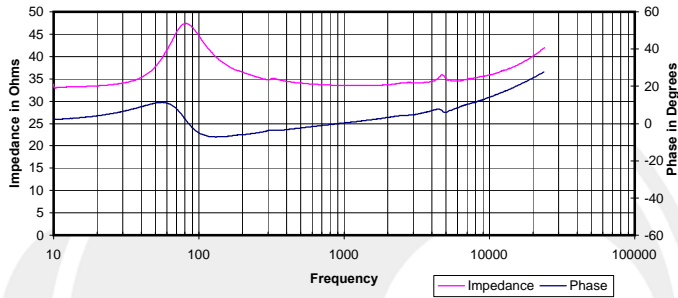
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



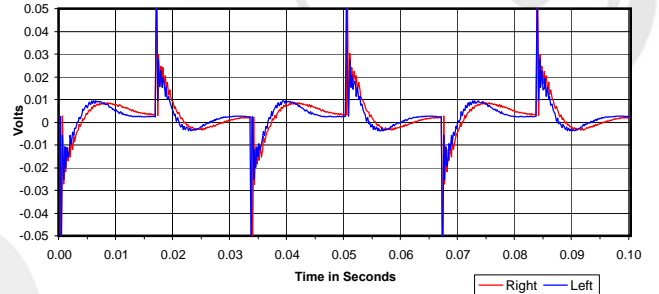
Isolation
 Attenuation of External Sound vs. Frequency



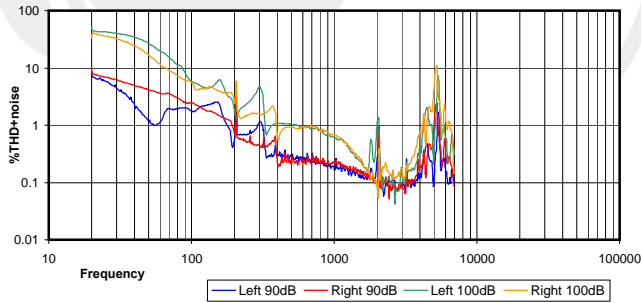
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



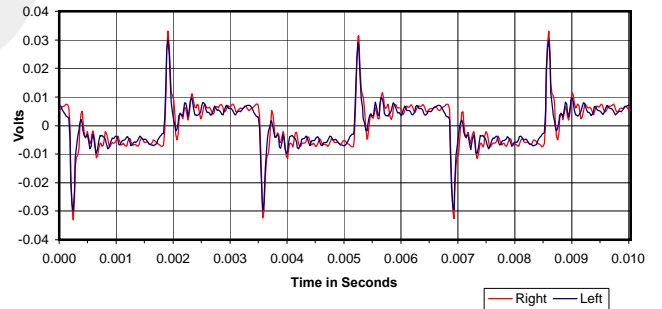
30 Hz Square Wave



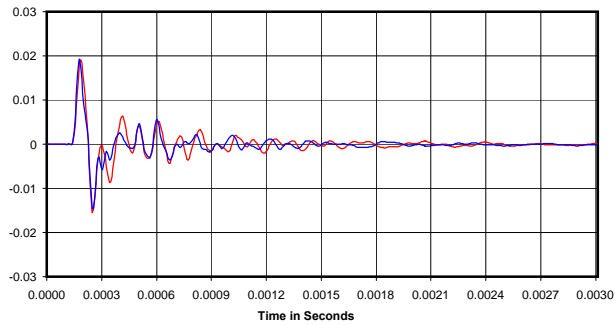
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

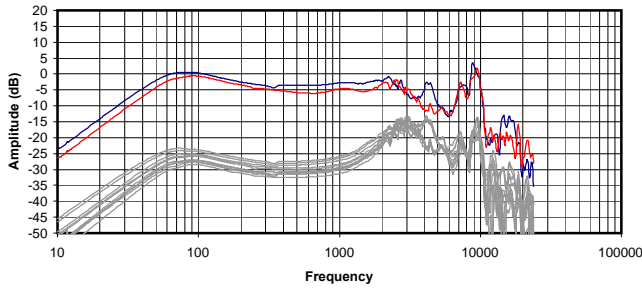


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

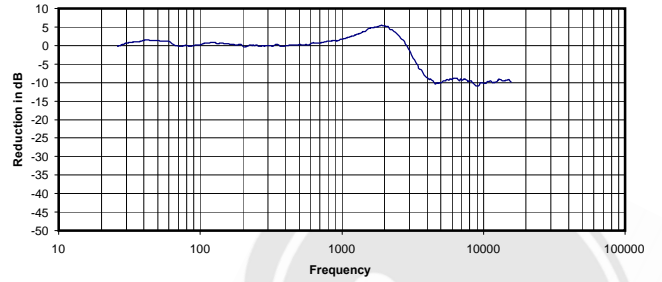
0.126 Vrms
 34 Ohms
 0.47 mW
 -1 dB



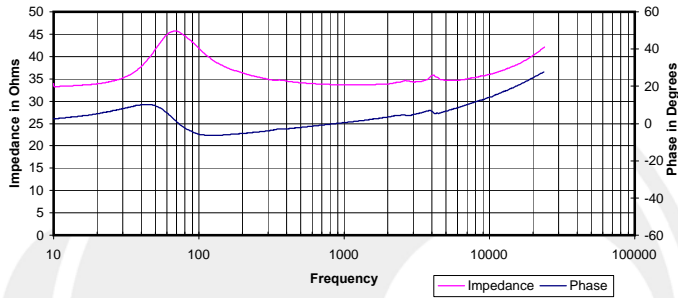
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



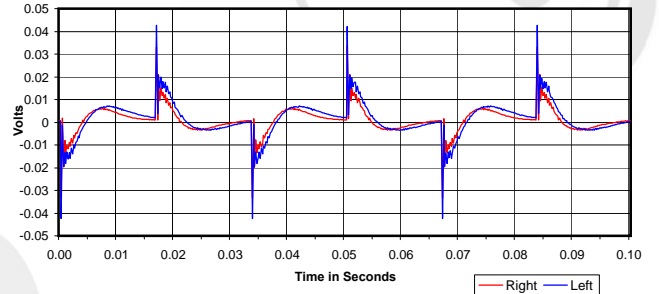
Isolation
Attenuation of External Sound vs. Frequency



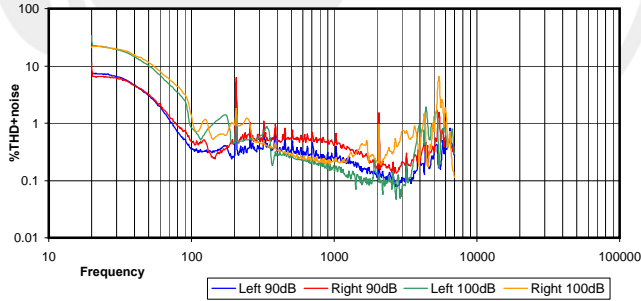
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



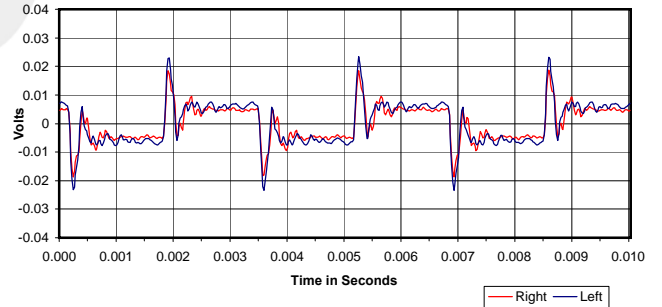
30 Hz Square Wave



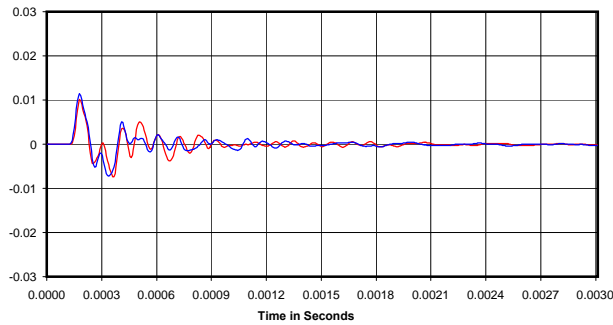
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

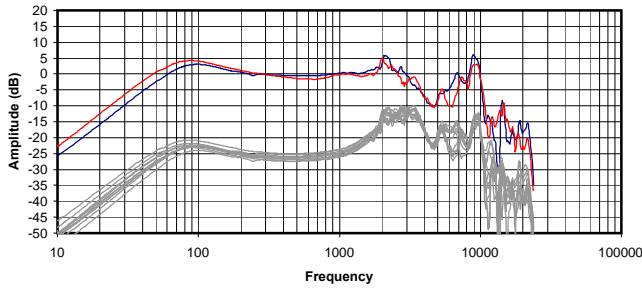


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

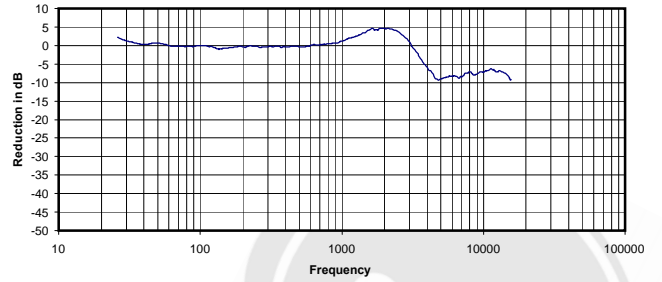
0.079 Vrms
34 Ohms
0.19 mW
0 dB



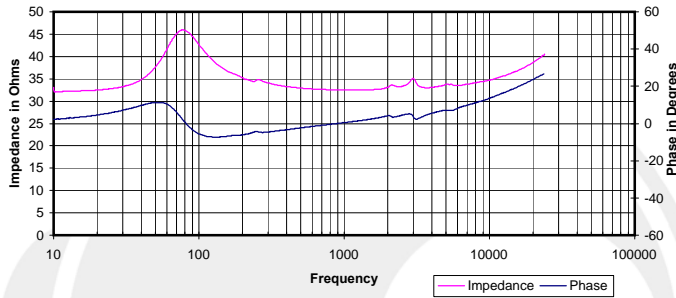
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



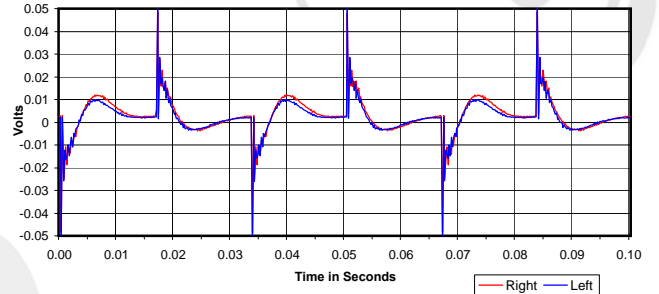
Isolation
Attenuation of External Sound vs. Frequency



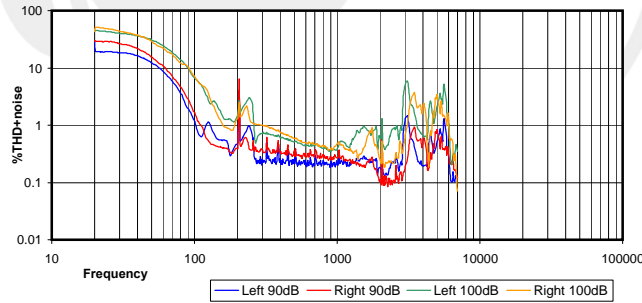
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



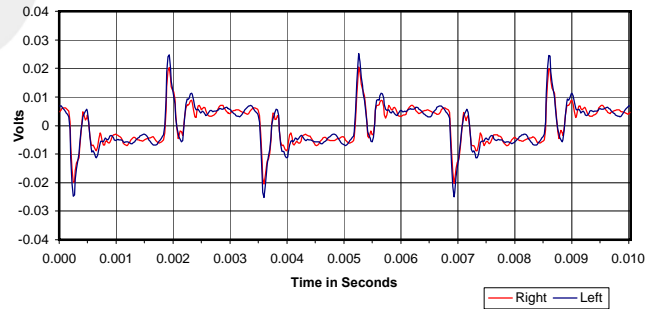
30 Hz Square Wave



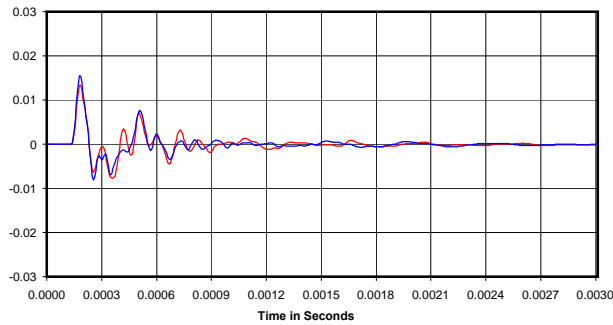
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

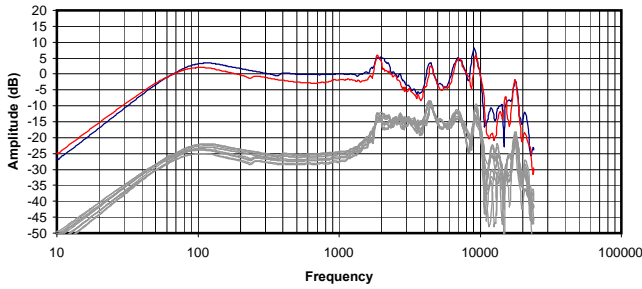


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

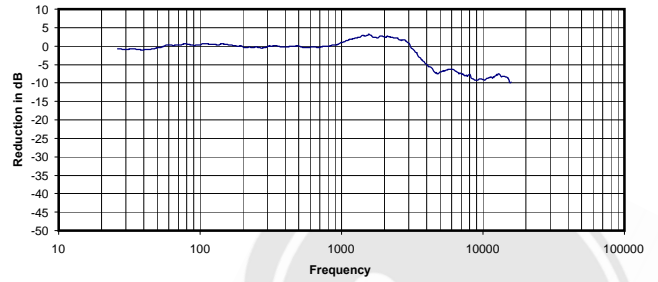
0.110 Vrms
32 Ohms
0.37 mW
0 dB



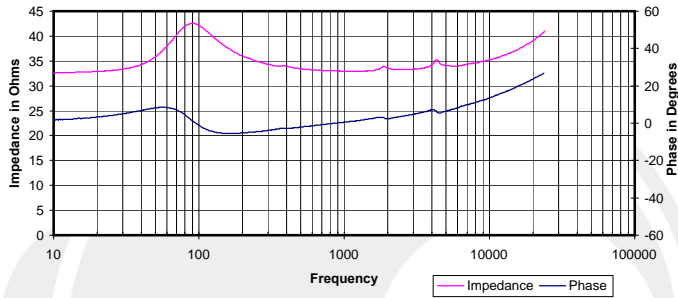
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



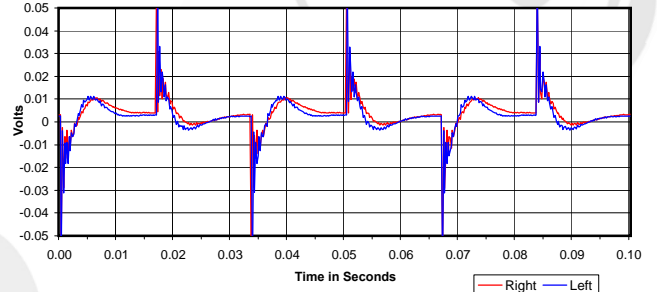
Isolation
Attenuation of External Sound vs. Frequency



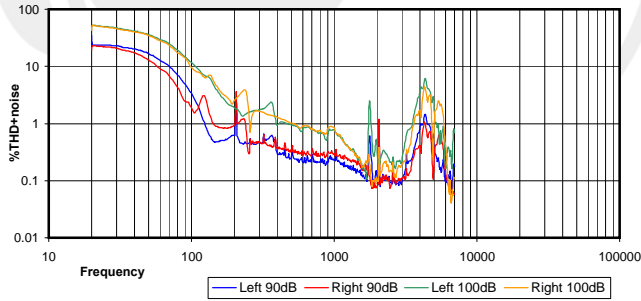
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



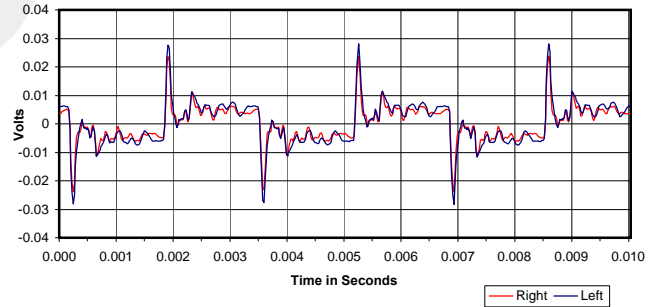
30 Hz Square Wave



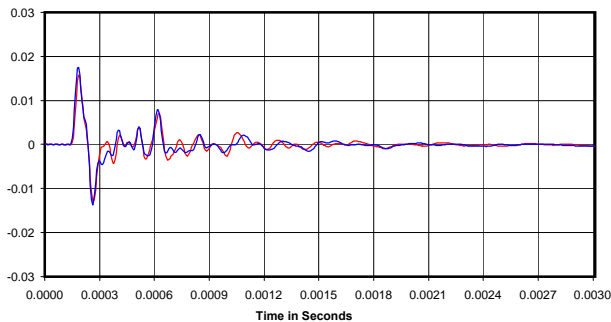
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

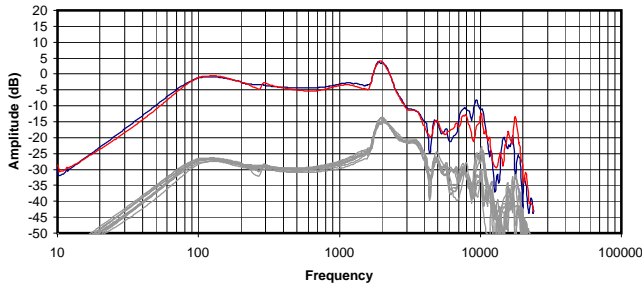


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

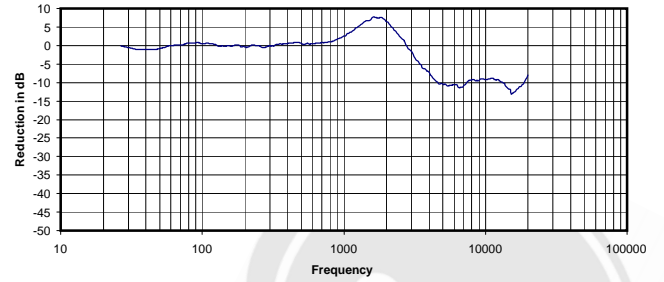
0.161 Vrms
33 Ohms
0.78 mW
0 dB



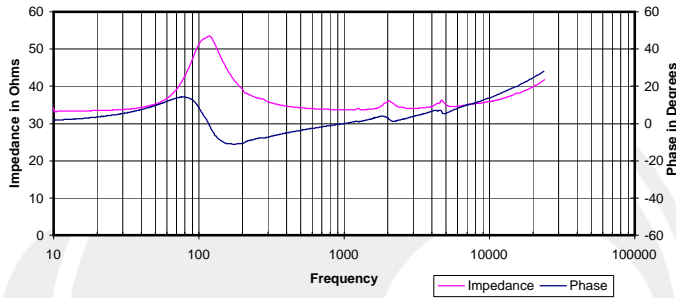
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



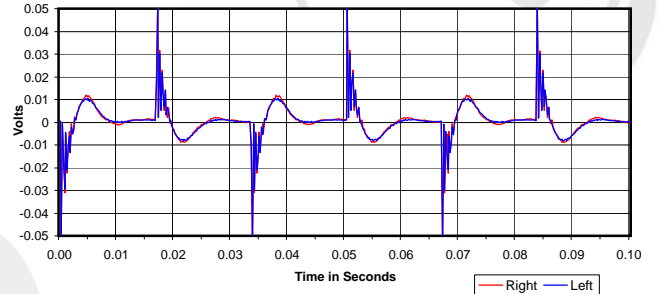
Isolation
 Attenuation of External Sound vs. Frequency



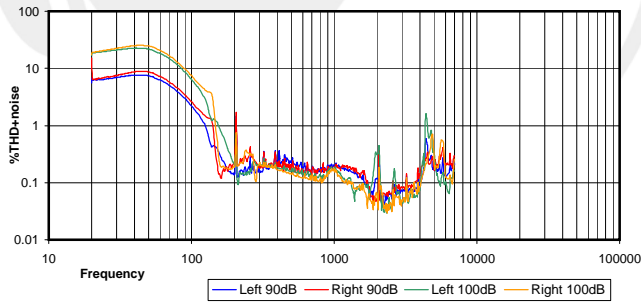
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



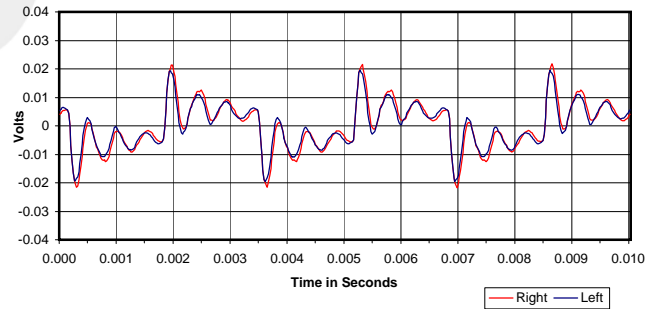
30 Hz Square Wave



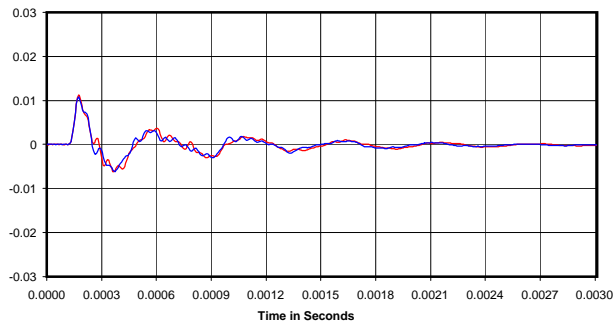
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

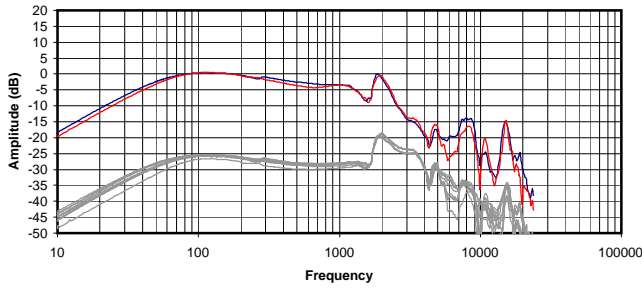


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

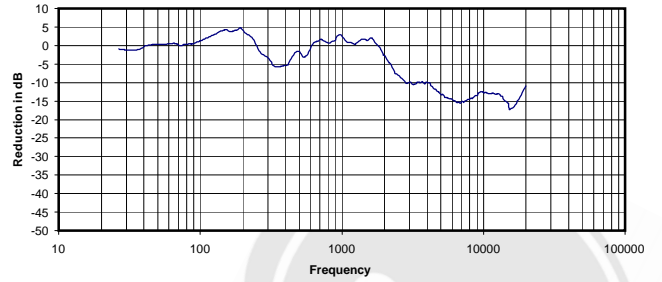
0.038 Vrms
 34 Ohms
 0.04 mW
 -1 dB



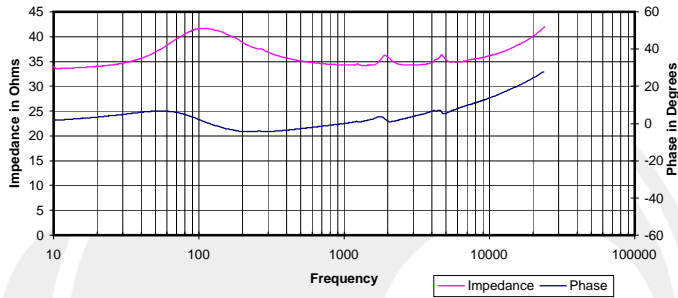
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



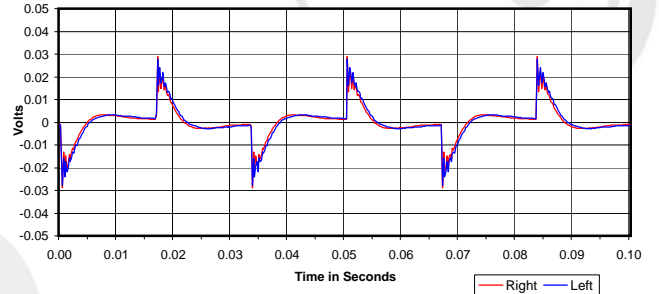
Isolation
 Attenuation of External Sound vs. Frequency



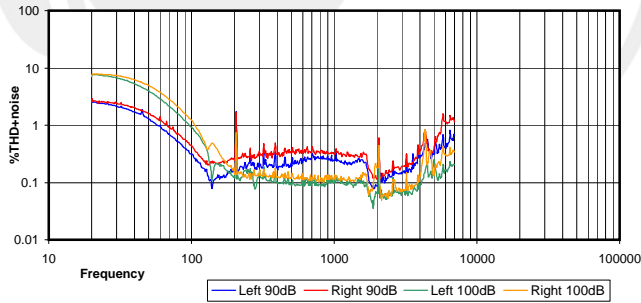
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



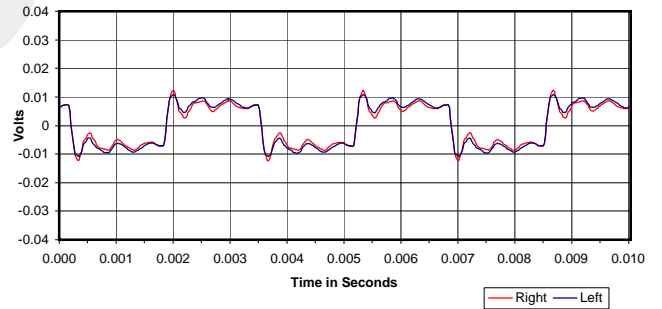
30 Hz Square Wave



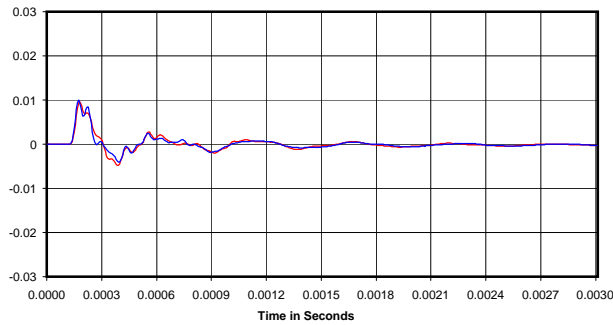
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

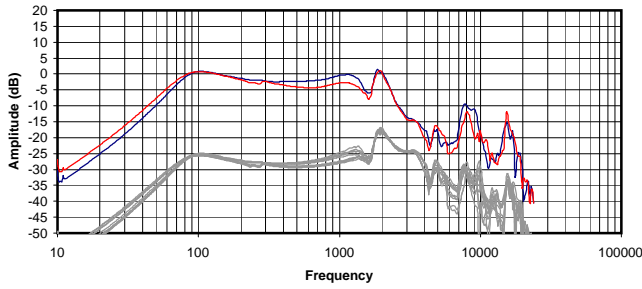


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

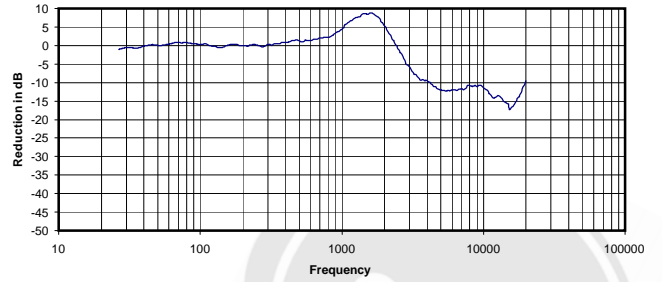
0.030 Vrms
 34 Ohms
 0.03 mW
 -4 dB



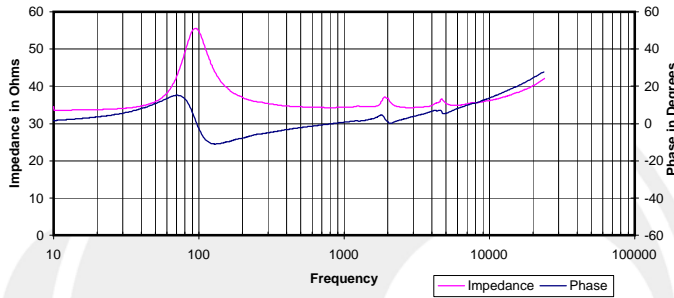
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



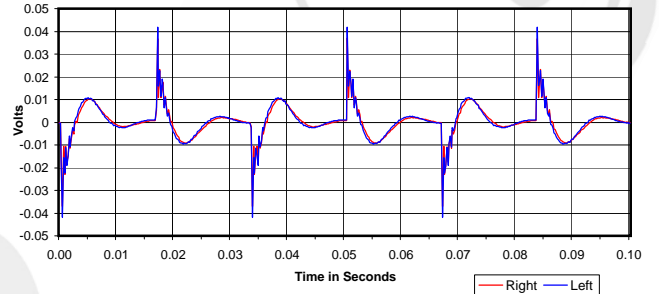
Isolation
 Attenuation of External Sound vs. Frequency



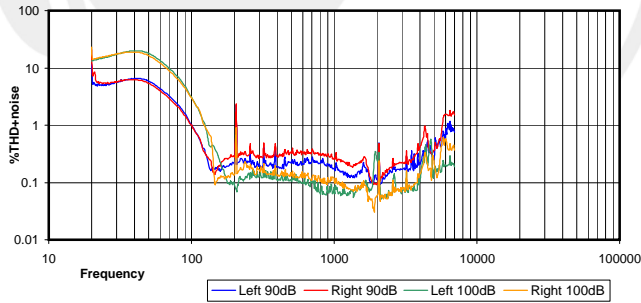
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



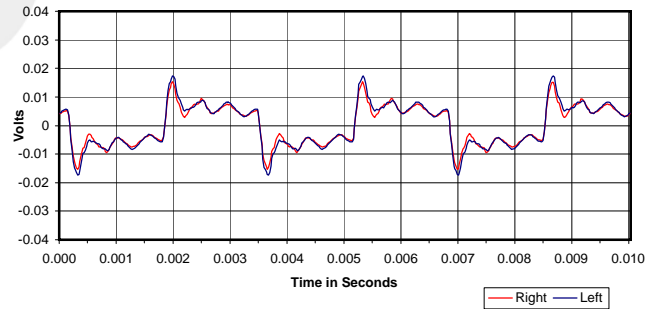
30 Hz Square Wave



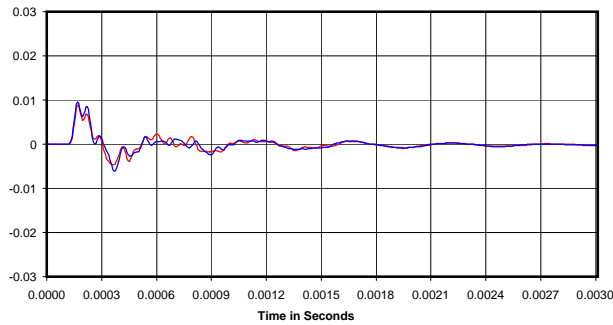
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

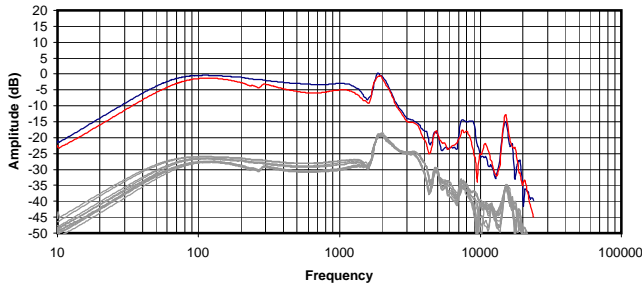


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

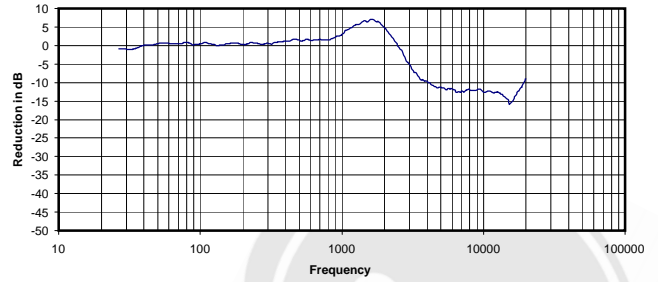
0.021 Vrms
 34 Ohms
 0.01 mW
 -1 dB



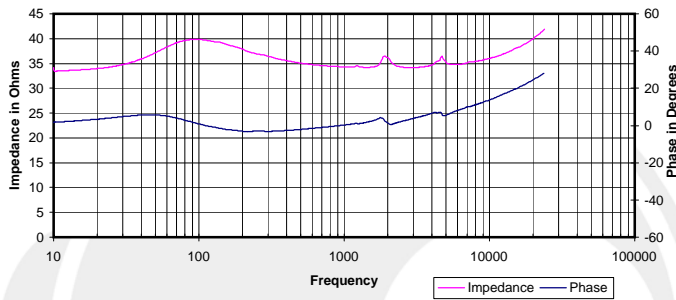
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



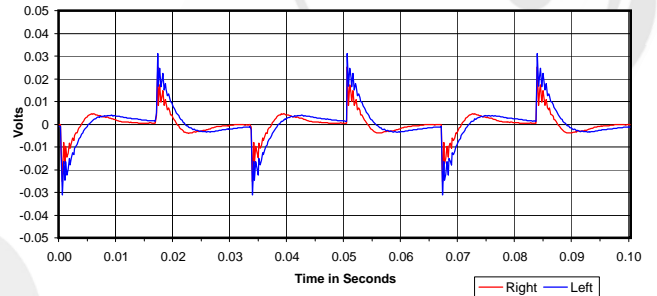
Isolation
 Attenuation of External Sound vs. Frequency



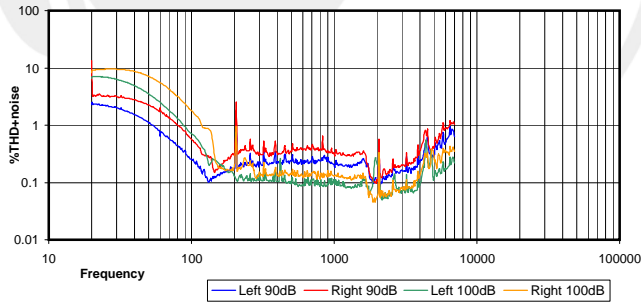
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



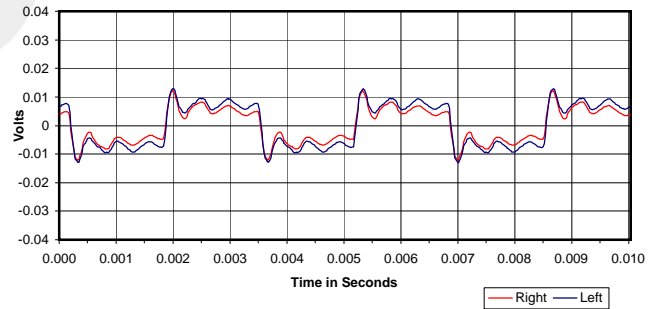
30 Hz Square Wave



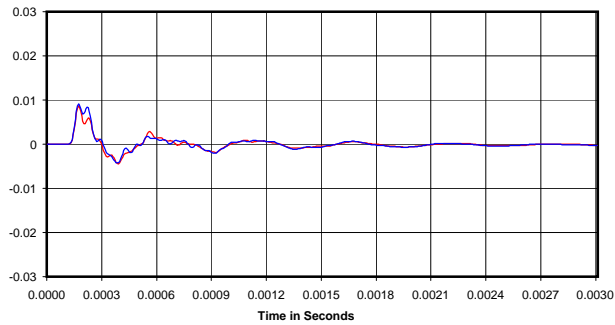
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

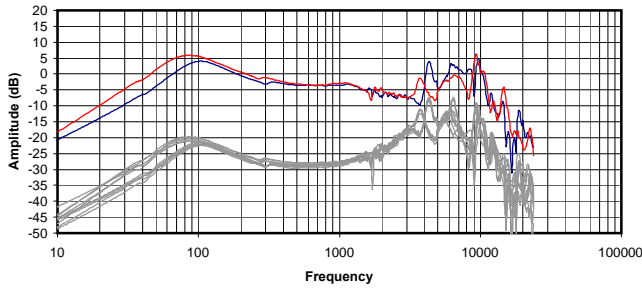


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

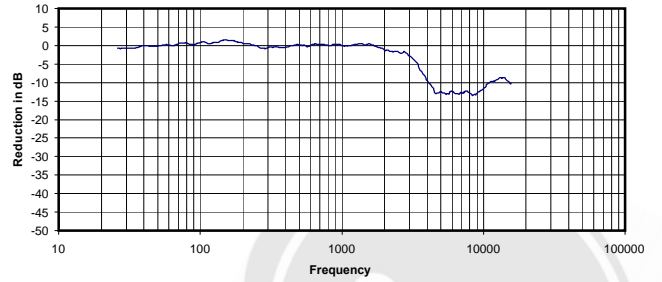
0.025 Vrms
 34 Ohms
 0.02 mW
 -2 dB



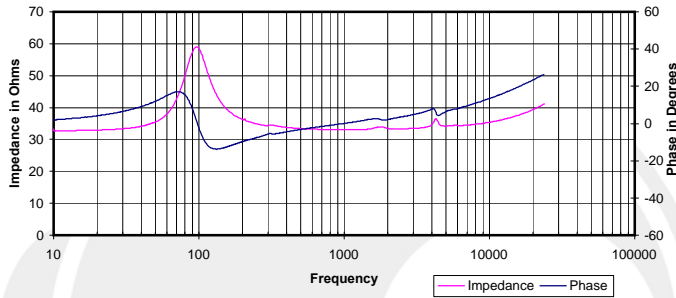
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



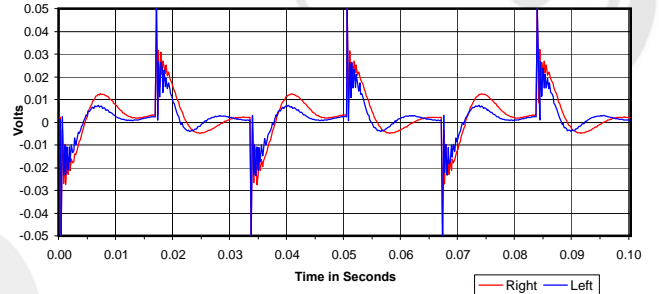
Isolation
 Attenuation of External Sound vs. Frequency



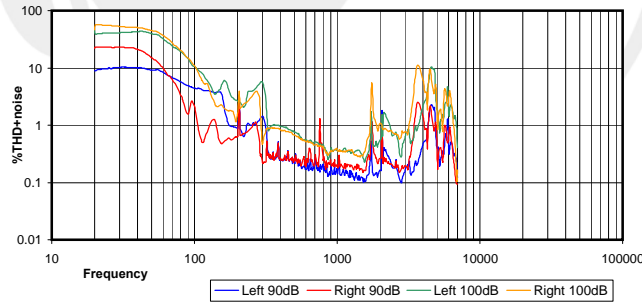
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



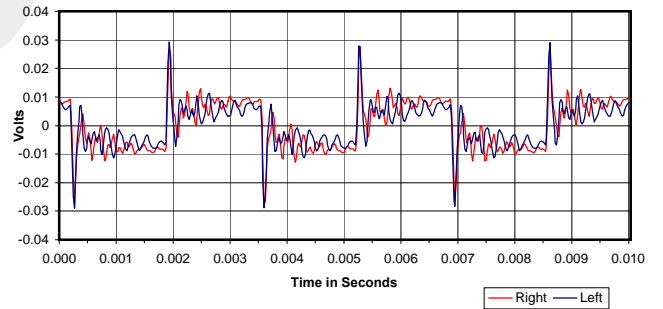
30 Hz Square Wave



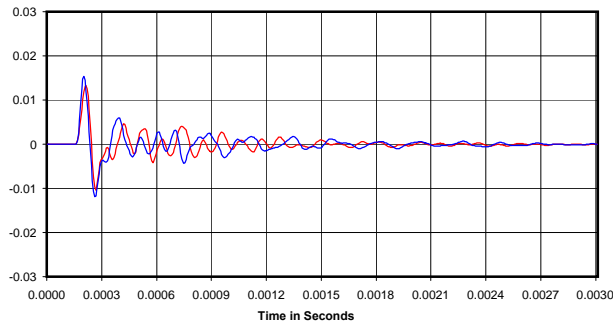
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

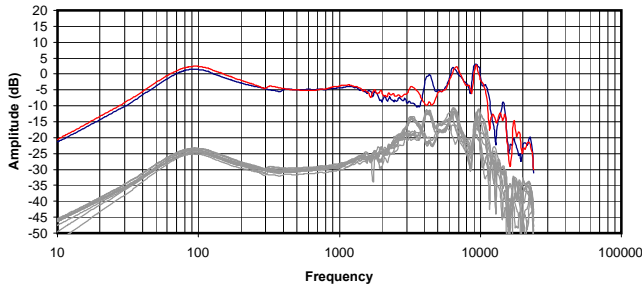


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

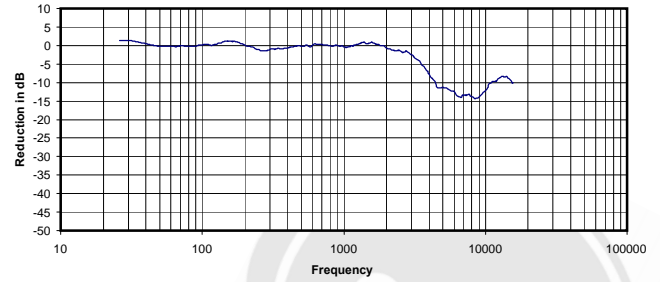
0.188 Vrms
 33 Ohms
 1.06 mW
 -2 dB



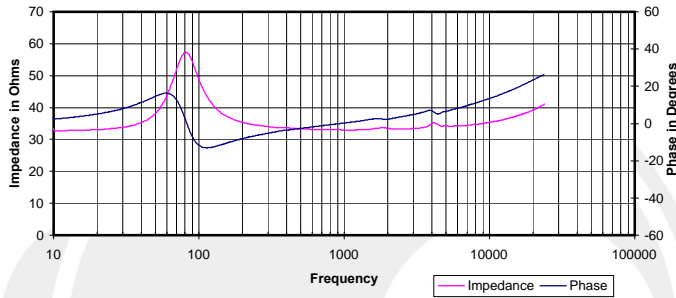
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



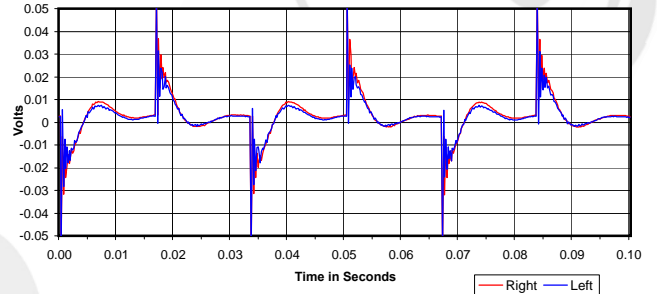
Isolation
 Attenuation of External Sound vs. Frequency



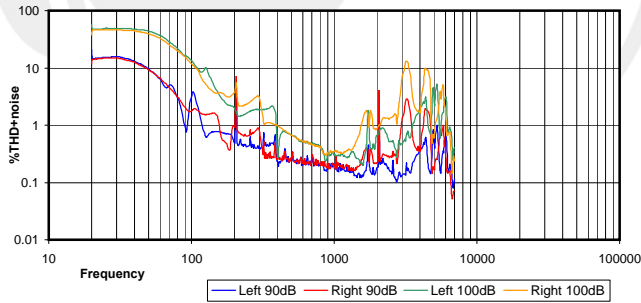
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



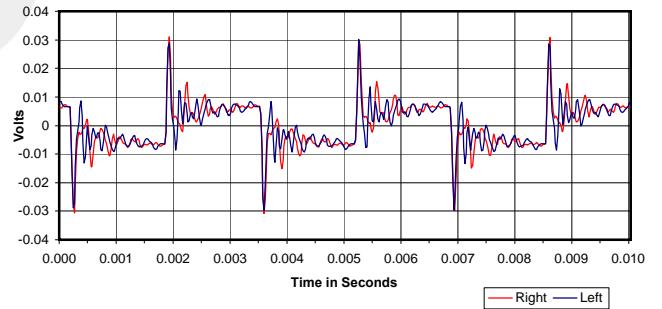
30 Hz Square Wave



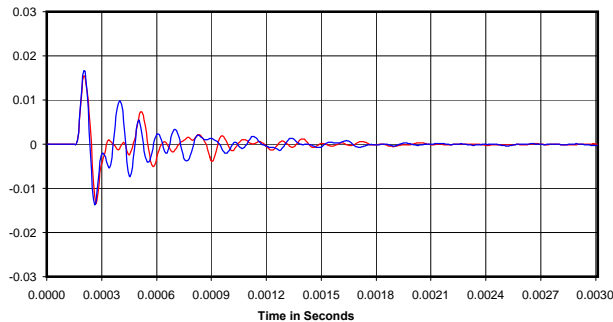
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

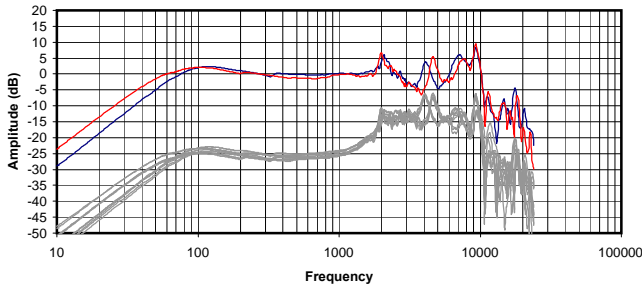


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

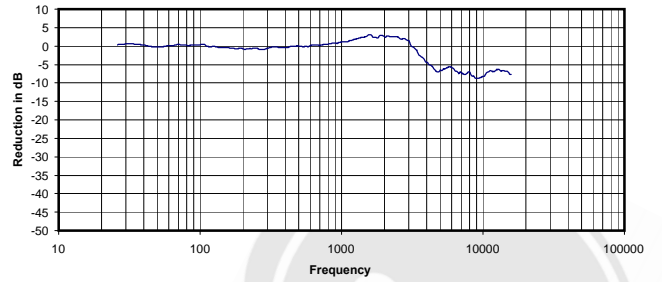
0.189 Vrms
 33 Ohms
 1.09 mW
 -2 dB



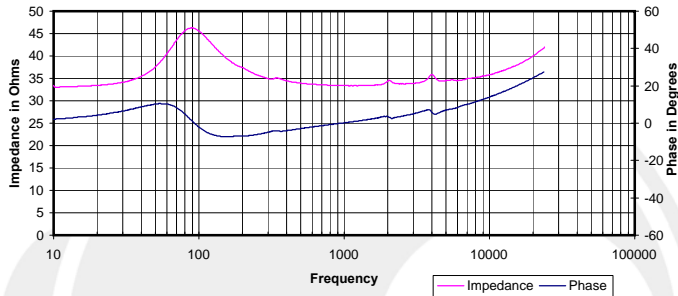
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



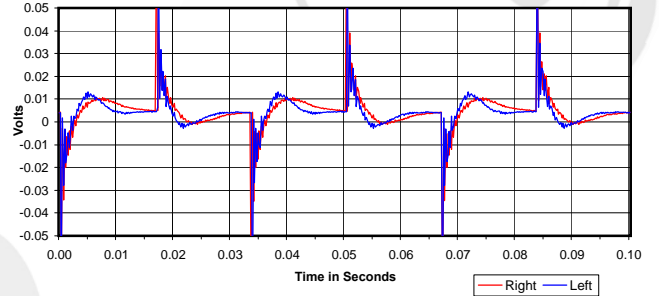
Isolation
Attenuation of External Sound vs. Frequency



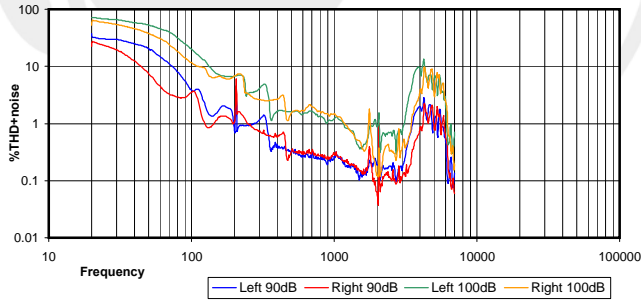
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



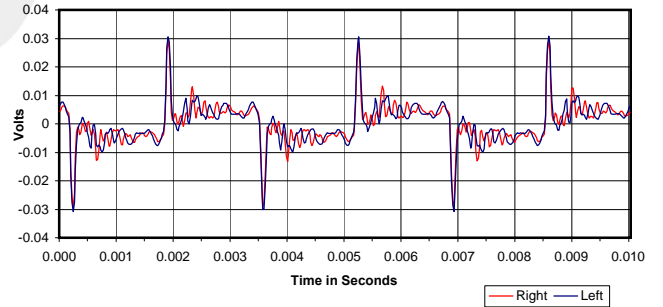
30 Hz Square Wave



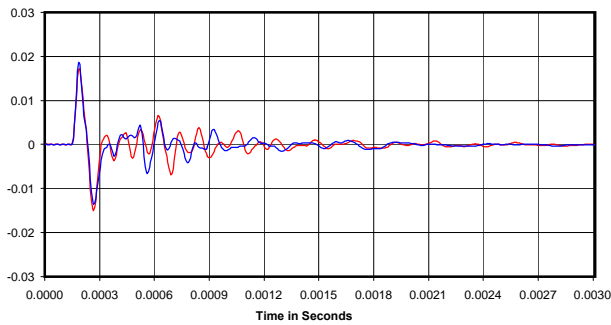
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



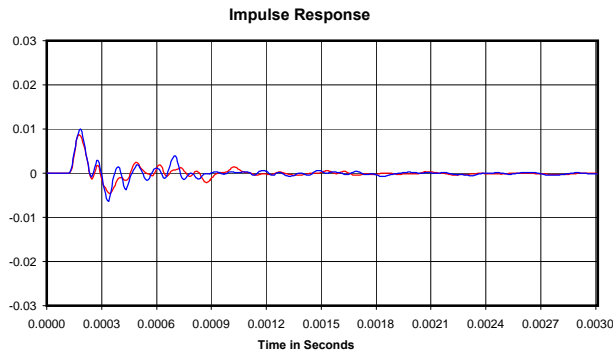
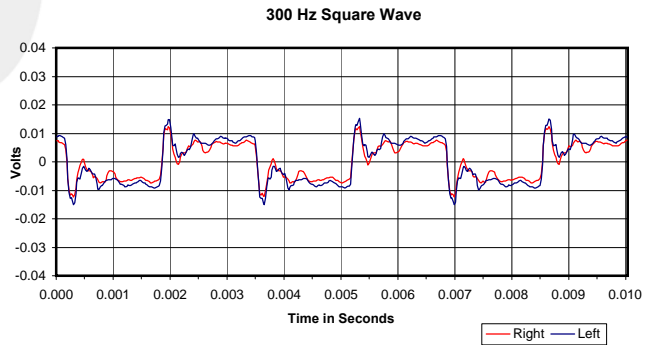
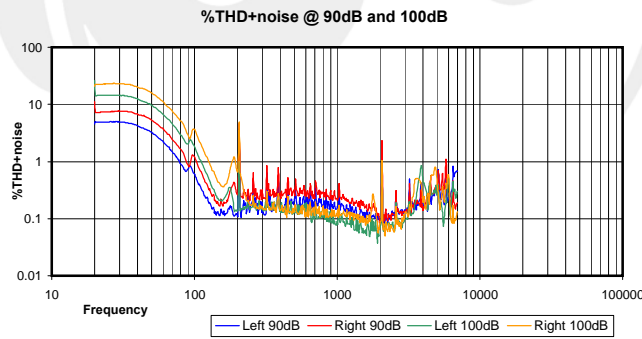
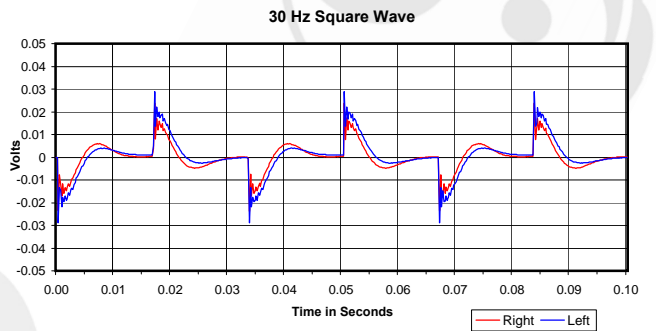
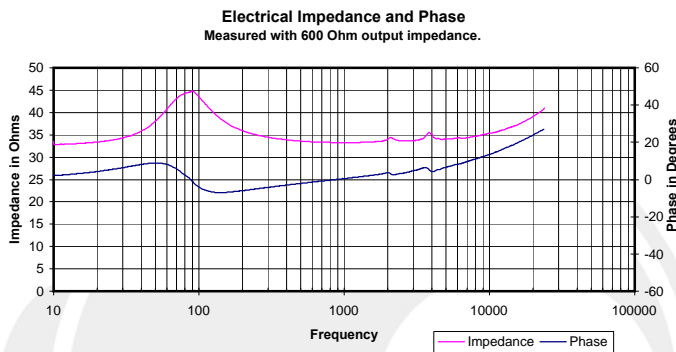
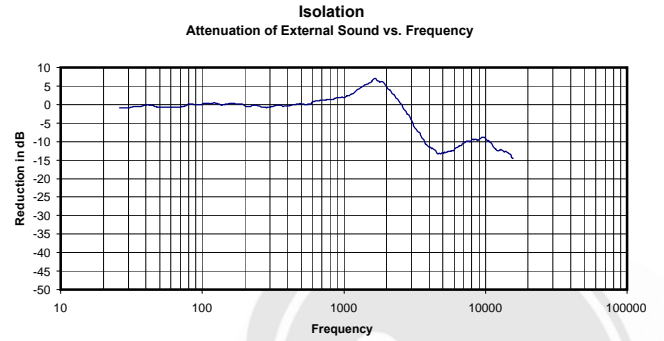
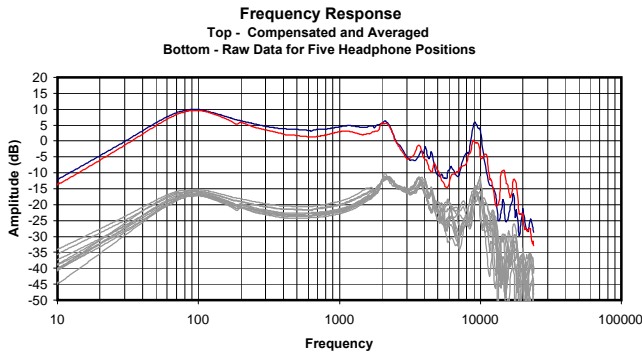
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.175 Vrms
33 Ohms
0.92 mW
0 dB



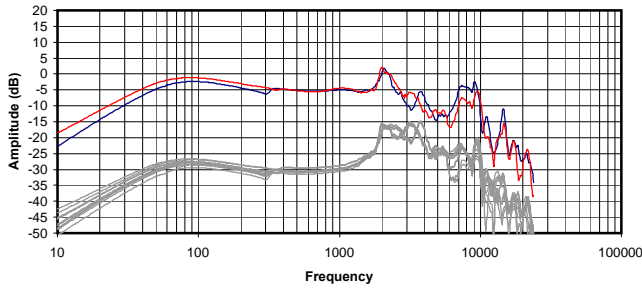


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

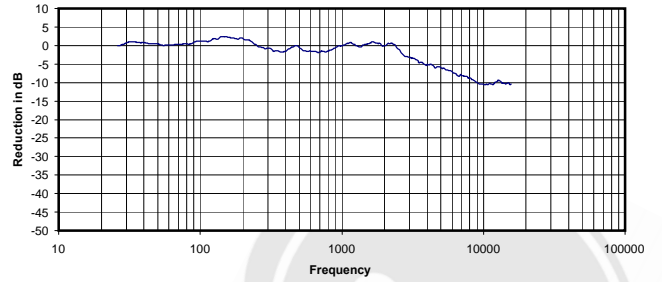
0.039 Vrms
33 Ohms
0.05 mW
-1 dB



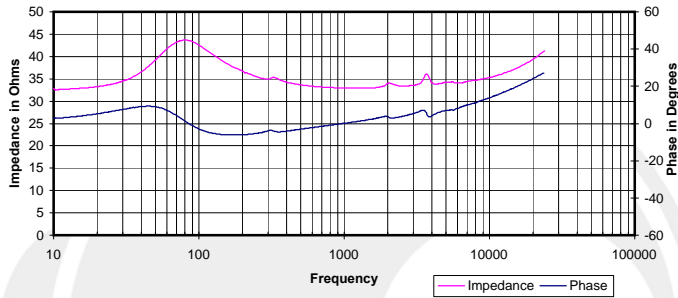
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



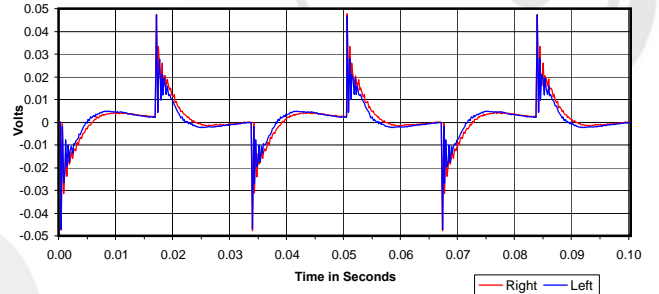
Isolation
 Attenuation of External Sound vs. Frequency



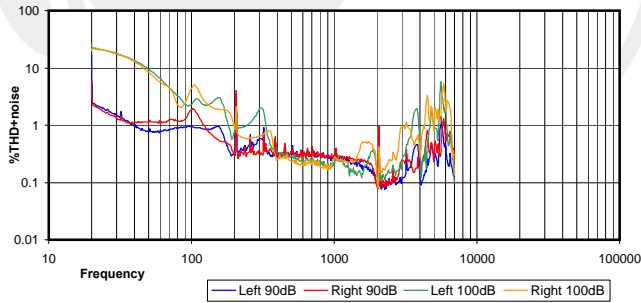
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



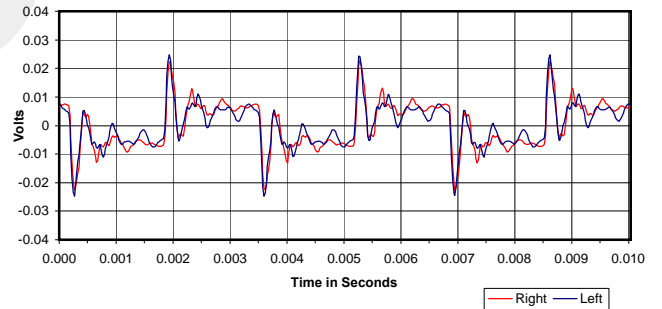
30 Hz Square Wave



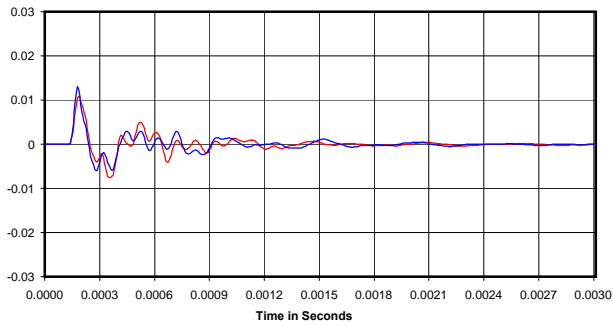
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

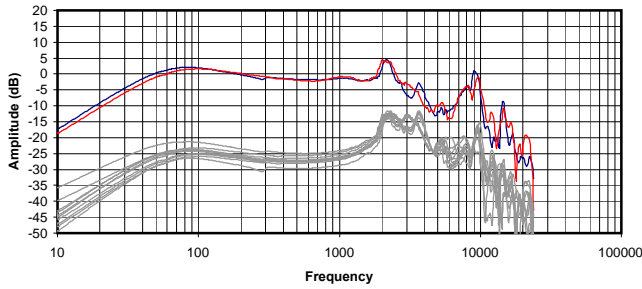


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

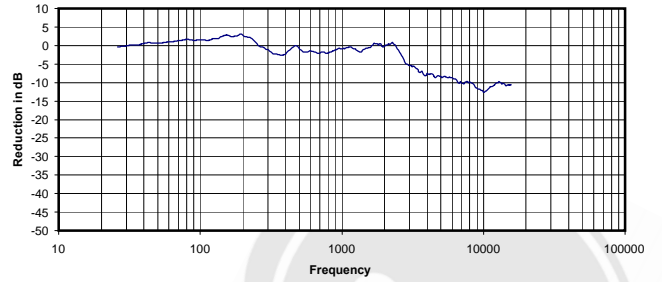
0.104 Vrms
 33 Ohms
 0.33 mW
 -1 dB



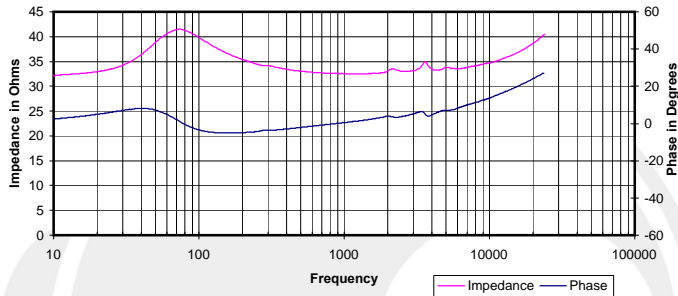
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



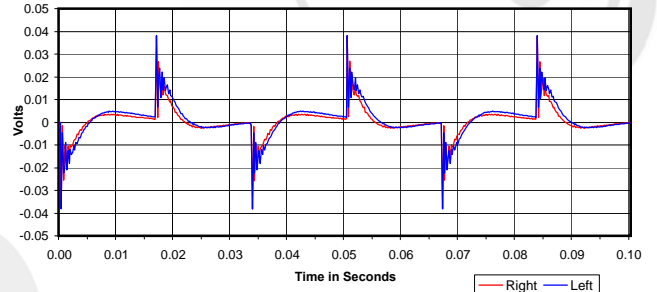
Isolation
Attenuation of External Sound vs. Frequency



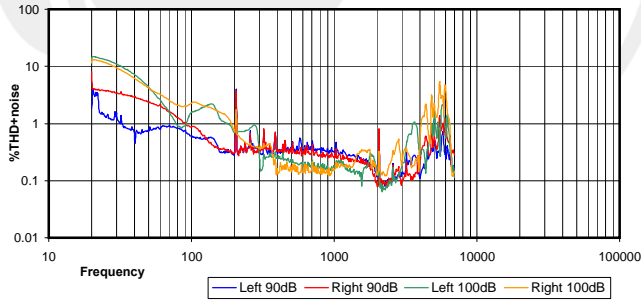
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



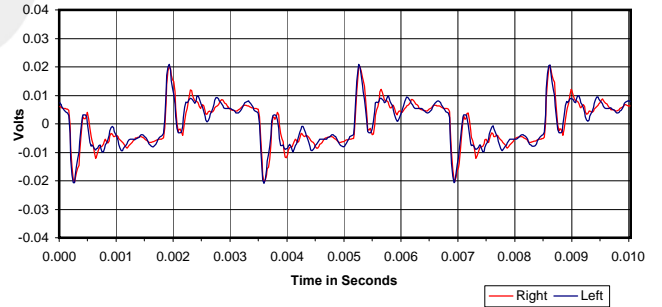
30 Hz Square Wave



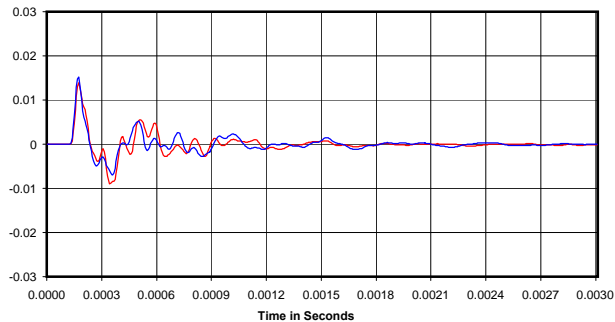
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

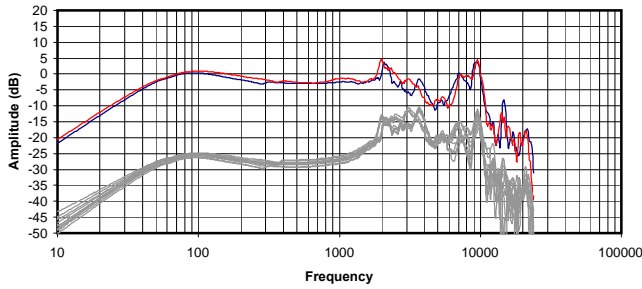


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

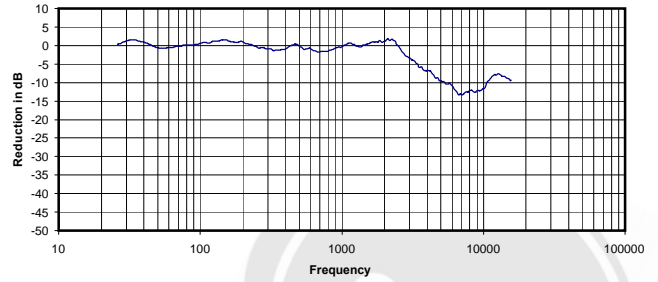
4.727 Vrms
33 Ohms
686.40 mW
-2 dB



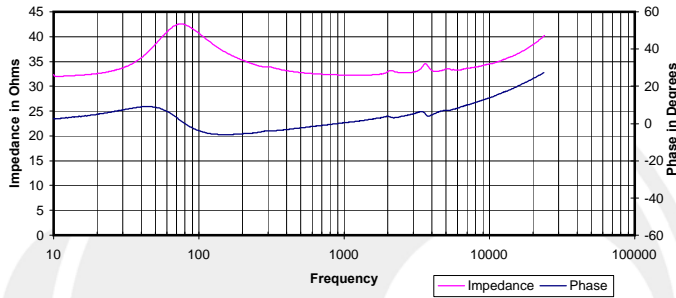
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



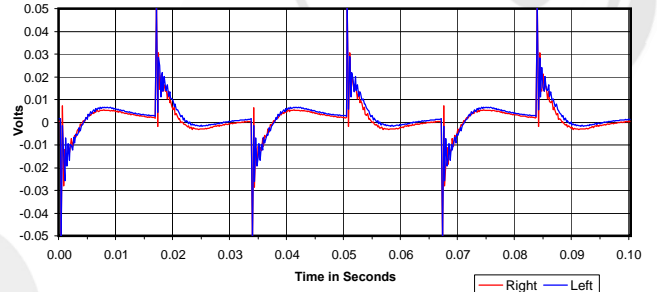
Isolation
Attenuation of External Sound vs. Frequency



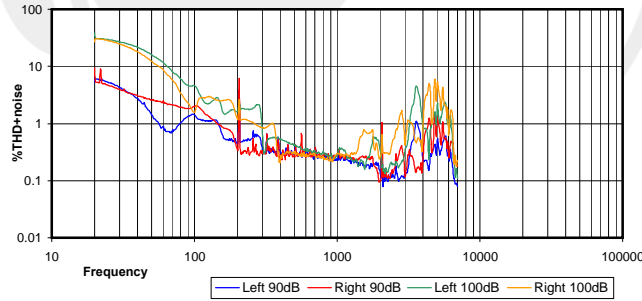
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



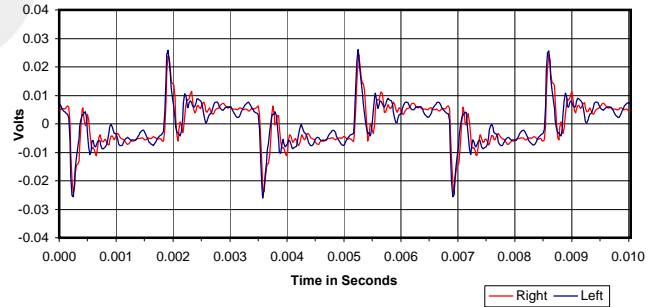
30 Hz Square Wave



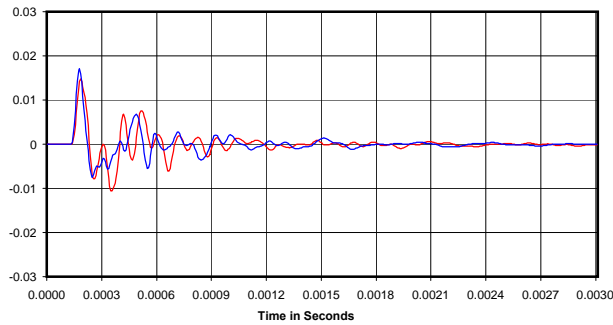
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

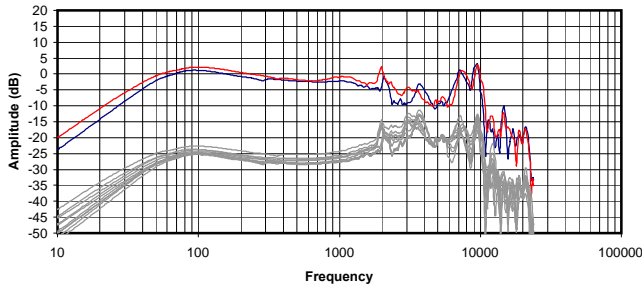


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

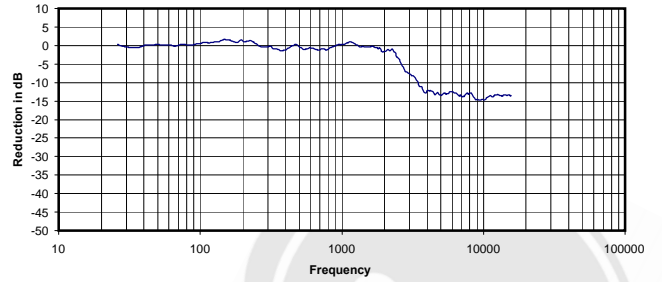
0.116 Vrms
32 Ohms
0.42 mW
-1 dB



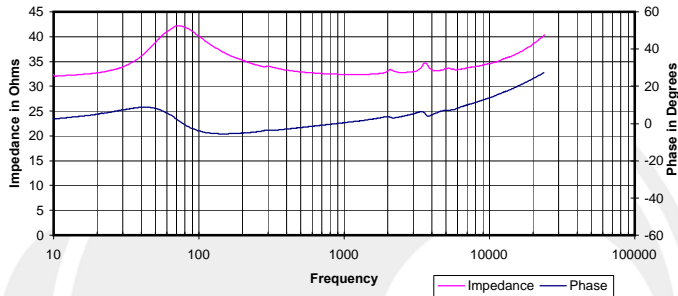
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



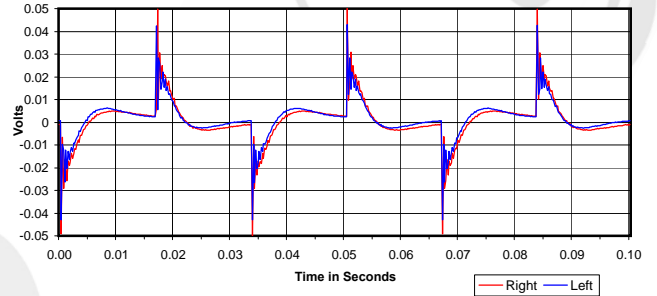
Isolation
Attenuation of External Sound vs. Frequency



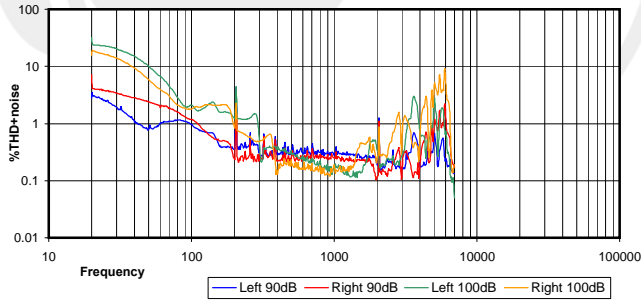
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



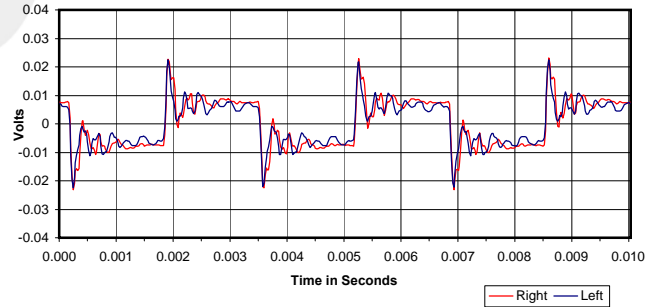
30 Hz Square Wave



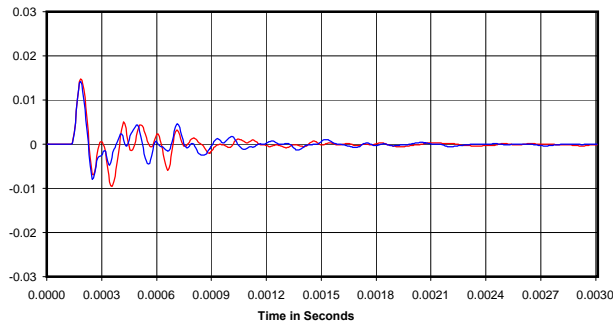
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



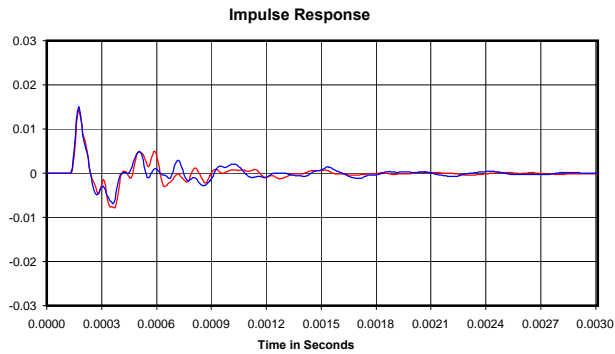
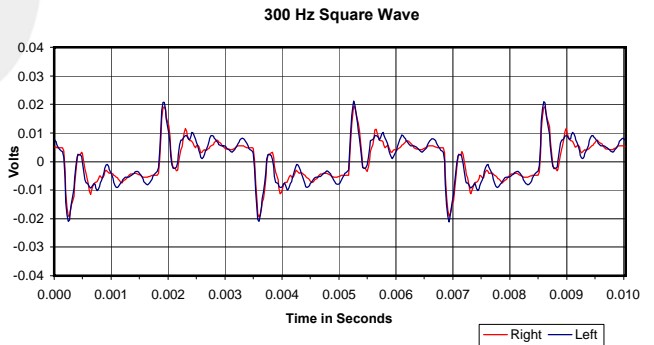
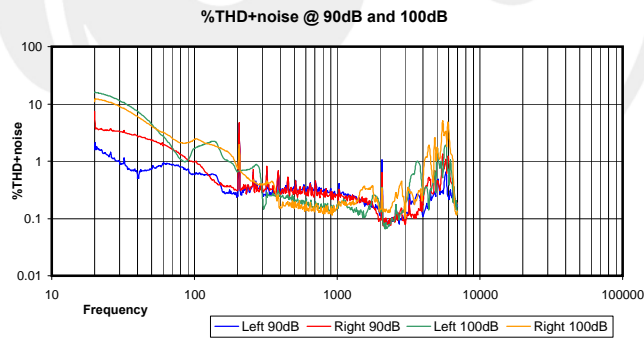
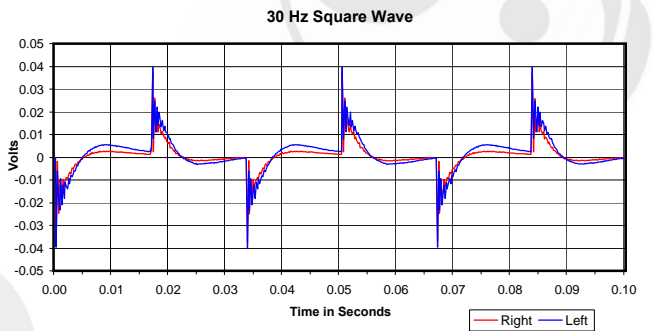
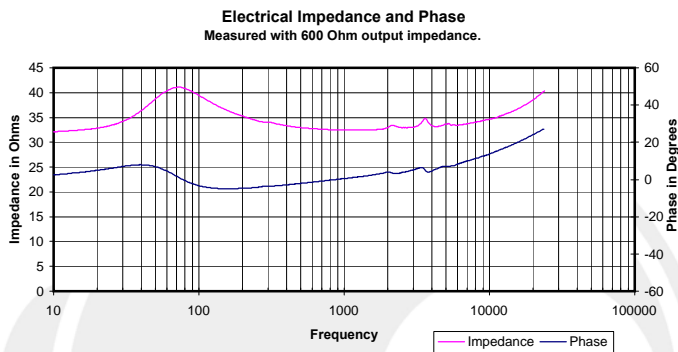
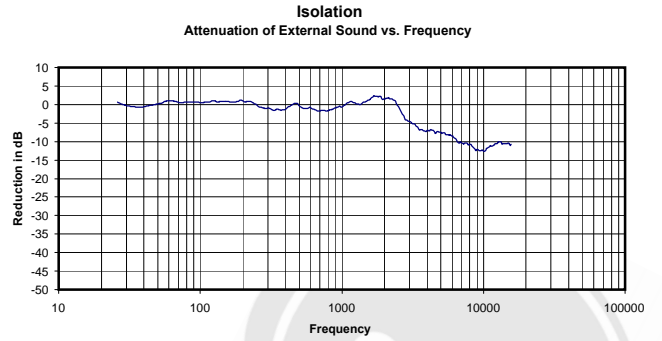
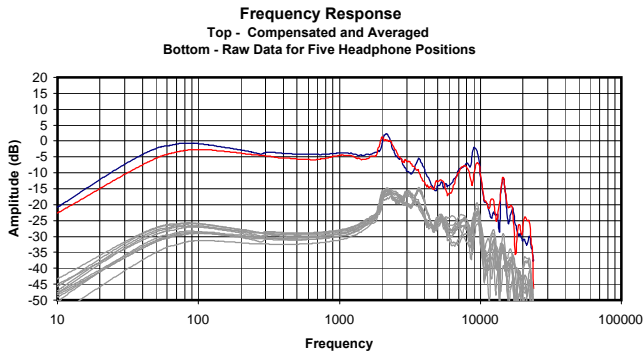
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.094 Vrms
32 Ohms
0.27 mW
-3 dB



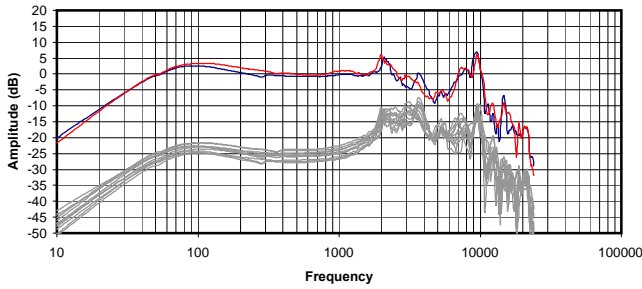


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

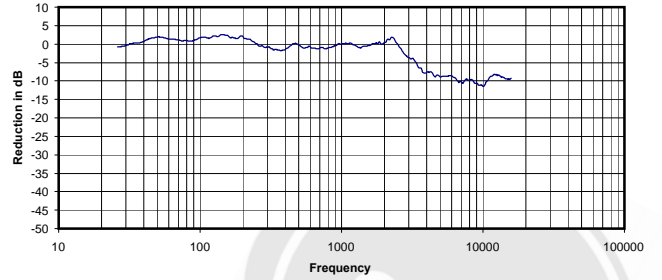
0.079 Vrms
32 Ohms
0.19 mW
-1 dB



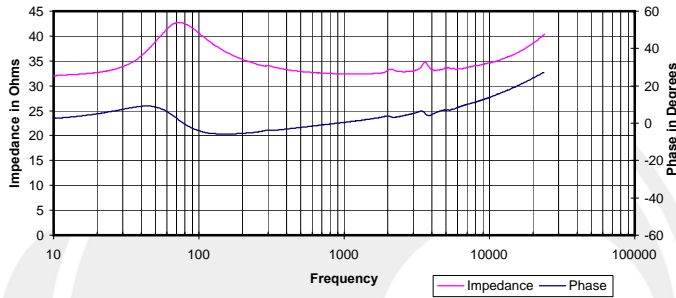
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



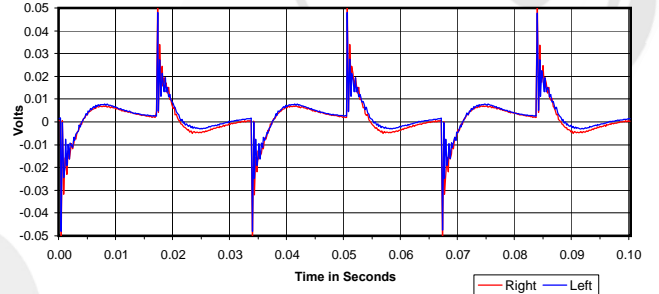
Isolation
Attenuation of External Sound vs. Frequency



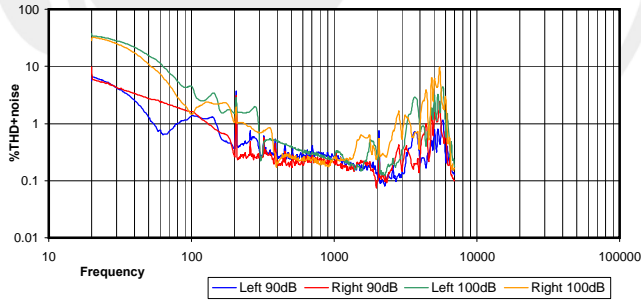
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



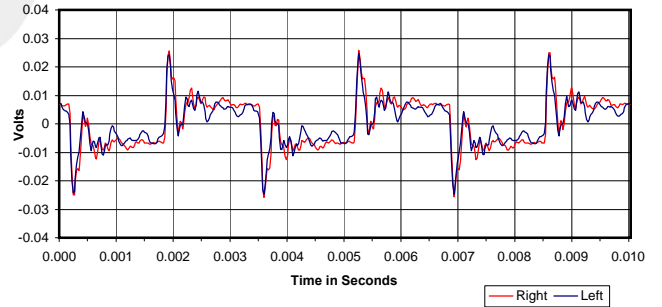
30 Hz Square Wave



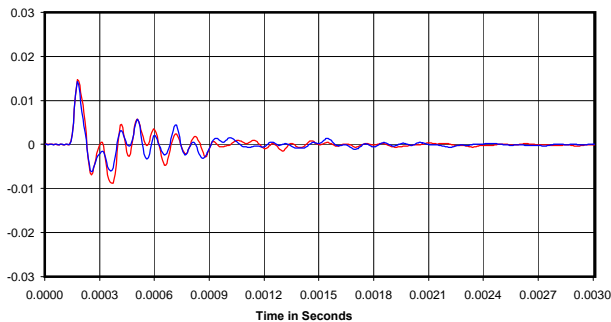
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

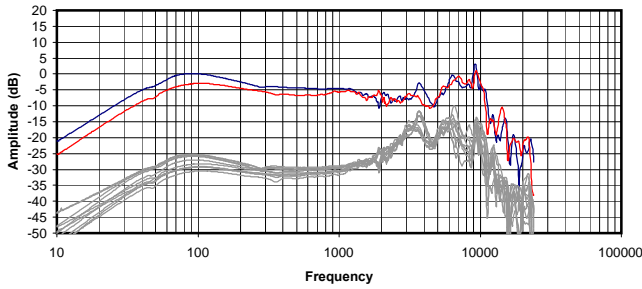


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

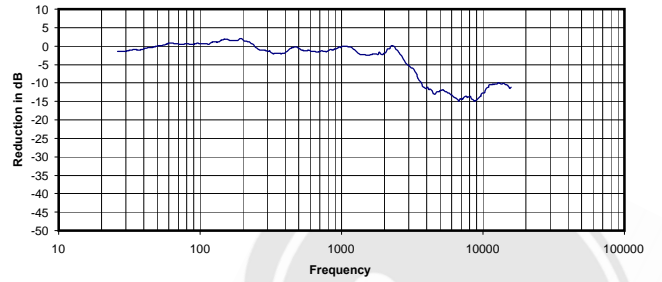
0.112 Vrms
32 Ohms
0.39 mW
-1 dB



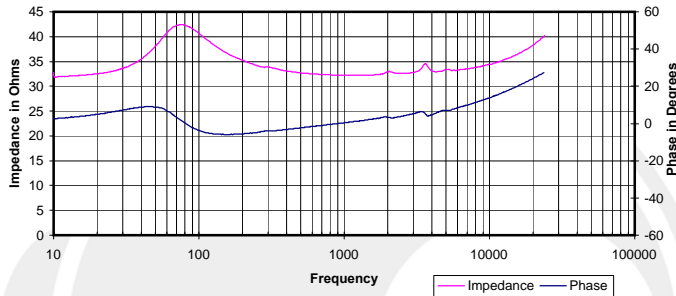
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



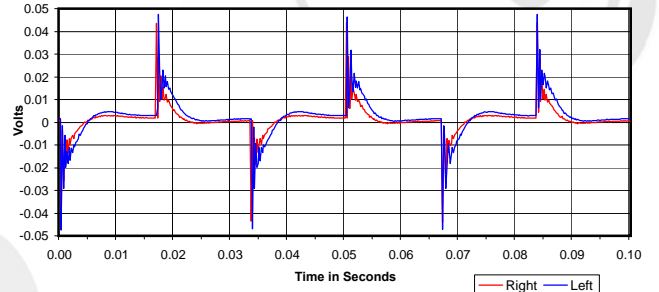
Isolation
Attenuation of External Sound vs. Frequency



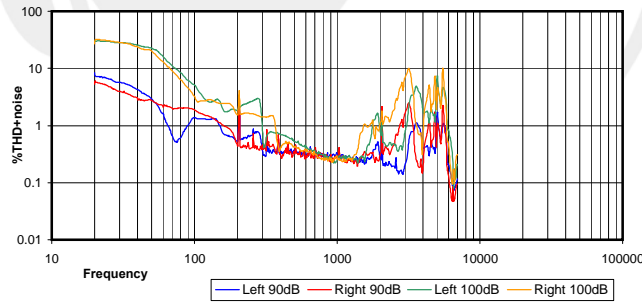
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



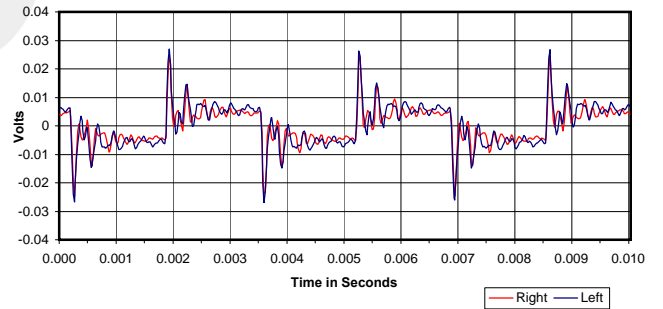
30 Hz Square Wave



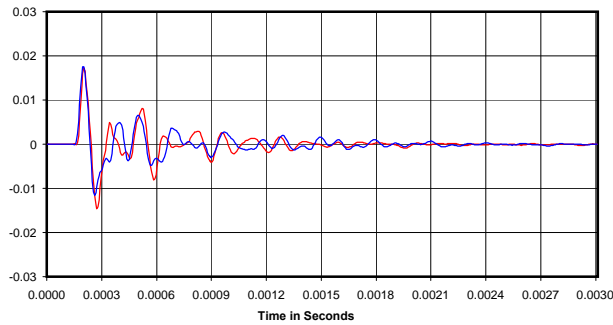
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

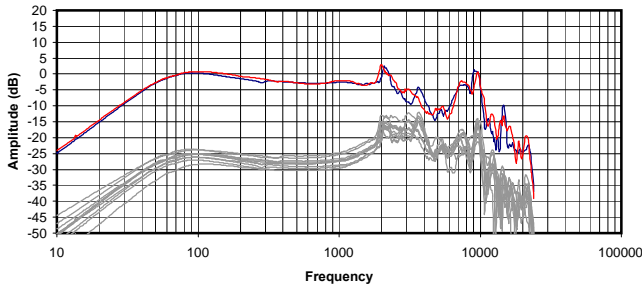


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

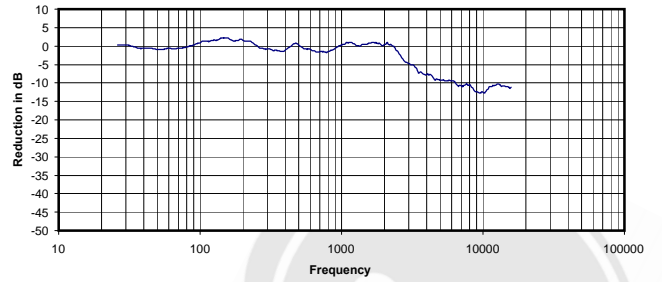
0.151 Vrms
32 Ohms
0.71 mW
-3 dB



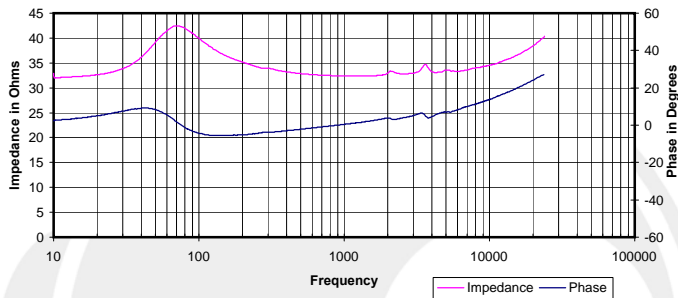
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



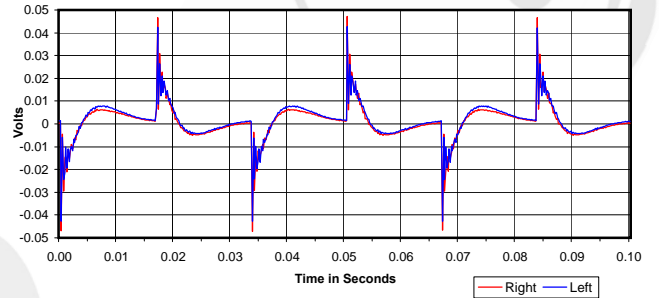
Isolation
 Attenuation of External Sound vs. Frequency



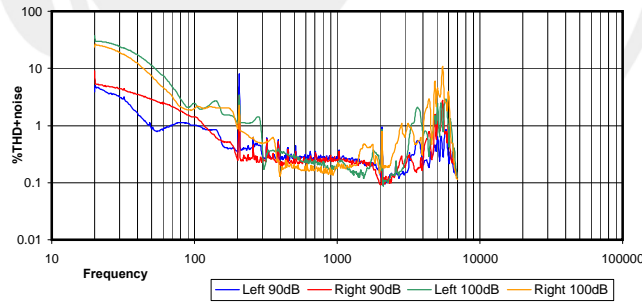
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



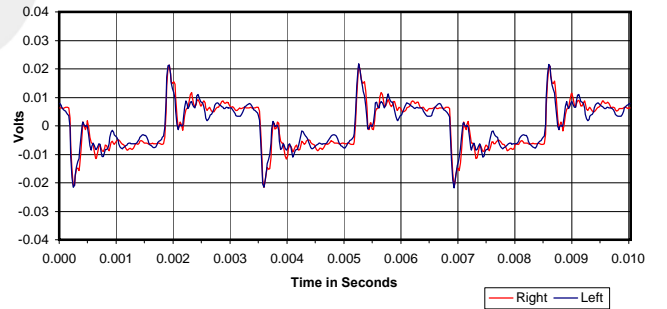
30 Hz Square Wave



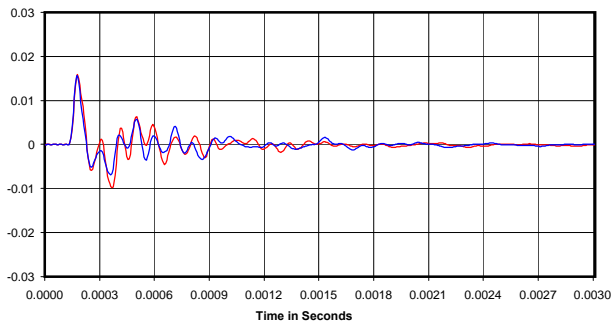
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

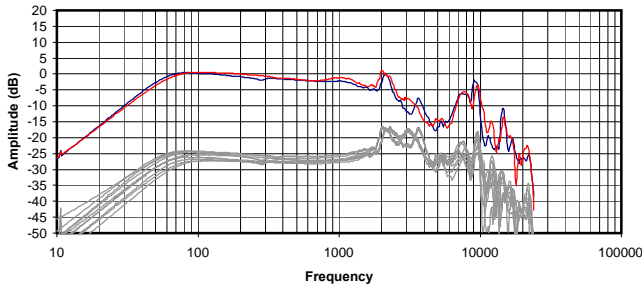


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

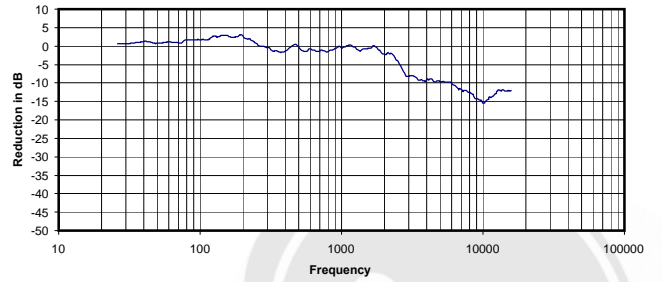
0.091 Vrms
 32 Ohms
 0.25 mW
 -1 dB



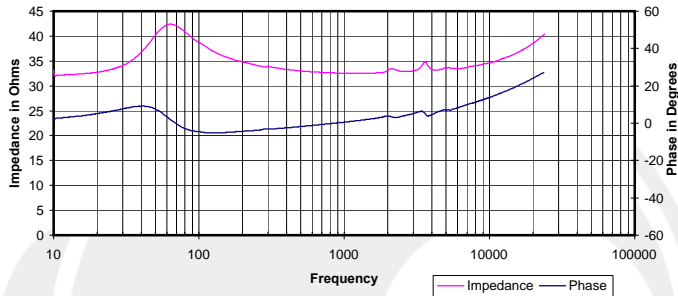
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



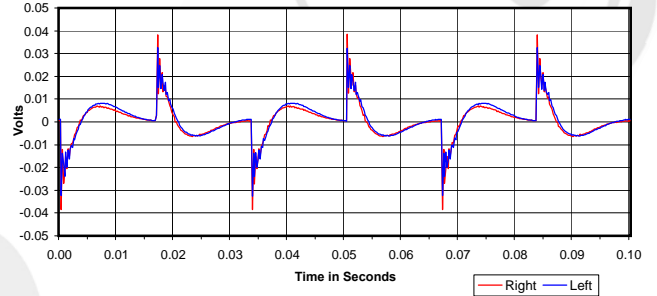
Isolation
 Attenuation of External Sound vs. Frequency



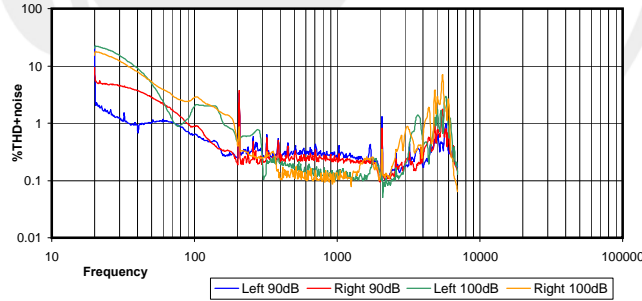
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



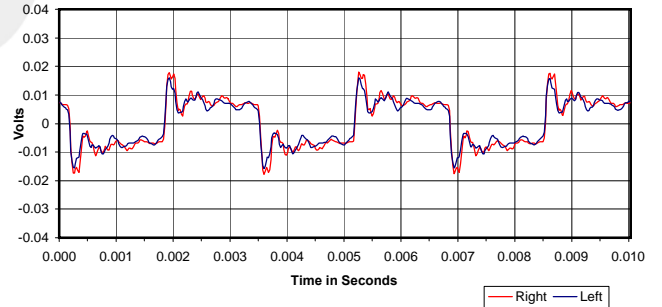
30 Hz Square Wave



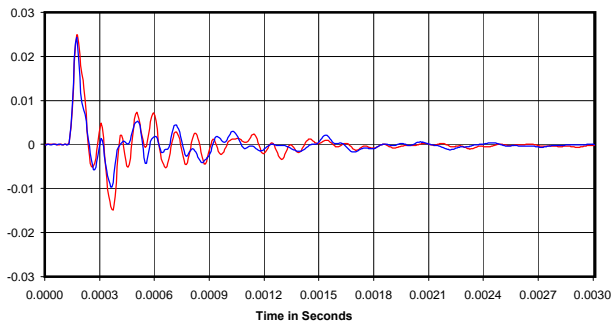
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

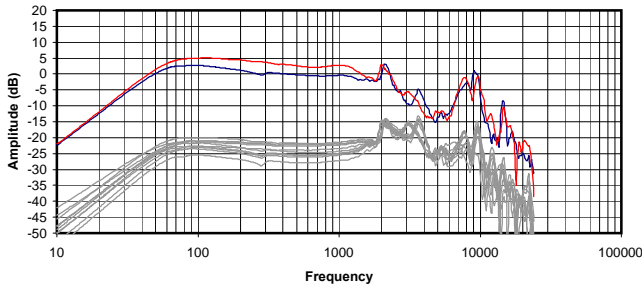


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

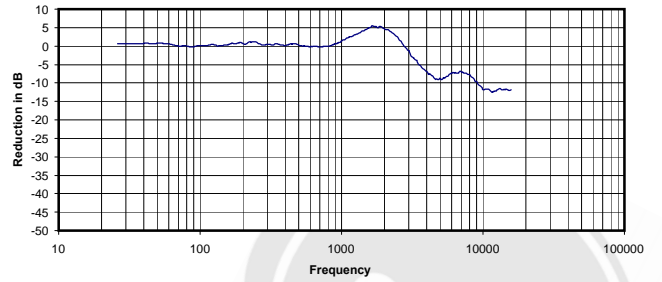
0.063 Vrms
 33 Ohms
 0.12 mW
 -2 dB



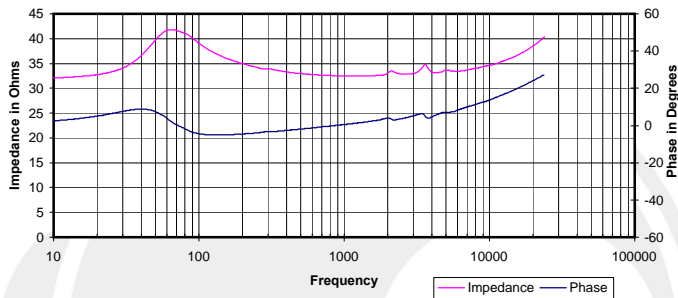
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



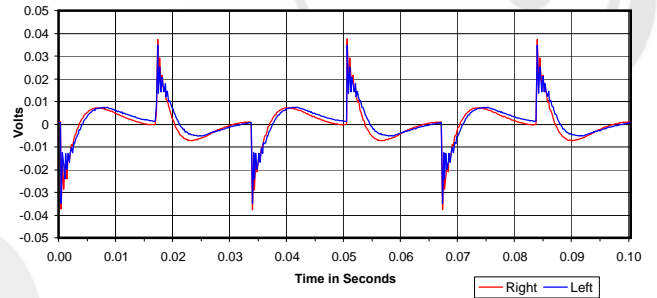
Isolation
 Attenuation of External Sound vs. Frequency



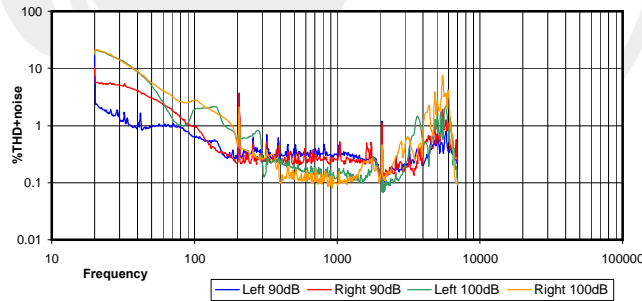
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



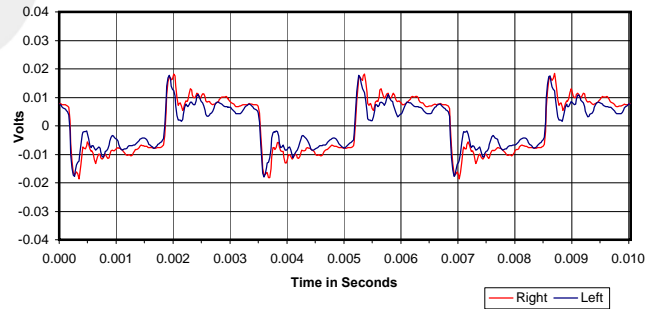
30 Hz Square Wave



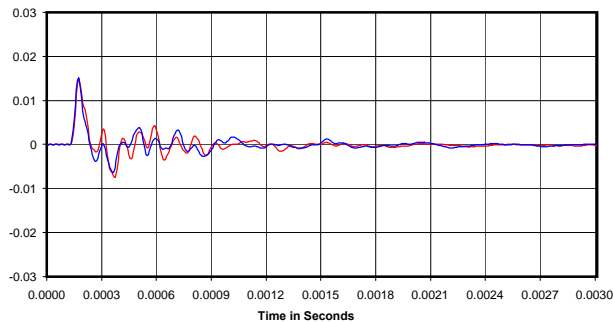
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

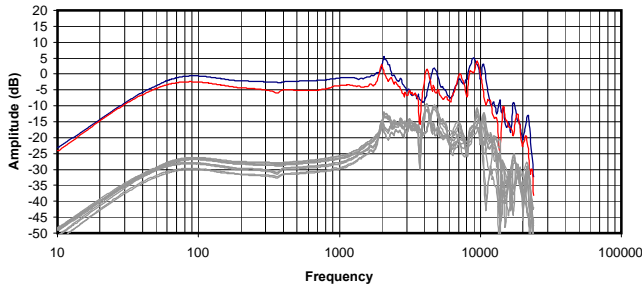


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

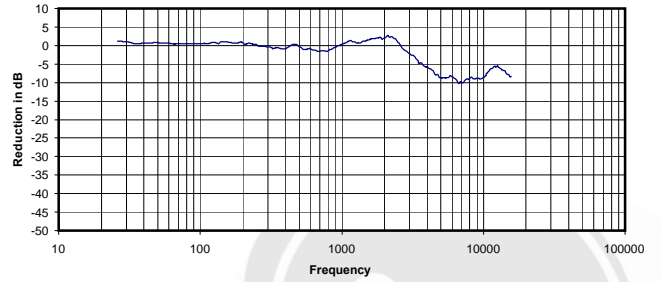
0.069 Vrms
 32 Ohms
 0.14 mW
 0 dB



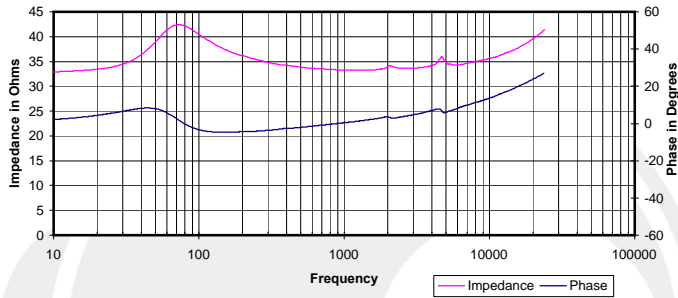
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



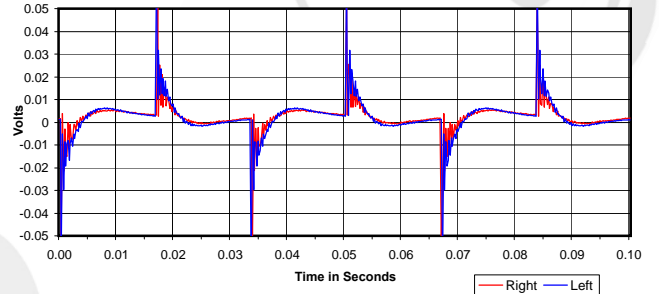
Isolation
 Attenuation of External Sound vs. Frequency



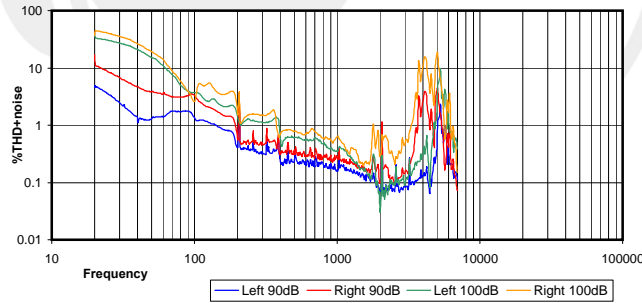
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



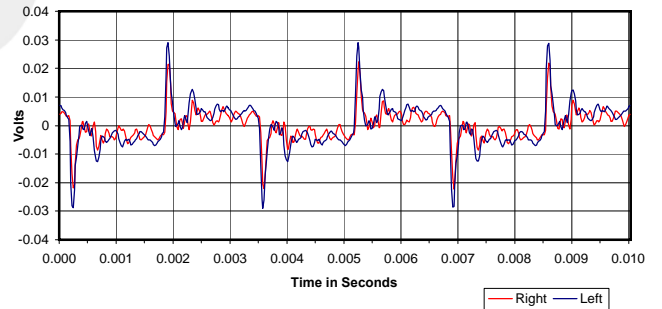
30 Hz Square Wave



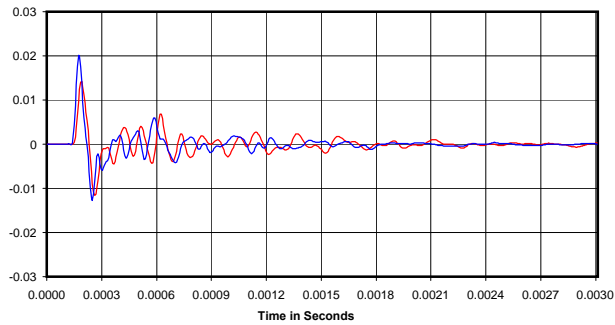
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

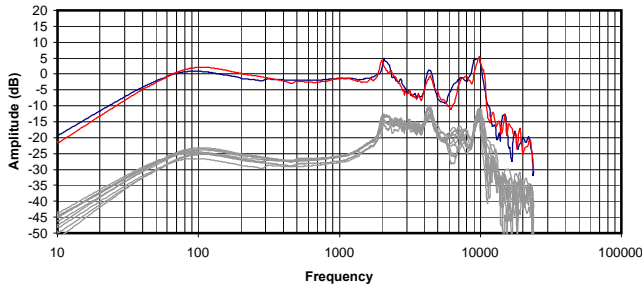


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

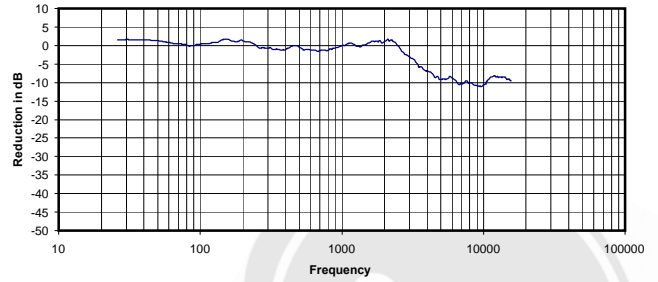
0.120 Vrms
 33 Ohms
 0.43 mW
 -1 dB



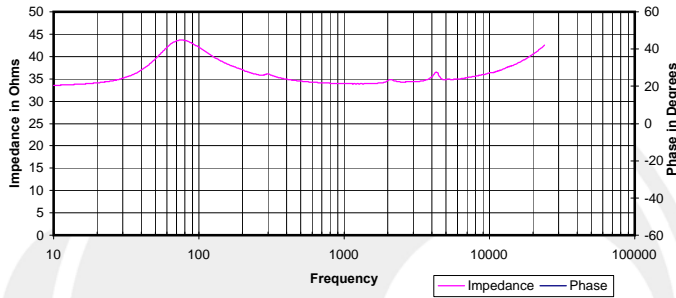
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



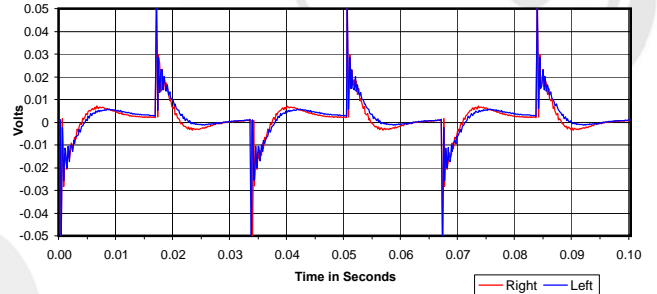
Isolation
 Attenuation of External Sound vs. Frequency



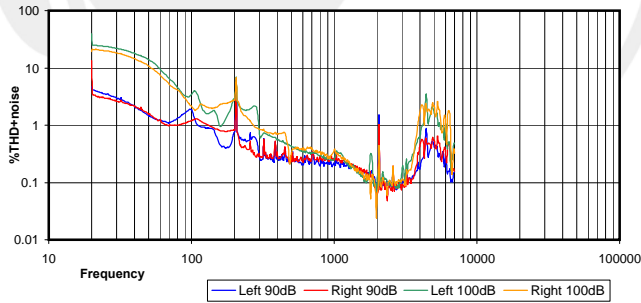
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



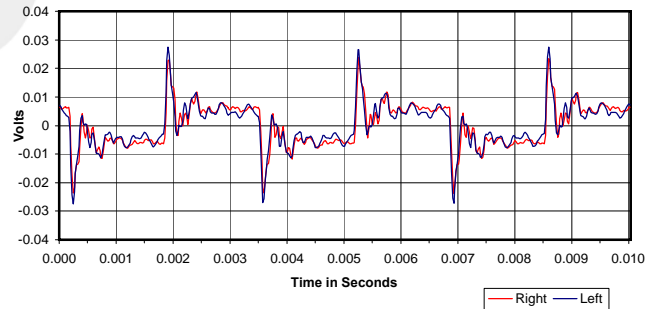
30 Hz Square Wave



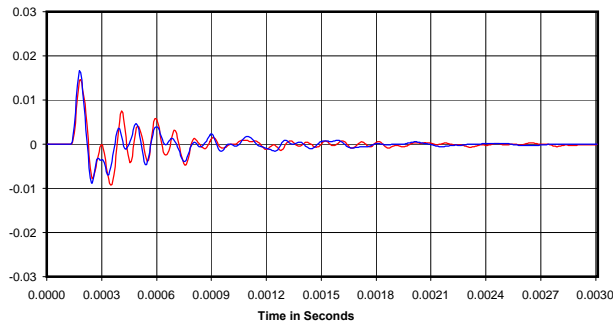
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

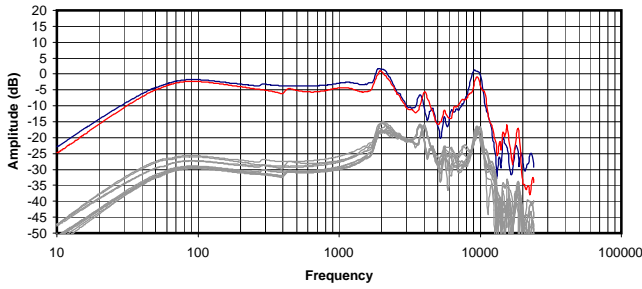


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

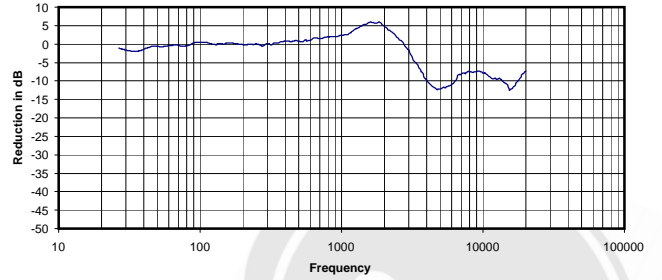
0.112 Vrms
 34 Ohms
 0.37 mW
 -1 dB



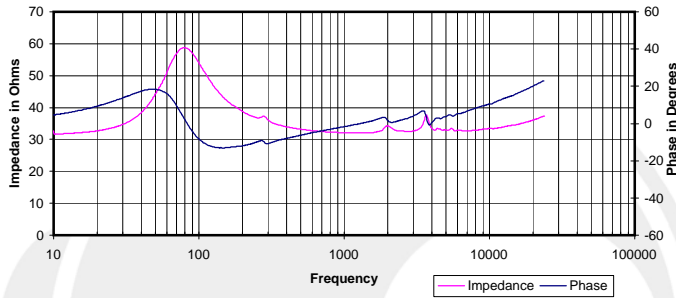
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



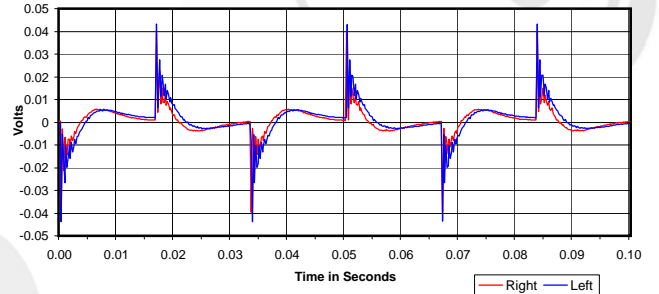
Isolation
Attenuation of External Sound vs. Frequency



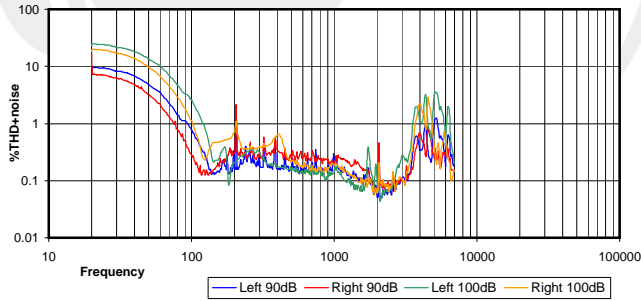
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



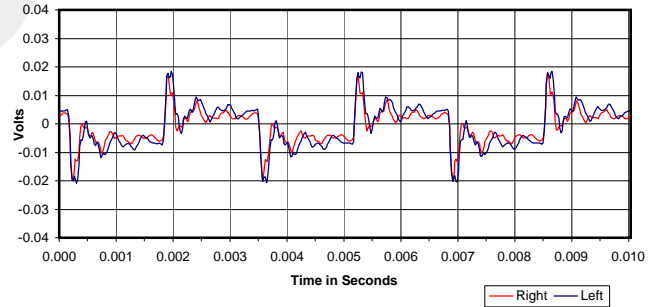
30 Hz Square Wave



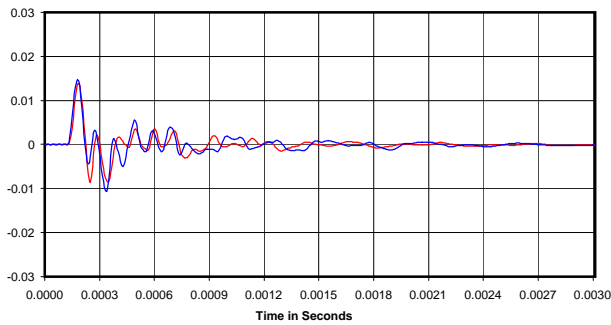
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

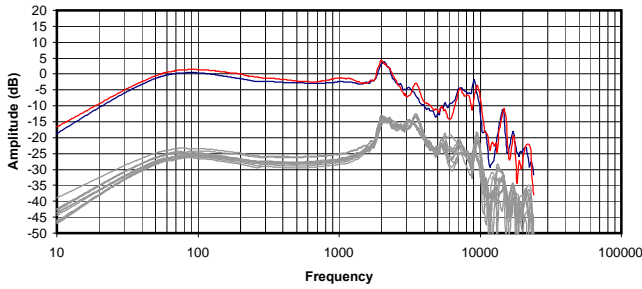


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

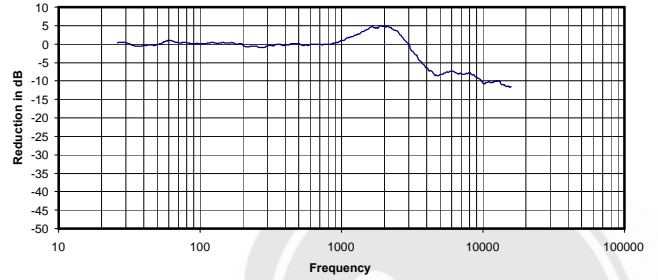
0.042 Vrms
32 Ohms
0.06 mW
-1 dB



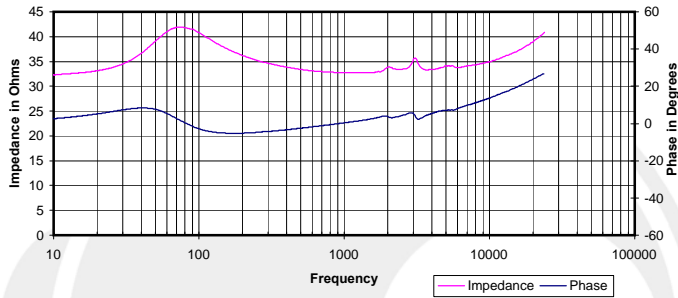
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



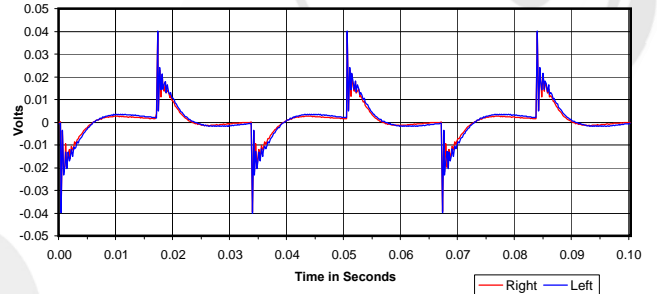
Isolation
Attenuation of External Sound vs. Frequency



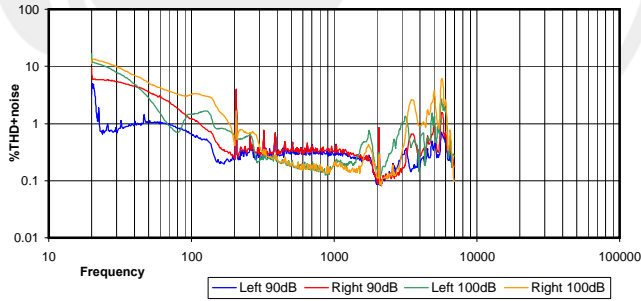
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



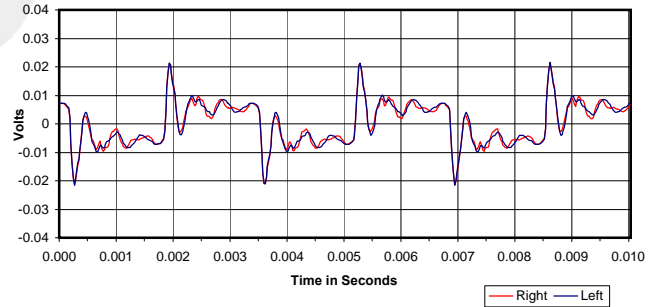
30 Hz Square Wave



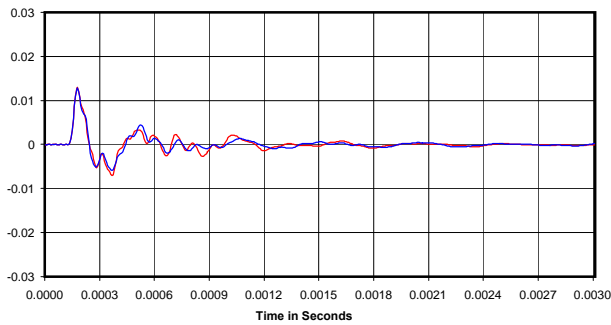
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

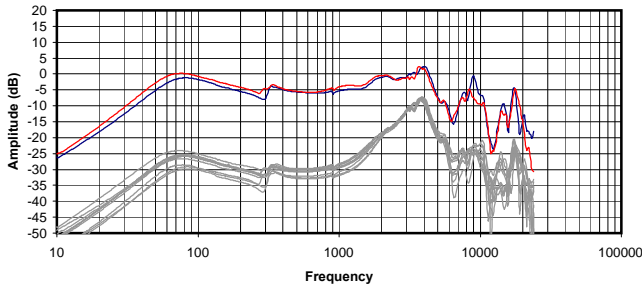


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

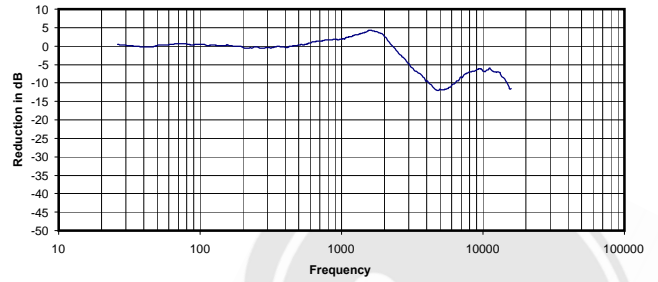
0.088 Vrms
33 Ohms
0.24 mW
0 dB



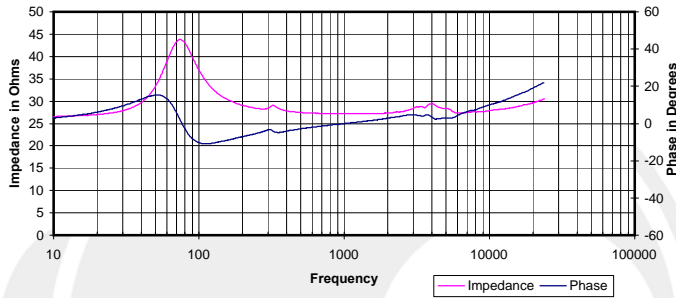
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



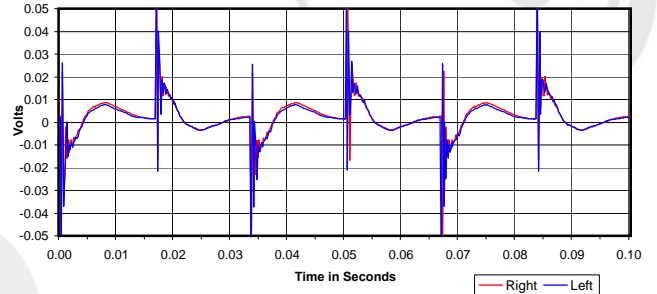
Isolation
 Attenuation of External Sound vs. Frequency



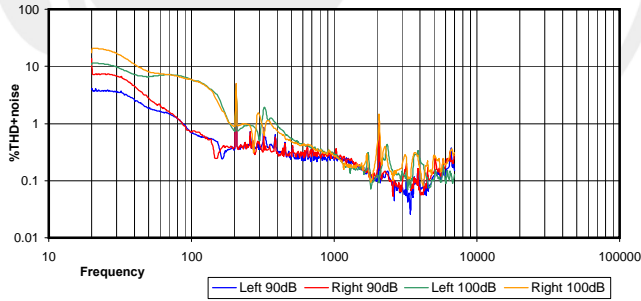
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



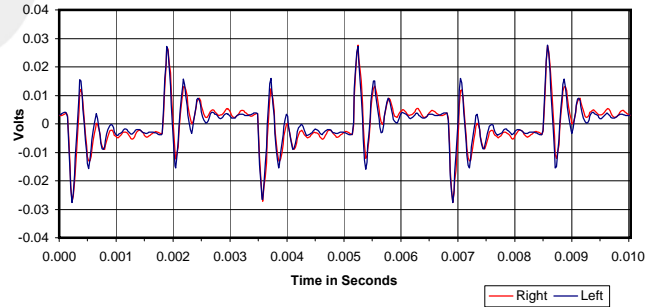
30 Hz Square Wave



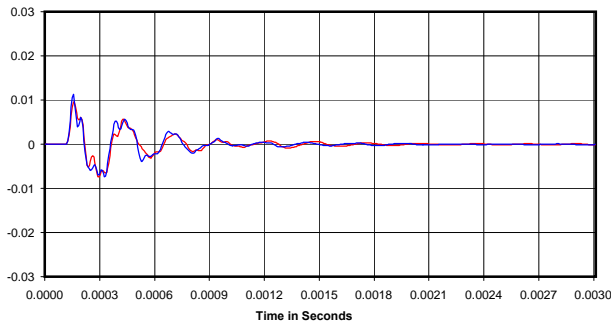
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



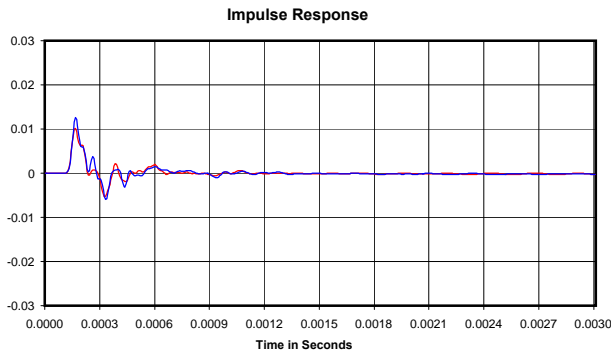
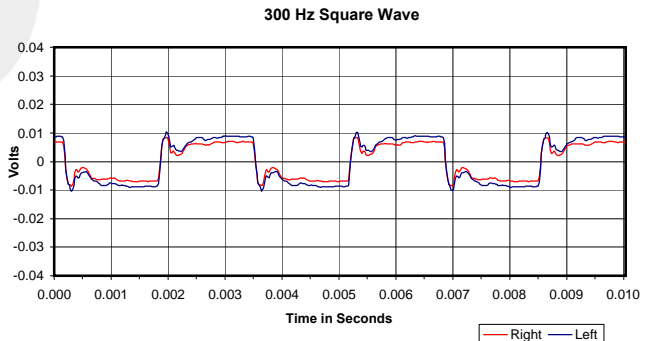
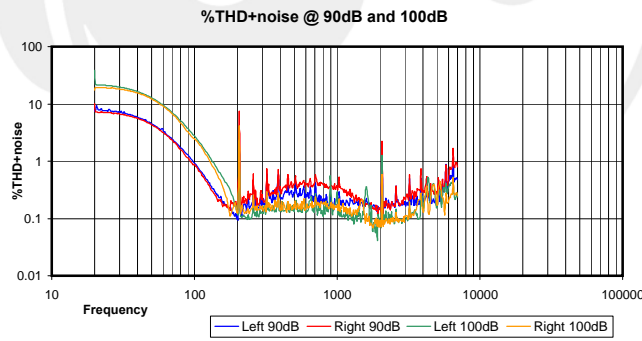
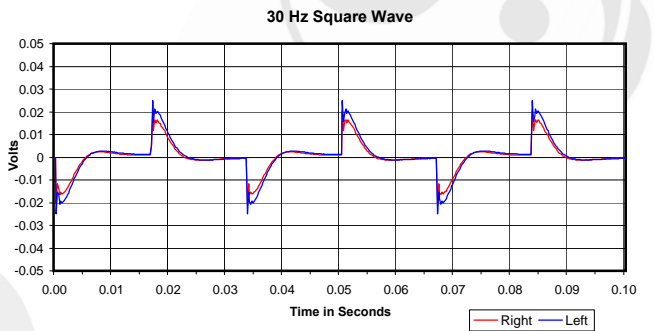
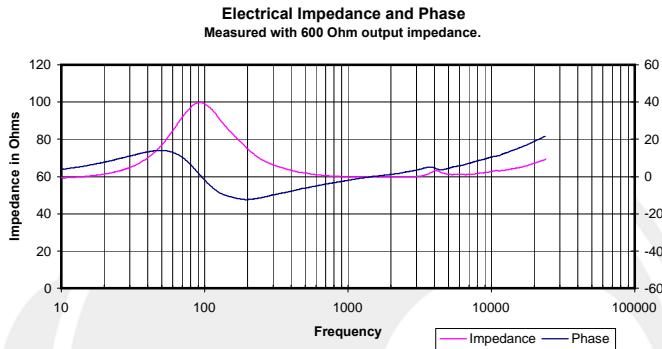
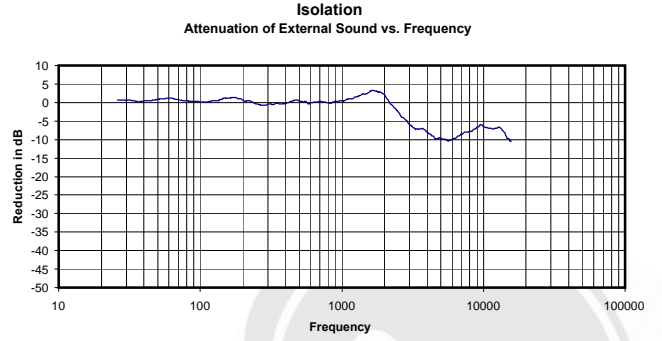
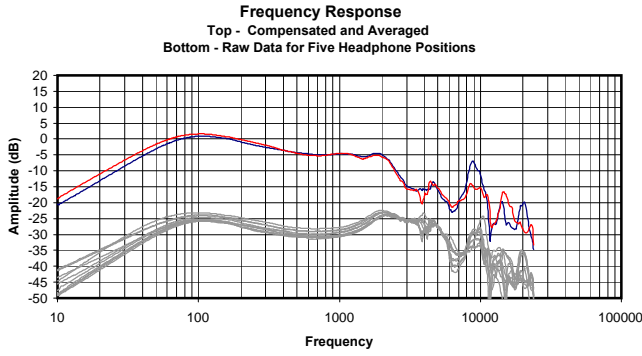
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
 27 Ohms
 0.19 mW
 -1 dB

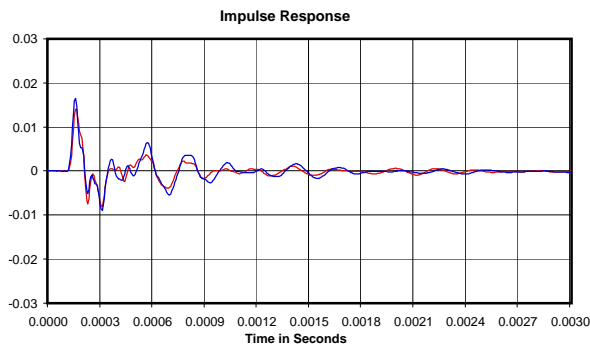
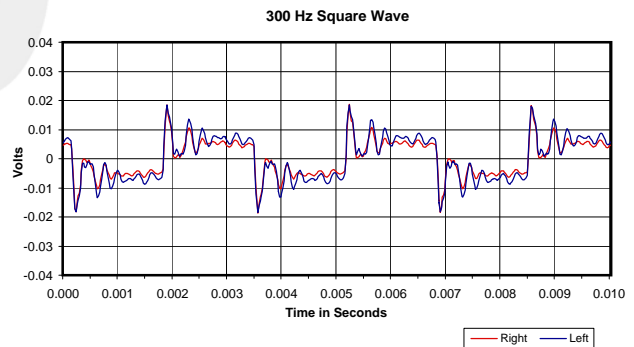
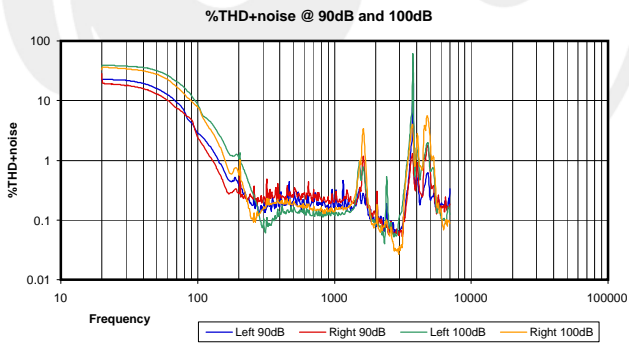
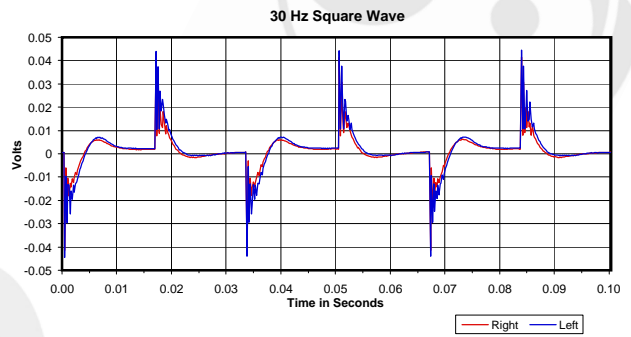
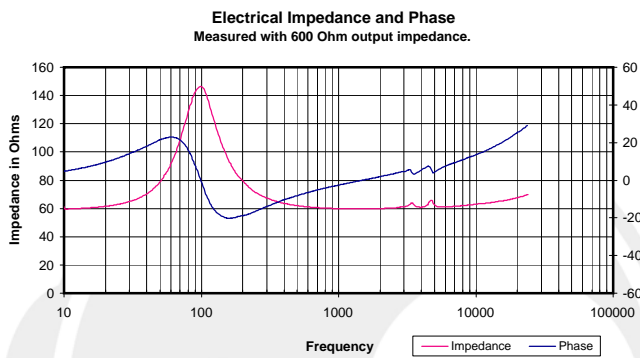
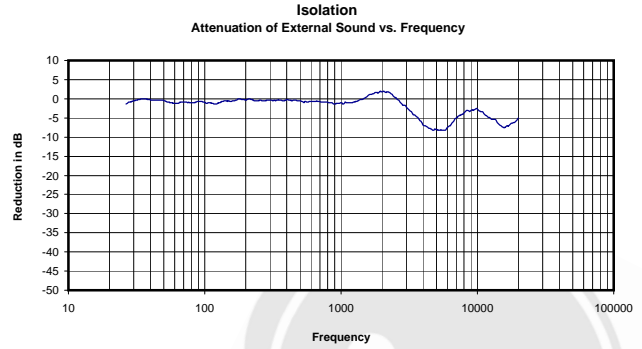
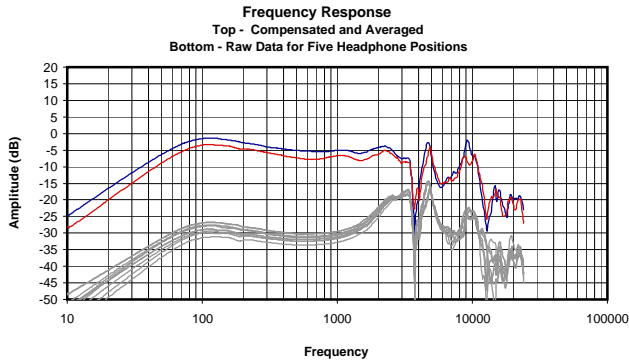




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
60 Ohms
0.04 mW
-1 dB

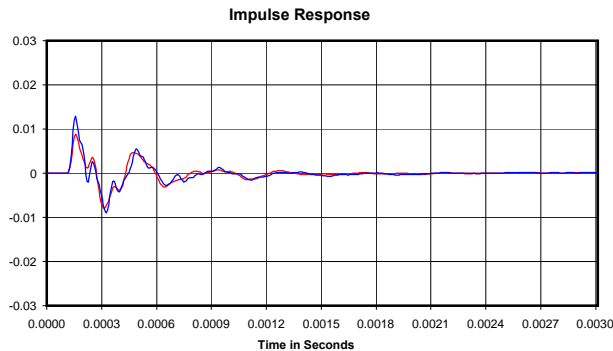
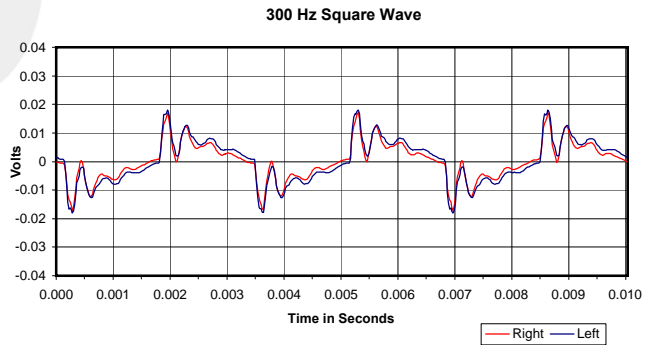
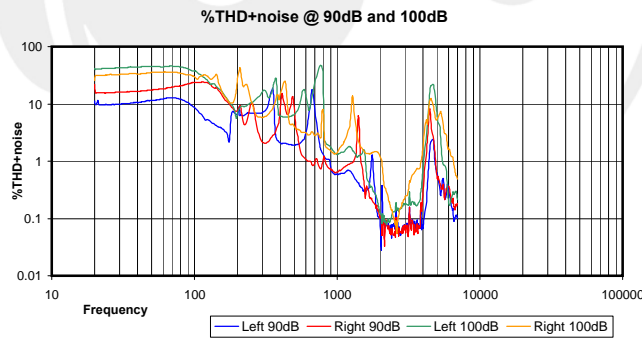
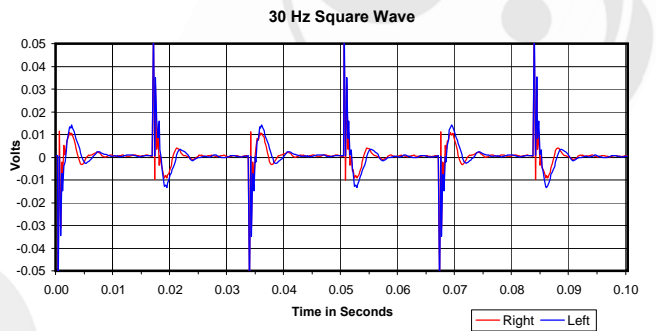
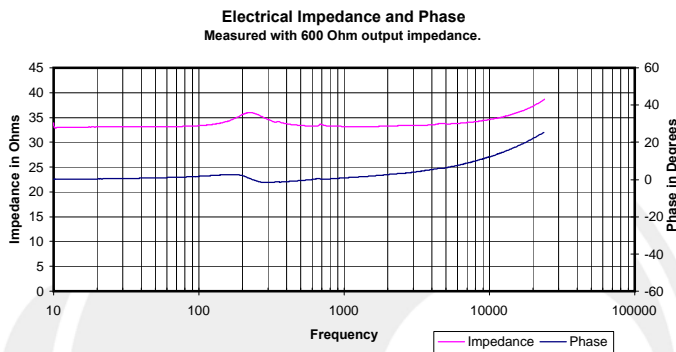
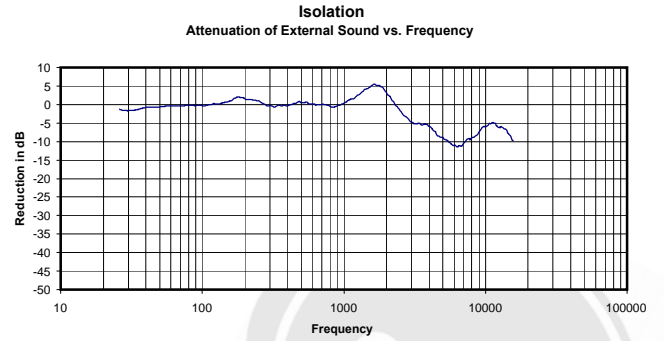
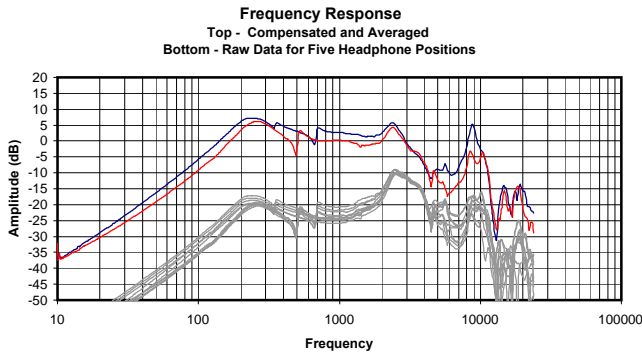




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.085 Vrms
60 Ohms
0.12 mW
-2 dBr



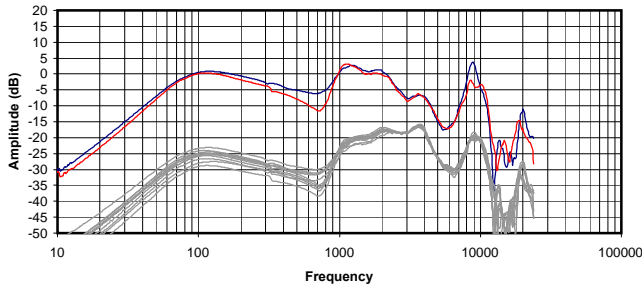


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

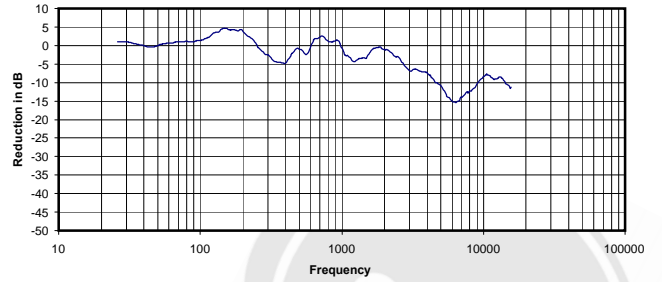
0.162 Vrms
33 Ohms
0.79 mW
-1 dBr



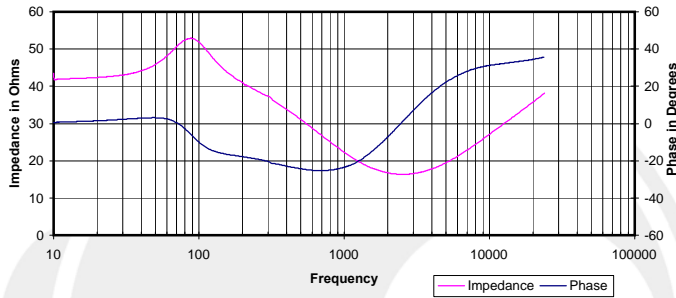
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



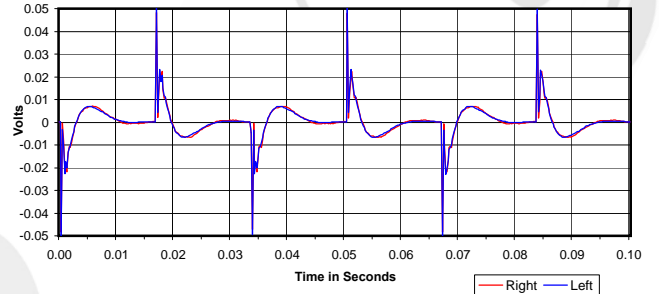
Isolation
Attenuation of External Sound vs. Frequency



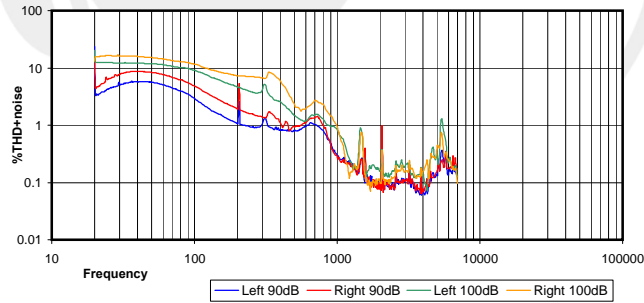
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



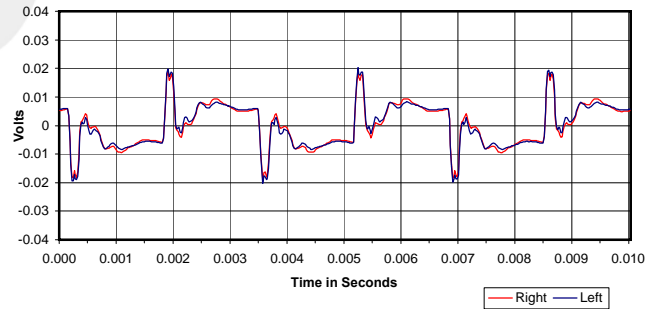
30 Hz Square Wave



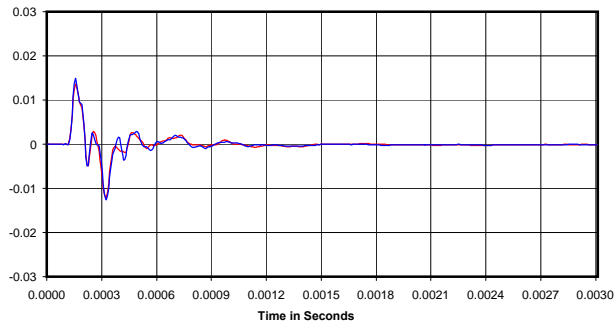
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

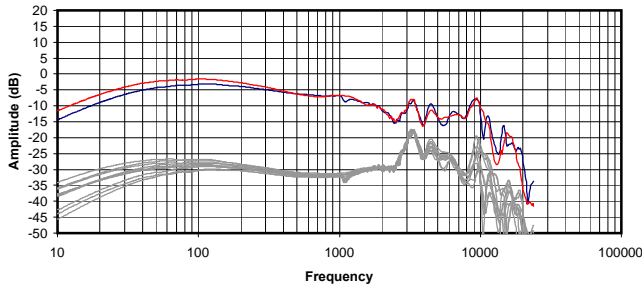


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

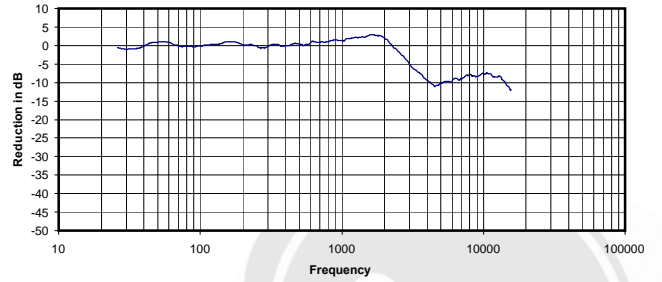
0.078 Vrms
22 Ohms
0.27 mW
-2 dB



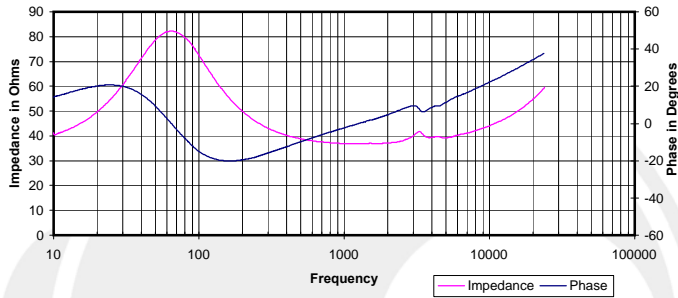
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



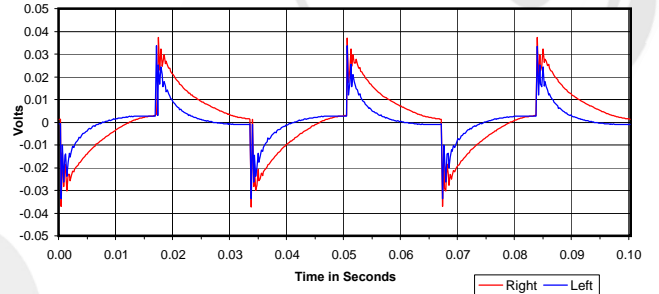
Isolation
 Attenuation of External Sound vs. Frequency



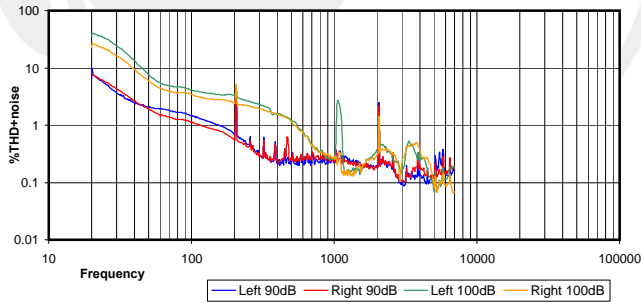
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



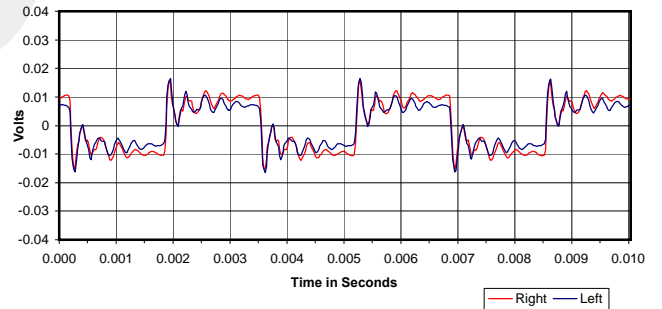
30 Hz Square Wave



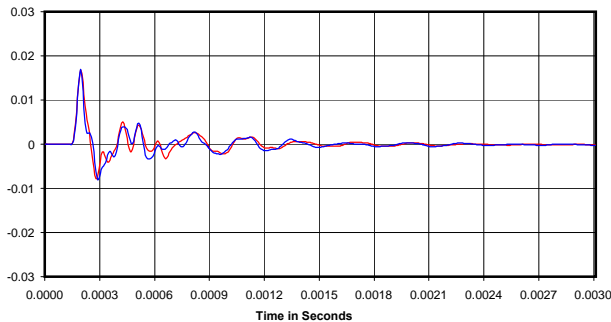
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

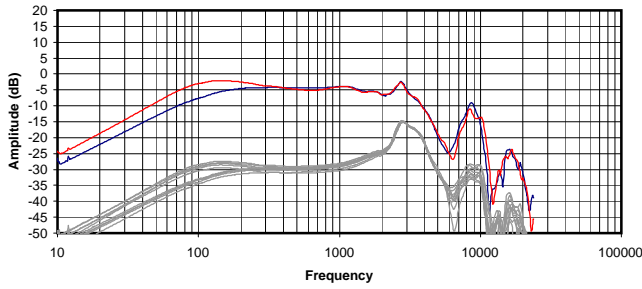


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

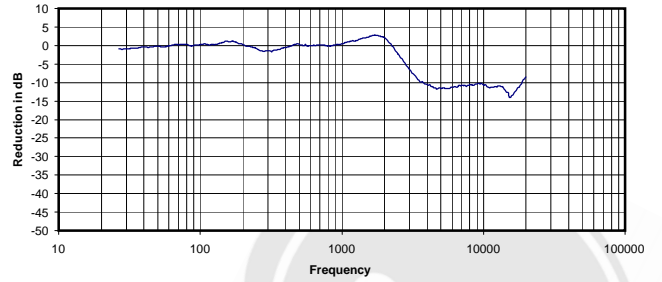
0.119 Vrms
 37 Ohms
 0.38 mW
 -1 dB



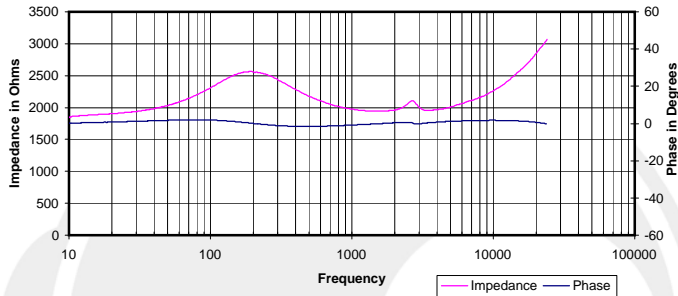
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



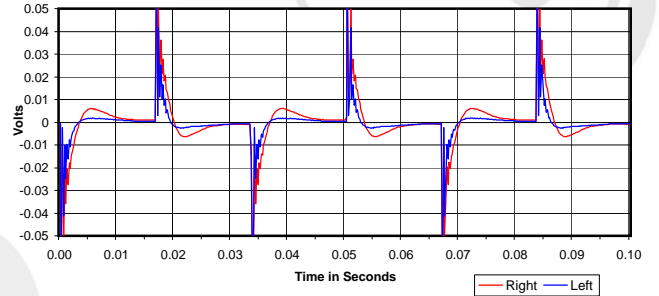
Isolation
 Attenuation of External Sound vs. Frequency



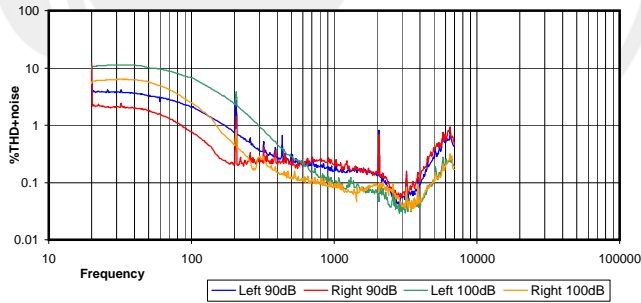
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



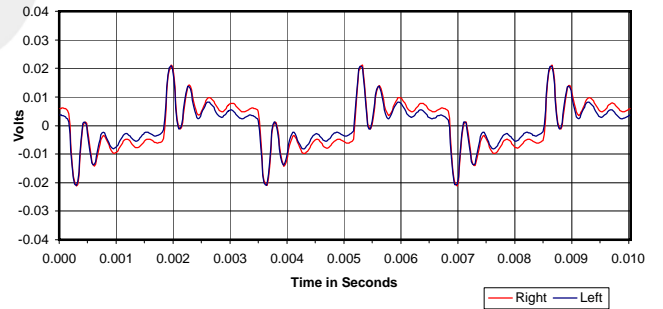
30 Hz Square Wave



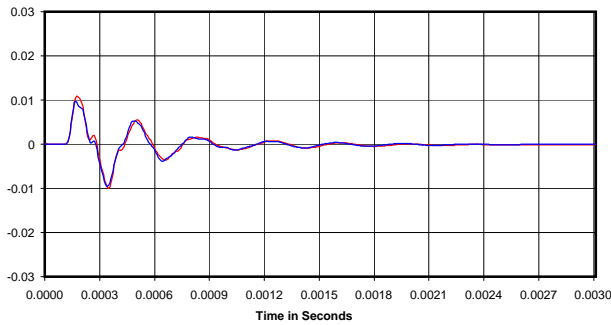
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

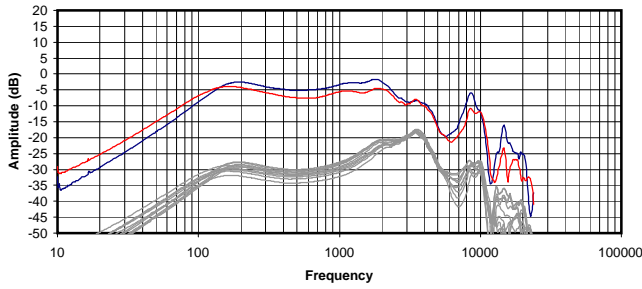


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

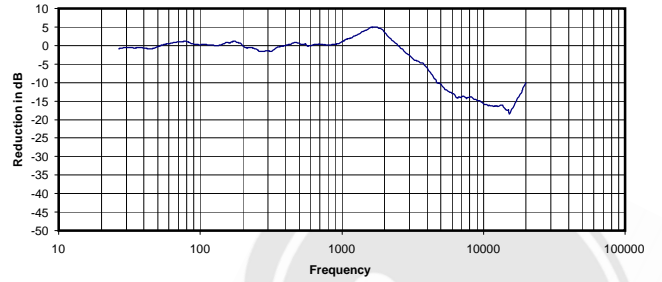
0.323 Vrms
 1974 Ohms
 0.05 mW
 -3 dBr



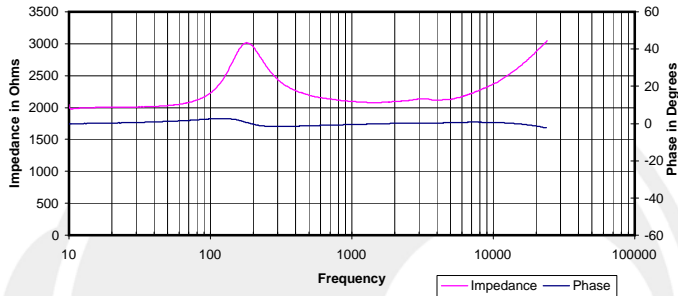
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



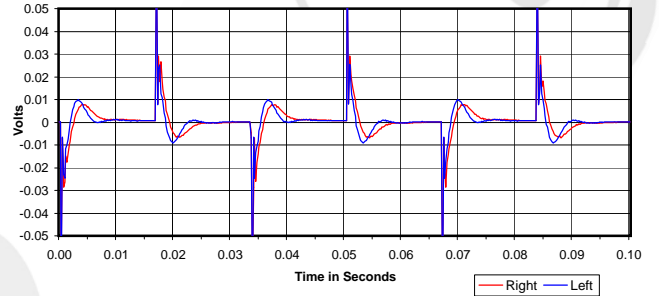
Isolation
Attenuation of External Sound vs. Frequency



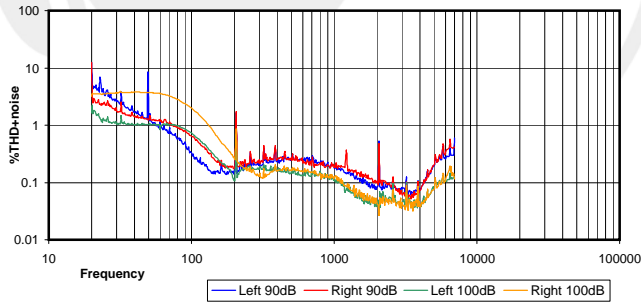
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



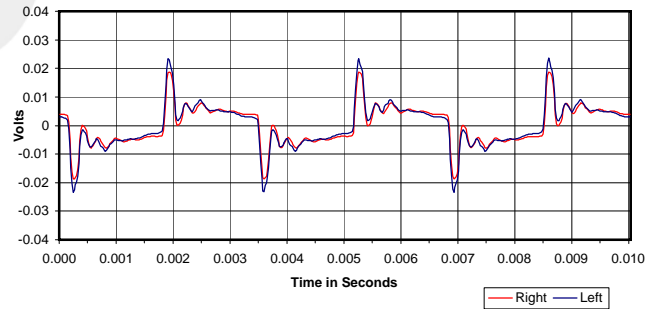
30 Hz Square Wave



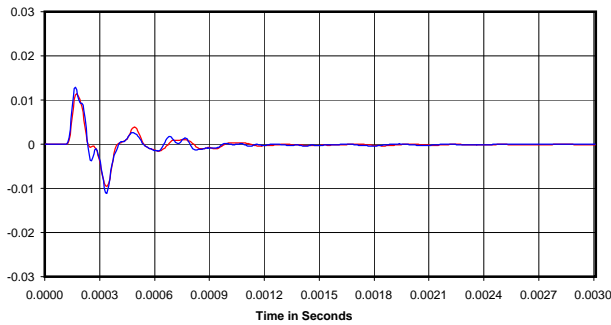
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

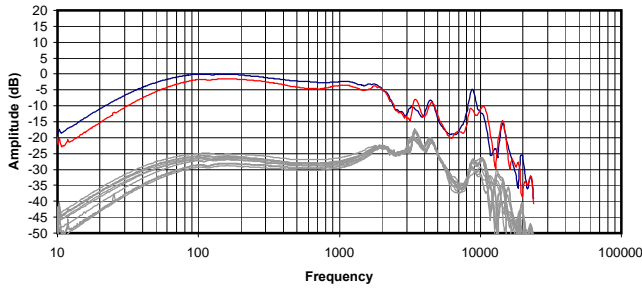


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

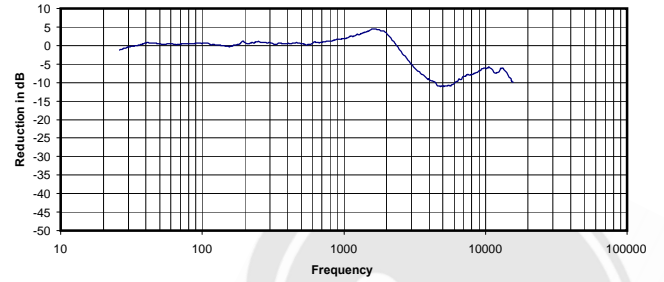
0.405 Vrms
2096 Ohms
0.08 mW
-2 dB



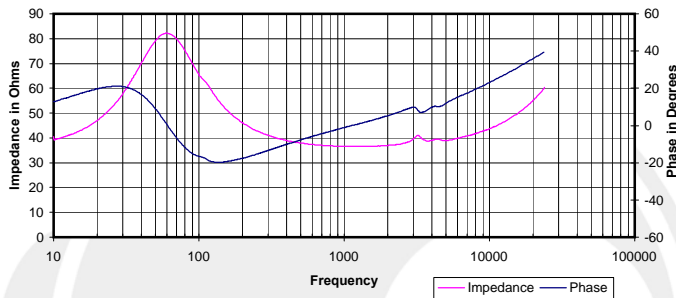
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



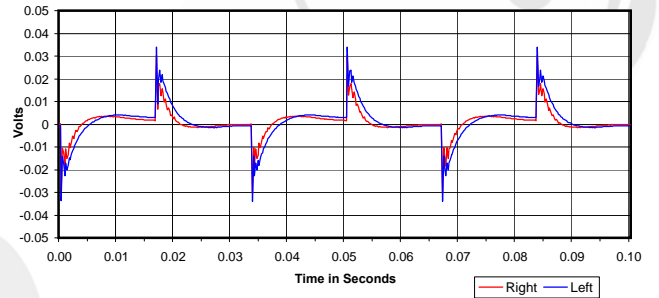
Isolation
 Attenuation of External Sound vs. Frequency



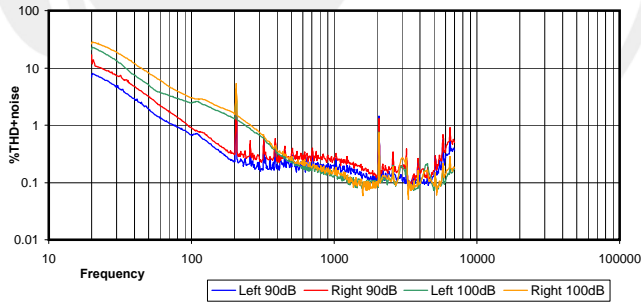
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



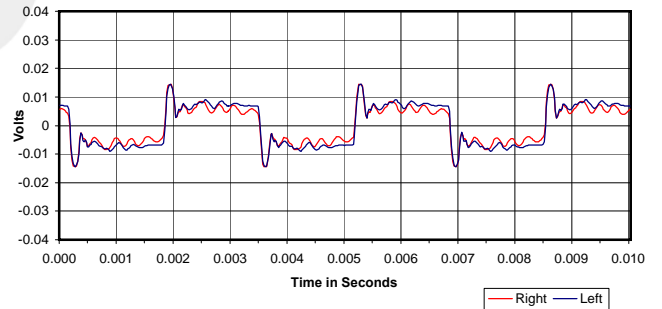
30 Hz Square Wave



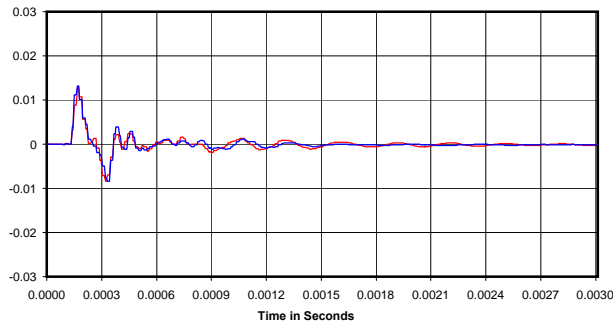
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

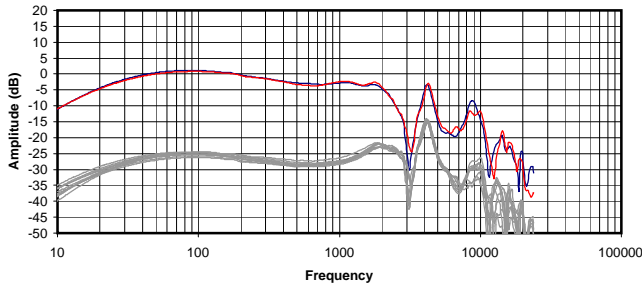


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

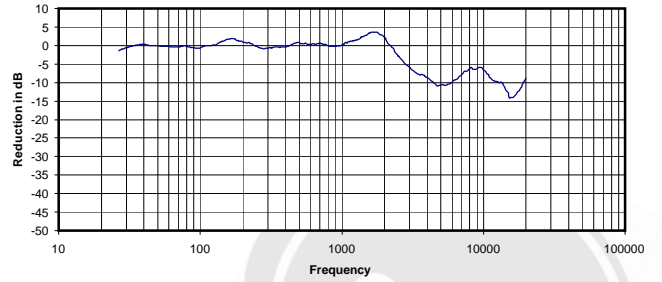
0.054 Vrms
 37 Ohms
 0.08 mW
 -1 dBr



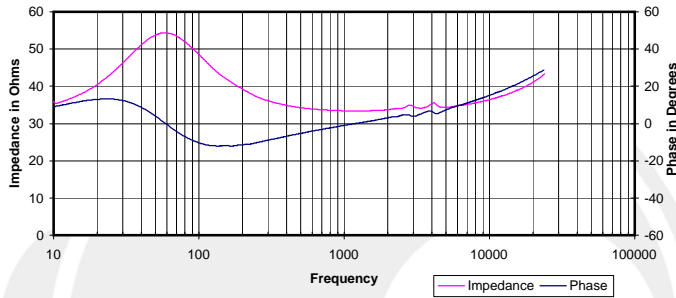
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



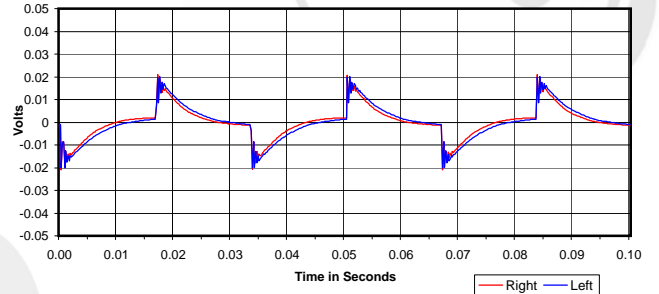
Isolation
 Attenuation of External Sound vs. Frequency



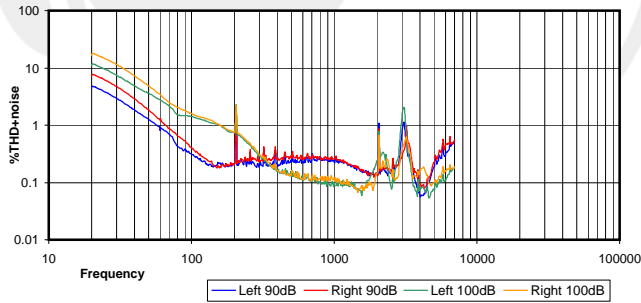
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



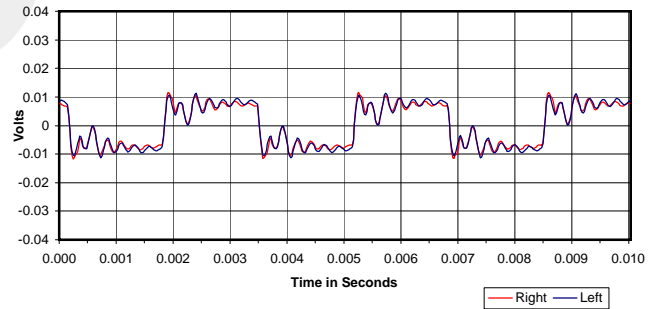
30 Hz Square Wave



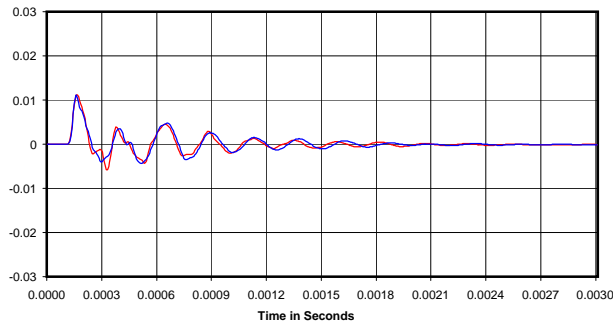
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



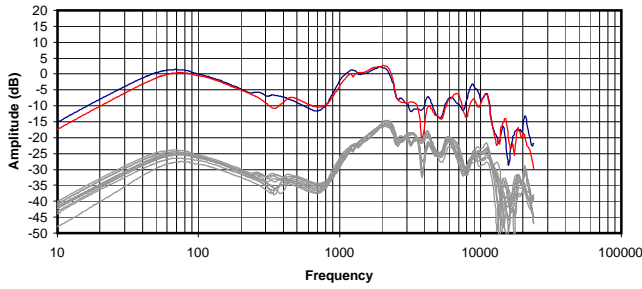
Impulse Response



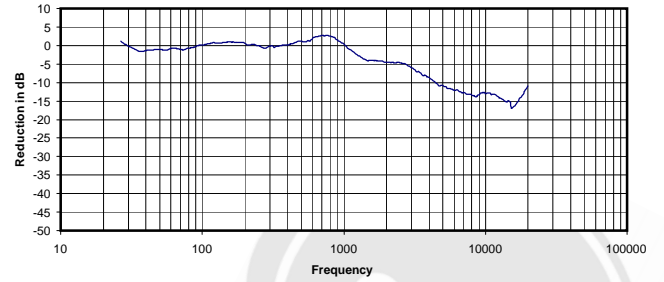
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
 33 Ohms
 0.07 mW
 -2 dB

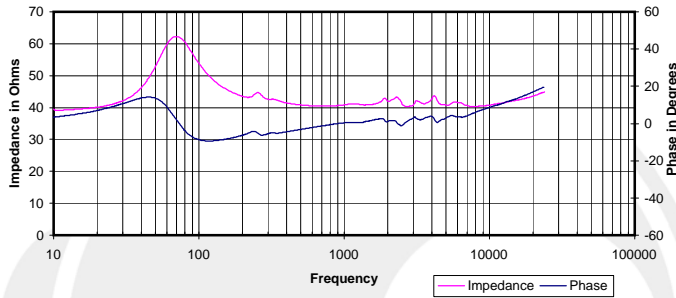
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



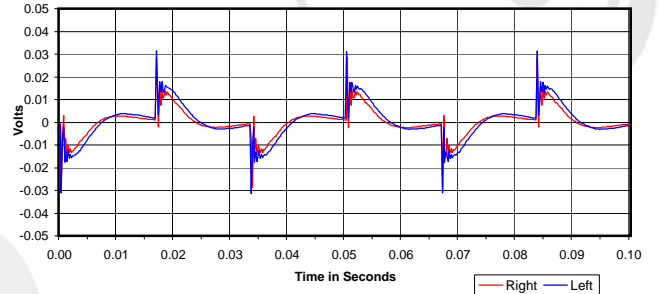
Isolation
Attenuation of External Sound vs. Frequency



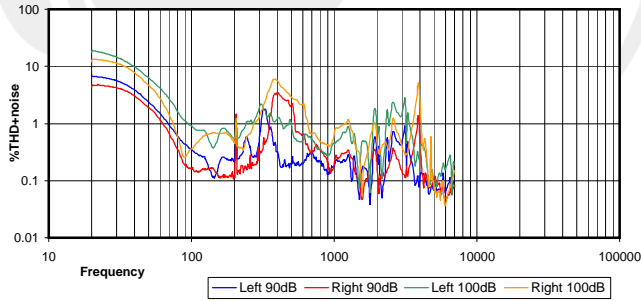
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



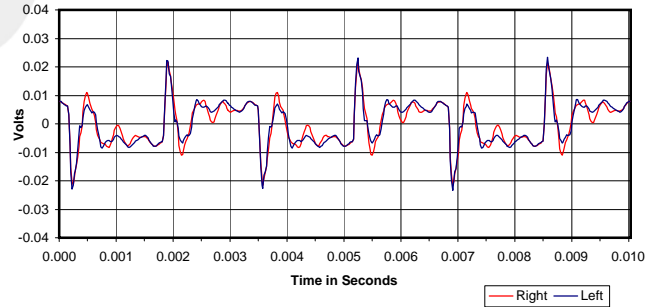
30 Hz Square Wave



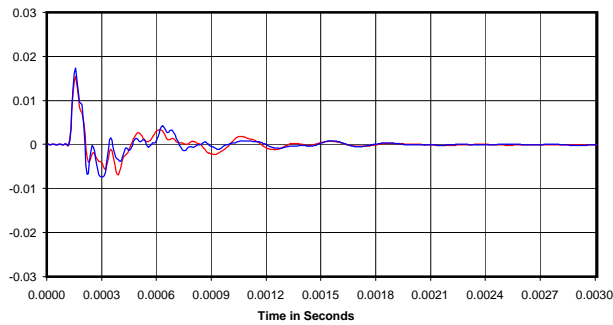
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



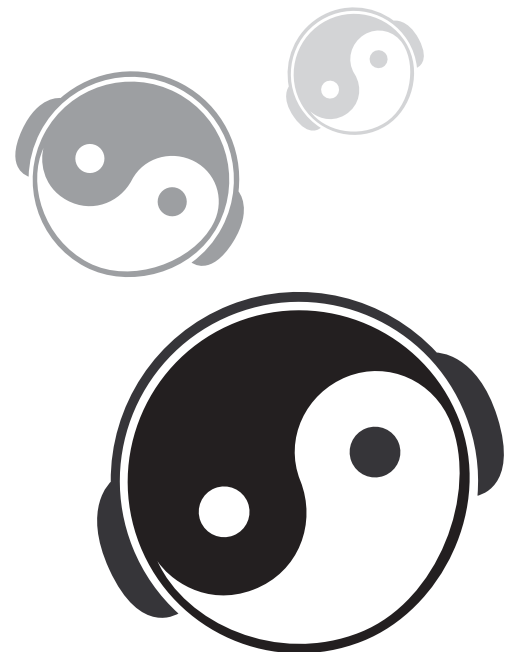
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.094 Vrms
41 Ohms
0.22 mW
-3 dB

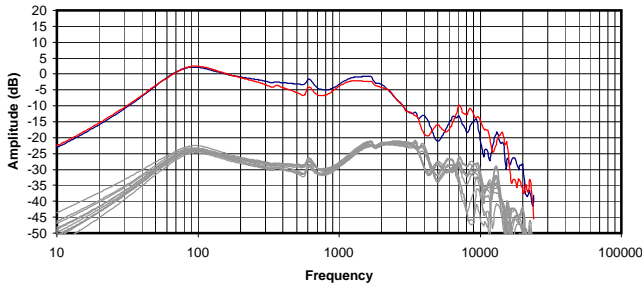


Headphone Measurement Datasheets

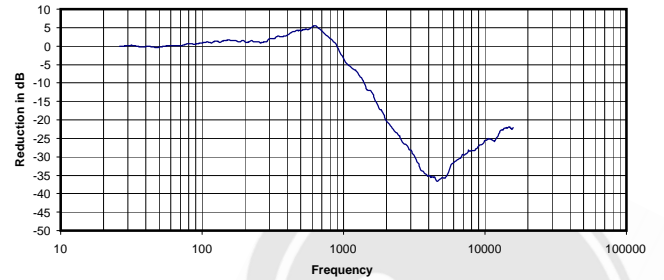
Earpad Sealed



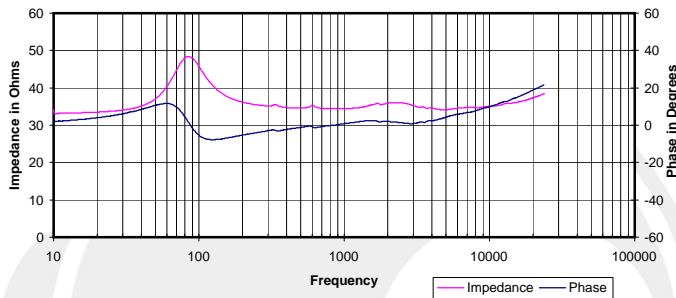
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



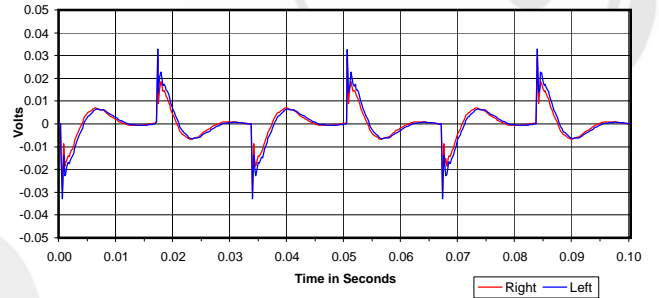
Isolation
 Attenuation of External Sound vs. Frequency



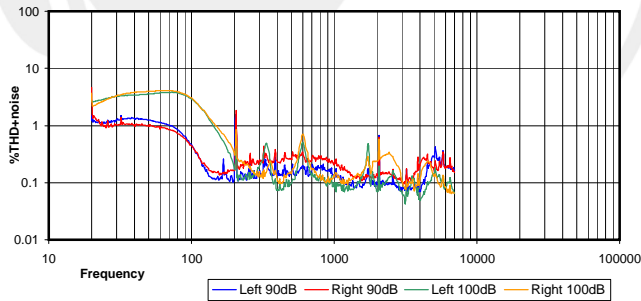
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



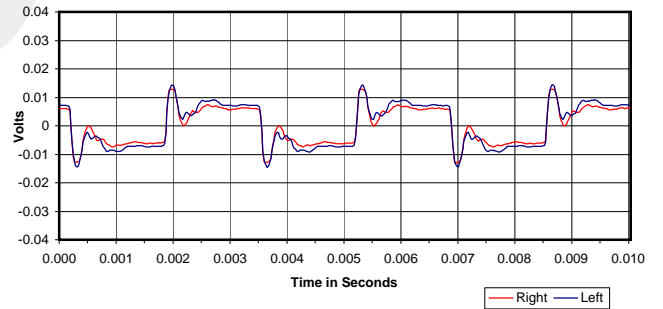
30 Hz Square Wave



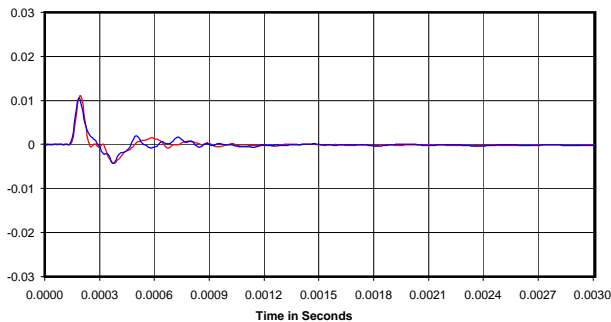
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

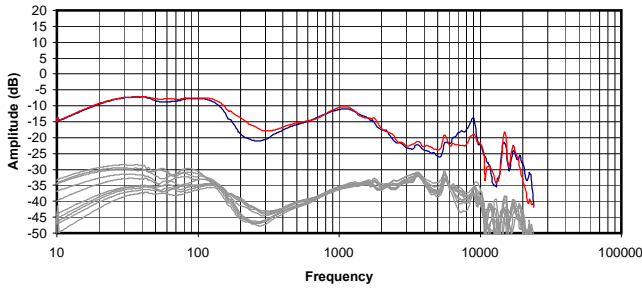


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

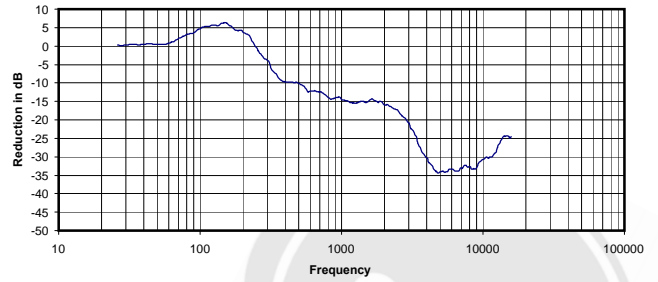
0.047 Vrms
 34 Ohms
 0.06 mW
 -9 dB



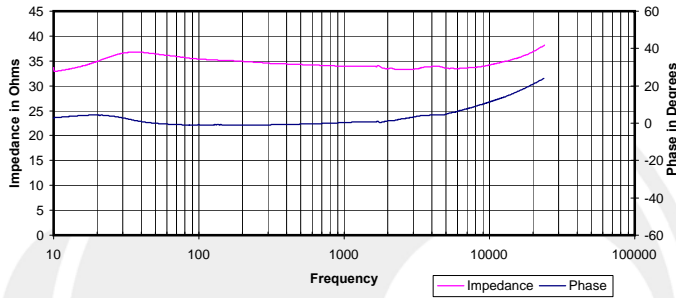
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



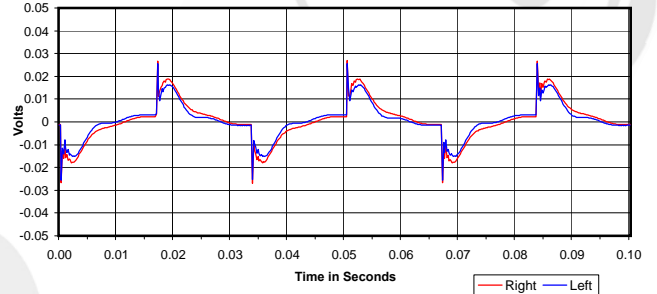
Isolation
Attenuation of External Sound vs. Frequency



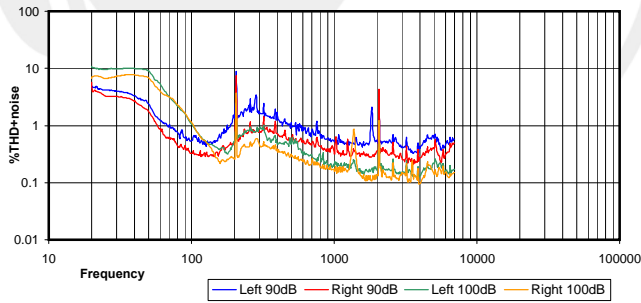
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



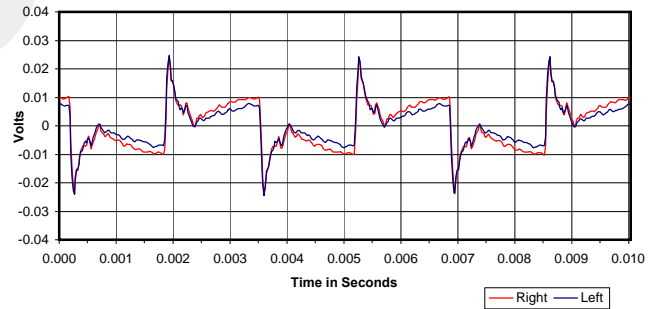
30 Hz Square Wave



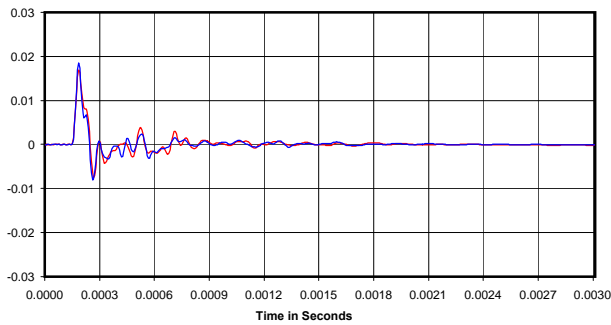
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

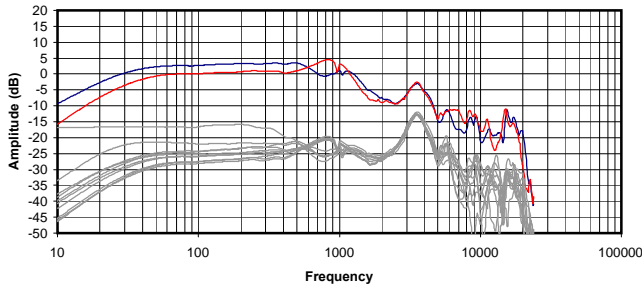


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

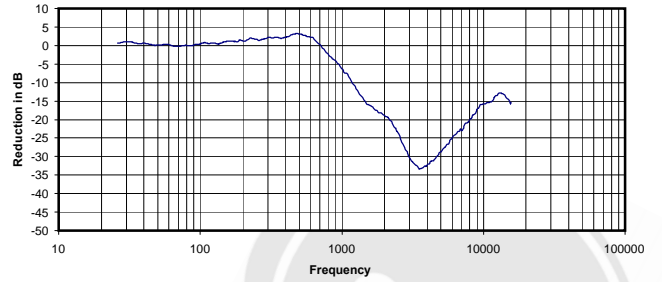
0.006 Vrms
34 Ohms
0.00 mW
-12 dB



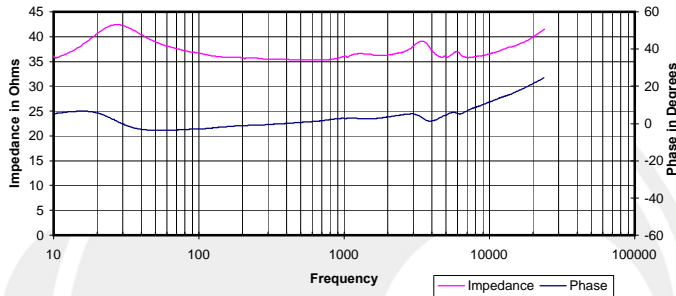
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



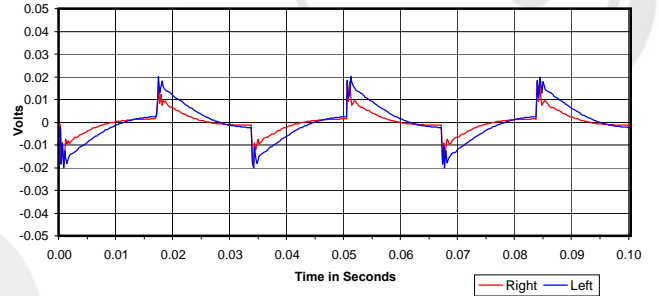
Isolation
 Attenuation of External Sound vs. Frequency



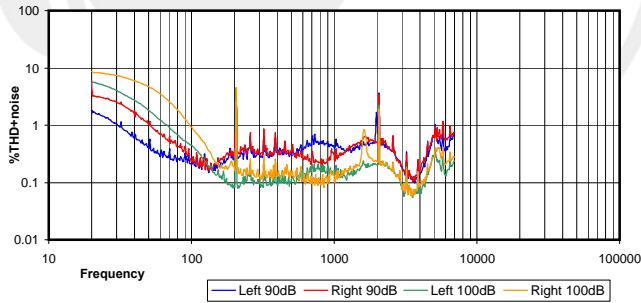
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



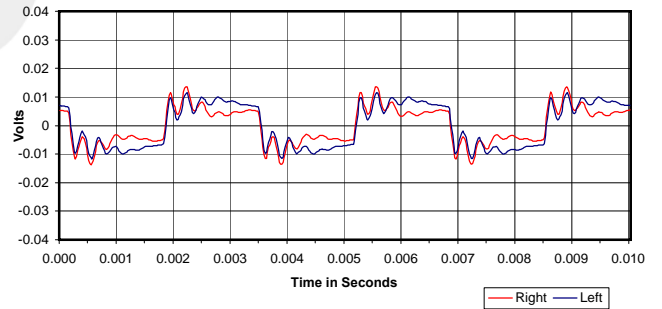
30 Hz Square Wave



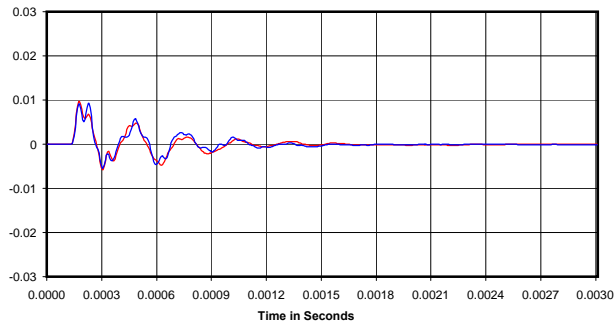
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

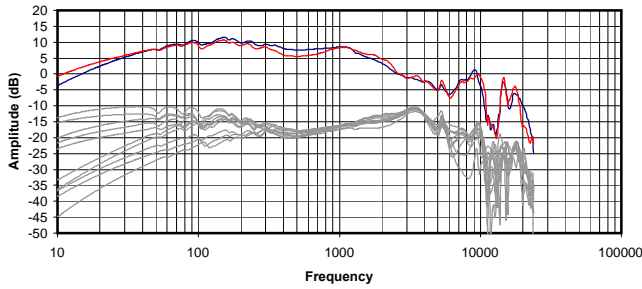


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

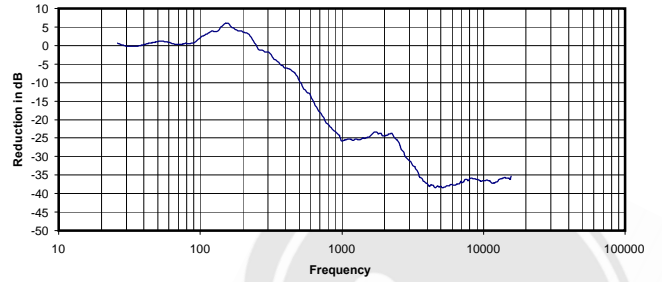
0.024 Vrms
 36 Ohms
 0.02 mW
 -9 dBr



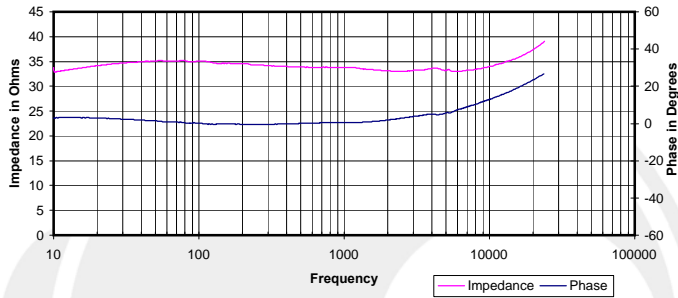
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



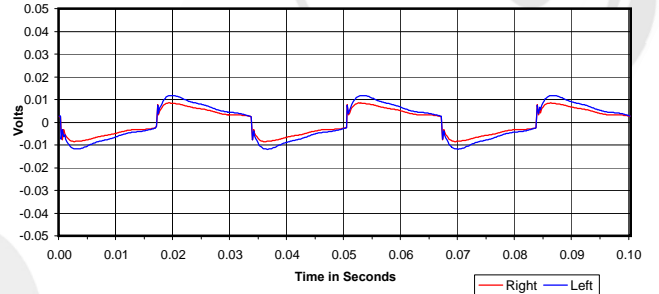
Isolation
 Attenuation of External Sound vs. Frequency



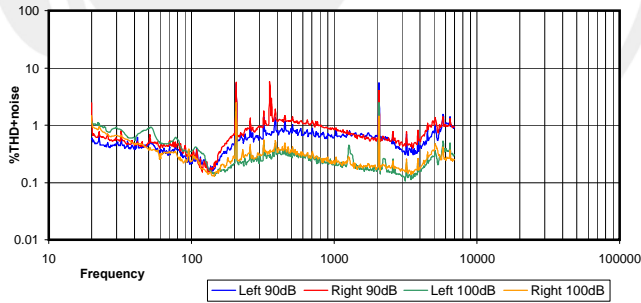
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



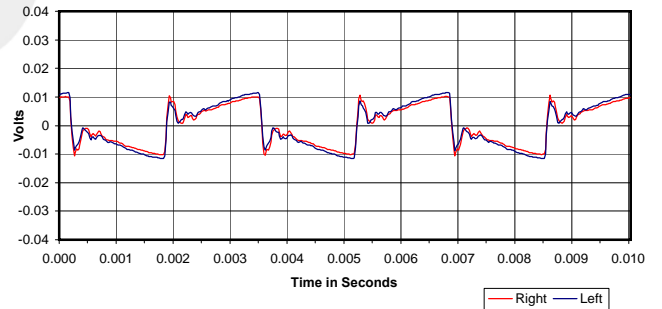
30 Hz Square Wave



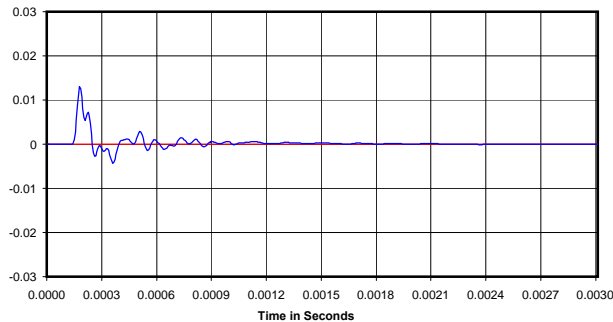
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



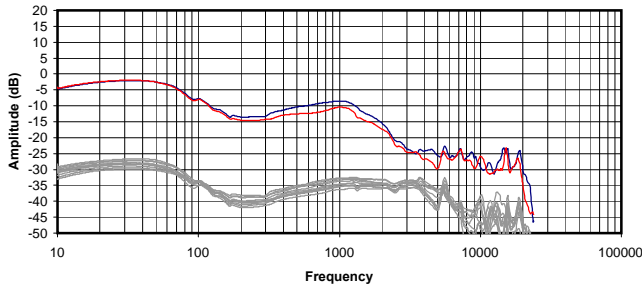
Impulse Response



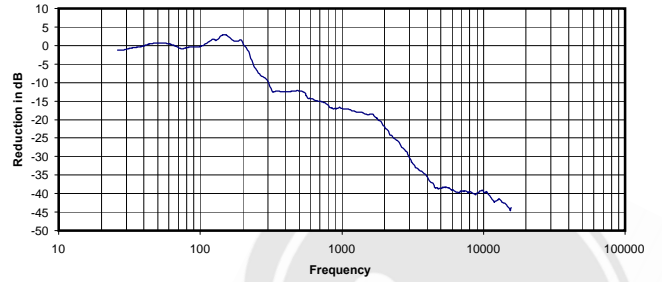
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.056 Vrms
 34 Ohms
 0.09 mW
 -16 dB

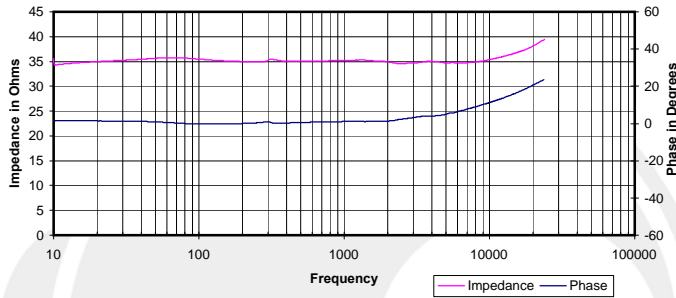
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



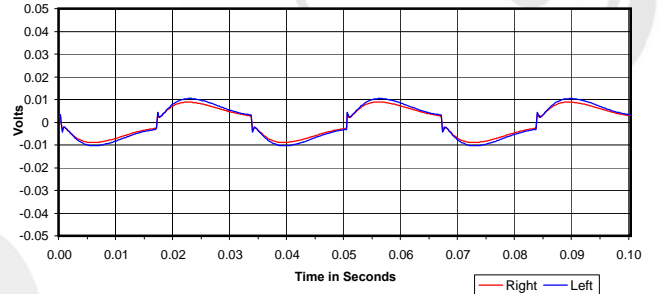
Isolation
 Attenuation of External Sound vs. Frequency



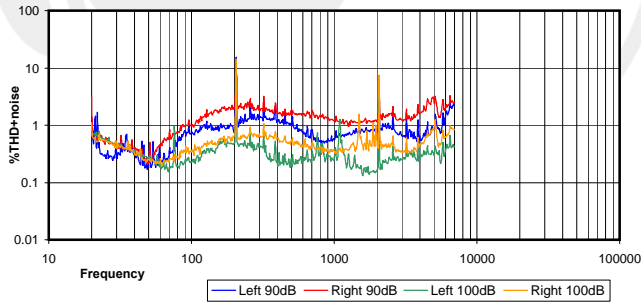
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



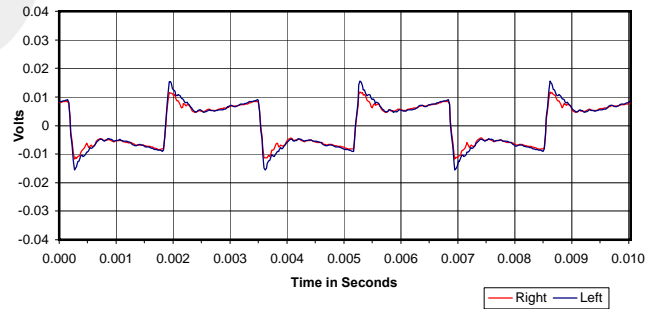
30 Hz Square Wave



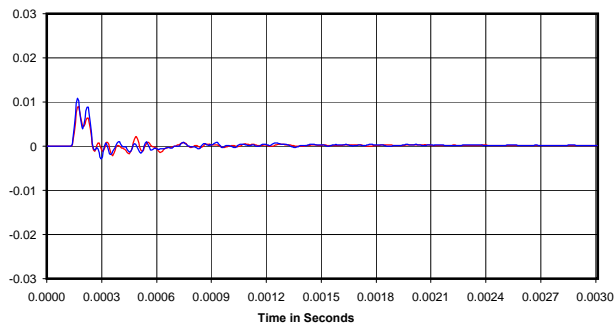
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

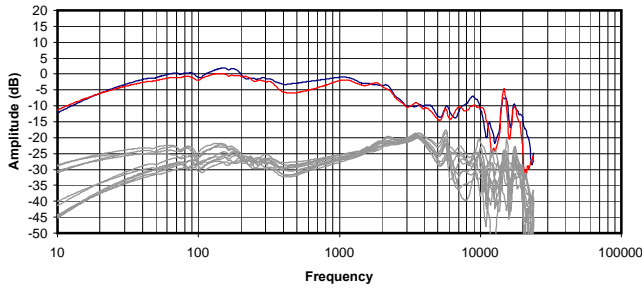


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

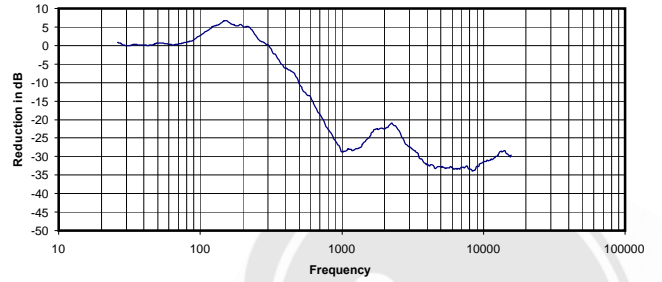
0.037 Vrms
 35 Ohms
 0.04 mW
 -16 dB



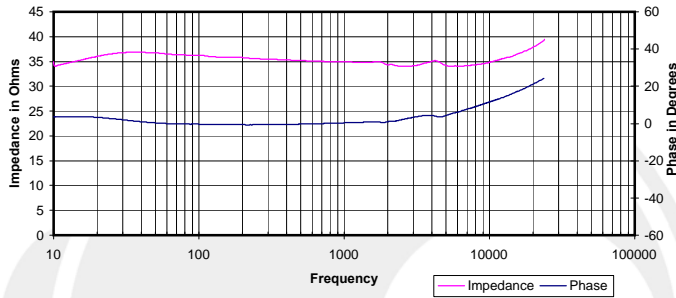
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



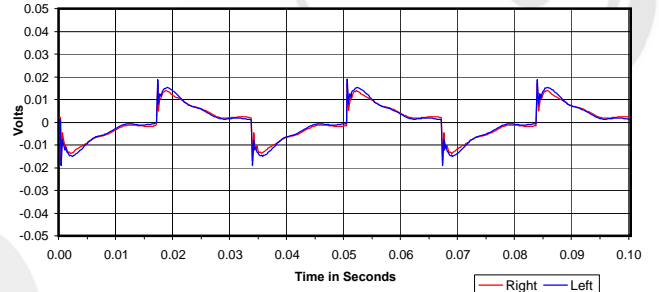
Isolation
Attenuation of External Sound vs. Frequency



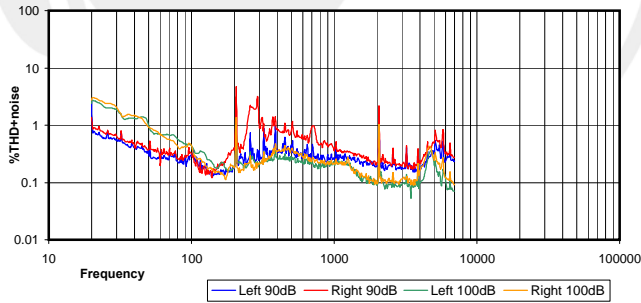
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



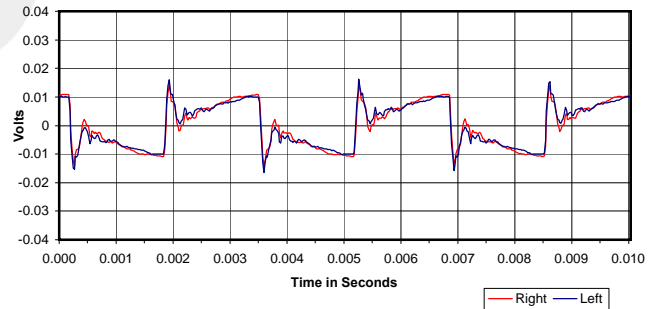
30 Hz Square Wave



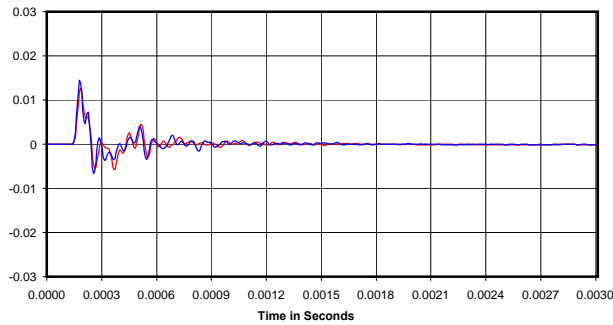
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

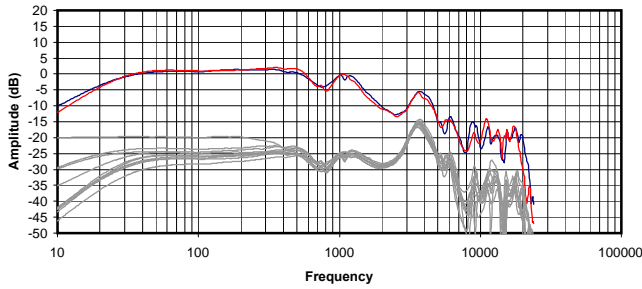


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

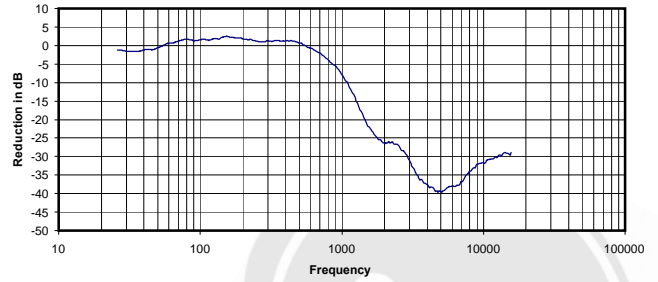
0.060 Vrms
35 Ohms
0.10 mW
-15 dB



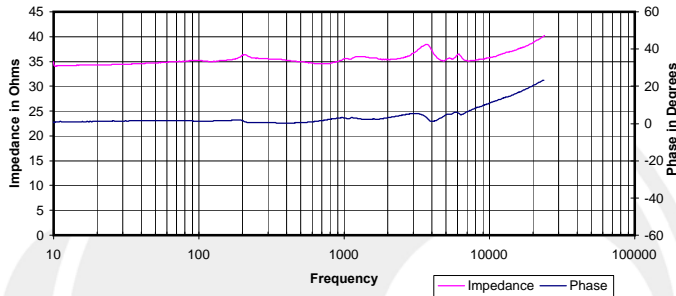
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



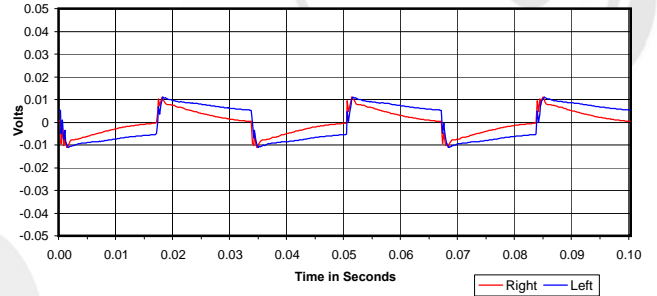
Isolation
 Attenuation of External Sound vs. Frequency



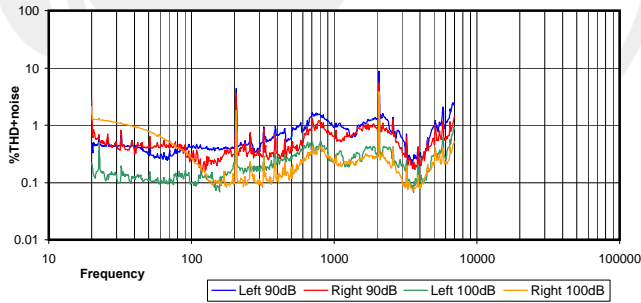
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



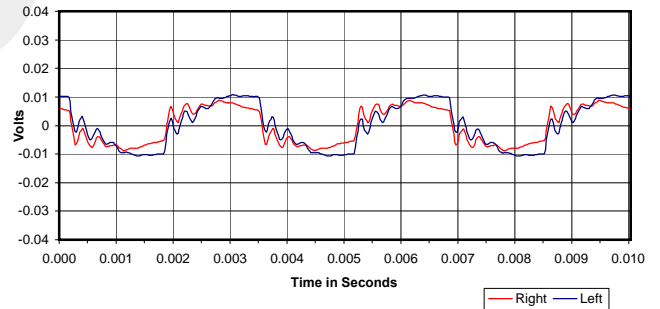
30 Hz Square Wave



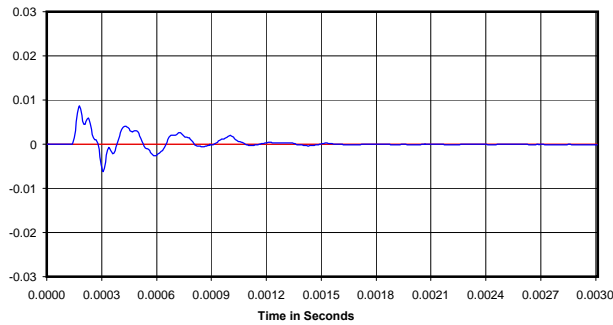
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

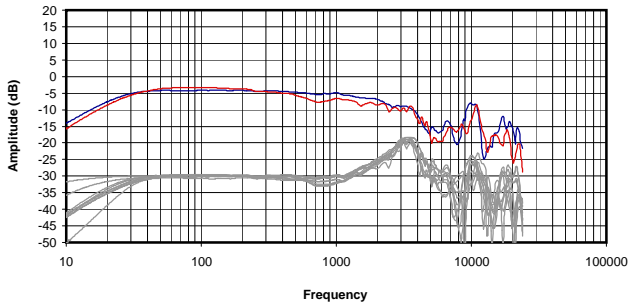


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

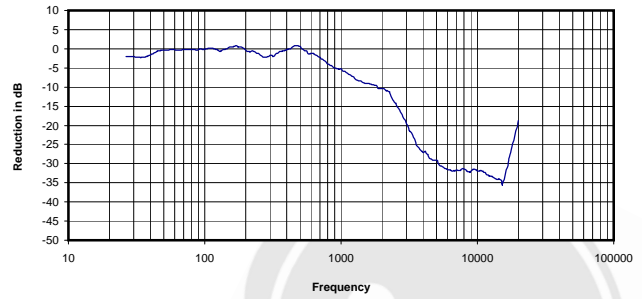
0.023 Vrms
 35 Ohms
 0.01 mW
 -12 dB



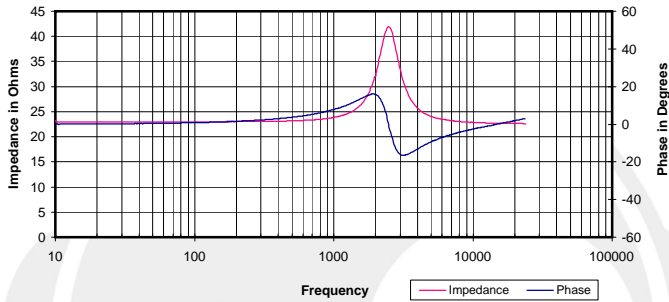
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



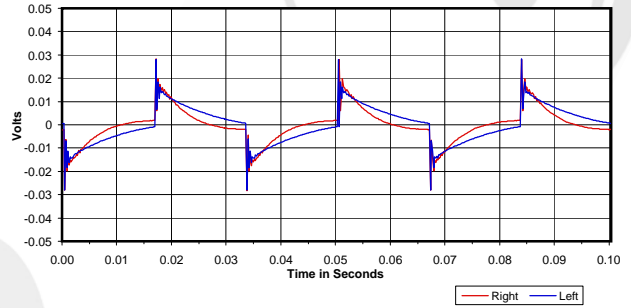
Isolation
Attenuation of External Sound vs. Frequency



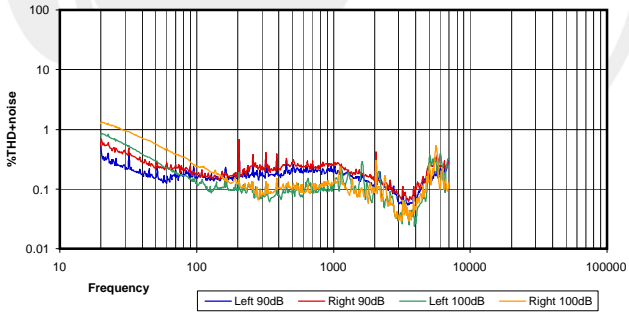
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



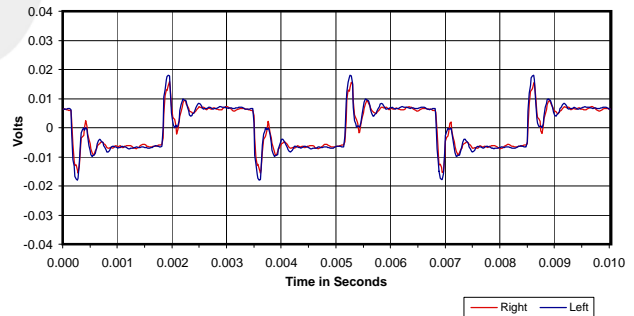
30 Hz Square Wave



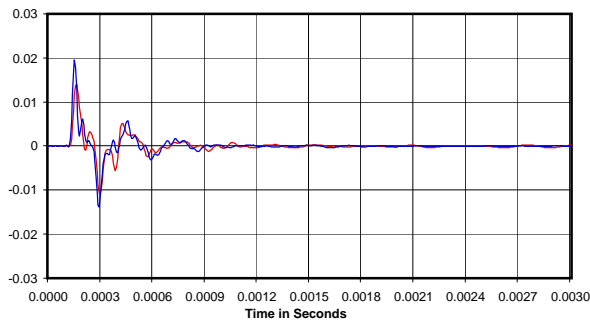
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

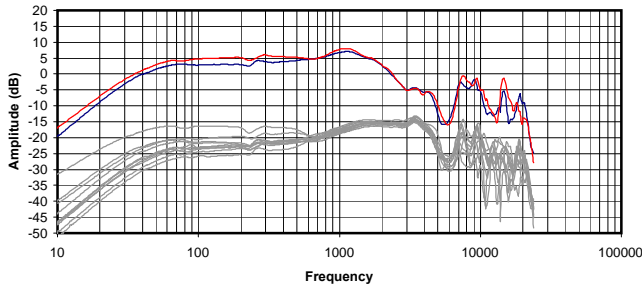


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

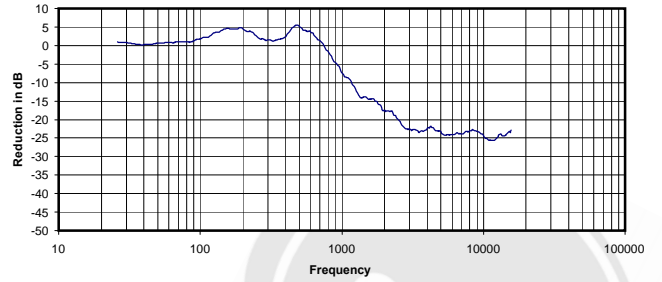
0.096 Vrms
24 Ohms
0.38 mW
-11 dBr



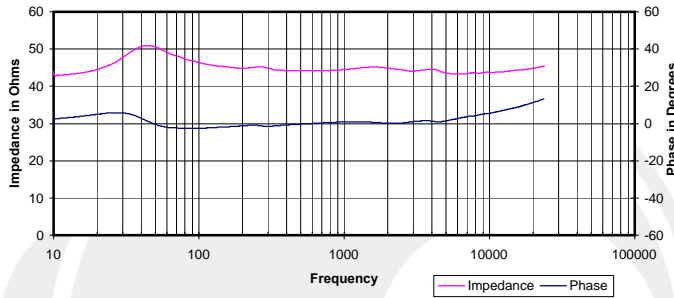
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



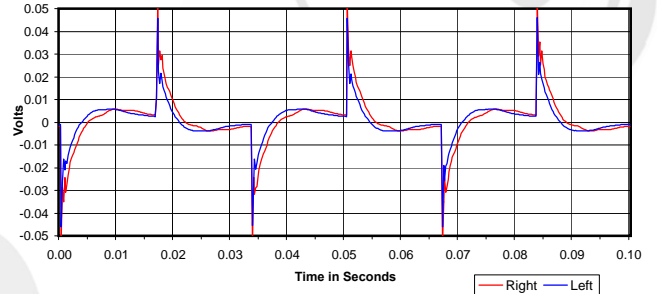
Isolation
Attenuation of External Sound vs. Frequency



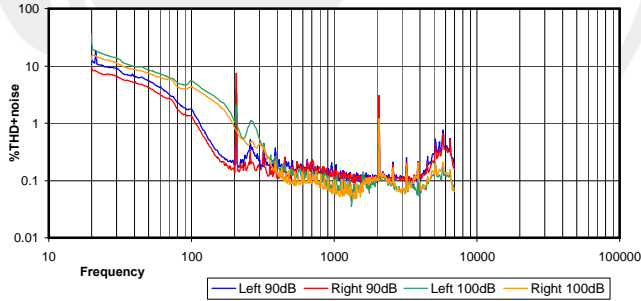
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



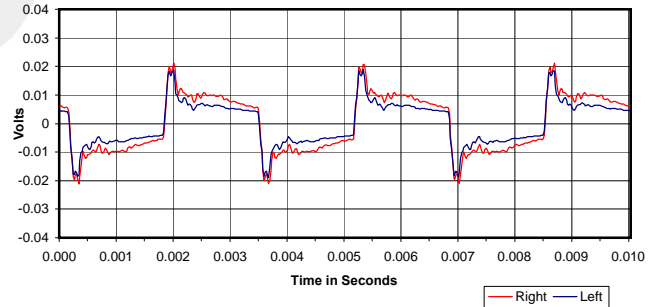
30 Hz Square Wave



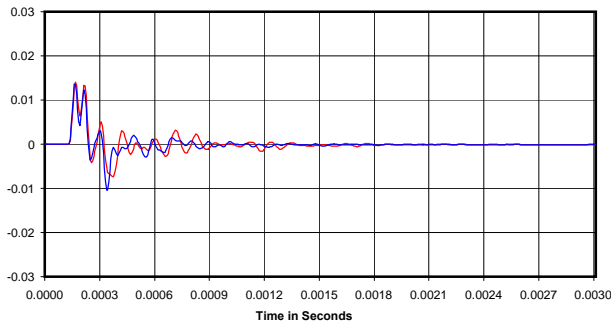
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

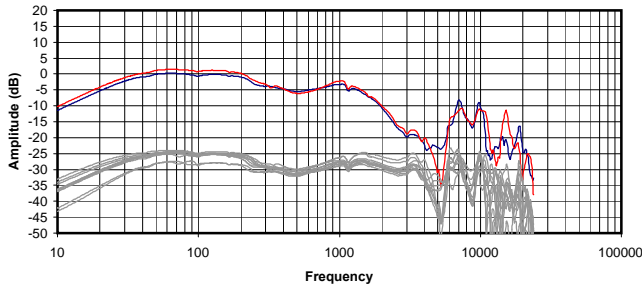


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

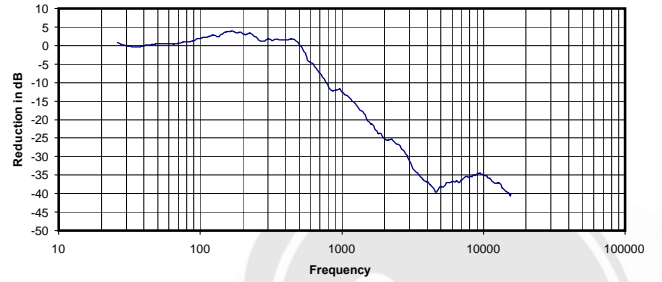
0.043 Vrms
44 Ohms
0.04 mW
-7 dB



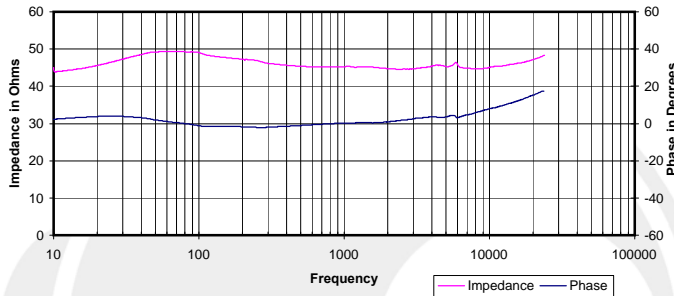
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



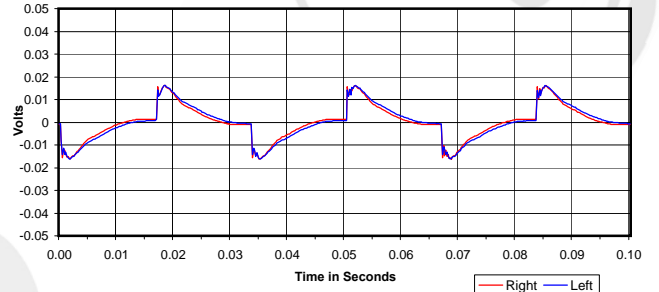
Isolation
 Attenuation of External Sound vs. Frequency



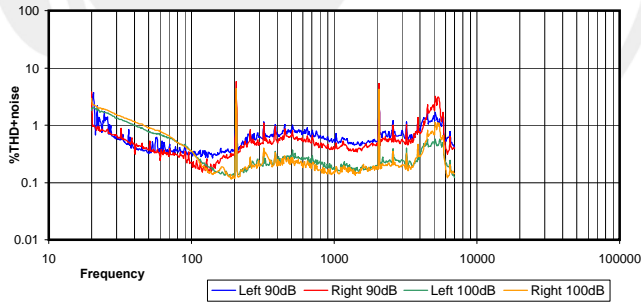
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



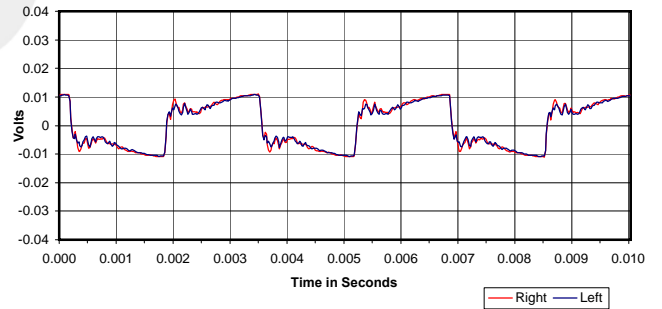
30 Hz Square Wave



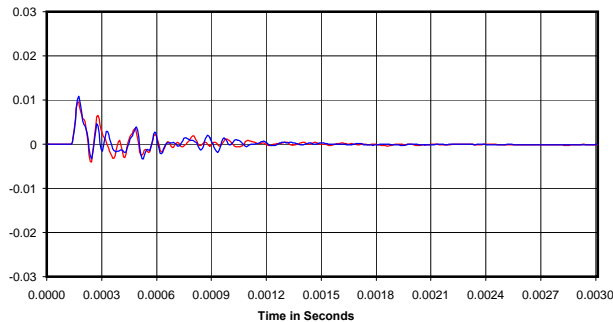
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

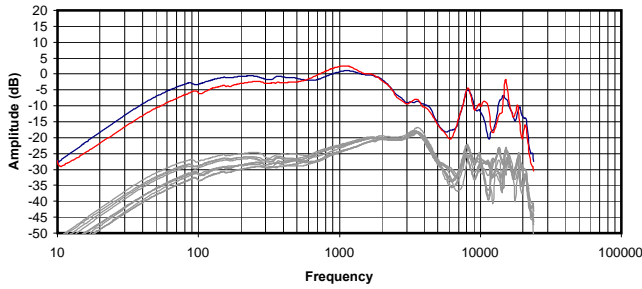


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

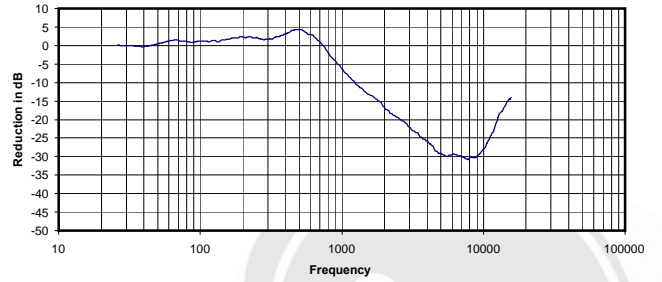
0.034 Vrms
 45 Ohms
 0.03 mW
 -12 dB



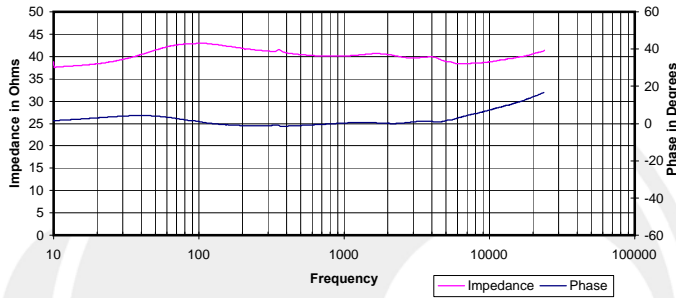
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



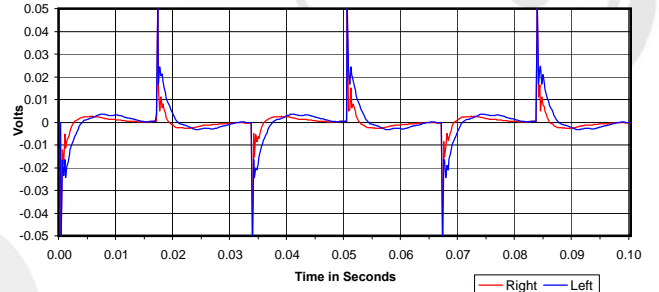
Isolation
 Attenuation of External Sound vs. Frequency



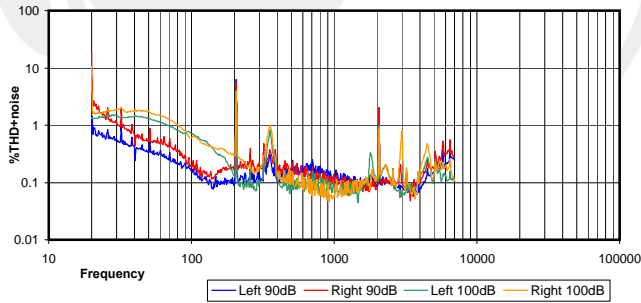
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



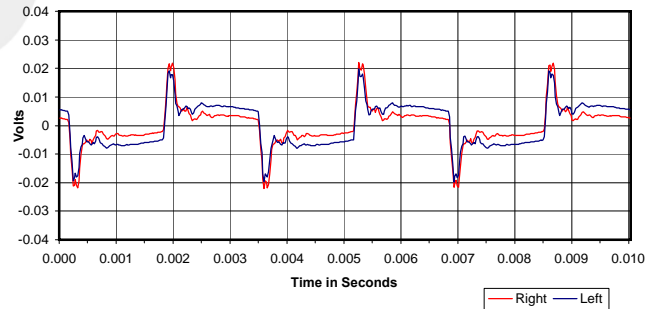
30 Hz Square Wave



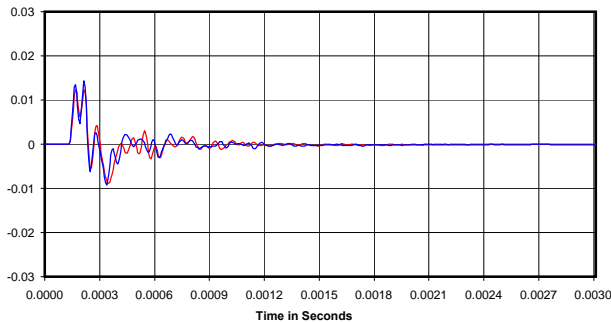
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

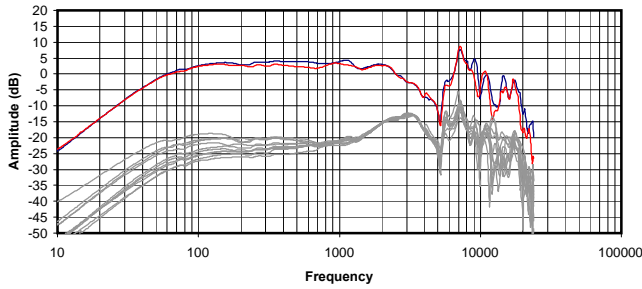


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

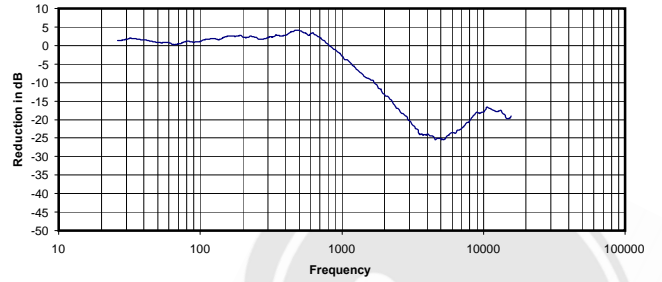
0.033 Vrms
 40 Ohms
 0.03 mW
 -8 dBr



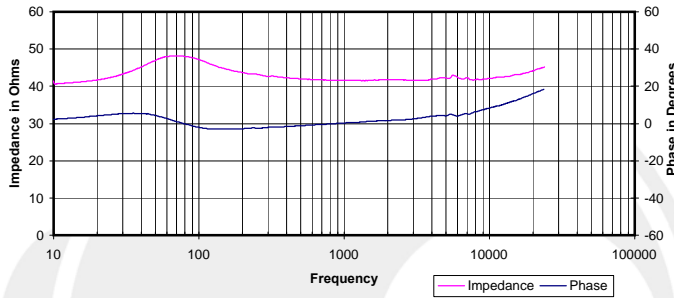
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



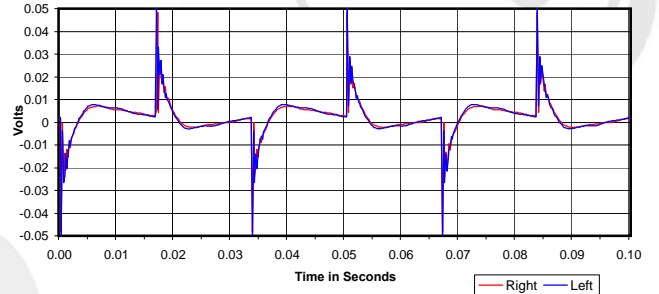
Isolation
 Attenuation of External Sound vs. Frequency



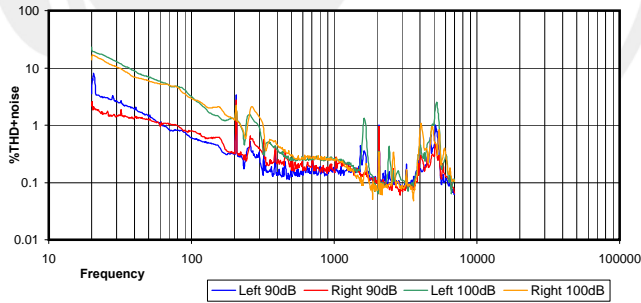
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



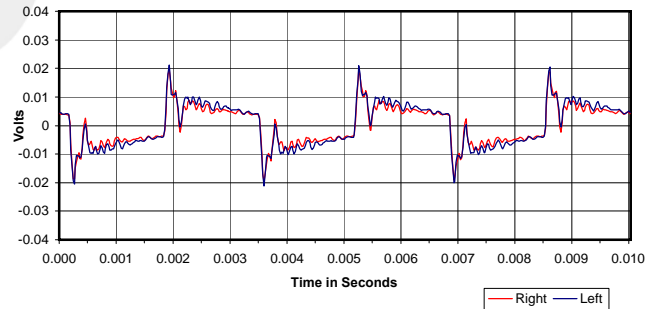
30 Hz Square Wave



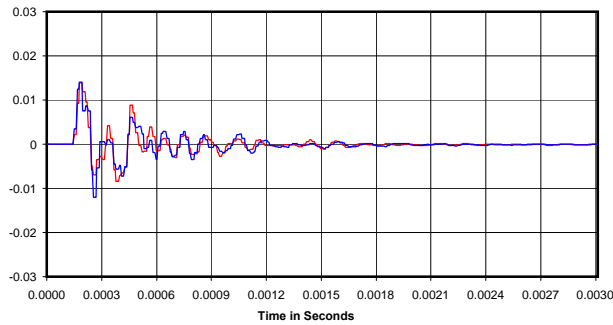
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

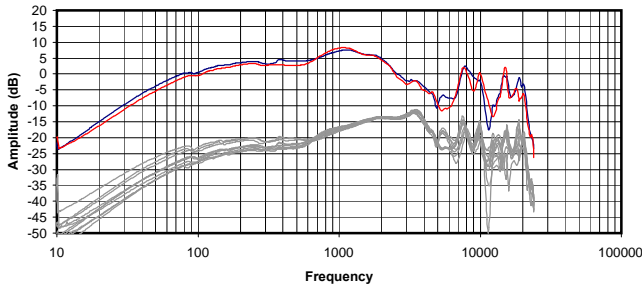


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

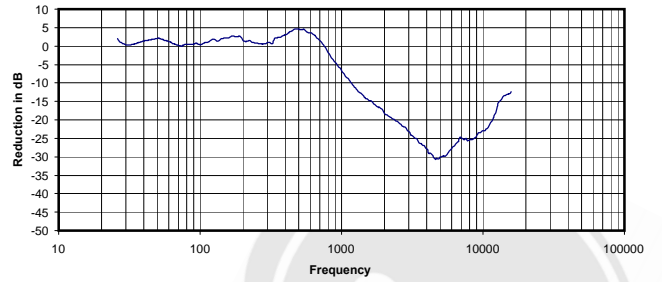
0.074 Vrms
 42 Ohms
 0.13 mW
 -6 dBr



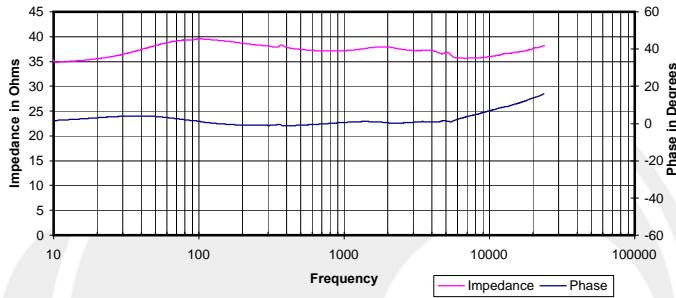
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



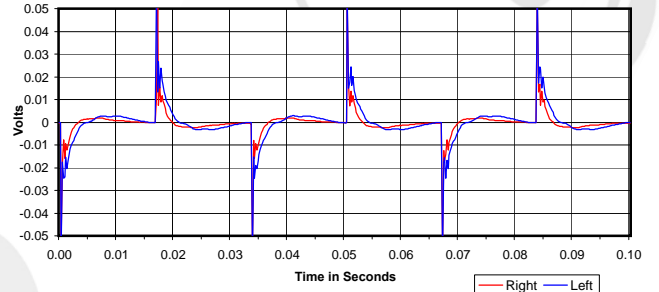
Isolation
 Attenuation of External Sound vs. Frequency



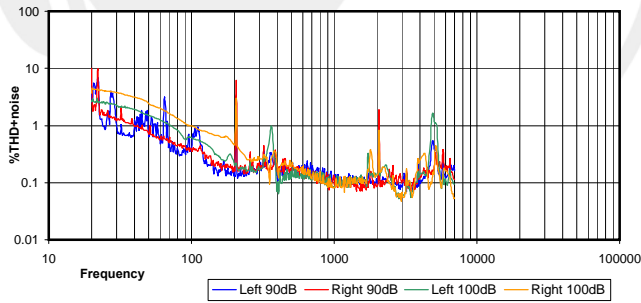
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



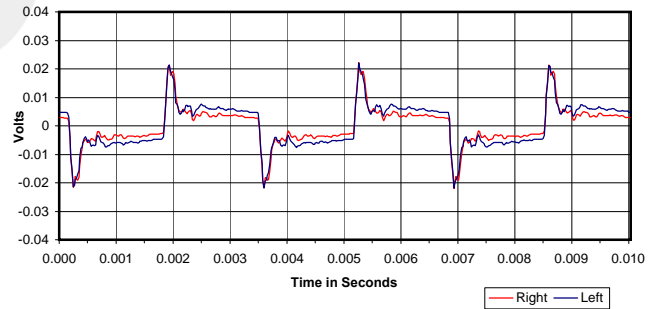
30 Hz Square Wave



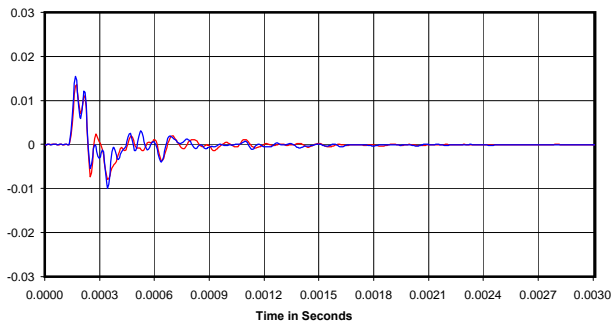
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

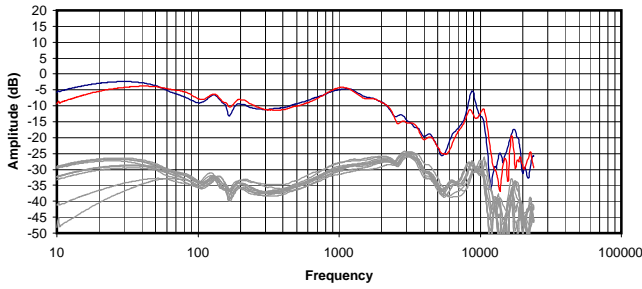


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

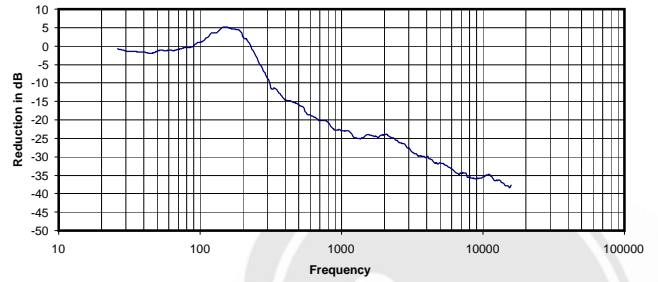
0.031 Vrms
 37 Ohms
 0.03 mW
 -8 dB



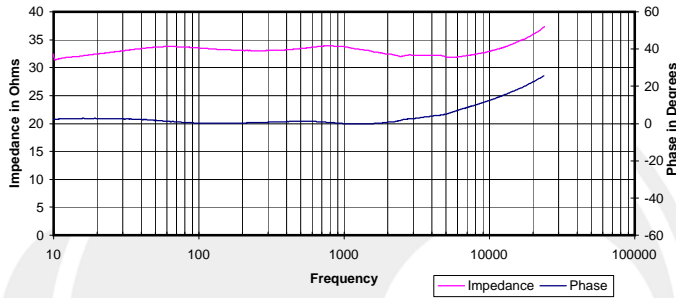
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



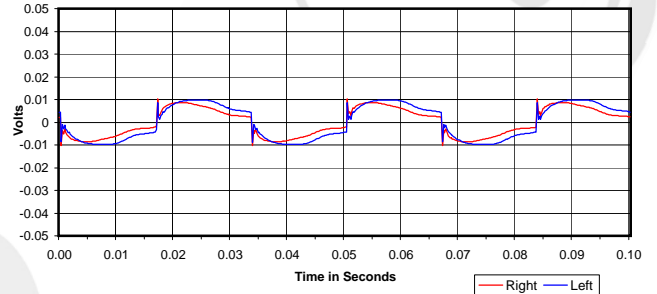
Isolation
 Attenuation of External Sound vs. Frequency



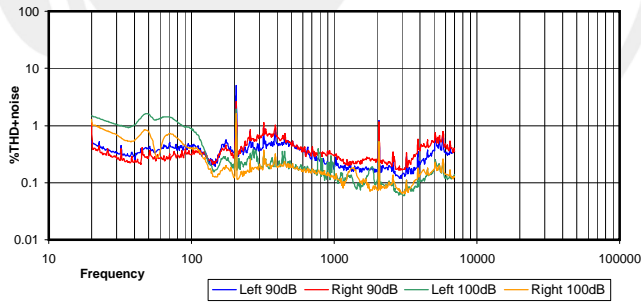
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



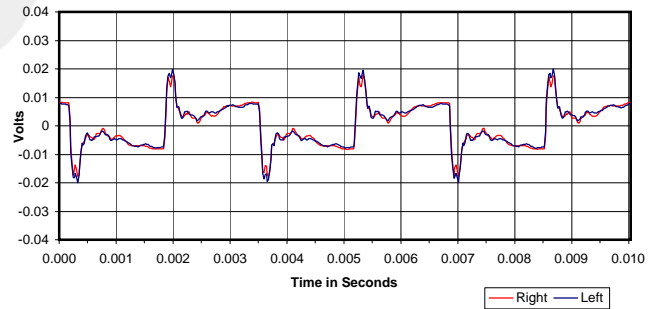
30 Hz Square Wave



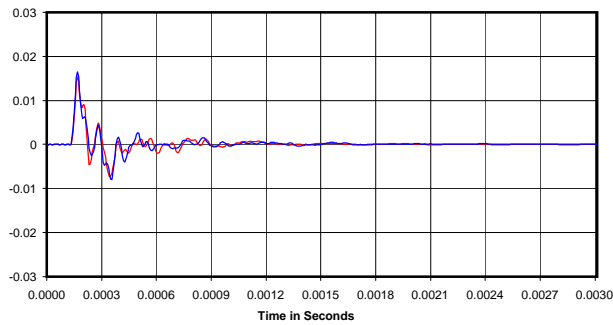
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

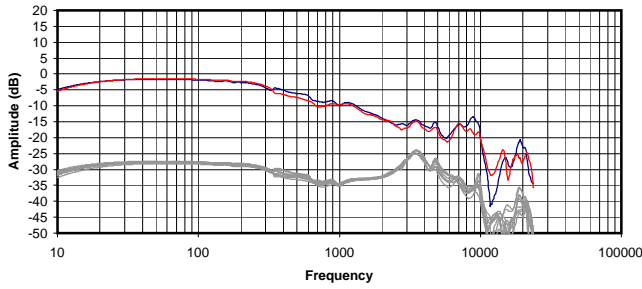


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

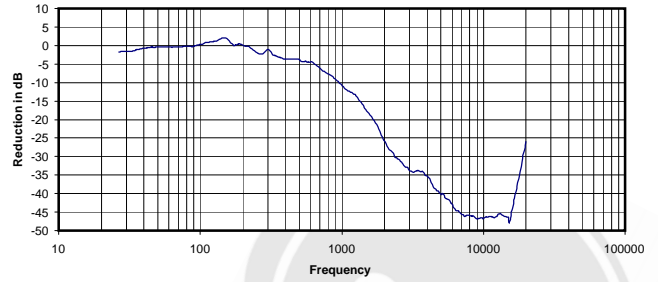
0.044 Vrms
 34 Ohms
 0.06 mW
 -16 dB



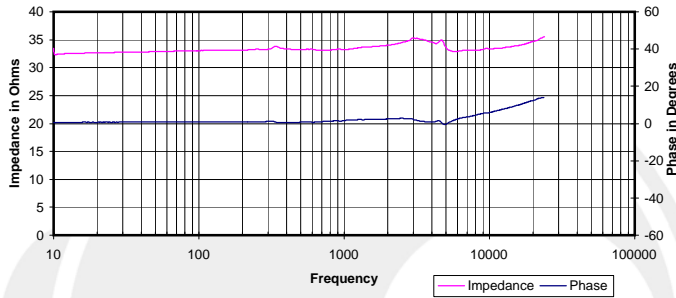
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



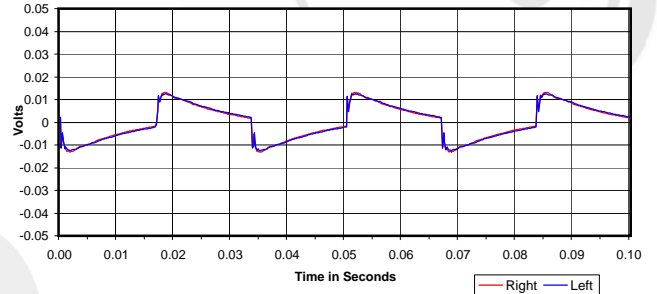
Isolation
 Attenuation of External Sound vs. Frequency



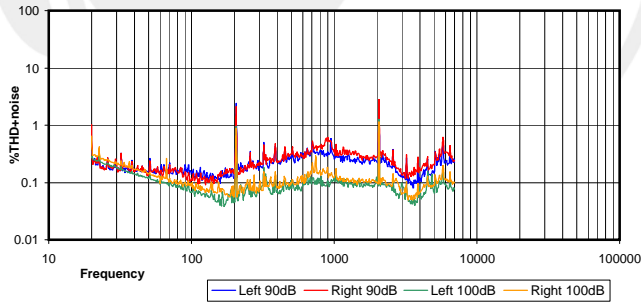
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



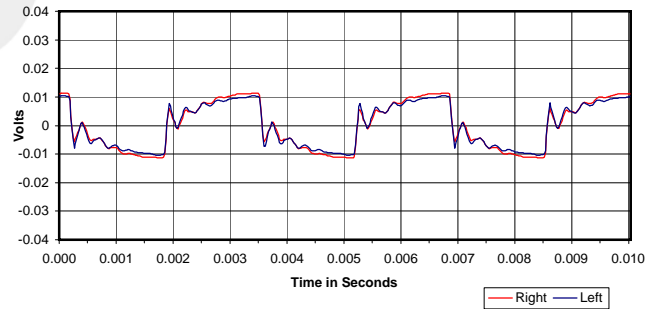
30 Hz Square Wave



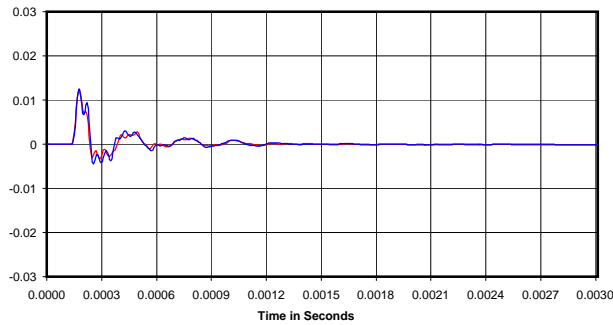
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



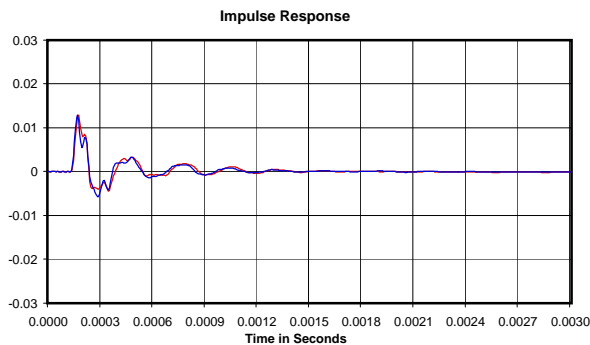
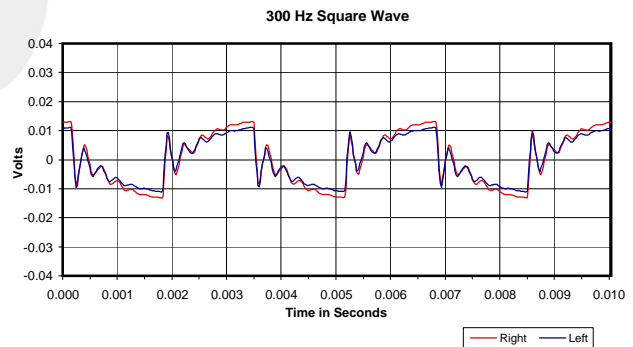
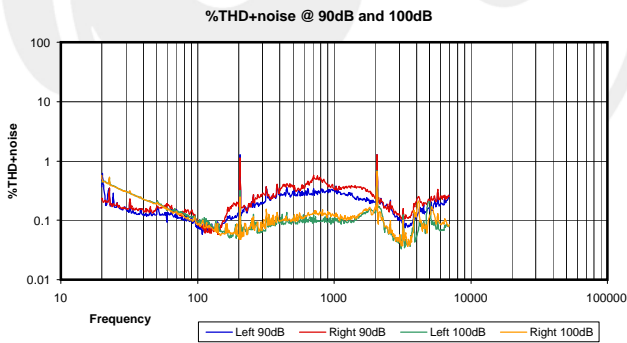
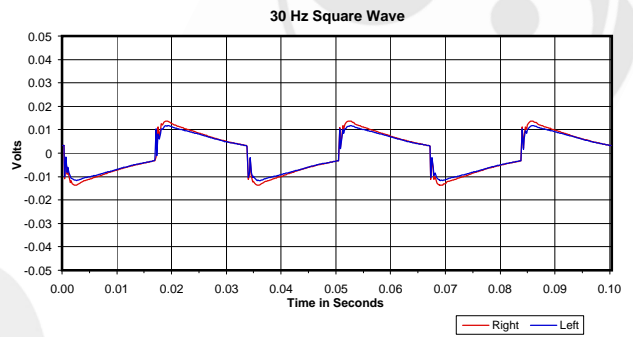
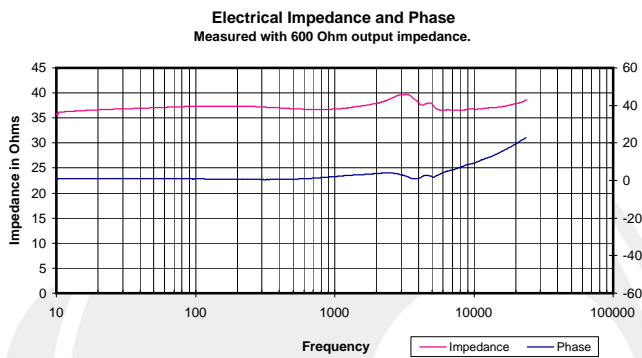
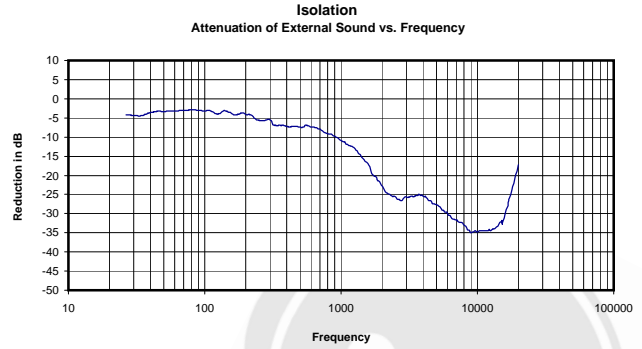
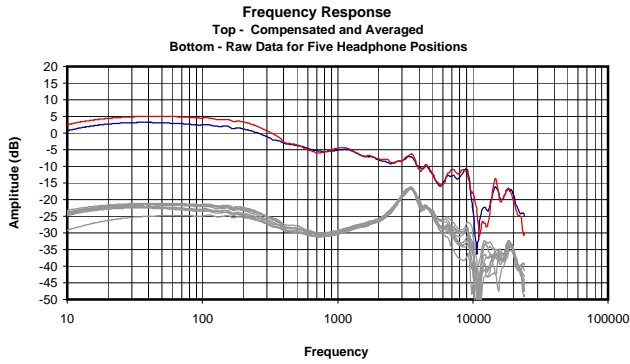
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
 33 Ohms
 0.05 mW
 -17 dB



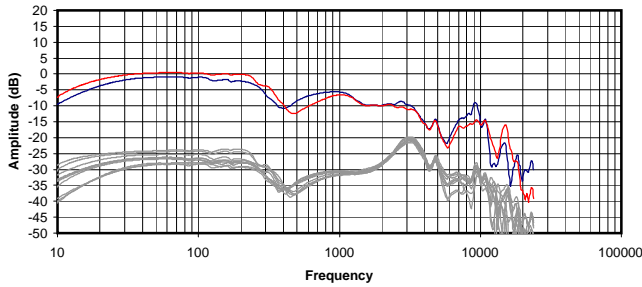


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

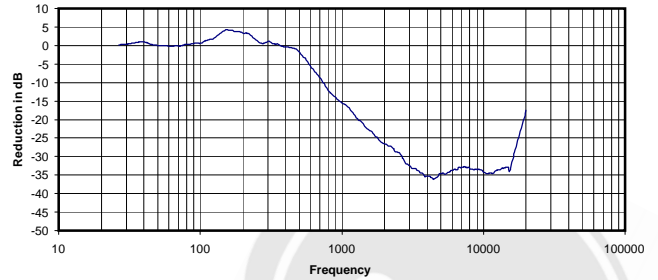
0.046 Vrms
37 Ohms
0.06 mW
-15 dB



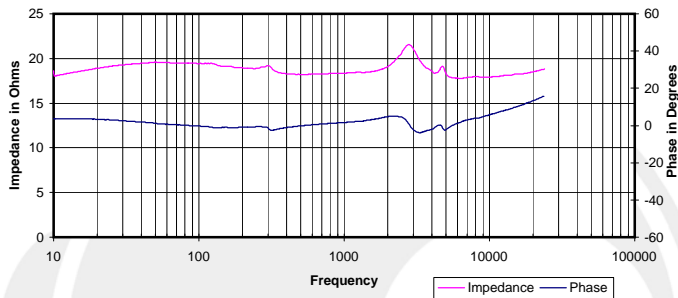
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



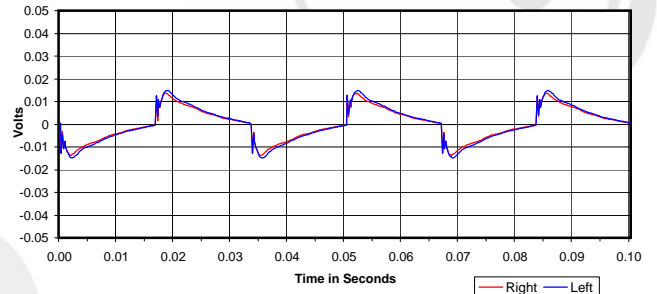
Isolation
 Attenuation of External Sound vs. Frequency



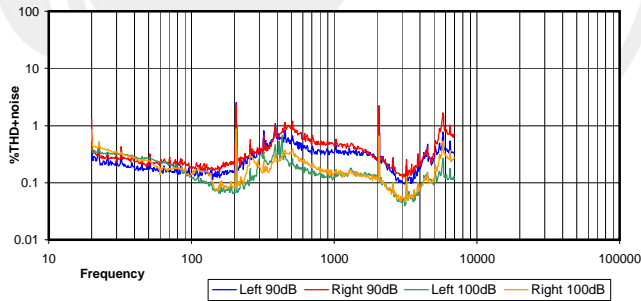
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



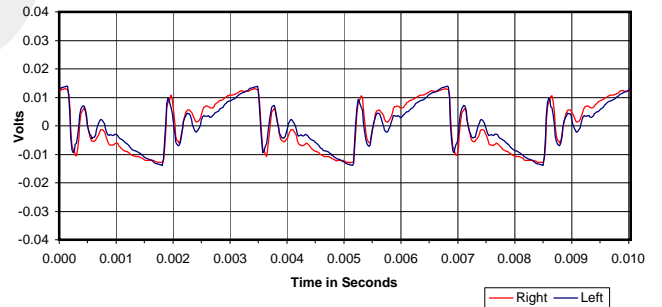
30 Hz Square Wave



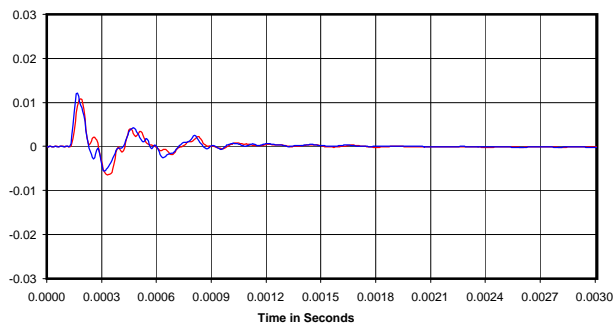
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

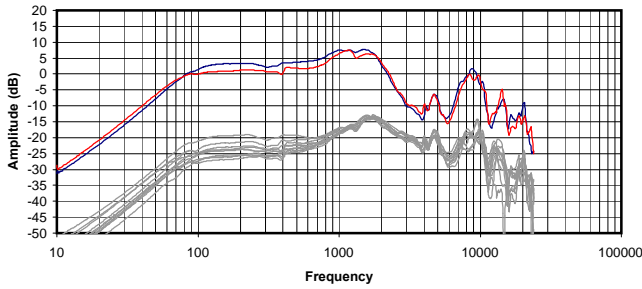


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

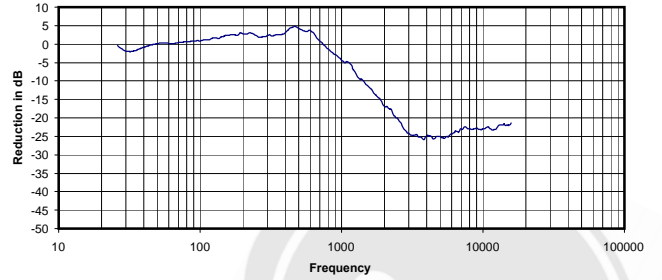
0.020 Vrms
 18 Ohms
 0.02 mW
 -15 dB



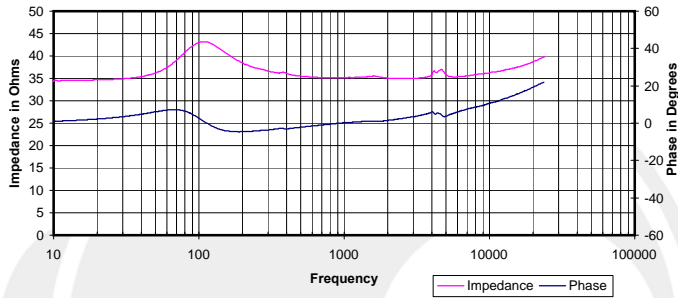
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



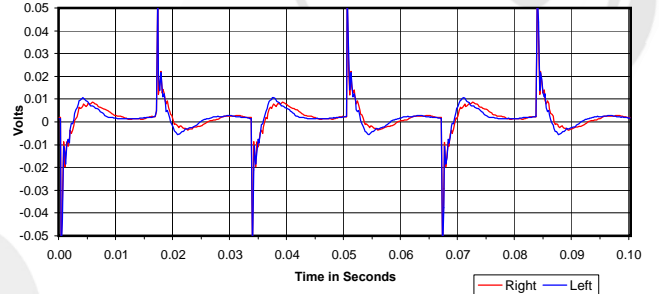
Isolation
 Attenuation of External Sound vs. Frequency



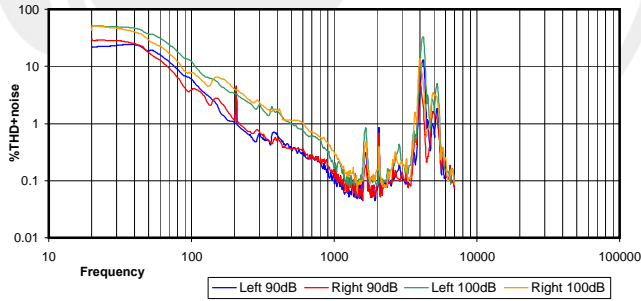
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



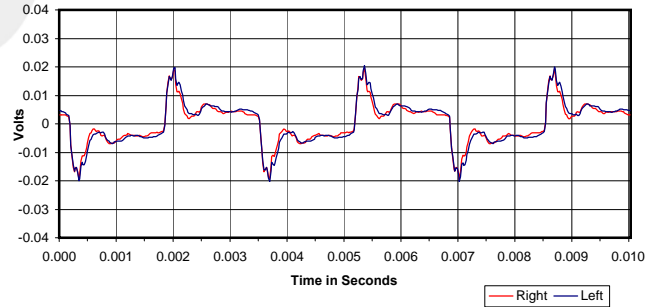
30 Hz Square Wave



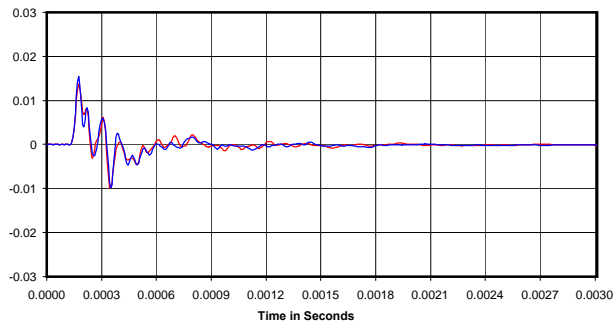
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

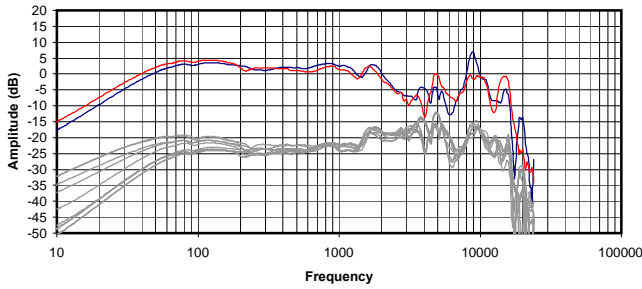


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

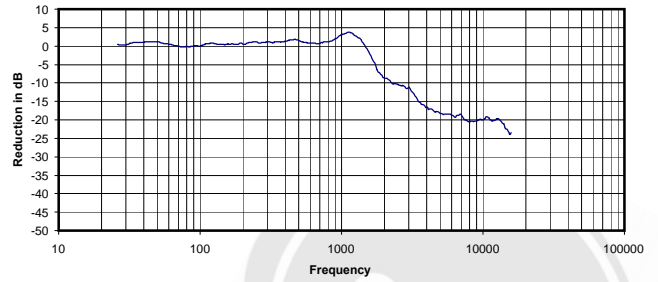
0.040 Vrms
 35 Ohms
 0.04 mW
 -7 dB



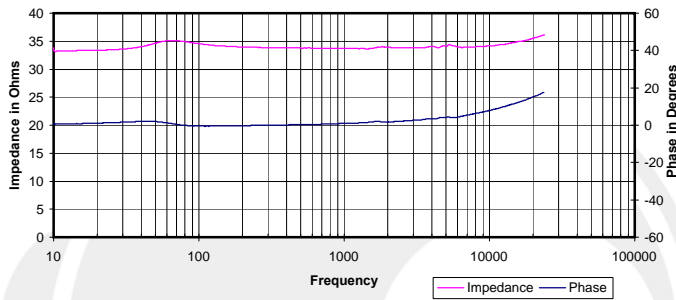
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



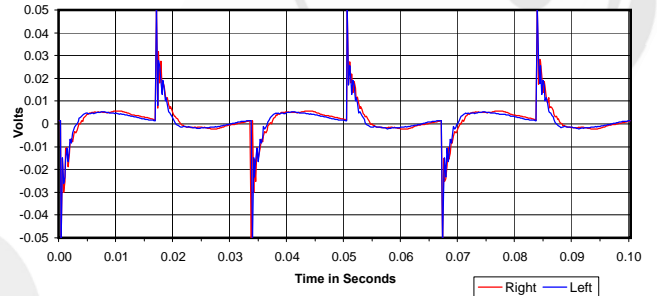
Isolation
Attenuation of External Sound vs. Frequency



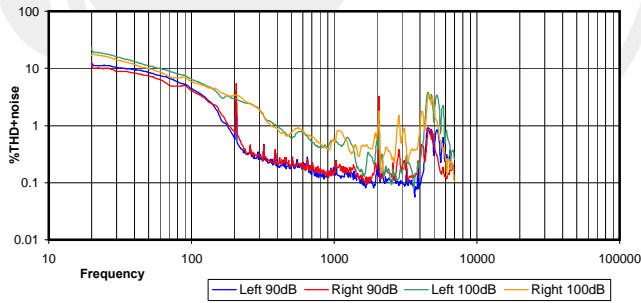
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



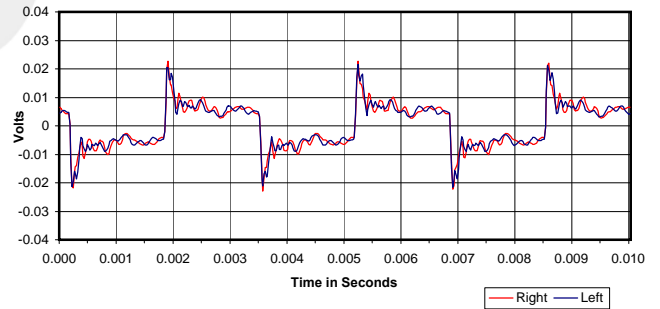
30 Hz Square Wave



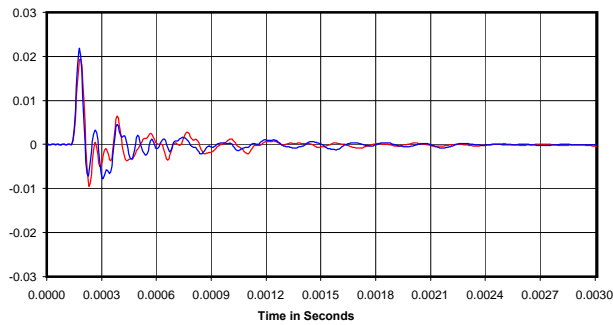
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



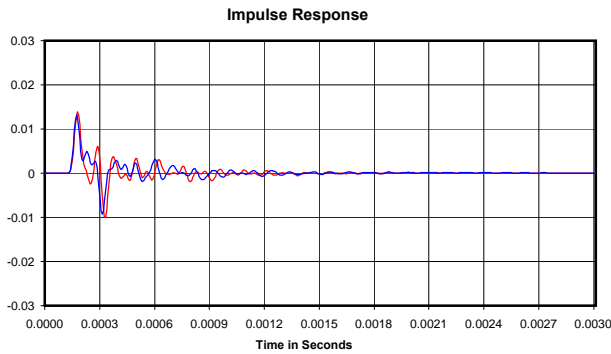
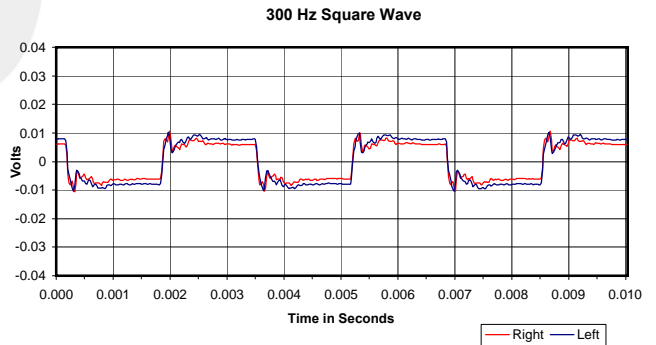
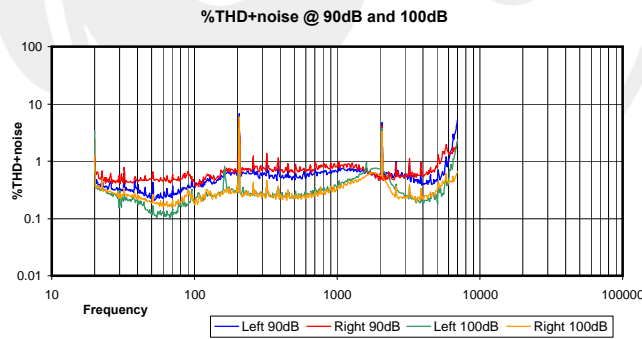
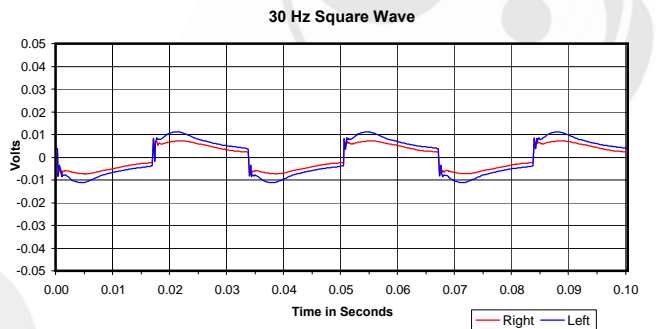
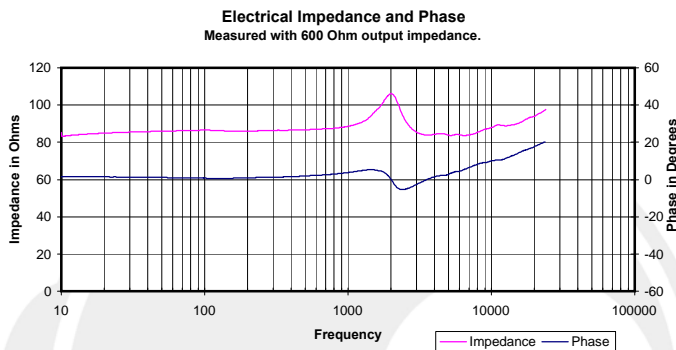
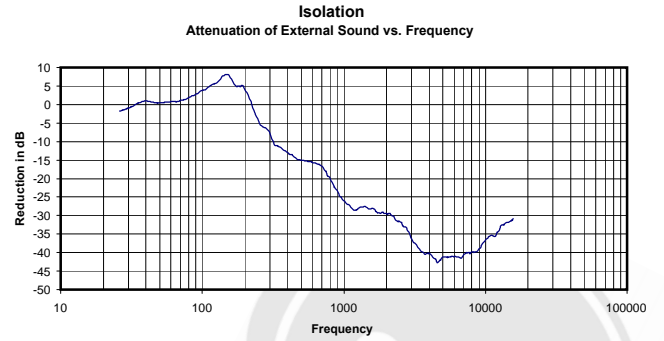
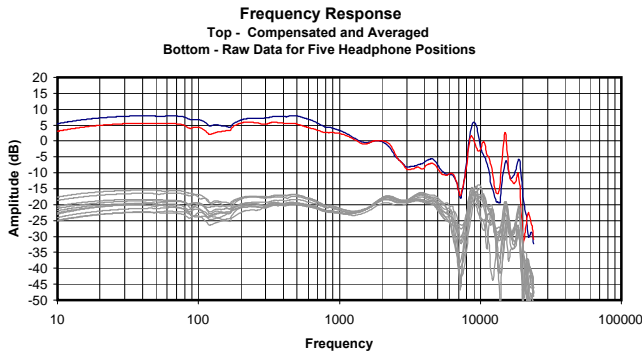
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.099 Vrms
34 Ohms
0.29 mW
-3 dB

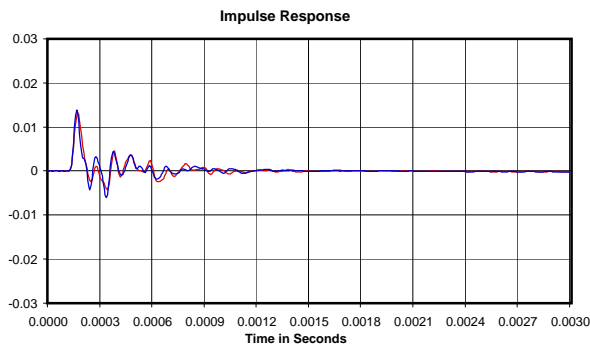
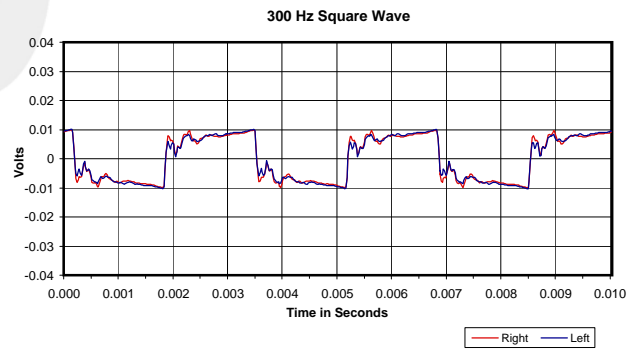
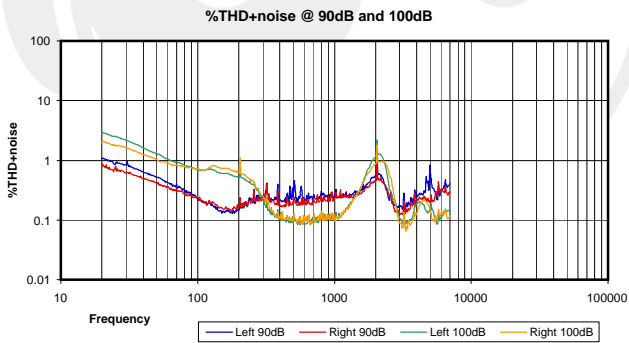
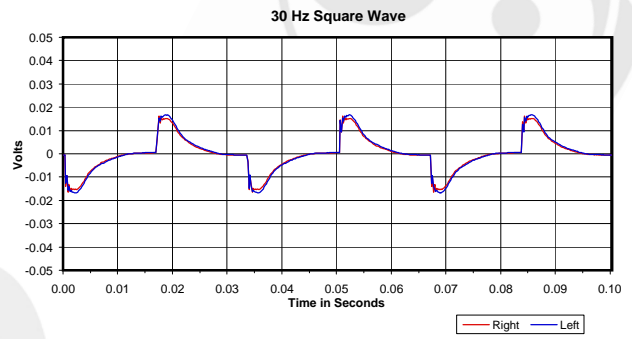
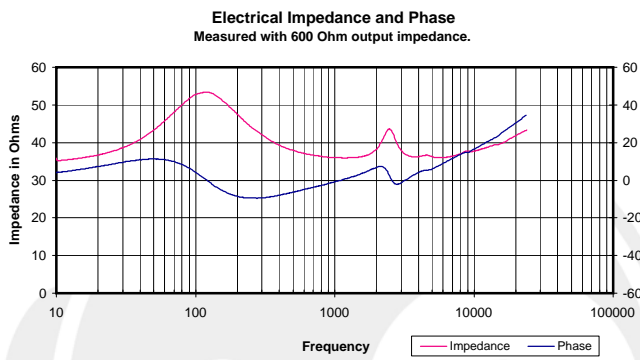
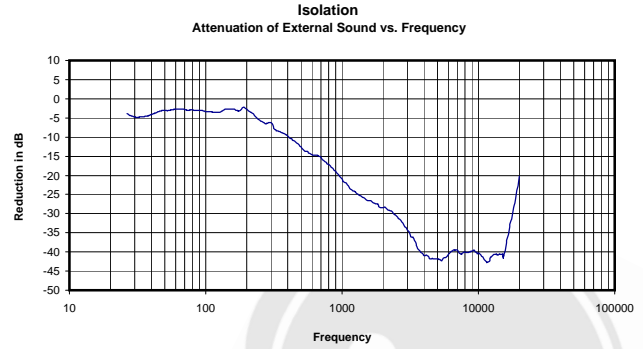
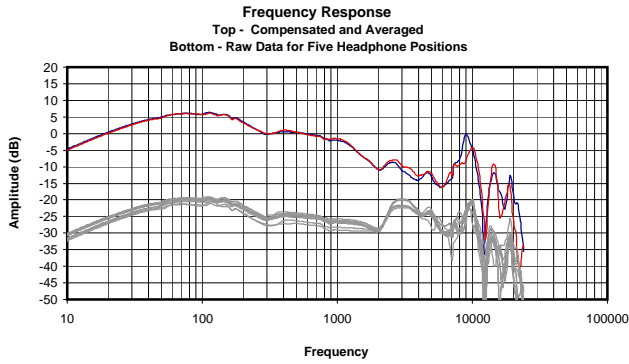




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
89 Ohms
0.03 mW
-19 dB

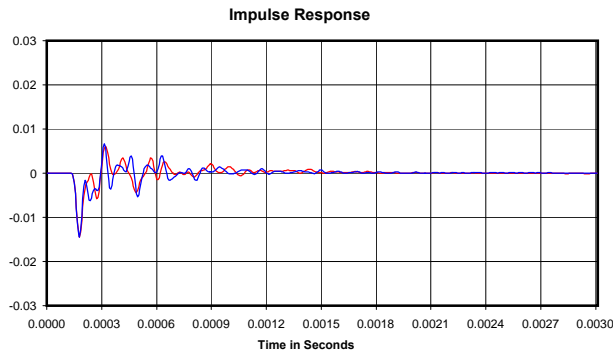
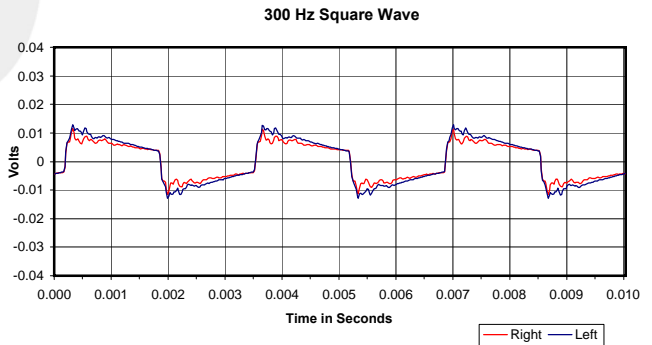
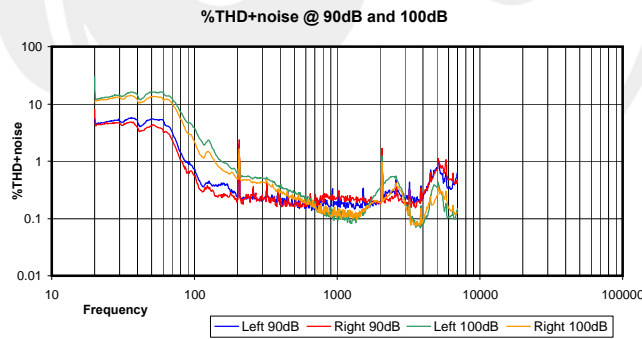
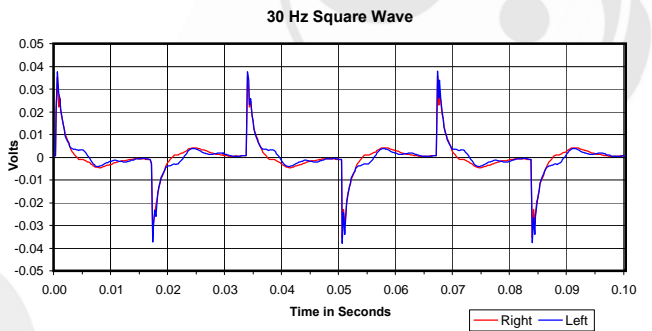
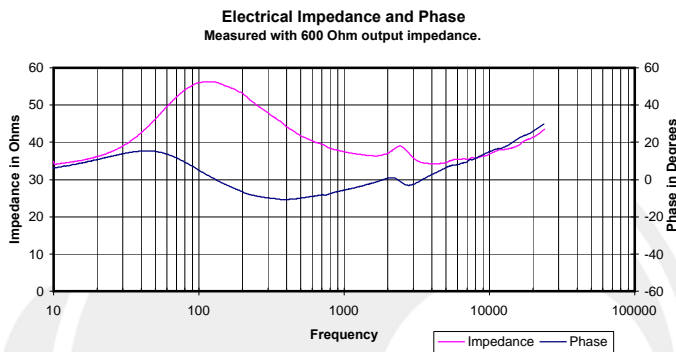
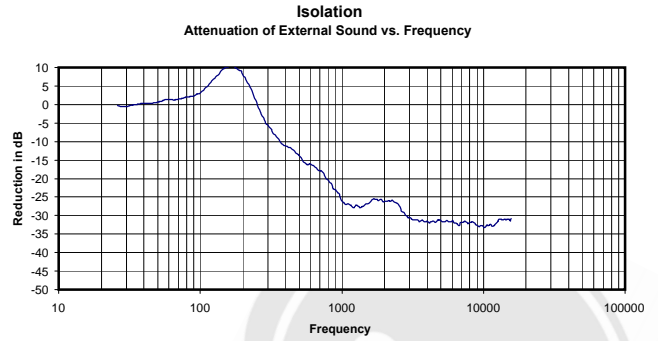
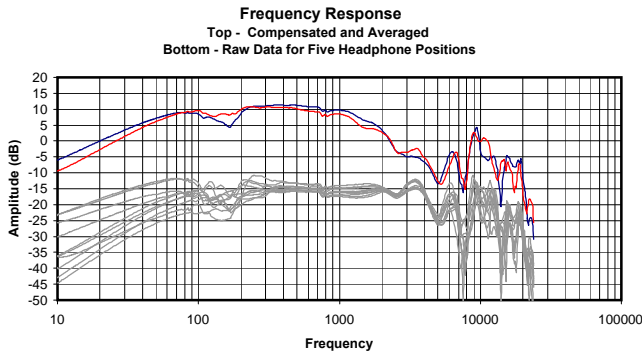




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
36 Ohms
0.03 mW
-22 dB



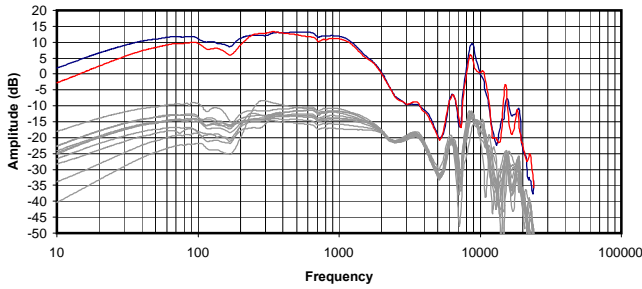


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

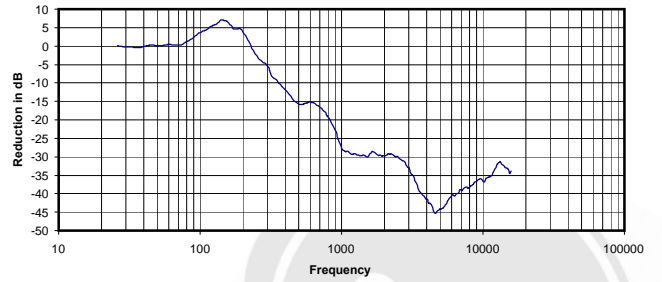
0.020 Vrms
37 Ohms
0.01 mW
-15 dB



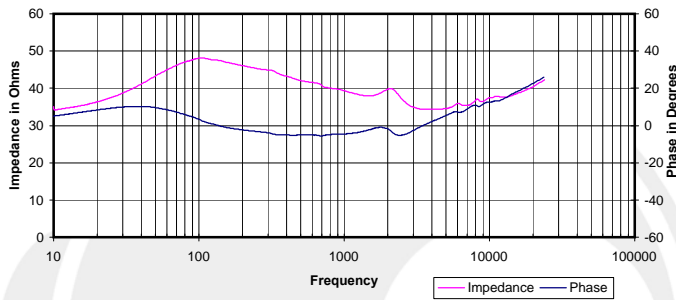
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



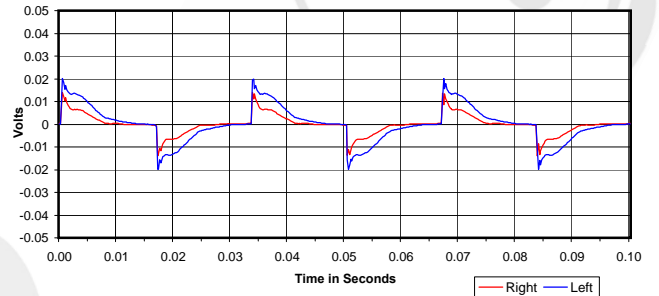
Isolation
 Attenuation of External Sound vs. Frequency



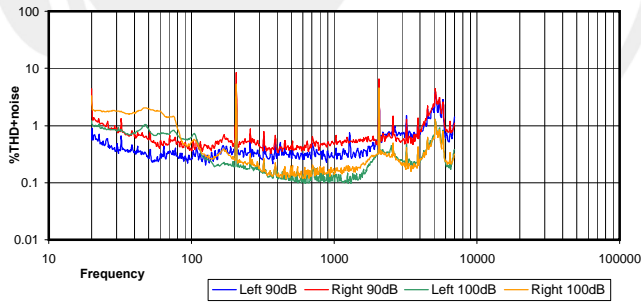
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



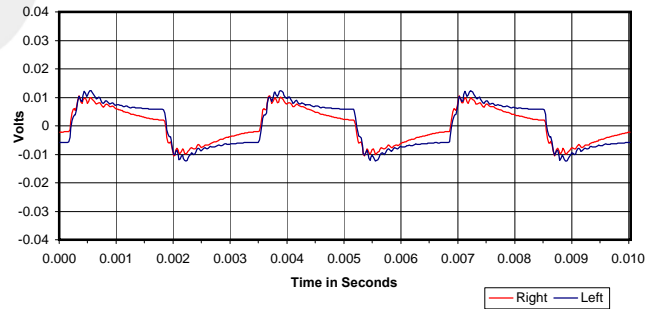
30 Hz Square Wave



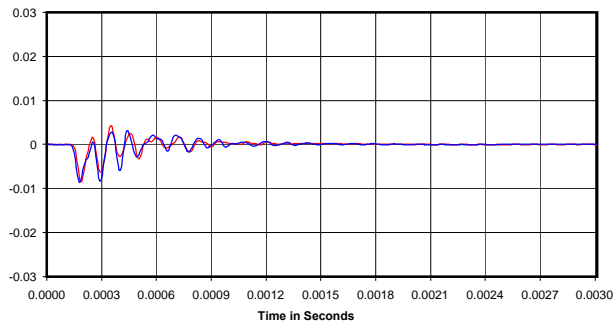
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



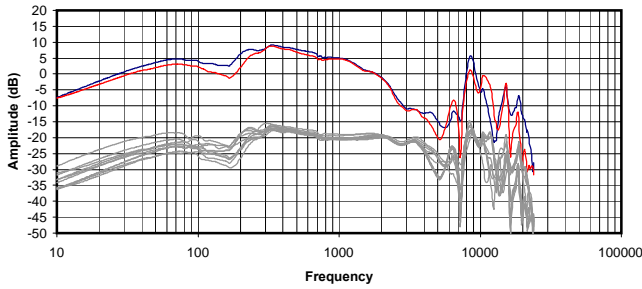
Impulse Response



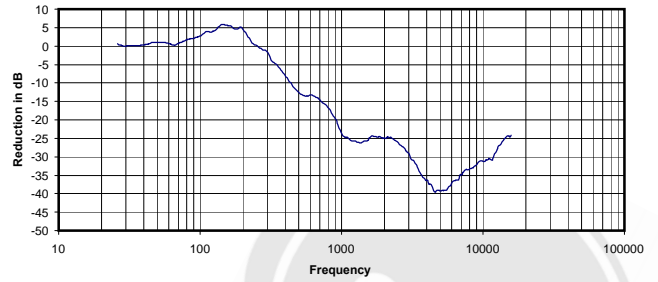
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
 39 Ohms
 0.00 mW
 -18 dB

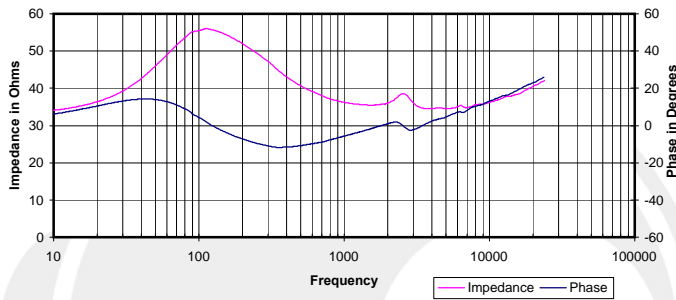
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



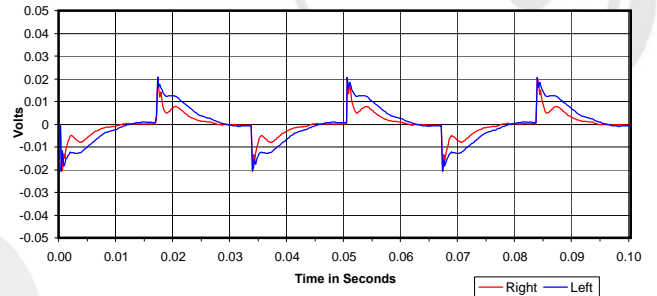
Isolation
 Attenuation of External Sound vs. Frequency



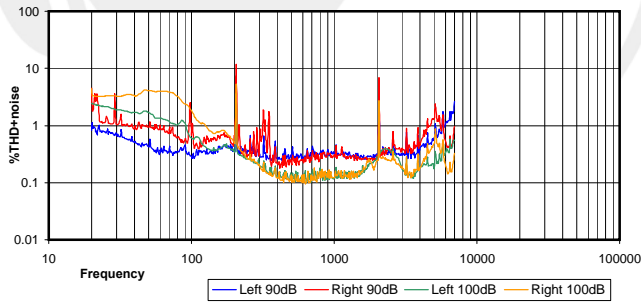
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



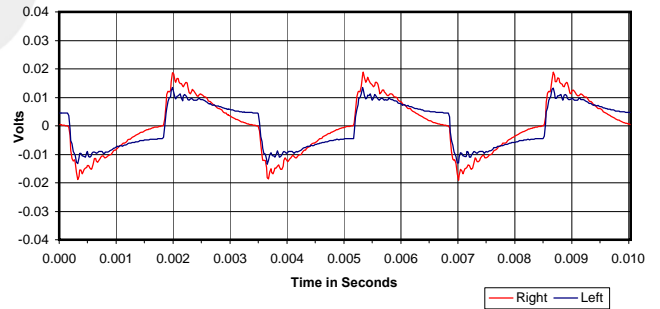
30 Hz Square Wave



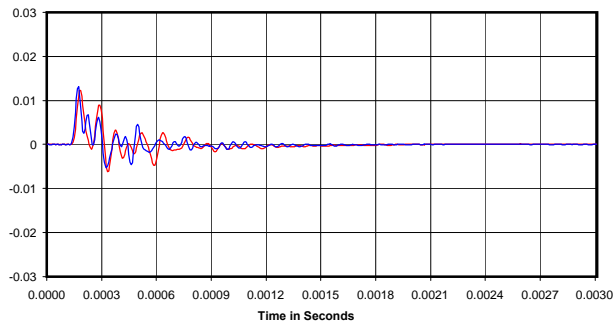
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



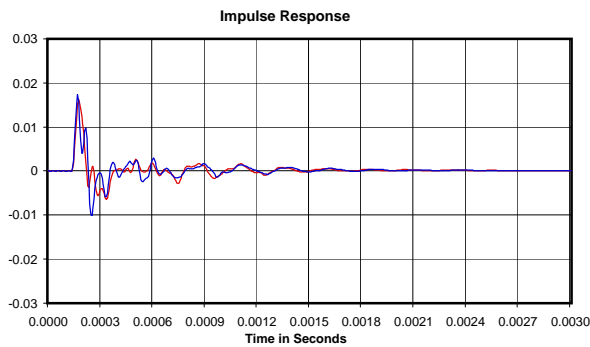
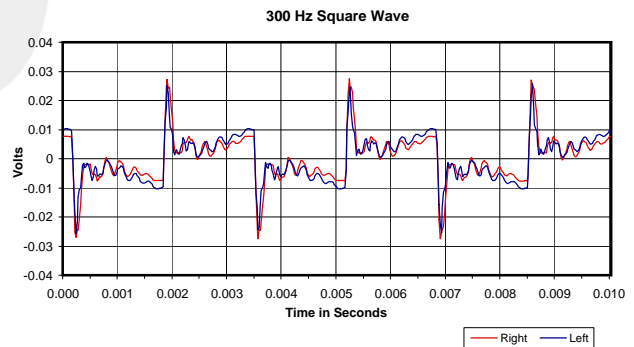
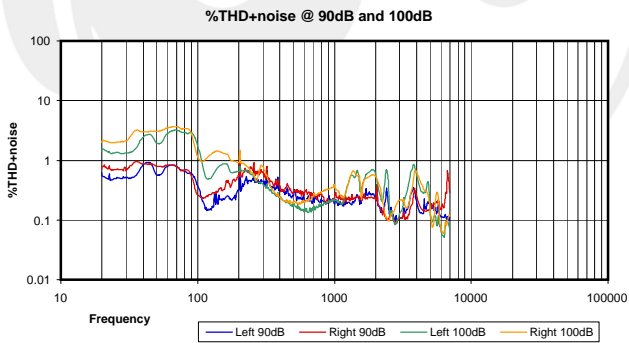
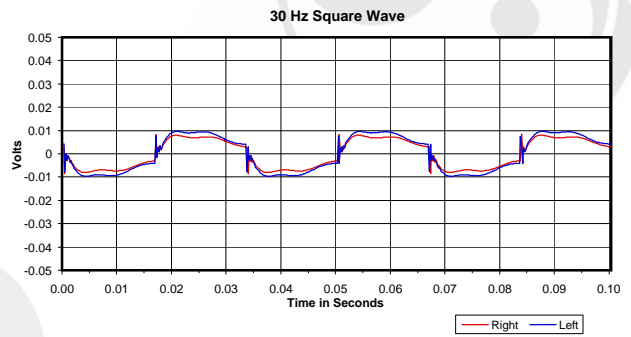
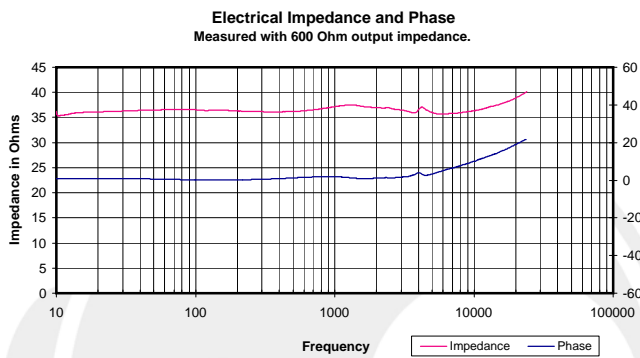
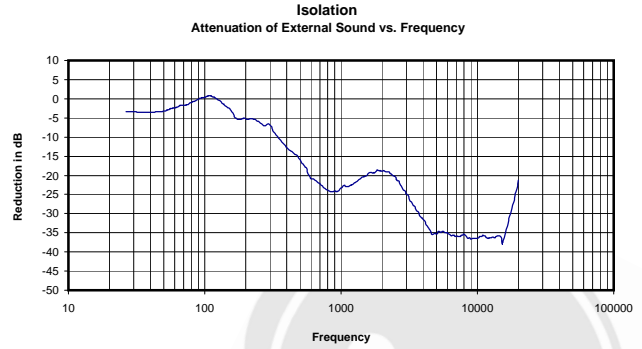
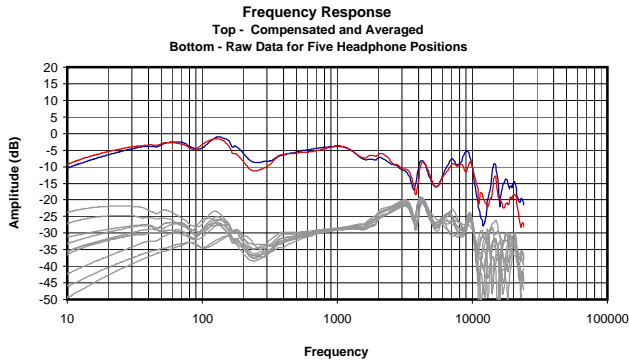
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.025 Vrms
 36 Ohms
 0.02 mW
 -16 dB

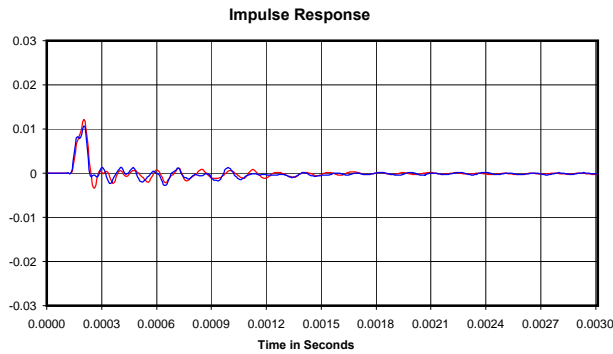
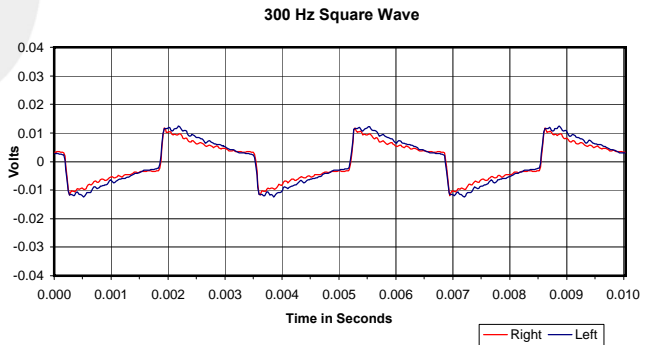
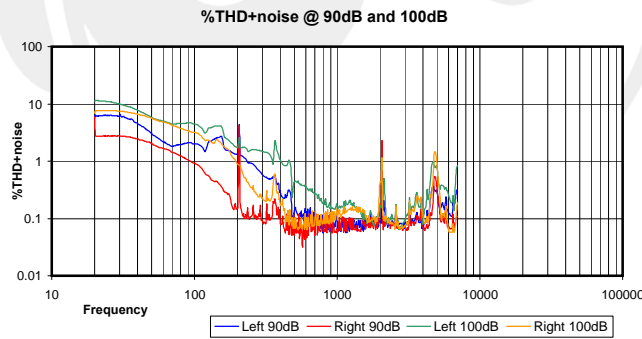
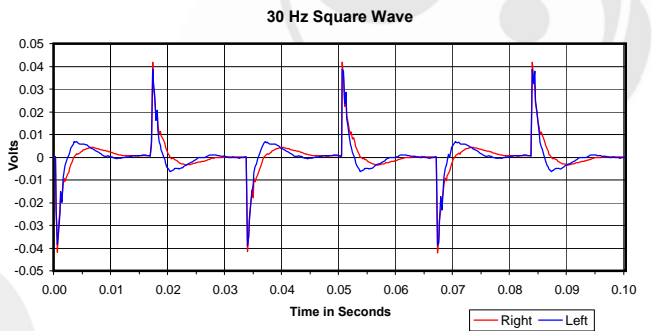
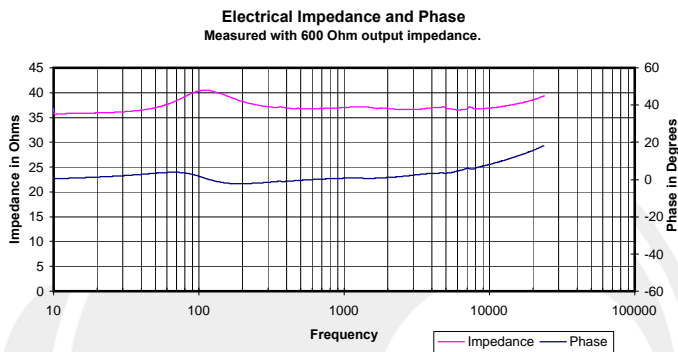
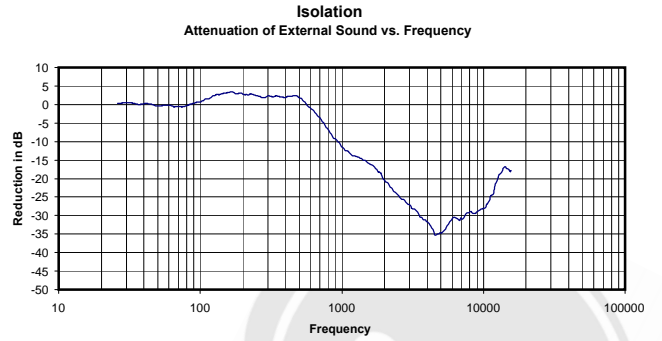
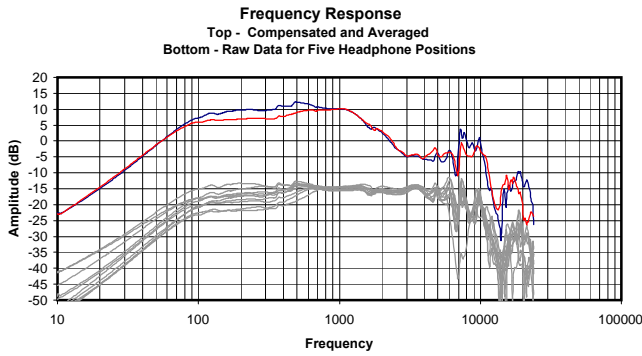




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.069 Vrms
37 Ohms
0.13 mW
-19 dBr



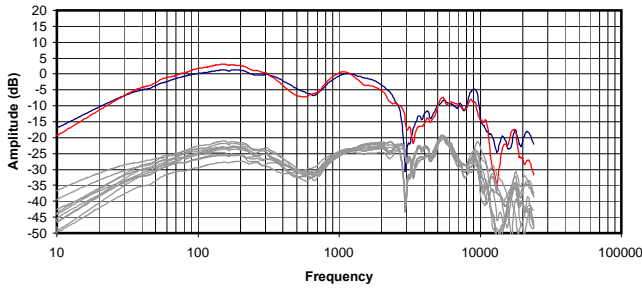


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

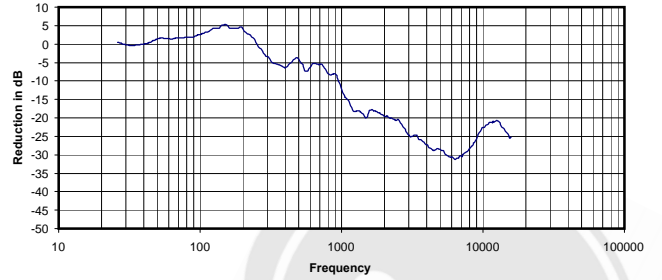
0.028 Vrms
37 Ohms
0.02 mW
-10 dB



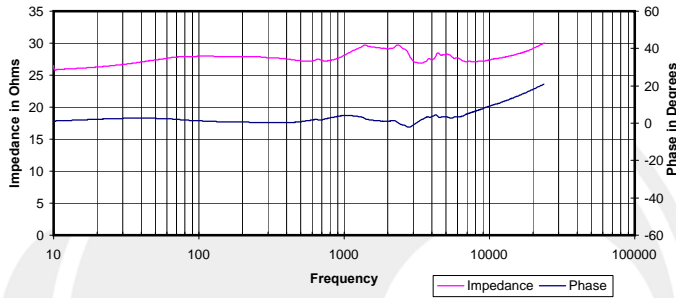
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



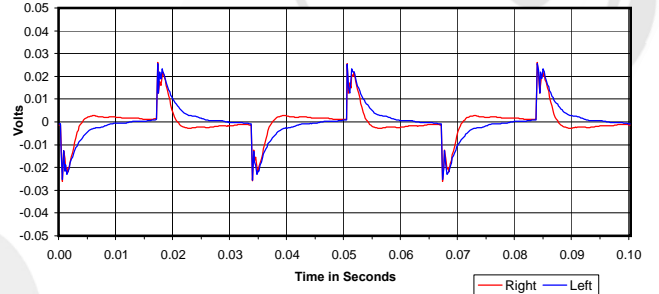
Isolation
 Attenuation of External Sound vs. Frequency



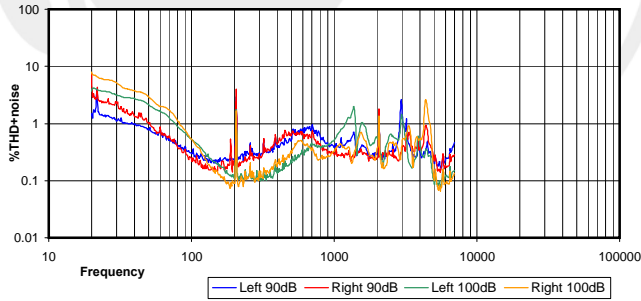
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



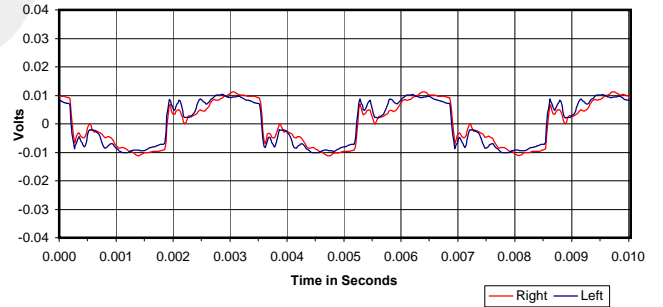
30 Hz Square Wave



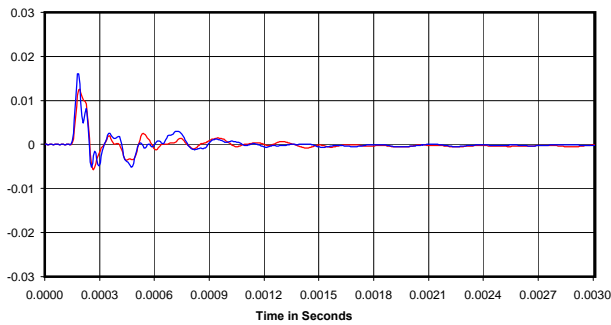
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

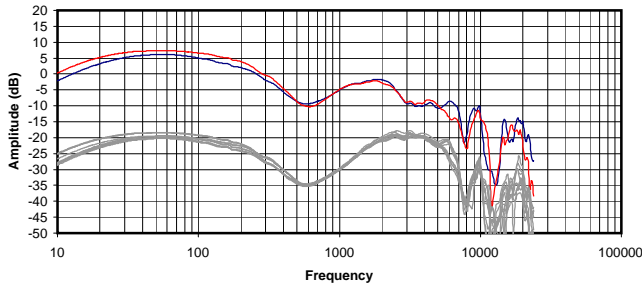


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

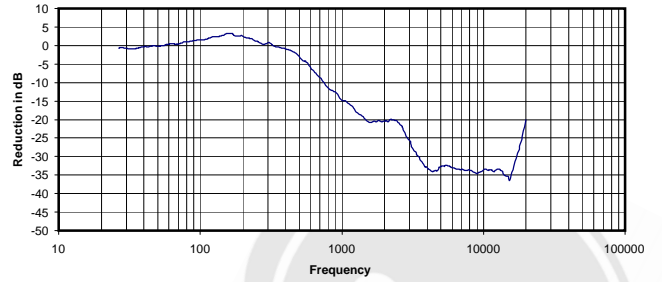
0.043 Vrms
 28 Ohms
 0.07 mW
 -11 dB



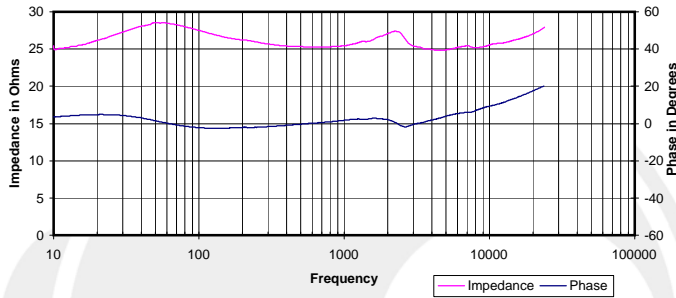
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



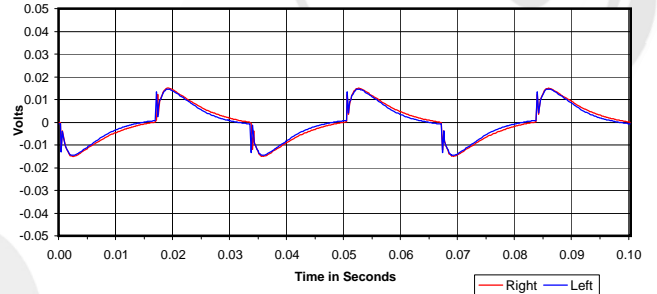
Isolation
 Attenuation of External Sound vs. Frequency



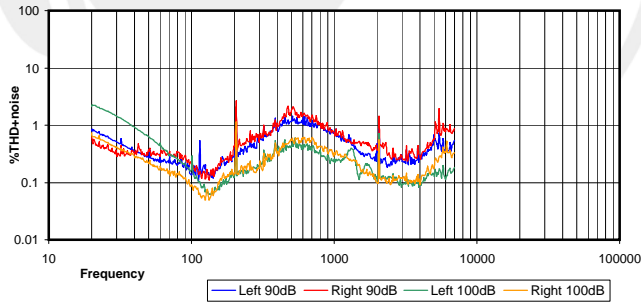
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



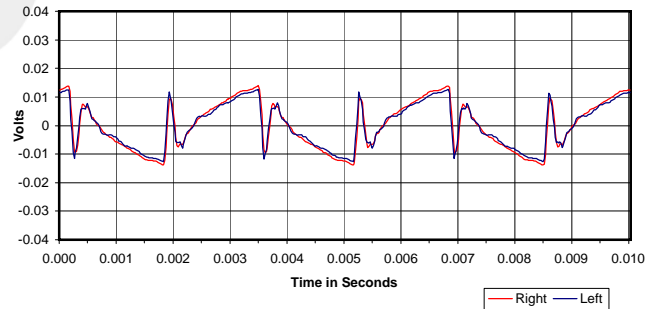
30 Hz Square Wave



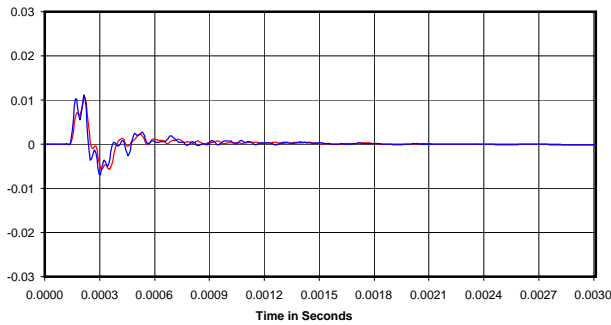
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

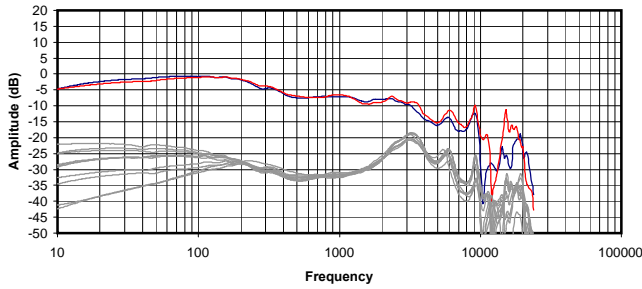


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

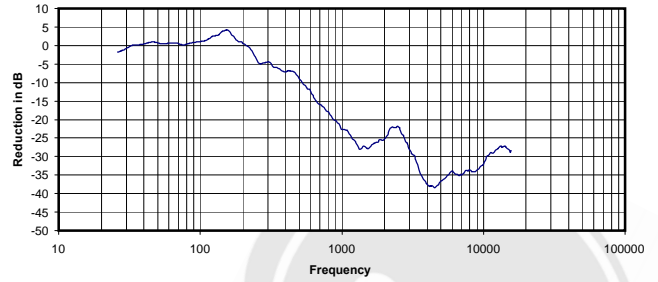
0.084 Vrms
 25 Ohms
 0.28 mW
 -14 dB



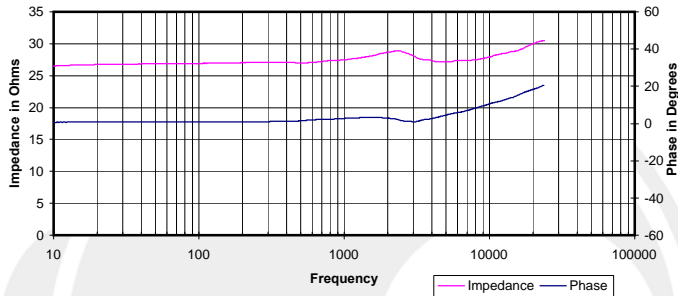
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



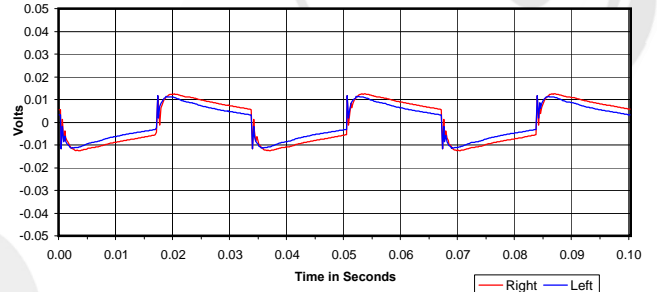
Isolation
Attenuation of External Sound vs. Frequency



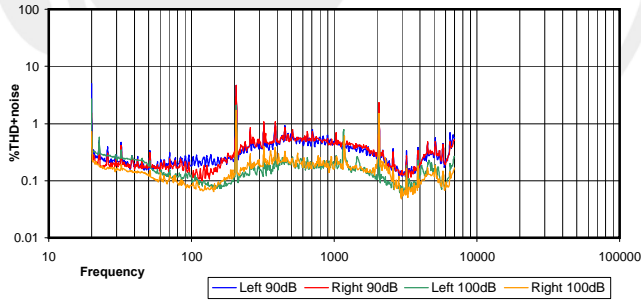
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



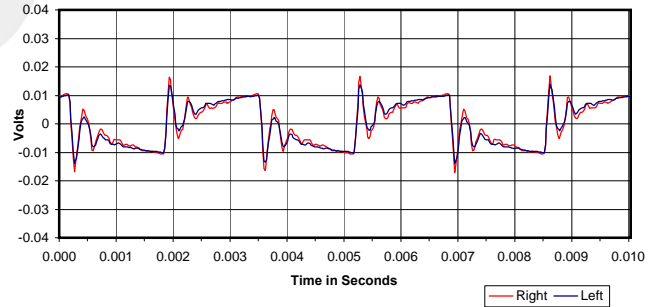
30 Hz Square Wave



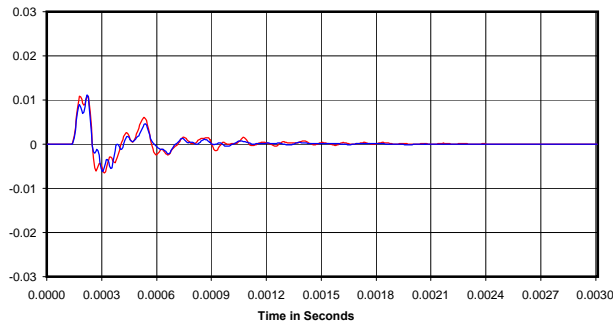
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



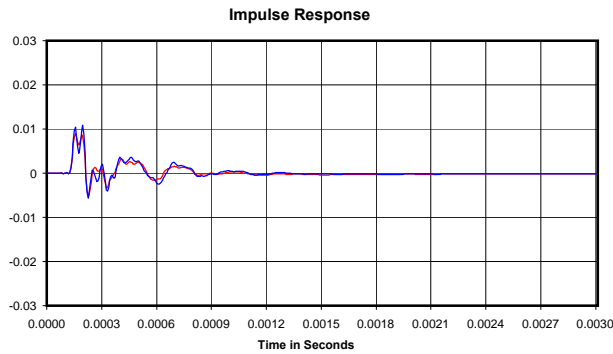
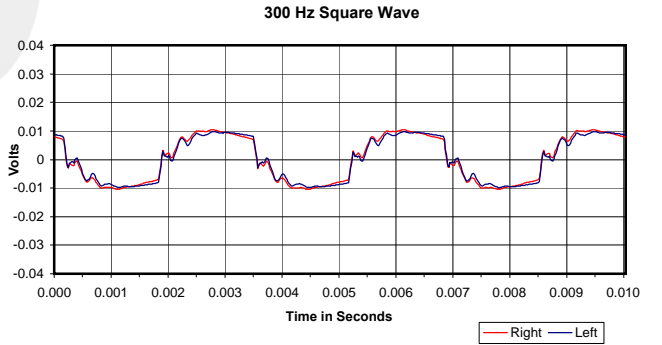
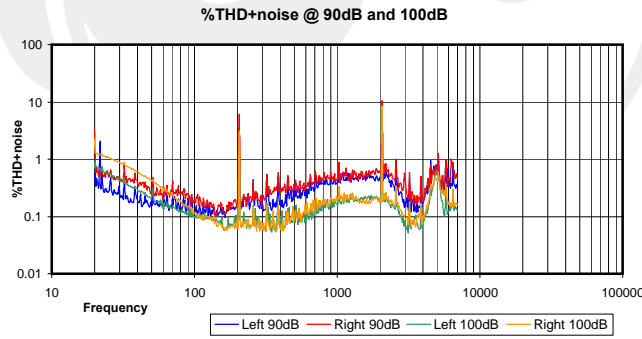
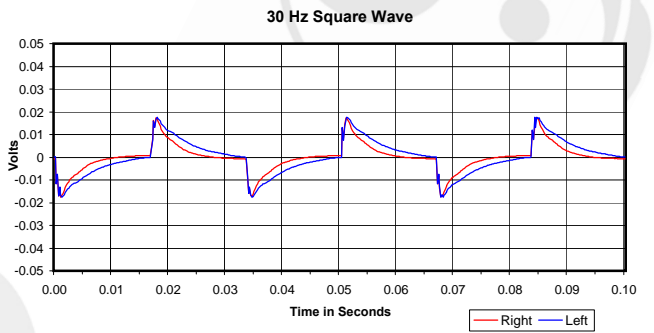
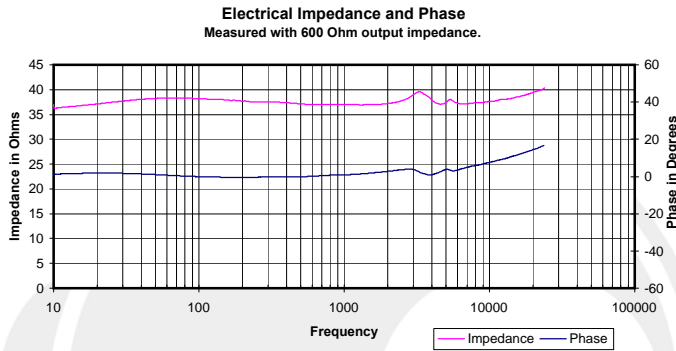
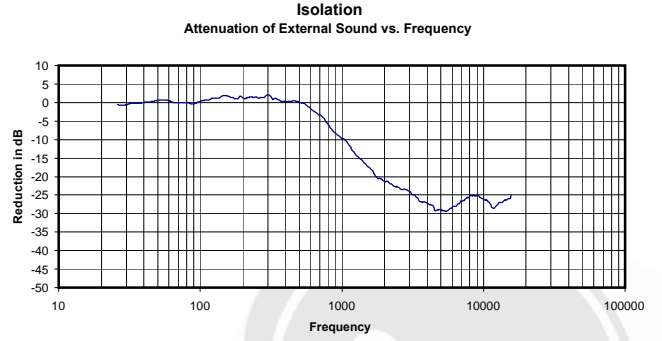
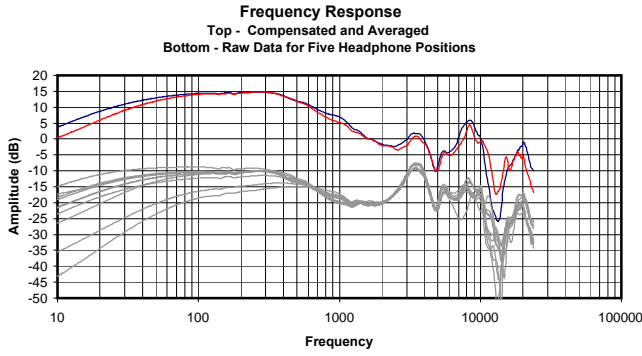
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
27 Ohms
0.09 mW
-16 dB

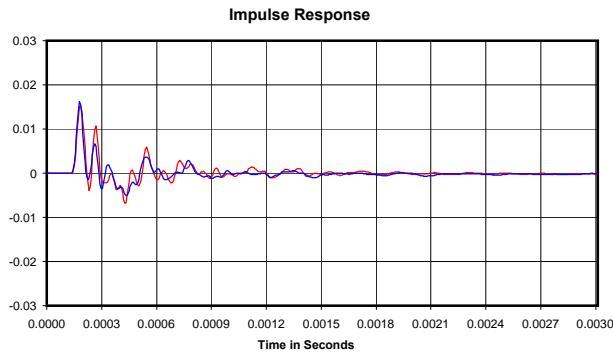
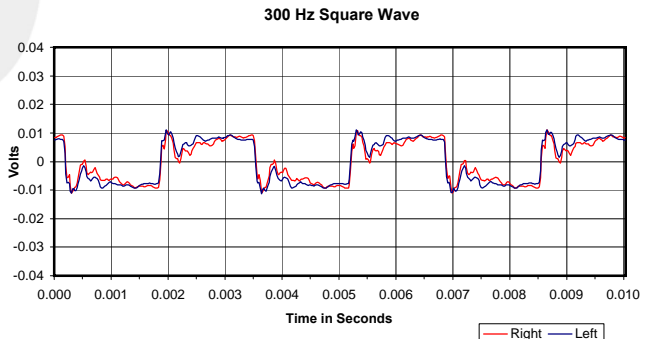
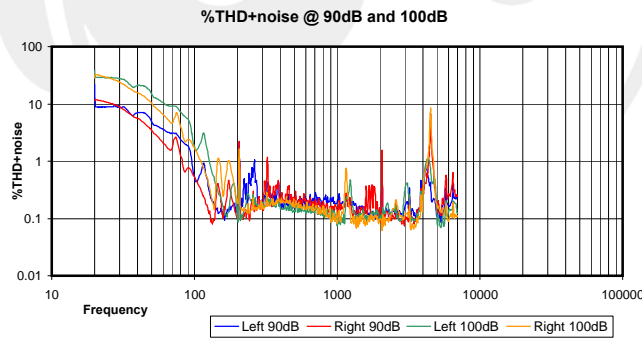
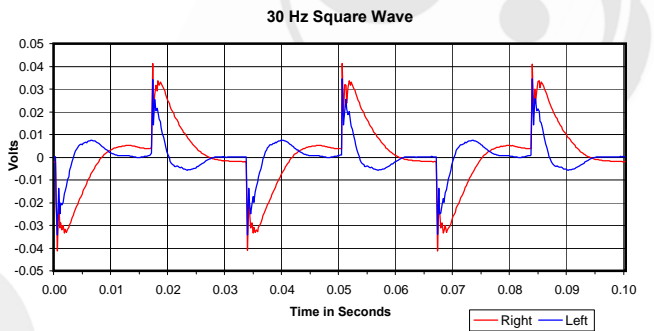
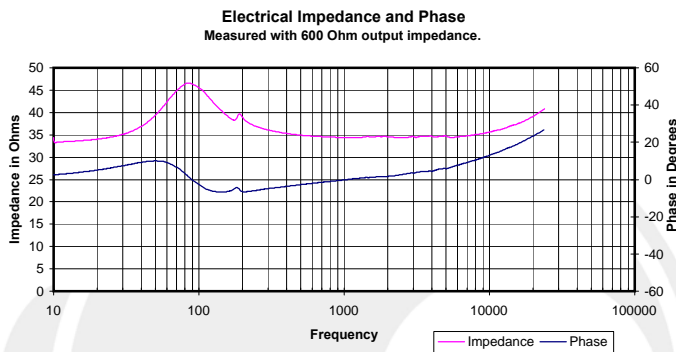
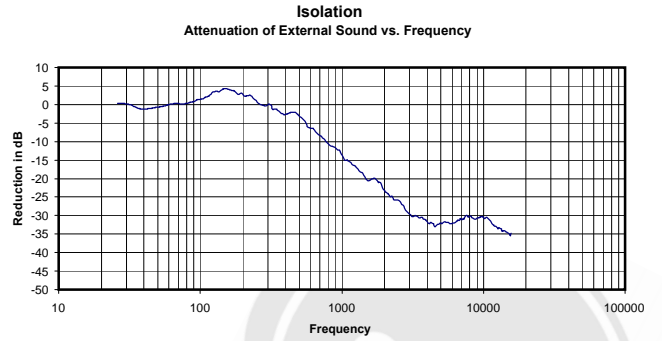
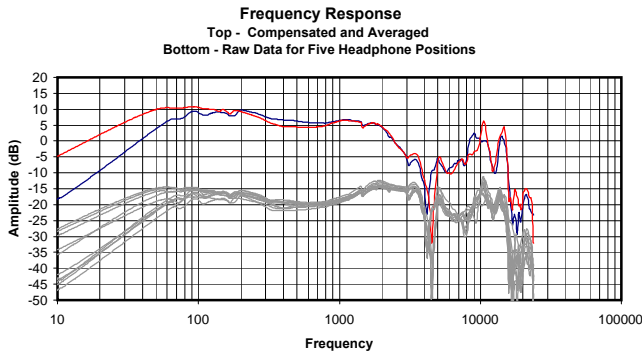




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.050 Vrms
37 Ohms
0.07 mW
-10 dB

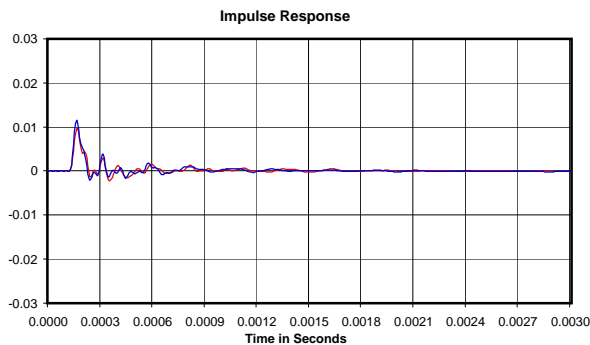
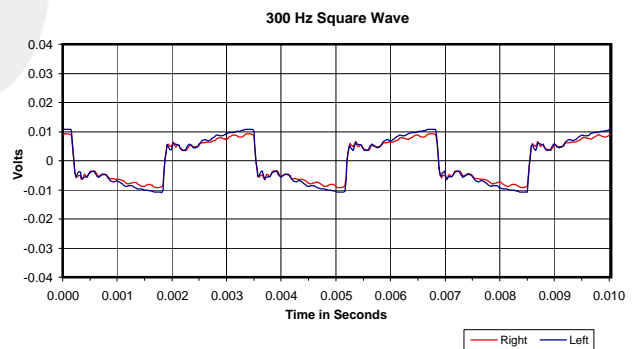
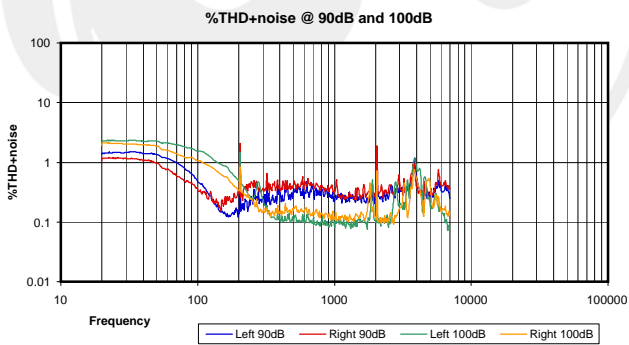
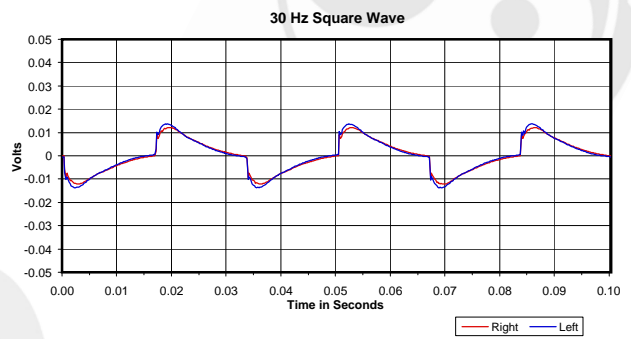
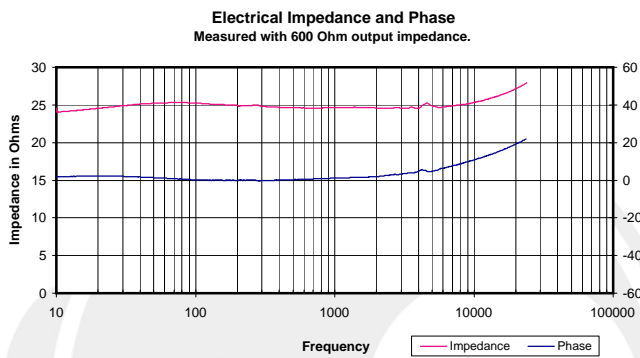
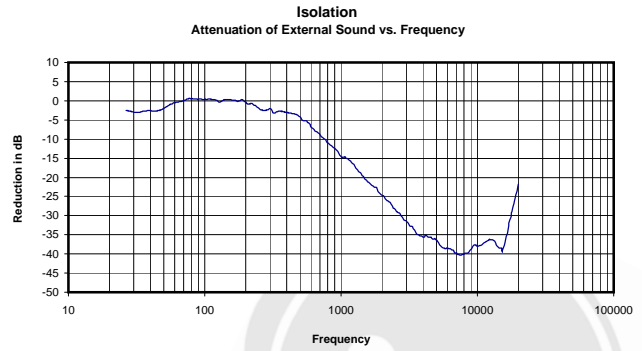
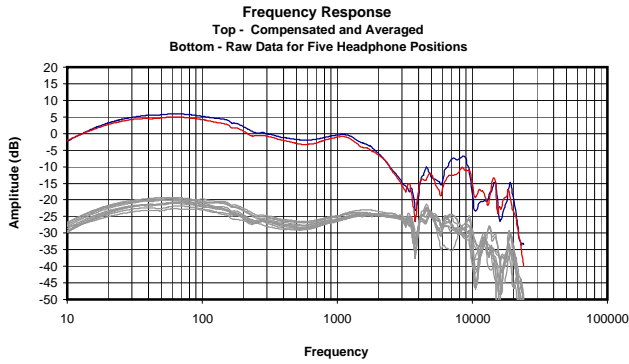




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
34 Ohms
0.05 mW
-12 dB

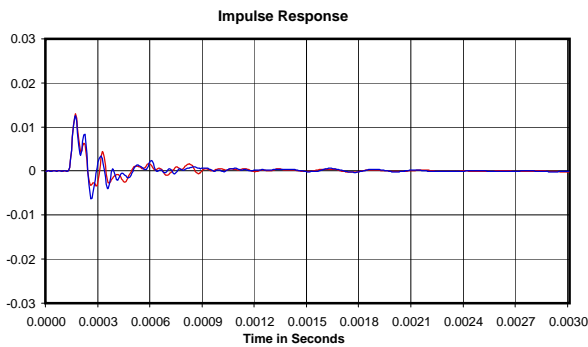
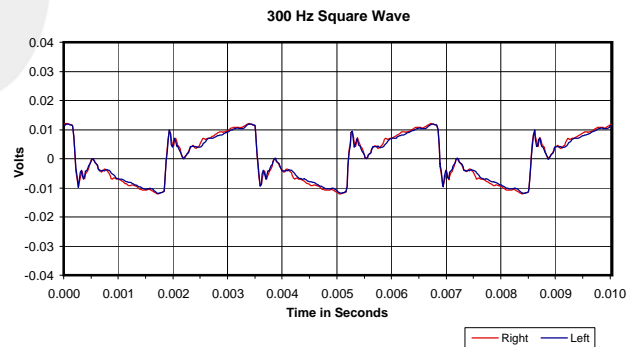
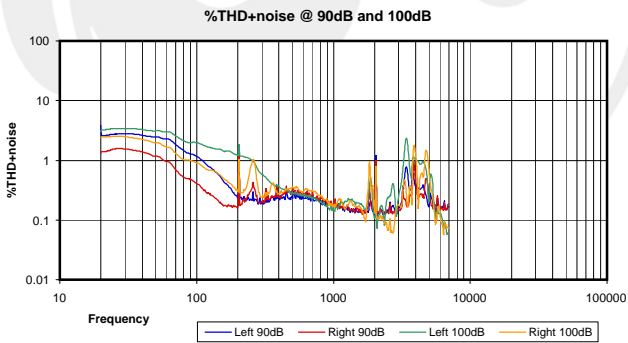
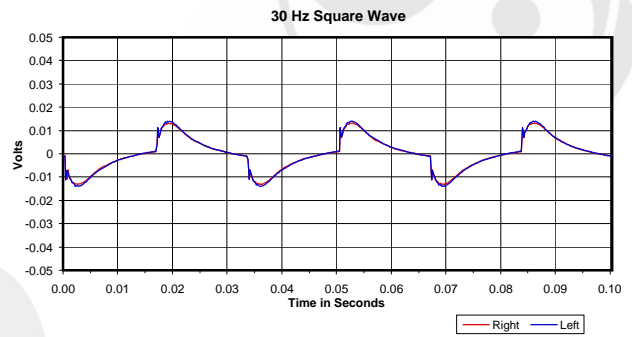
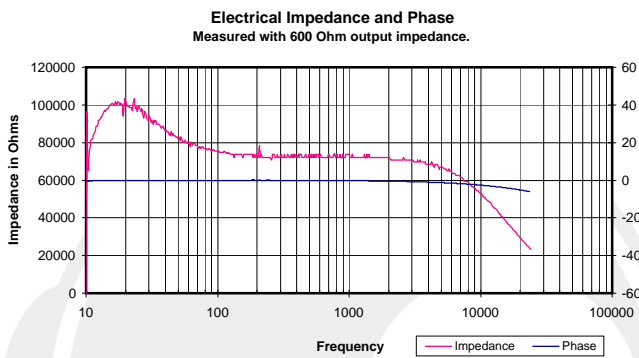
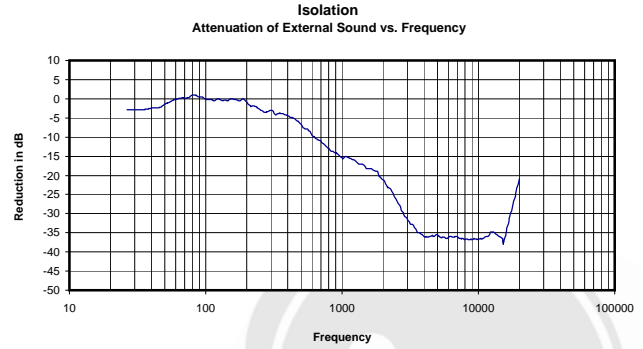
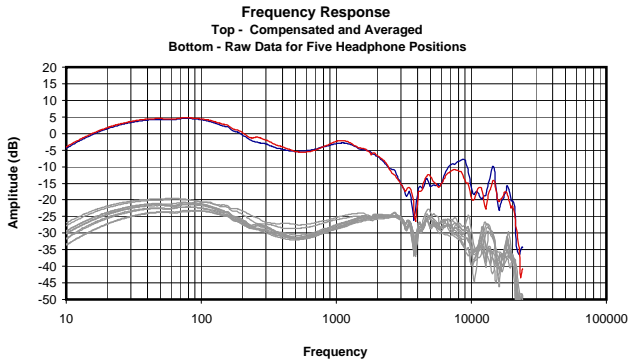




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.039 Vrms
25 Ohms
0.06 mW
-17 dB

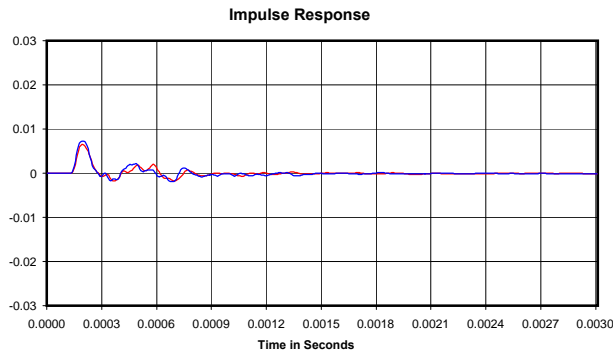
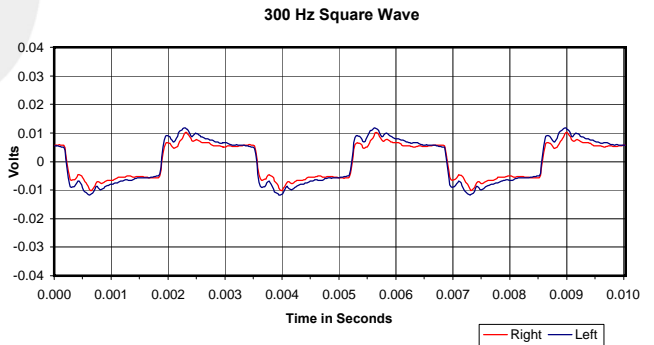
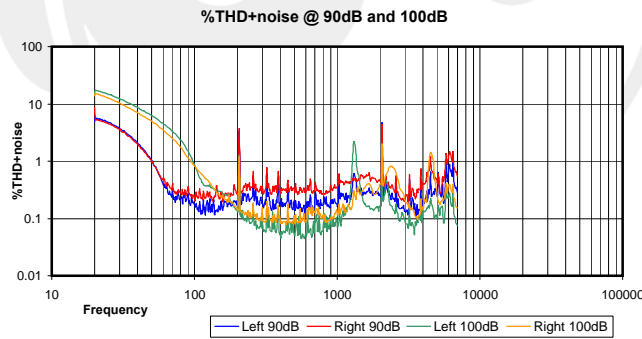
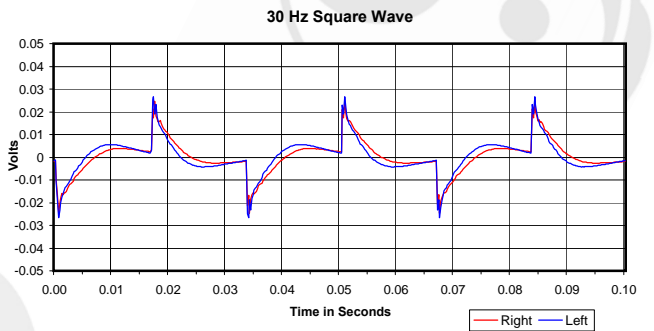
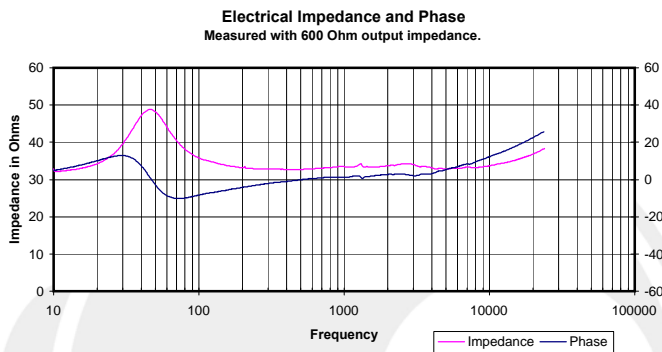
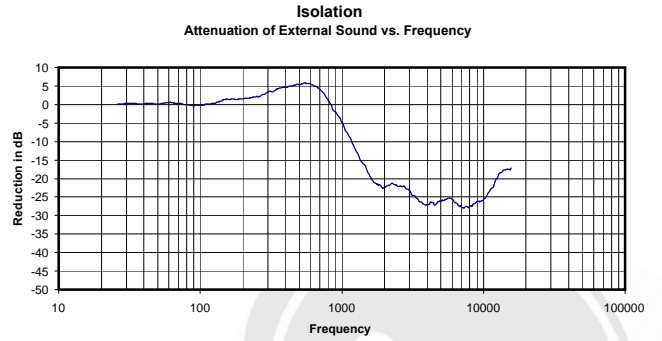
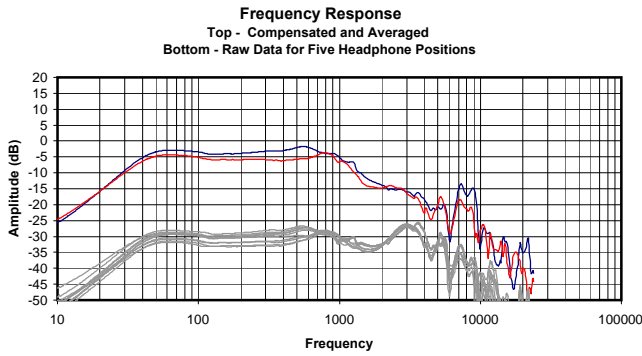




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
72699 Ohms
0.00 mW
-17 dB



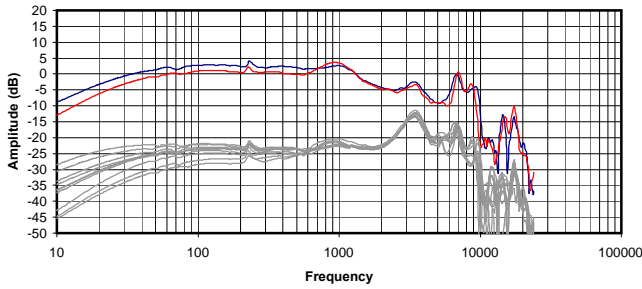


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

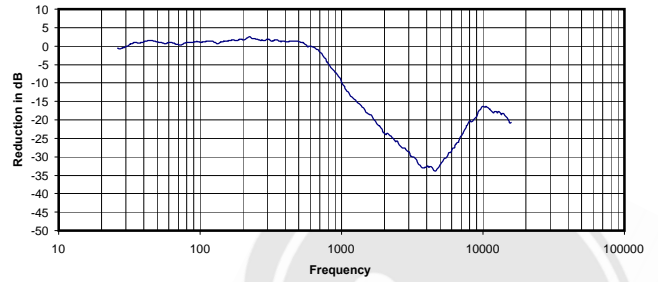
0.023 Vrms
33 Ohms
0.02 mW
-8 dB



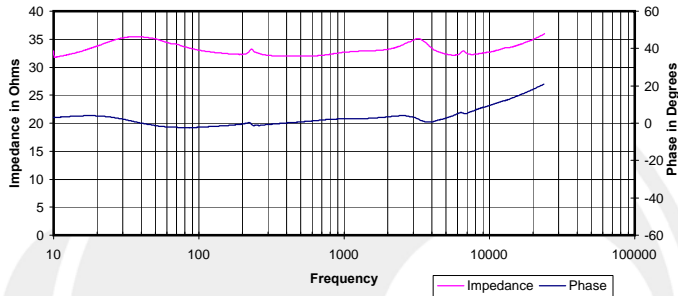
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



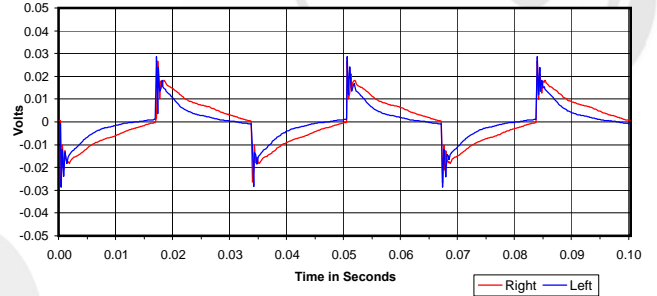
Isolation
 Attenuation of External Sound vs. Frequency



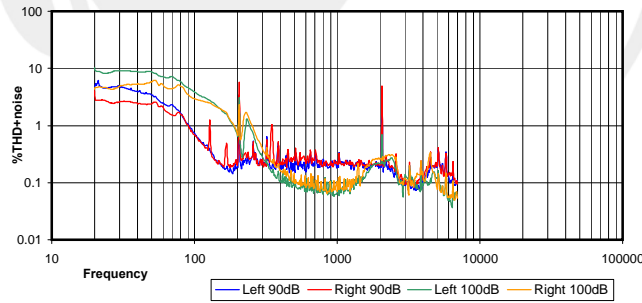
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



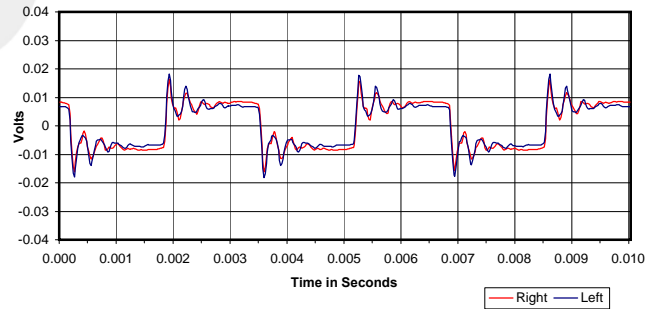
30 Hz Square Wave



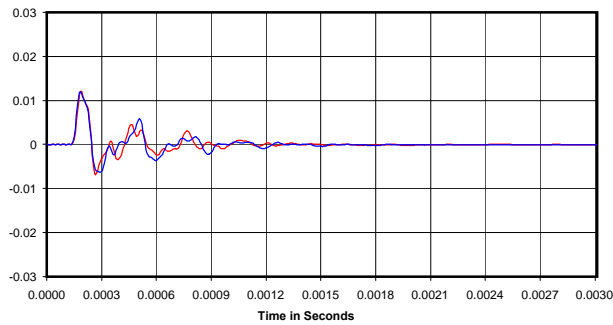
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

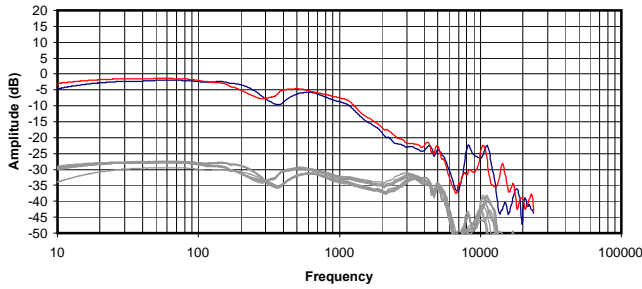


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

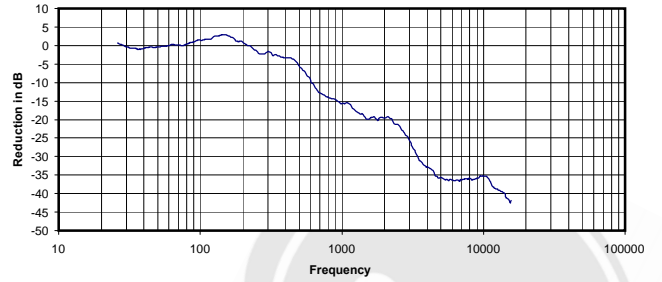
0.029 Vrms
 33 Ohms
 0.03 mW
 -11 dB



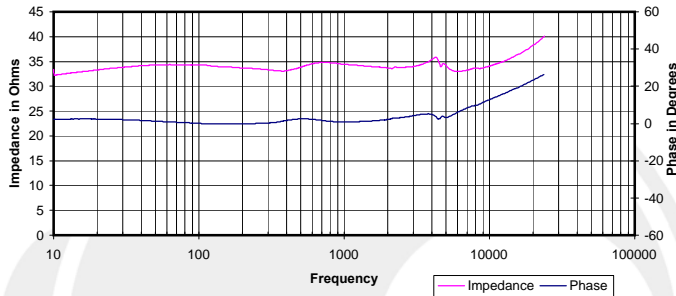
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



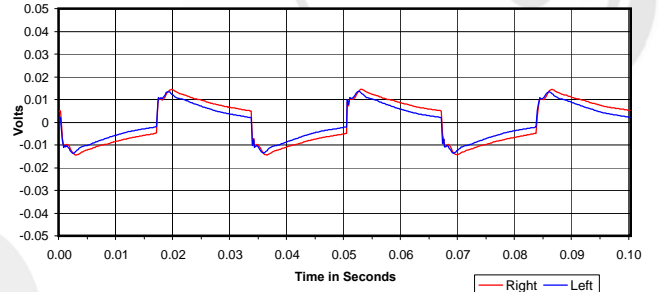
Isolation
Attenuation of External Sound vs. Frequency



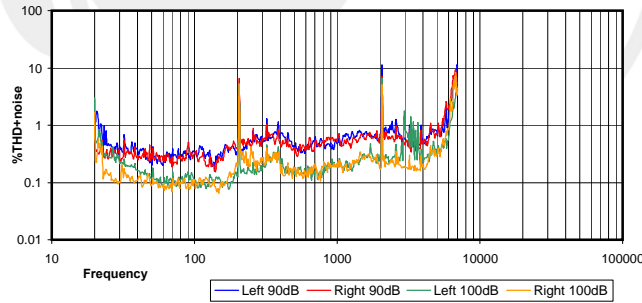
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



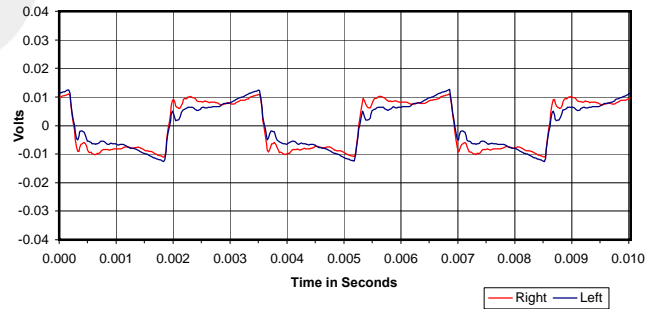
30 Hz Square Wave



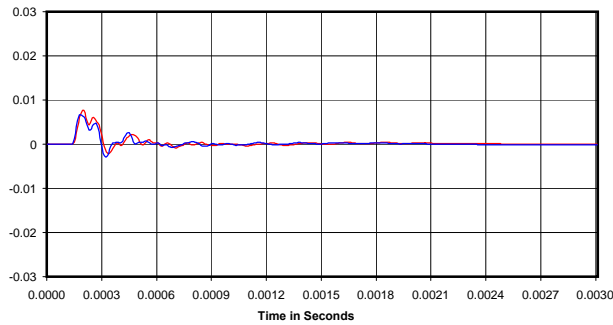
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



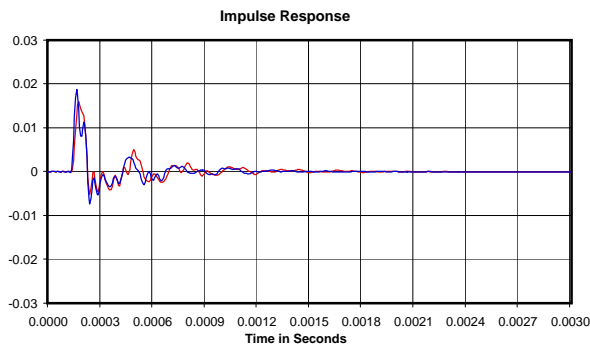
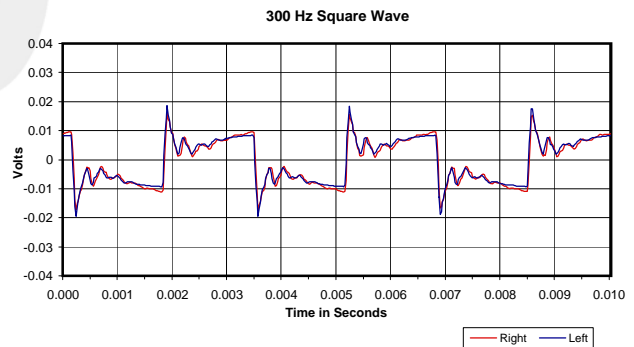
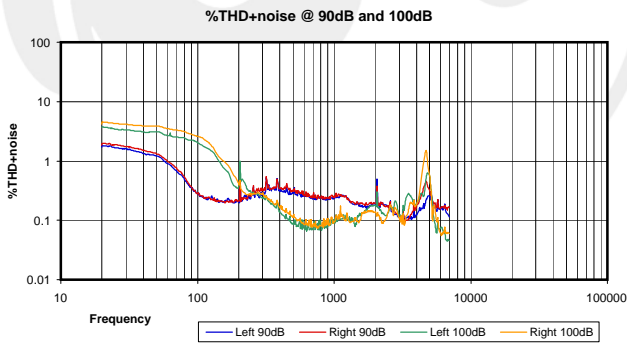
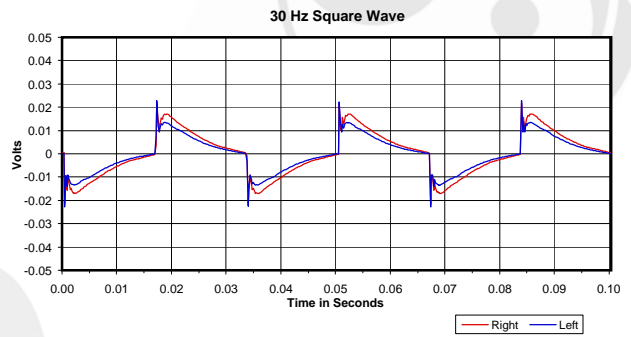
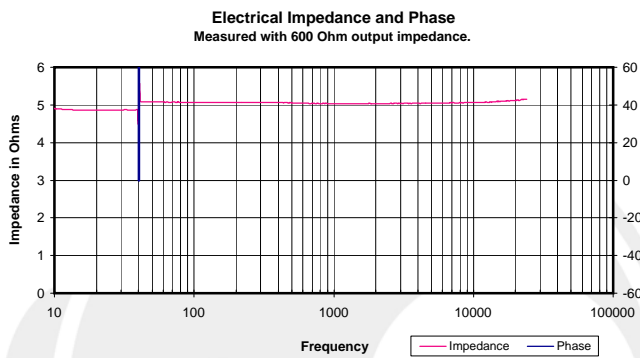
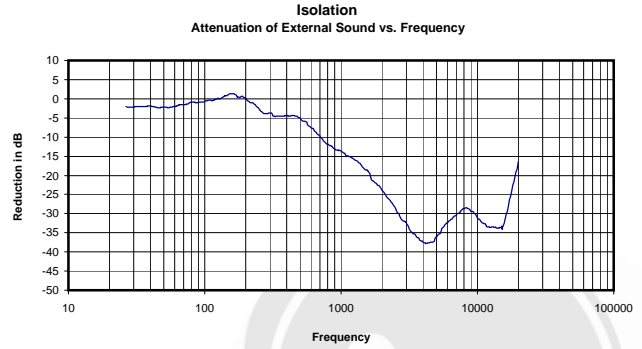
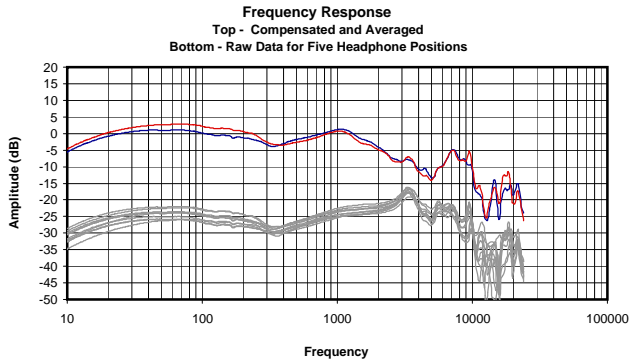
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
34 Ohms
0.01 mW
-13 dB

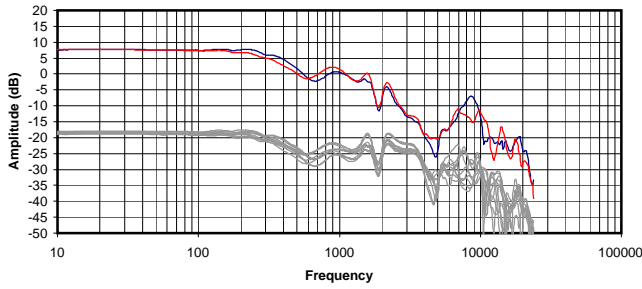




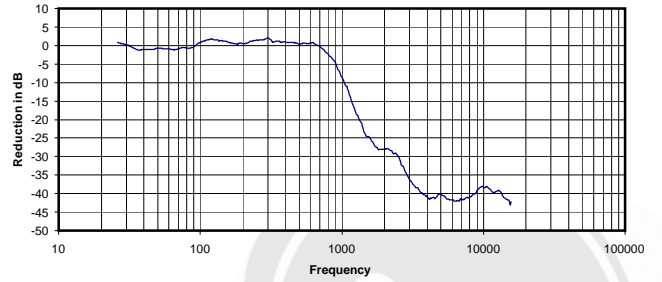
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
5 Ohms
0.81 mW
-16 dB

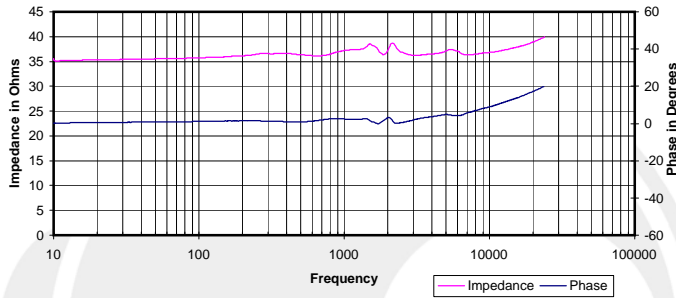
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



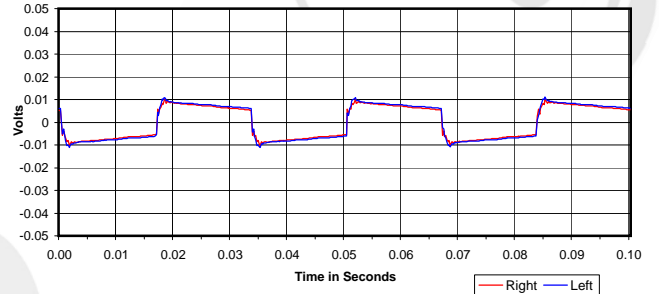
Isolation
 Attenuation of External Sound vs. Frequency



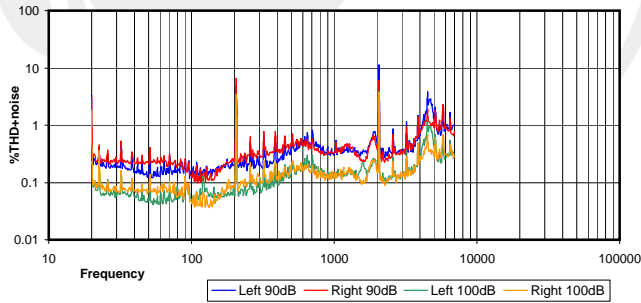
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



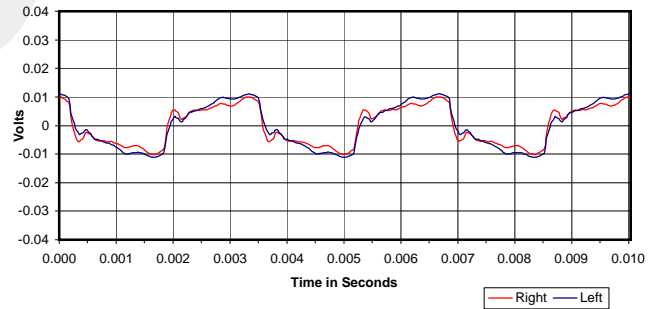
30 Hz Square Wave



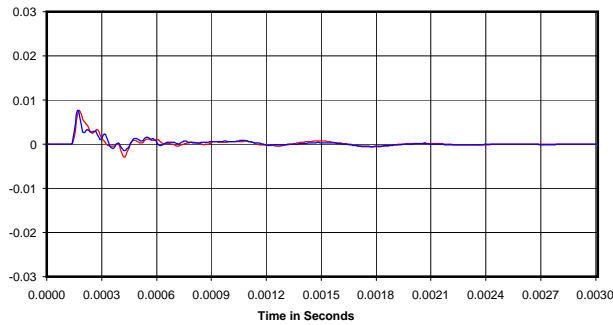
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

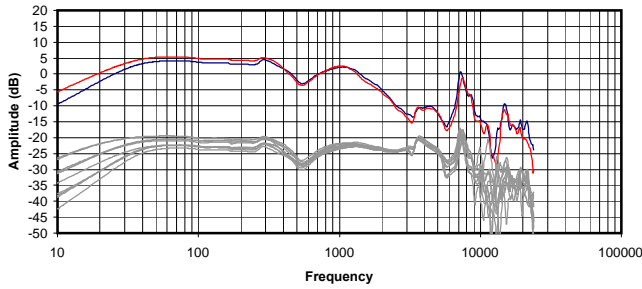


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

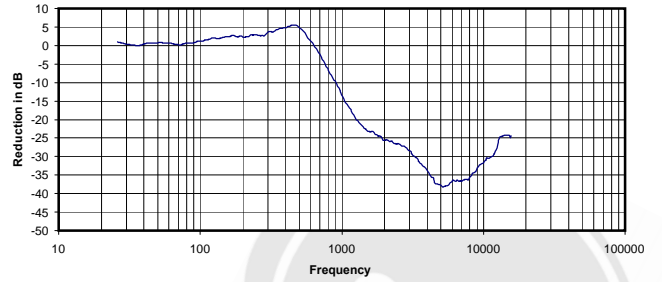
0.024 Vrms
 37 Ohms
 0.02 mW
 -13 dB



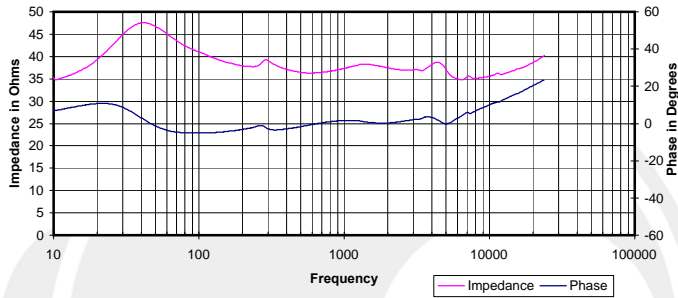
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



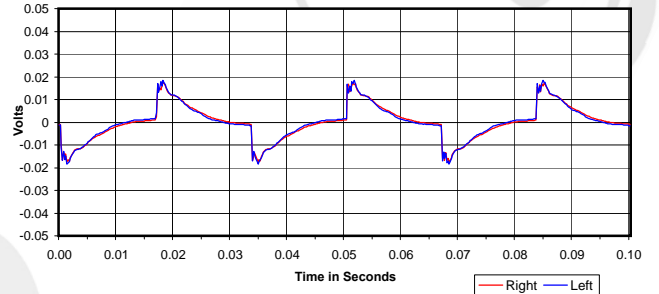
Isolation
 Attenuation of External Sound vs. Frequency



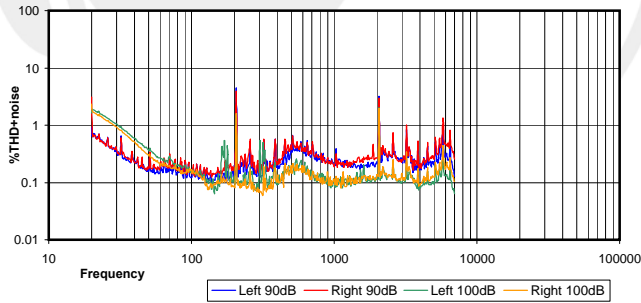
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



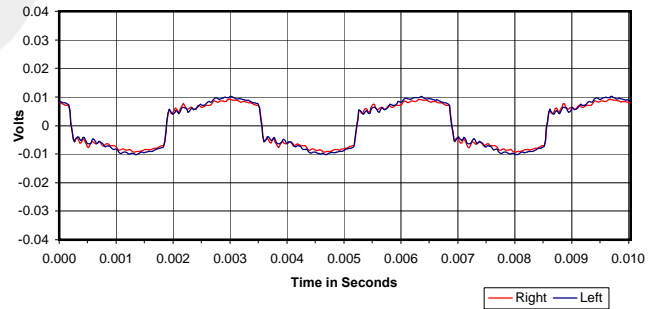
30 Hz Square Wave



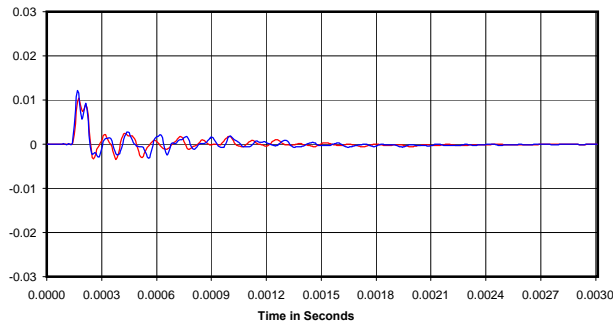
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



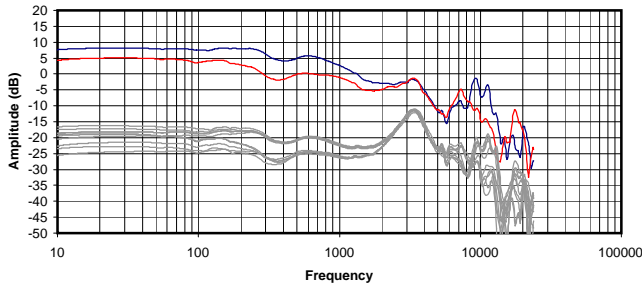
Impulse Response



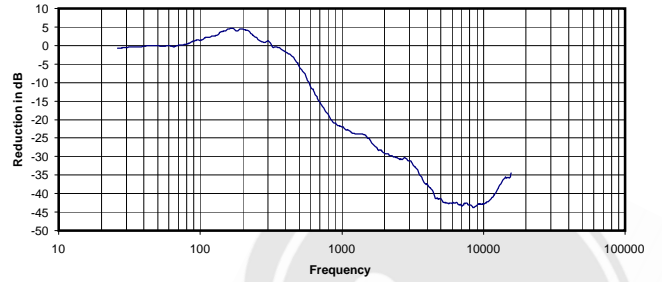
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
 37 Ohms
 0.01 mW
 -12 dB

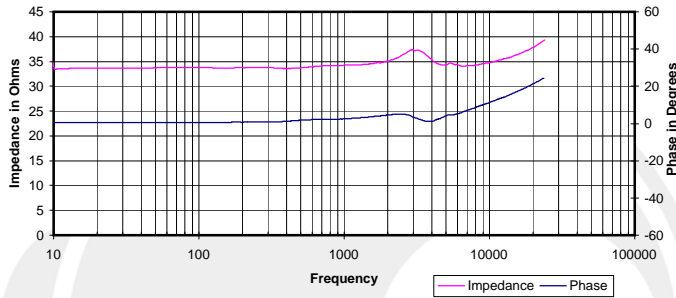
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



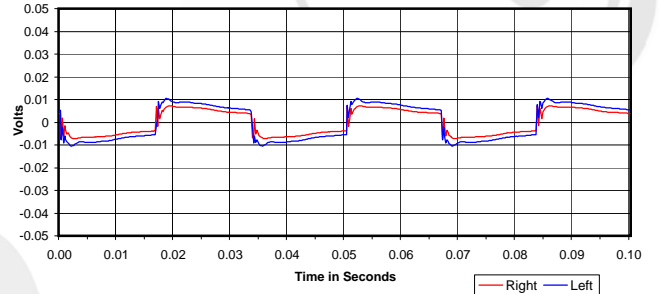
Isolation
 Attenuation of External Sound vs. Frequency



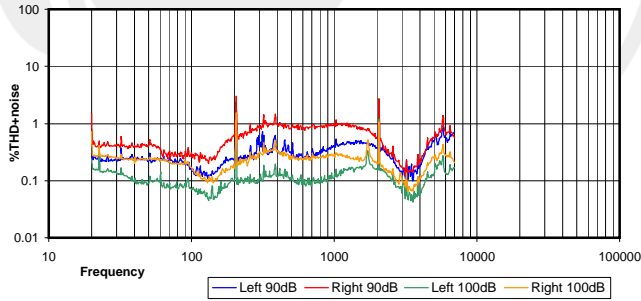
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



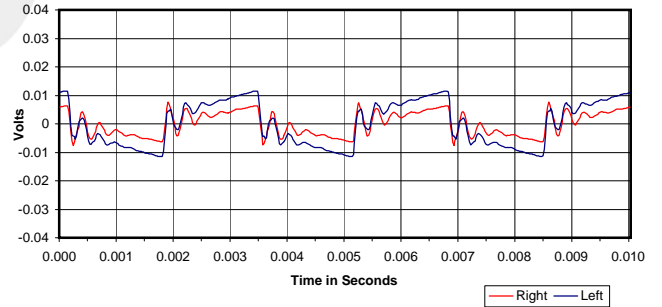
30 Hz Square Wave



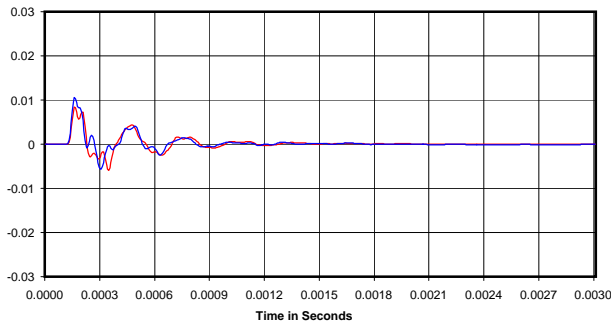
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



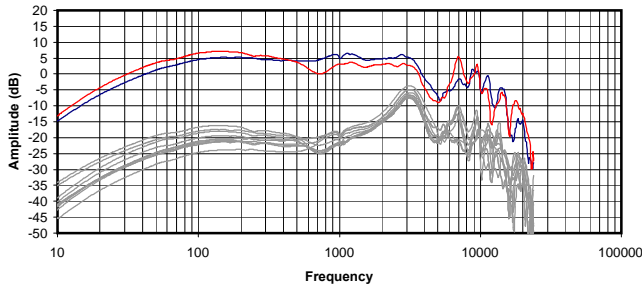
Impulse Response



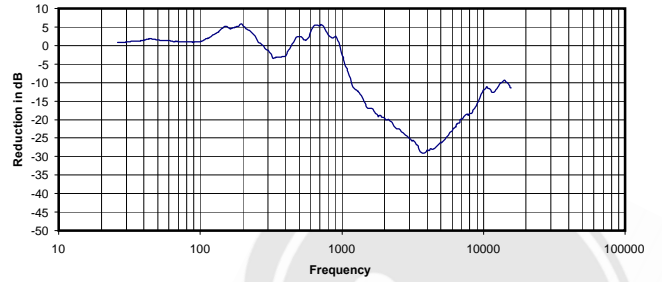
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
 34 Ohms
 0.03 mW
 -16 dB

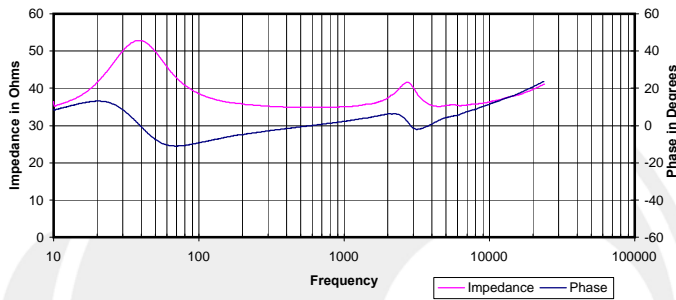
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



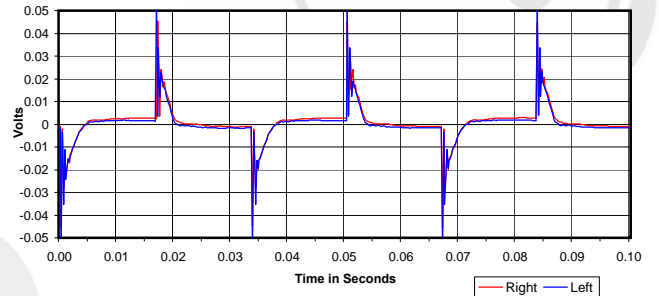
Isolation
 Attenuation of External Sound vs. Frequency



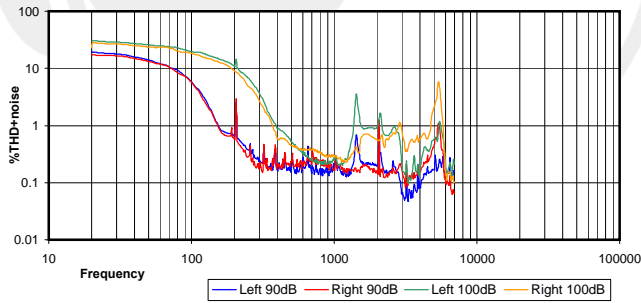
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



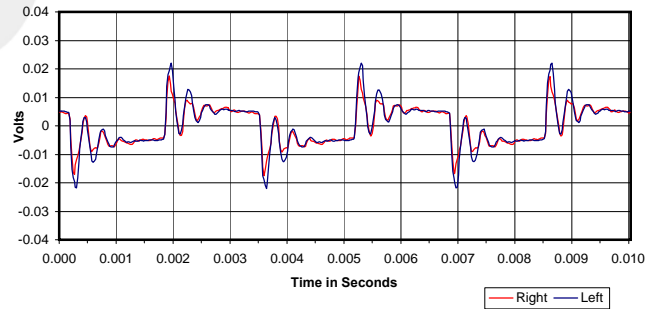
30 Hz Square Wave



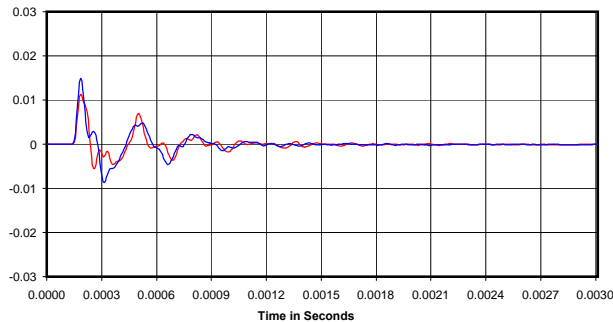
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

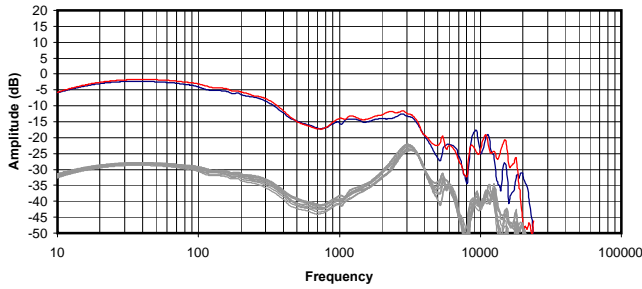


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

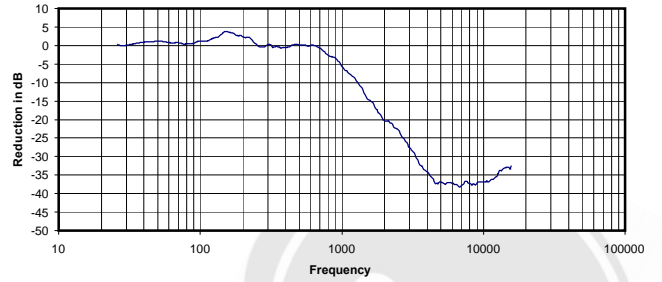
0.049 Vrms
 35 Ohms
 0.07 mW
 -8 dB



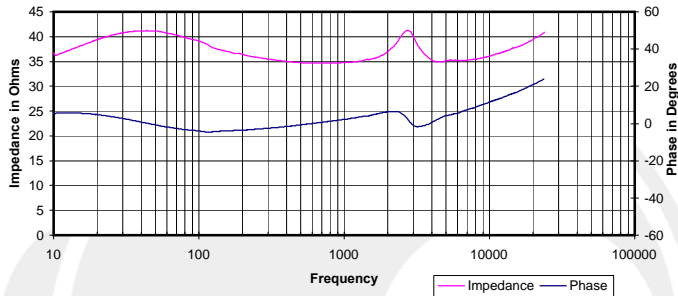
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



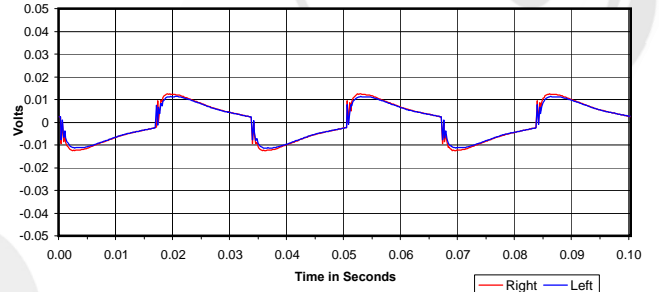
Isolation
 Attenuation of External Sound vs. Frequency



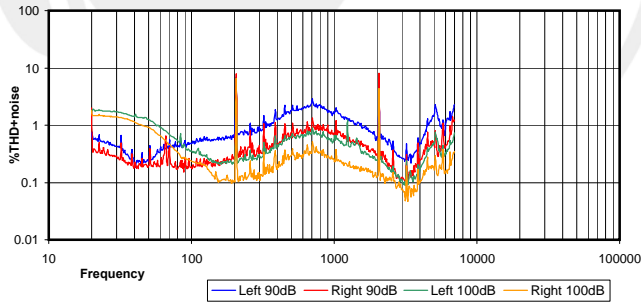
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



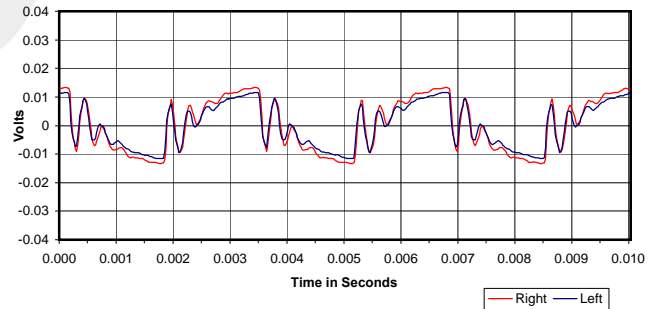
30 Hz Square Wave



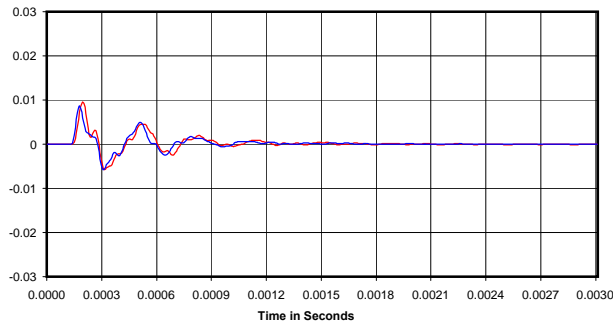
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

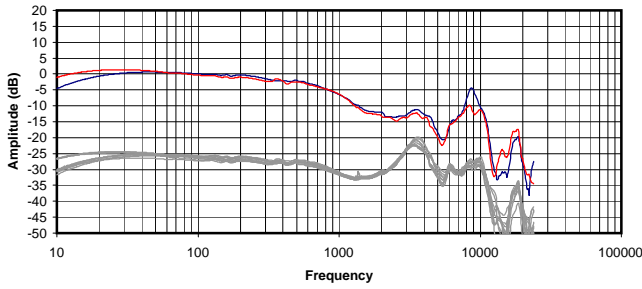


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

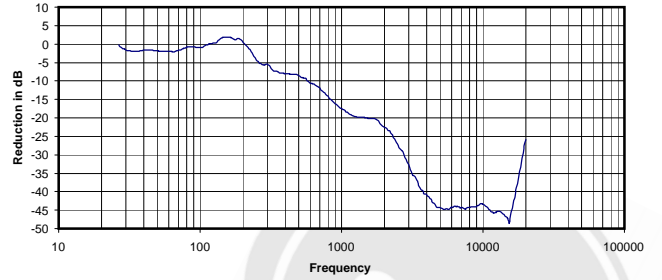
0.049 Vrms
 35 Ohms
 0.07 mW
 -10 dB



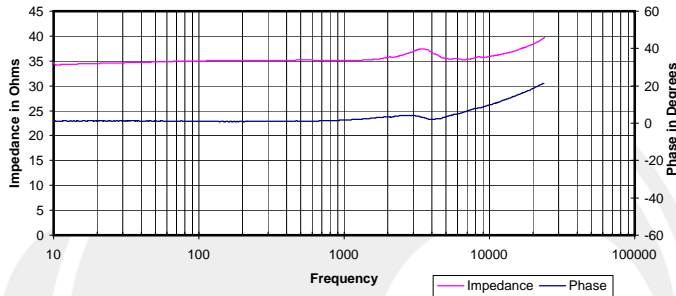
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



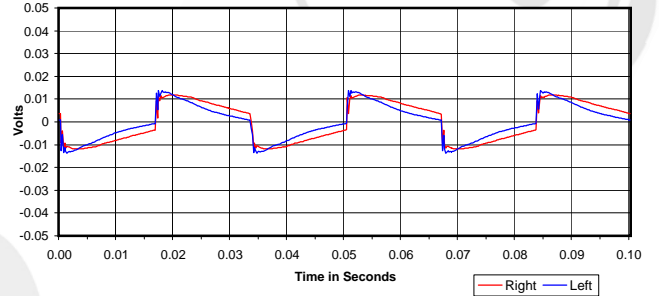
Isolation
Attenuation of External Sound vs. Frequency



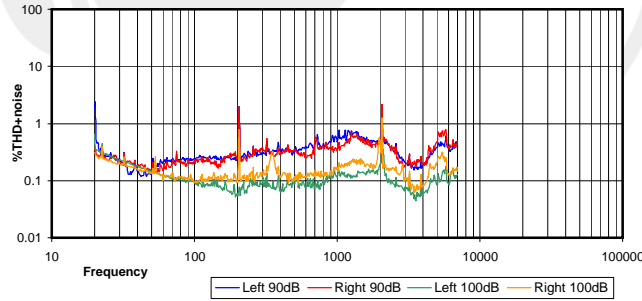
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



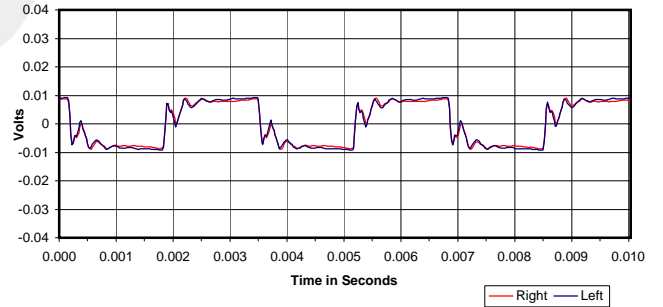
30 Hz Square Wave



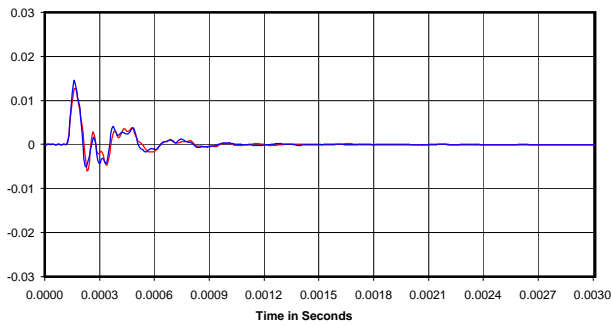
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

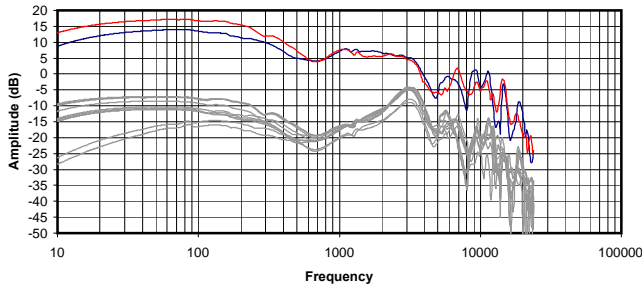


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

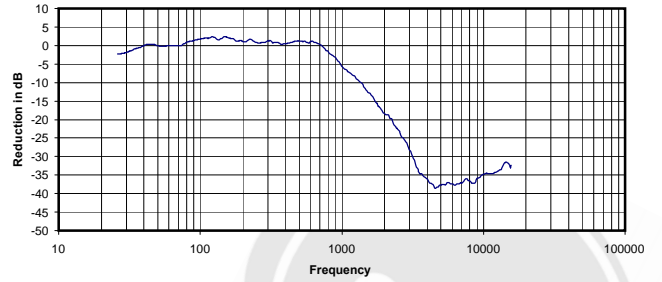
0.040 Vrms
35 Ohms
0.05 mW
-19 dB



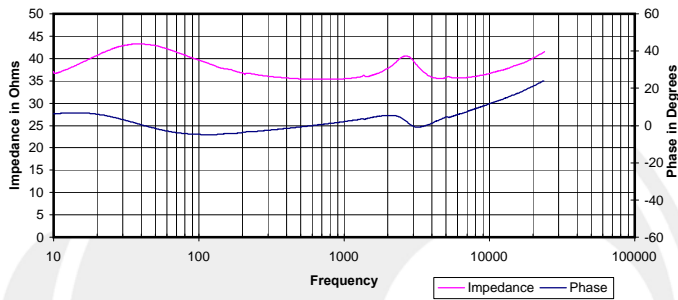
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



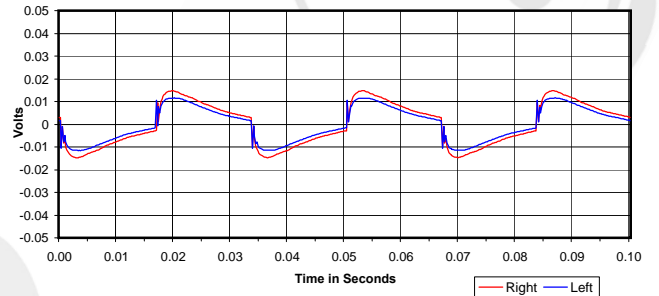
Isolation
Attenuation of External Sound vs. Frequency



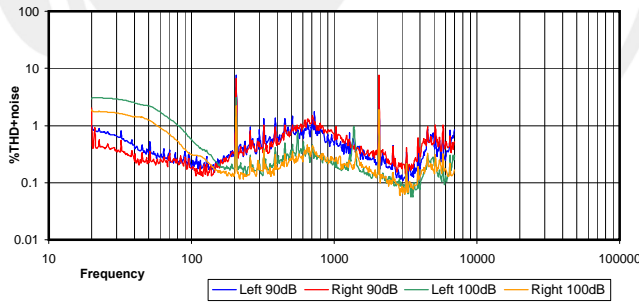
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



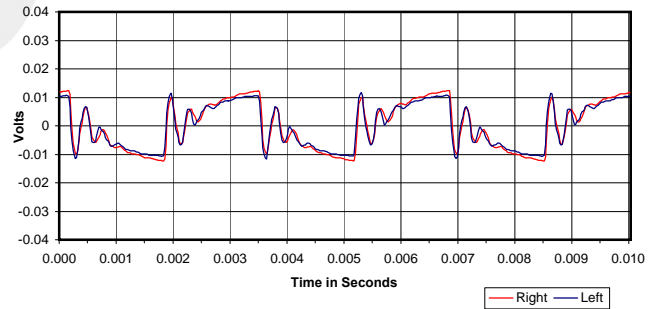
30 Hz Square Wave



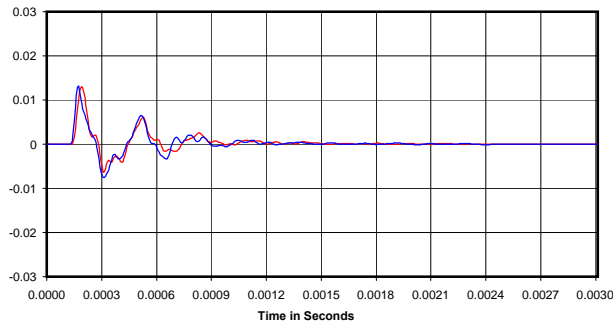
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

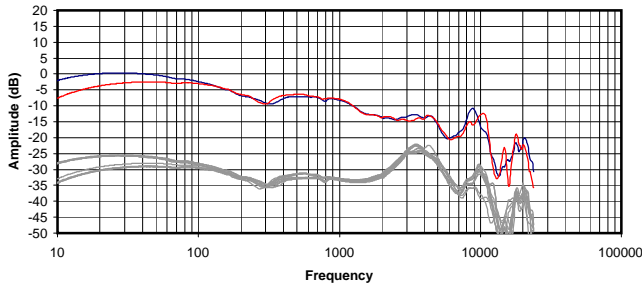


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

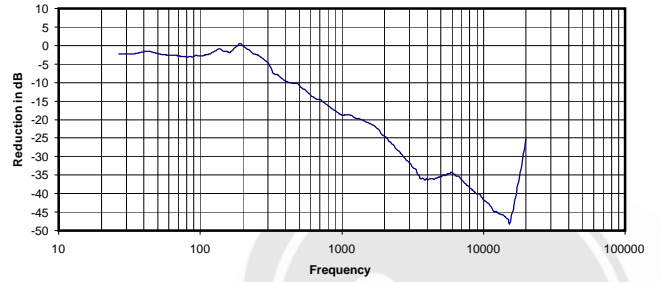
0.038 Vrms
35 Ohms
0.04 mW
-10 dB



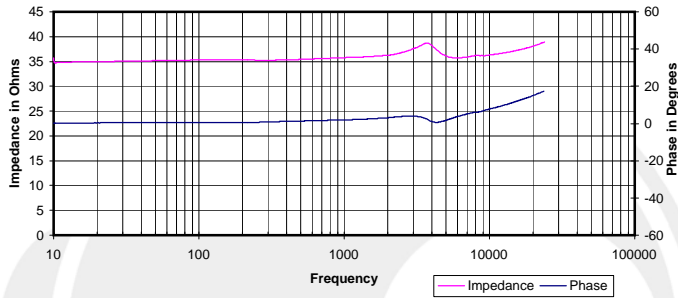
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



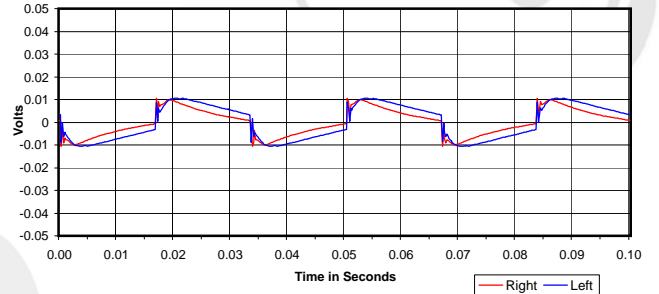
Isolation
 Attenuation of External Sound vs. Frequency



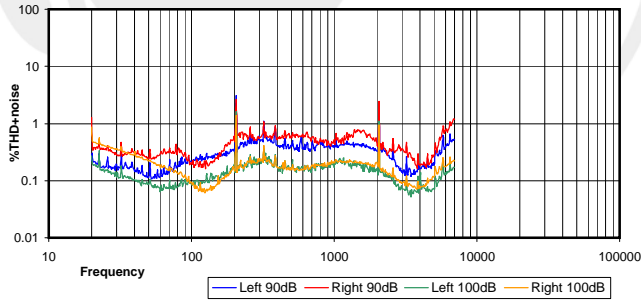
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



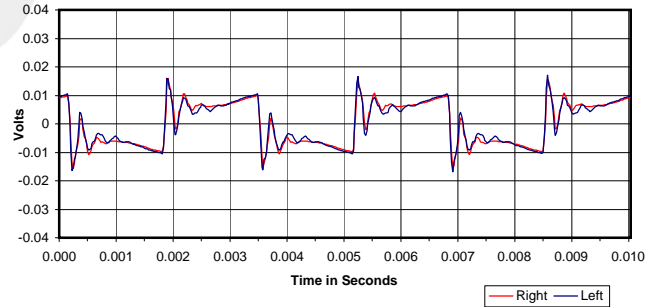
30 Hz Square Wave



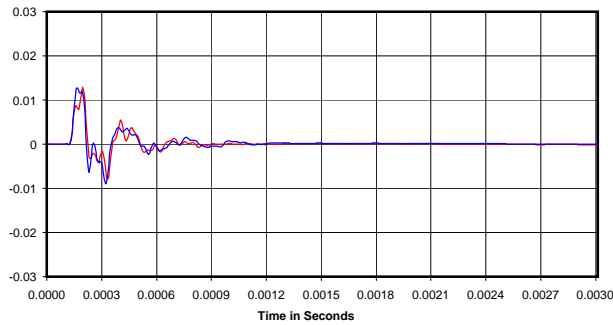
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



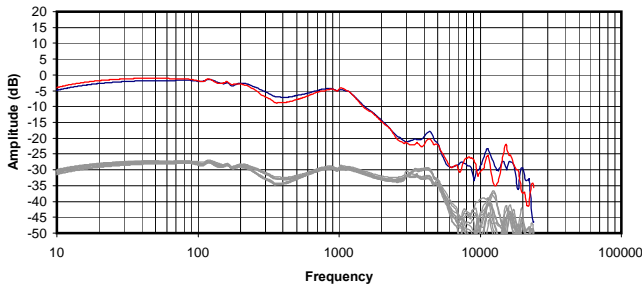
Impulse Response



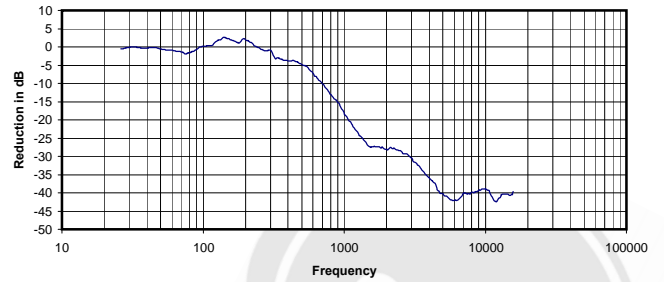
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
 36 Ohms
 0.07 mW
 -19 dB

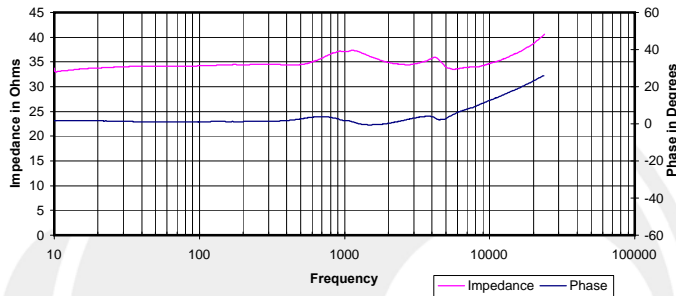
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



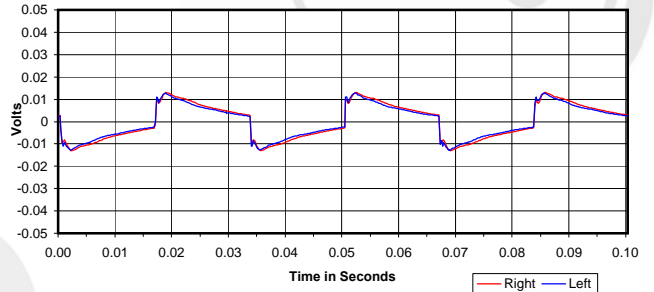
Isolation
 Attenuation of External Sound vs. Frequency



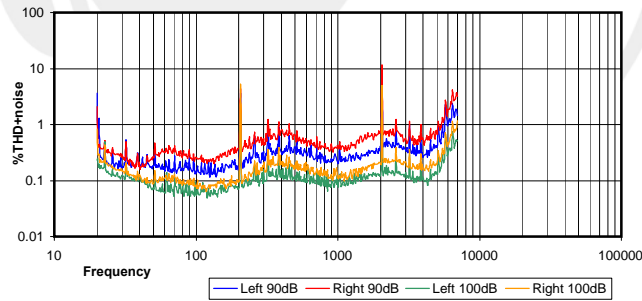
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



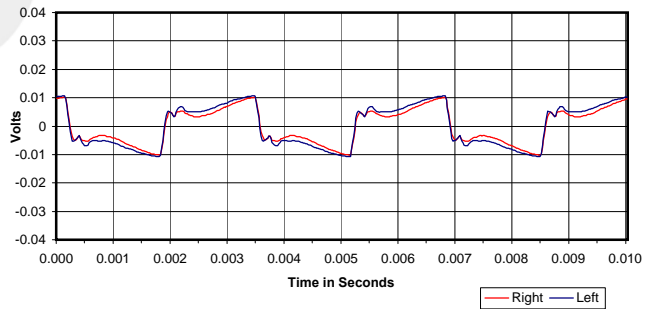
30 Hz Square Wave



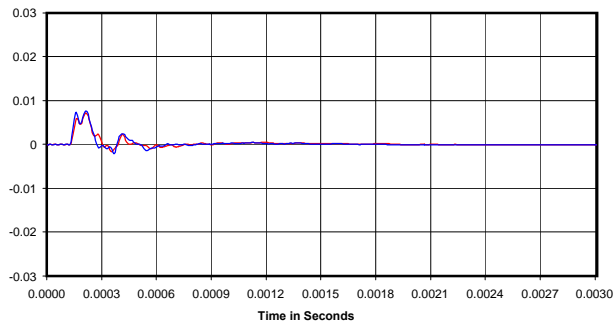
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



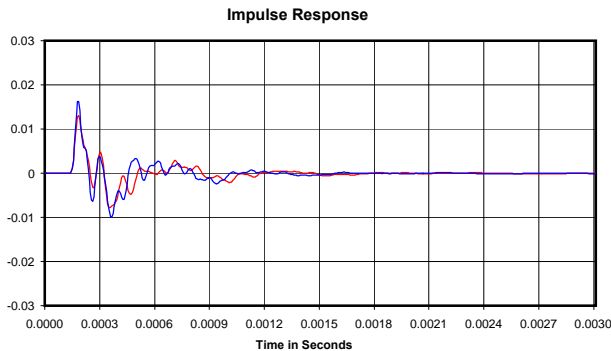
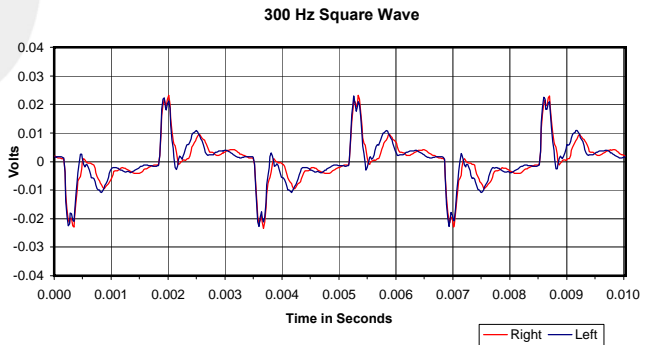
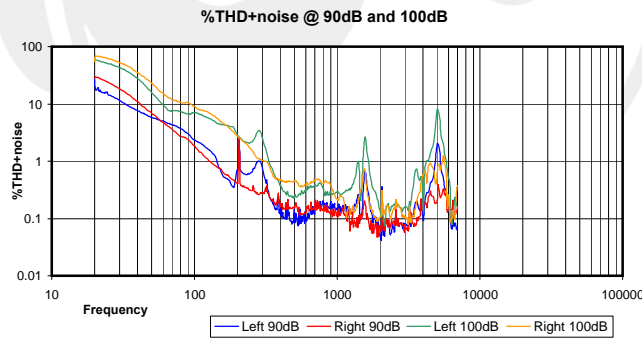
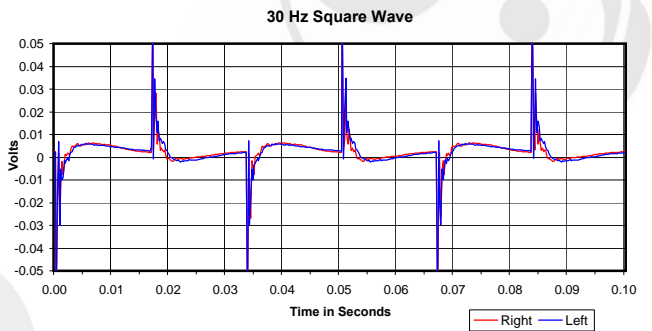
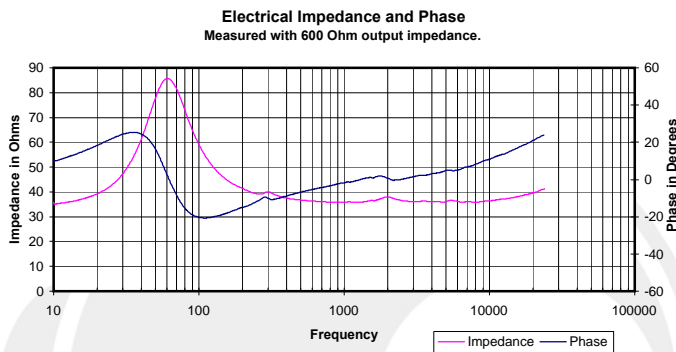
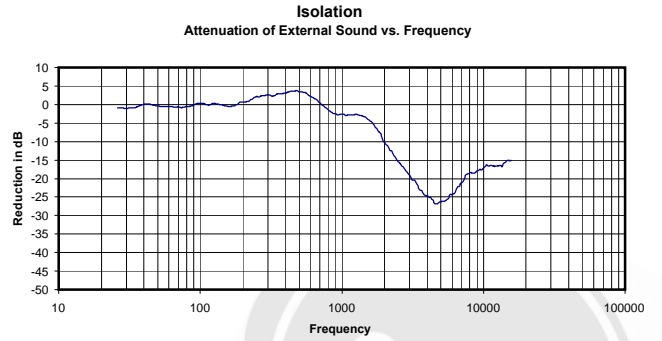
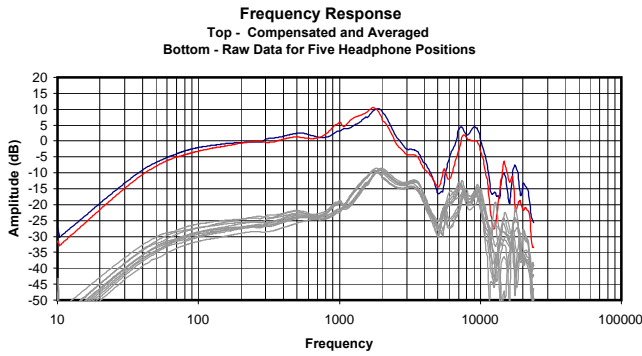
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
 37 Ohms
 0.01 mW
 -15 dB

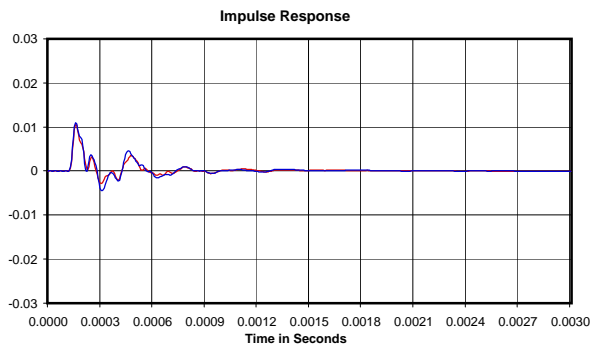
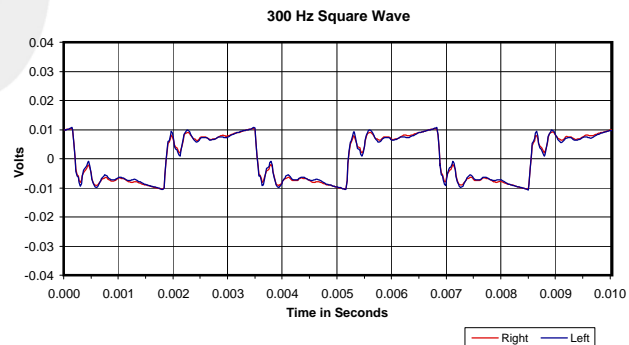
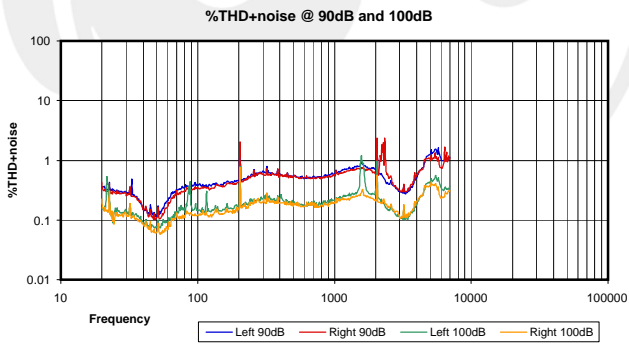
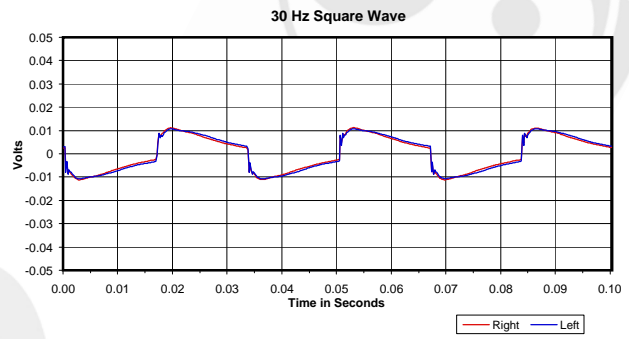
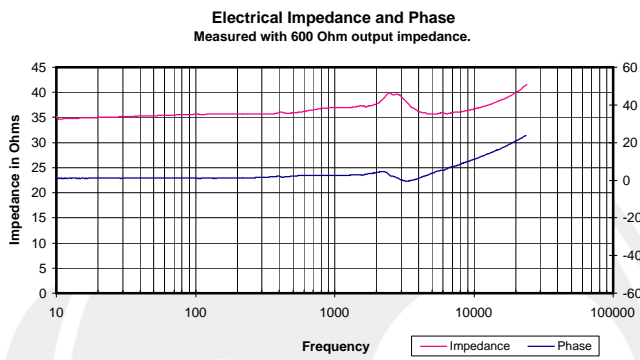
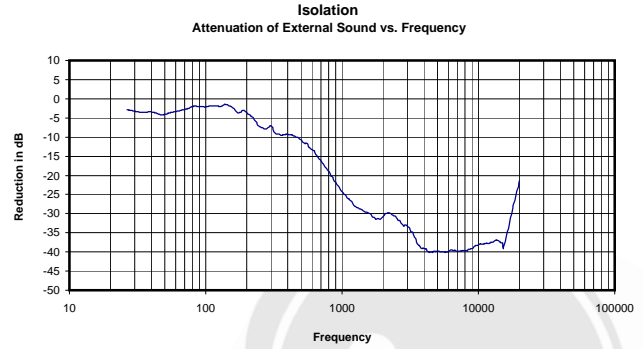
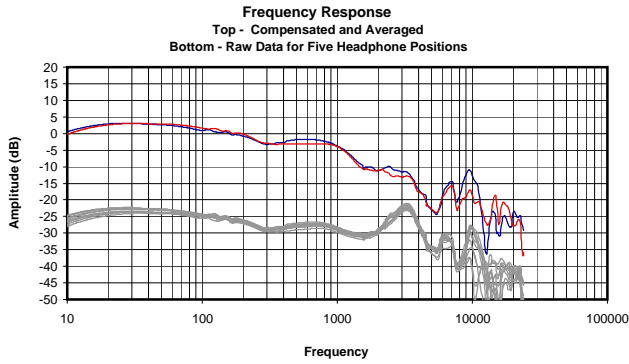




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
36 Ohms
0.06 mW
-6 dBr



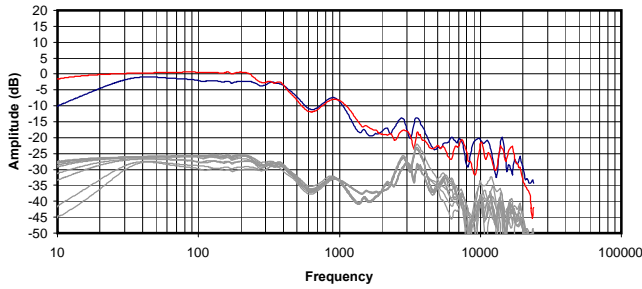


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

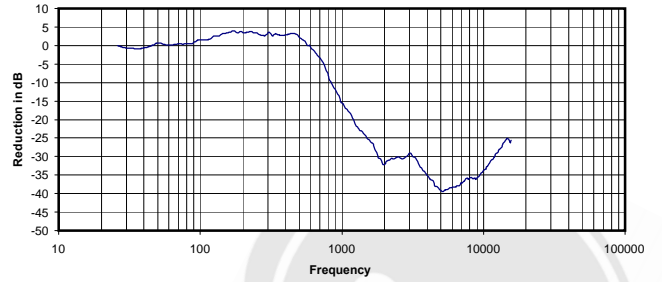
0.034 Vrms
37 Ohms
0.03 mW
-22 dB



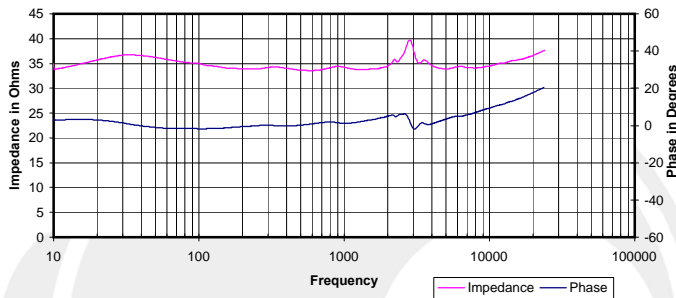
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



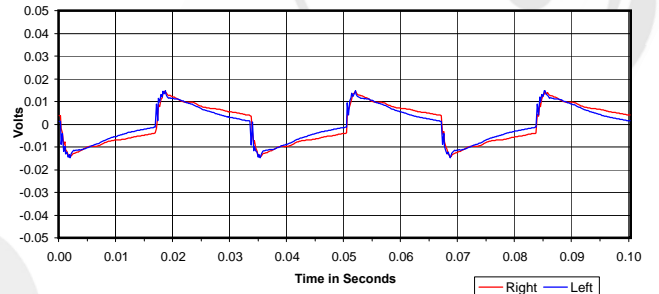
Isolation
Attenuation of External Sound vs. Frequency



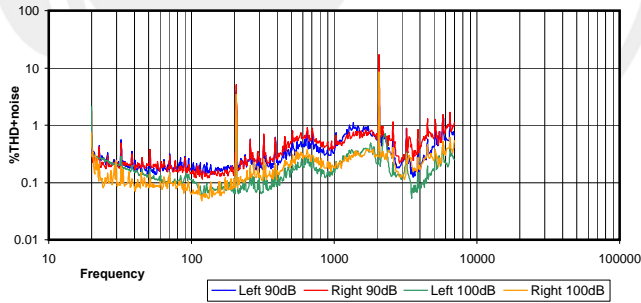
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



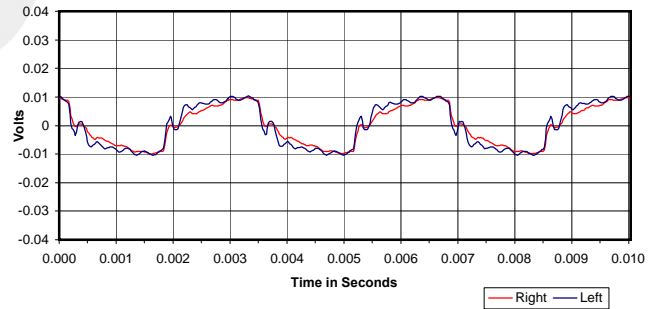
30 Hz Square Wave



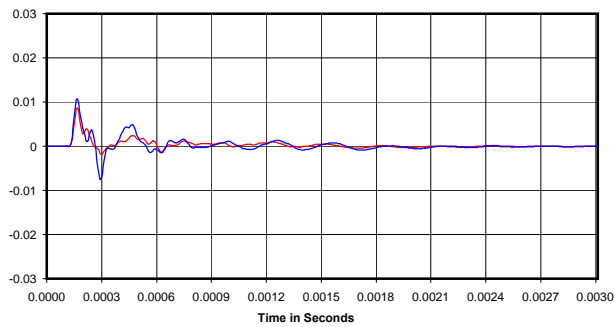
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

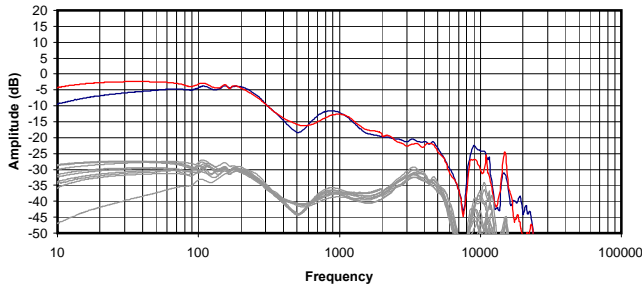


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

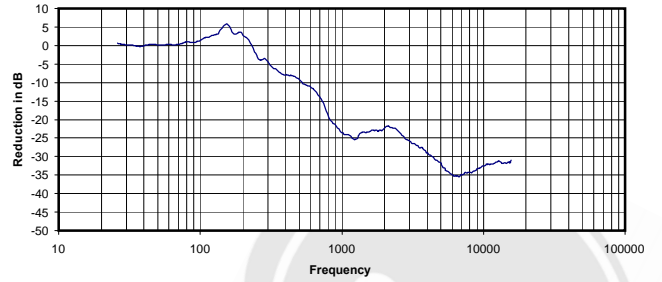
0.028 Vrms
34 Ohms
0.02 mW
-13 dB



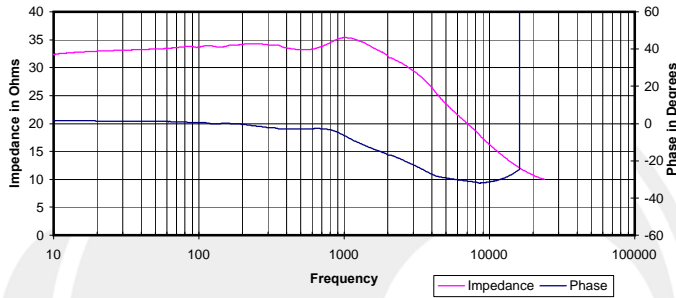
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



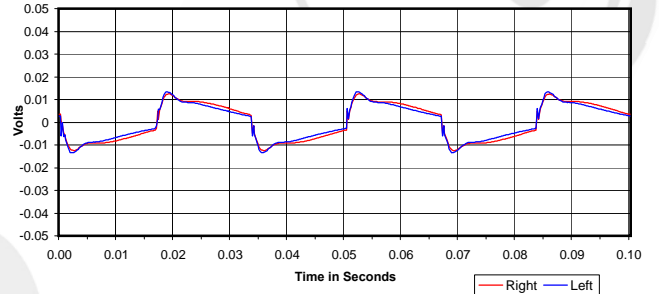
Isolation
Attenuation of External Sound vs. Frequency



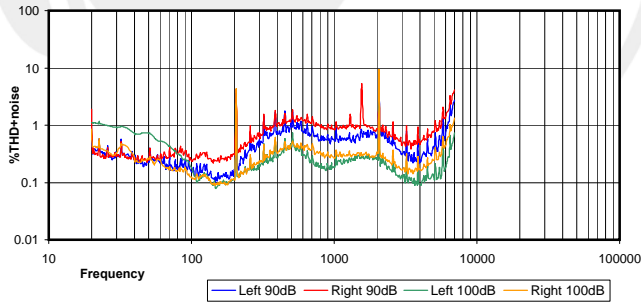
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



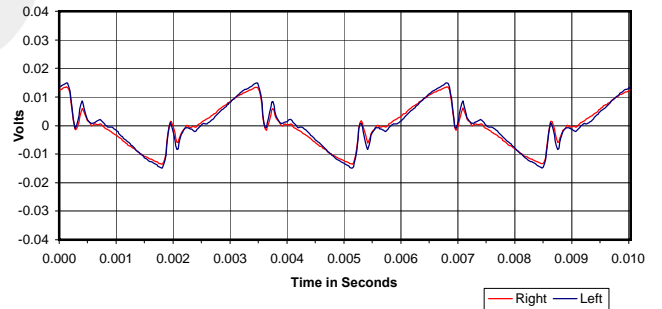
30 Hz Square Wave



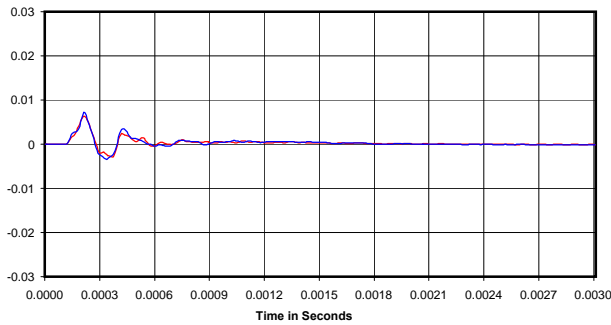
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

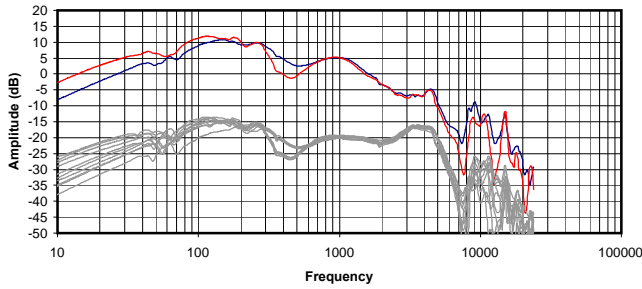


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

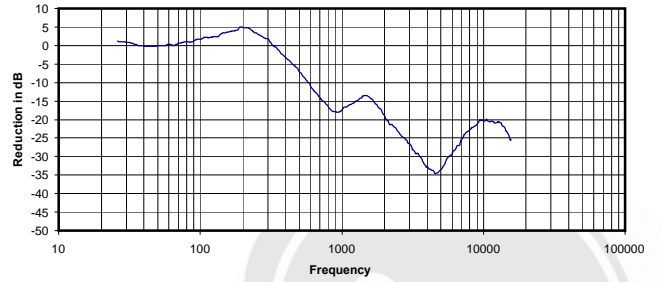
0.038 Vrms
35 Ohms
0.04 mW
-14 dB



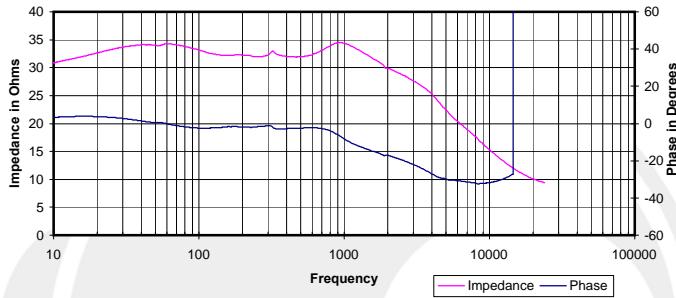
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



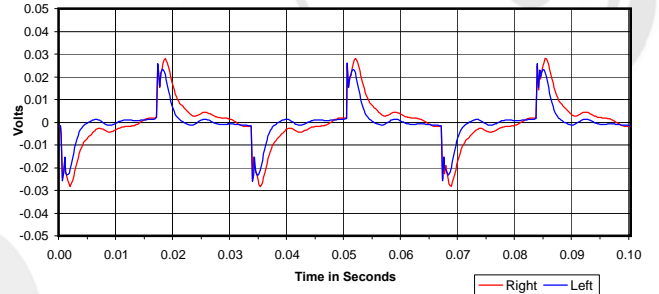
Isolation
Attenuation of External Sound vs. Frequency



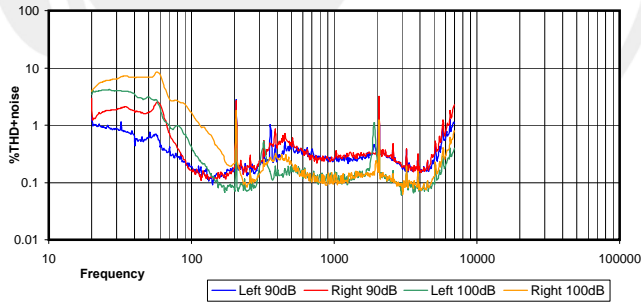
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



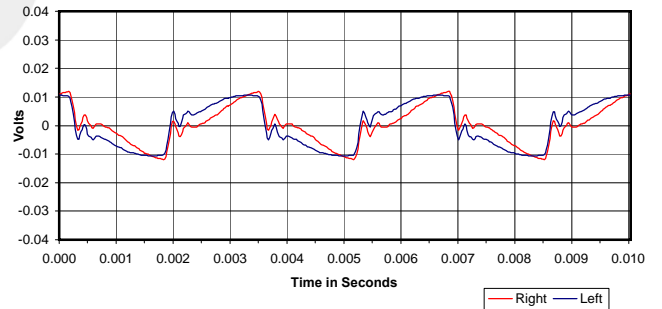
30 Hz Square Wave



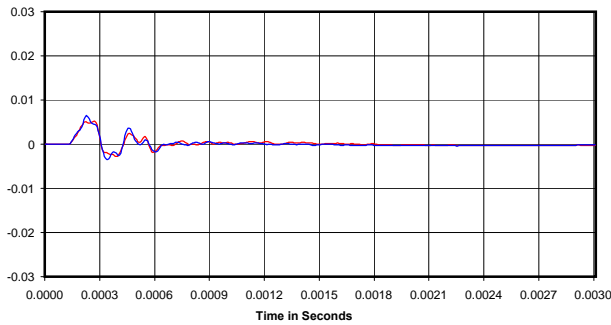
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

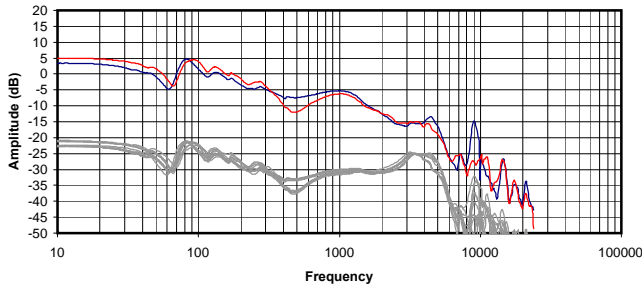


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

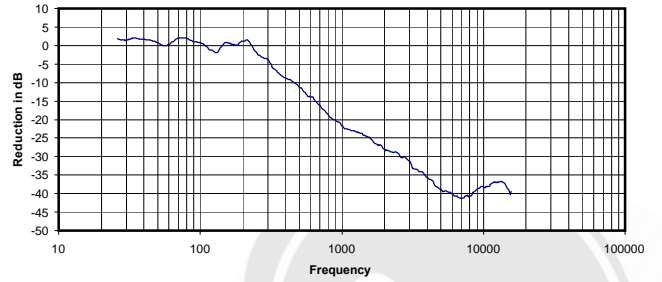
0.033 Vrms
34 Ohms
0.03 mW
-12 dB



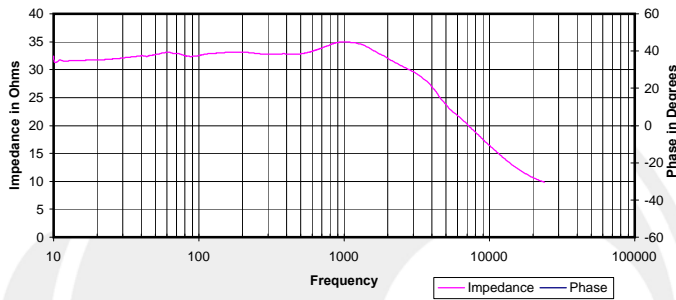
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



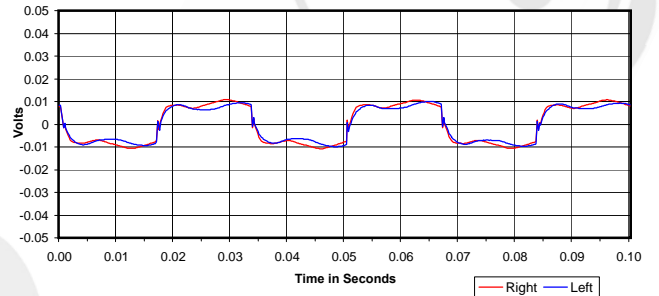
Isolation
Attenuation of External Sound vs. Frequency



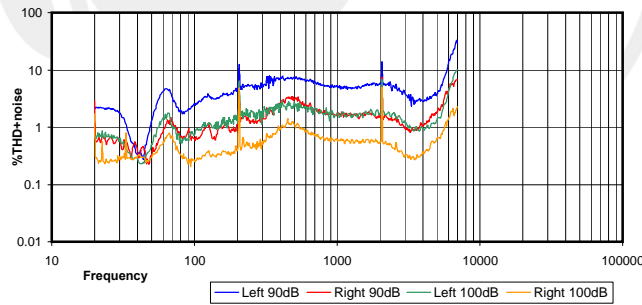
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



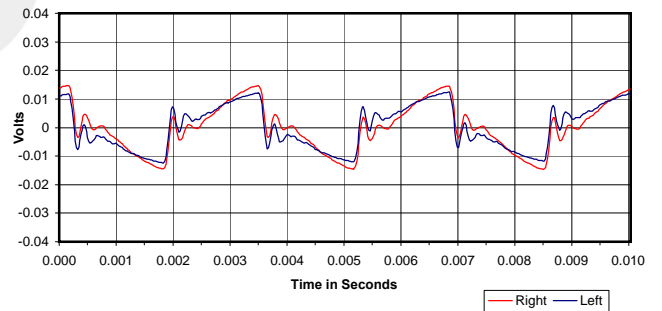
30 Hz Square Wave



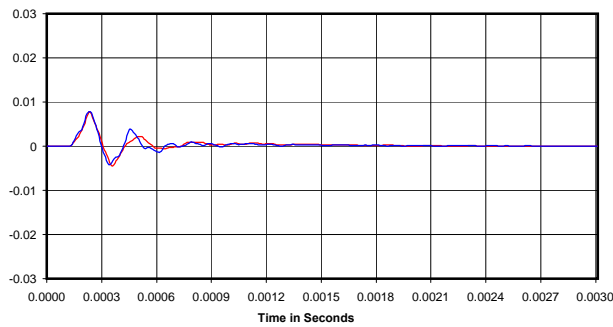
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

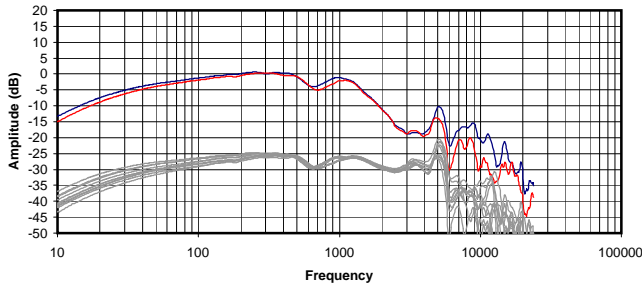


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

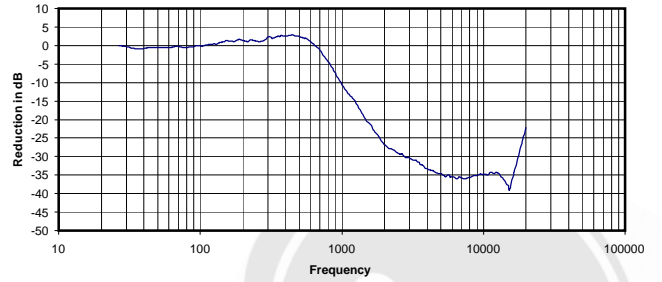
0.030 Vrms
35 Ohms
0.03 mW
-17 dB



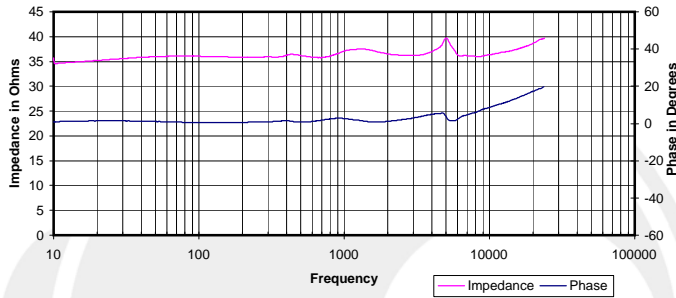
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



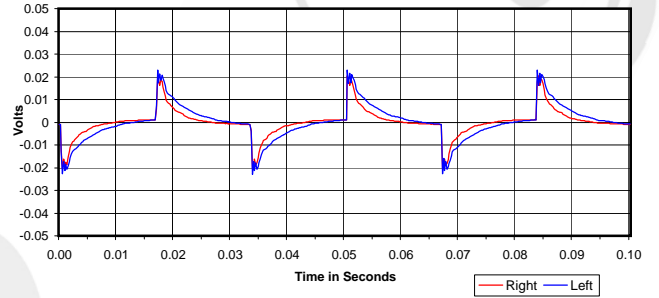
Isolation
 Attenuation of External Sound vs. Frequency



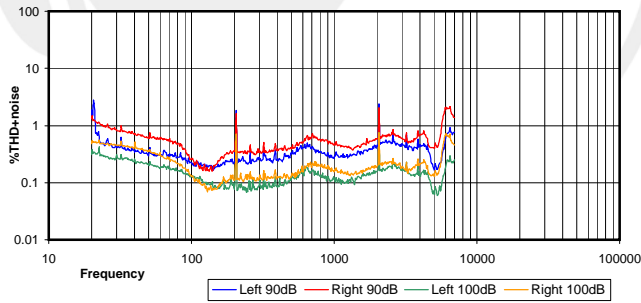
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



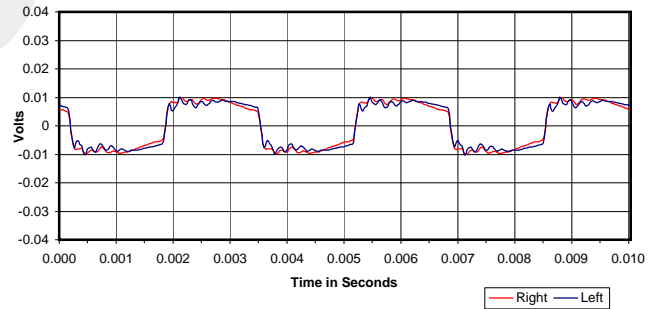
30 Hz Square Wave



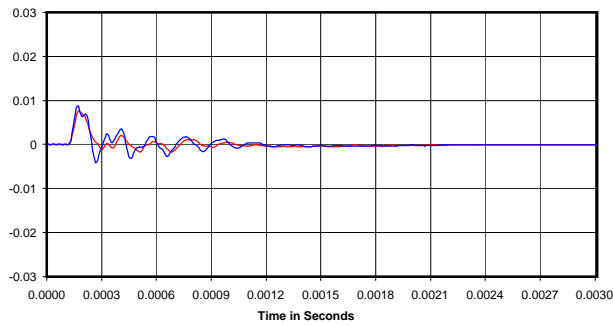
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

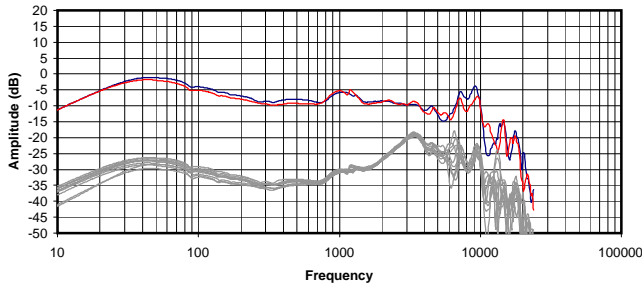


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

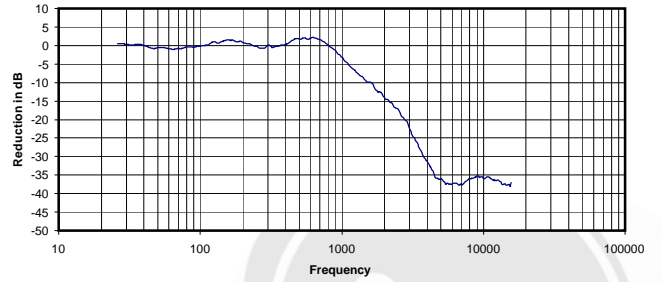
0.020 Vrms
 37 Ohms
 0.01 mW
 -14 dB



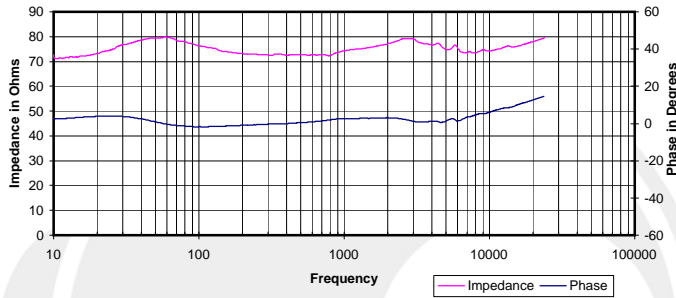
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



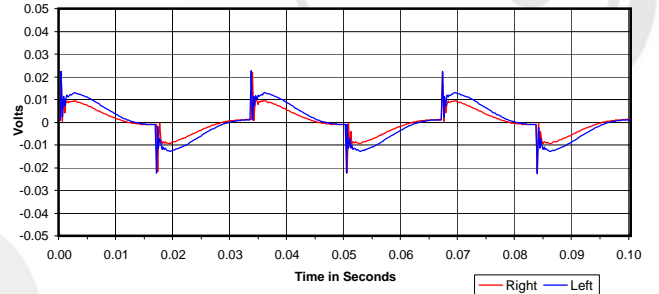
Isolation
 Attenuation of External Sound vs. Frequency



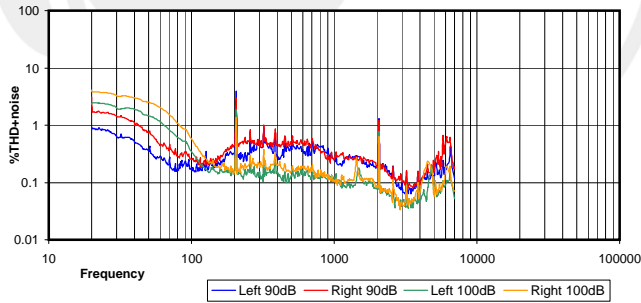
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



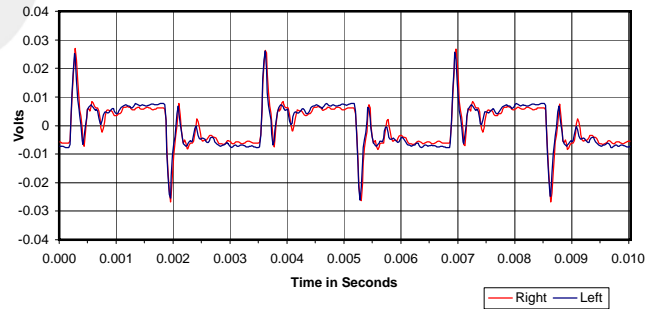
30 Hz Square Wave



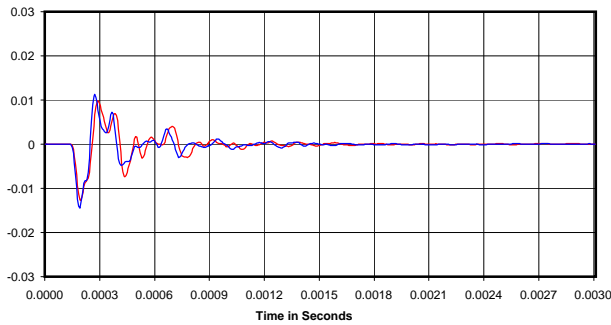
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

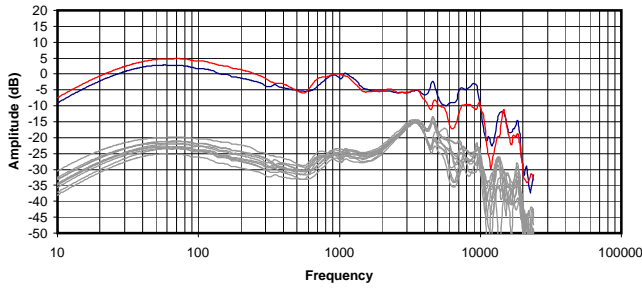


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

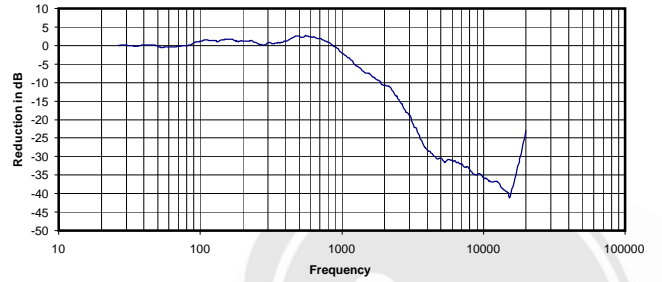
0.057 Vrms
 74 Ohms
 0.04 mW
 -9 dB



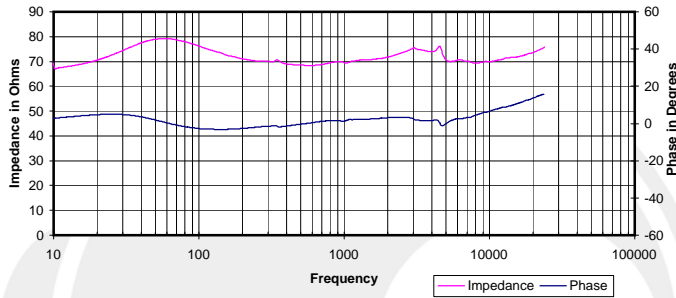
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



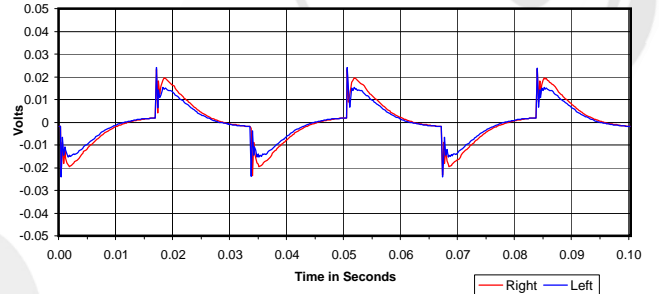
Isolation
Attenuation of External Sound vs. Frequency



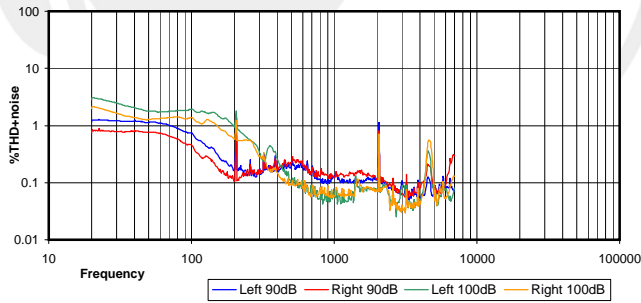
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



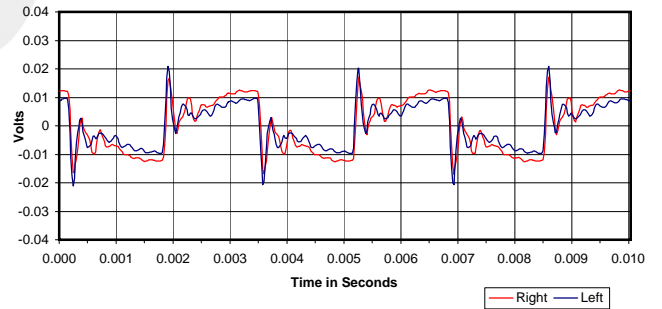
30 Hz Square Wave



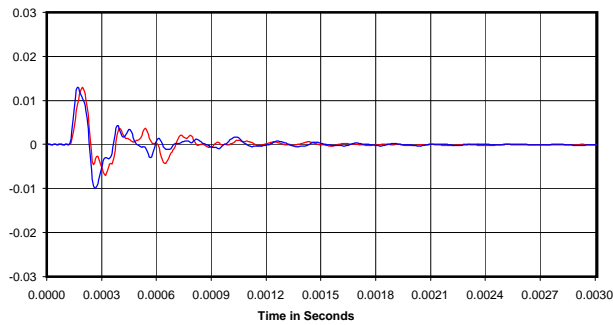
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

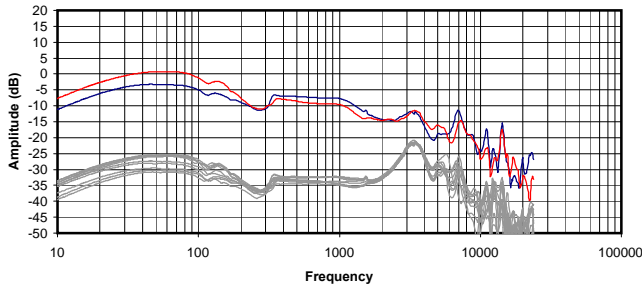


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

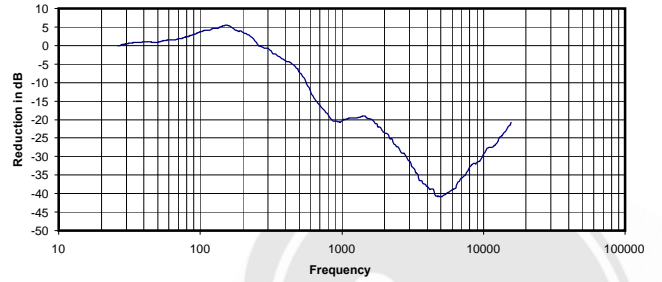
0.041 Vrms
70 Ohms
0.02 mW
-10 dB



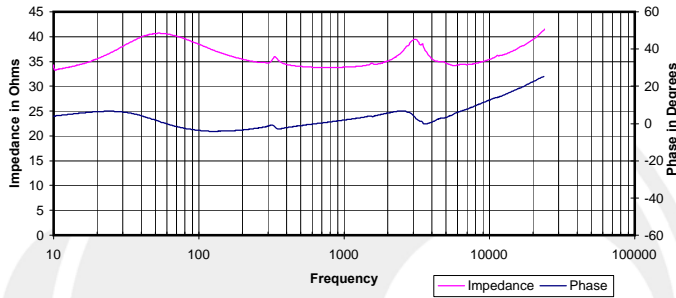
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



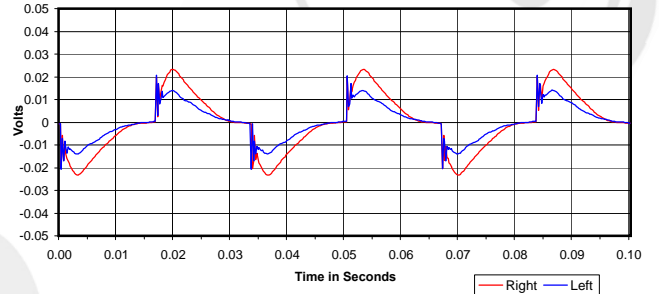
Isolation
 Attenuation of External Sound vs. Frequency



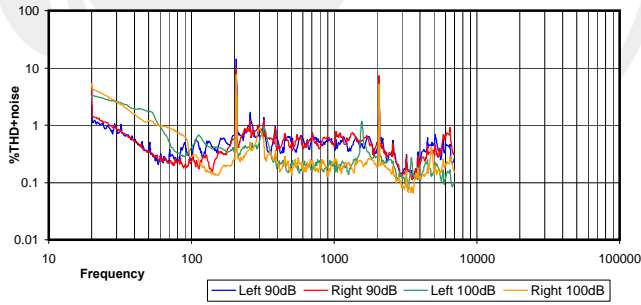
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



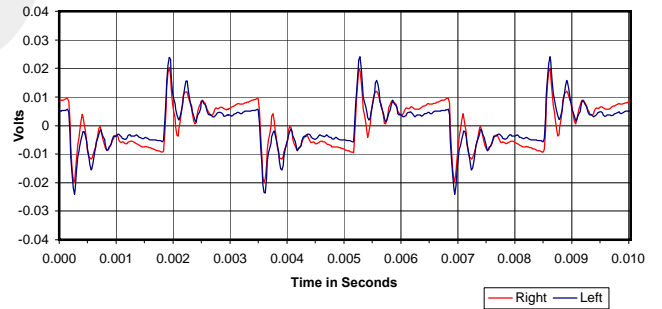
30 Hz Square Wave



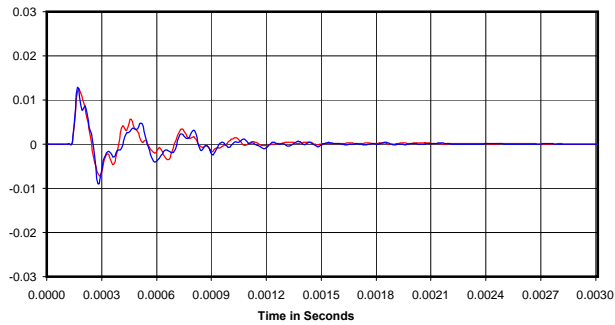
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

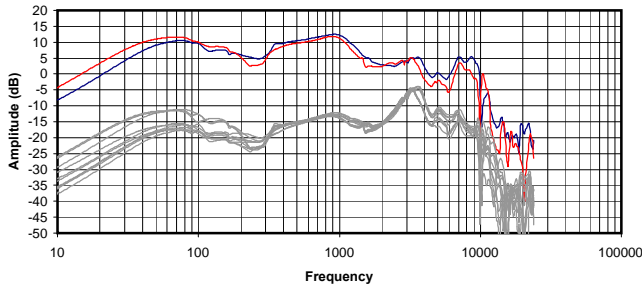


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

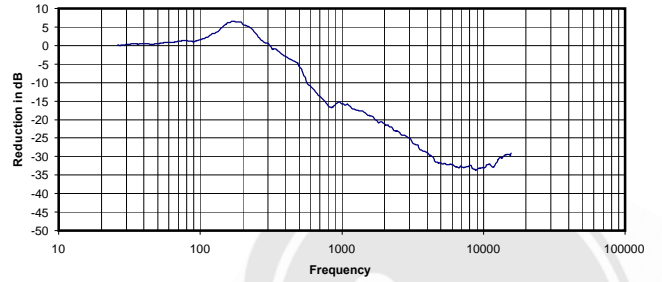
0.042 Vrms
 34 Ohms
 0.05 mW
 -15 dB



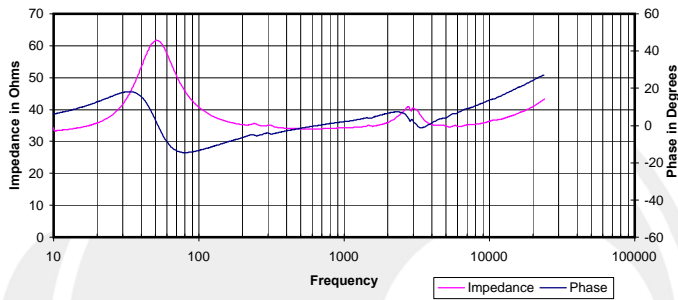
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



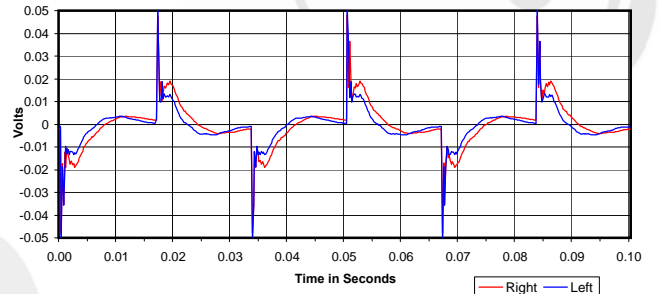
Isolation
 Attenuation of External Sound vs. Frequency



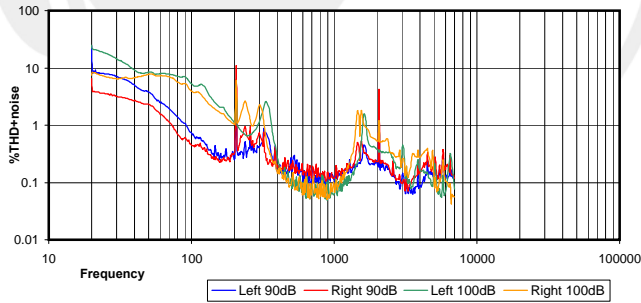
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



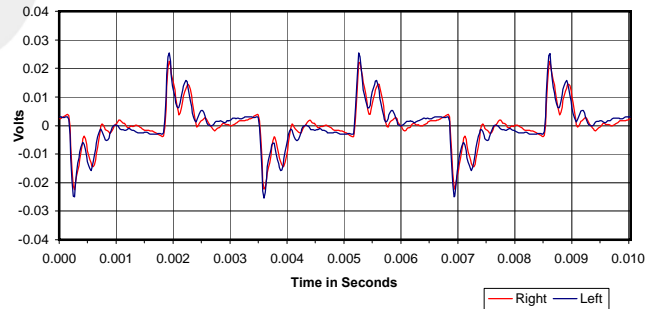
30 Hz Square Wave



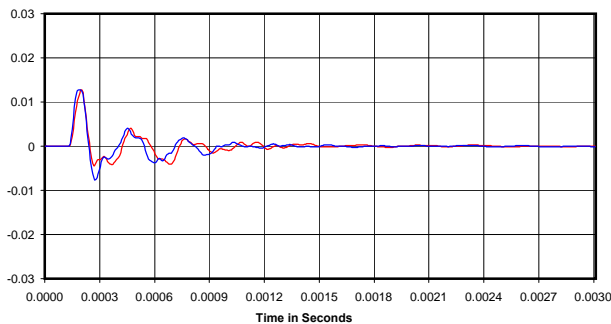
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



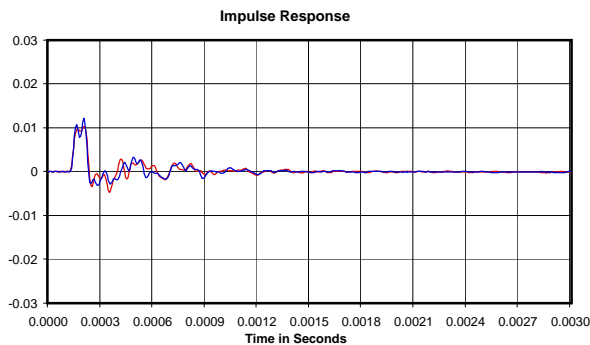
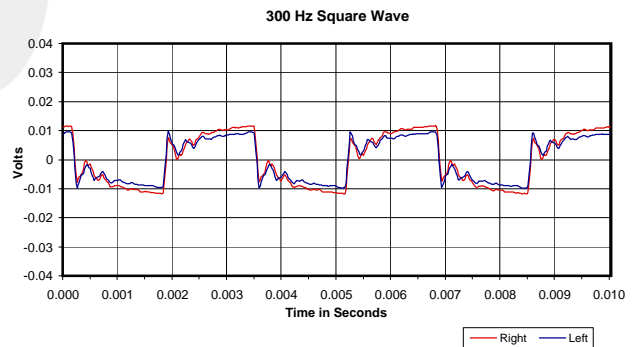
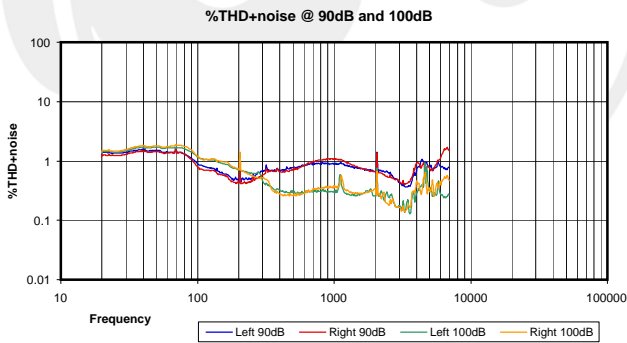
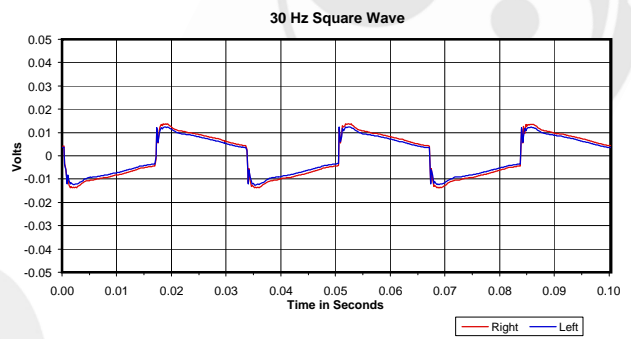
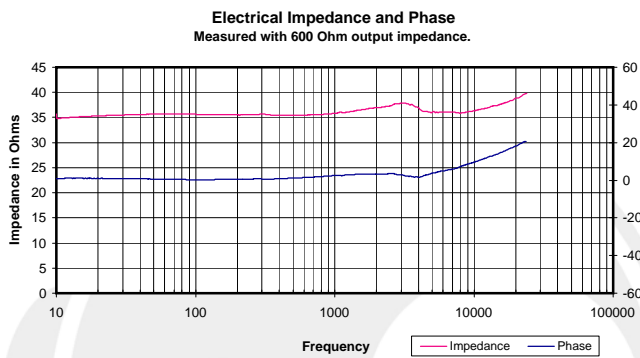
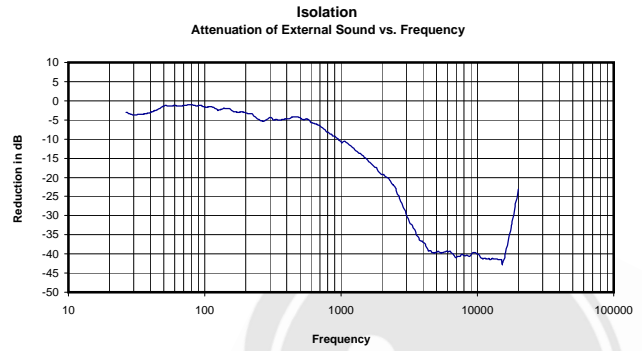
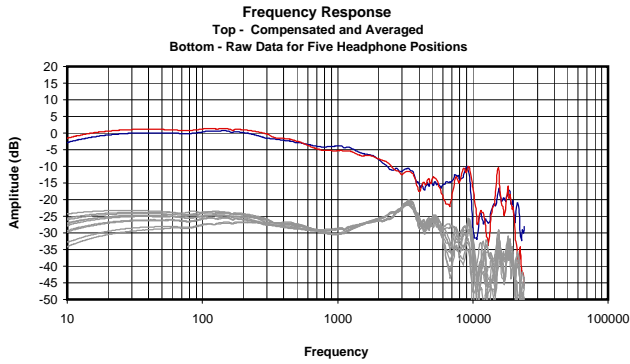
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
 34 Ohms
 0.02 mW
 -12 dB

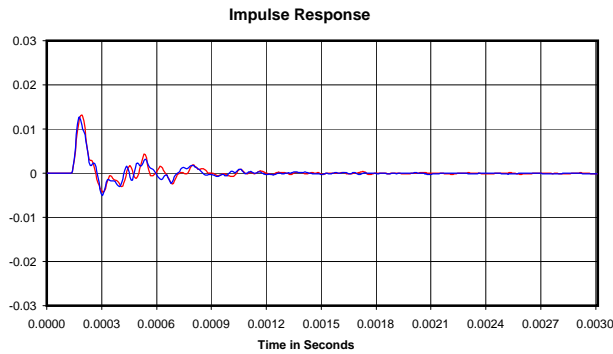
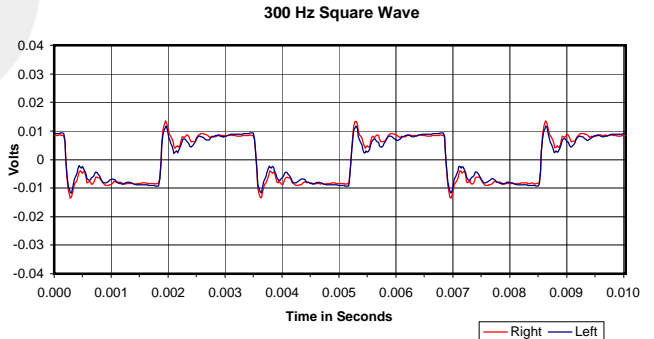
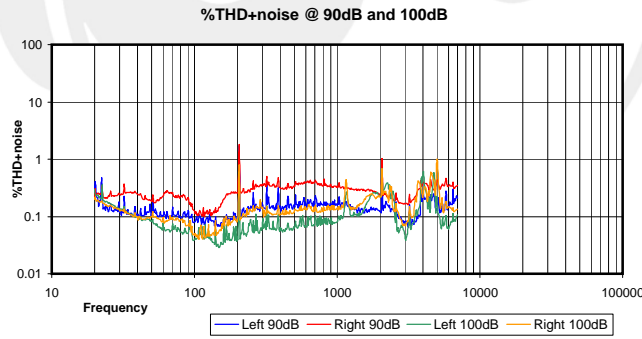
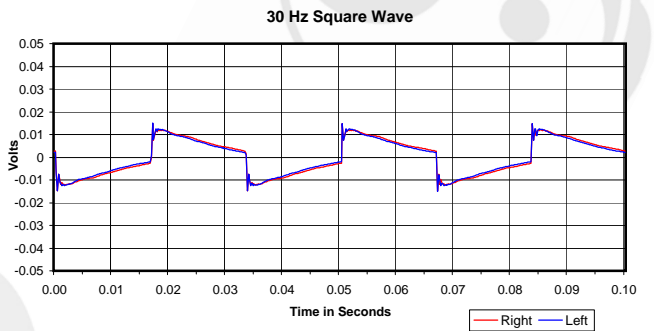
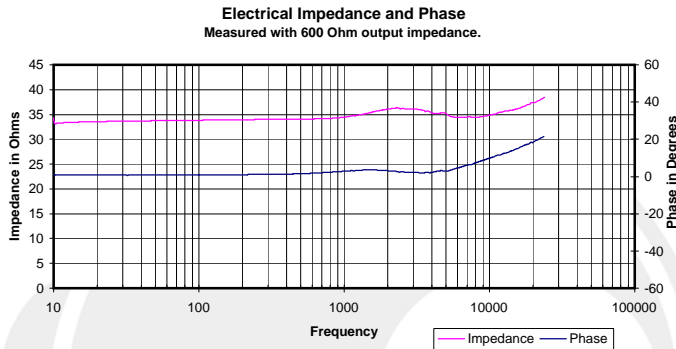
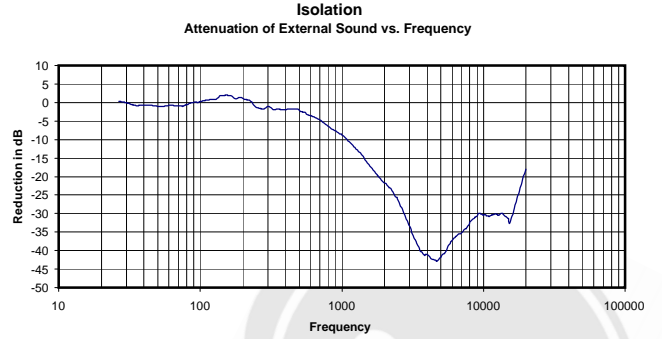
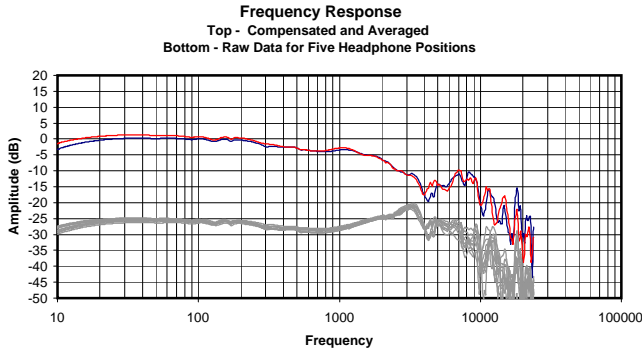




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
36 Ohms
0.04 mW
-17 dB



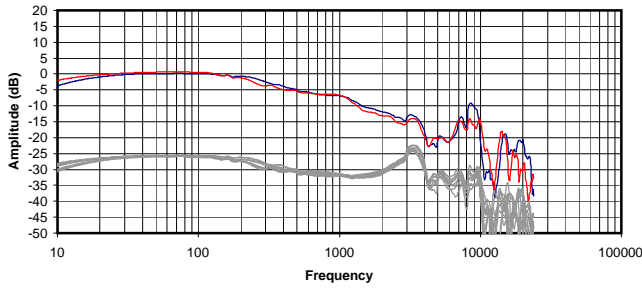


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

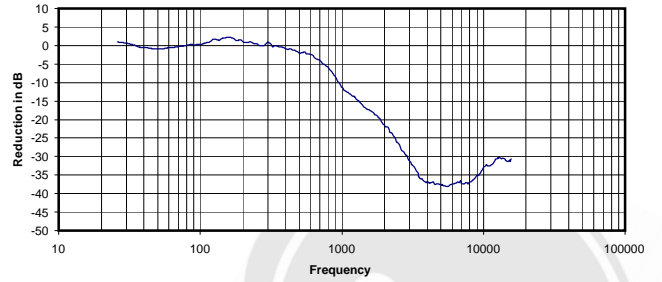
0.030 Vrms
34 Ohms
0.03 mW
-15 dB



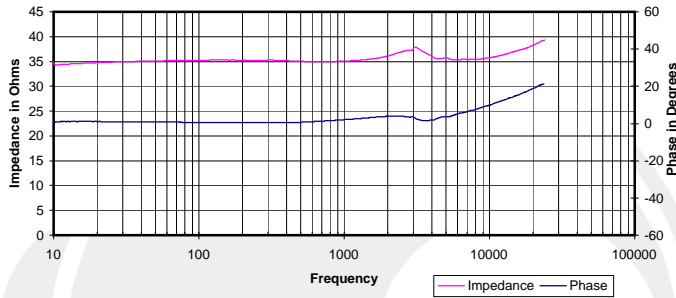
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



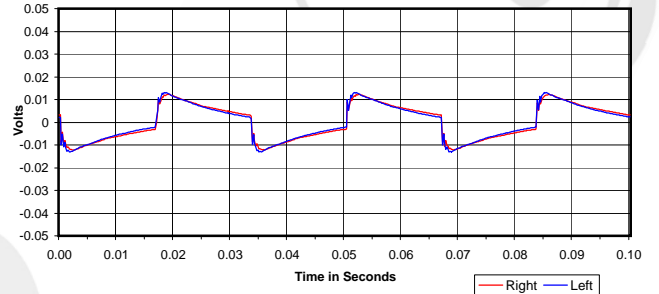
Isolation
 Attenuation of External Sound vs. Frequency



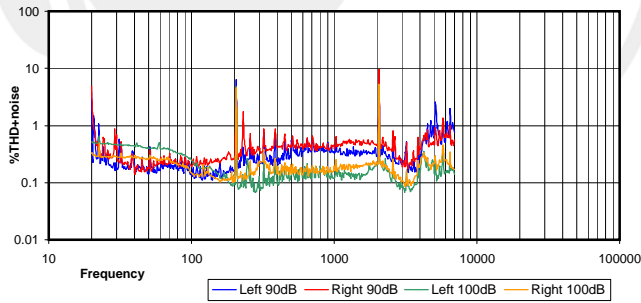
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



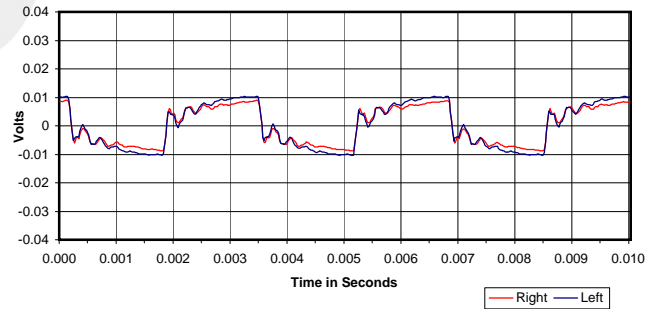
30 Hz Square Wave



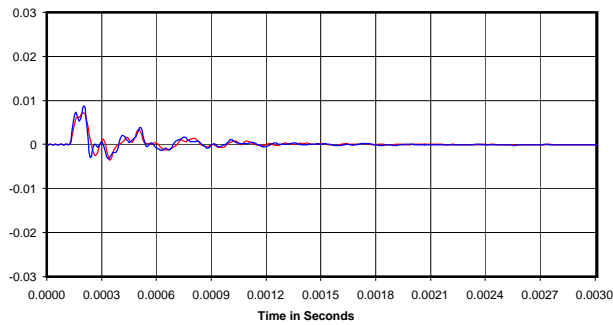
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

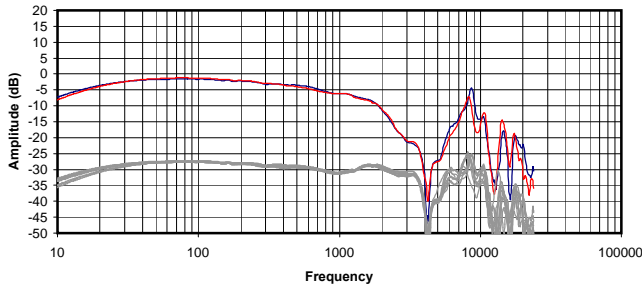


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

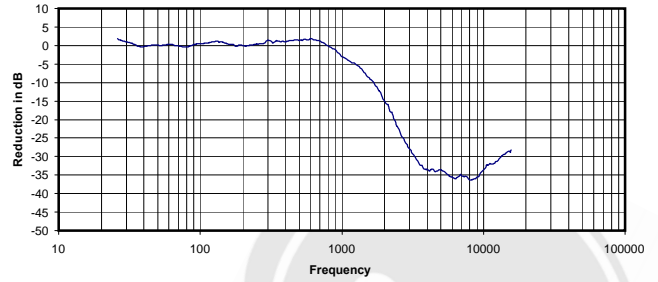
0.030 Vrms
 35 Ohms
 0.03 mW
 -12 dB



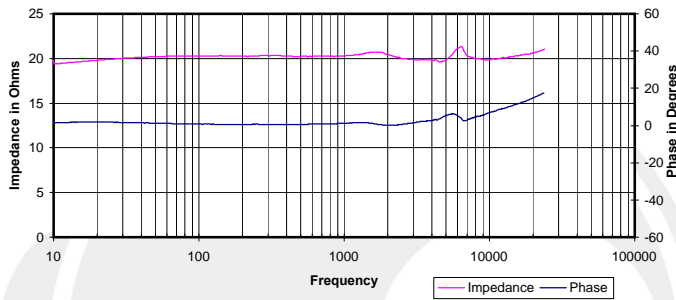
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



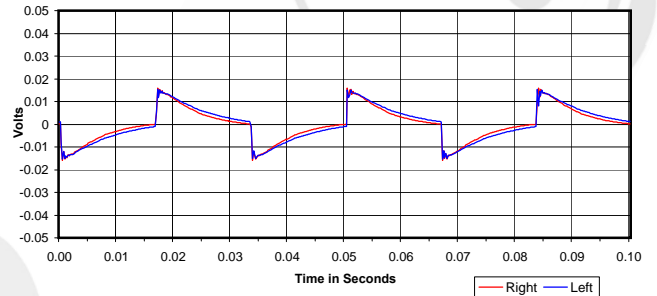
Isolation
 Attenuation of External Sound vs. Frequency



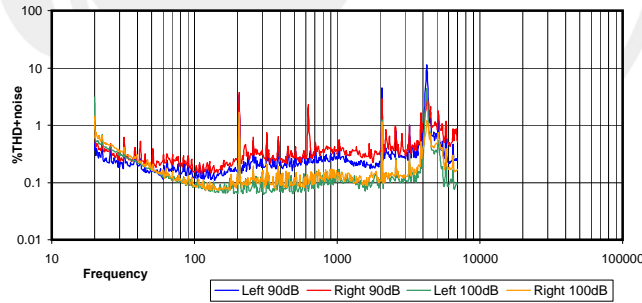
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



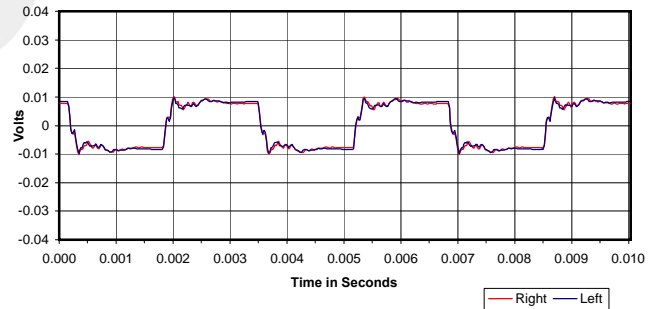
30 Hz Square Wave



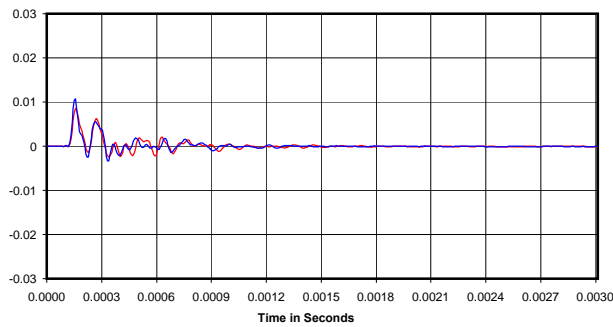
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



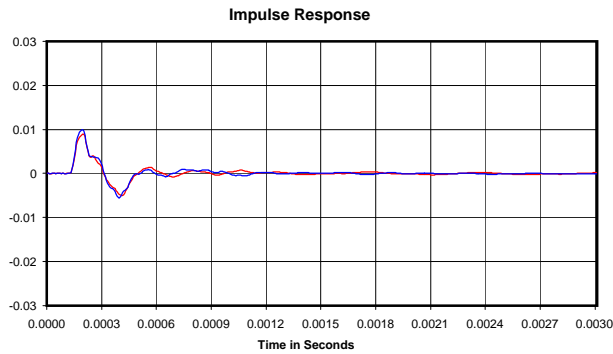
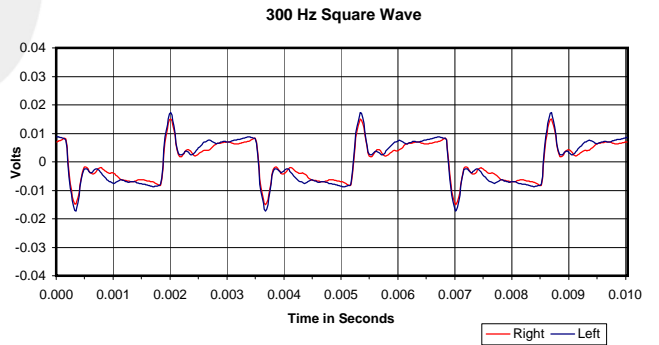
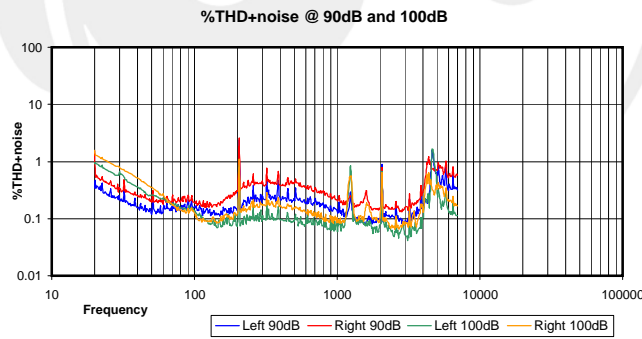
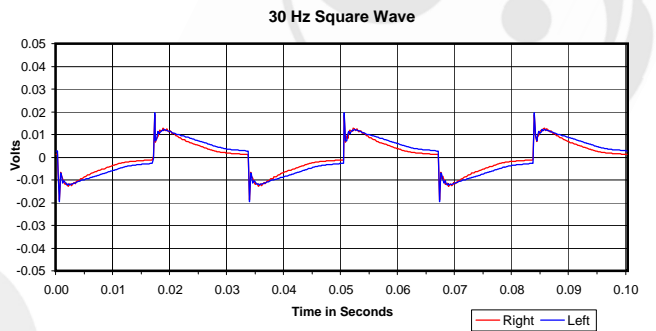
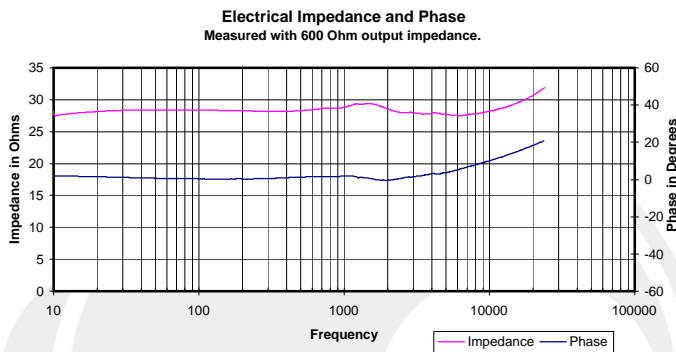
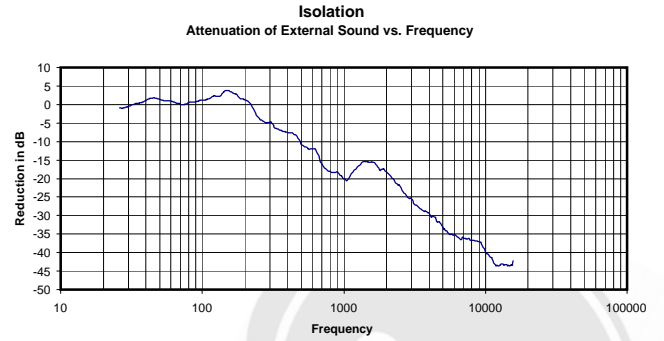
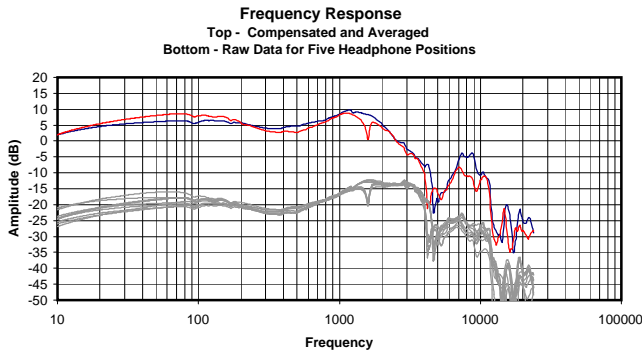
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
 20 Ohms
 0.01 mW
 -9 dB



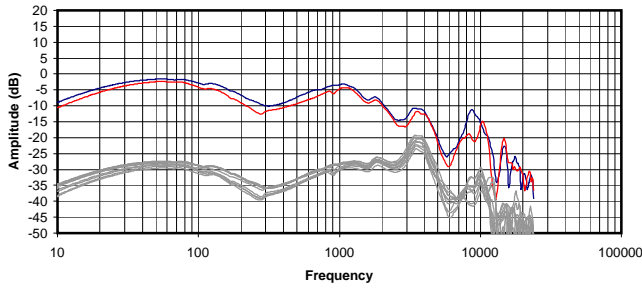


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

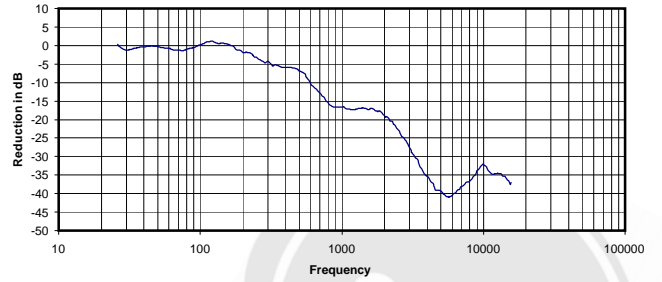
0.020 Vrms
29 Ohms
0.01 mW
-14 dB



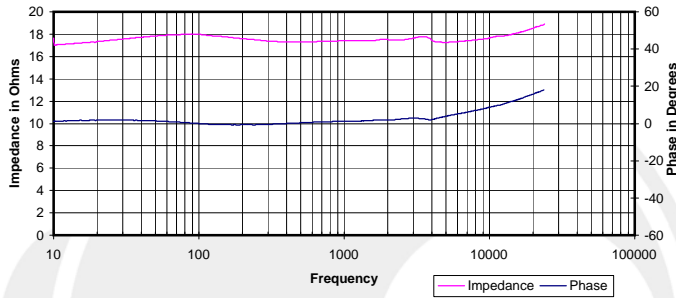
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



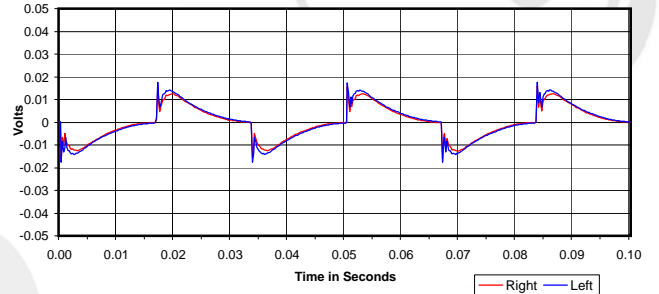
Isolation
 Attenuation of External Sound vs. Frequency



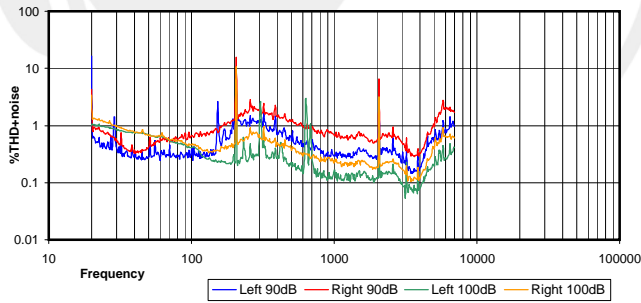
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



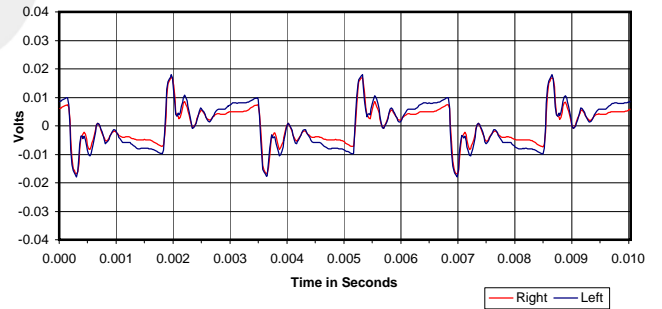
30 Hz Square Wave



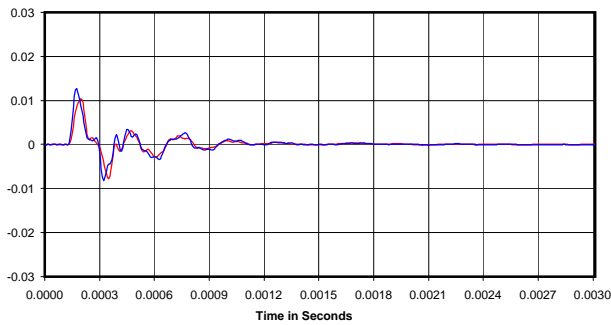
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



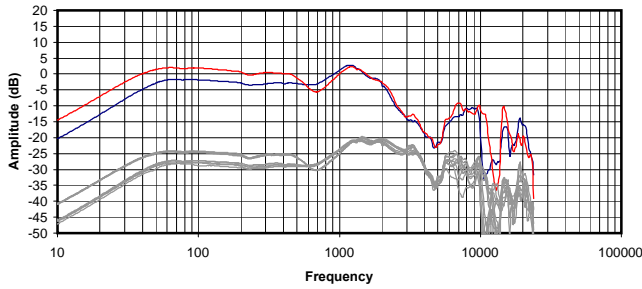
Impulse Response



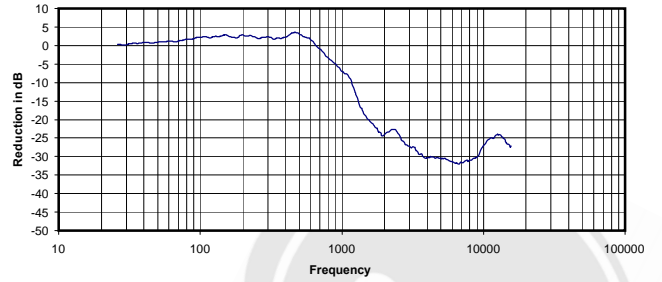
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
 17 Ohms
 0.03 mW
 -14 dB

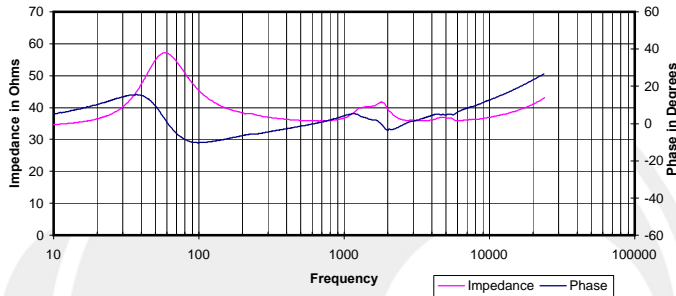
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



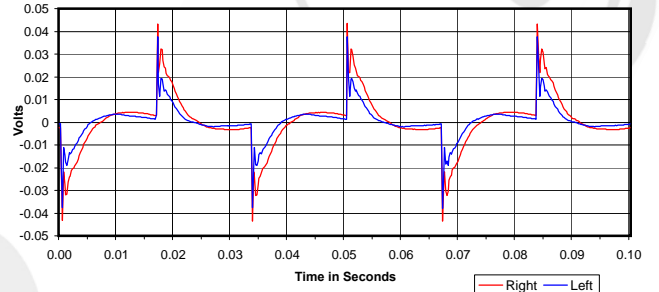
Isolation
 Attenuation of External Sound vs. Frequency



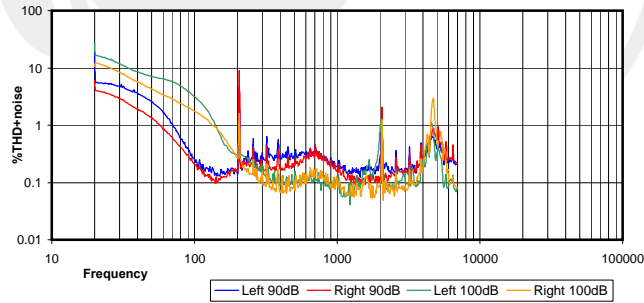
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



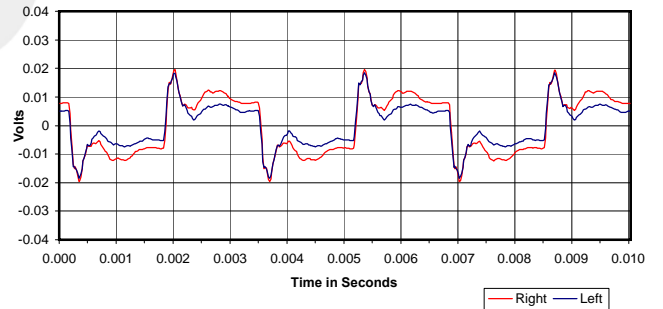
30 Hz Square Wave



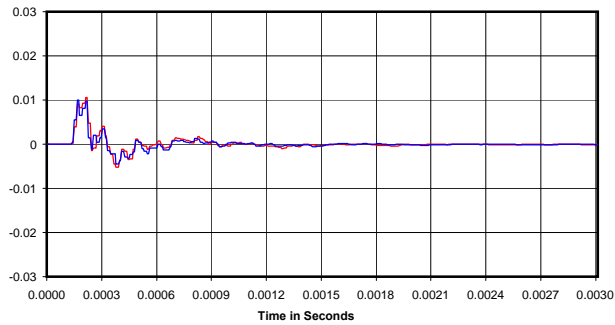
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

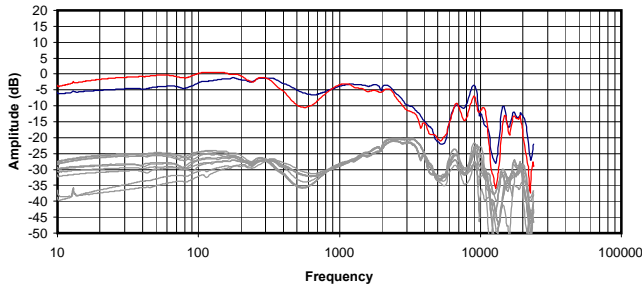


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

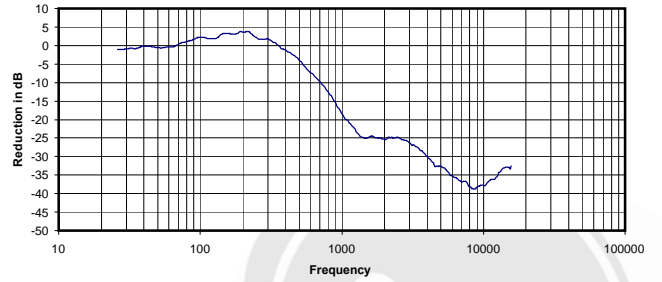
0.020 Vrms
 37 Ohms
 0.01 mW
 -10 dB



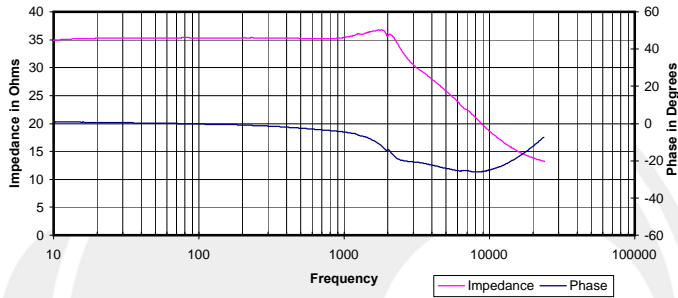
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



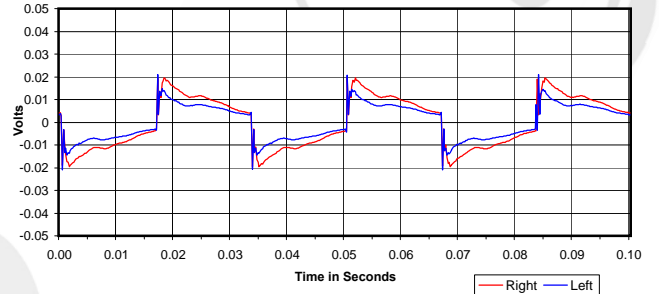
Isolation
 Attenuation of External Sound vs. Frequency



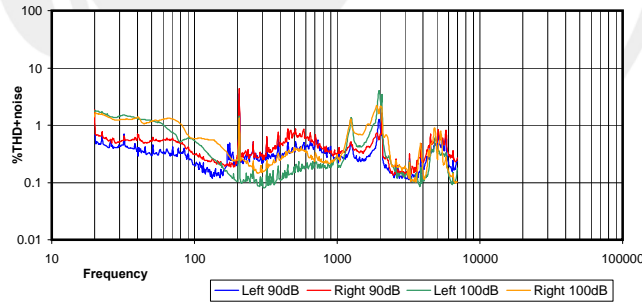
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



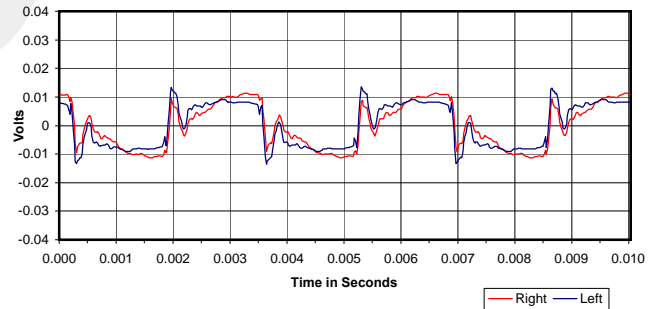
30 Hz Square Wave



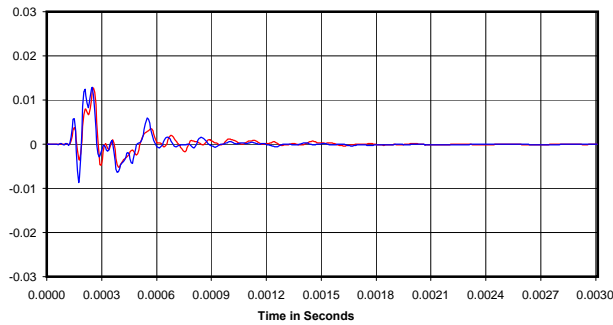
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

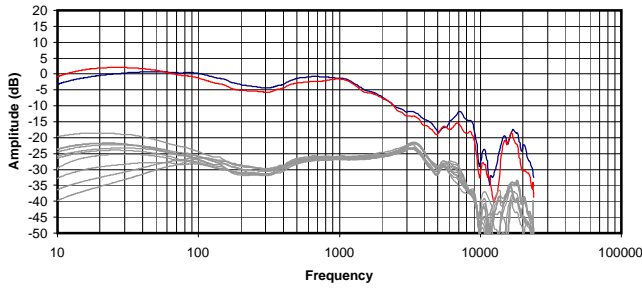


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

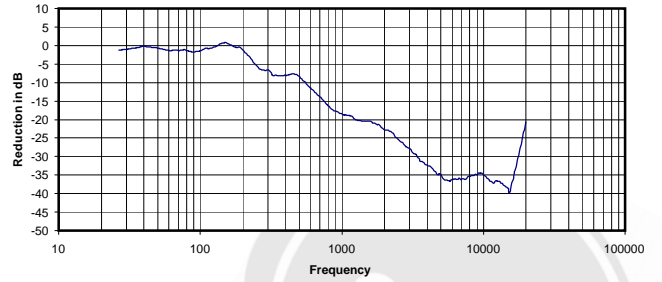
0.050 Vrms
 35 Ohms
 0.07 mW
 -13 dB



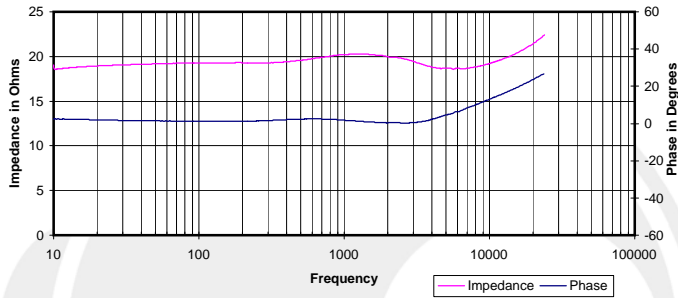
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



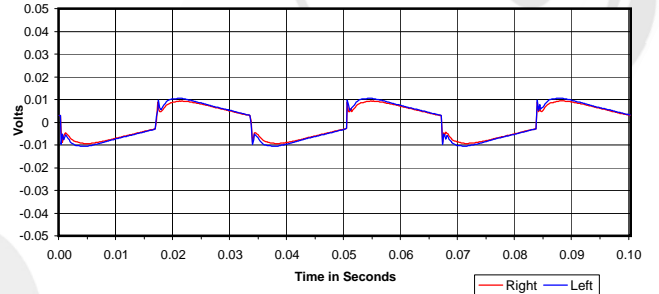
Isolation
 Attenuation of External Sound vs. Frequency



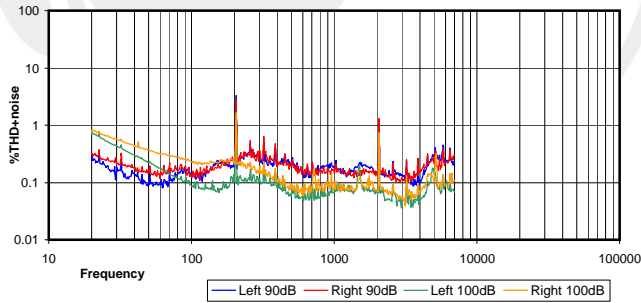
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



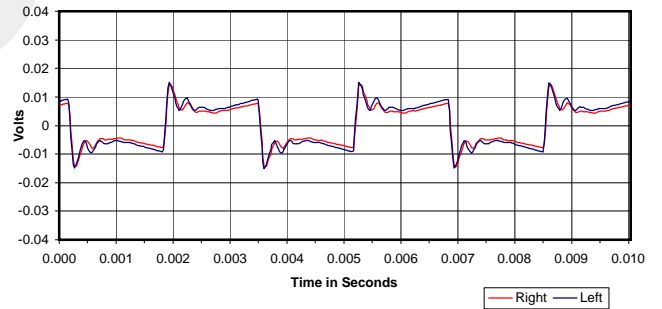
30 Hz Square Wave



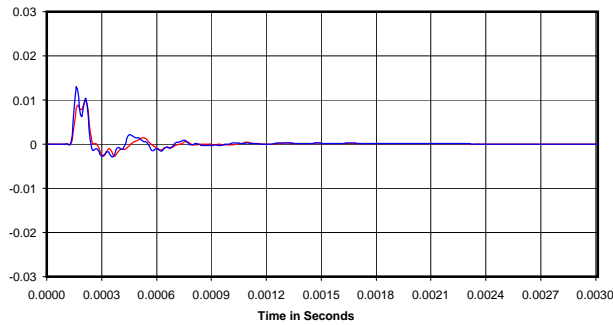
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

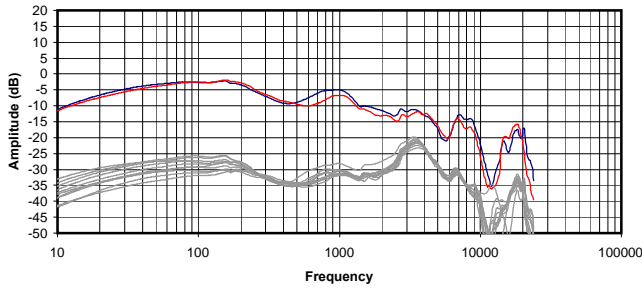


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

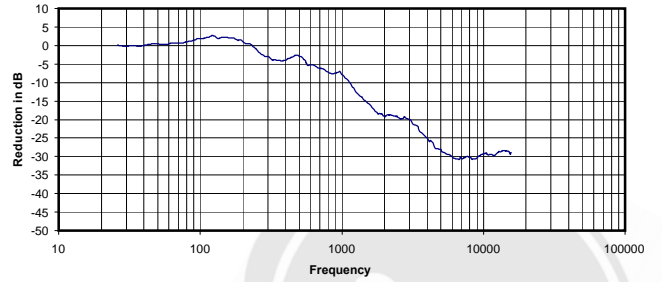
0.027 Vrms
 20 Ohms
 0.04 mW
 -18 dB



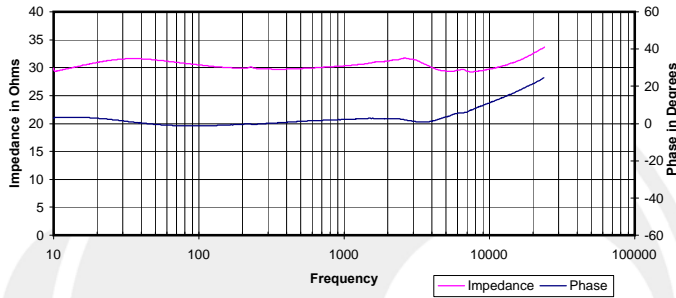
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



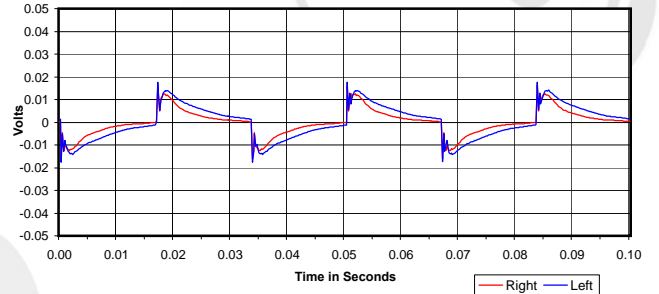
Isolation
 Attenuation of External Sound vs. Frequency



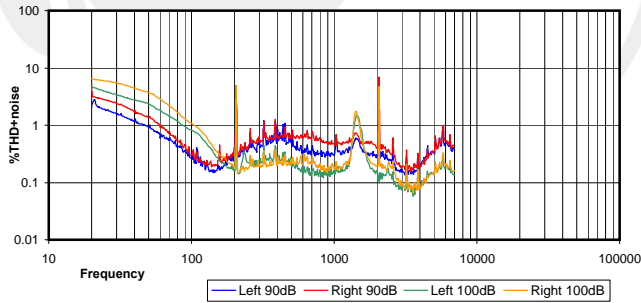
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



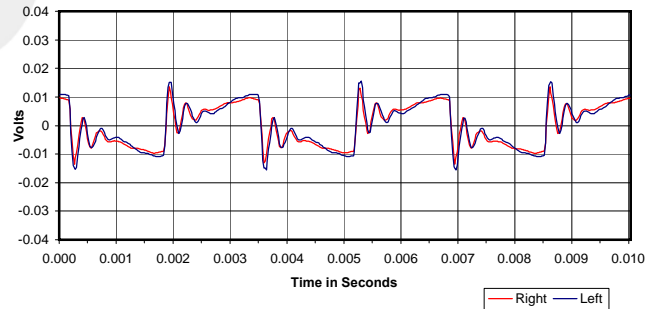
30 Hz Square Wave



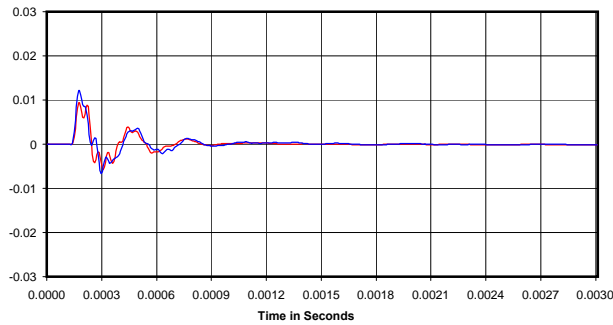
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

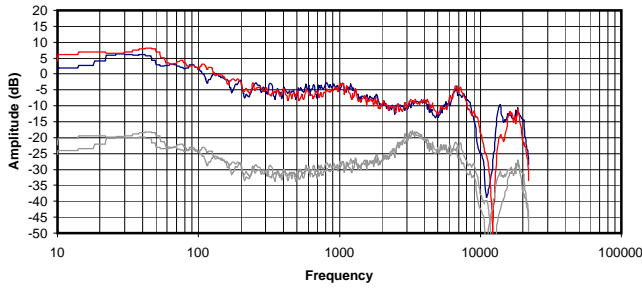


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

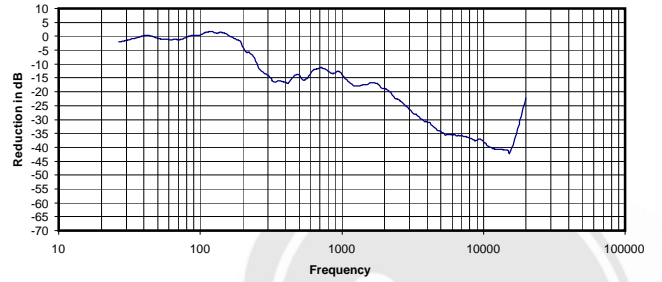
0.052 Vrms
 30 Ohms
 0.09 mW
 -10 dB



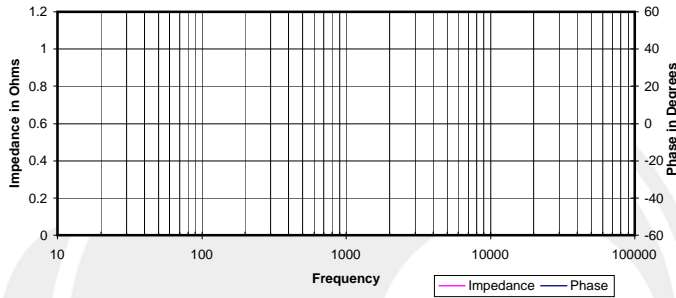
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



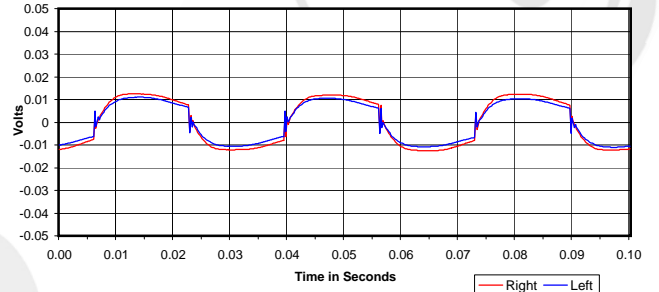
Isolation
Attenuation of External Sound vs. Frequency



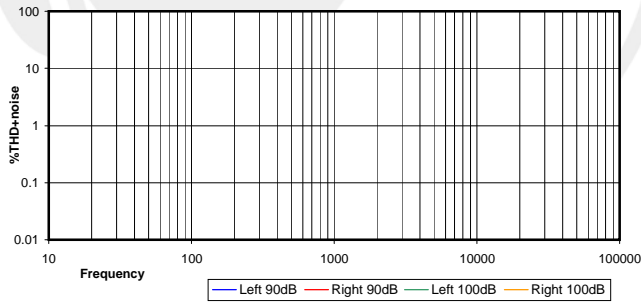
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



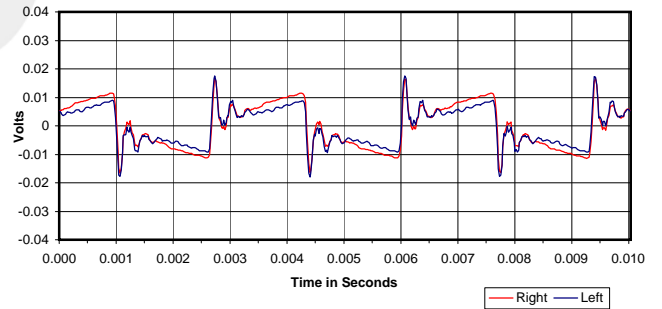
30 Hz Square Wave



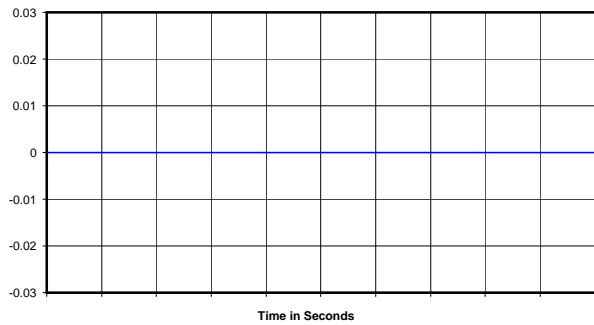
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

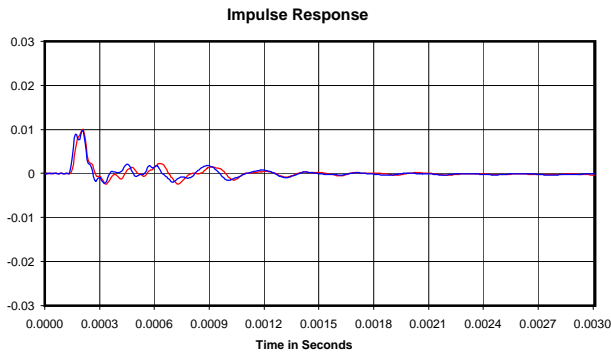
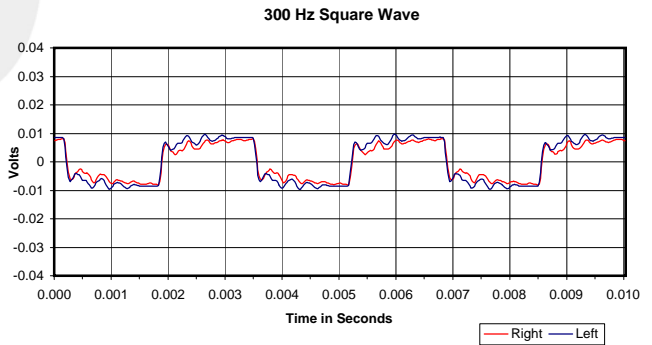
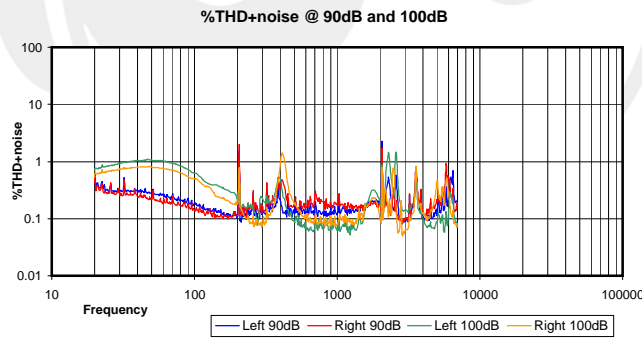
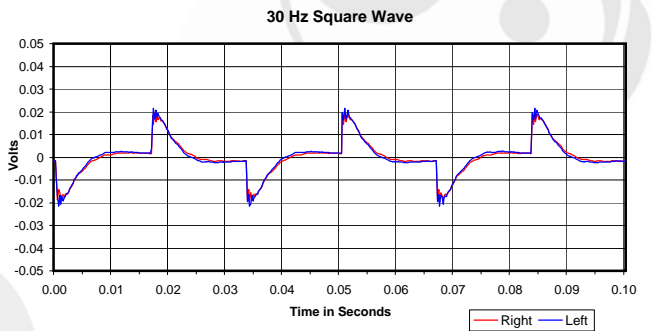
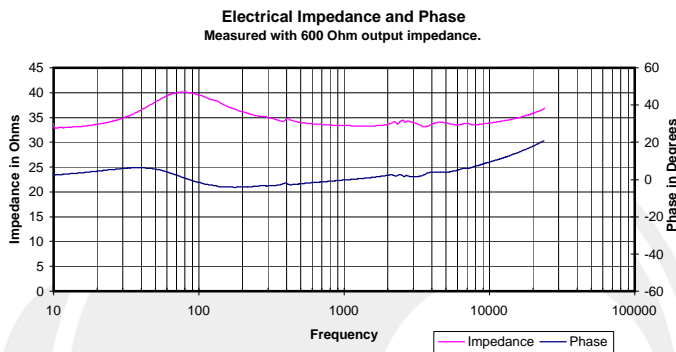
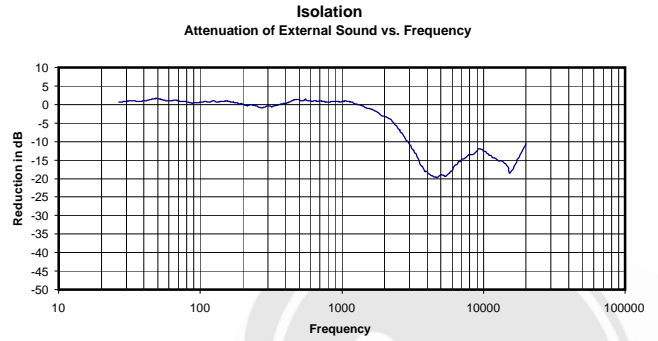
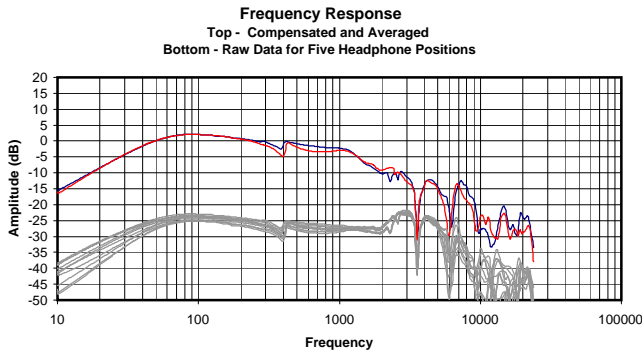


Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.000 Vrms
#DIV/0! Ohms
#DIV/0! mW
-18 dB

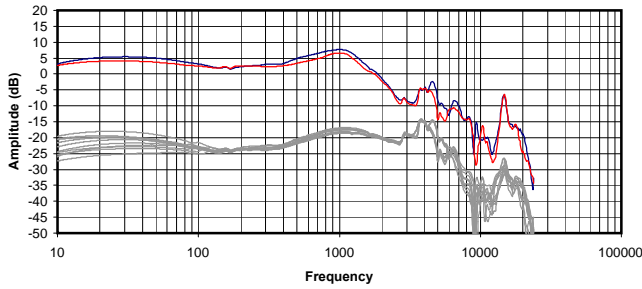


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

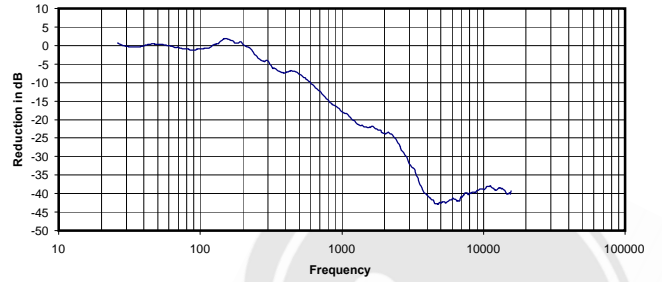
0.034 Vrms
33 Ohms
0.04 mW
-5 dB



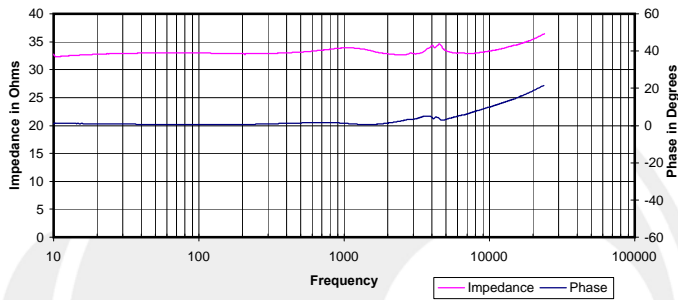
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



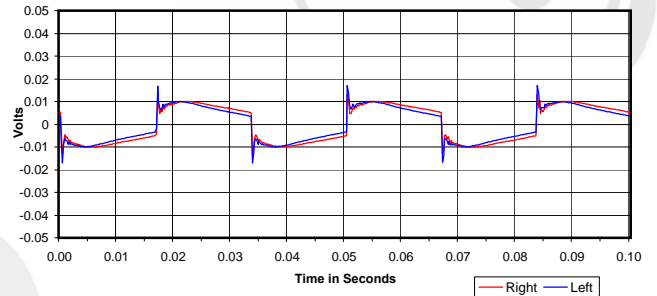
Isolation
 Attenuation of External Sound vs. Frequency



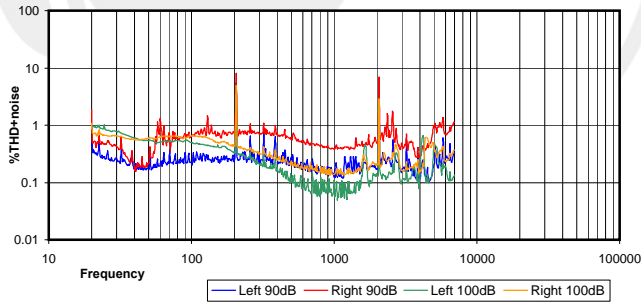
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



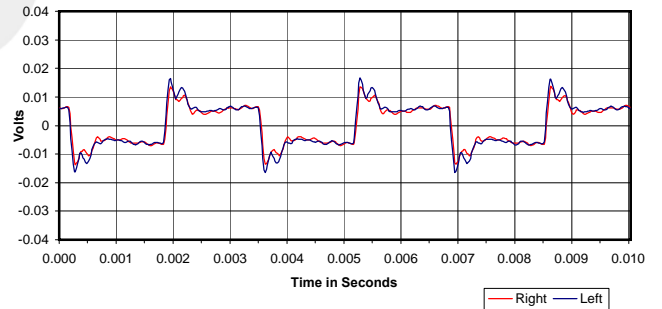
30 Hz Square Wave



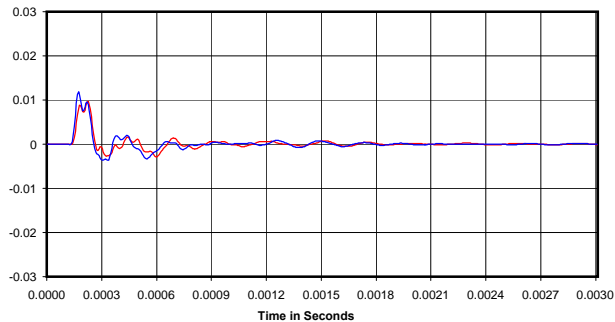
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

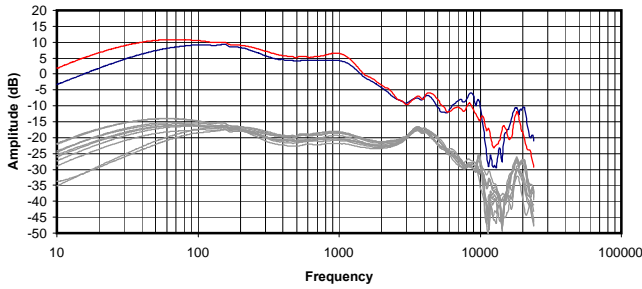


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

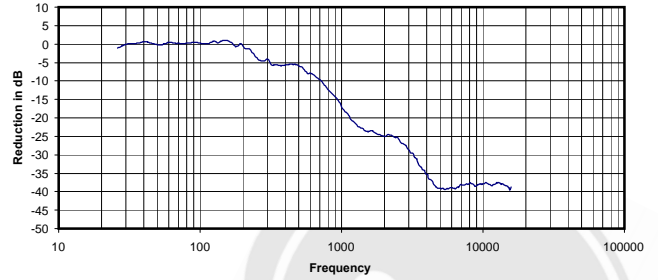
0.027 Vrms
 34 Ohms
 0.02 mW
 -16 dB



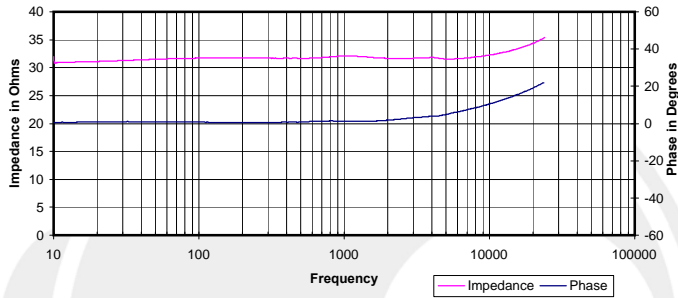
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



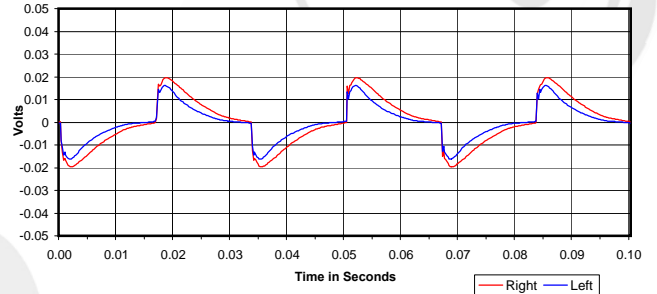
Isolation
 Attenuation of External Sound vs. Frequency



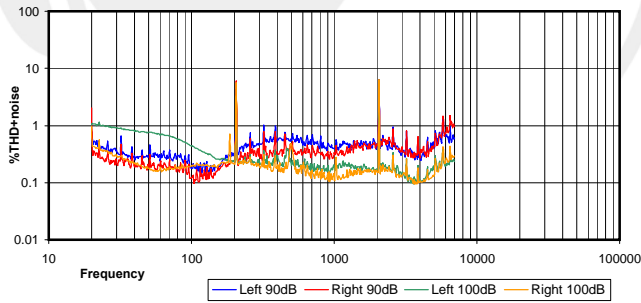
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



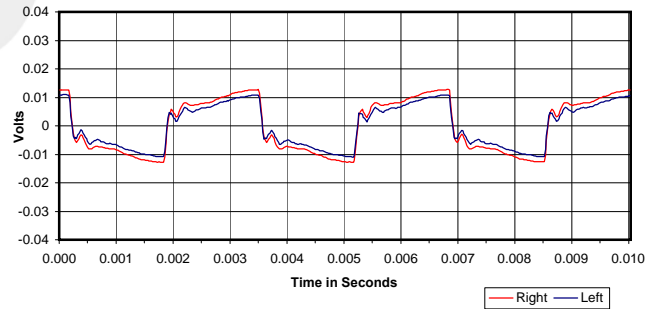
30 Hz Square Wave



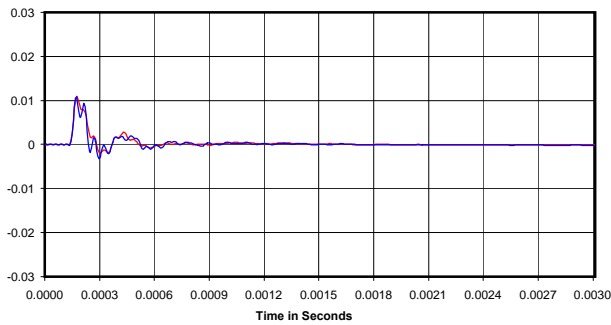
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

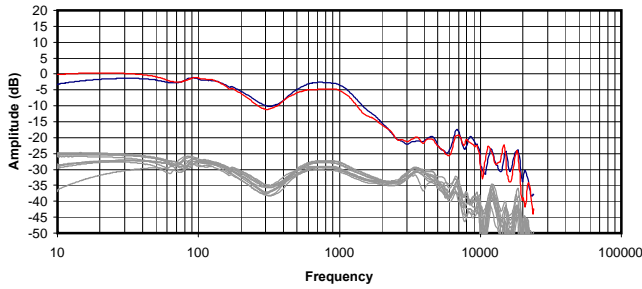


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

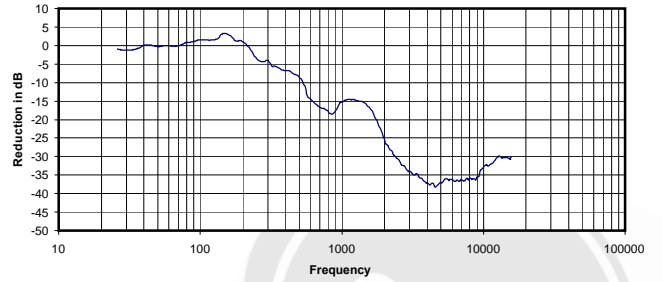
0.062 Vrms
 32 Ohms
 0.12 mW
 -15 dB



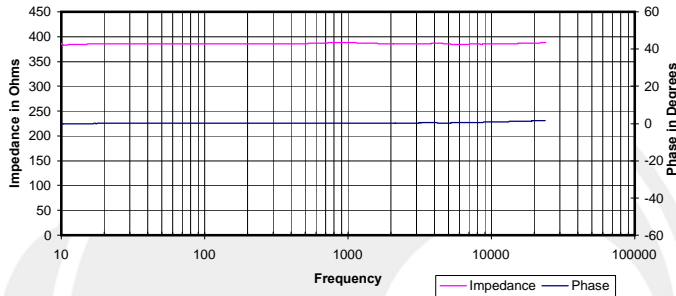
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



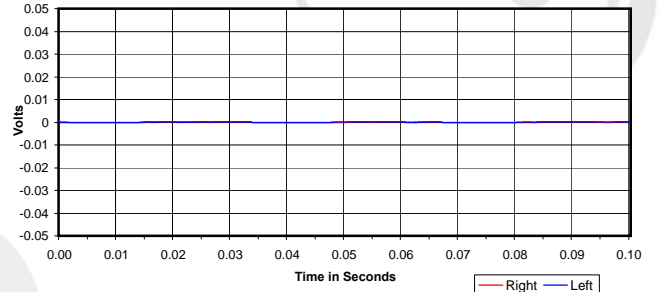
Isolation
 Attenuation of External Sound vs. Frequency



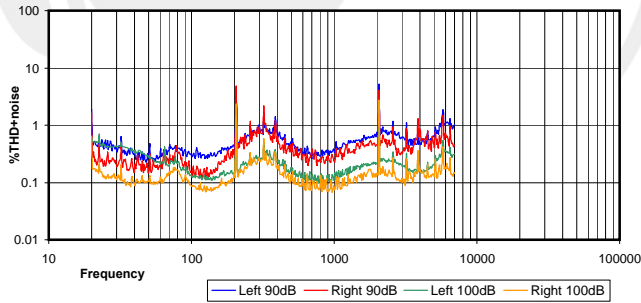
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



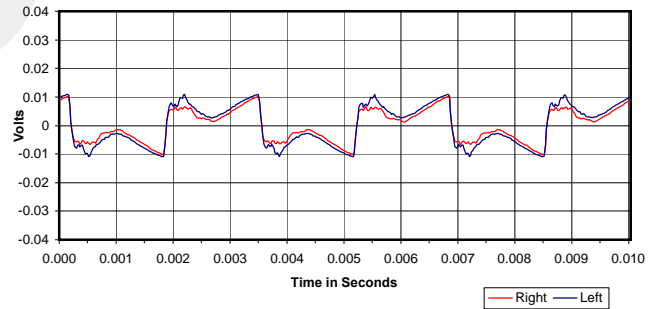
30 Hz Square Wave



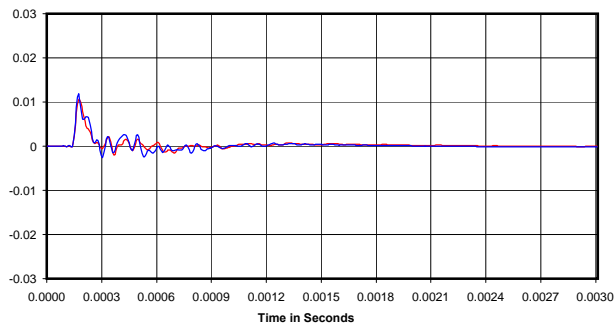
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

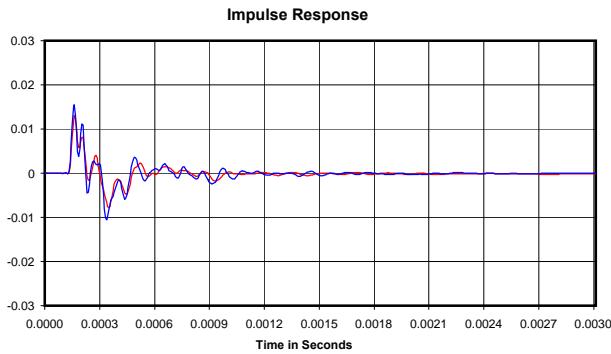
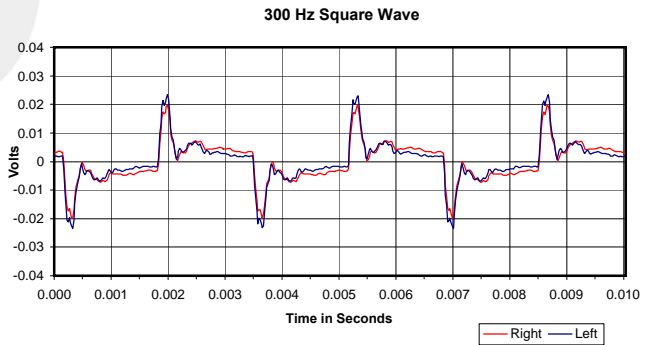
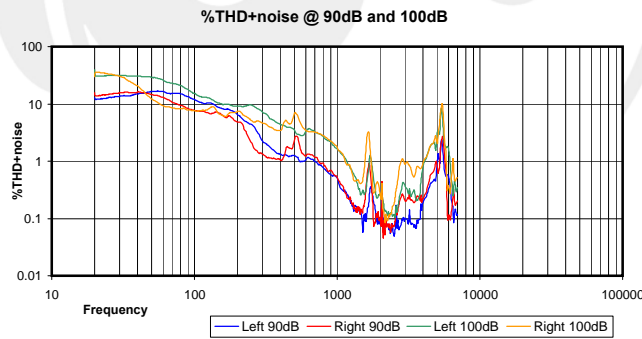
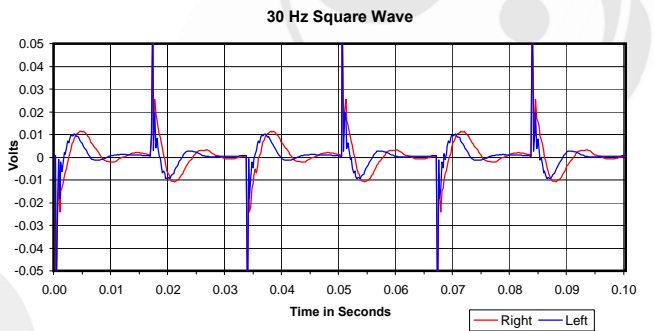
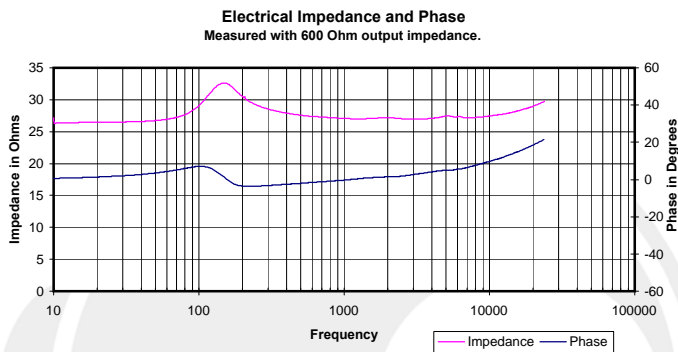
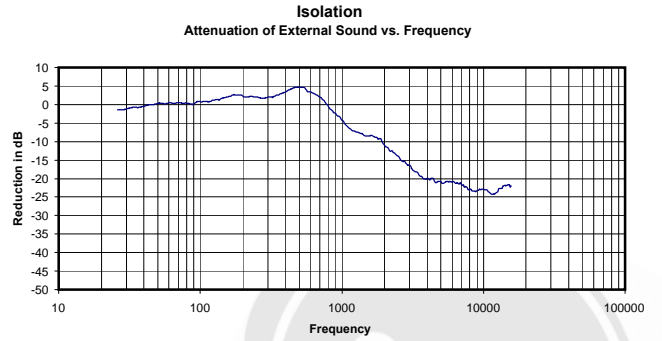
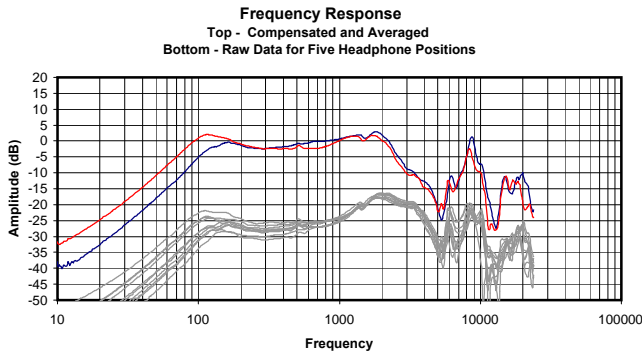


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.181 Vrms
 388 Ohms
 0.08 mW
 -15 dB

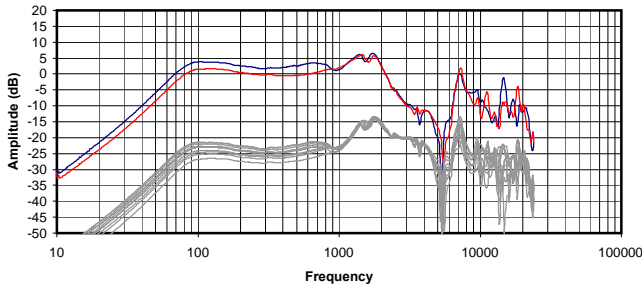


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

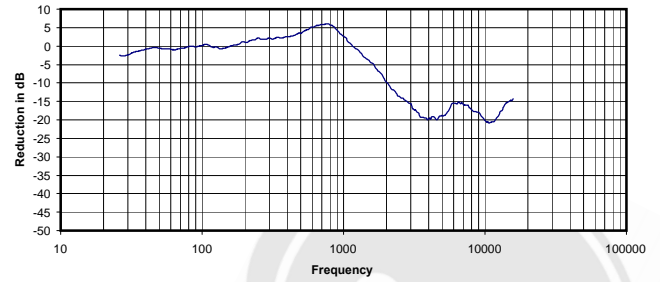
0.051 Vrms
27 Ohms
0.10 mW
-5 dB



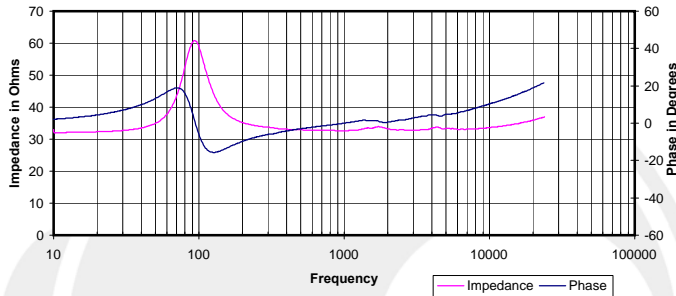
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



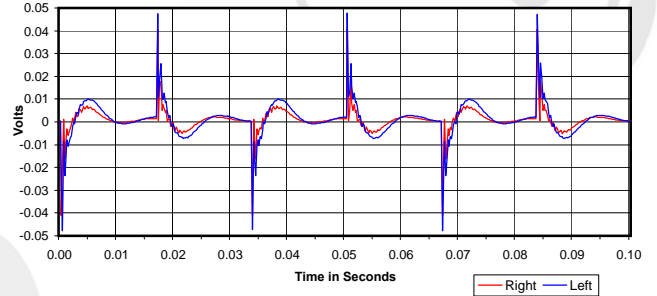
Isolation
 Attenuation of External Sound vs. Frequency



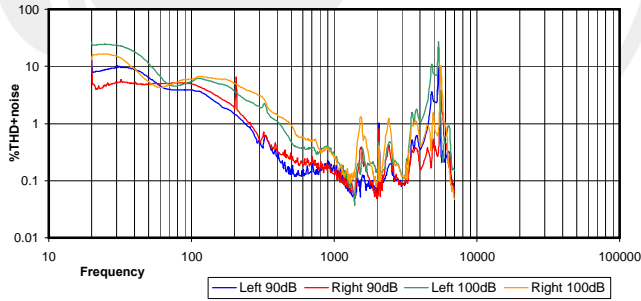
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



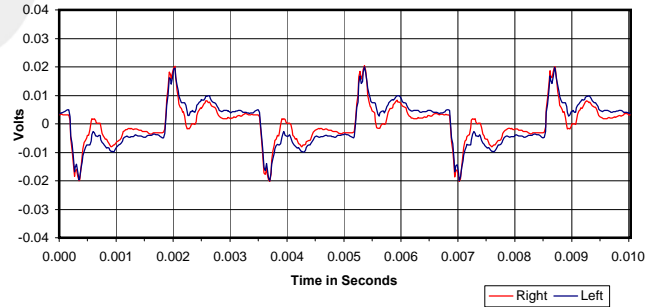
30 Hz Square Wave



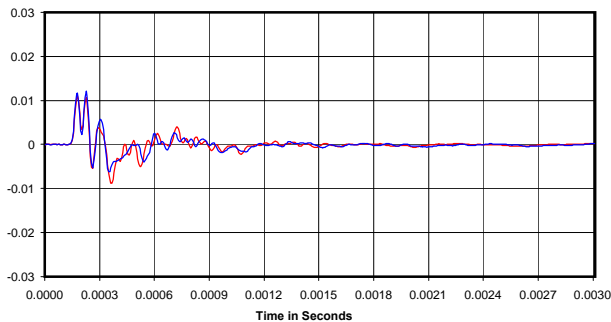
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



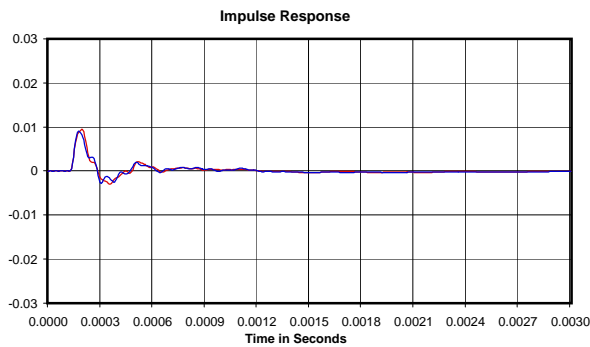
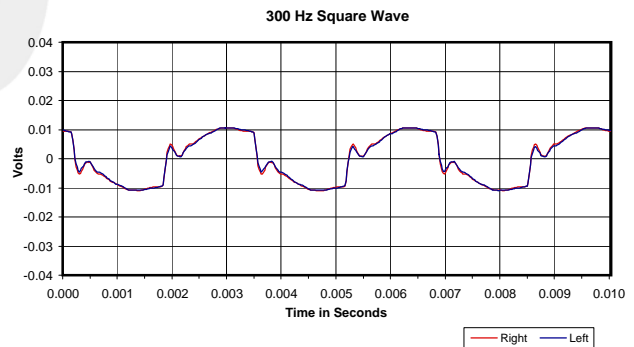
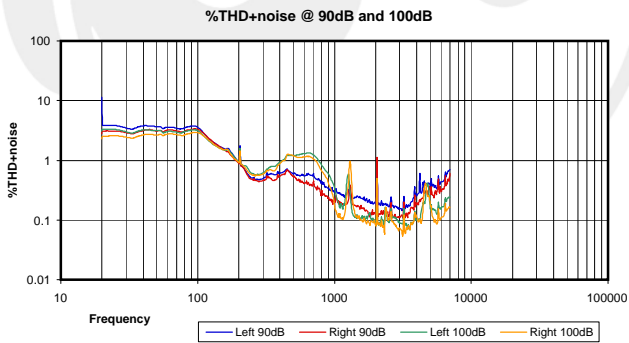
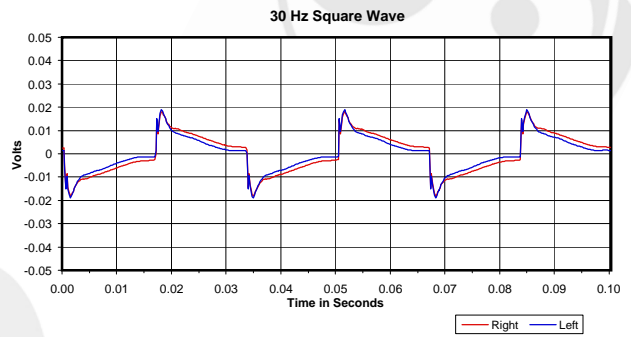
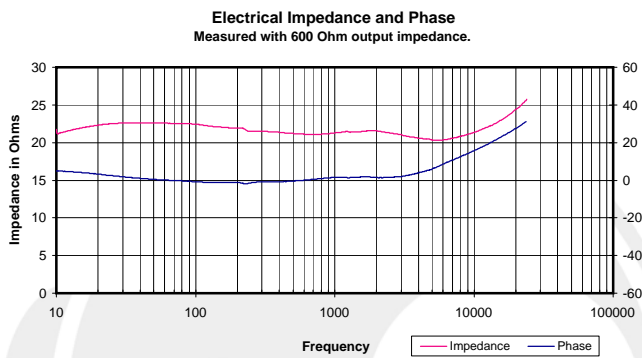
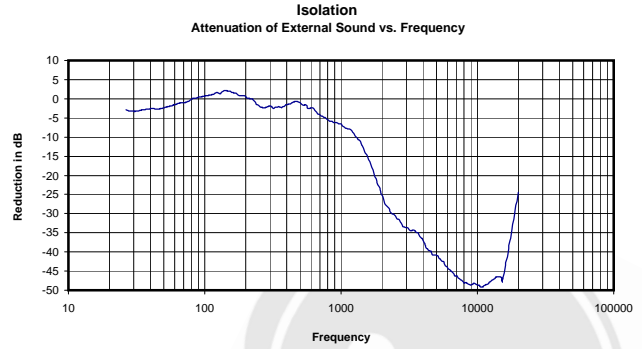
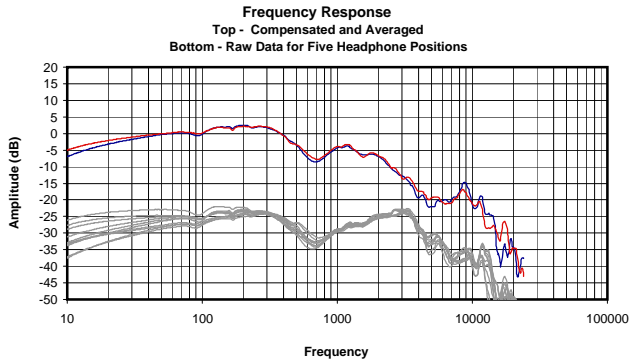
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.054 Vrms
 33 Ohms
 0.09 mW
 -4 dBr





Headphone Measurements: **Plugged Crown**

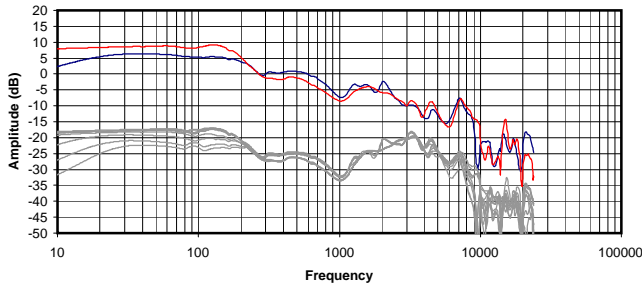


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

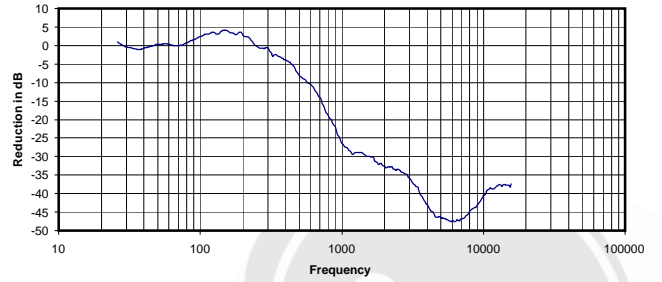
0.038 Vrms
21 Ohms
0.07 mW
-17 dB



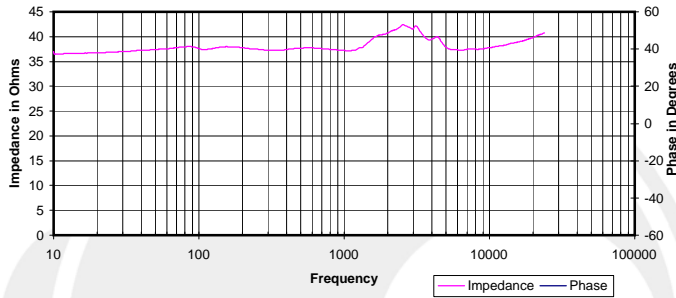
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



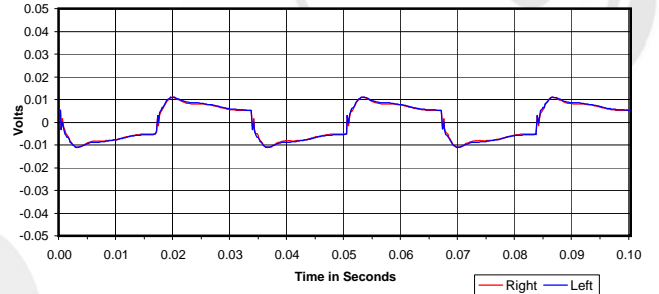
Isolation
 Attenuation of External Sound vs. Frequency



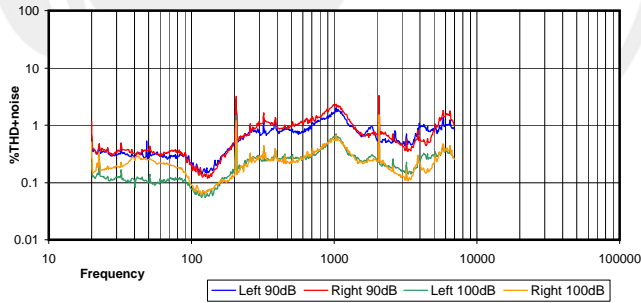
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



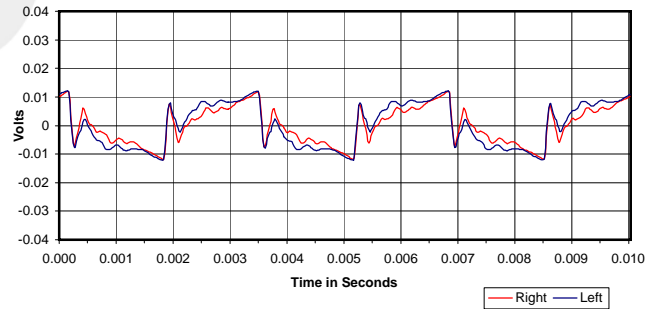
30 Hz Square Wave



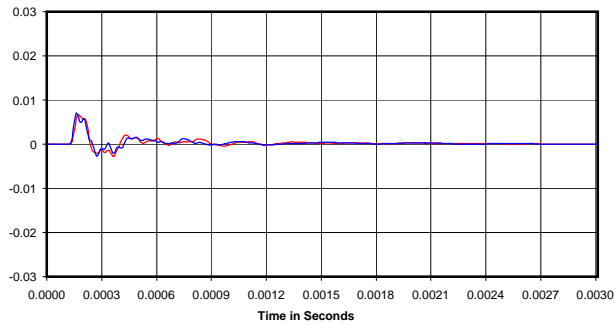
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



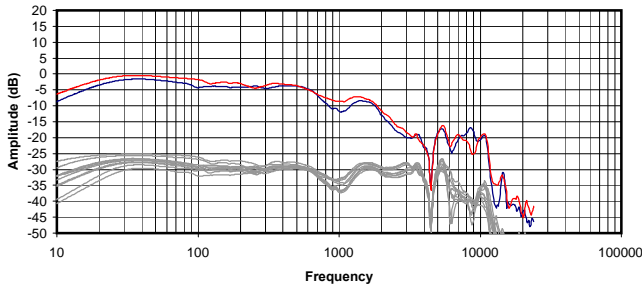
Impulse Response



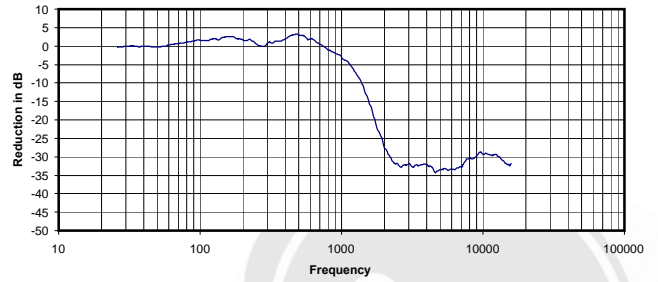
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
 37 Ohms
 0.11 mW
 -18 dB

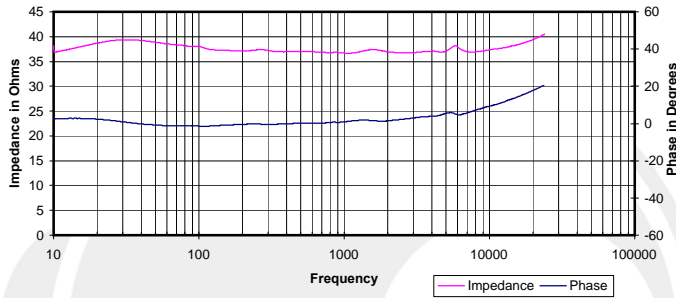
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



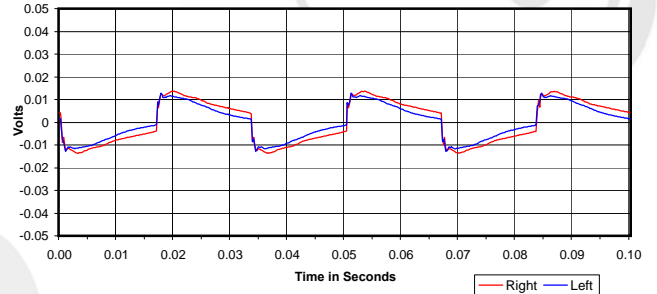
Isolation
Attenuation of External Sound vs. Frequency



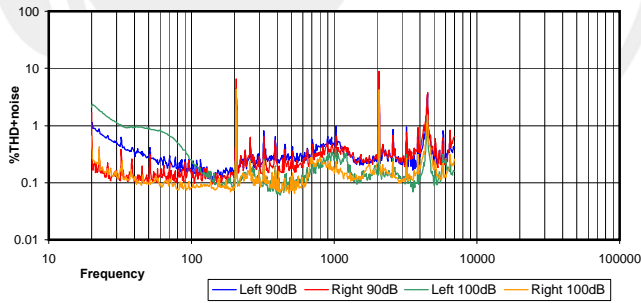
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



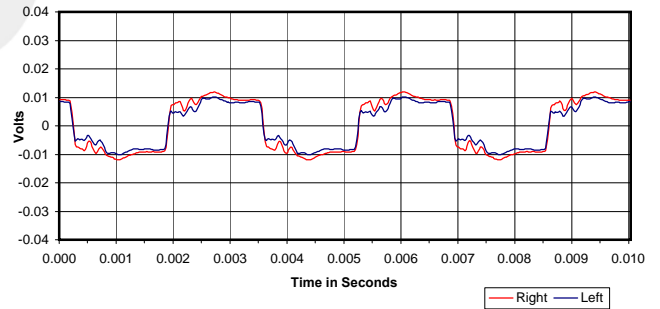
30 Hz Square Wave



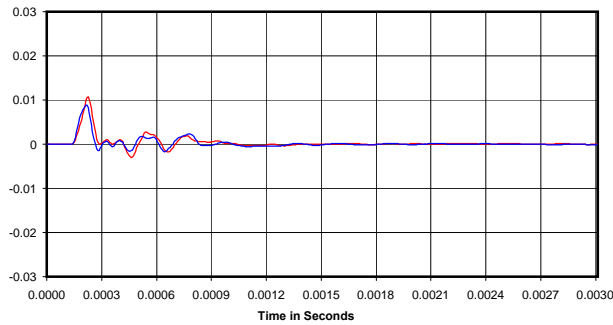
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

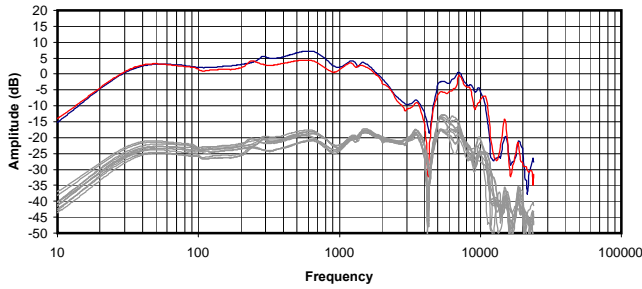


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

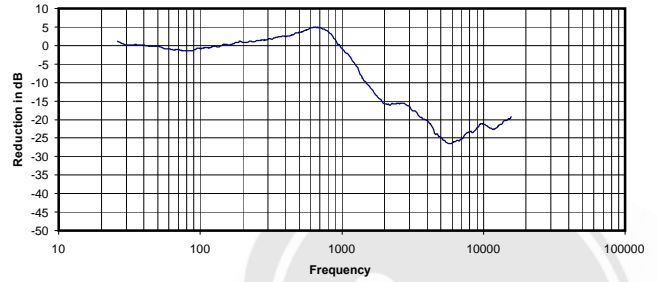
0.062 Vrms
37 Ohms
0.10 mW
-10 dB



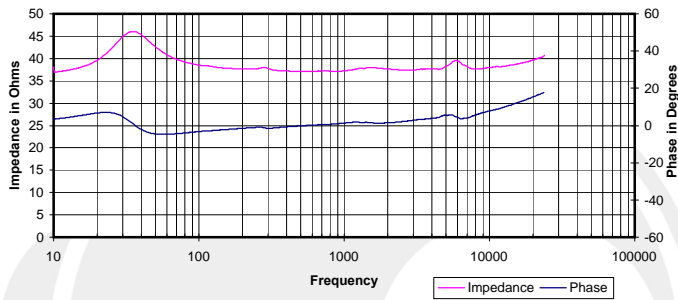
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



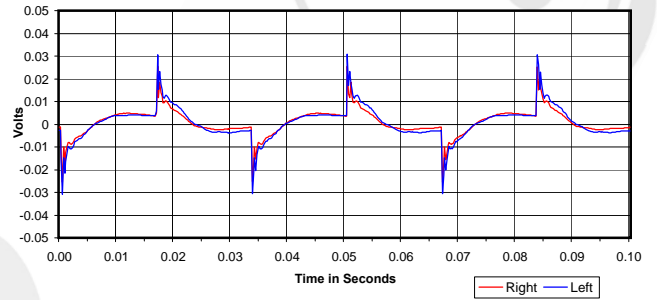
Isolation
 Attenuation of External Sound vs. Frequency



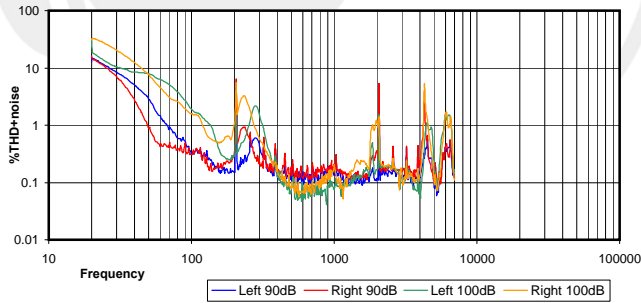
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



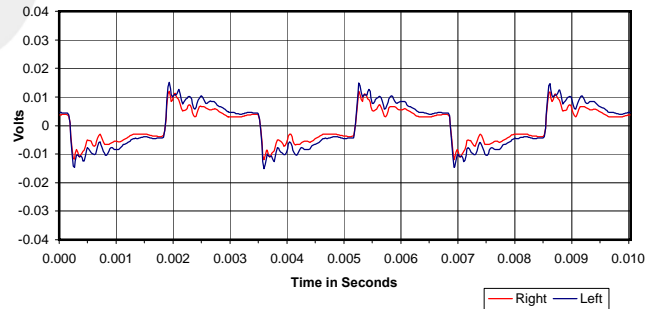
30 Hz Square Wave



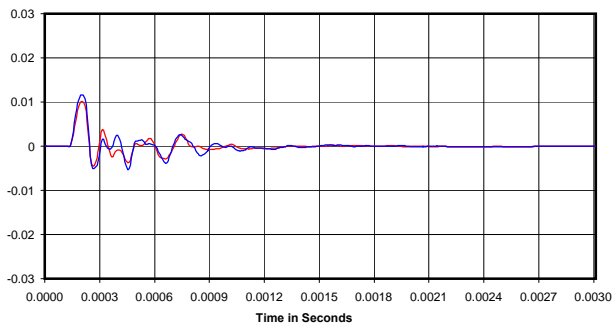
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

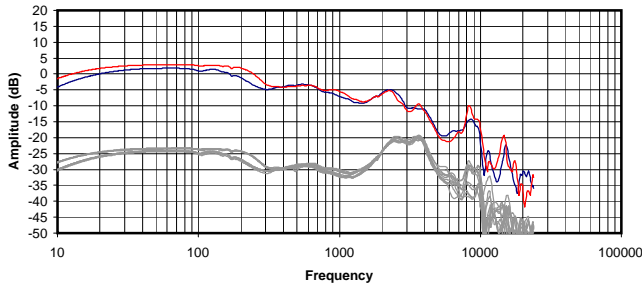


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

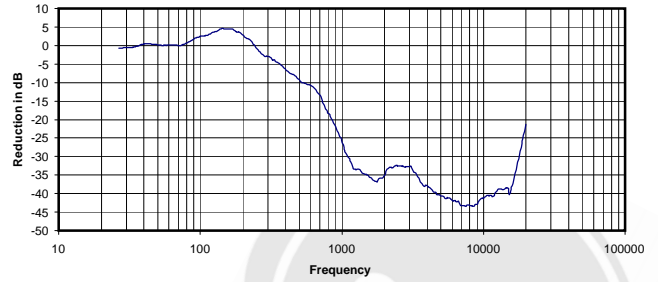
0.049 Vrms
 37 Ohms
 0.07 mW
 -6 dBr



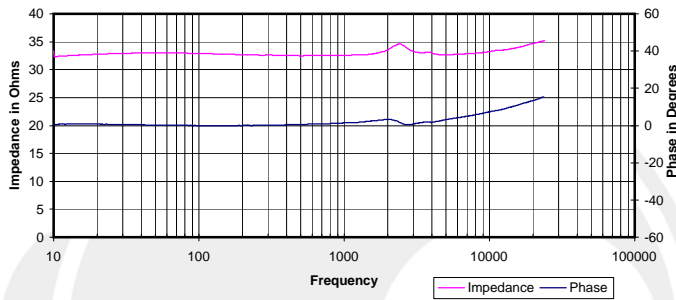
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



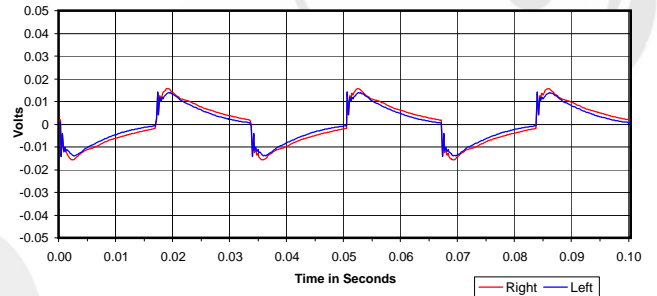
Isolation
Attenuation of External Sound vs. Frequency



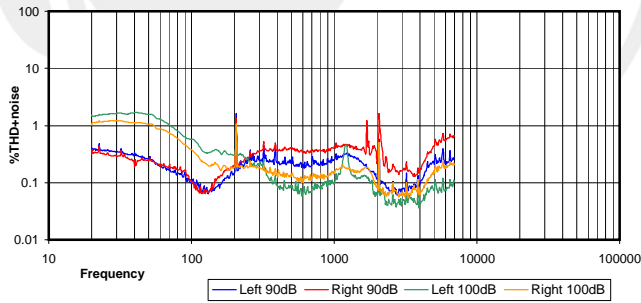
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



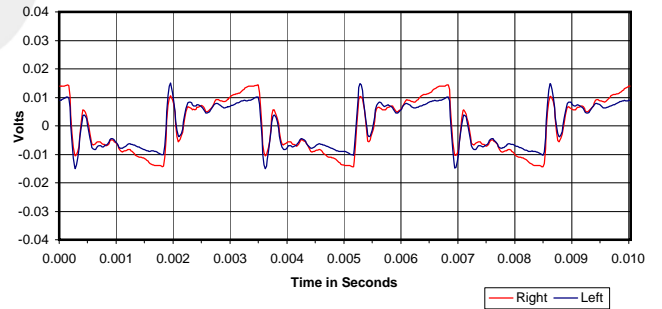
30 Hz Square Wave



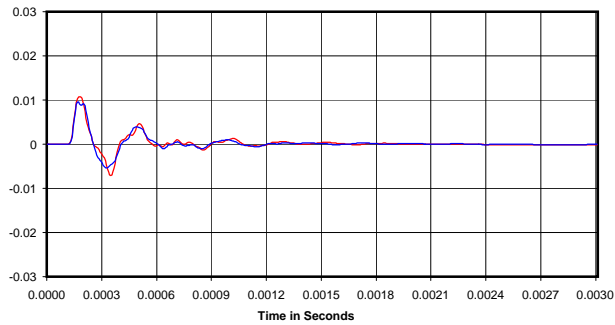
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

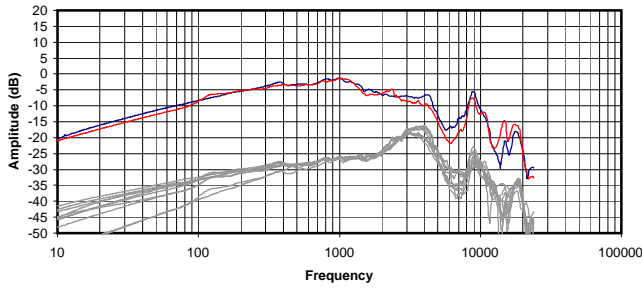


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

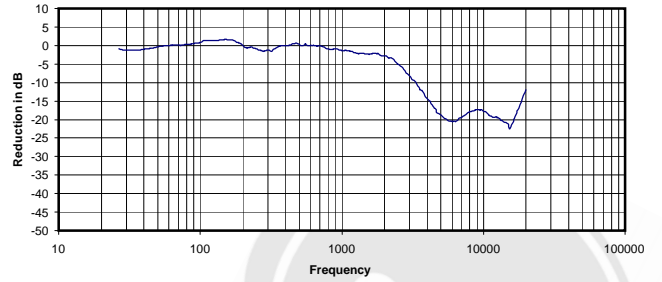
0.049 Vrms
33 Ohms
0.07 mW
-21 dB



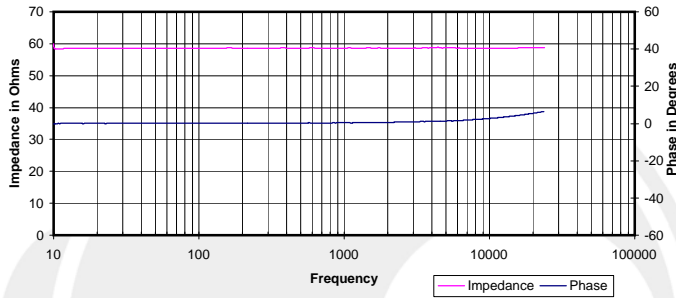
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



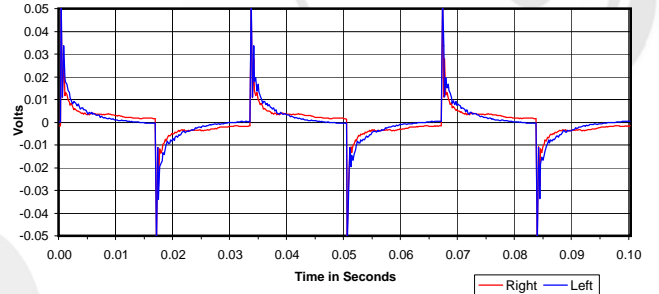
Isolation
Attenuation of External Sound vs. Frequency



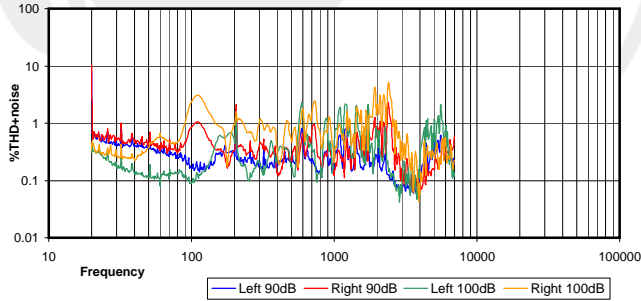
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



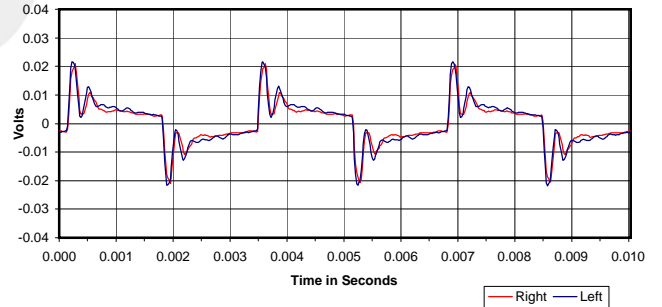
30 Hz Square Wave



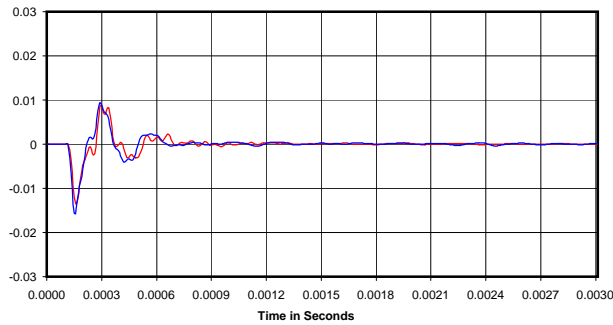
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

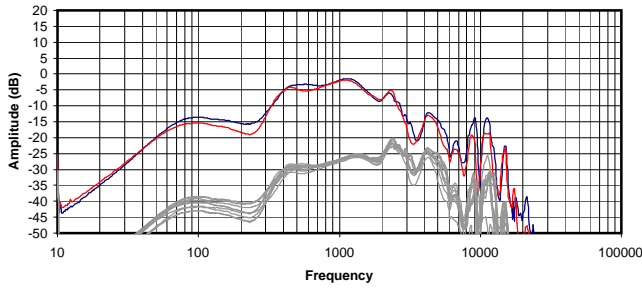


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

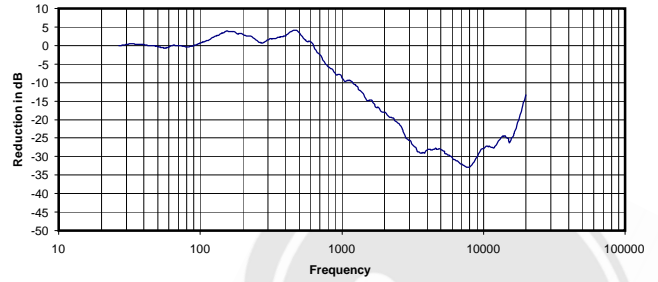
0.153 Vrms
59 Ohms
0.40 mW
-5 dB



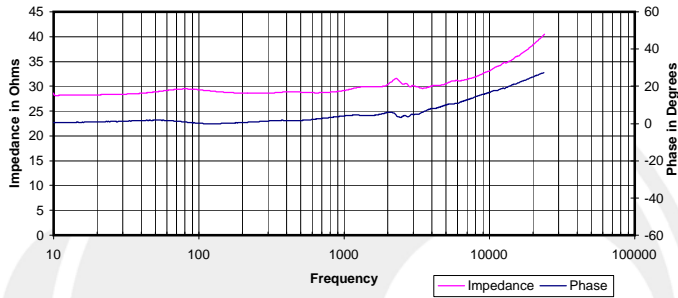
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



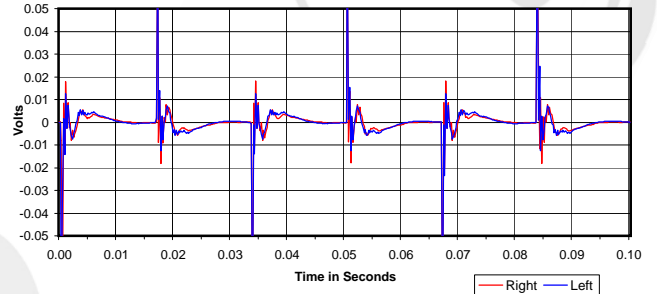
Isolation
 Attenuation of External Sound vs. Frequency



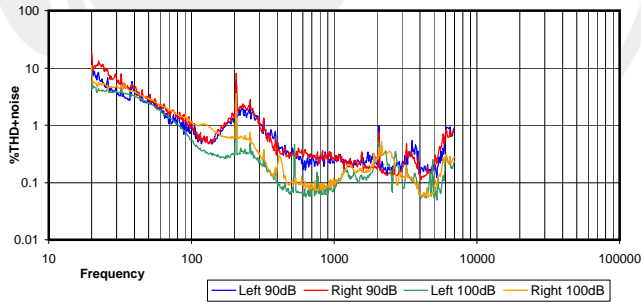
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



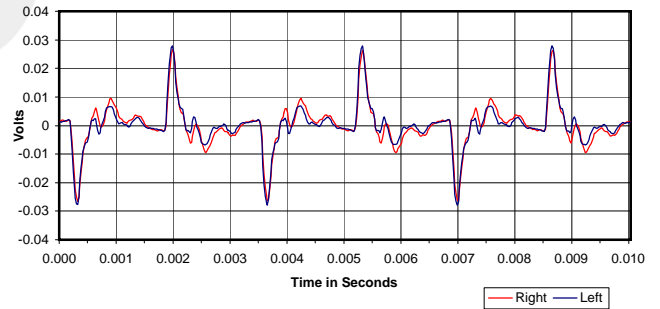
30 Hz Square Wave



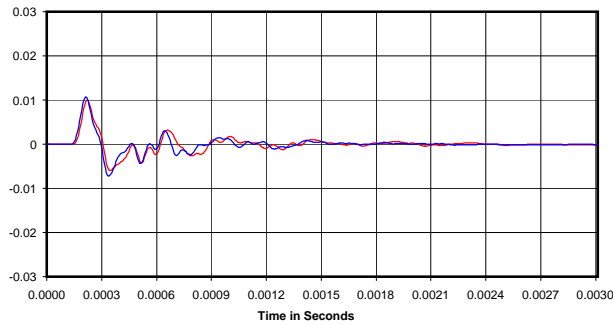
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

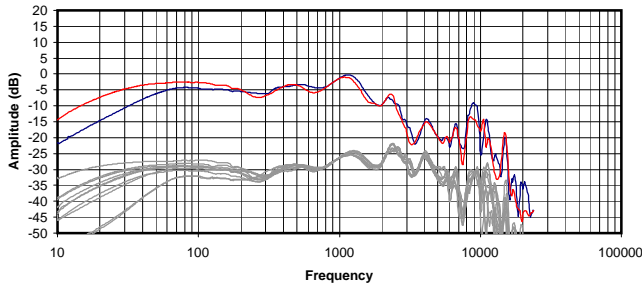


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

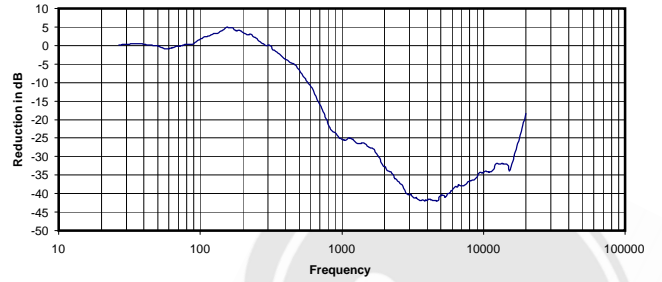
0.017 Vrms
 29 Ohms
 0.01 mW
 -11 dB



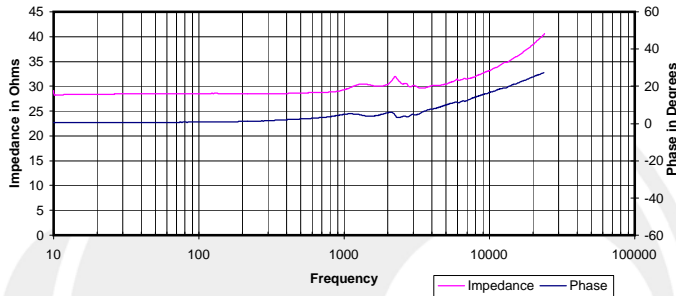
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



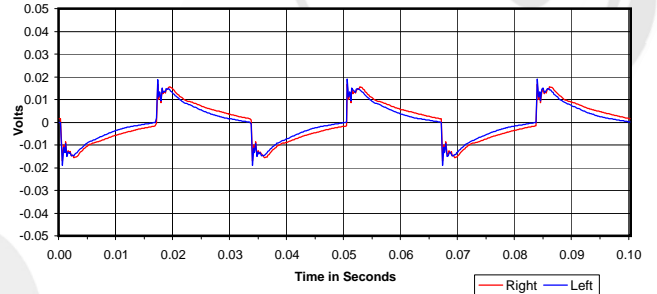
Isolation
Attenuation of External Sound vs. Frequency



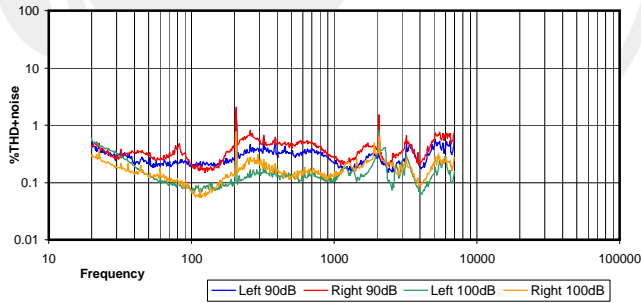
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



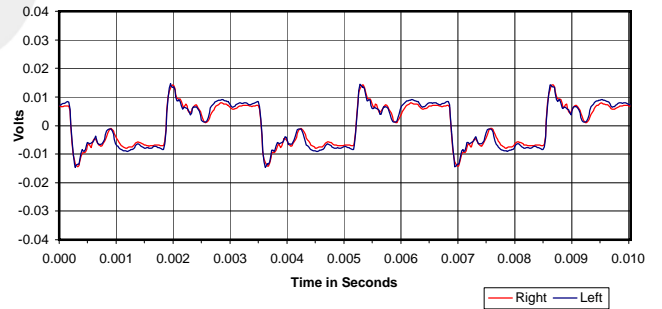
30 Hz Square Wave



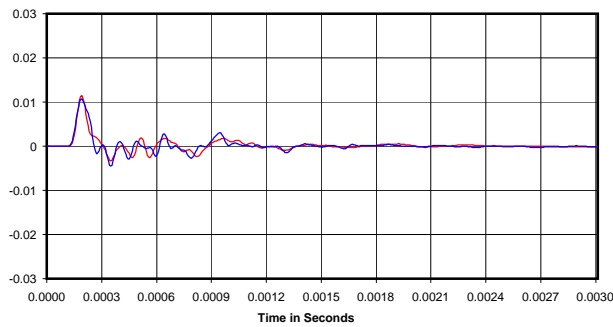
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

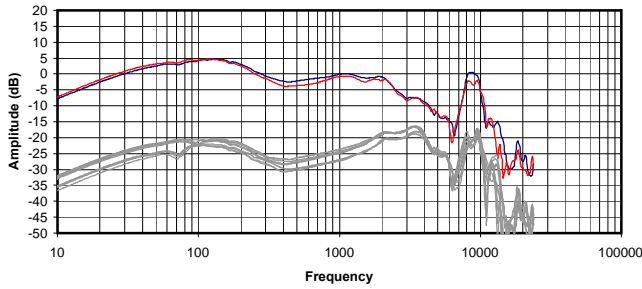


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

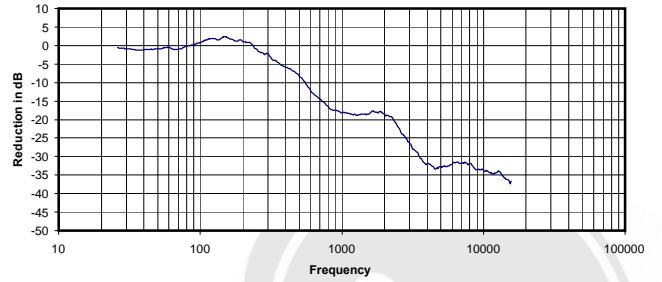
0.016 Vrms
29 Ohms
0.01 mW
-20 dB



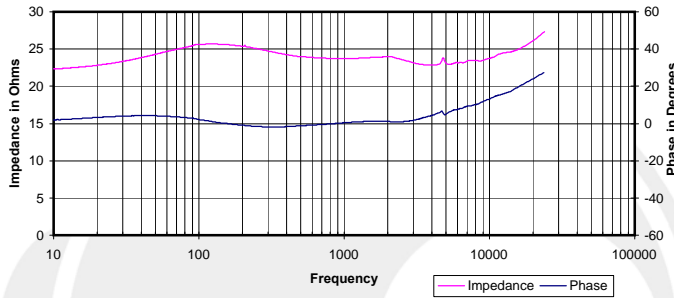
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



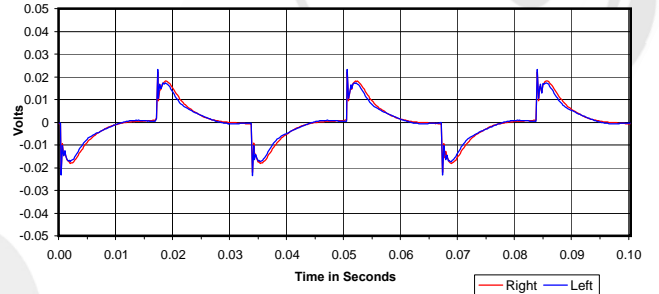
Isolation
Attenuation of External Sound vs. Frequency



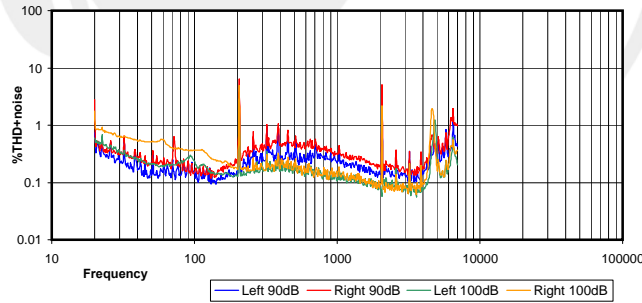
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



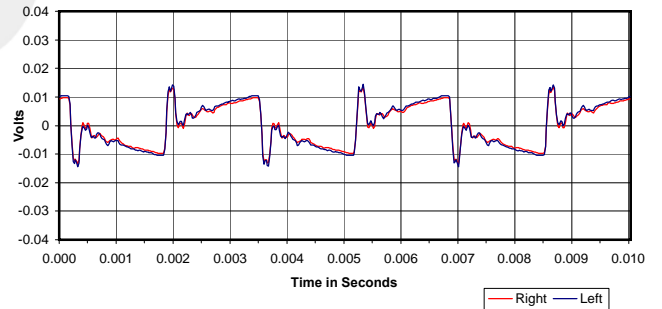
30 Hz Square Wave



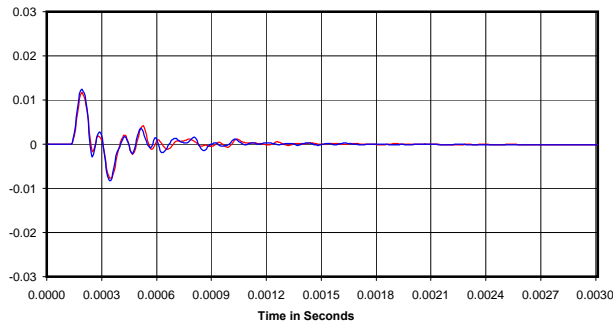
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

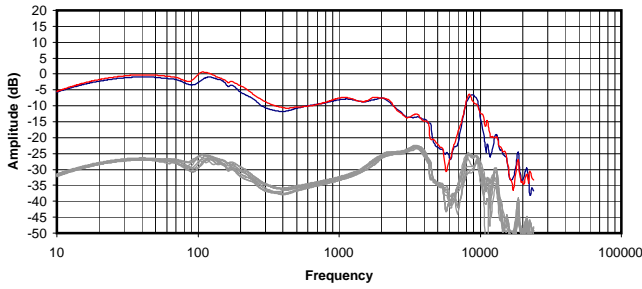


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

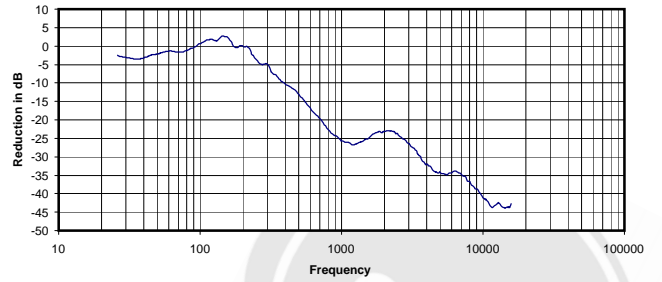
0.024 Vrms
24 Ohms
0.02 mW
-13 dB



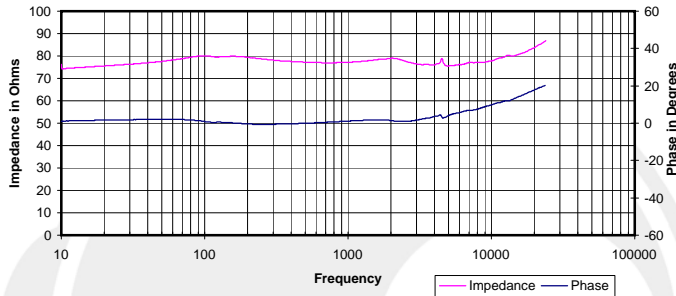
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



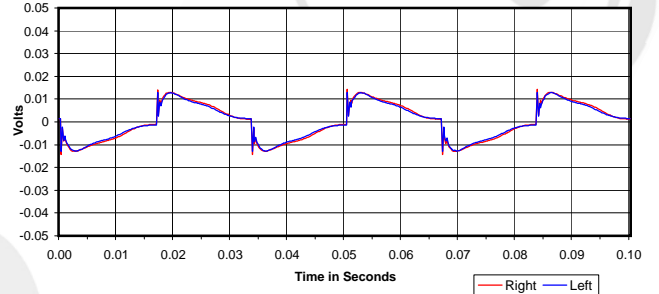
Isolation
 Attenuation of External Sound vs. Frequency



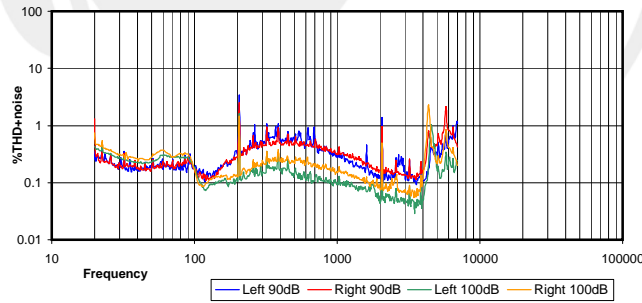
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



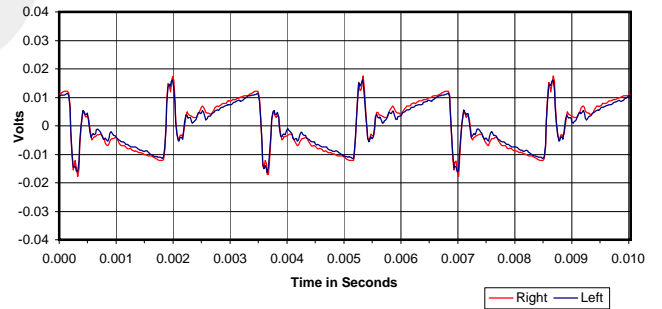
30 Hz Square Wave



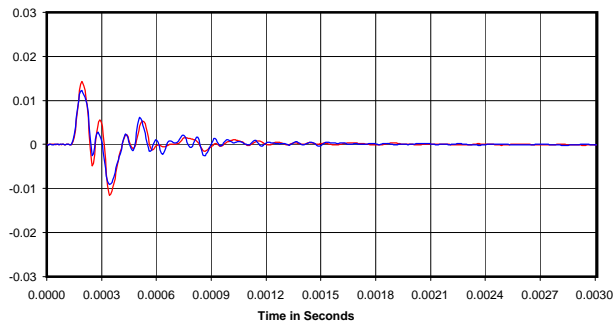
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

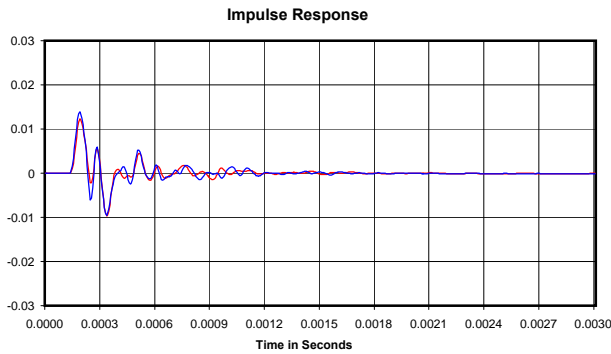
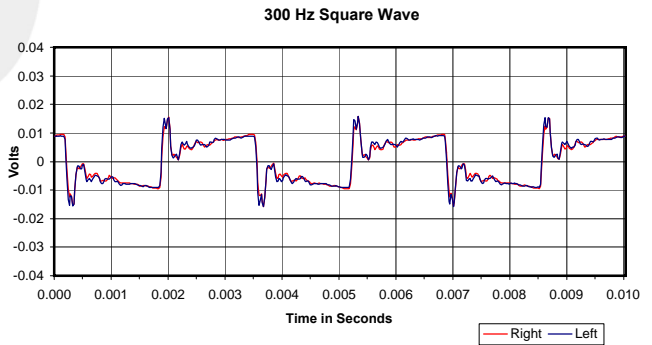
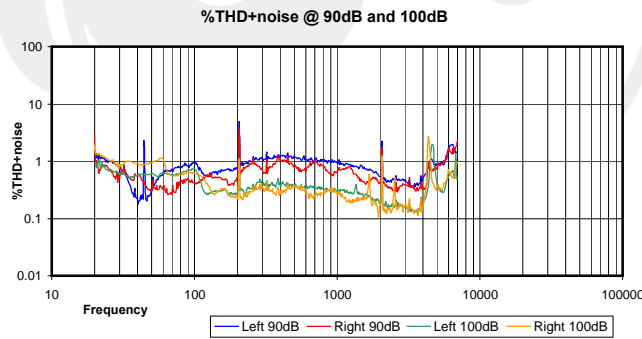
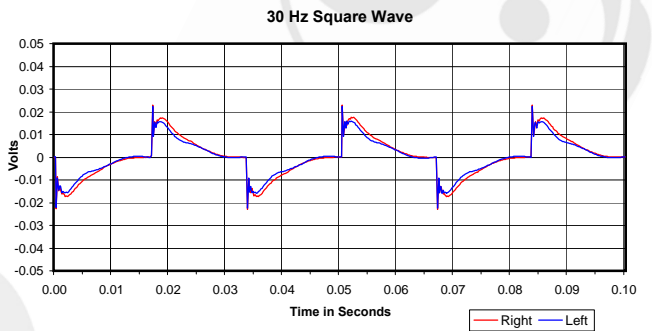
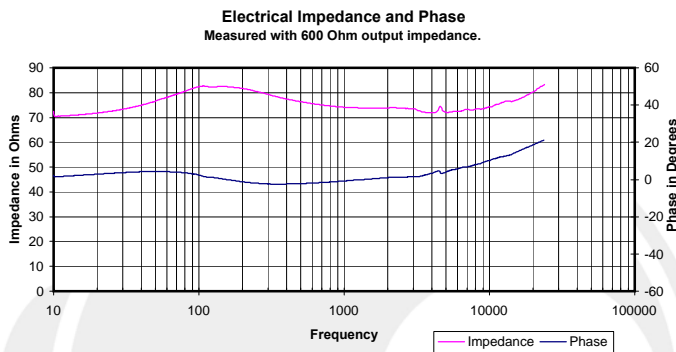
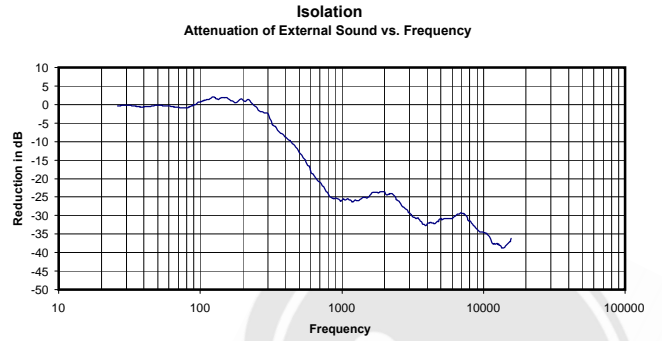
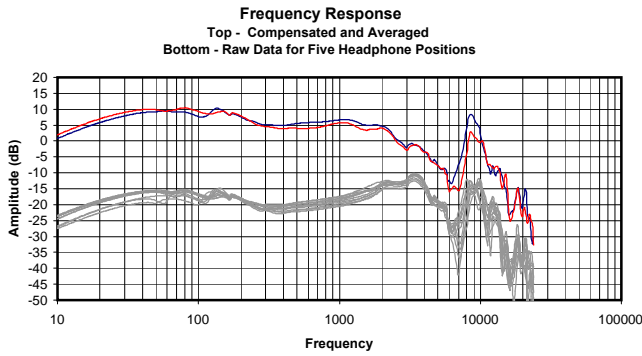


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.059 Vrms
 77 Ohms
 0.04 mW
 -16 dB

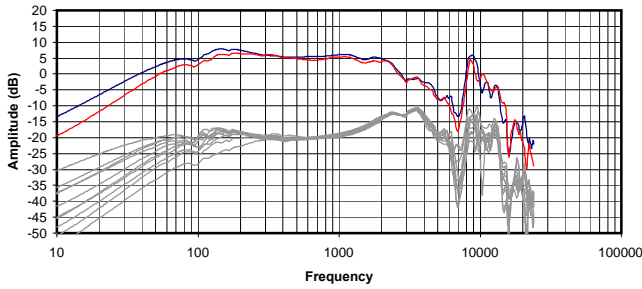


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

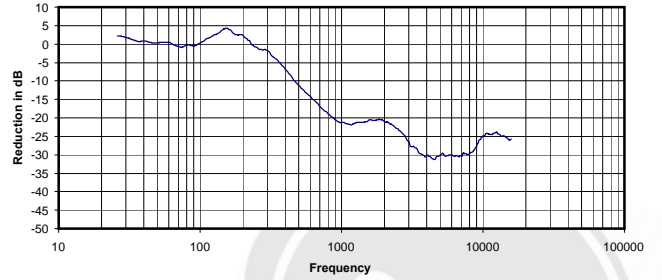
0.055 Vrms
74 Ohms
0.04 mW
-16 dB



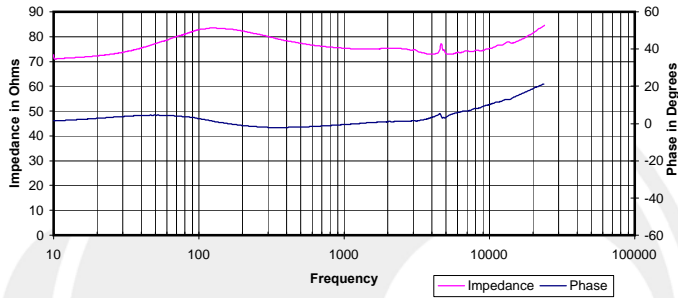
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



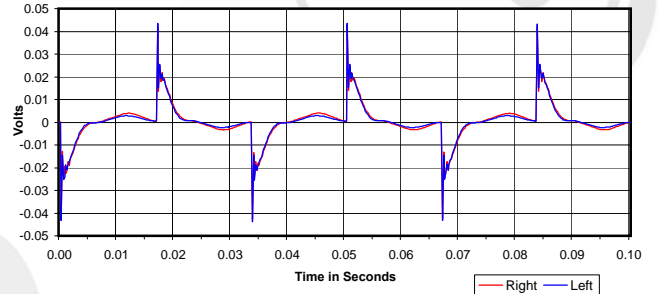
Isolation
 Attenuation of External Sound vs. Frequency



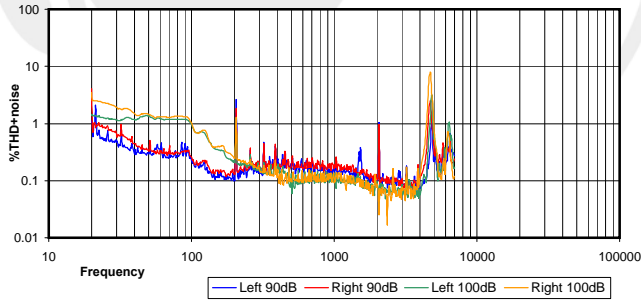
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



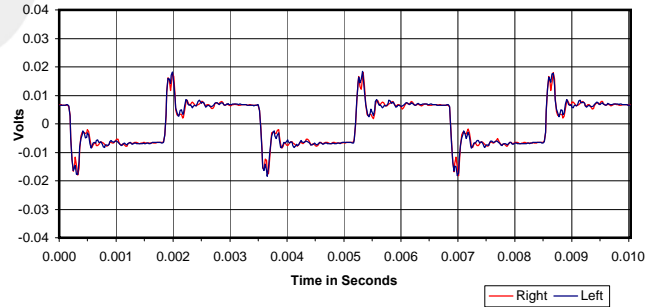
30 Hz Square Wave



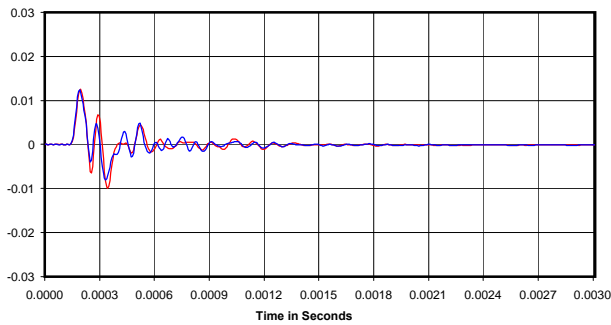
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

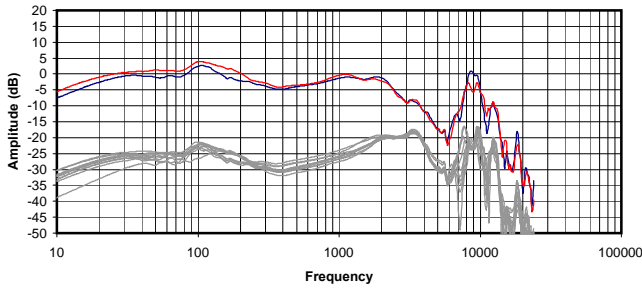


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

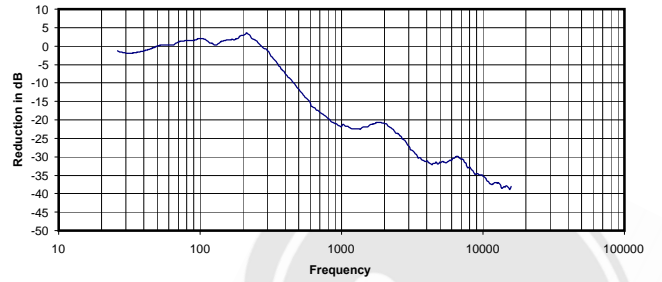
0.051 Vrms
 75 Ohms
 0.03 mW
 -14 dB



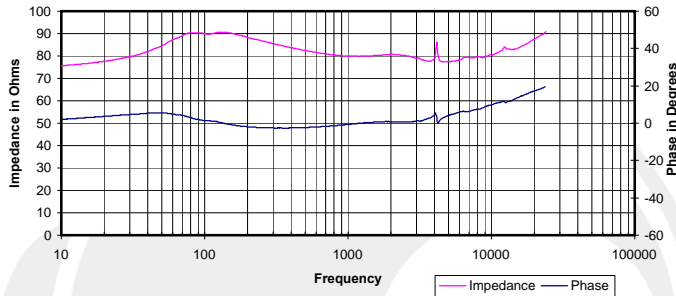
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



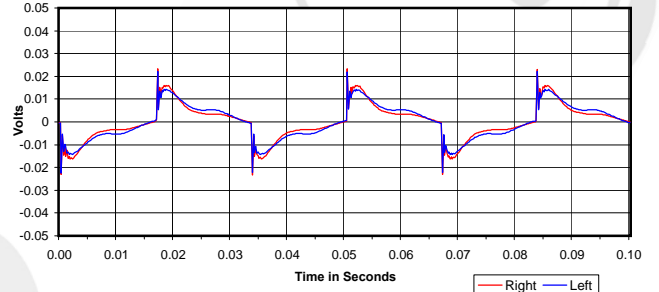
Isolation
 Attenuation of External Sound vs. Frequency



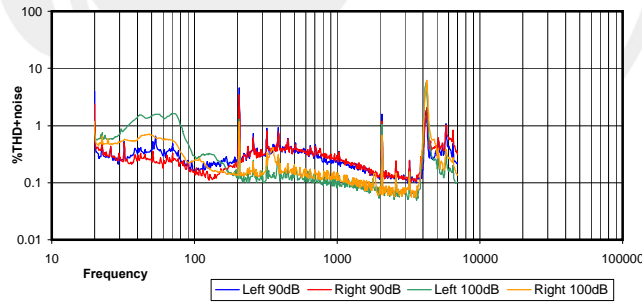
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



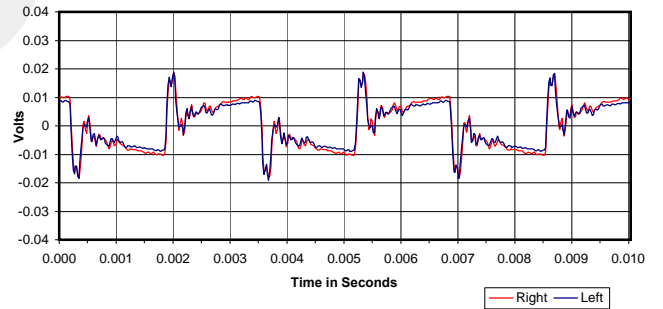
30 Hz Square Wave



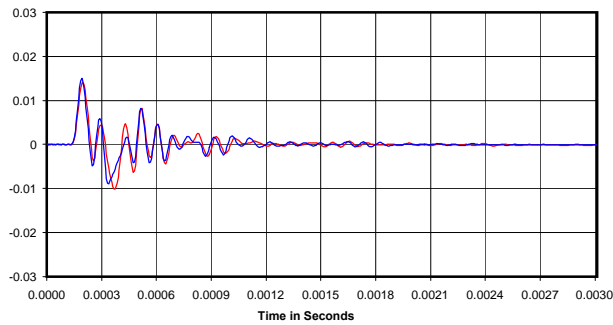
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

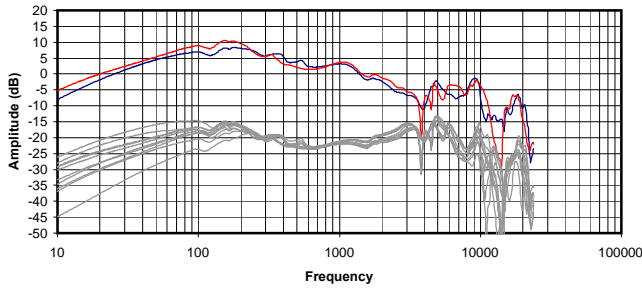


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

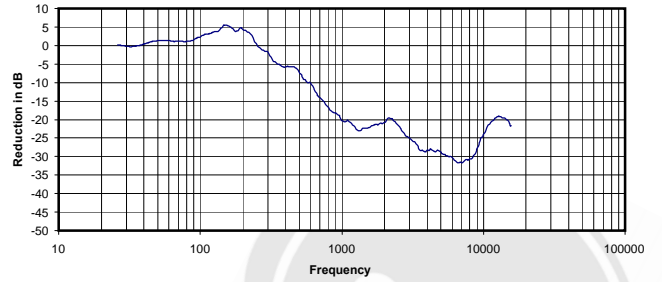
0.048 Vrms
 80 Ohms
 0.03 mW
 -14 dB



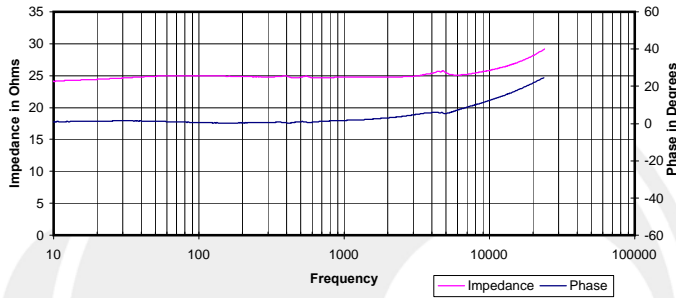
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



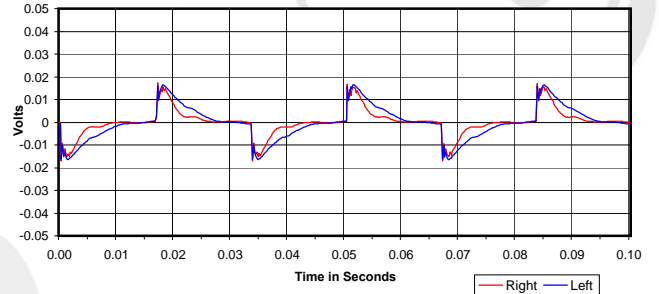
Isolation
 Attenuation of External Sound vs. Frequency



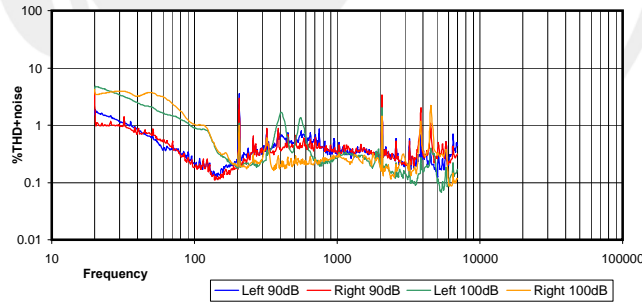
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



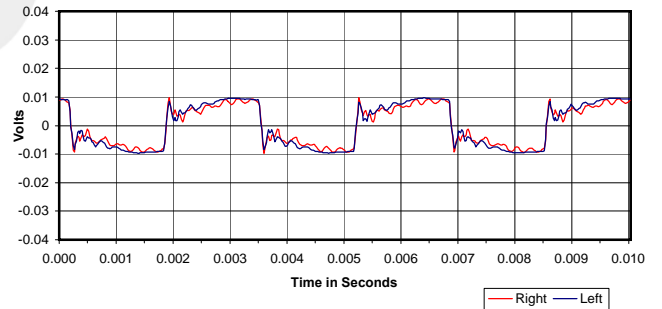
30 Hz Square Wave



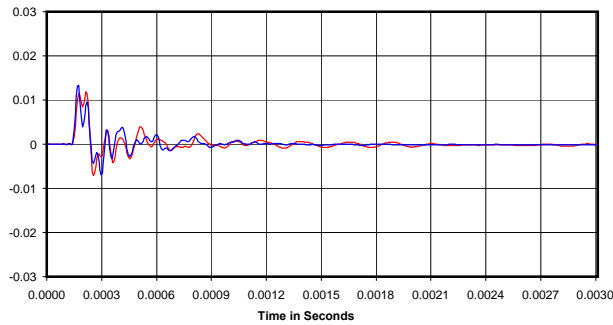
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



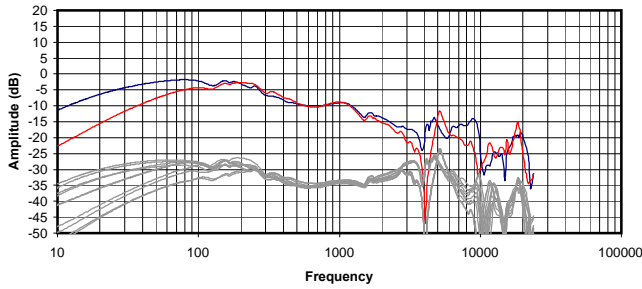
Impulse Response



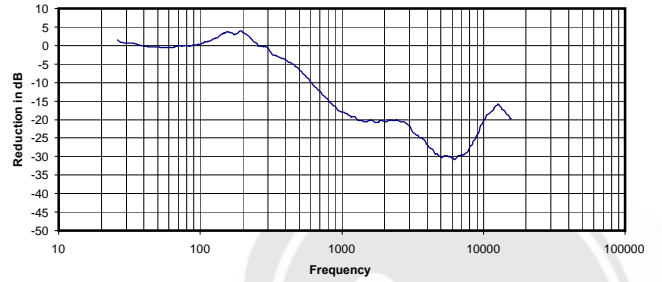
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.097 Vrms
 25 Ohms
 0.38 mW
 -13 dB

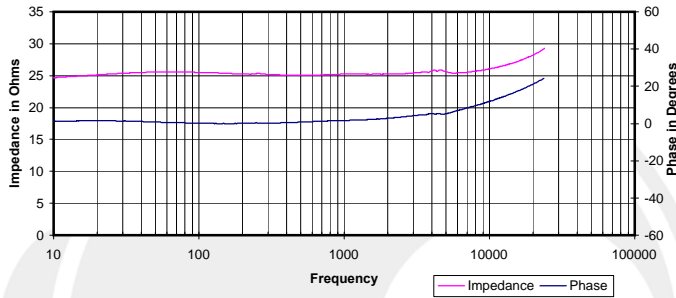
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



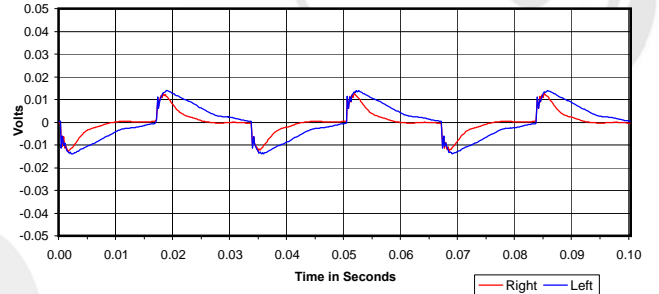
Isolation
Attenuation of External Sound vs. Frequency



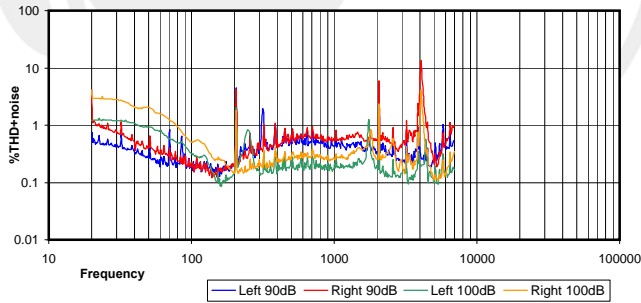
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



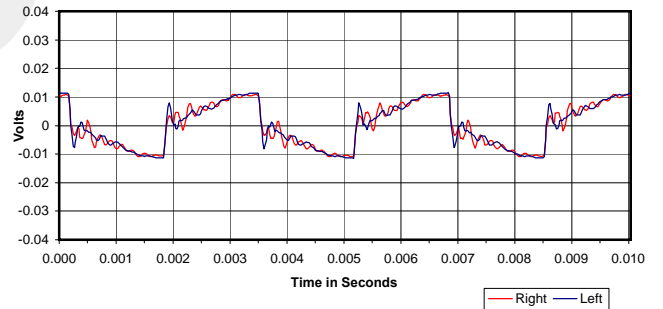
30 Hz Square Wave



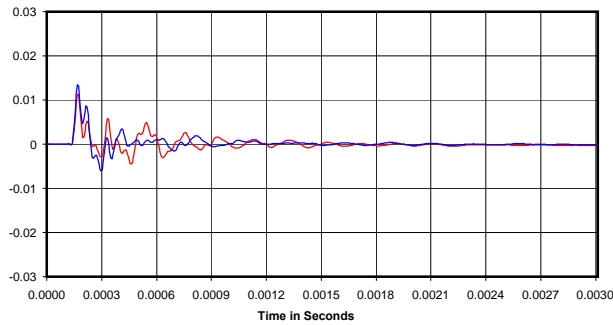
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

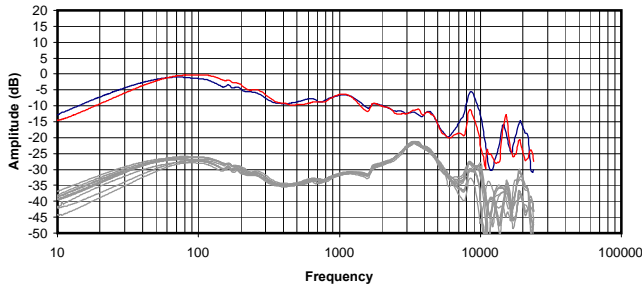


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

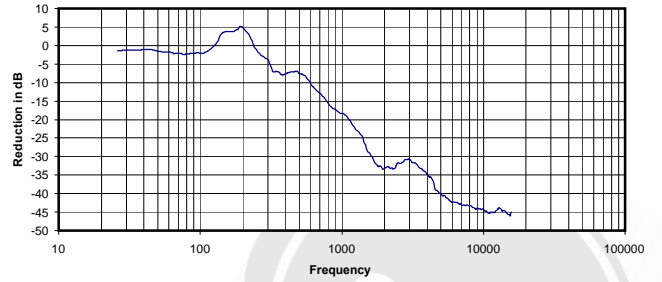
0.097 Vrms
25 Ohms
0.37 mW
-12 dB



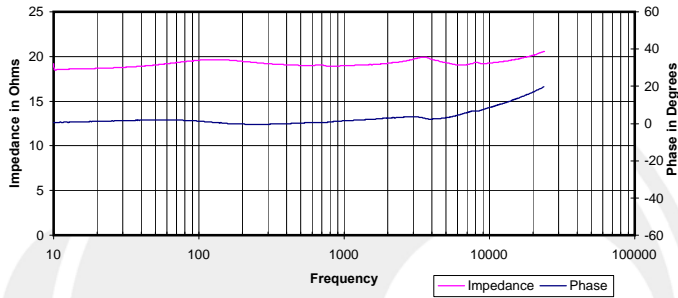
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



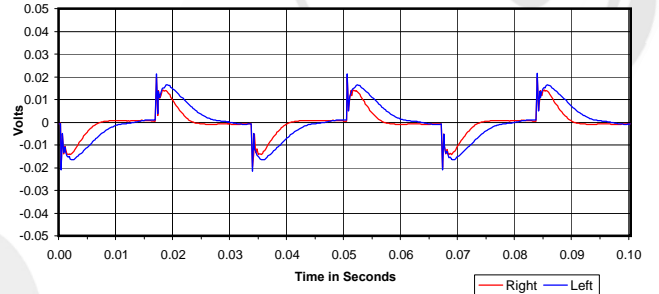
Isolation
 Attenuation of External Sound vs. Frequency



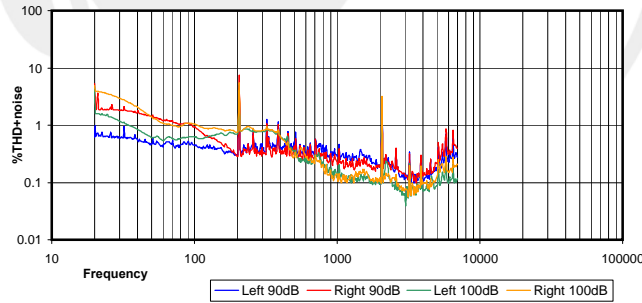
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



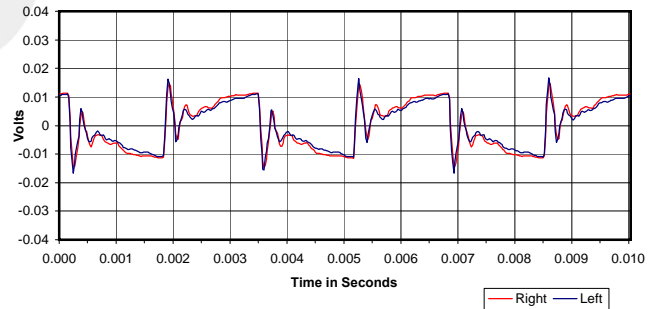
30 Hz Square Wave



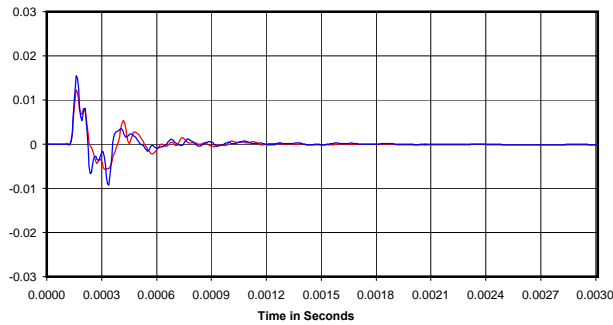
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

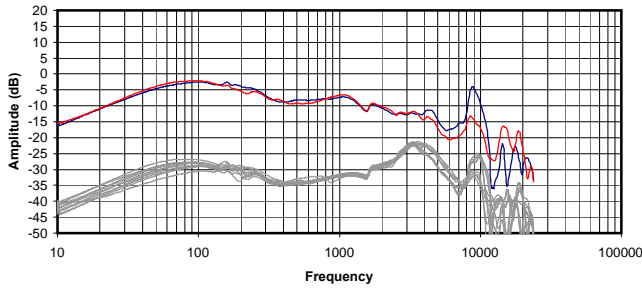


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

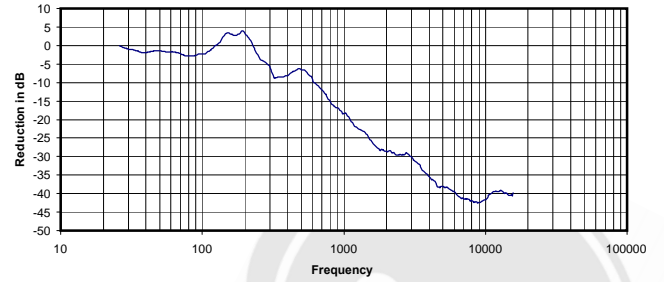
0.055 Vrms
 19 Ohms
 0.16 mW
 -17 dB



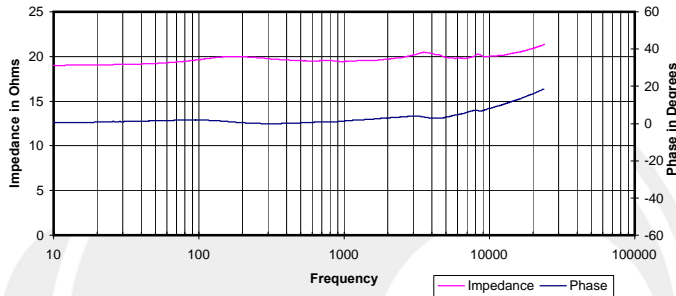
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



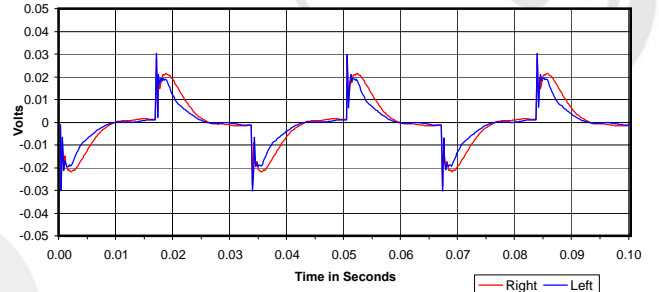
Isolation
 Attenuation of External Sound vs. Frequency



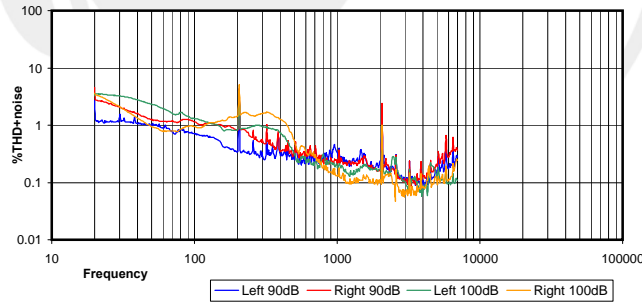
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



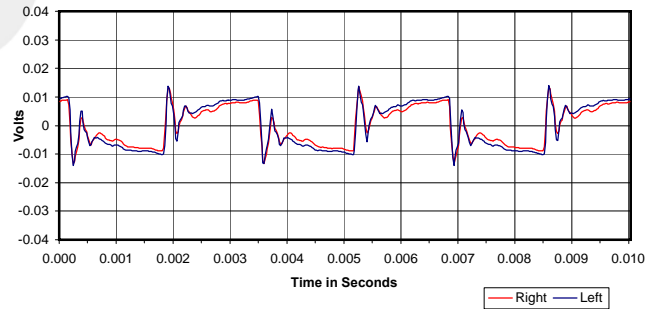
30 Hz Square Wave



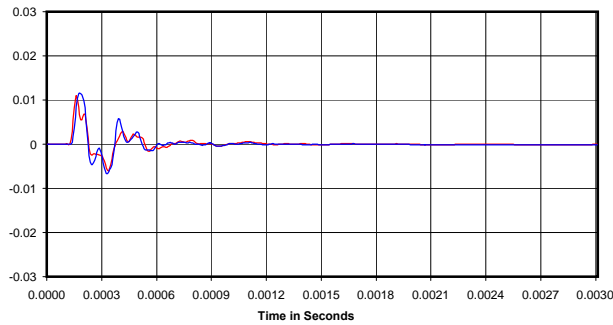
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

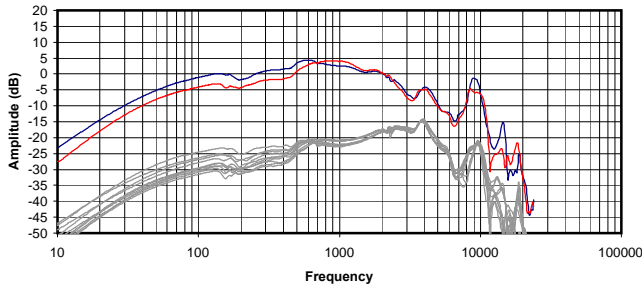


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

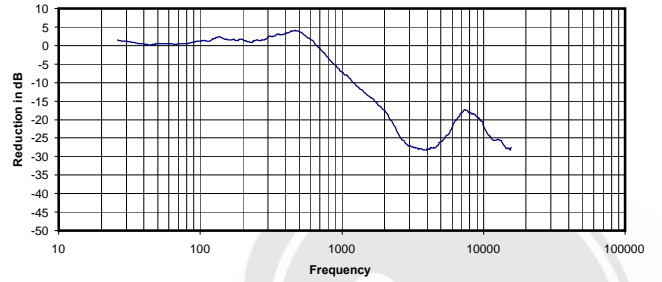
0.055 Vrms
 19 Ohms
 0.16 mW
 -16 dB



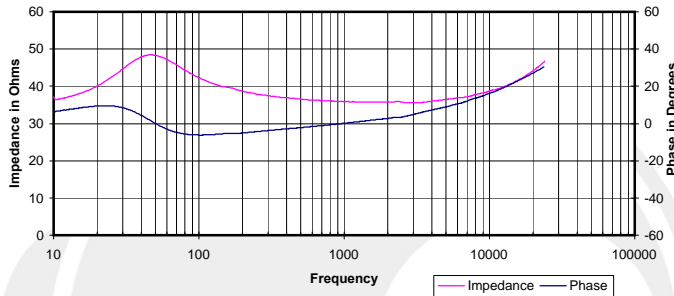
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



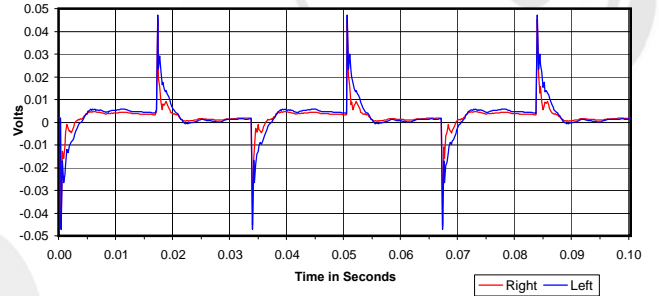
Isolation
 Attenuation of External Sound vs. Frequency



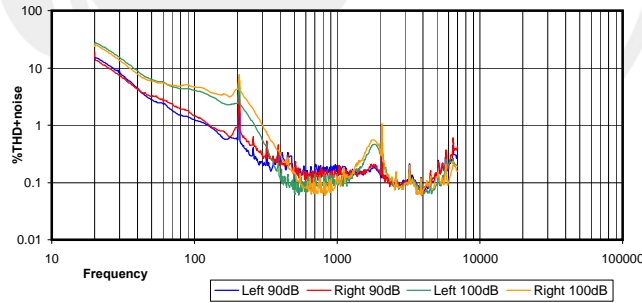
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



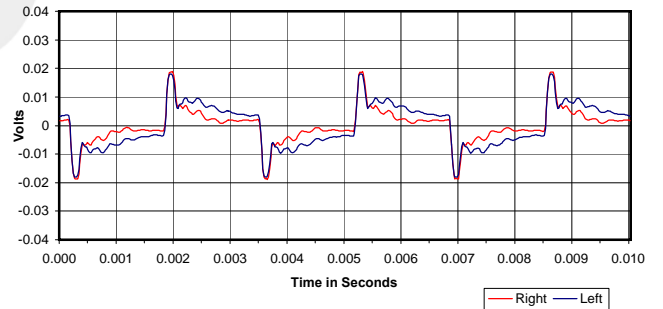
30 Hz Square Wave



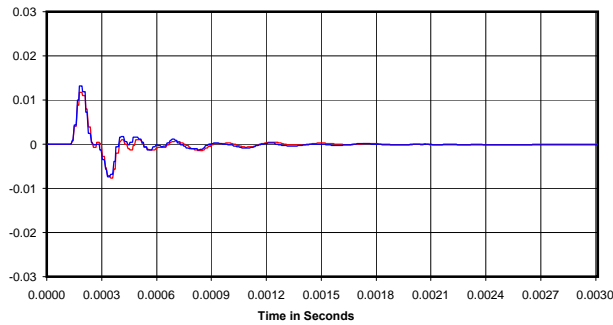
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

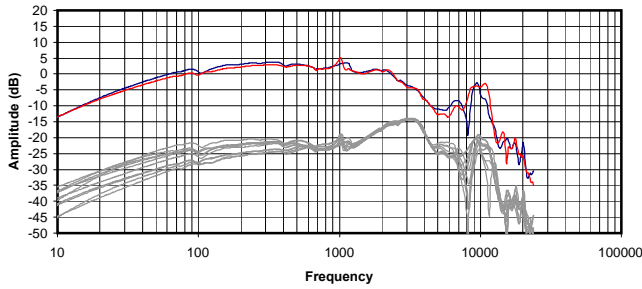


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

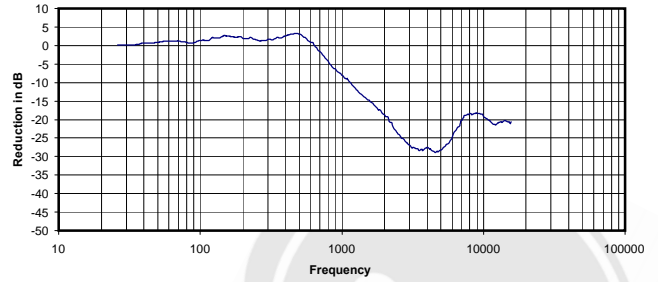
0.052 Vrms
 36 Ohms
 0.07 mW
 -8 dB



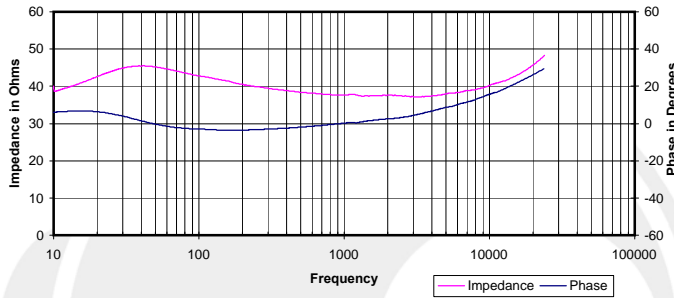
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



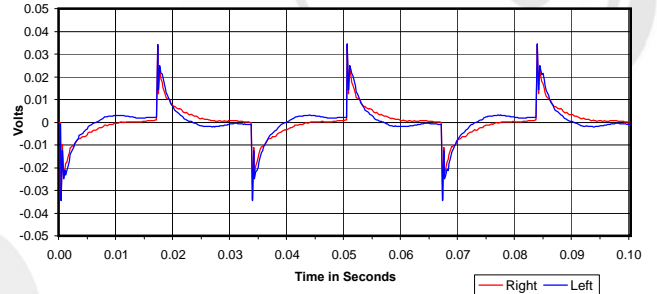
Isolation
 Attenuation of External Sound vs. Frequency



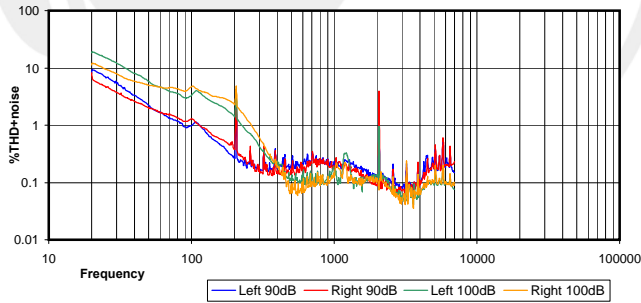
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



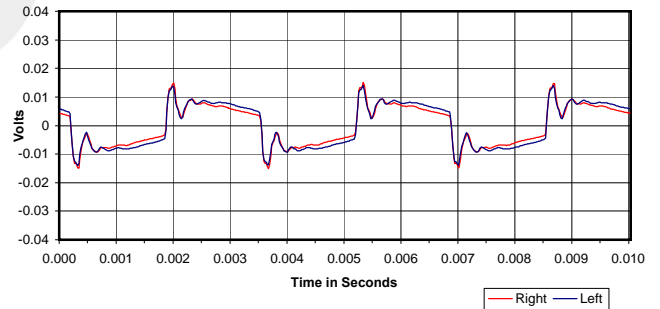
30 Hz Square Wave



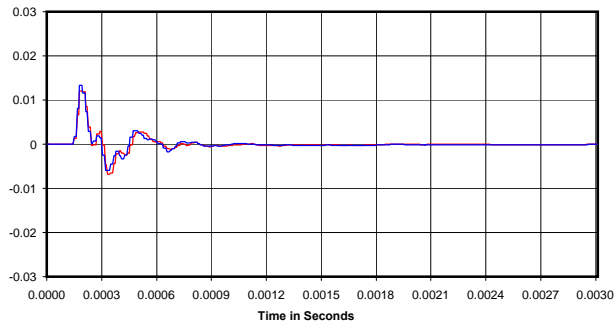
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



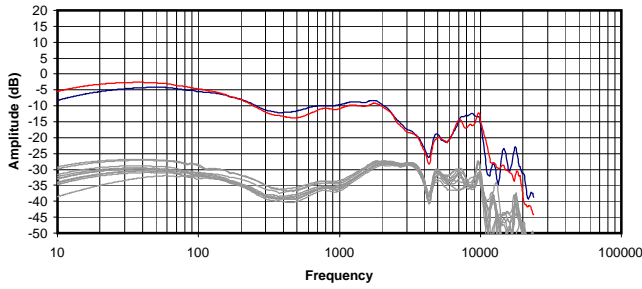
Impulse Response



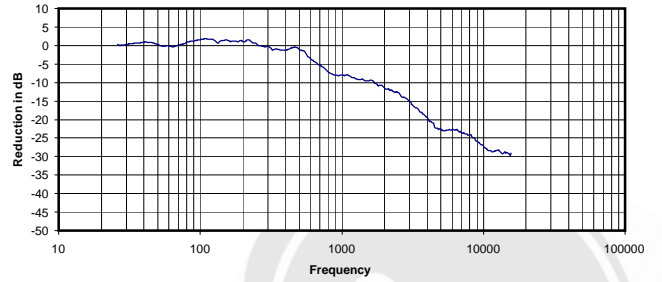
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
 38 Ohms
 0.08 mW
 -9 dB

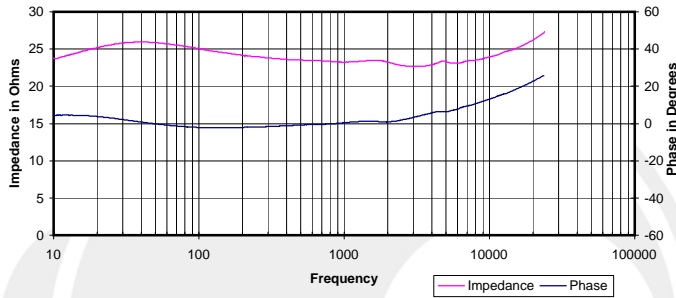
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



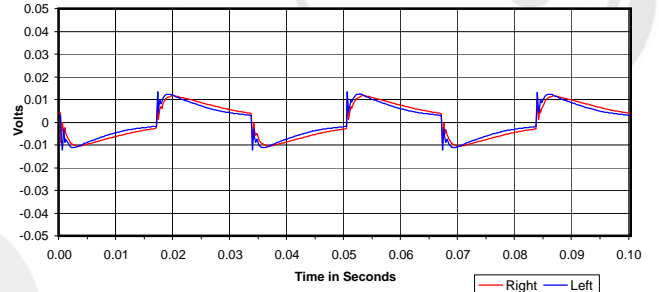
Isolation
 Attenuation of External Sound vs. Frequency



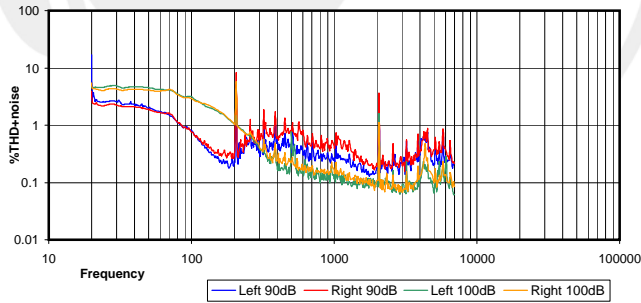
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



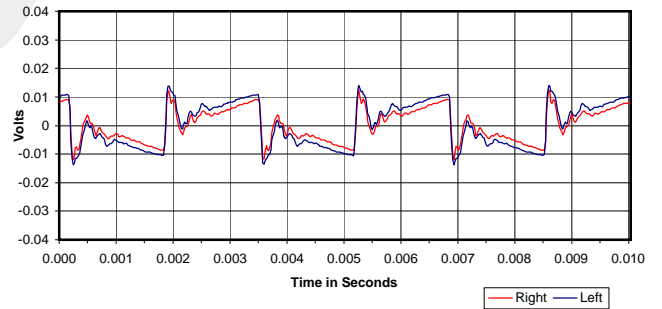
30 Hz Square Wave



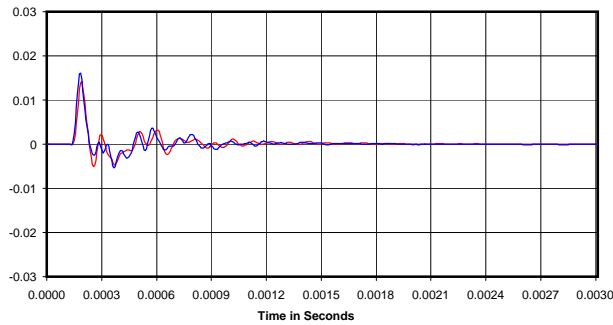
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

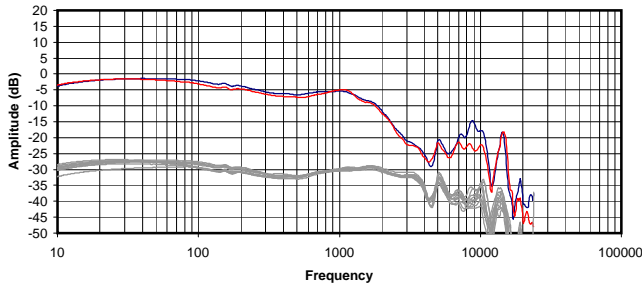


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

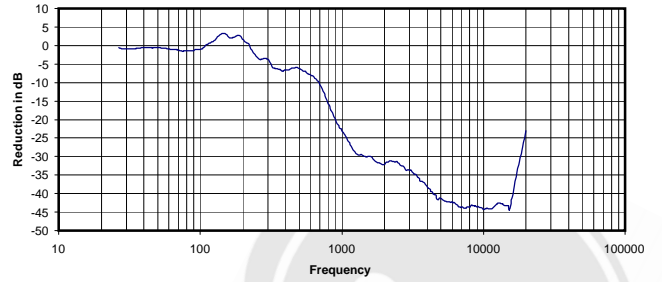
0.050 Vrms
 23 Ohms
 0.11 mW
 -7 dB



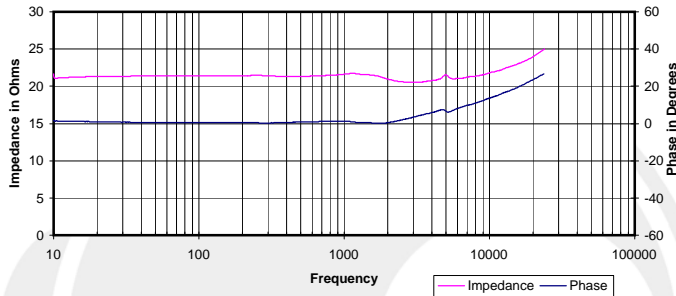
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



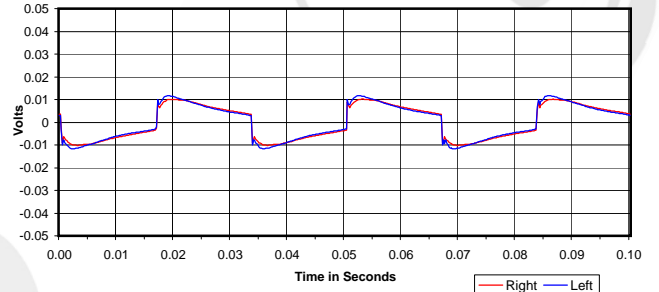
Isolation
 Attenuation of External Sound vs. Frequency



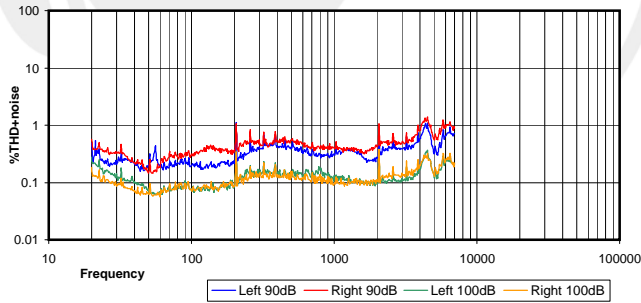
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



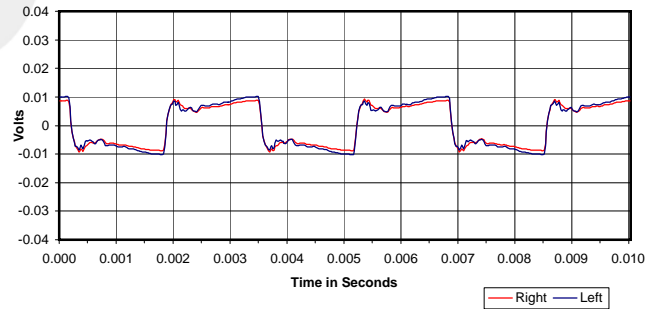
30 Hz Square Wave



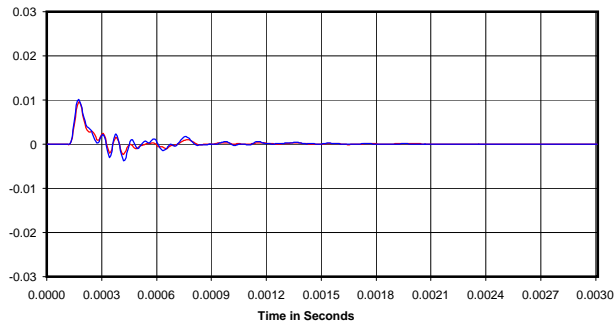
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

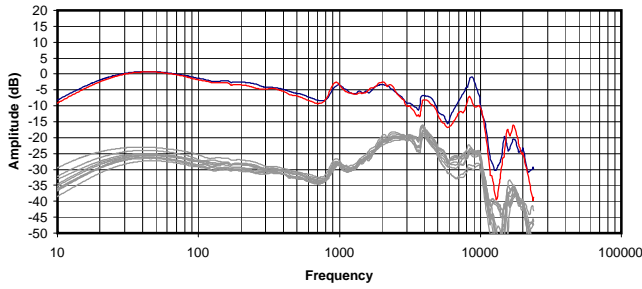


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

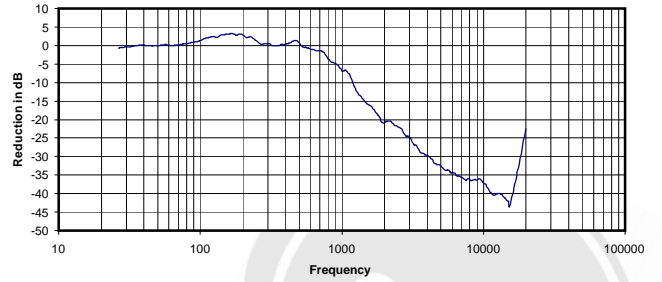
0.018 Vrms
 22 Ohms
 0.01 mW
 -20 dB



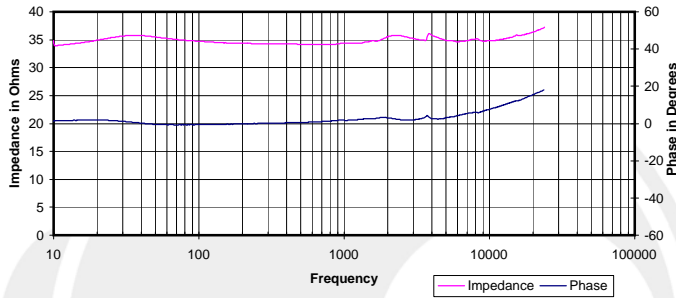
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



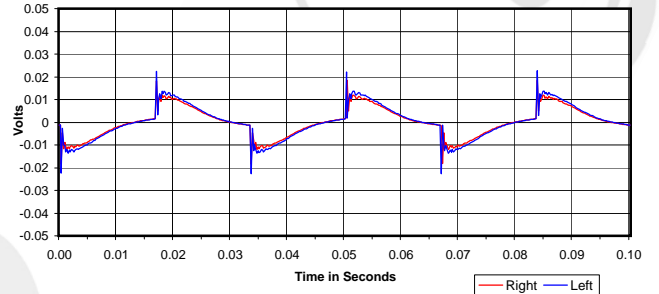
Isolation
Attenuation of External Sound vs. Frequency



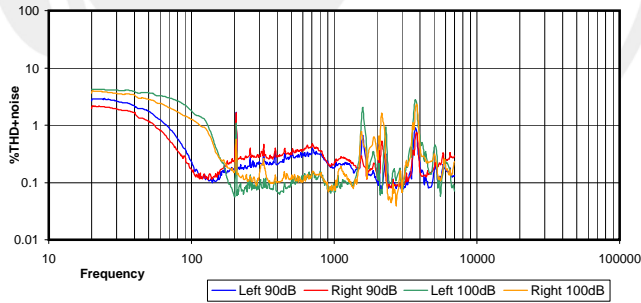
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



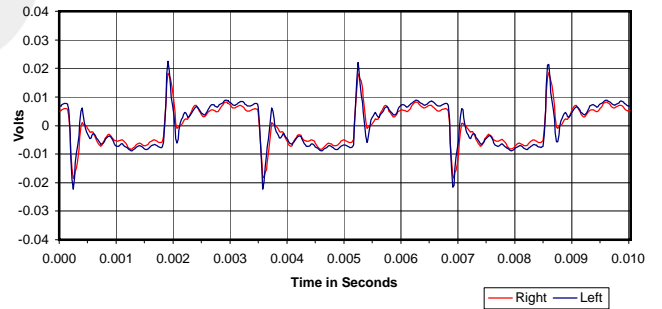
30 Hz Square Wave



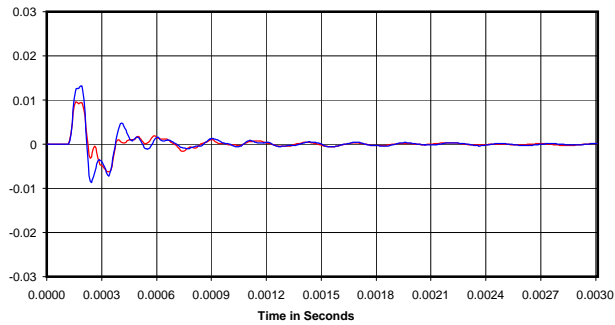
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

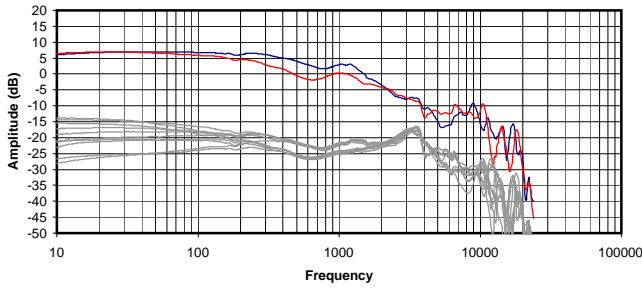


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

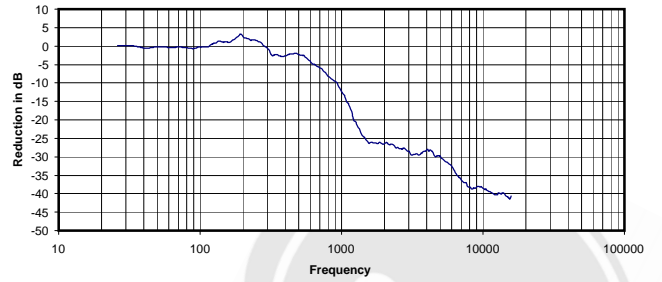
0.049 Vrms
34 Ohms
0.07 mW
-12 dB



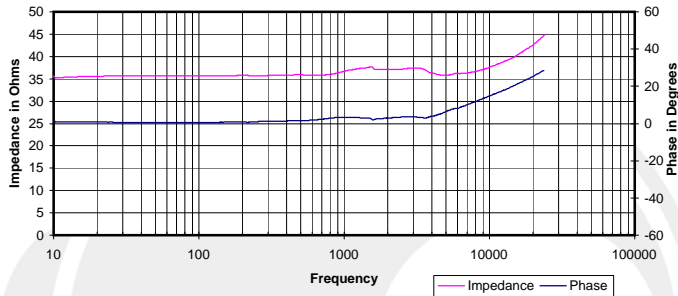
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



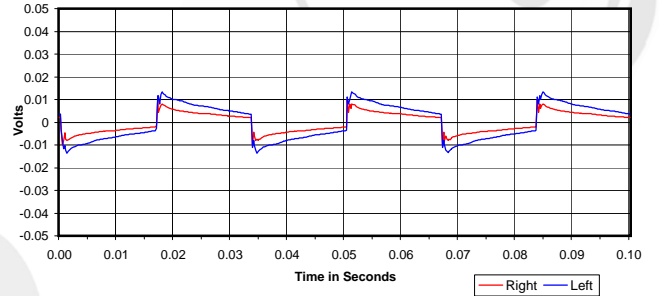
Isolation
Attenuation of External Sound vs. Frequency



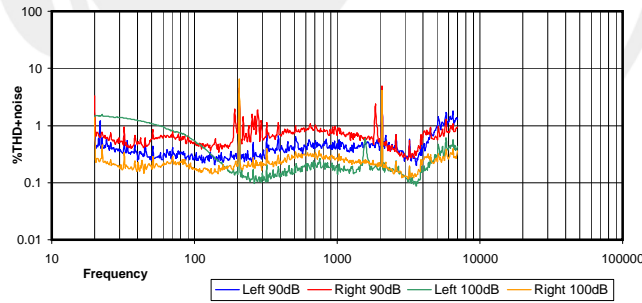
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



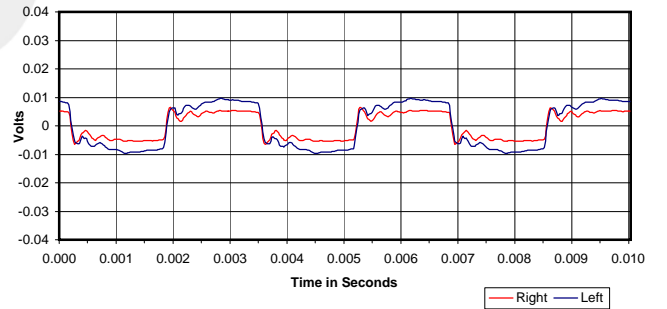
30 Hz Square Wave



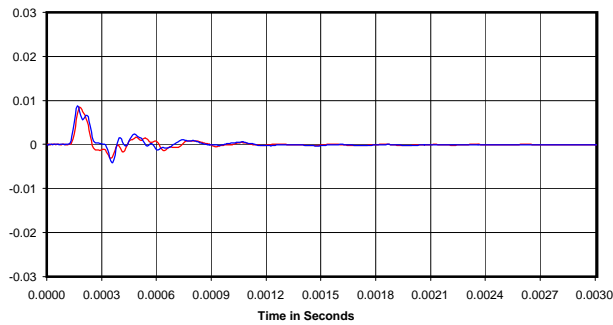
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

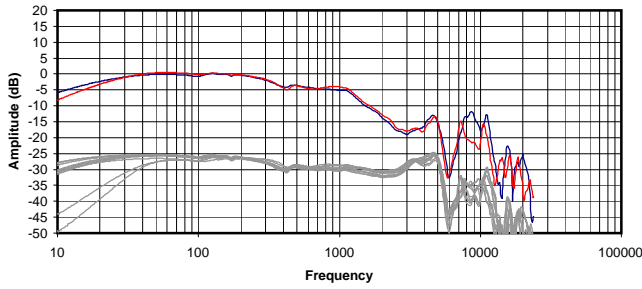


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

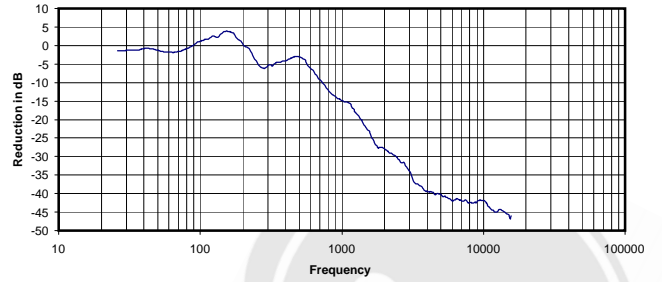
0.005 Vrms
37 Ohms
0.00 mW
-12 dB



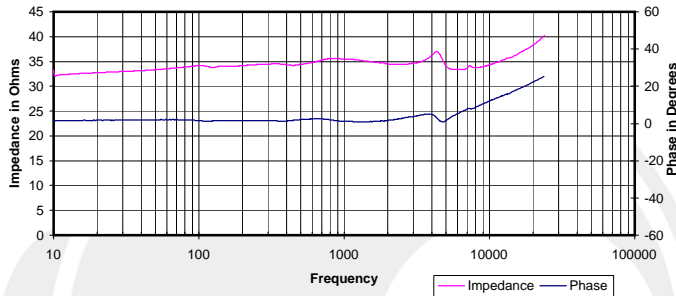
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



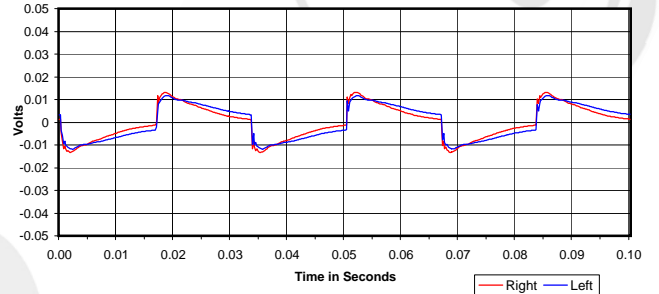
Isolation
Attenuation of External Sound vs. Frequency



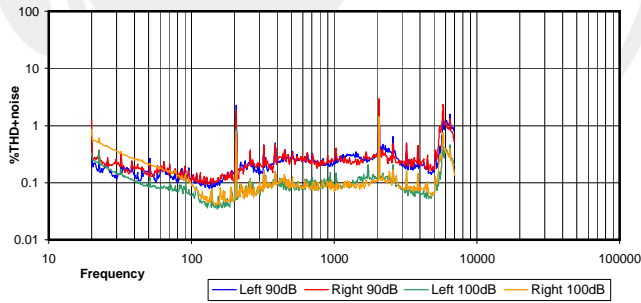
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



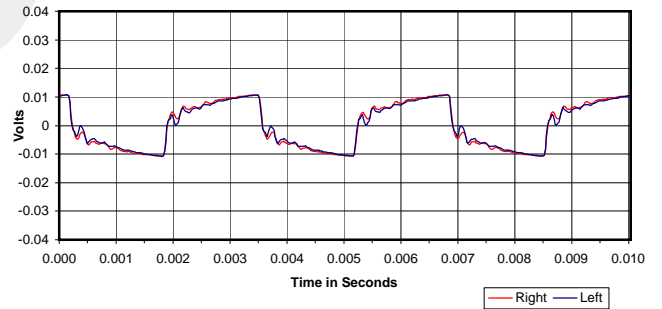
30 Hz Square Wave



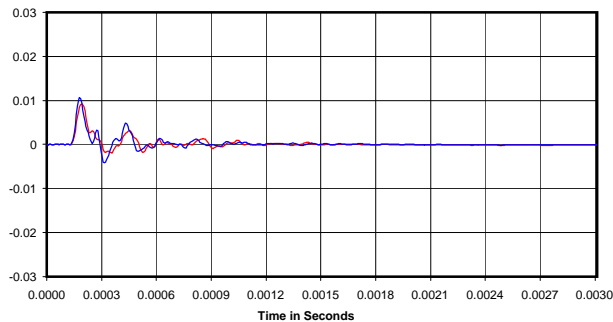
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

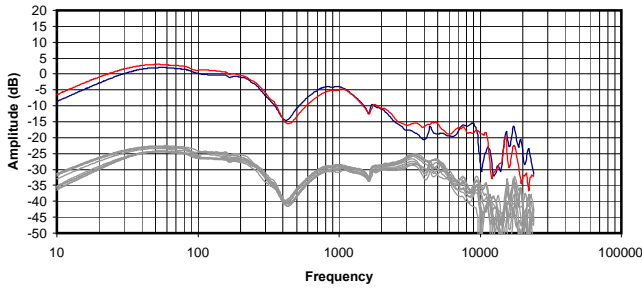


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

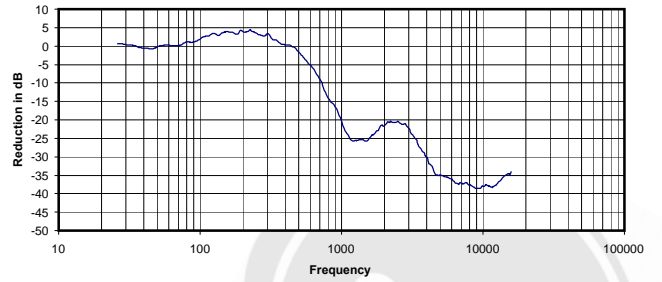
0.020 Vrms
35 Ohms
0.01 mW
-15 dB



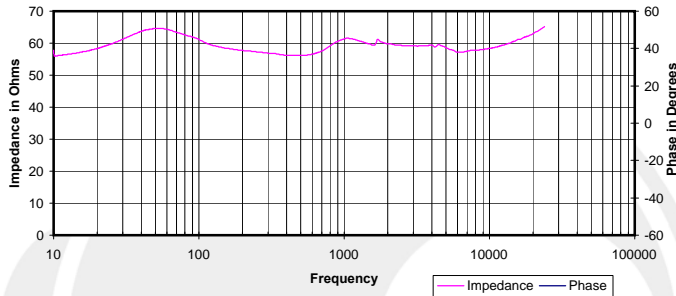
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



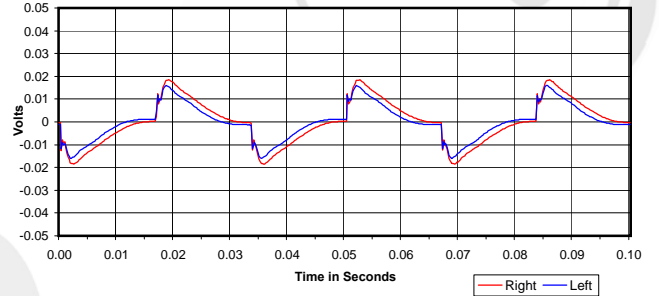
Isolation
Attenuation of External Sound vs. Frequency



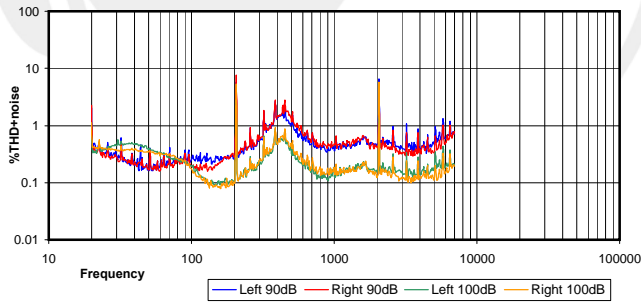
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



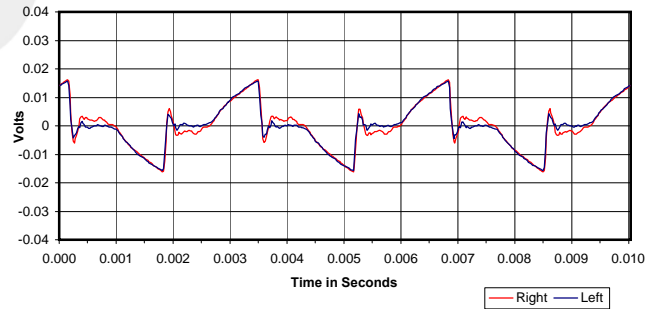
30 Hz Square Wave



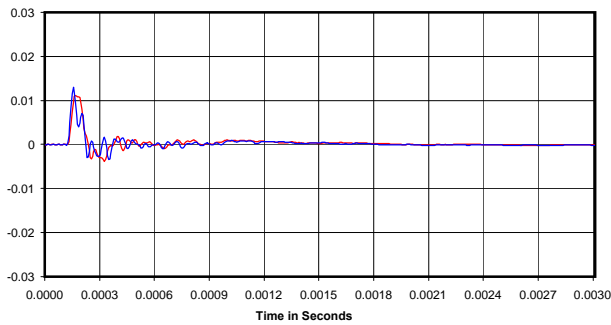
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

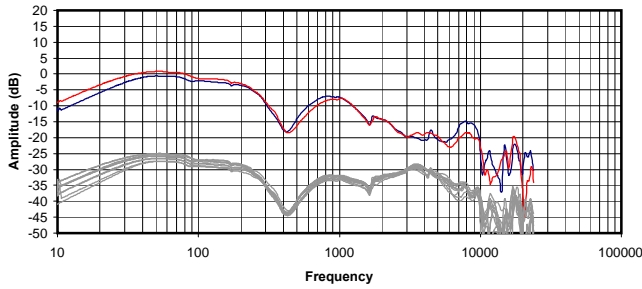


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

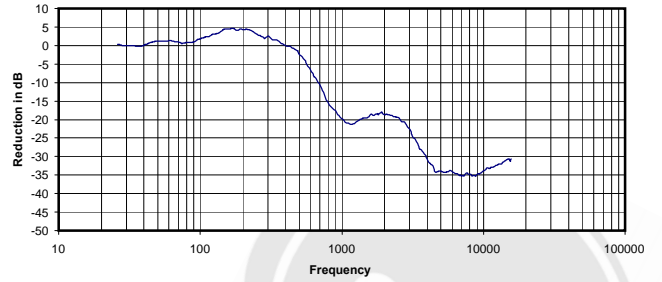
0.040 Vrms
61 Ohms
0.03 mW
-12 dB



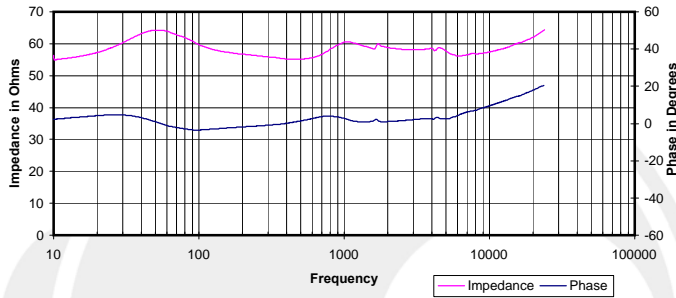
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



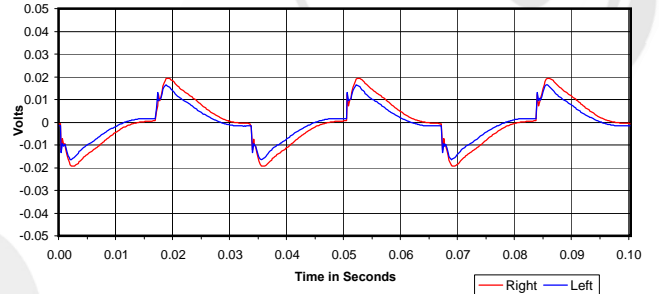
Isolation
Attenuation of External Sound vs. Frequency



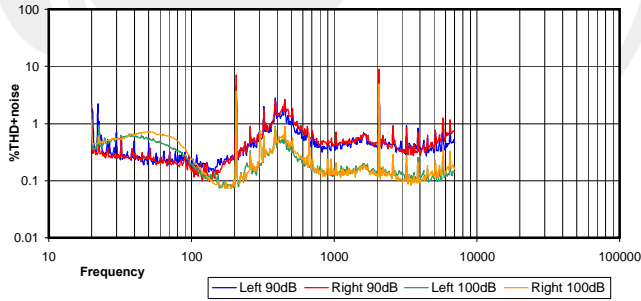
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



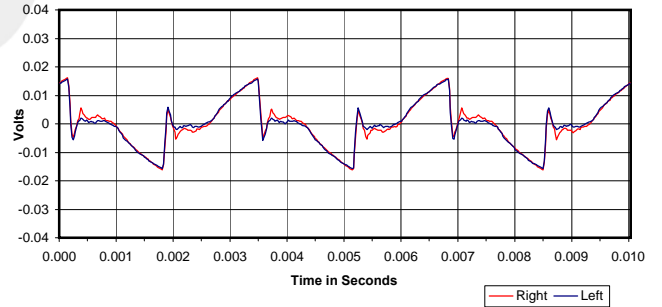
30 Hz Square Wave



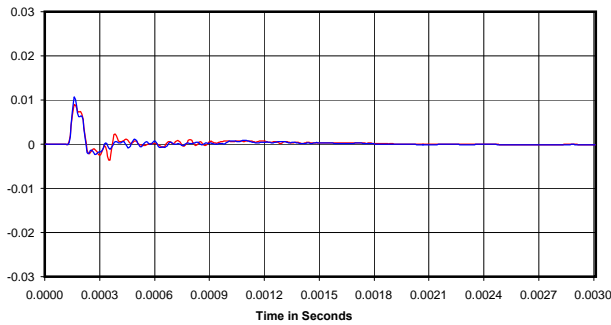
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

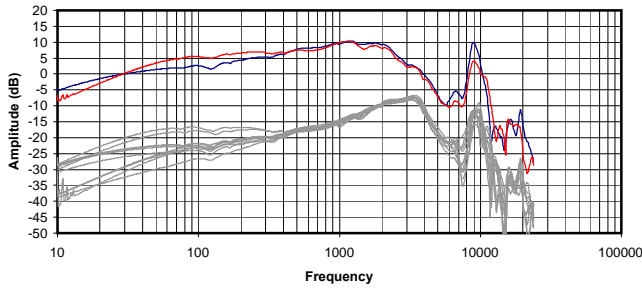


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

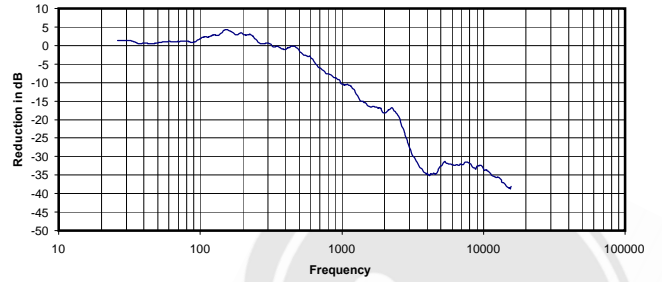
0.042 Vrms
60 Ohms
0.03 mW
-11 dB



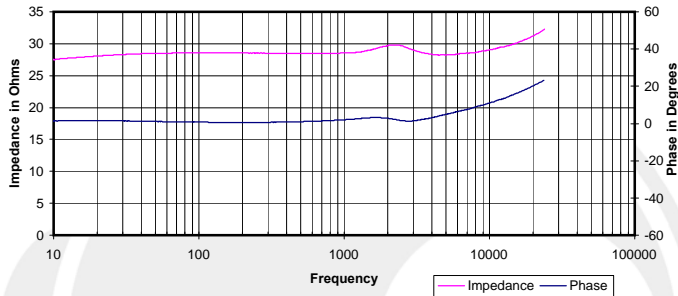
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



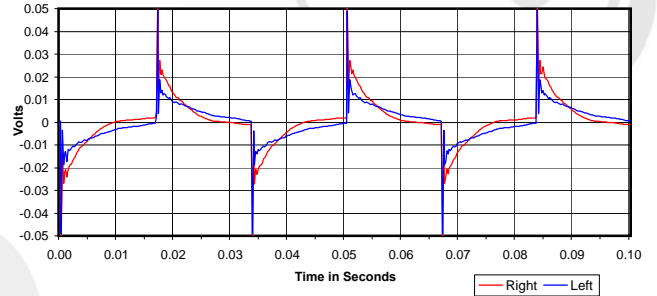
Isolation
 Attenuation of External Sound vs. Frequency



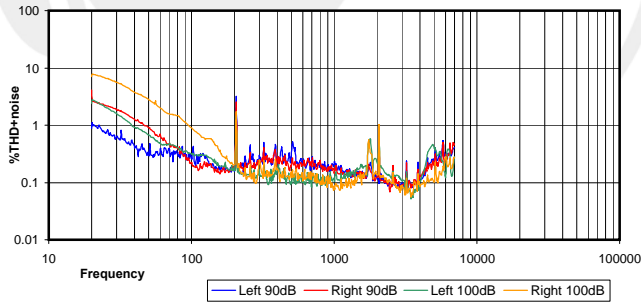
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



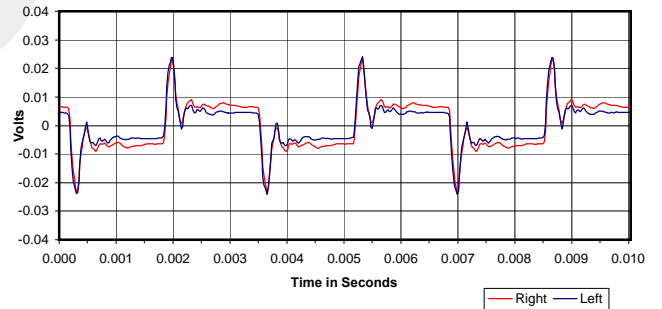
30 Hz Square Wave



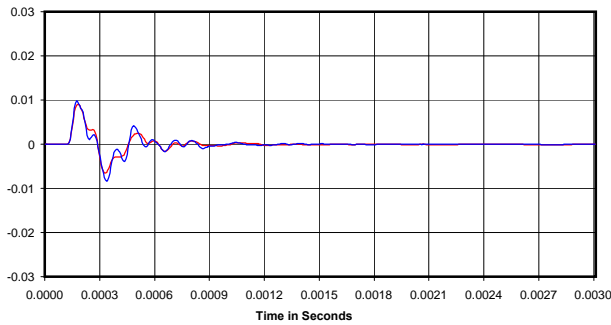
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



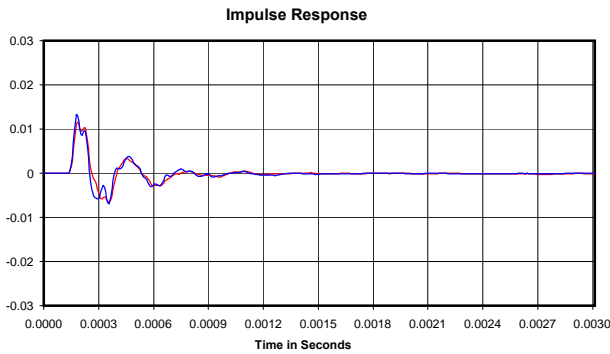
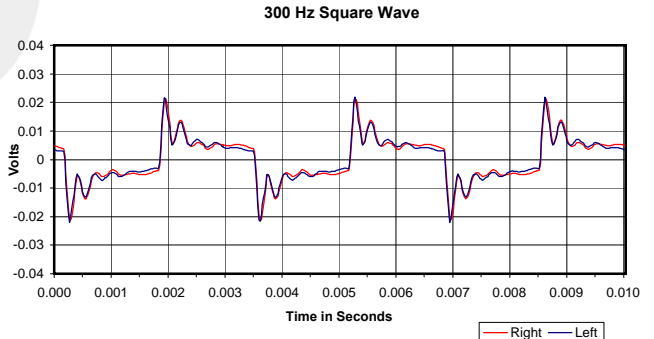
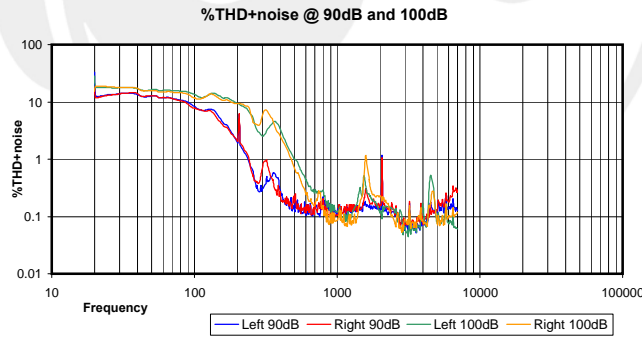
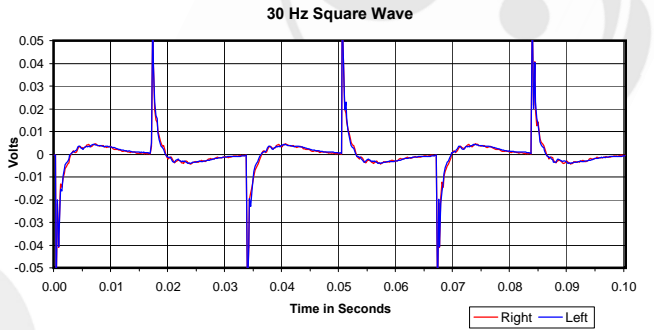
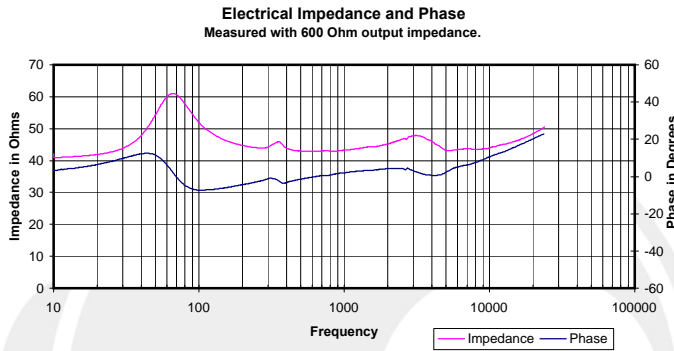
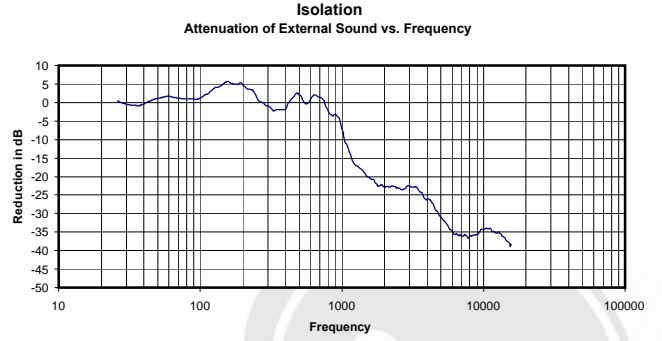
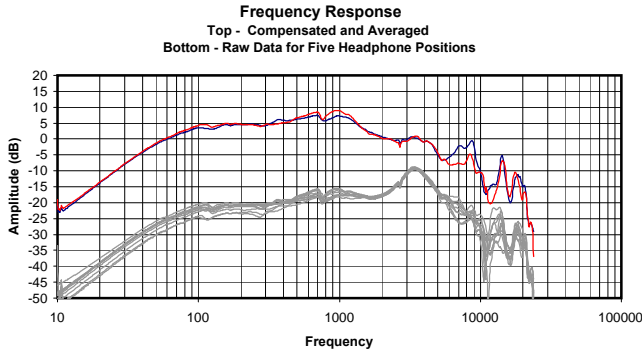
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
 29 Ohms
 0.06 mW
 -10 dB



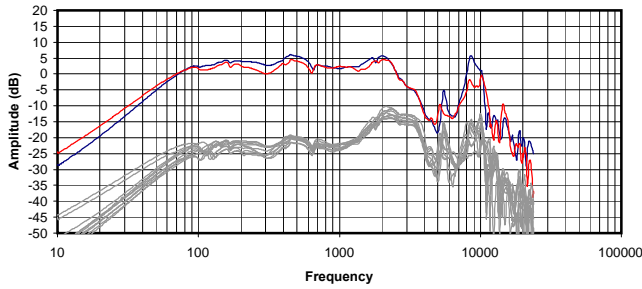


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

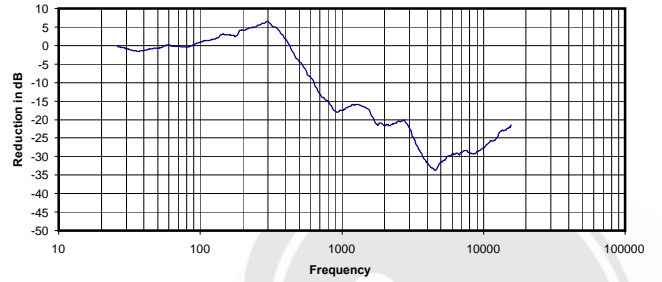
0.035 Vrms
43 Ohms
0.03 mW
-9 dBr



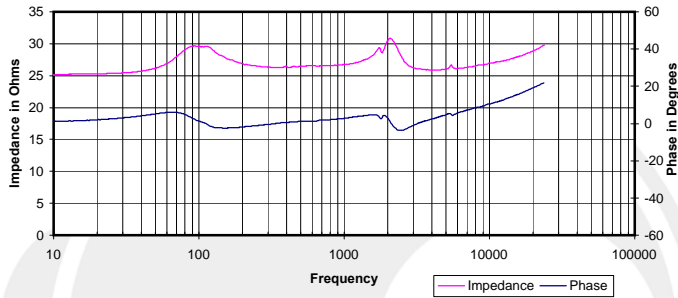
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



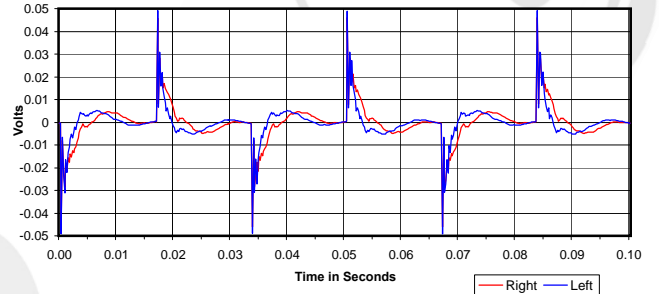
Isolation
 Attenuation of External Sound vs. Frequency



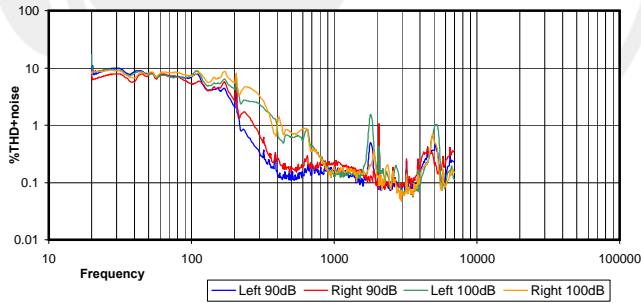
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



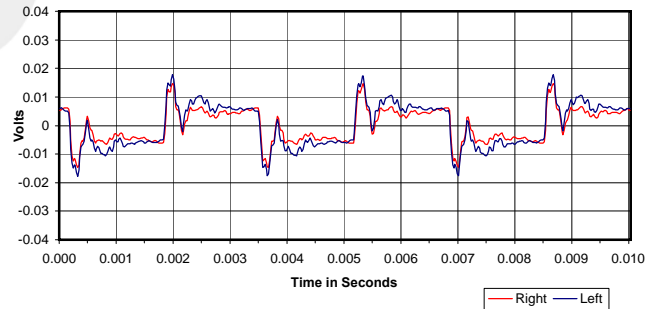
30 Hz Square Wave



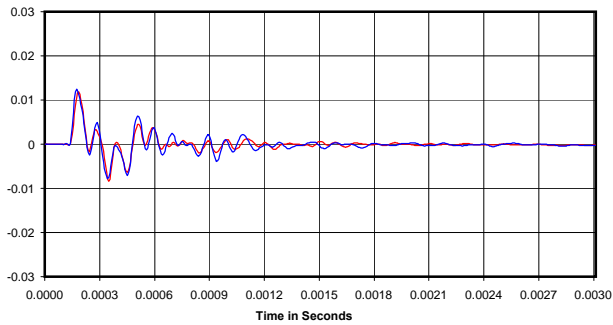
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

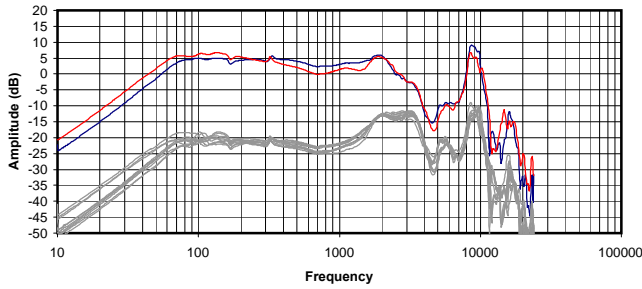


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

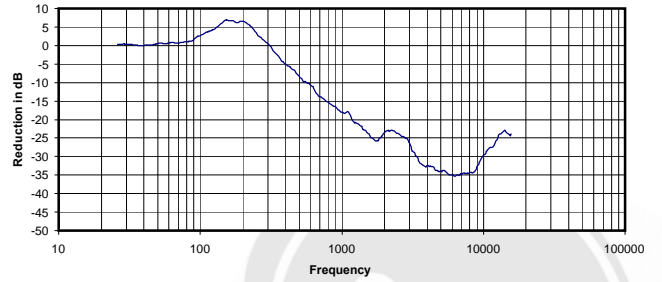
0.049 Vrms
 27 Ohms
 0.09 mW
 -11 dB



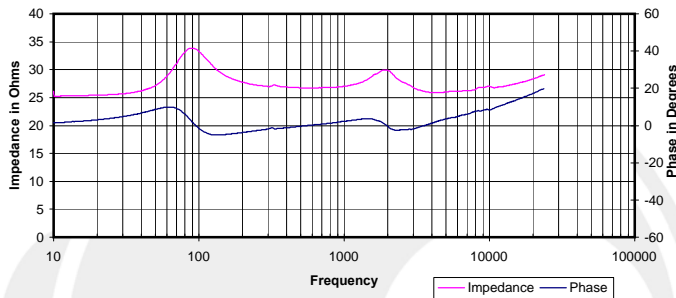
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



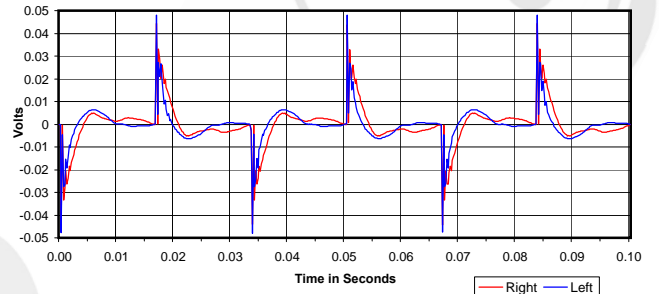
Isolation
 Attenuation of External Sound vs. Frequency



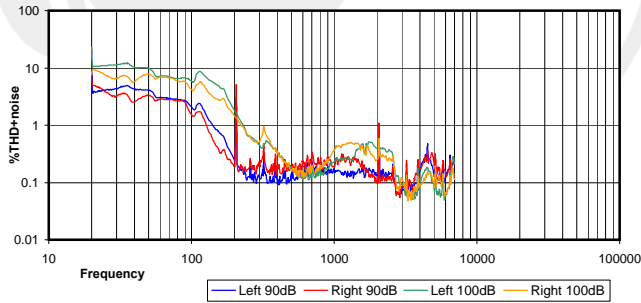
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



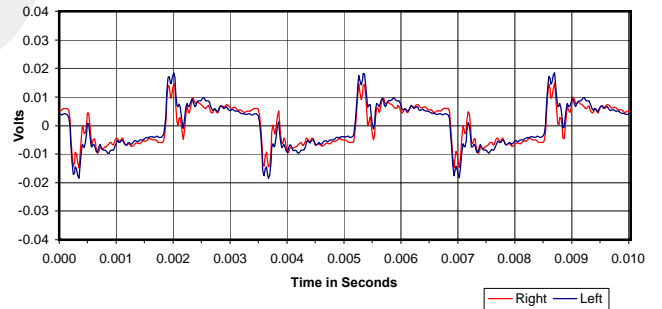
30 Hz Square Wave



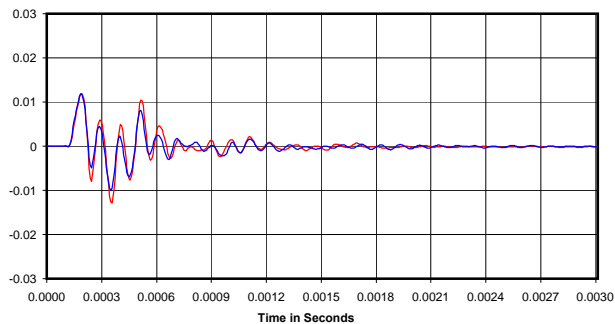
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

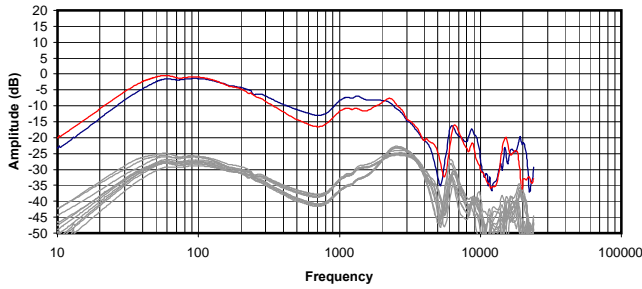


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

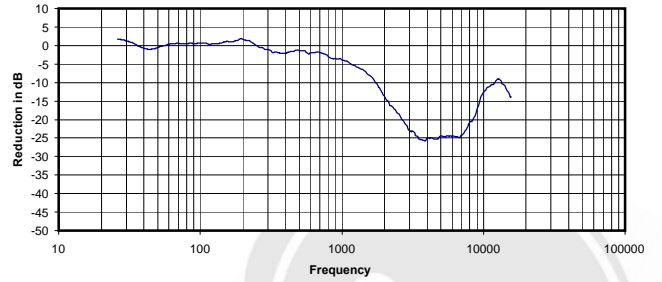
0.040 Vrms
 27 Ohms
 0.06 mW
 -13 dB



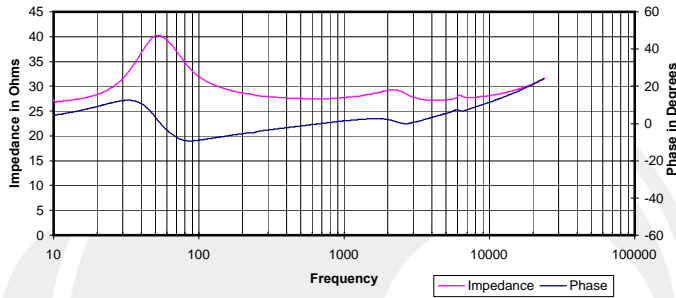
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



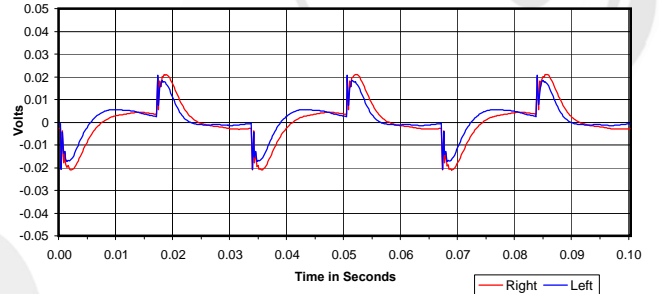
Isolation
Attenuation of External Sound vs. Frequency



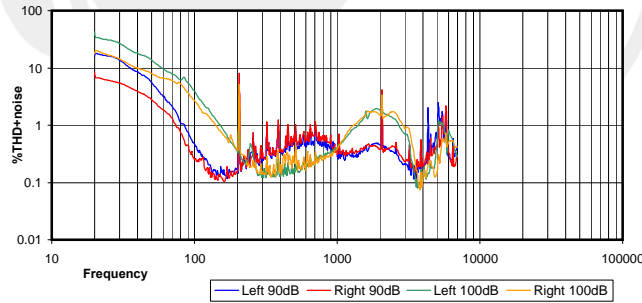
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



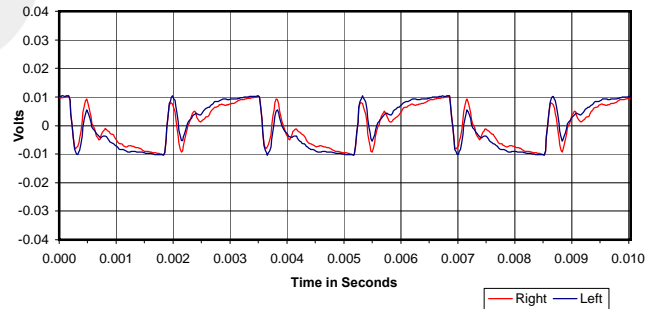
30 Hz Square Wave



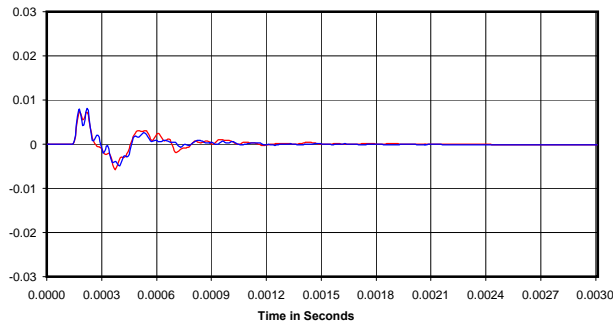
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

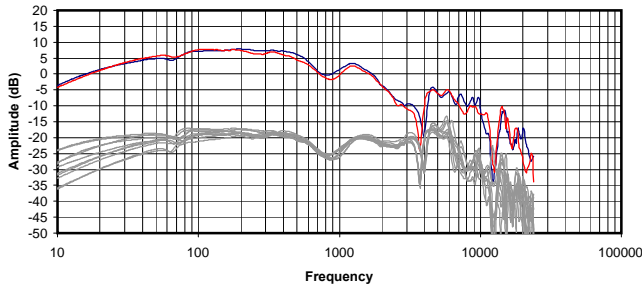


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

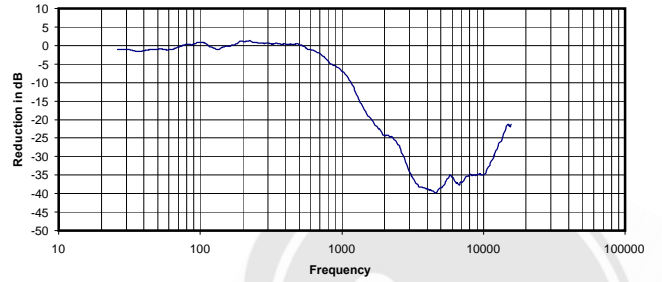
0.073 Vrms
28 Ohms
0.19 mW
-8 dB



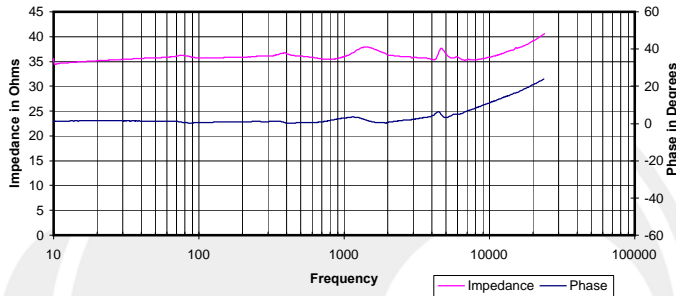
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



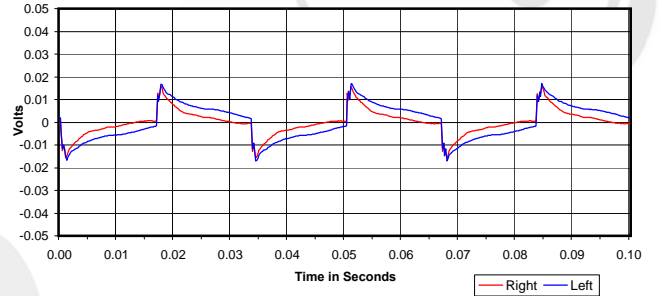
Isolation
 Attenuation of External Sound vs. Frequency



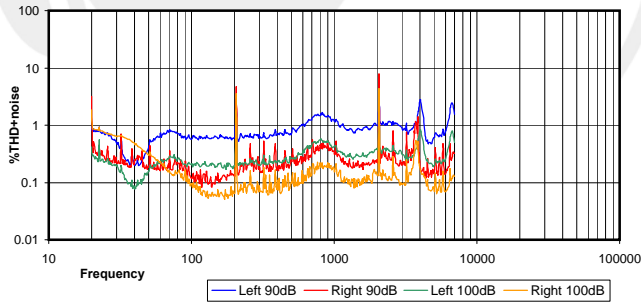
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



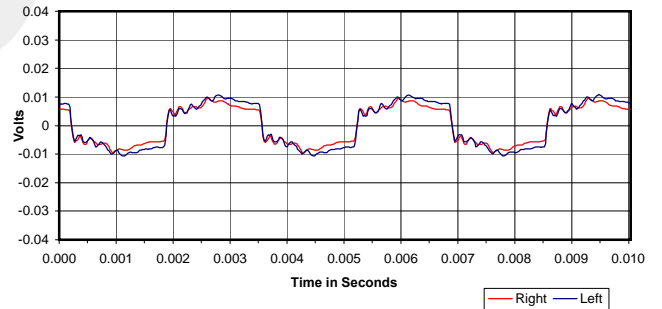
30 Hz Square Wave



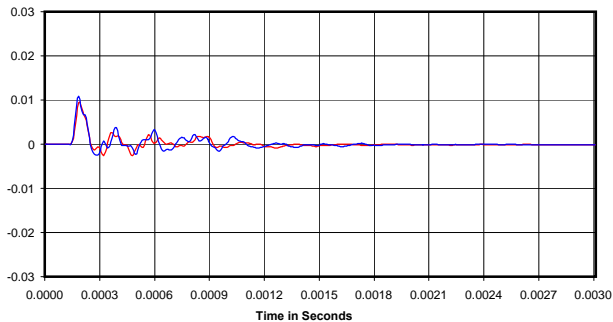
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

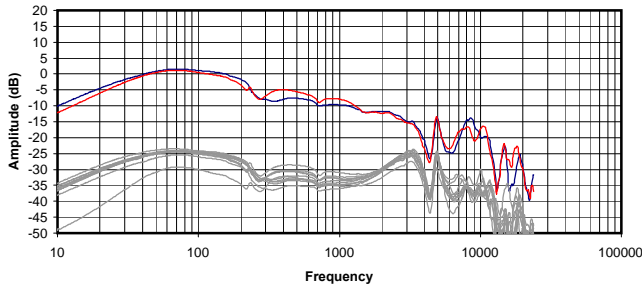


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

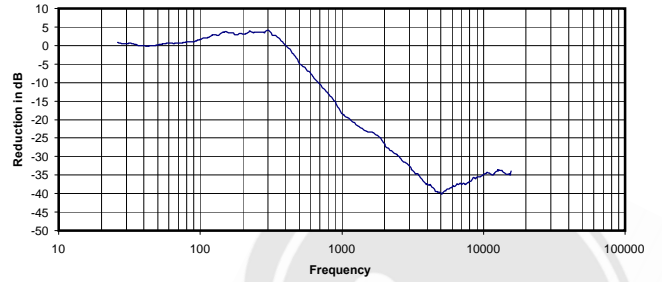
0.031 Vrms
 36 Ohms
 0.03 mW
 -12 dB



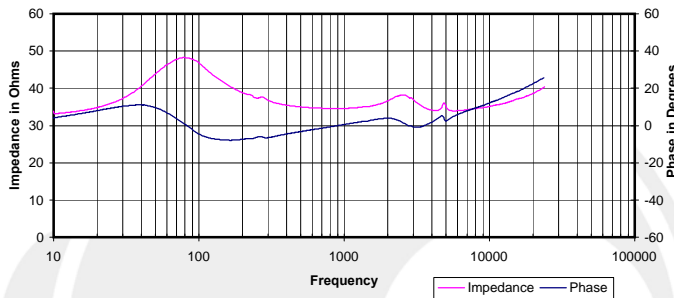
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



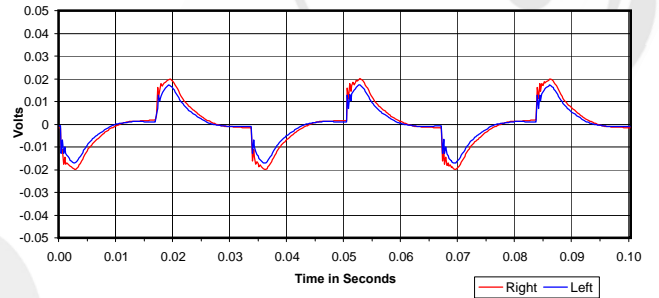
Isolation
Attenuation of External Sound vs. Frequency



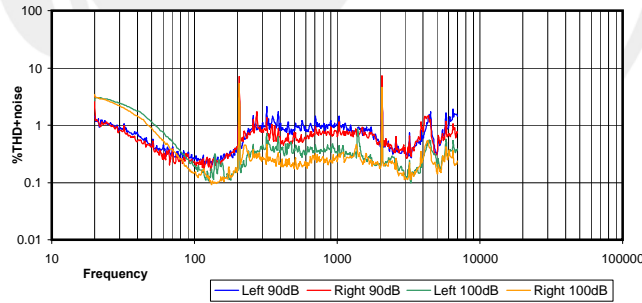
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



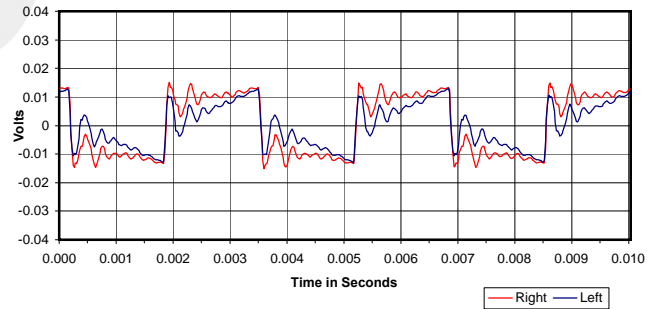
30 Hz Square Wave



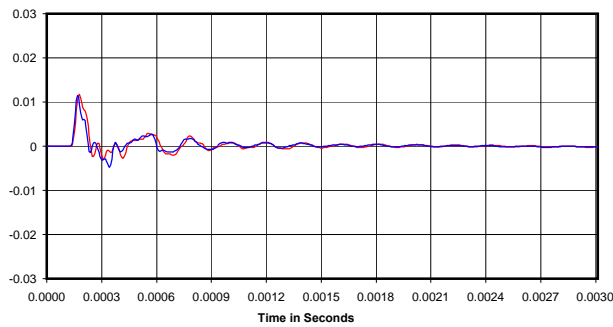
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

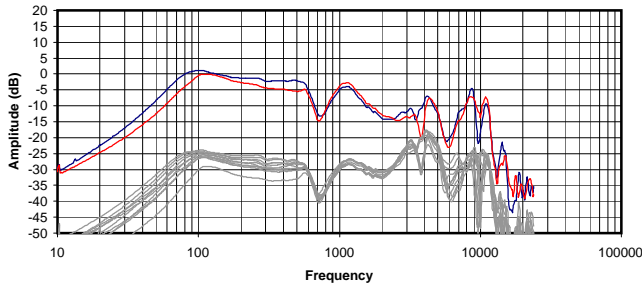


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

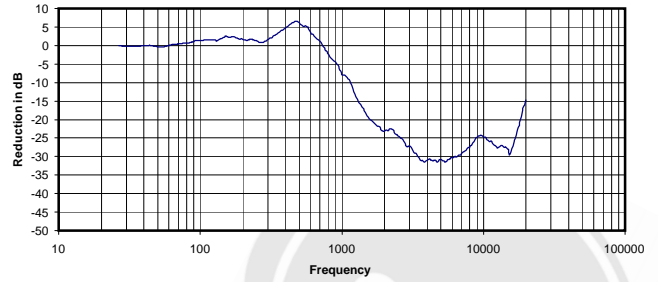
0.044 Vrms
35 Ohms
0.06 mW
-14 dB



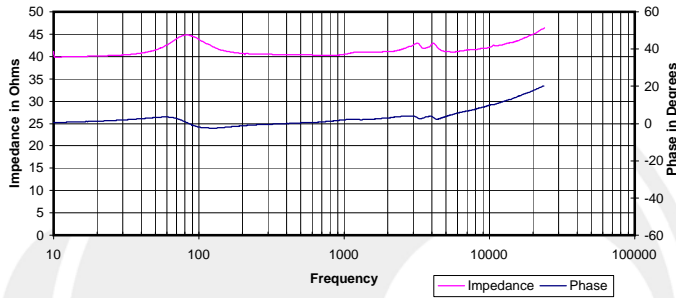
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



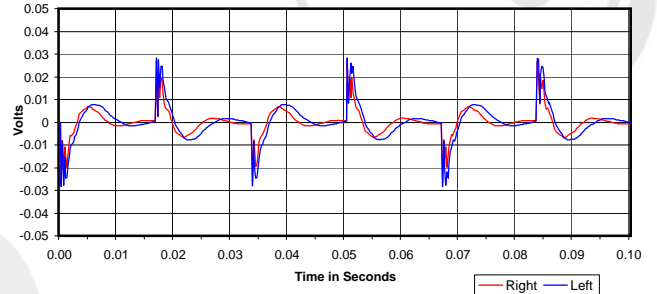
Isolation
 Attenuation of External Sound vs. Frequency



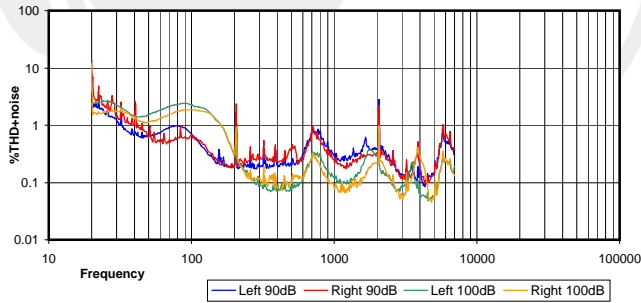
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



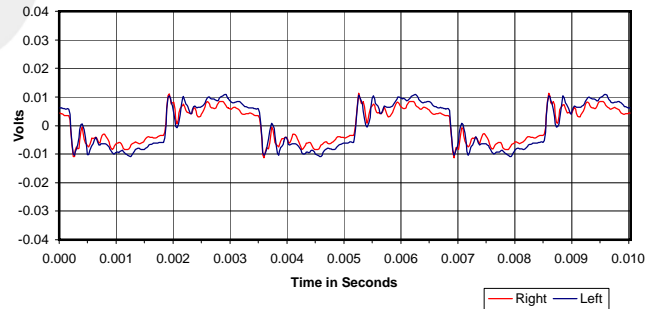
30 Hz Square Wave



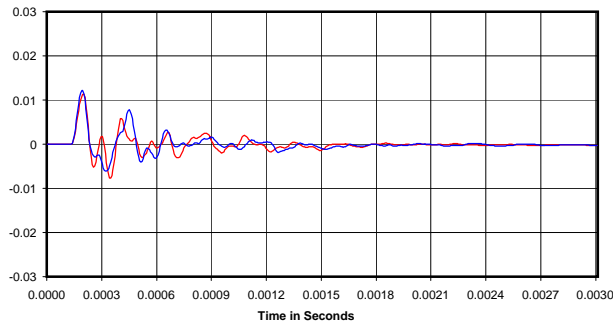
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



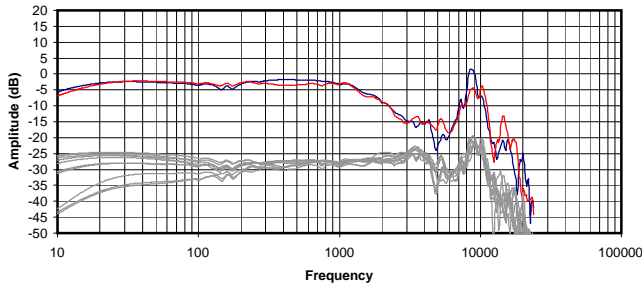
Impulse Response



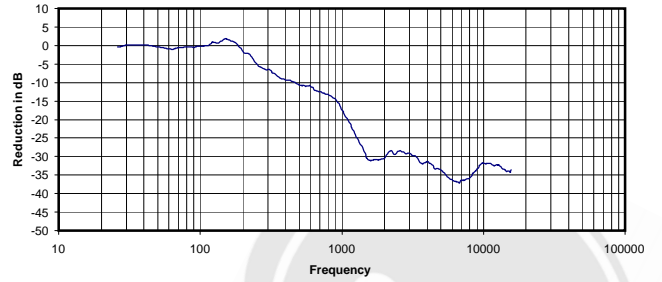
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
 40 Ohms
 0.05 mW
 -11 dB

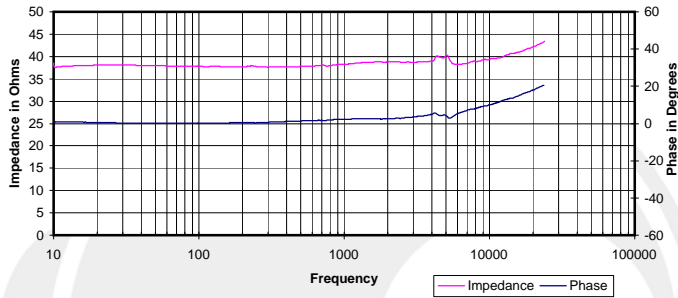
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



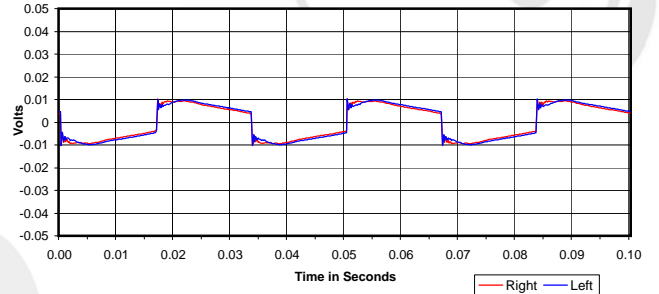
Isolation
 Attenuation of External Sound vs. Frequency



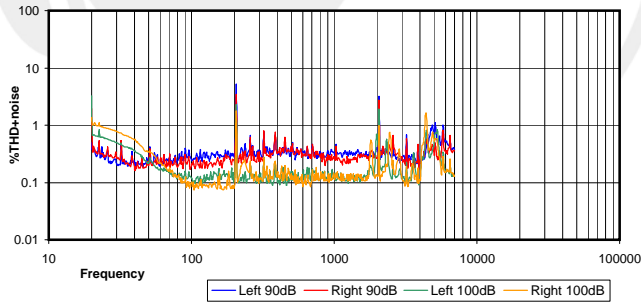
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



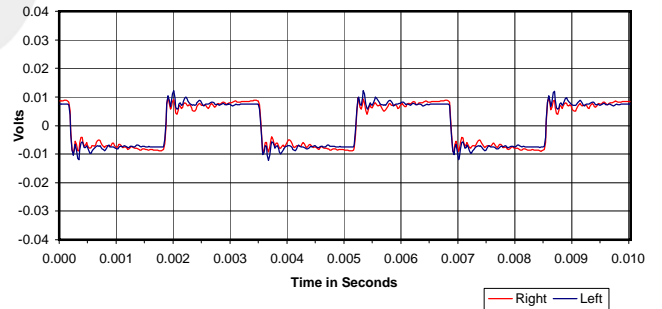
30 Hz Square Wave



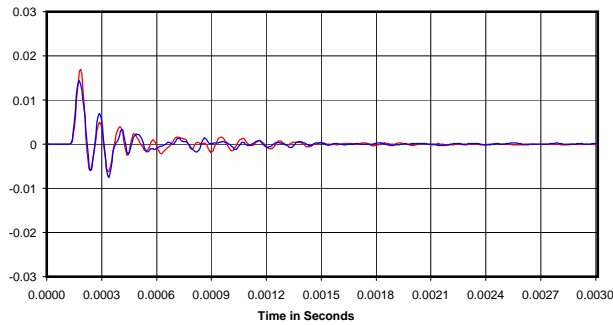
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

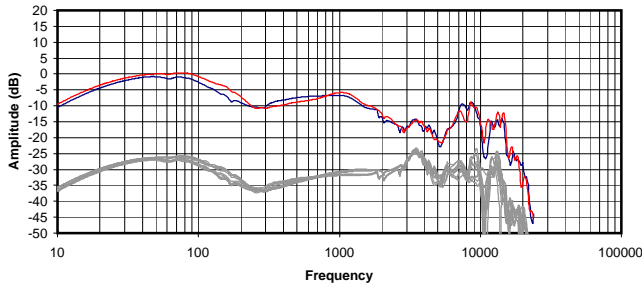


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

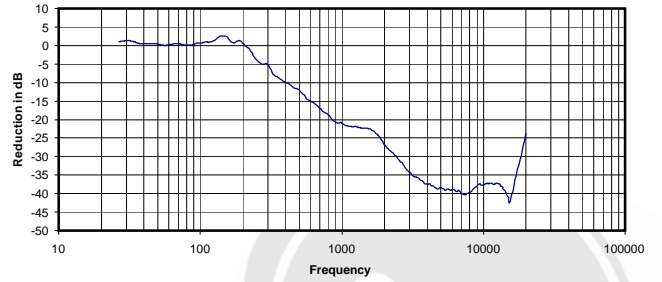
0.035 Vrms
 38 Ohms
 0.03 mW
 -16 dB



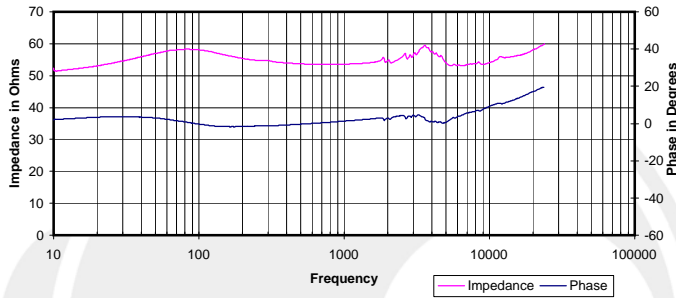
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



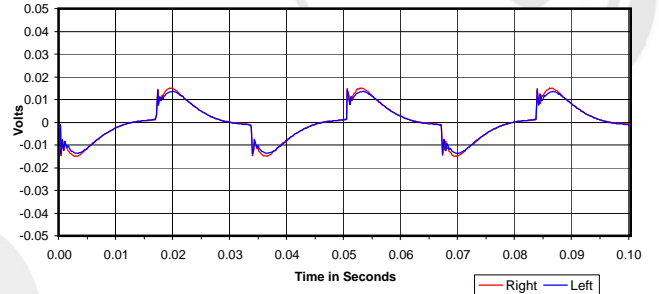
Isolation
Attenuation of External Sound vs. Frequency



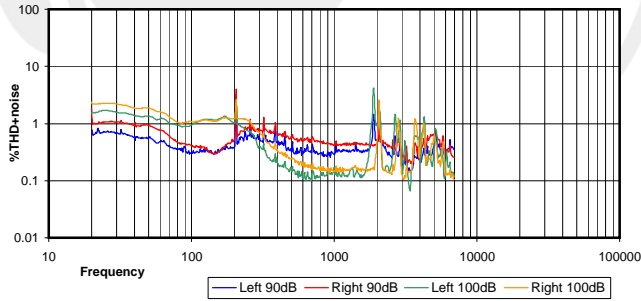
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



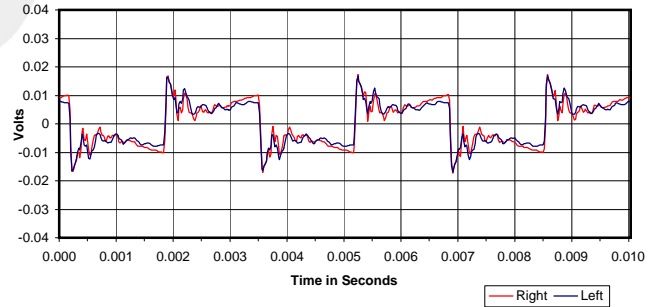
30 Hz Square Wave



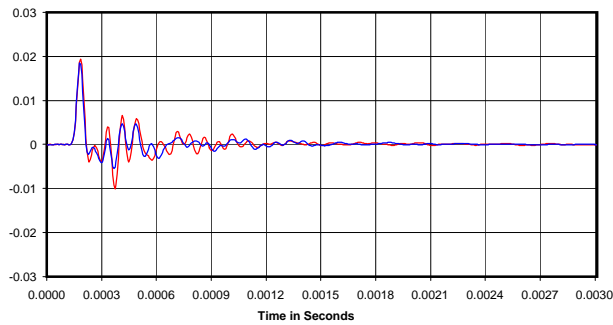
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

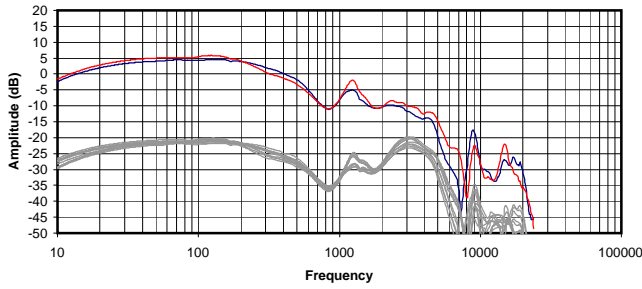


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

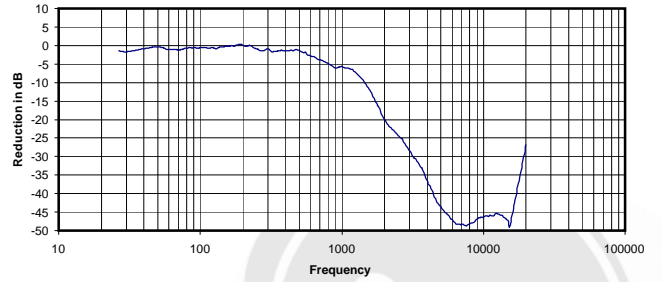
0.041 Vrms
54 Ohms
0.03 mW
-20 dB



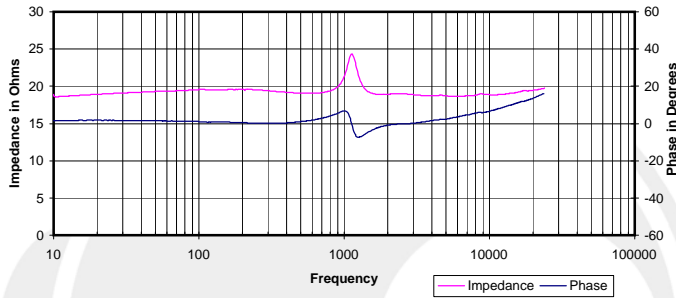
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



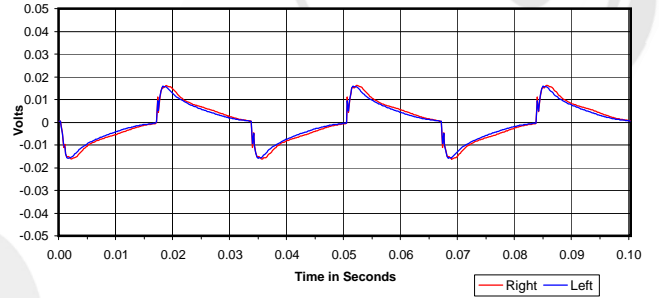
Isolation
 Attenuation of External Sound vs. Frequency



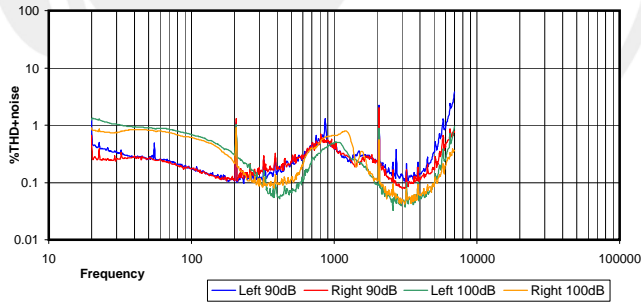
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



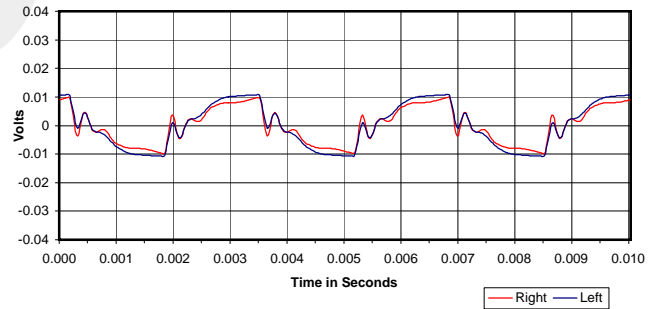
30 Hz Square Wave



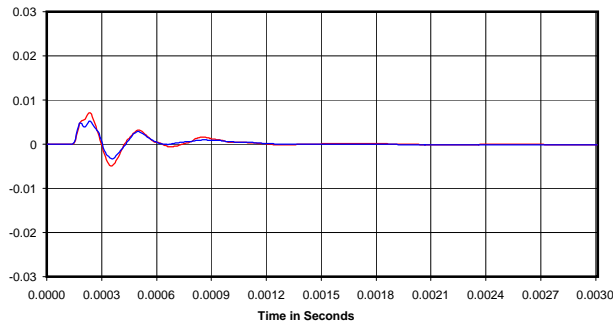
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

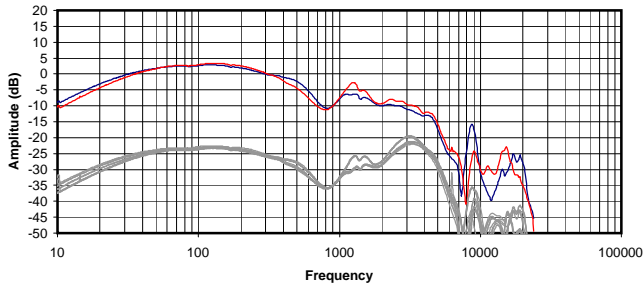


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

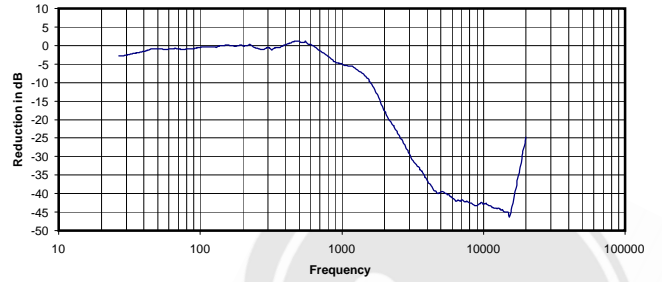
0.062 Vrms
 22 Ohms
 0.17 mW
 -16 dB



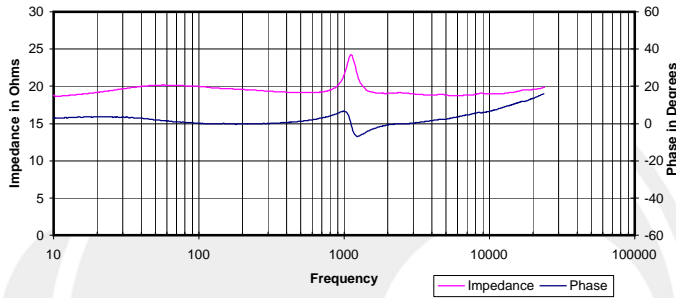
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



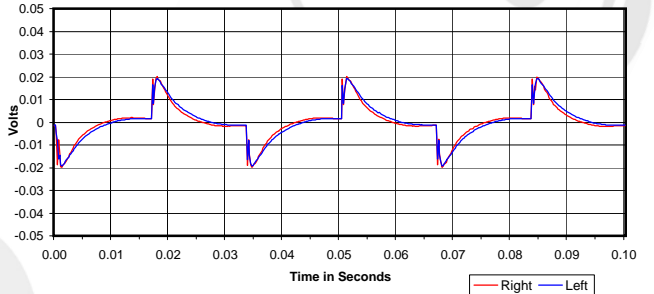
Isolation
Attenuation of External Sound vs. Frequency



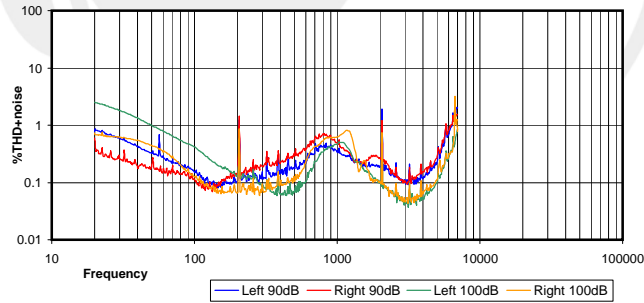
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



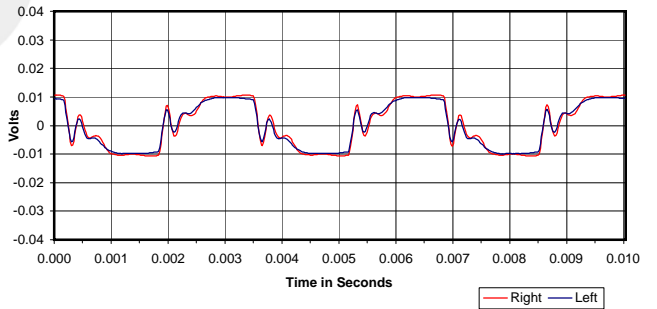
30 Hz Square Wave



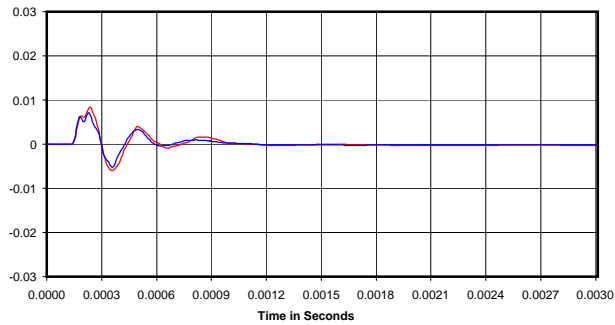
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



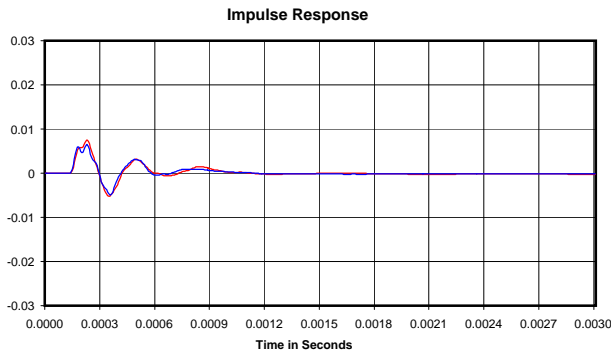
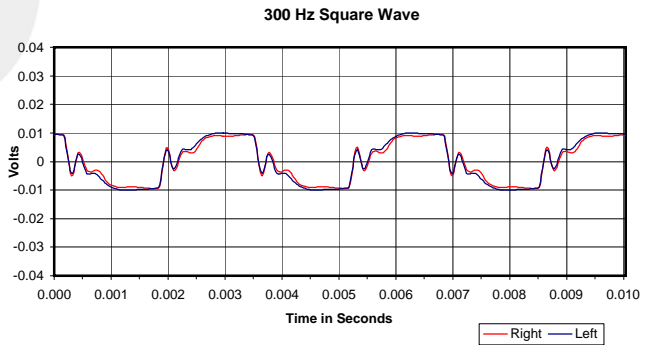
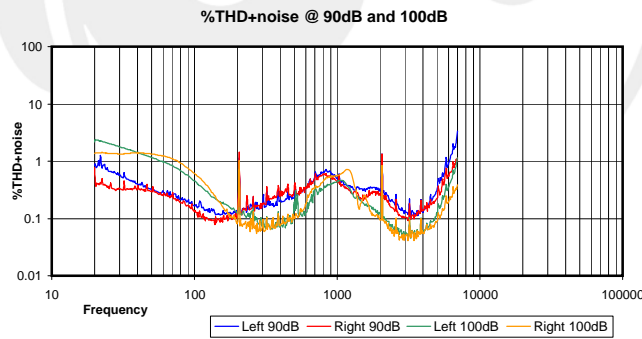
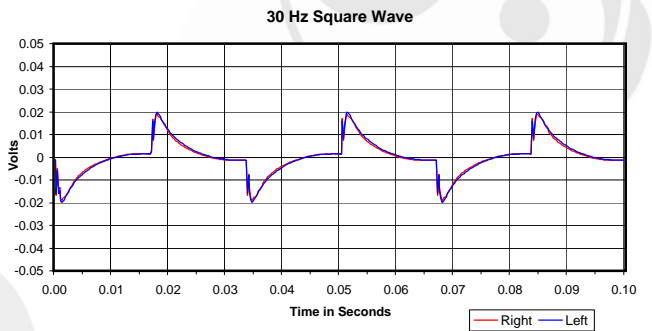
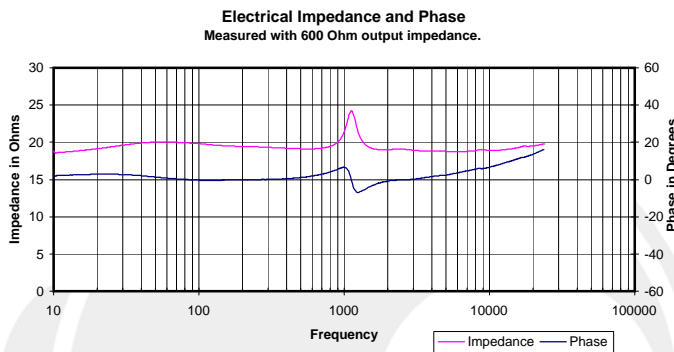
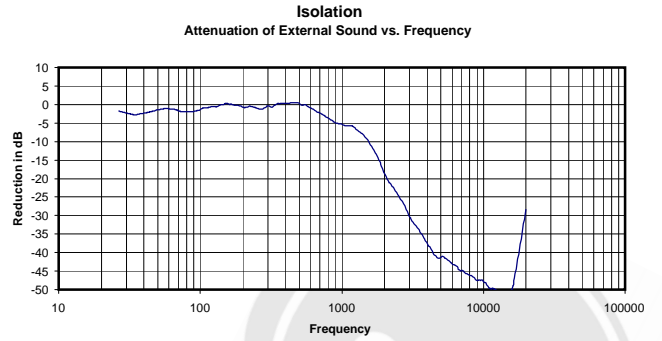
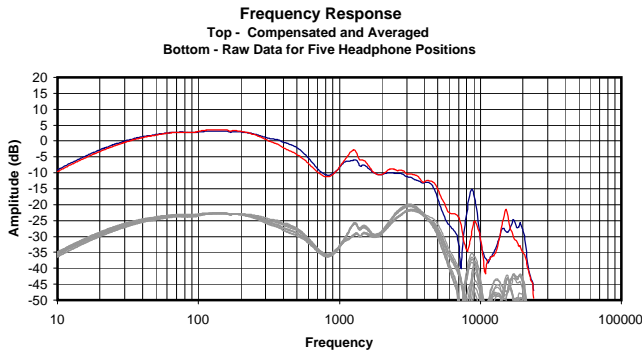
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
22 Ohms
0.15 mW
-14 dB



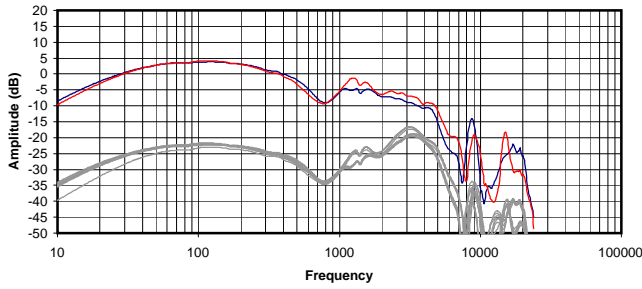


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

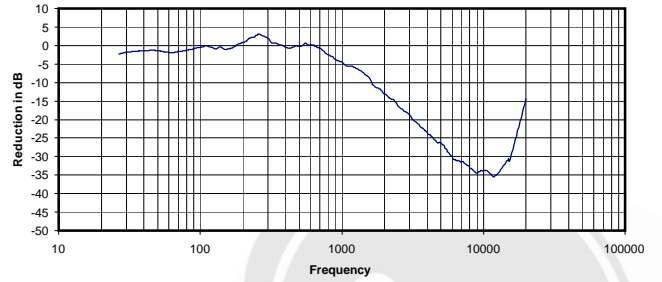
0.057 Vrms
22 Ohms
0.15 mW
-15 dB



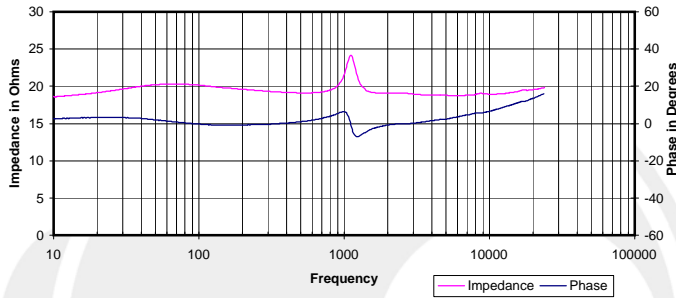
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



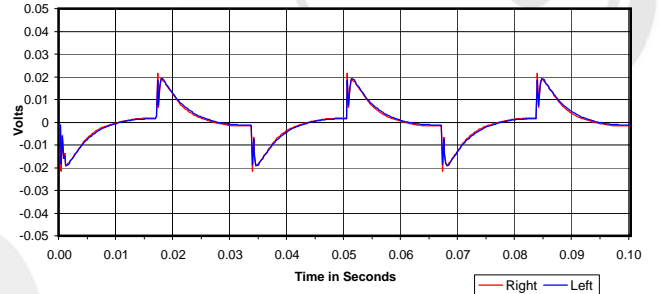
Isolation
 Attenuation of External Sound vs. Frequency



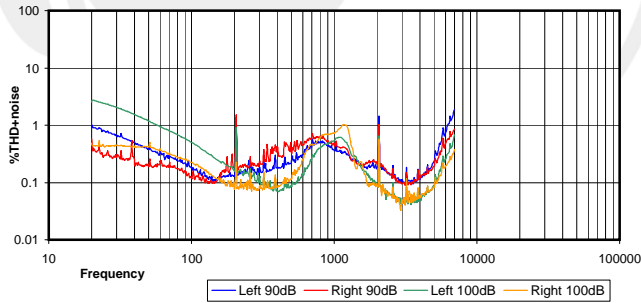
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



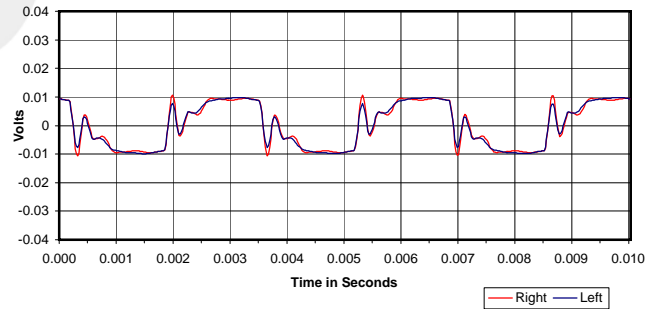
30 Hz Square Wave



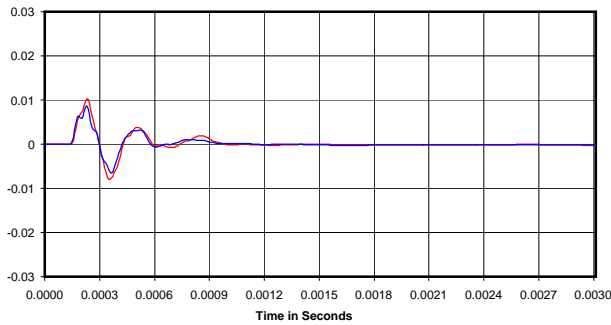
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

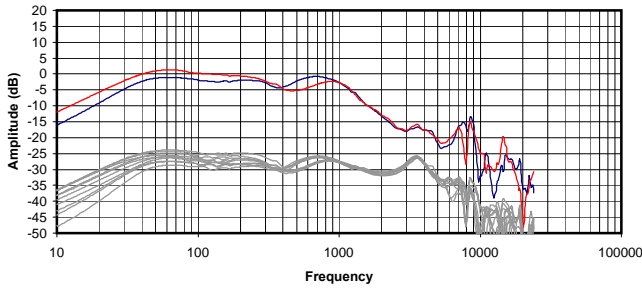


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

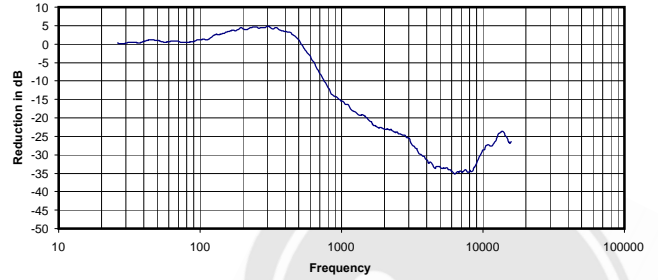
0.053 Vrms
 22 Ohms
 0.13 mW
 -10 dB



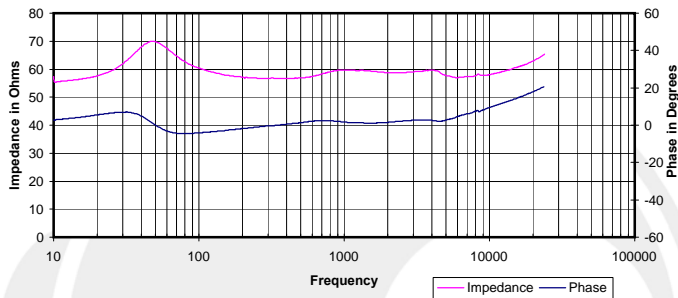
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



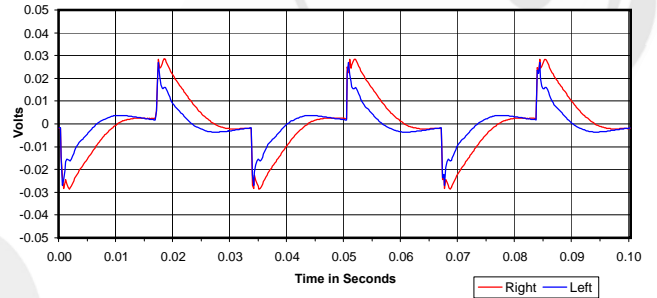
Isolation
 Attenuation of External Sound vs. Frequency



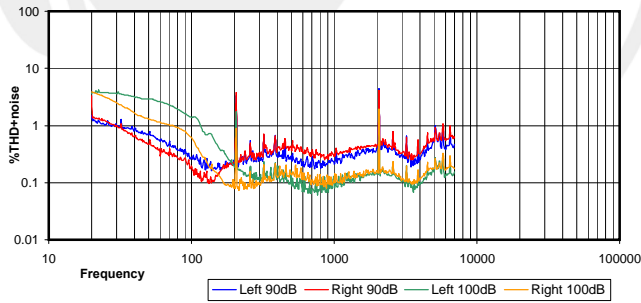
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



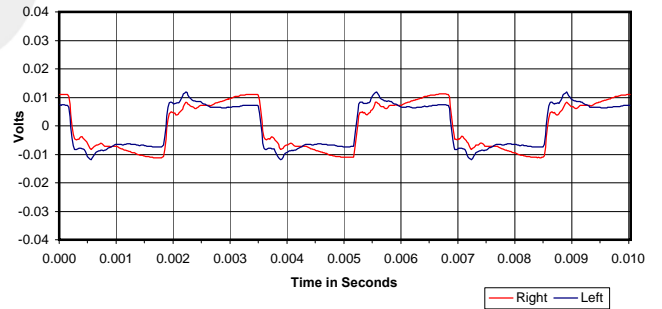
30 Hz Square Wave



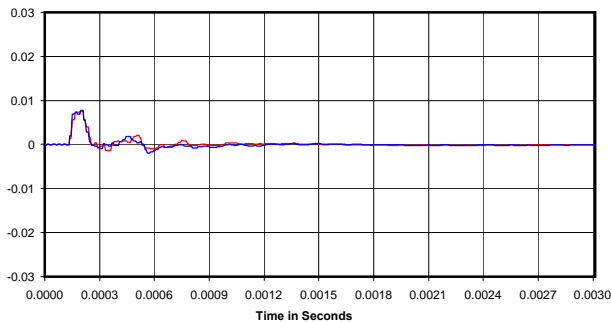
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



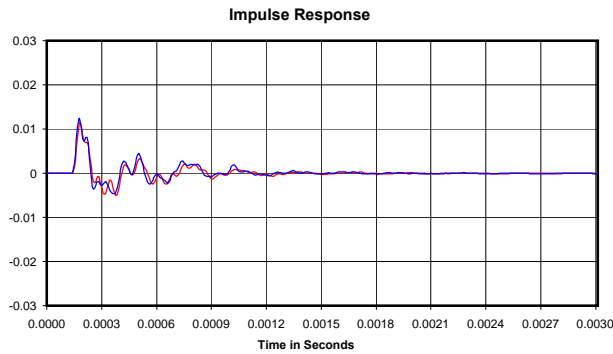
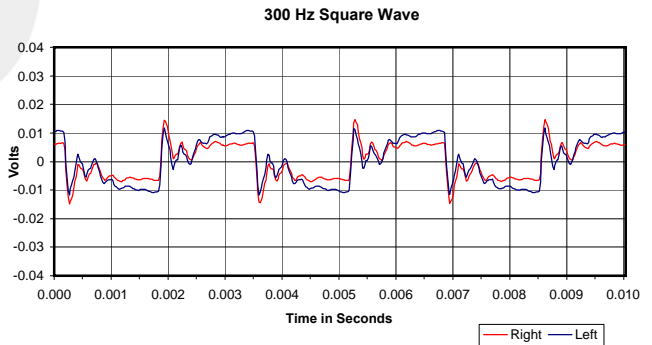
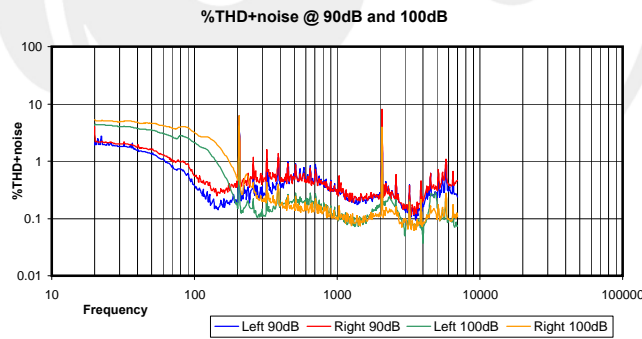
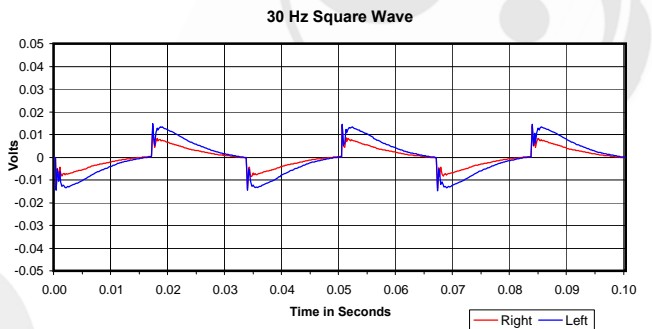
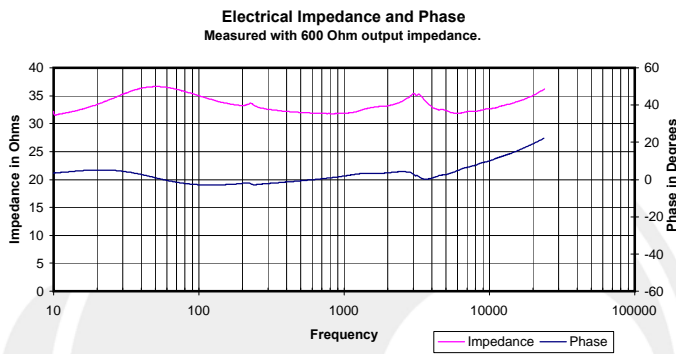
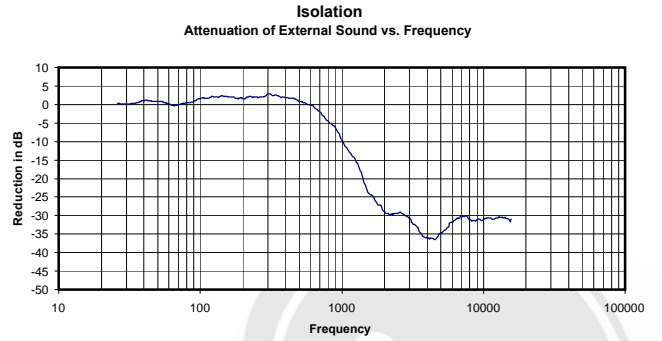
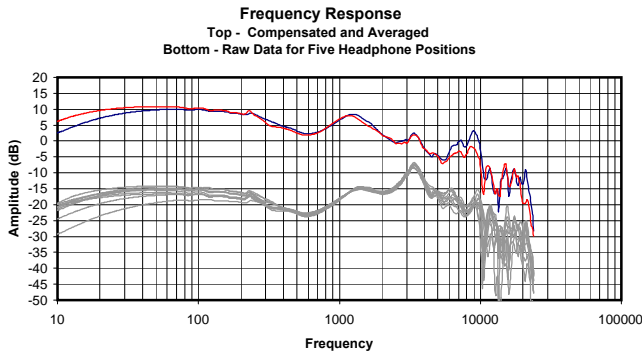
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
 60 Ohms
 0.01 mW
 -11 dB



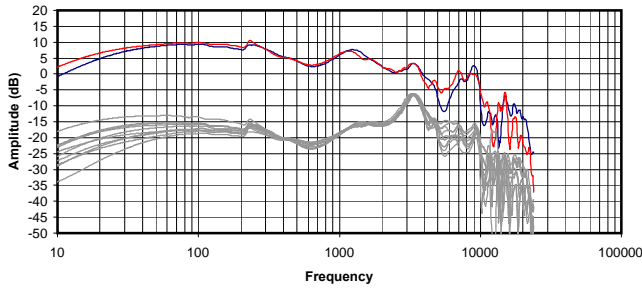


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

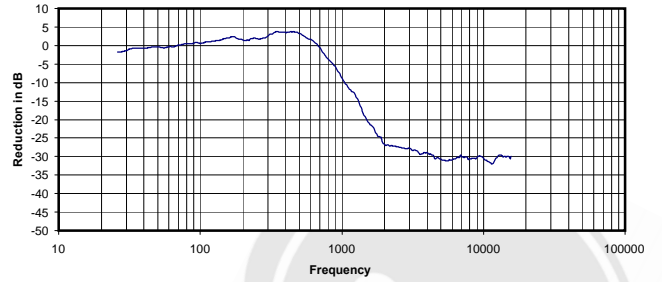
0.037 Vrms
32 Ohms
0.04 mW
-12 dB



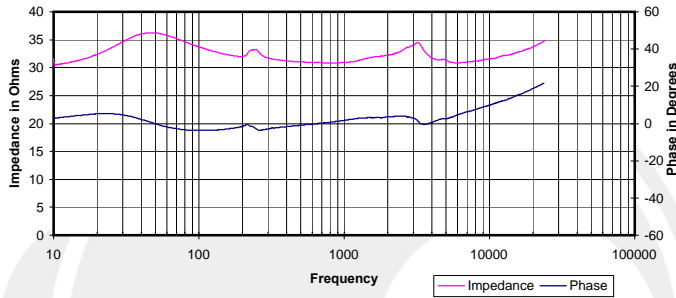
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



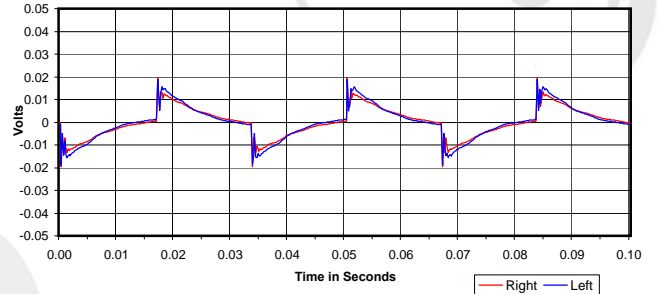
Isolation
Attenuation of External Sound vs. Frequency



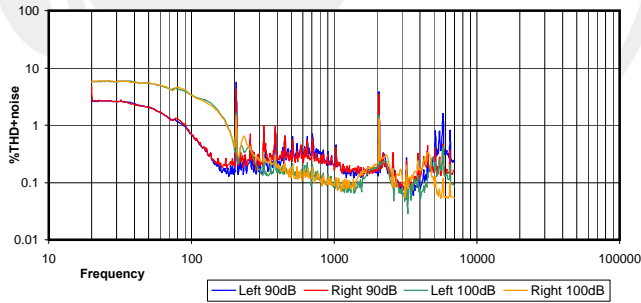
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



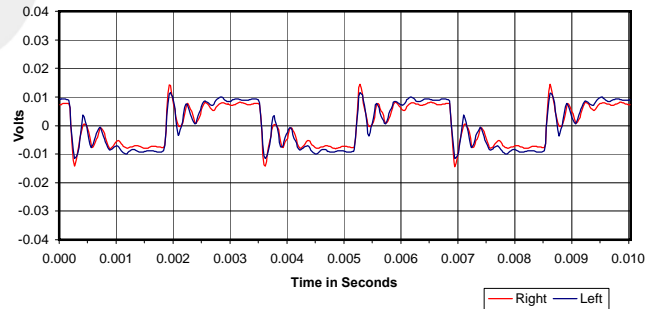
30 Hz Square Wave



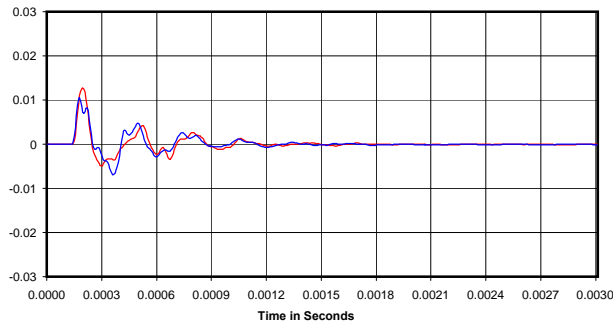
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

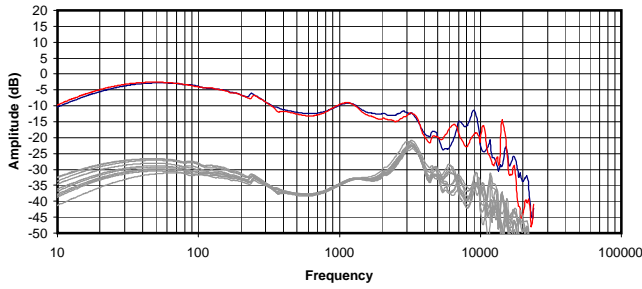


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

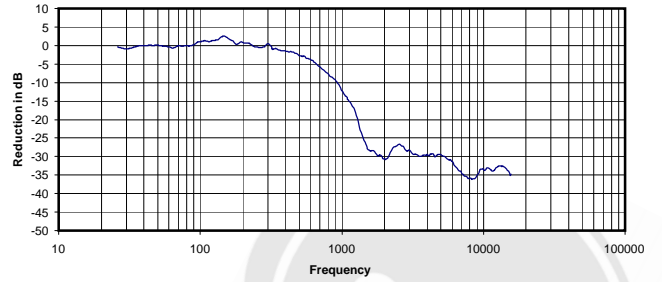
0.039 Vrms
31 Ohms
0.05 mW
-10 dB



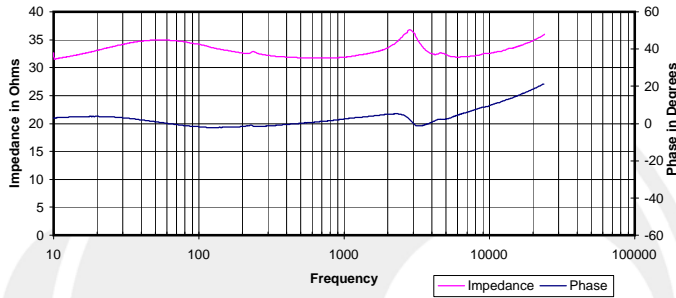
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



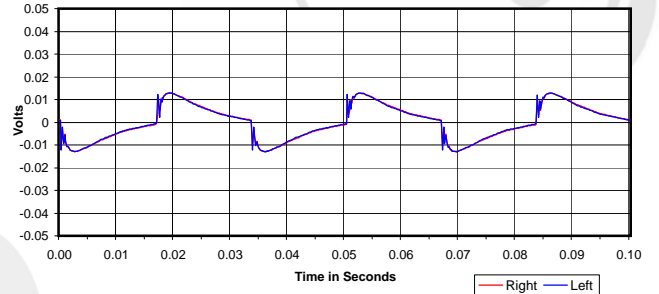
Isolation
Attenuation of External Sound vs. Frequency



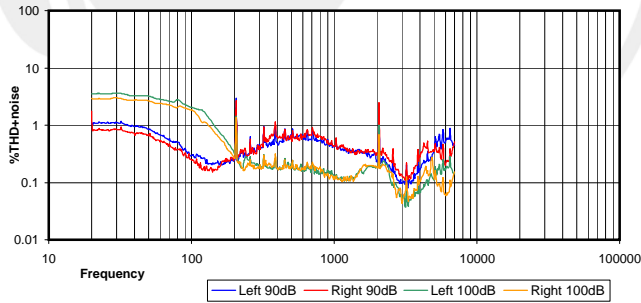
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



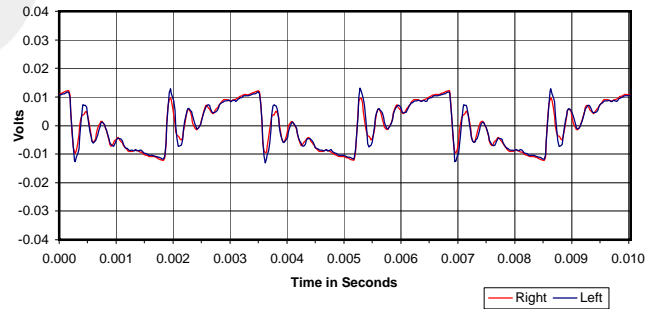
30 Hz Square Wave



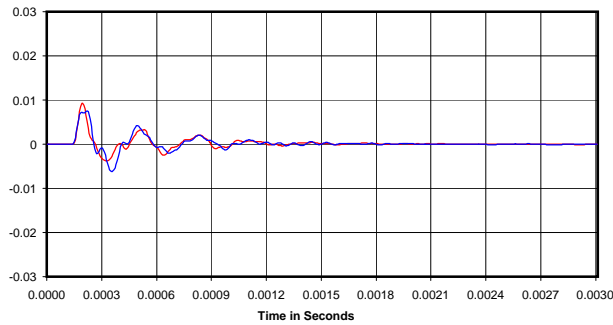
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

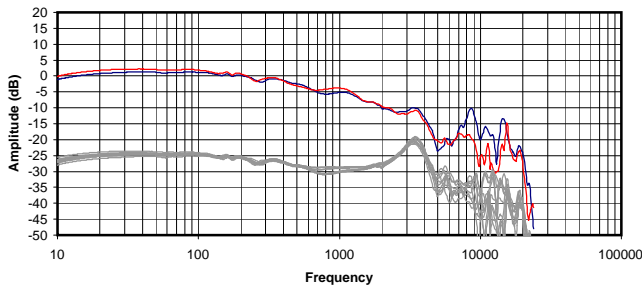


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

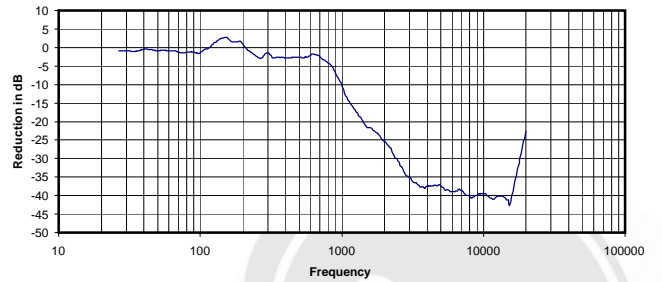
0.036 Vrms
32 Ohms
0.04 mW
-13 dB



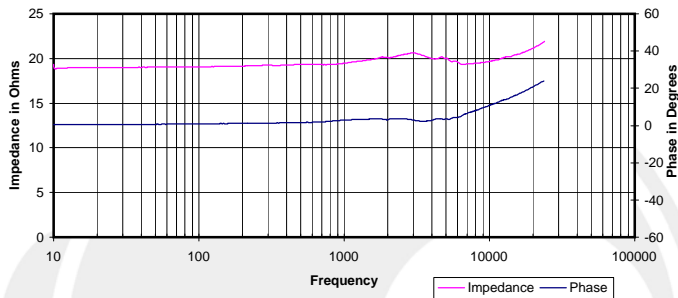
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



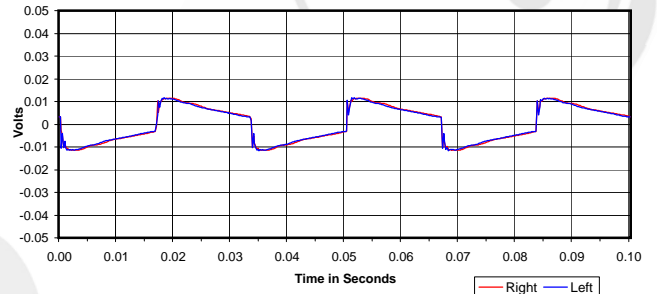
Isolation
Attenuation of External Sound vs. Frequency



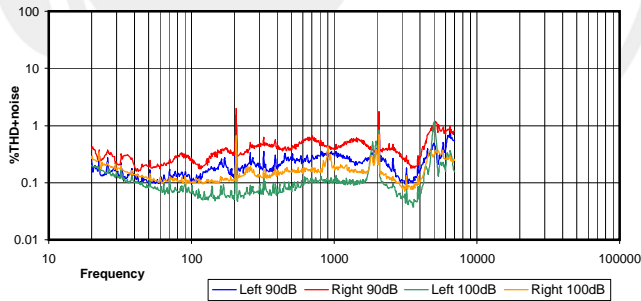
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



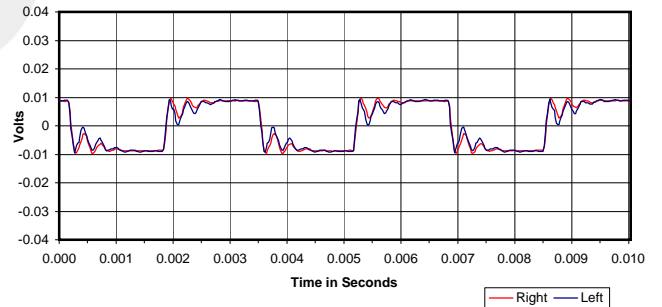
30 Hz Square Wave



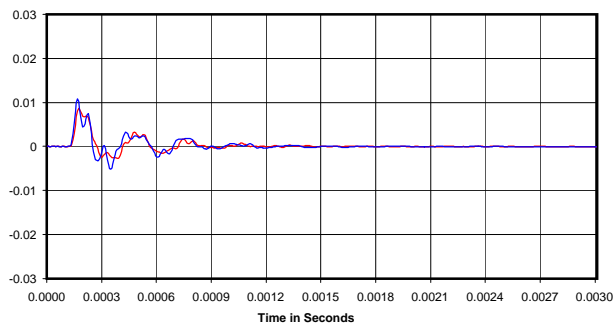
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

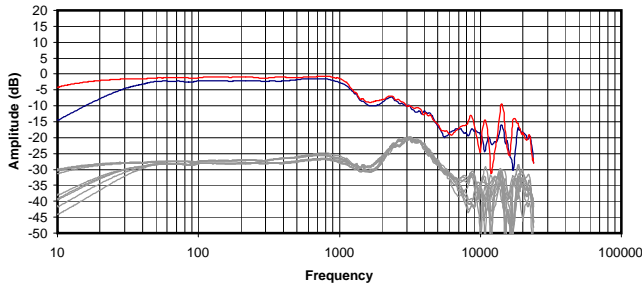


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

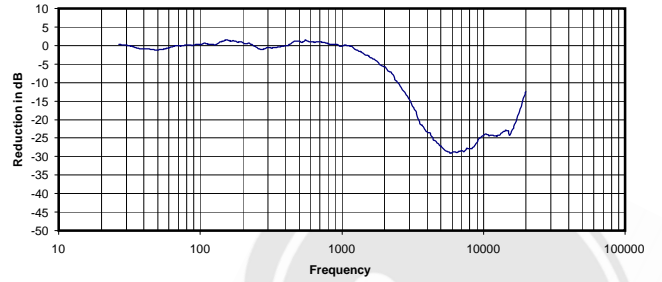
0.026 Vrms
19 Ohms
0.03 mW
-16 dB



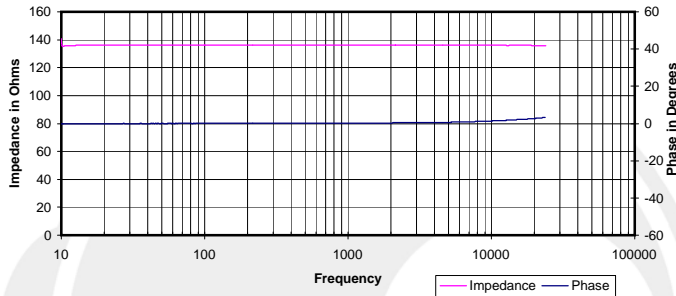
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



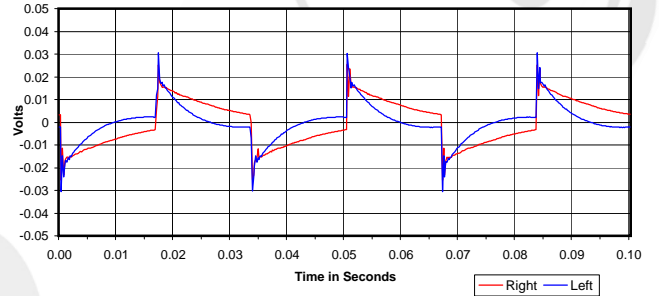
Isolation
 Attenuation of External Sound vs. Frequency



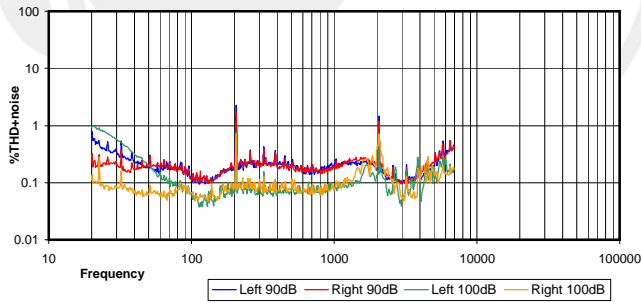
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



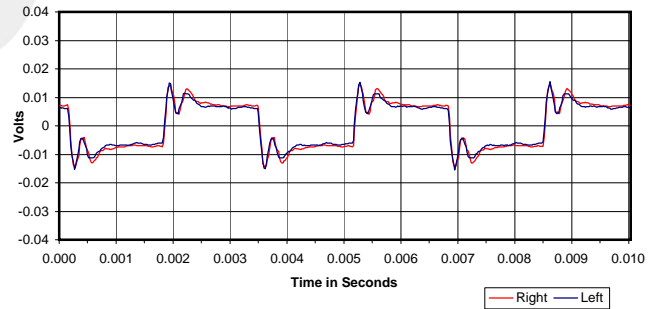
30 Hz Square Wave



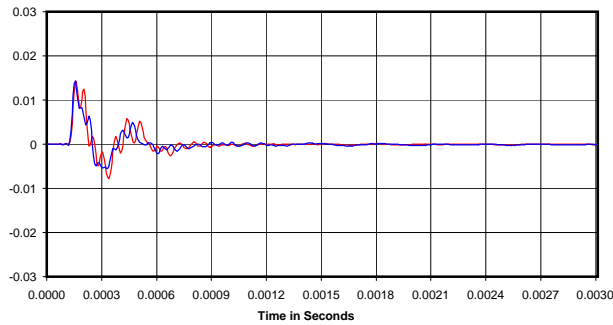
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



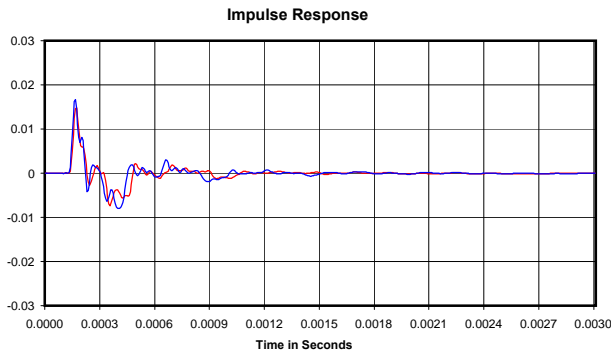
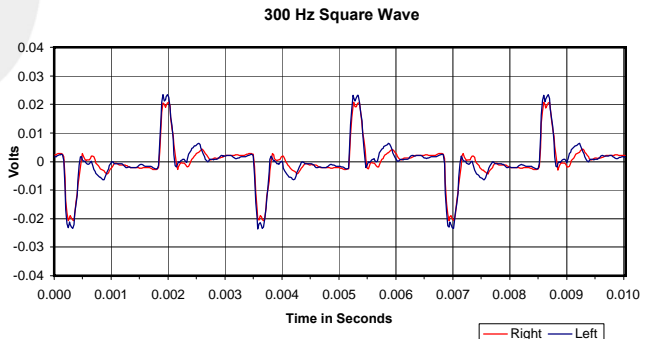
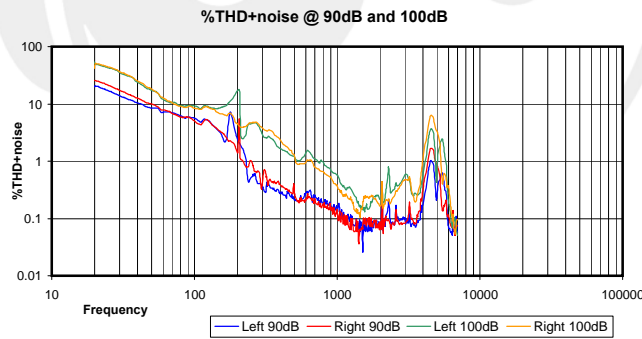
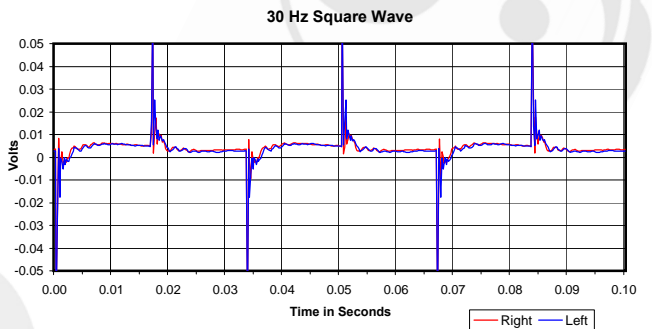
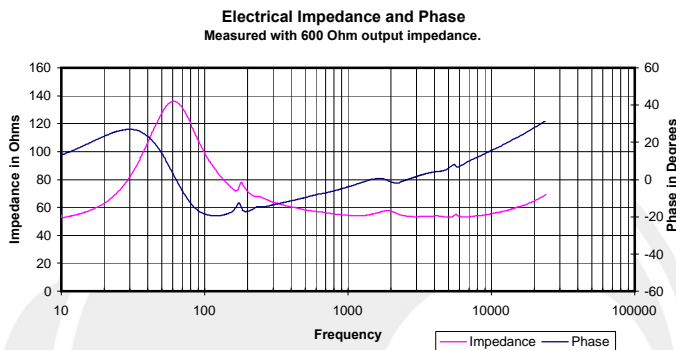
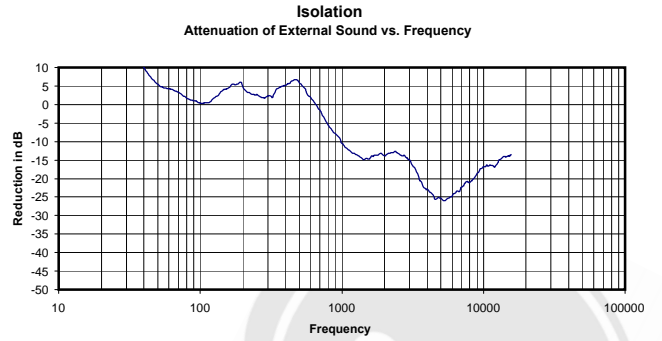
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.268 Vrms
 136 Ohms
 0.53 mW
 -8 dB



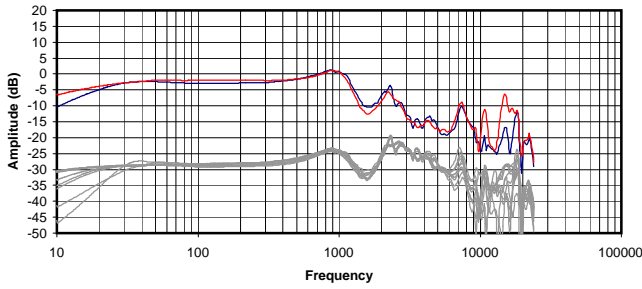


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

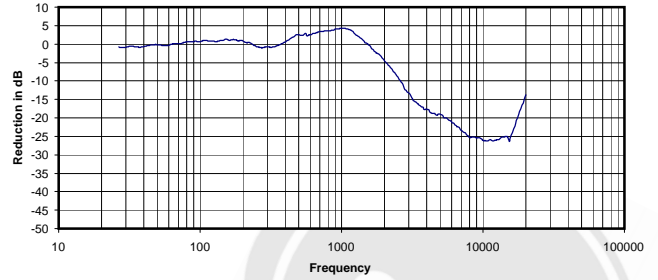
0.039 Vrms
54 Ohms
0.03 mW
-6 dBr



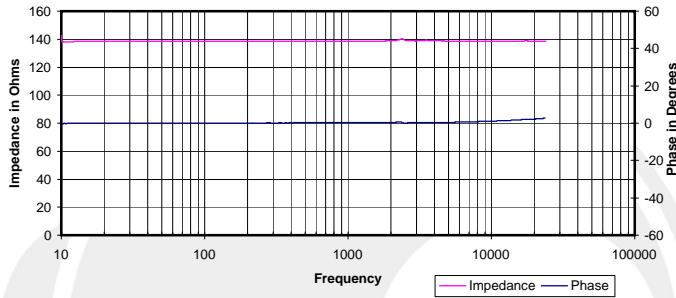
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



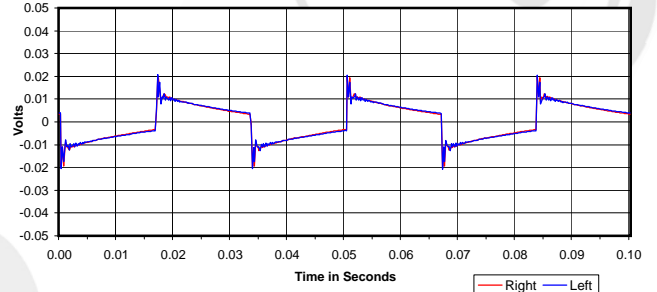
Isolation
 Attenuation of External Sound vs. Frequency



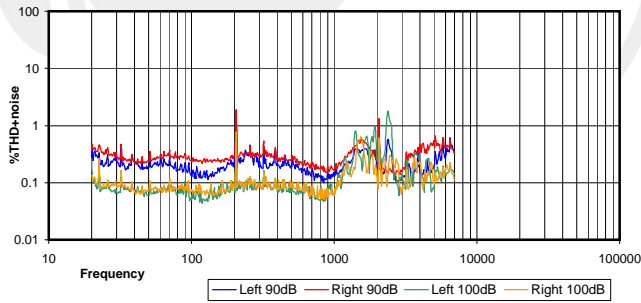
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



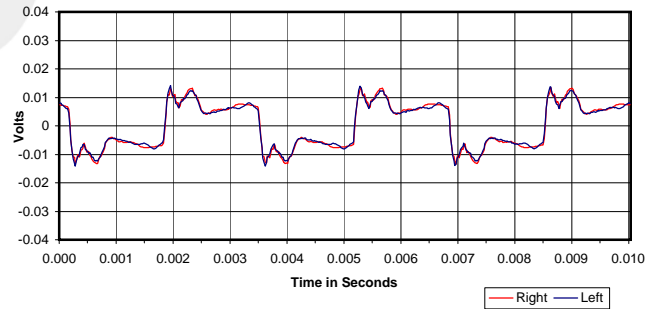
30 Hz Square Wave



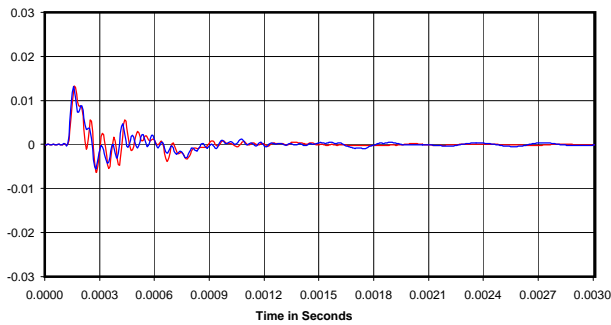
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

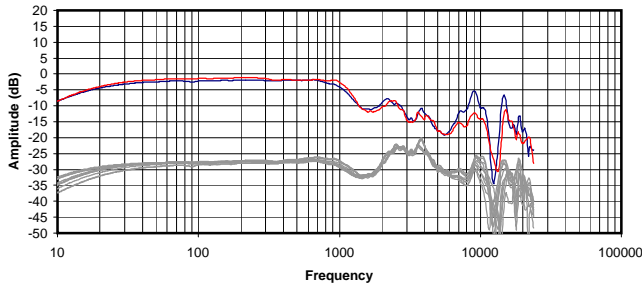


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

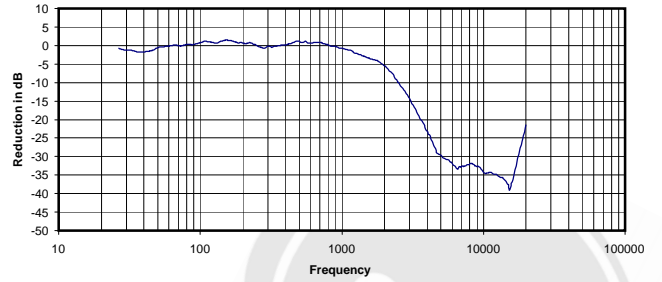
0.121 Vrms
 139 Ohms
 0.11 mW
 -5 dB



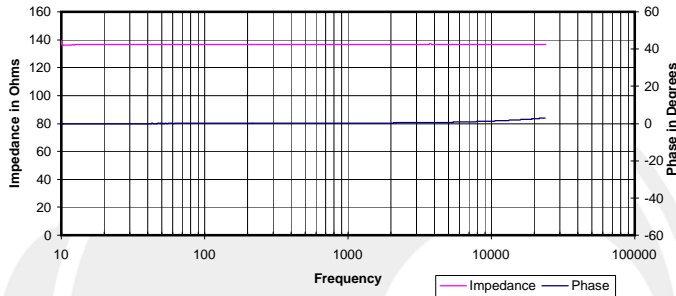
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



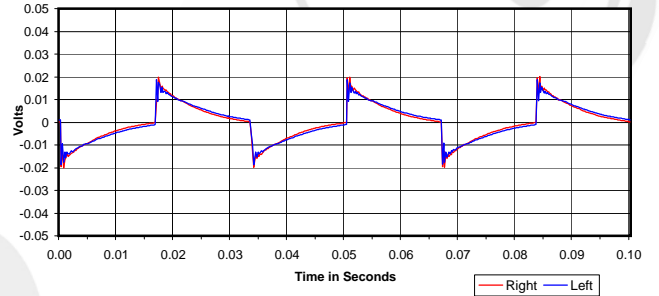
Isolation
 Attenuation of External Sound vs. Frequency



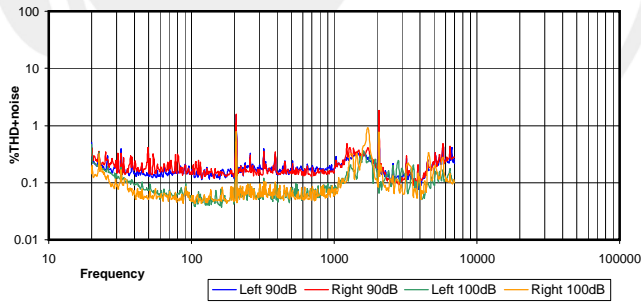
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



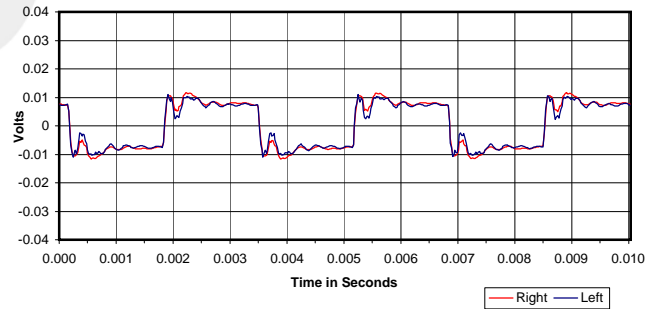
30 Hz Square Wave



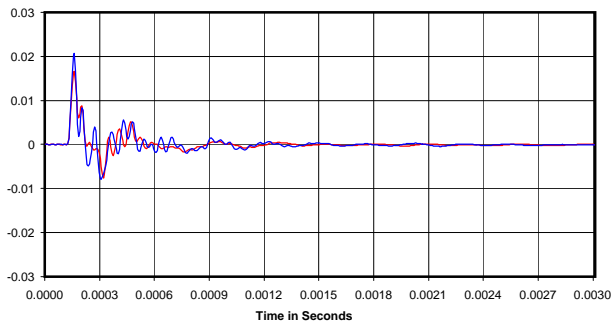
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



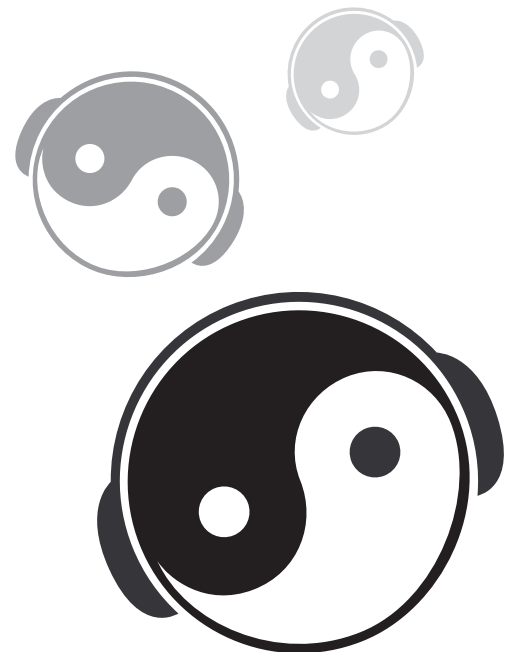
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.389 Vrms
 137 Ohms
 1.11 mW
 -8 dB

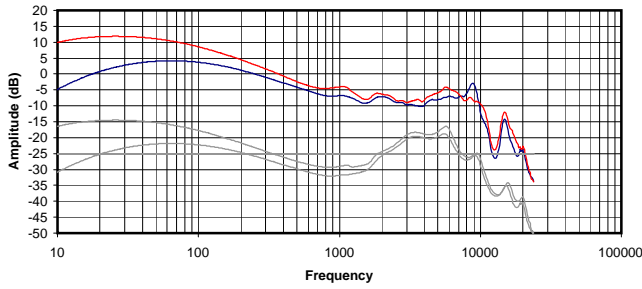


Headphone Measurement Datasheets

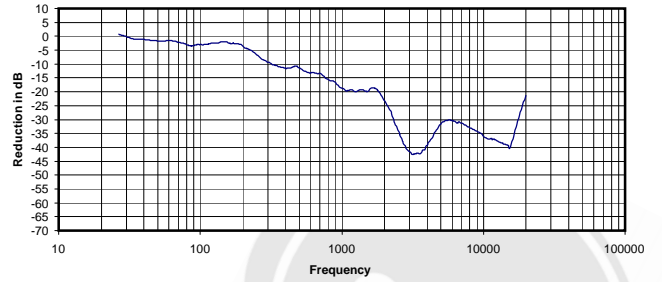
In-Ear Headphones



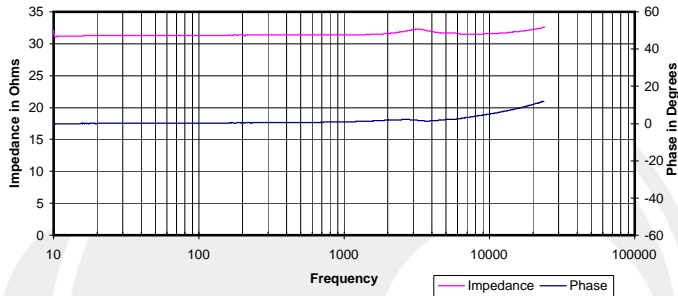
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



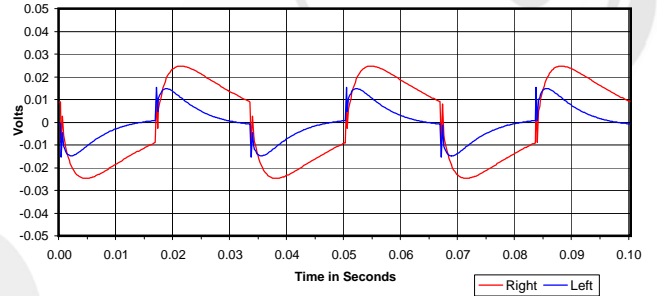
Isolation
Attenuation of External Sound vs. Frequency



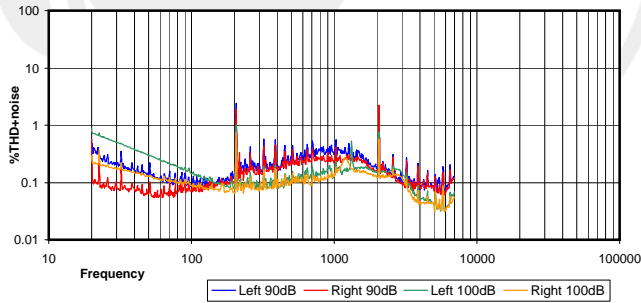
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



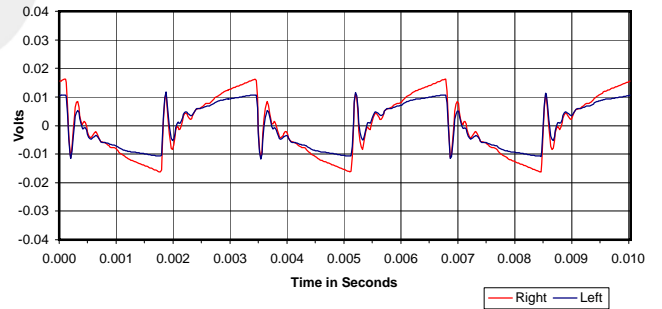
30 Hz Square Wave



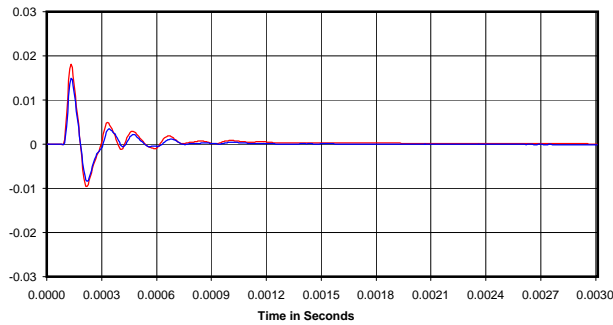
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

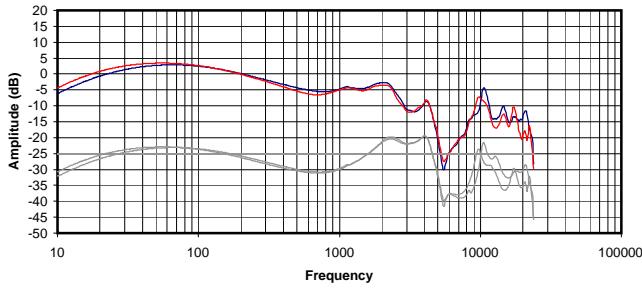


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

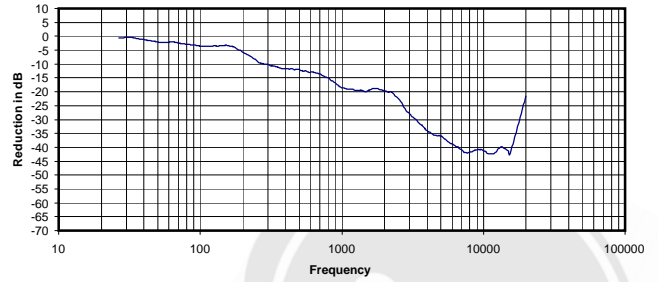
0.078 Vrms
31 Ohms
0.19 mW
-19 dB



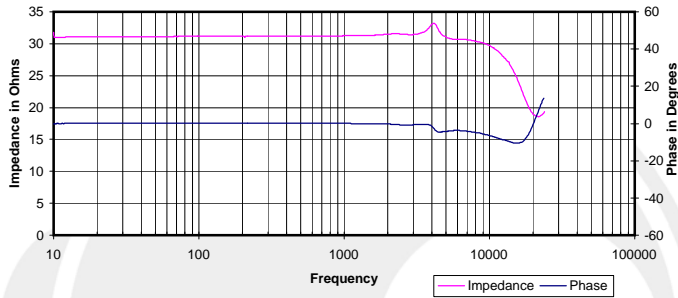
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



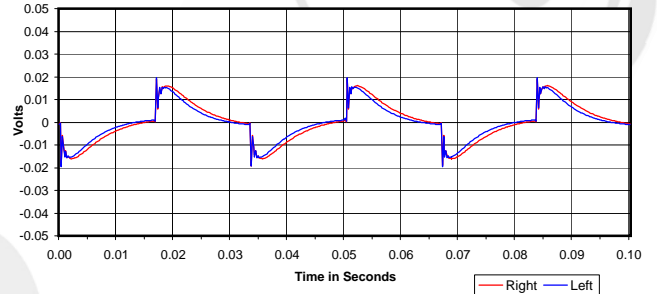
Isolation
Attenuation of External Sound vs. Frequency



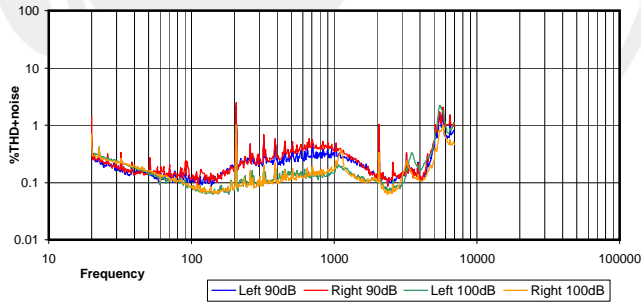
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



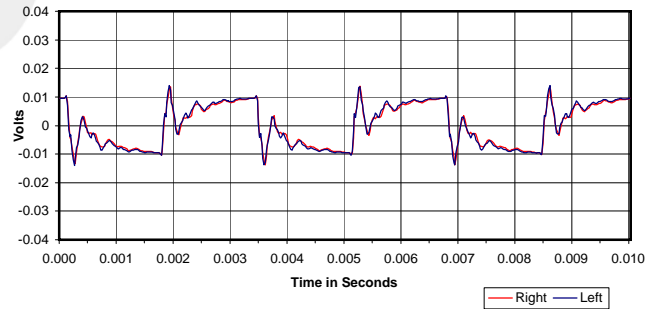
30 Hz Square Wave



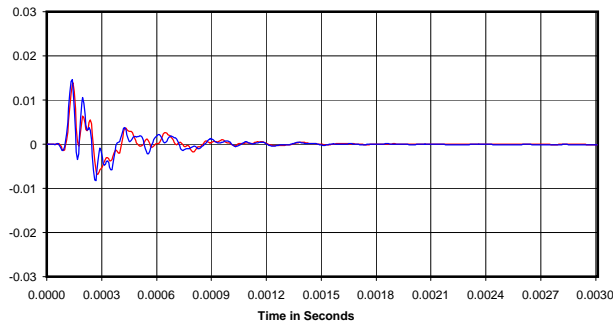
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



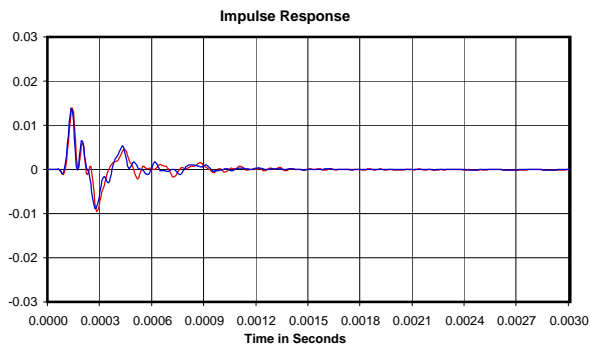
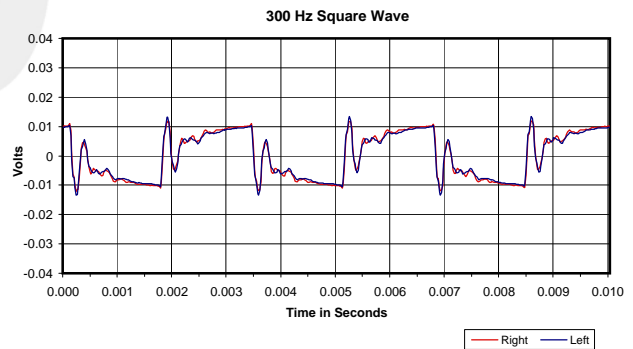
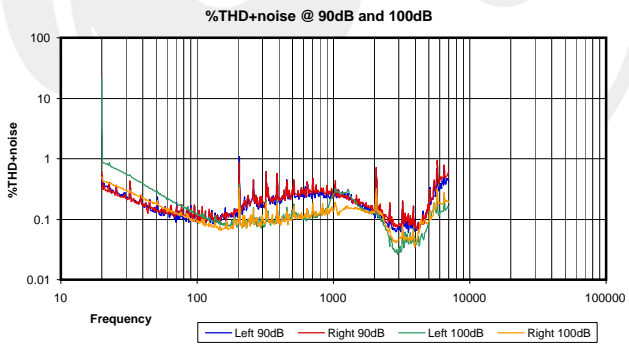
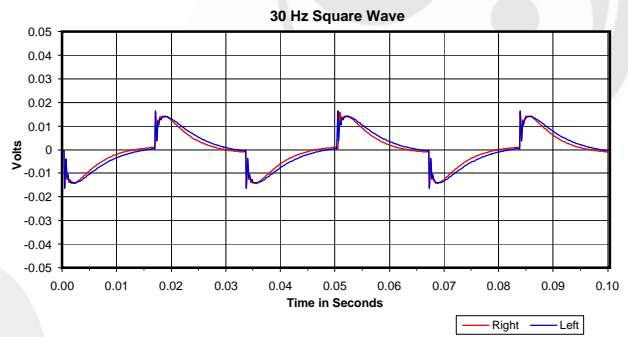
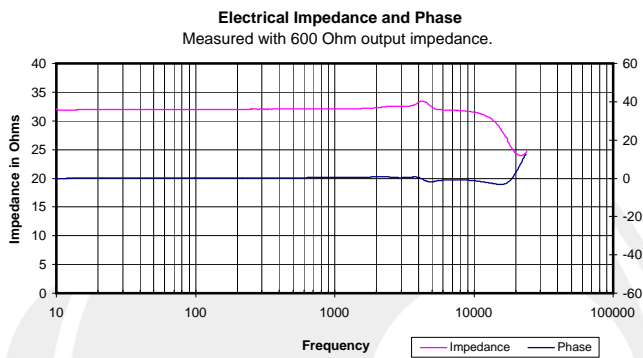
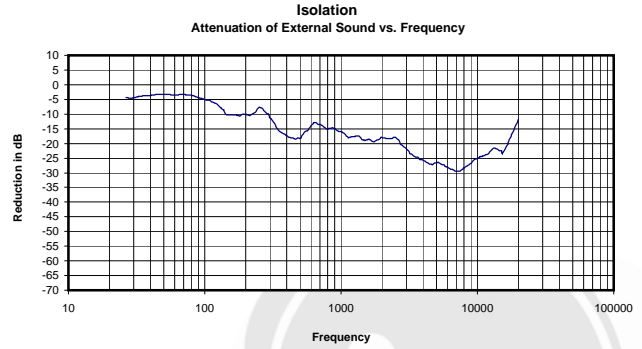
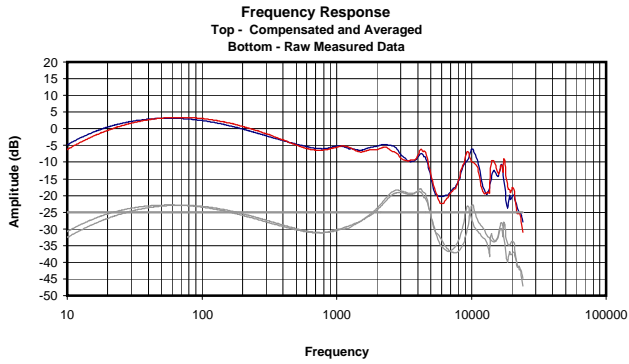
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
31 Ohms
0.09 mW
-20 dB



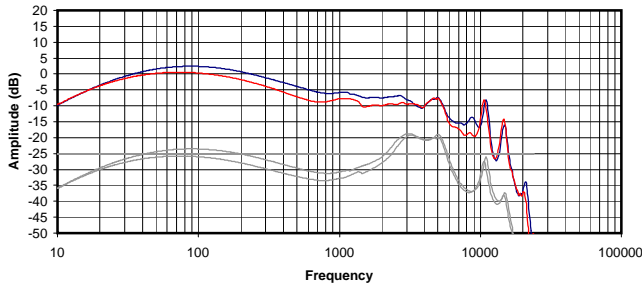


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

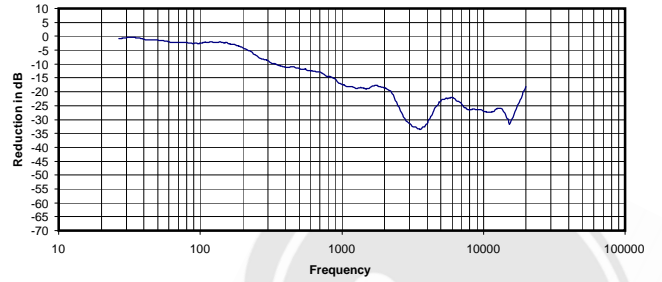
0.055 Vrms
32 Ohms
0.09 mW
-18 dBr



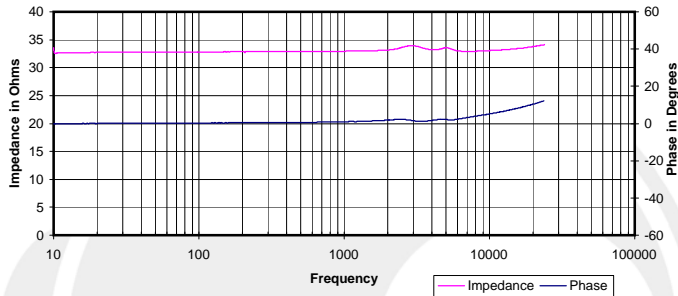
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



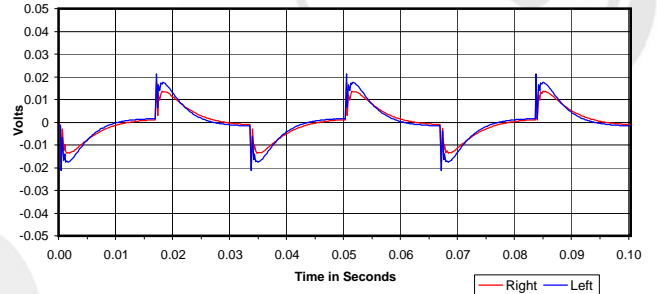
Isolation
Attenuation of External Sound vs. Frequency



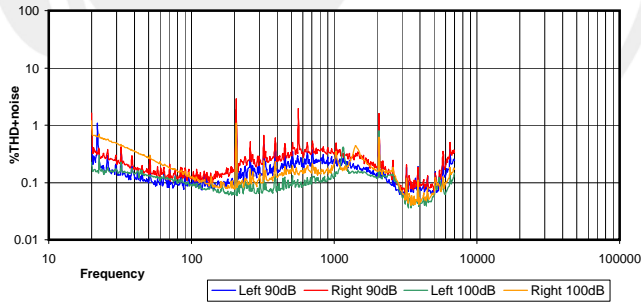
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



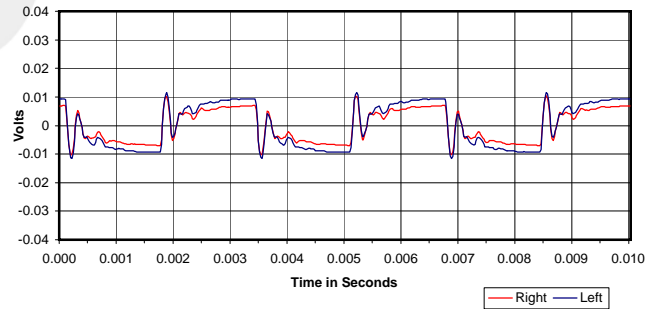
30 Hz Square Wave



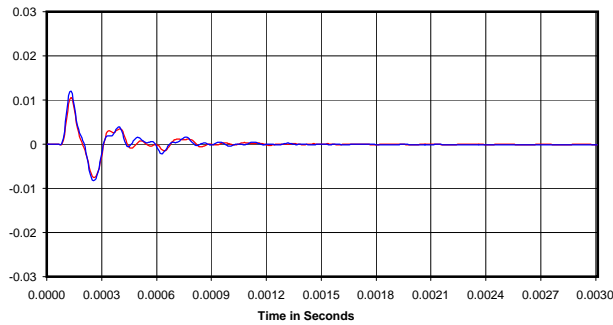
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



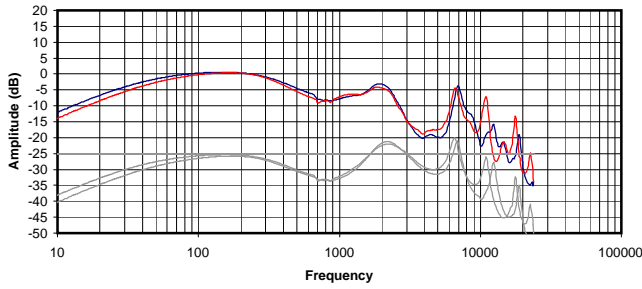
Impulse Response



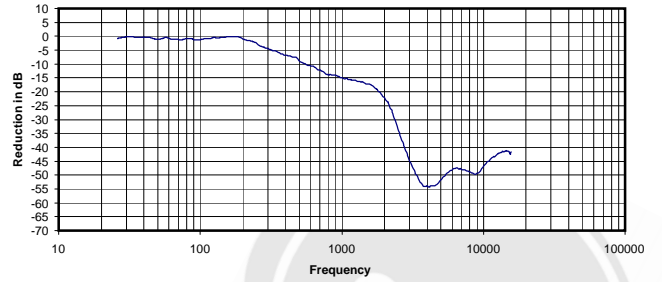
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
33 Ohms
0.08 mW
-16 dB

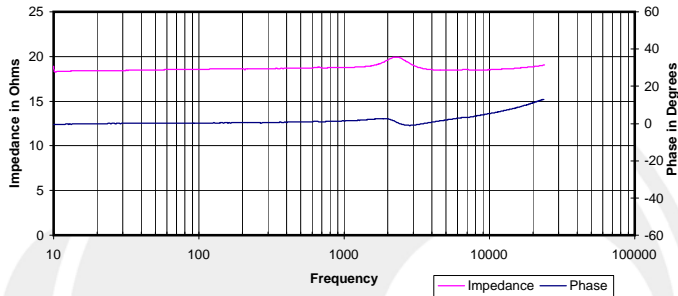
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



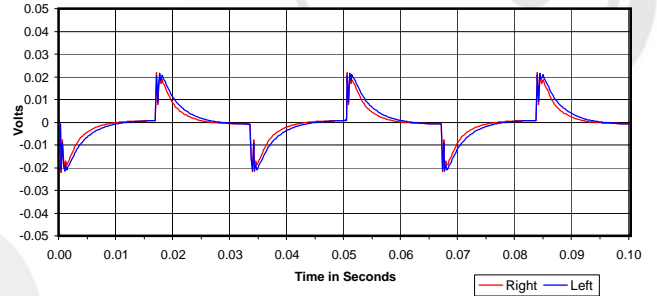
Isolation
Attenuation of External Sound vs. Frequency



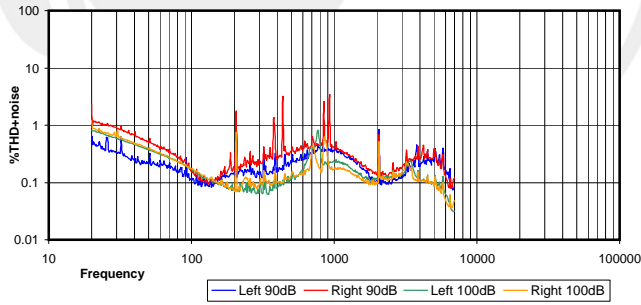
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



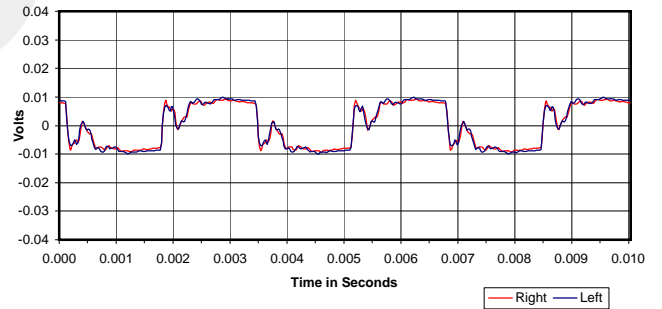
30 Hz Square Wave



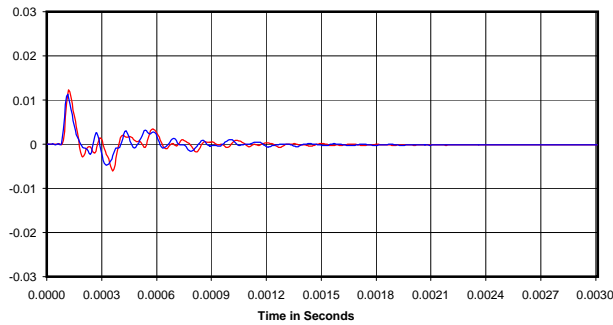
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

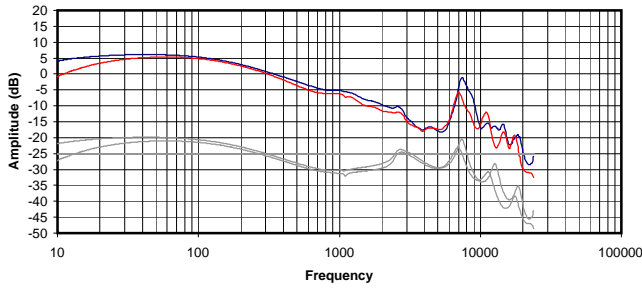


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

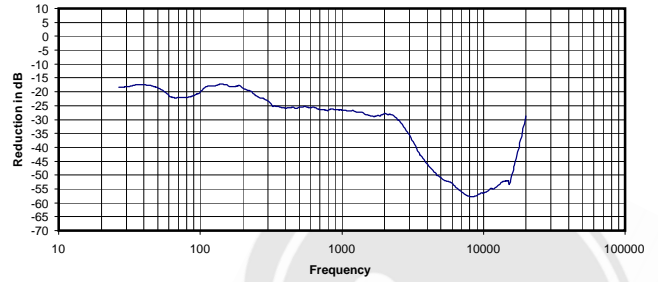
0.031 Vrms
19 Ohms
0.05 mW
-18 dB



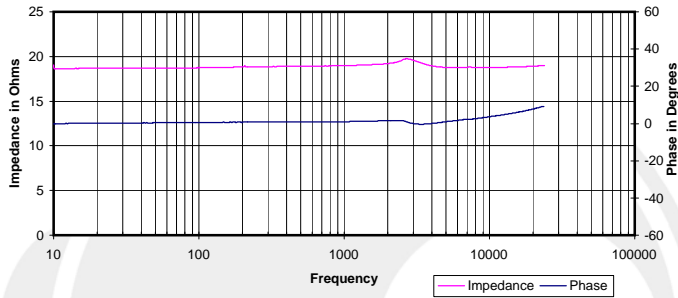
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



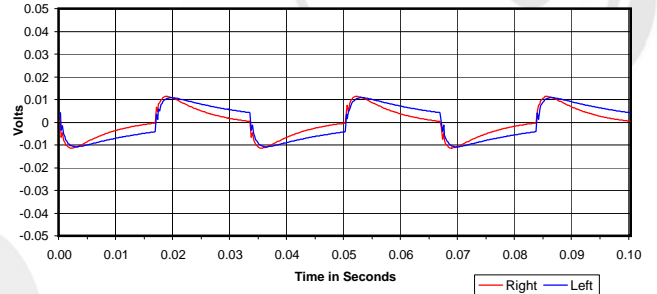
Isolation
Attenuation of External Sound vs. Frequency



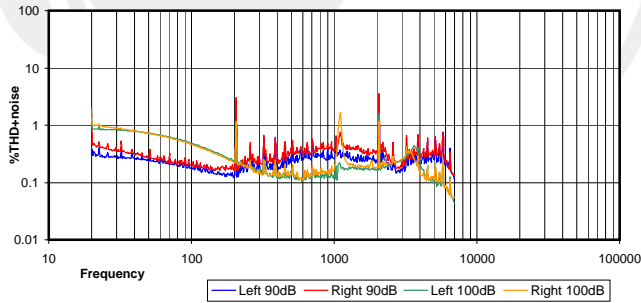
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



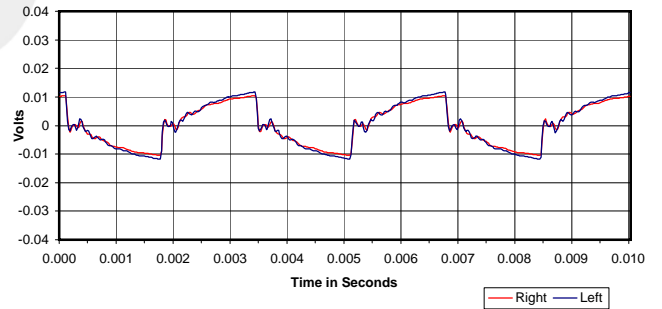
30 Hz Square Wave



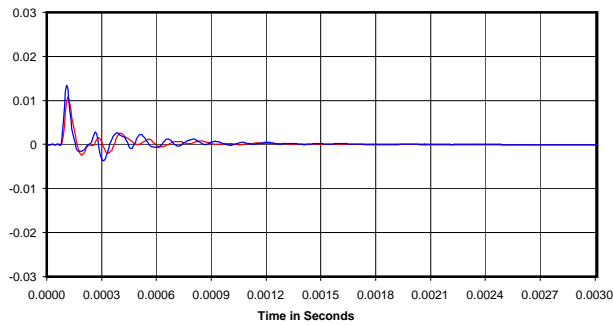
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

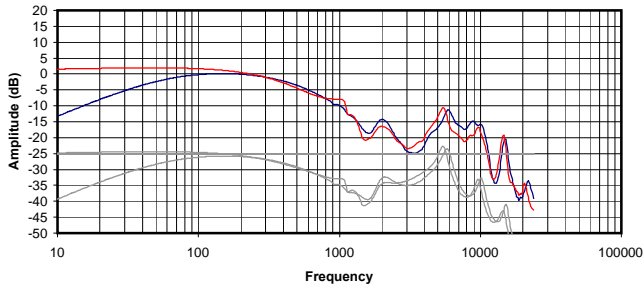


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

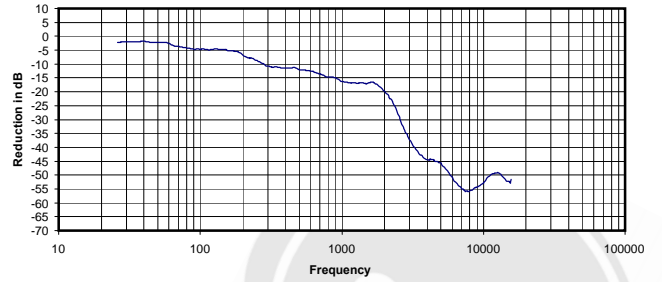
0.036 Vrms
19 Ohms
0.07 mW
-32 dB



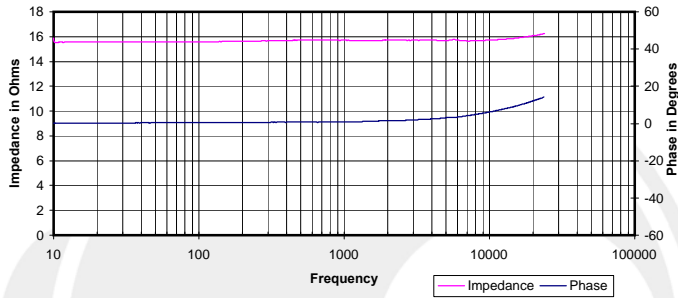
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



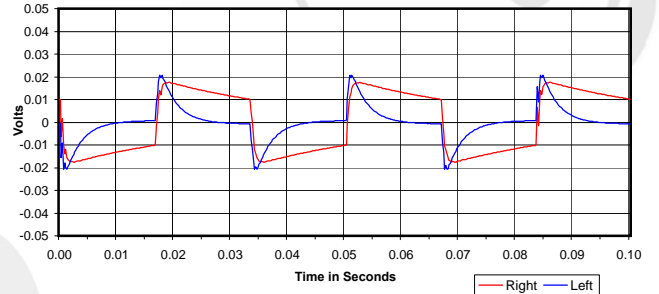
Isolation
Attenuation of External Sound vs. Frequency



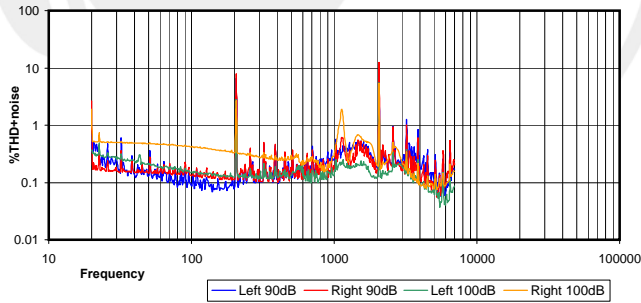
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



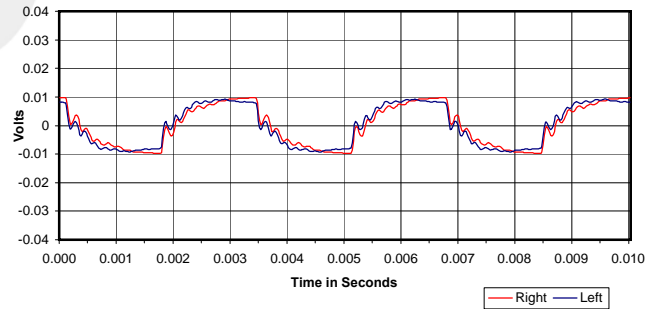
30 Hz Square Wave



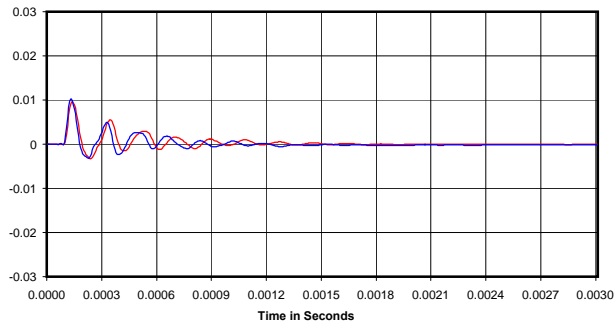
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

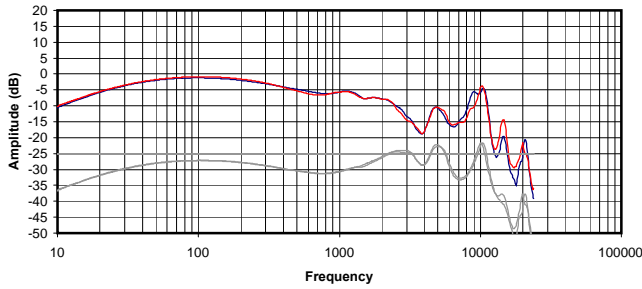


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

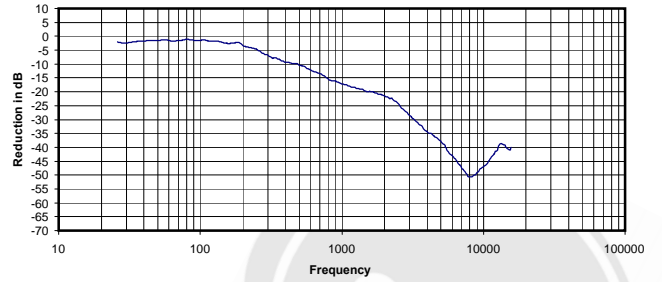
0.040 Vrms
16 Ohms
0.10 mW
-19 dB



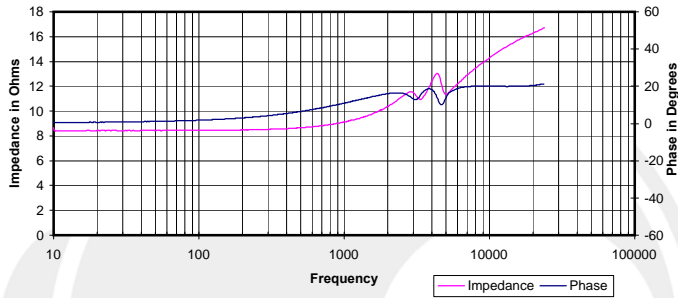
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



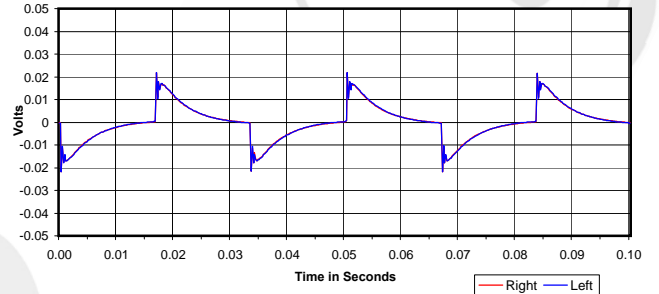
Isolation
Attenuation of External Sound vs. Frequency



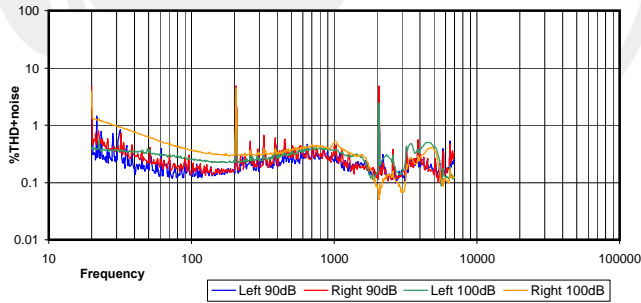
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



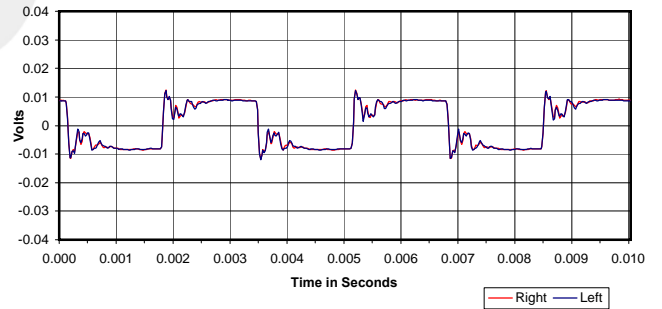
30 Hz Square Wave



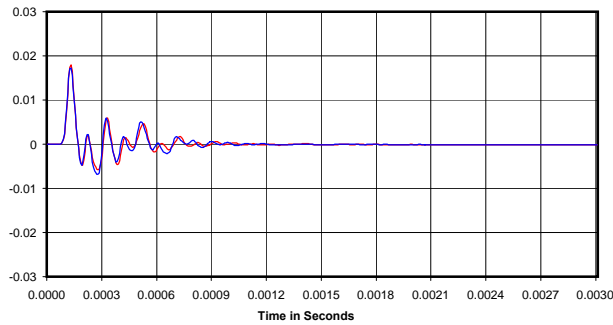
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

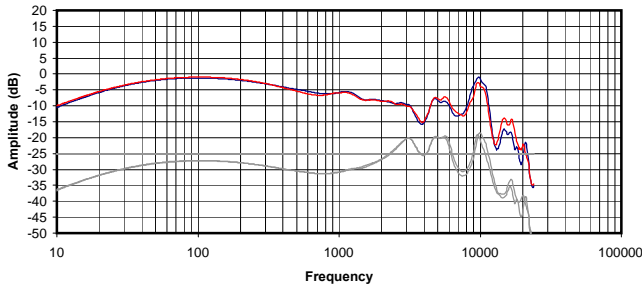


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

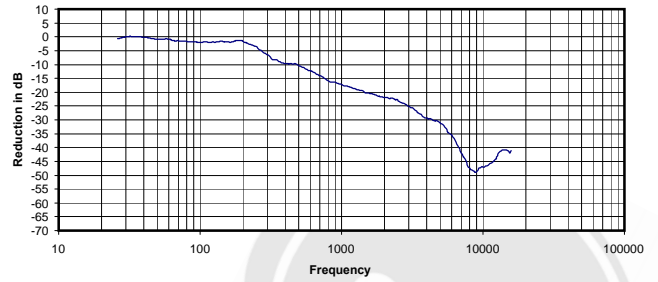
0.023 Vrms
9 Ohms
0.06 mW
-16 dB



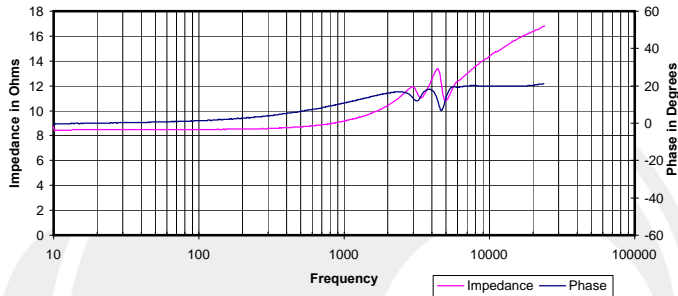
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



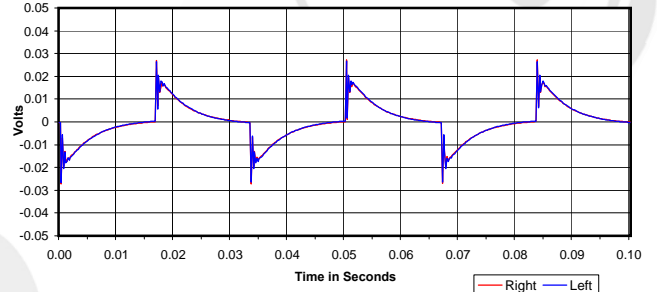
Isolation
Attenuation of External Sound vs. Frequency



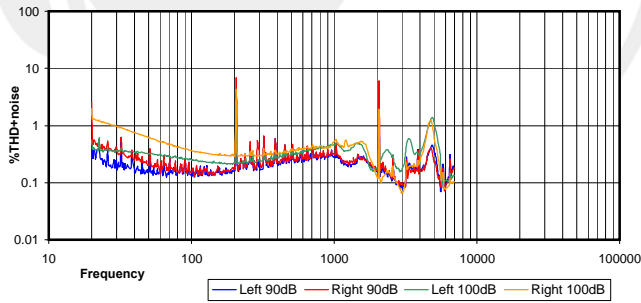
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



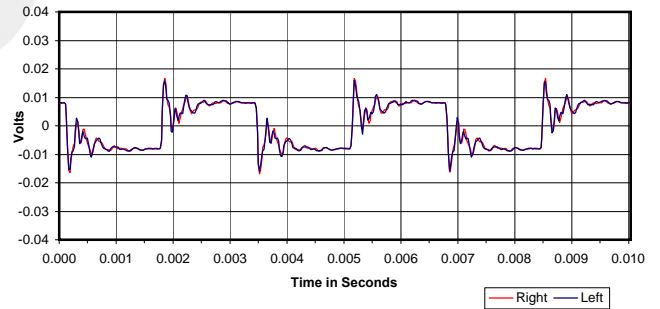
30 Hz Square Wave



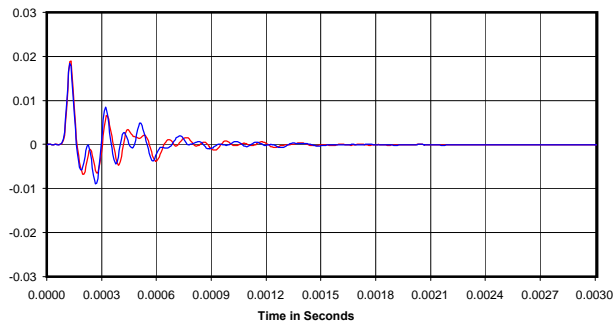
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

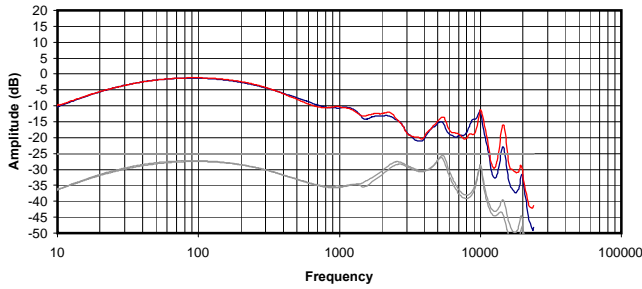


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

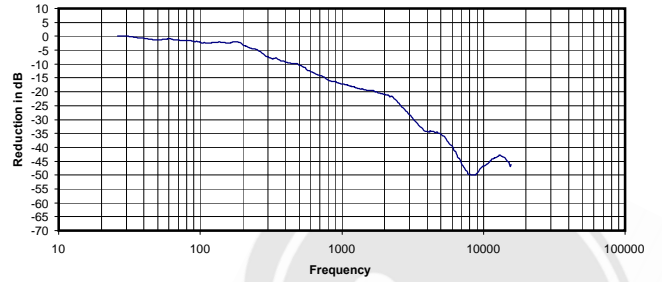
0.024 Vrms
9 Ohms
0.06 mW
-15 dB



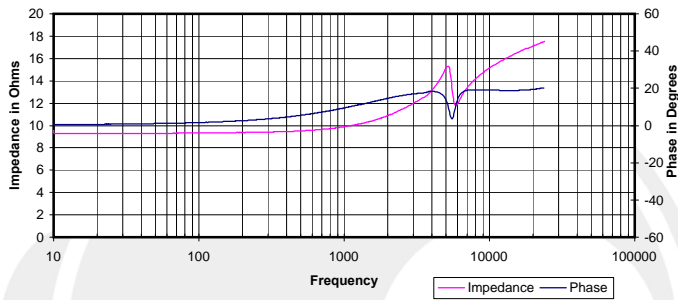
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



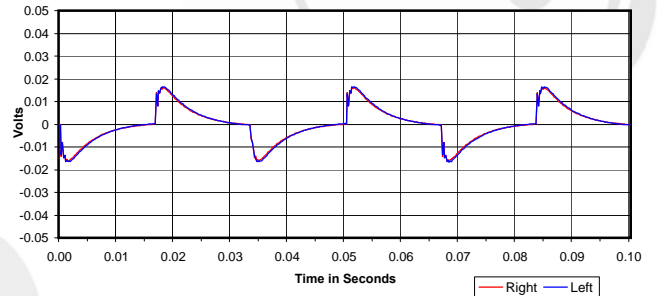
Isolation
Attenuation of External Sound vs. Frequency



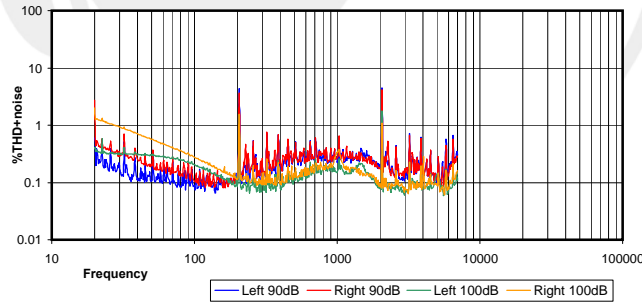
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



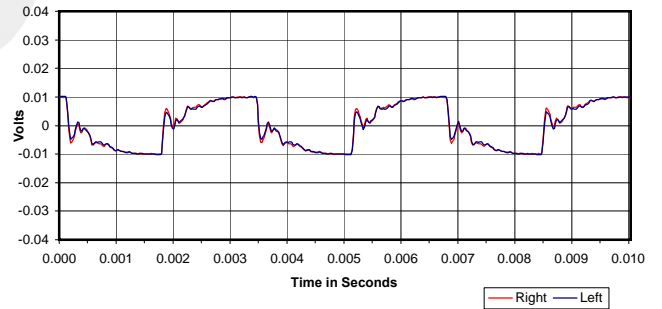
30 Hz Square Wave



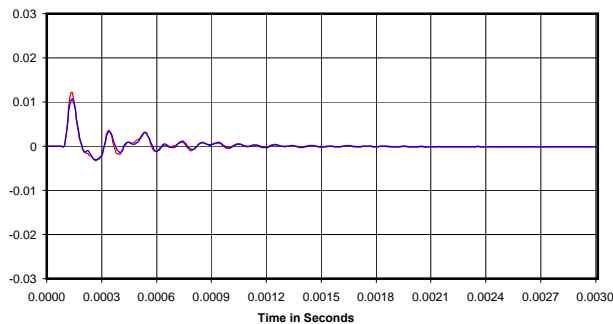
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

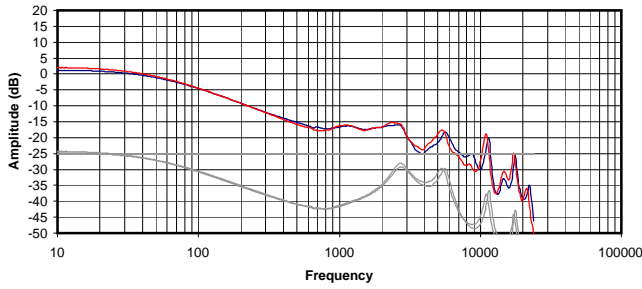


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

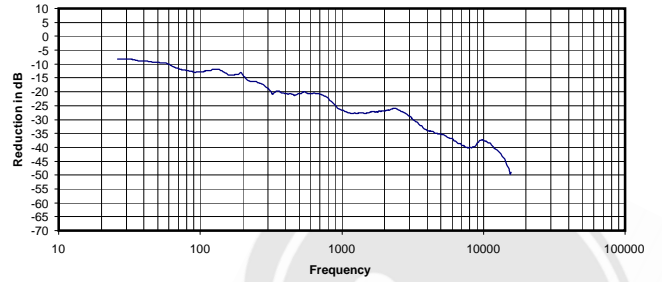
0.051 Vrms
10 Ohms
0.27 mW
-16 dB



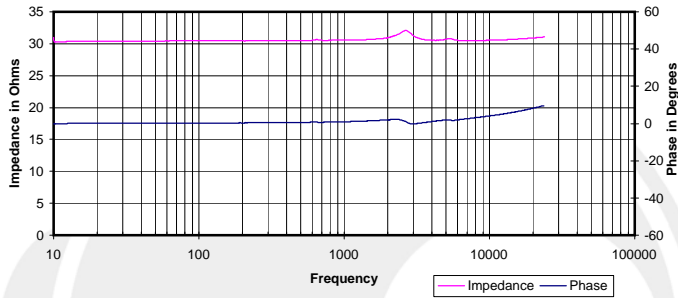
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



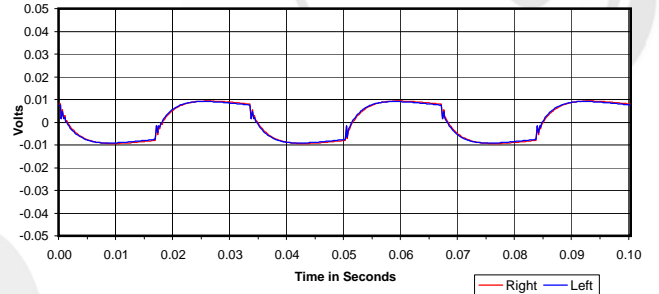
Isolation
Attenuation of External Sound vs. Frequency



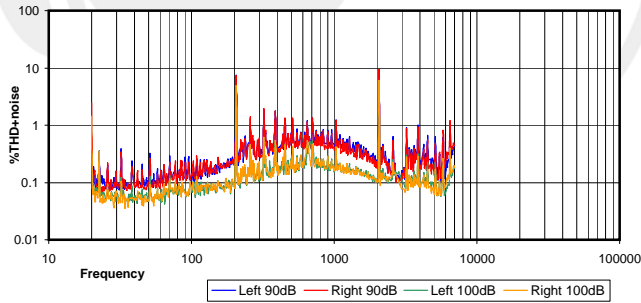
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



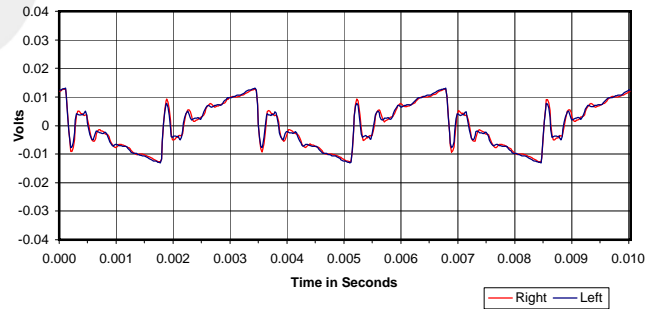
30 Hz Square Wave



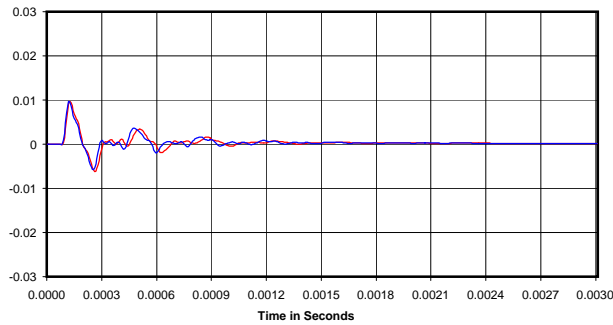
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

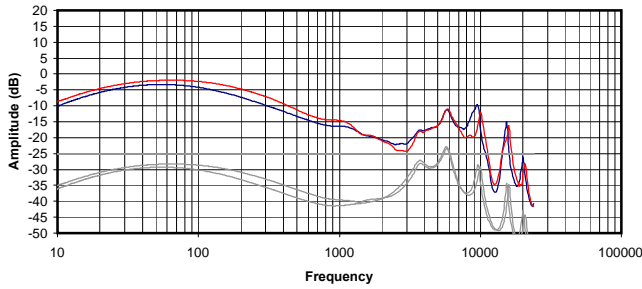


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

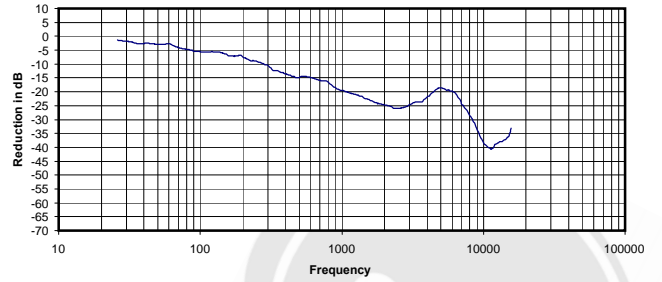
0.047 Vrms
31 Ohms
0.07 mW
-23 dB



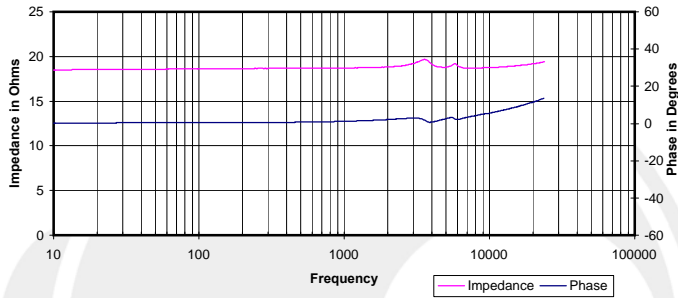
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



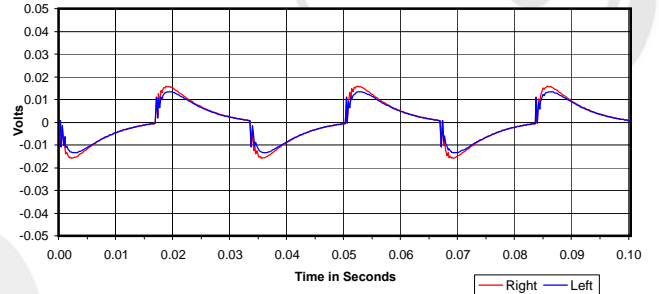
Isolation
Attenuation of External Sound vs. Frequency



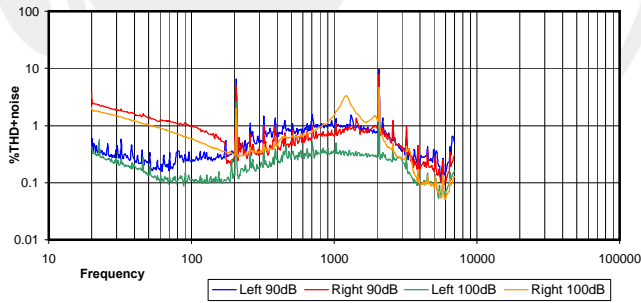
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



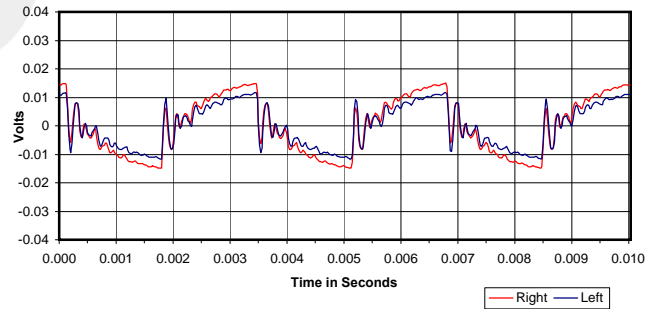
30 Hz Square Wave



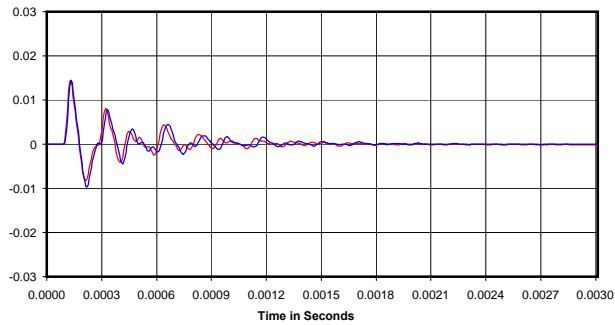
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



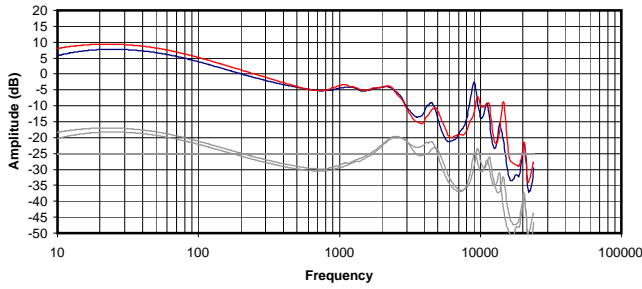
Impulse Response



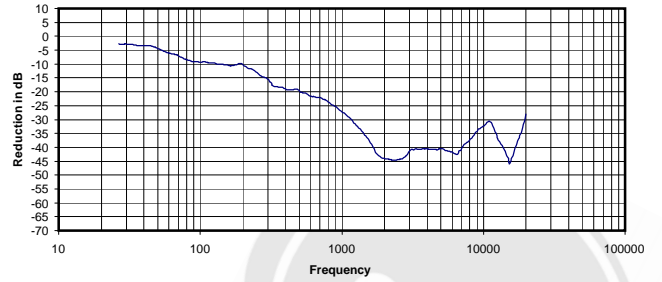
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
19 Ohms
0.08 mW
-16 dB

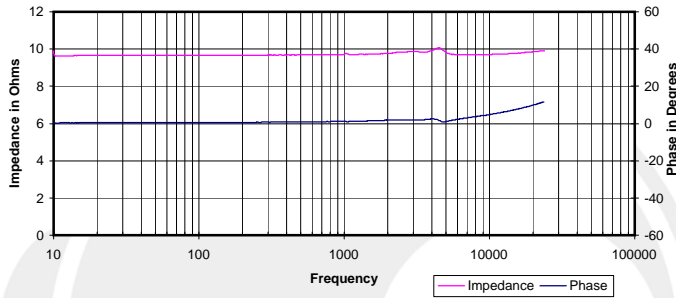
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



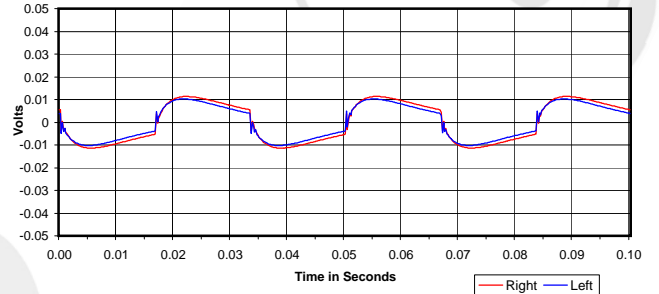
Isolation
Attenuation of External Sound vs. Frequency



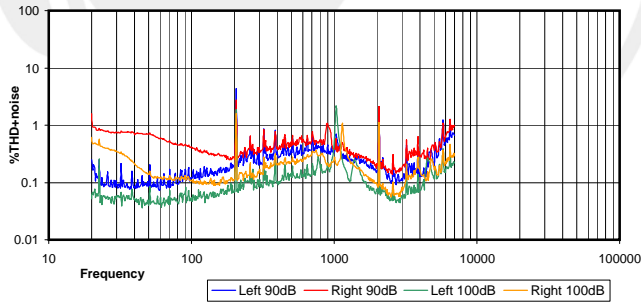
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



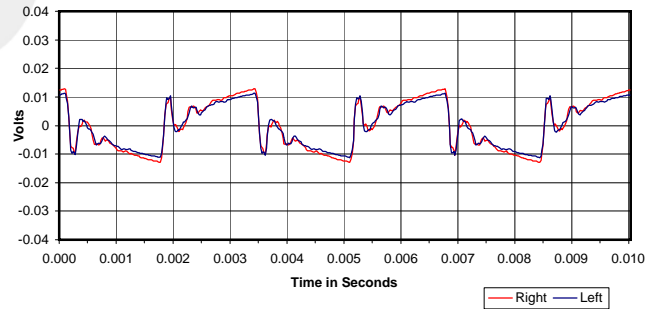
30 Hz Square Wave



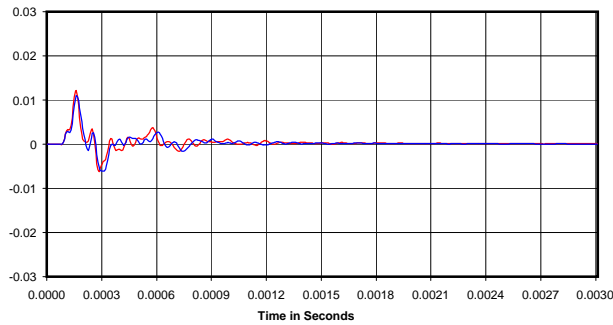
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



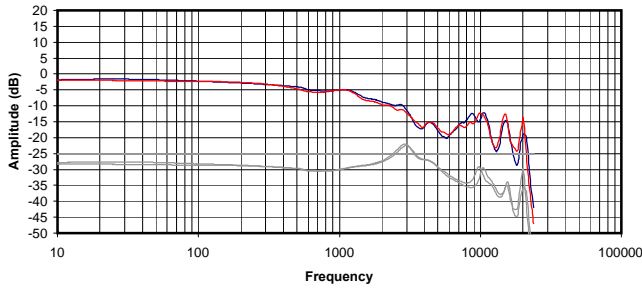
Impulse Response



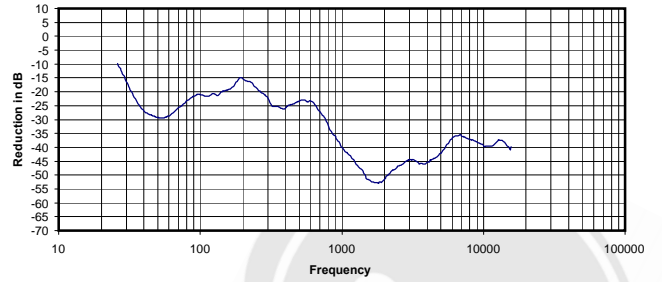
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
10 Ohms
0.09 mW
-28 dB

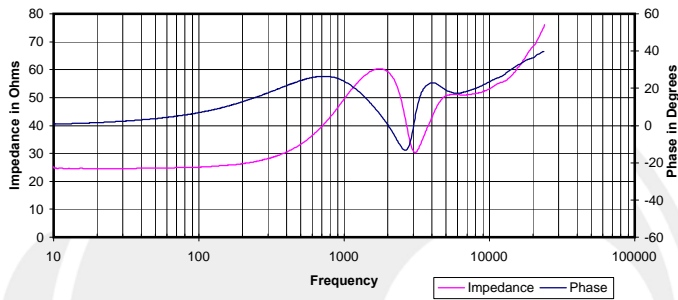
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



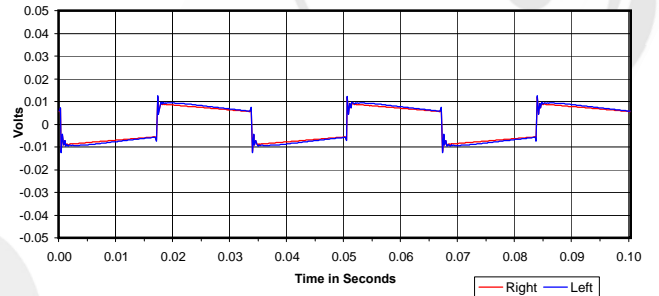
Isolation
Attenuation of External Sound vs. Frequency



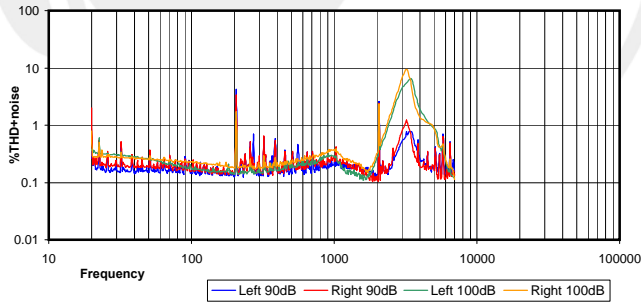
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



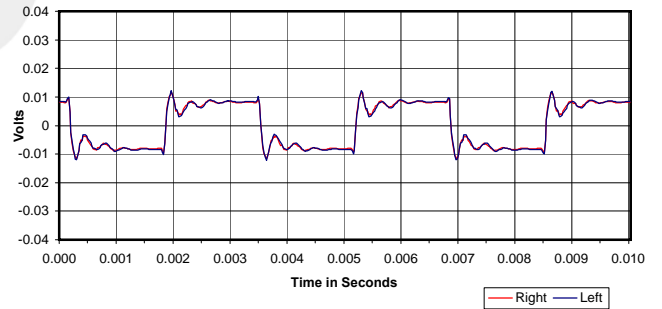
30 Hz Square Wave



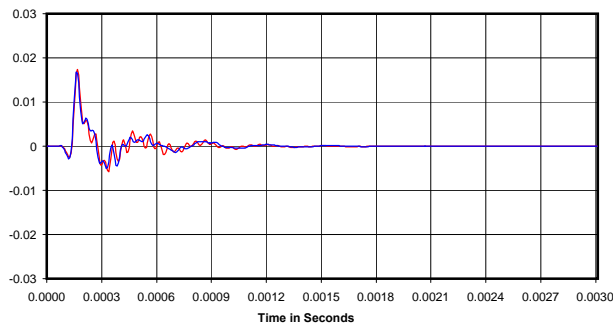
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

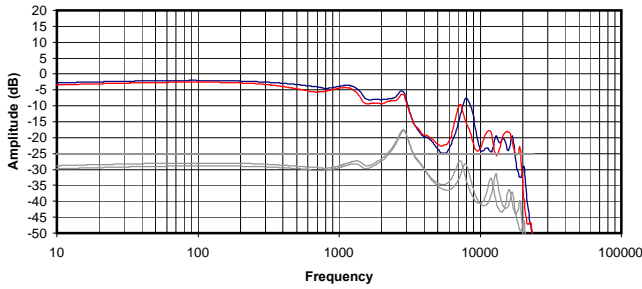


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

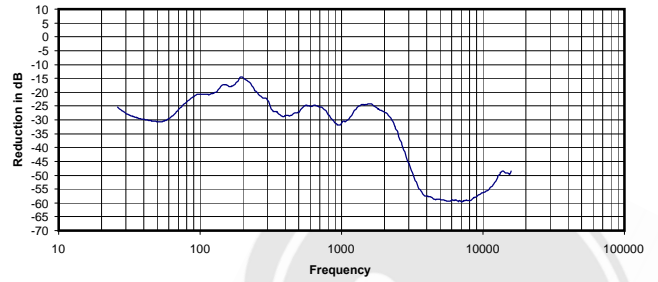
0.035 Vrms
49 Ohms
0.02 mW
-33 dB



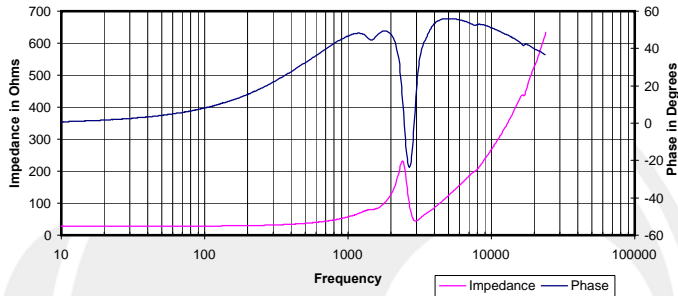
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



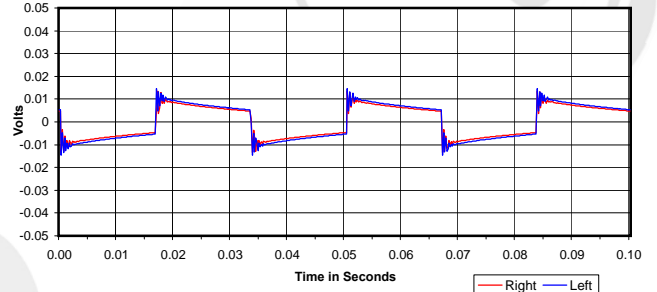
Isolation
Attenuation of External Sound vs. Frequency



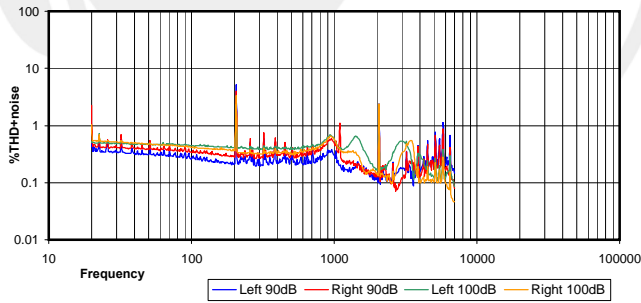
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



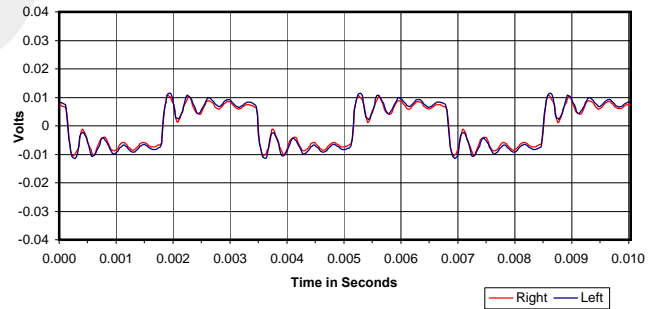
30 Hz Square Wave



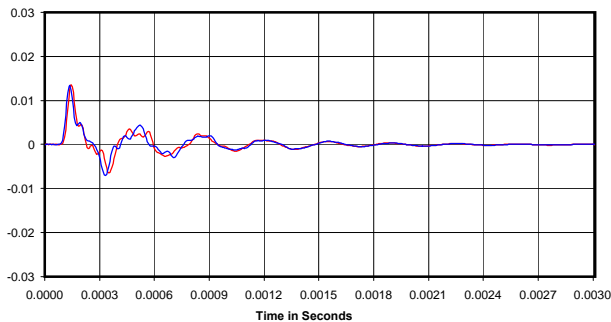
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

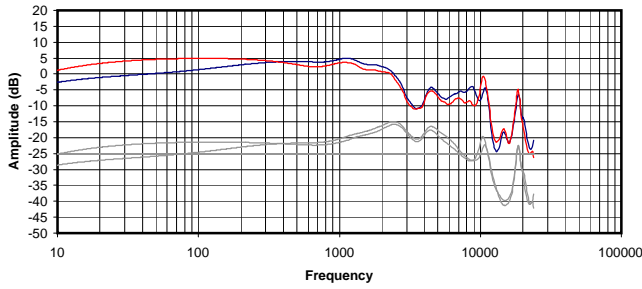


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

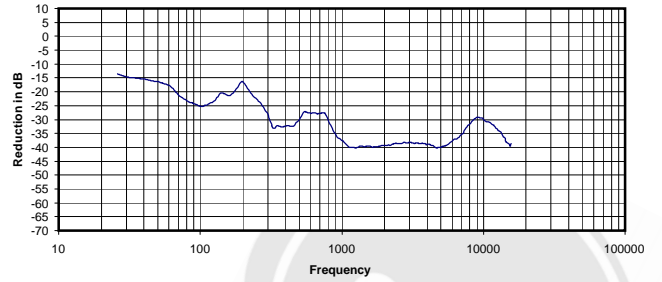
0.019 Vrms
57 Ohms
0.01 mW
-31 dB



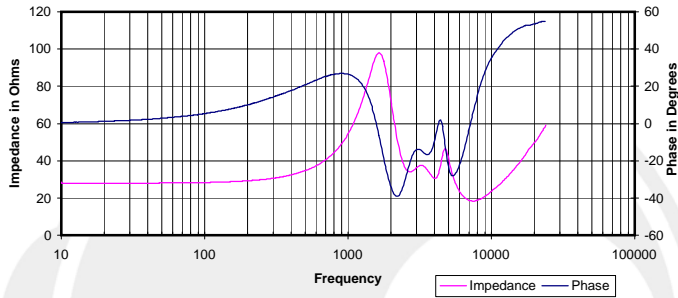
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



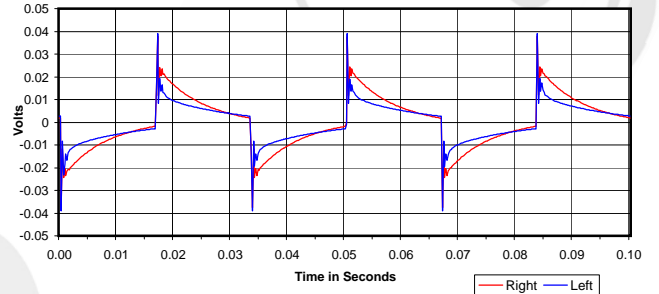
Isolation
Attenuation of External Sound vs. Frequency



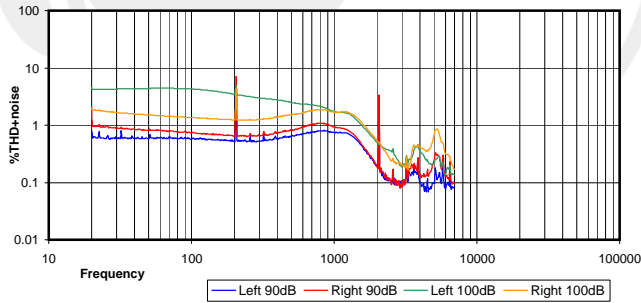
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



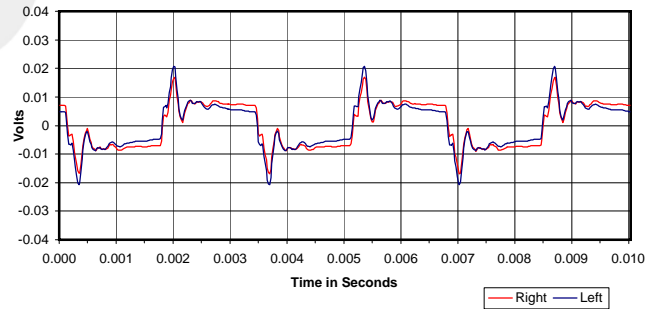
30 Hz Square Wave



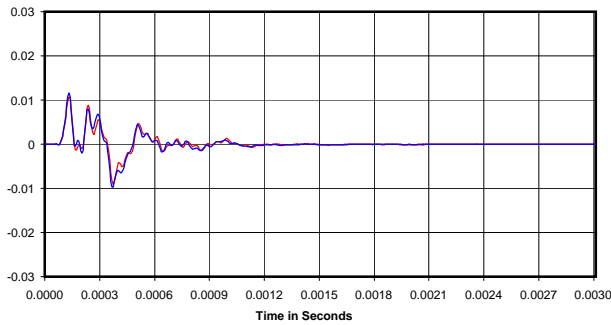
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

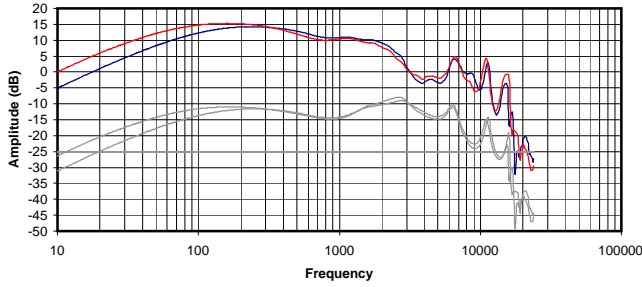


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

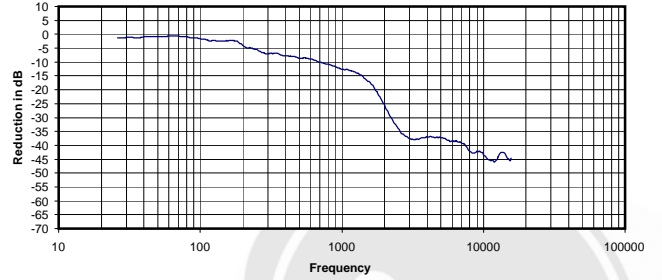
0.027 Vrms
55 Ohms
0.01 mW
-32 dB



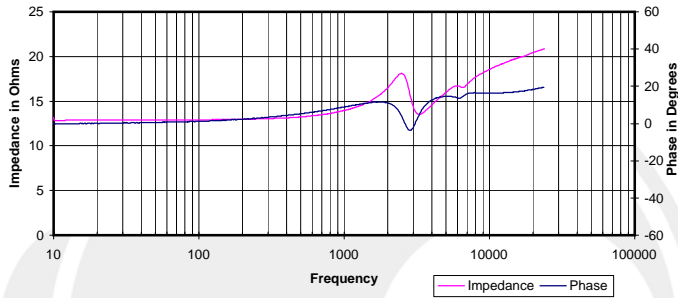
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



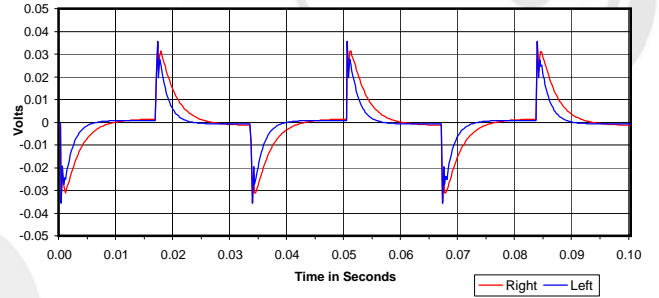
Isolation
Attenuation of External Sound vs. Frequency



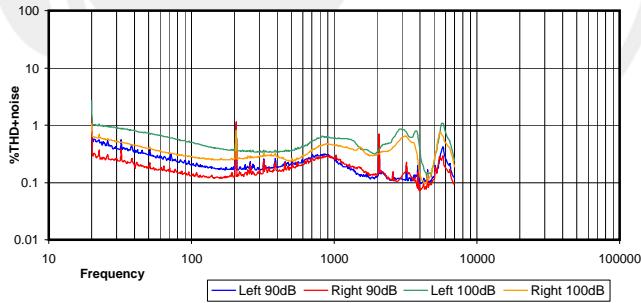
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



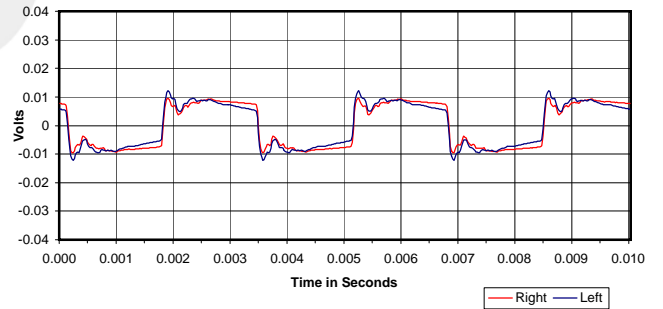
30 Hz Square Wave



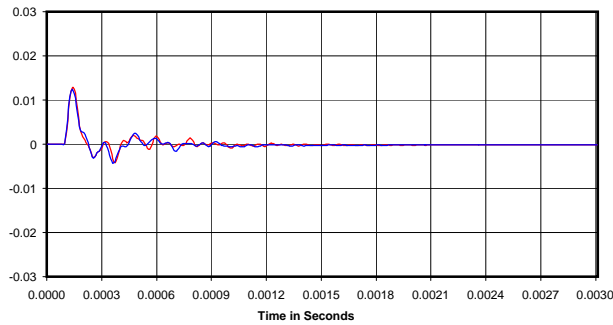
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

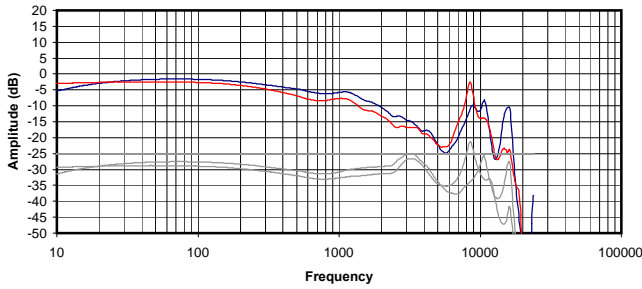


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

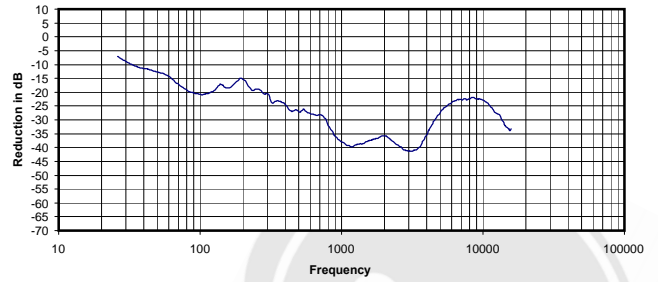
0.022 Vrms
14 Ohms
0.04 mW
-16 dB



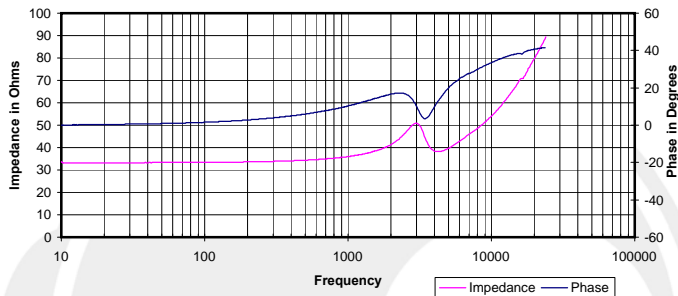
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



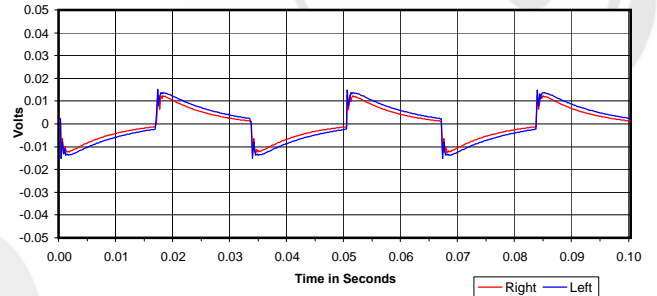
Isolation
Attenuation of External Sound vs. Frequency



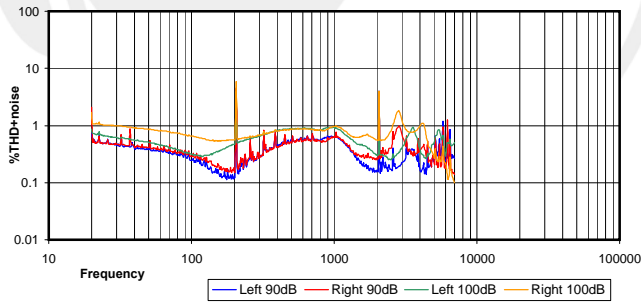
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



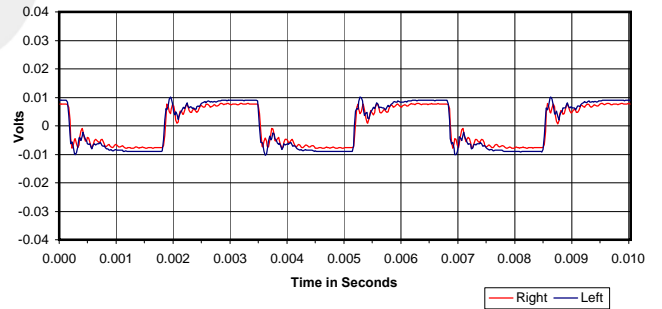
30 Hz Square Wave



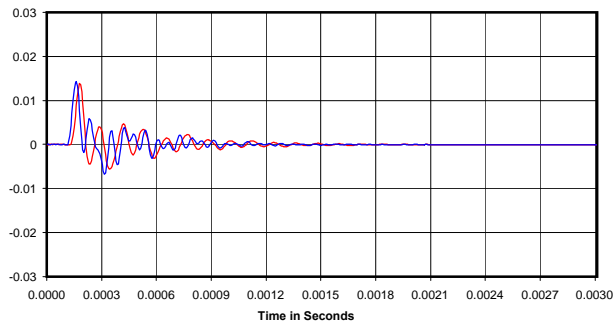
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

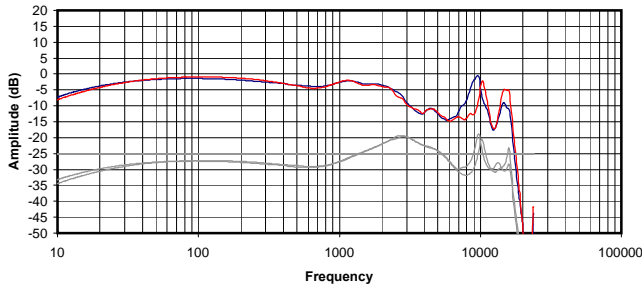


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

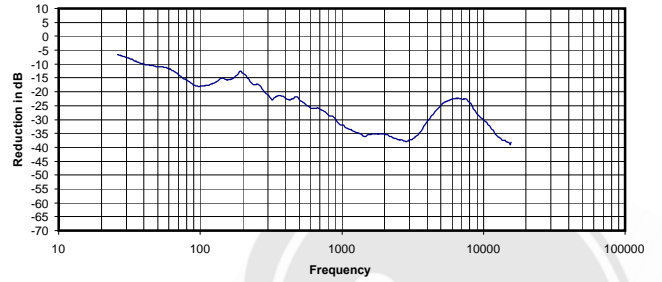
0.050 Vrms
36 Ohms
0.07 mW
-29 dB



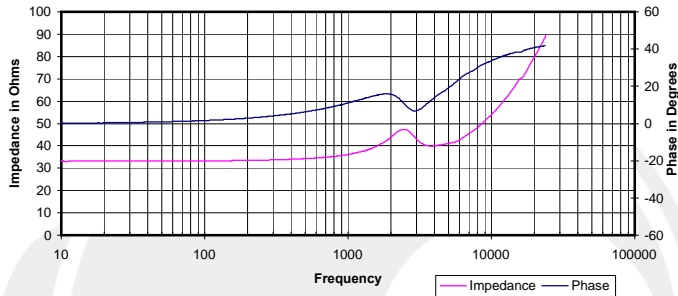
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



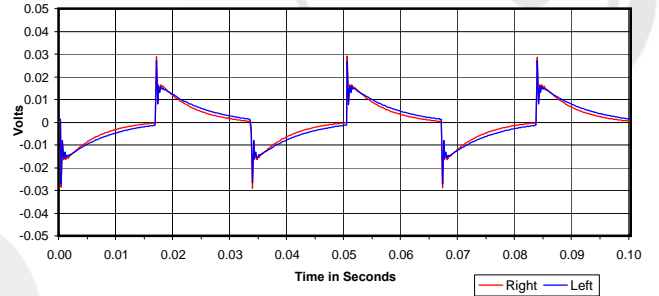
Isolation
Attenuation of External Sound vs. Frequency



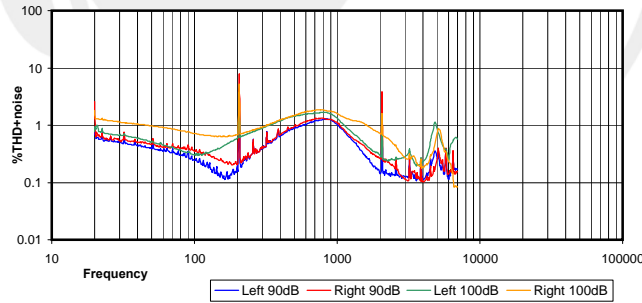
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



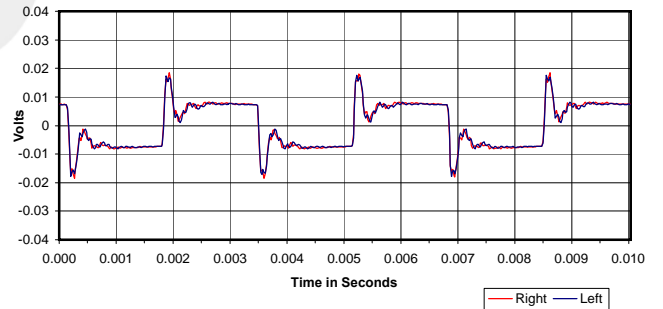
30 Hz Square Wave



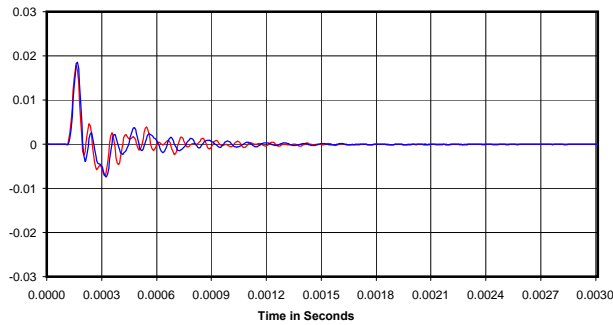
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

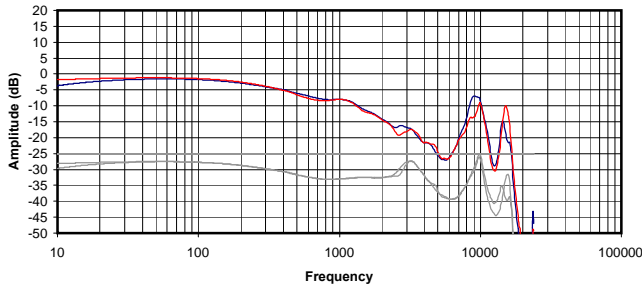


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

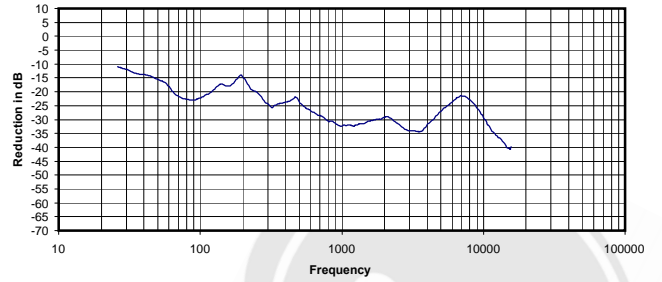
0.036 Vrms
36 Ohms
0.04 mW
-26 dB



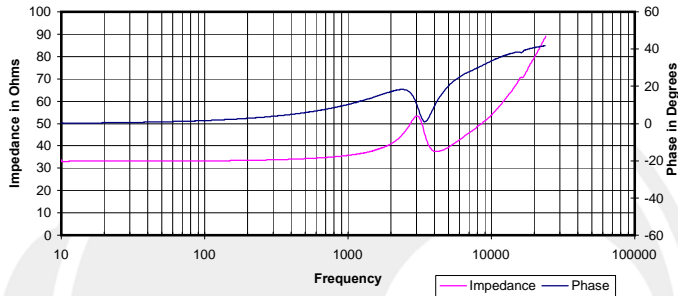
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



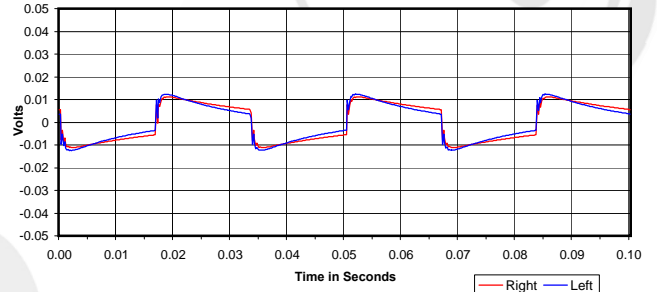
Isolation
Attenuation of External Sound vs. Frequency



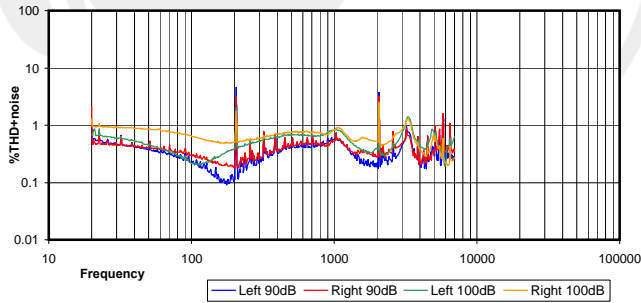
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



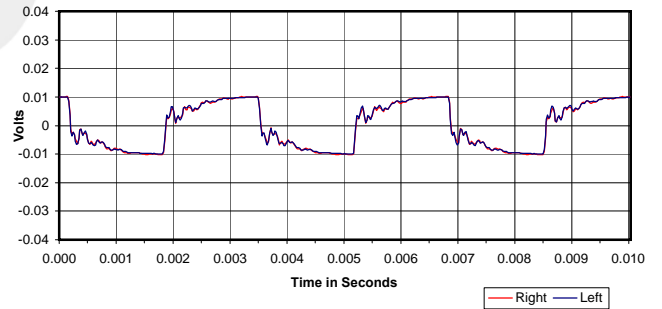
30 Hz Square Wave



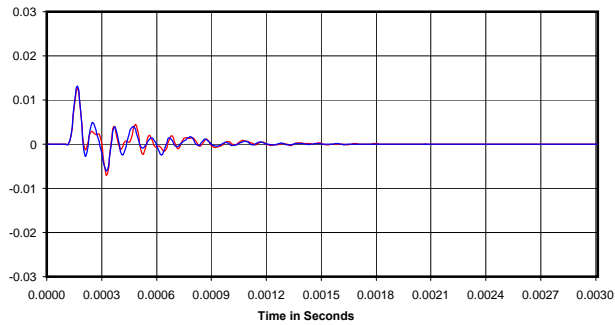
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

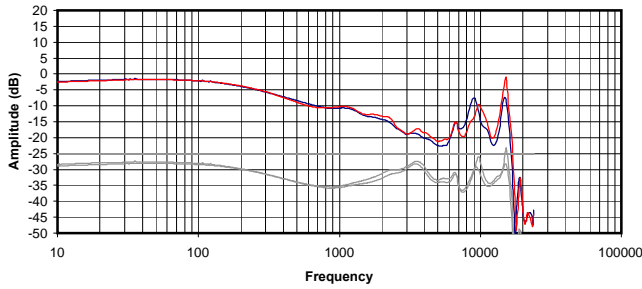


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

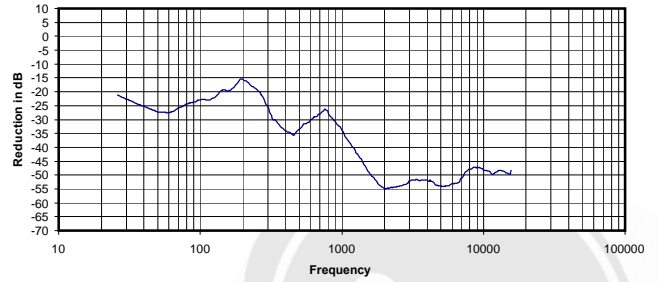
0.067 Vrms
36 Ohms
0.12 mW
-26 dB



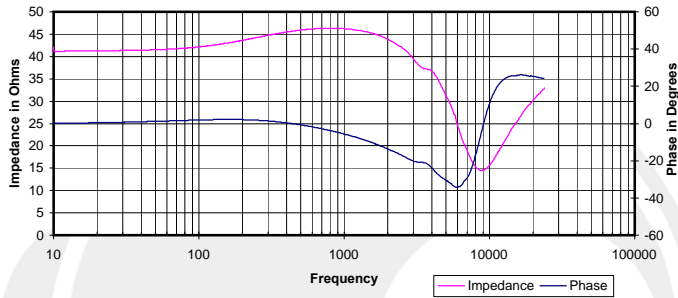
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



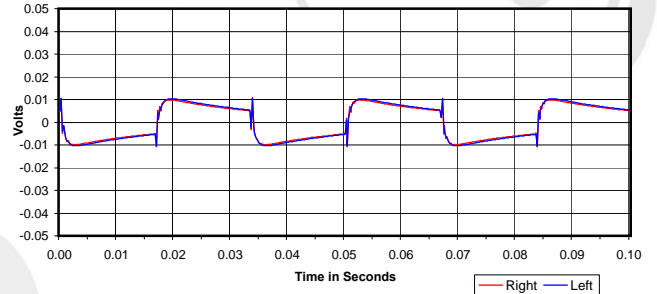
Isolation
Attenuation of External Sound vs. Frequency



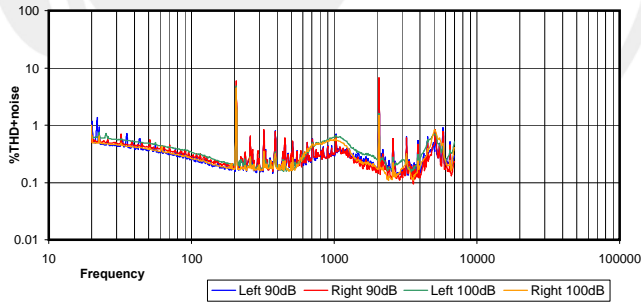
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



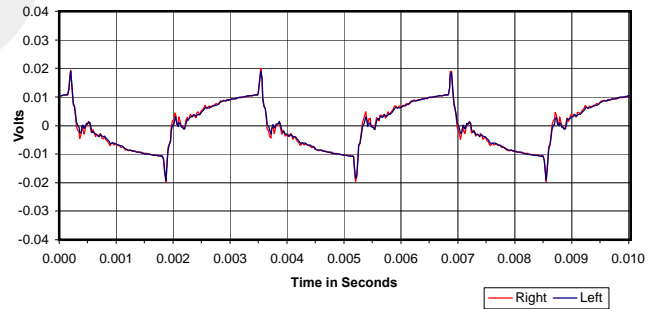
30 Hz Square Wave



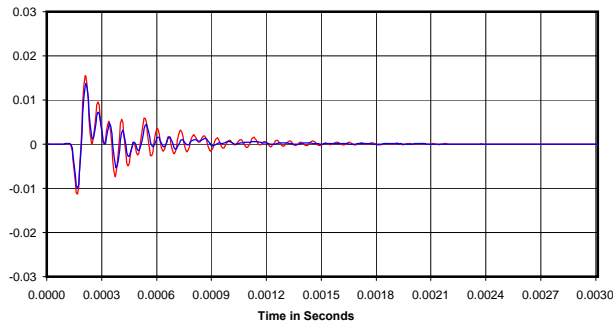
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



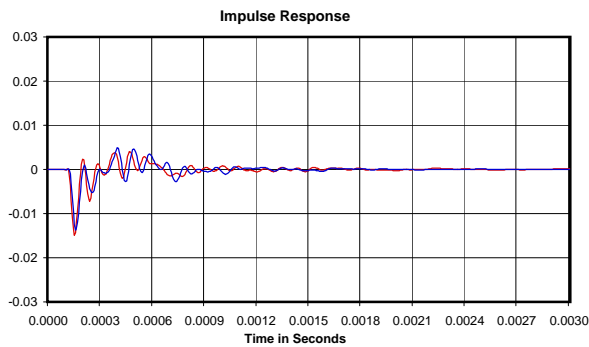
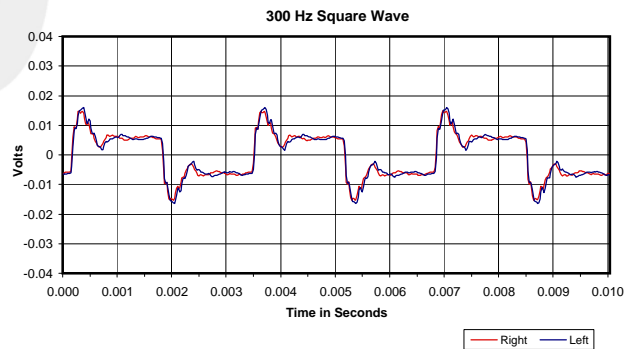
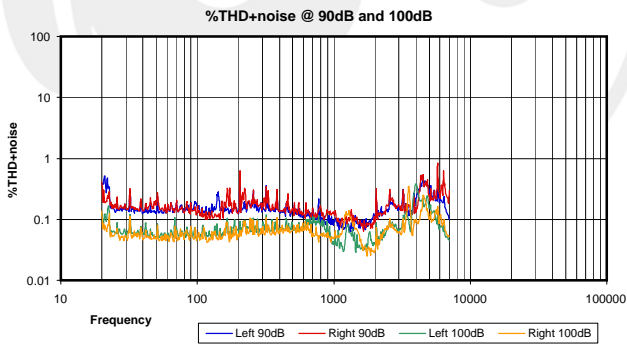
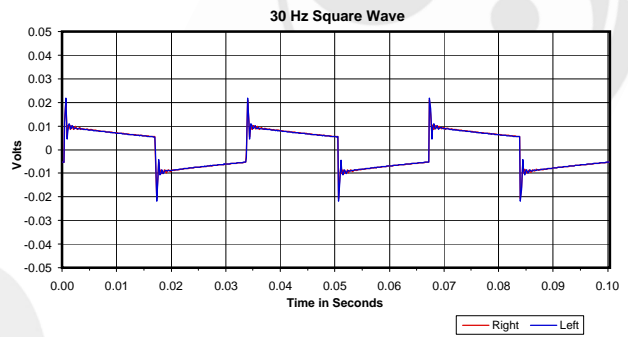
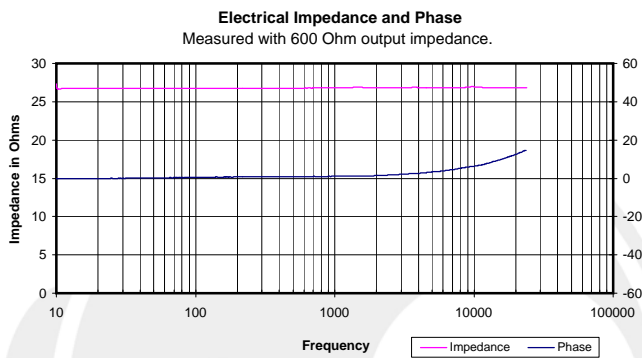
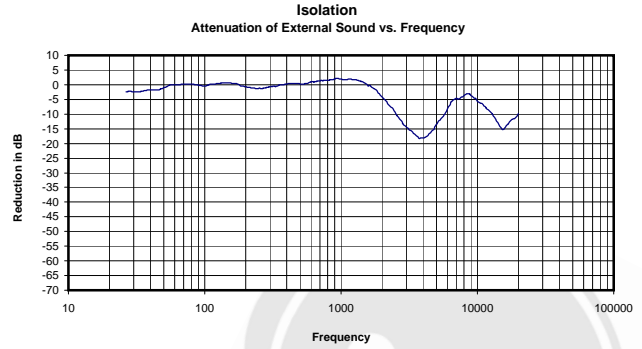
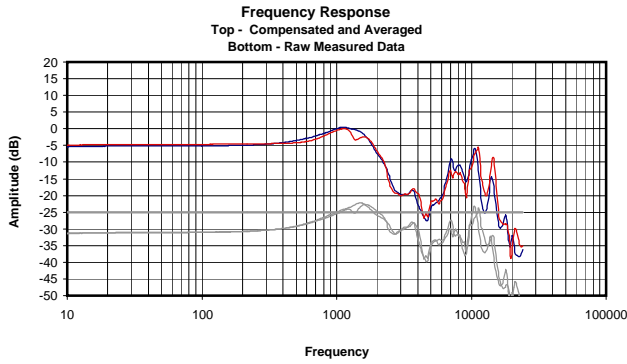
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.065 Vrms
46 Ohms
0.09 mW
-36 dB



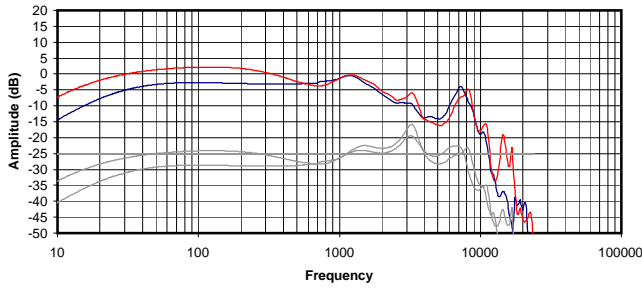


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

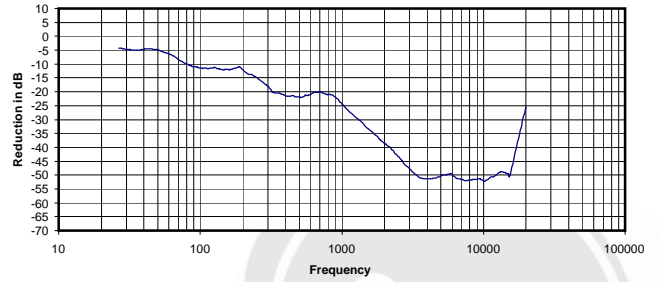
0.018 Vrms
27 Ohms
0.01 mW
-3 dBr



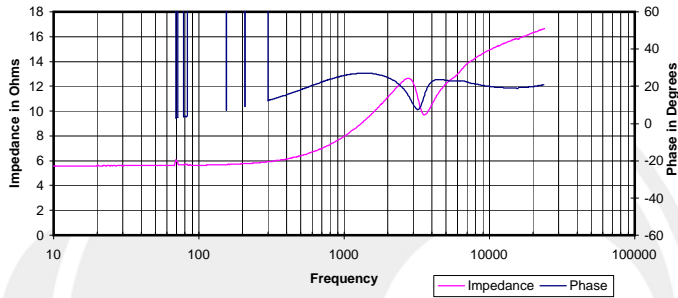
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



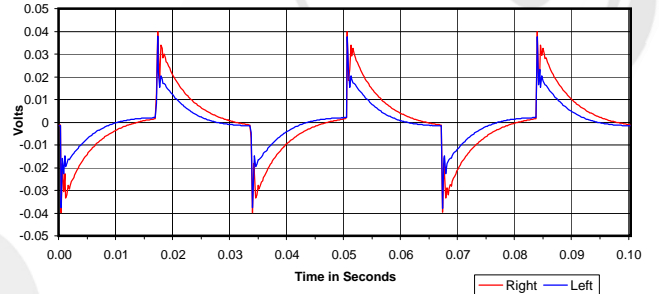
Isolation
Attenuation of External Sound vs. Frequency



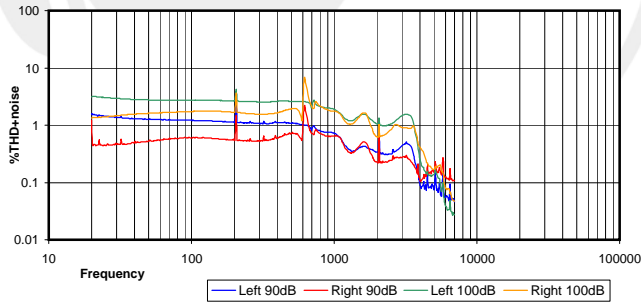
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



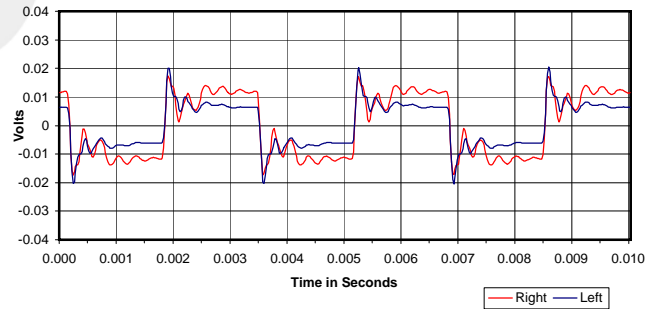
30 Hz Square Wave



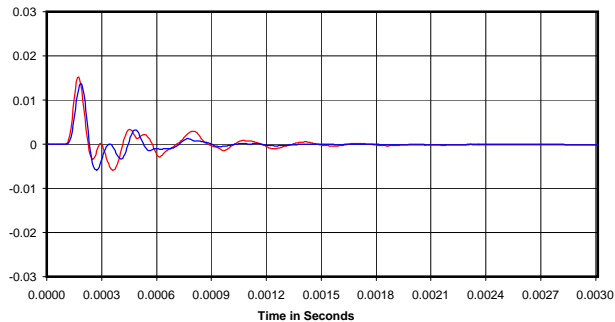
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

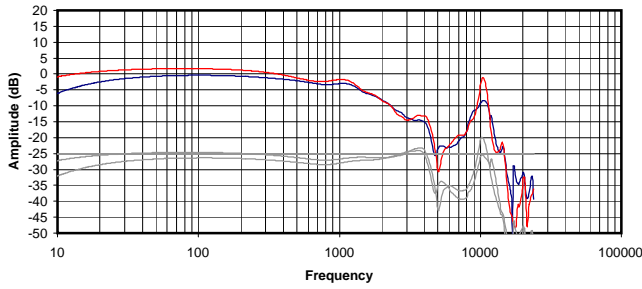


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

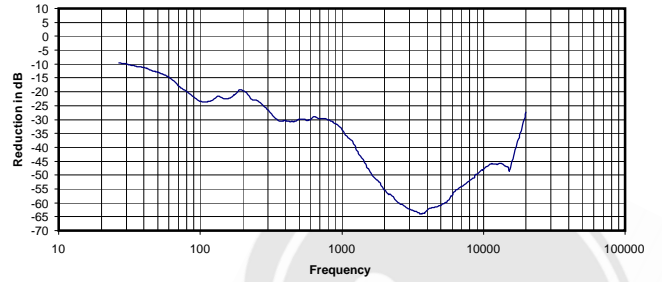
0.016 Vrms
8 Ohms
0.03 mW
-31 dB



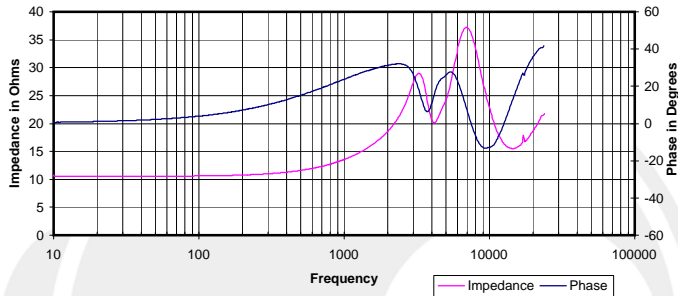
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



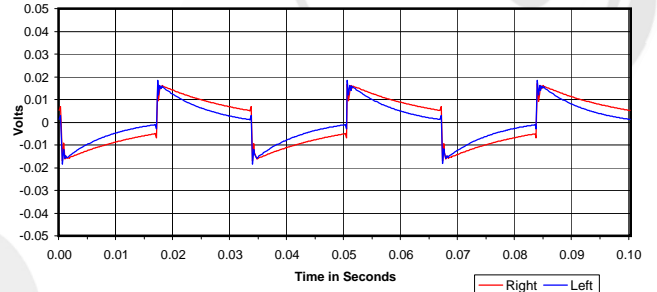
Isolation
Attenuation of External Sound vs. Frequency



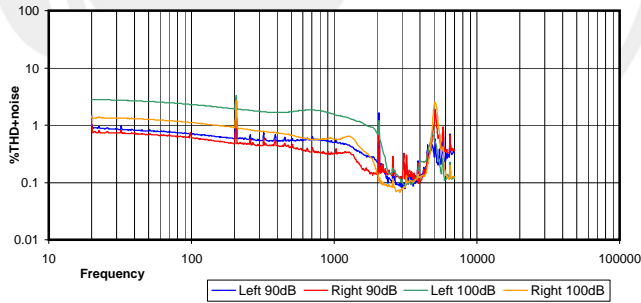
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



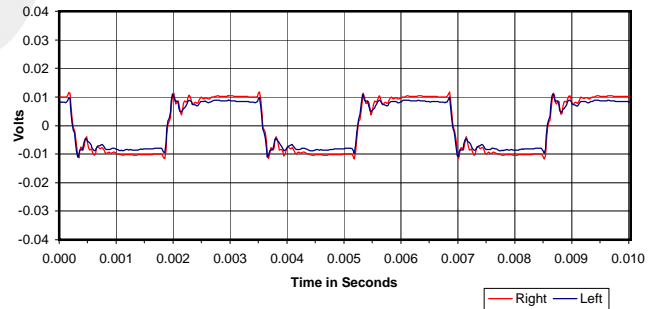
30 Hz Square Wave



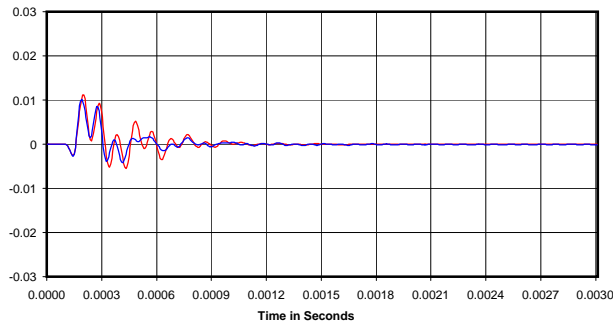
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

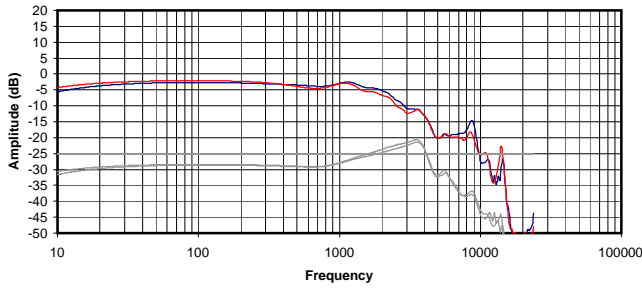


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

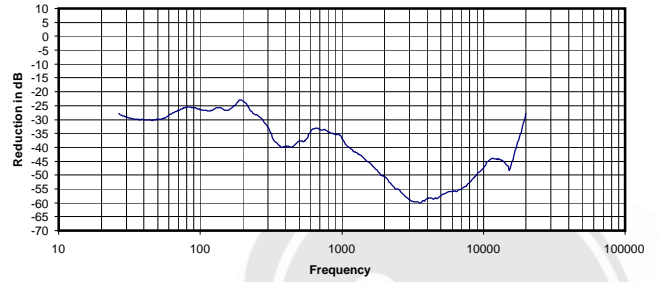
0.017 Vrms
14 Ohms
0.02 mW
-40 dB



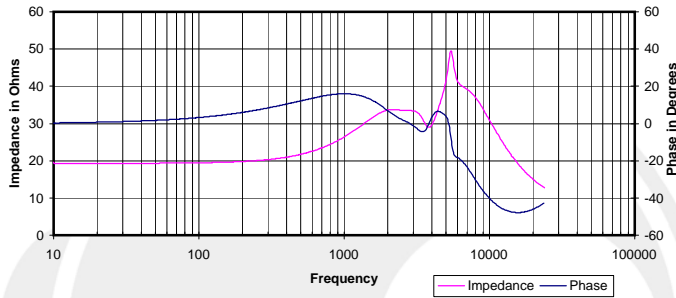
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



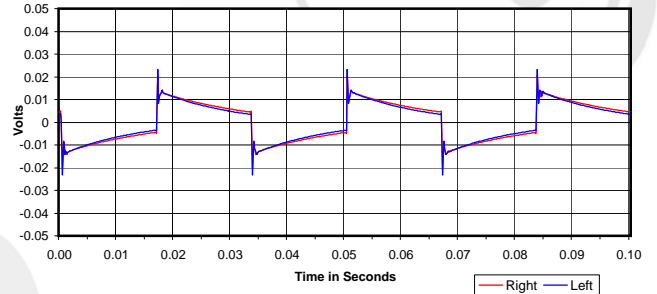
Isolation
Attenuation of External Sound vs. Frequency



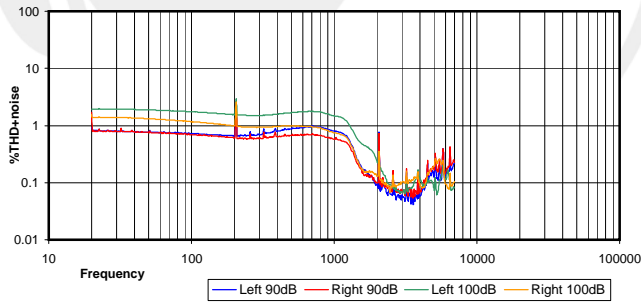
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



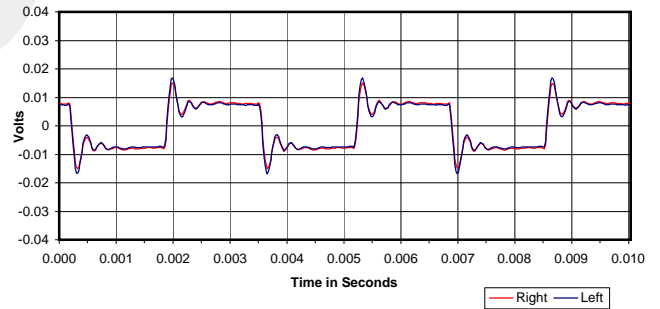
30 Hz Square Wave



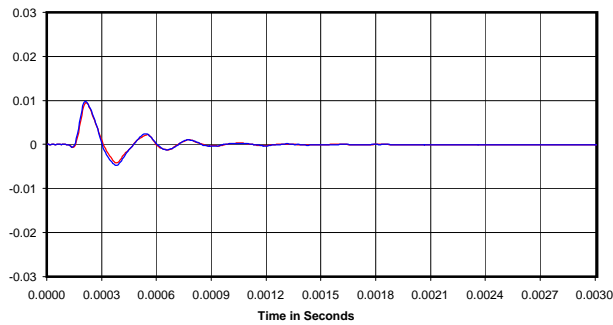
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

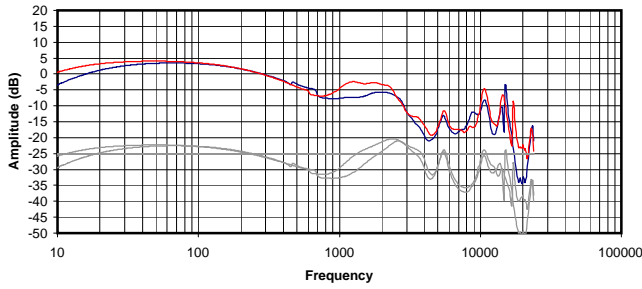


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

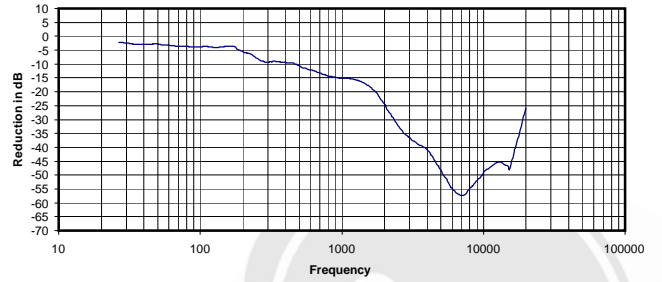
0.016 Vrms
26 Ohms
0.01 mW
-42 dB



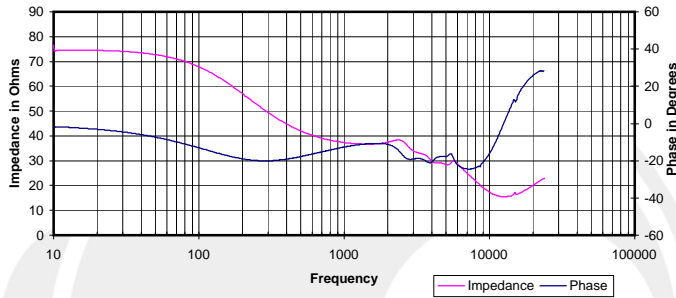
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



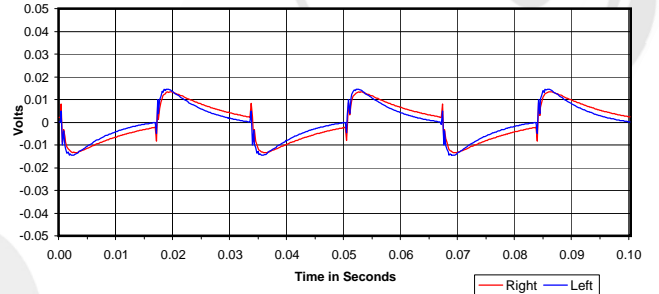
Isolation
Attenuation of External Sound vs. Frequency



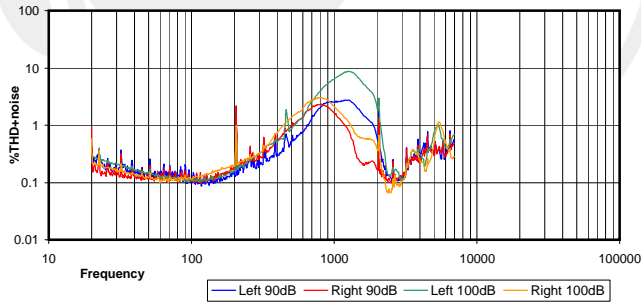
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



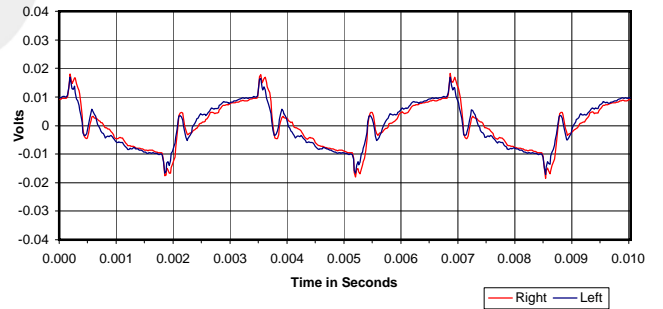
30 Hz Square Wave



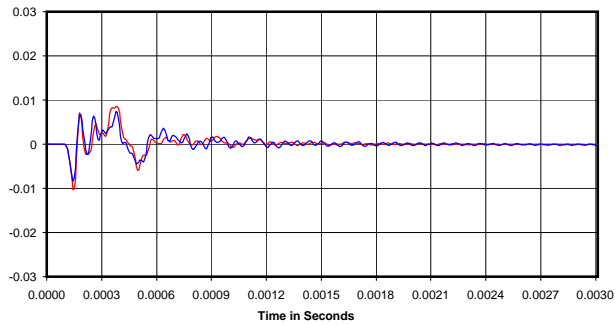
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

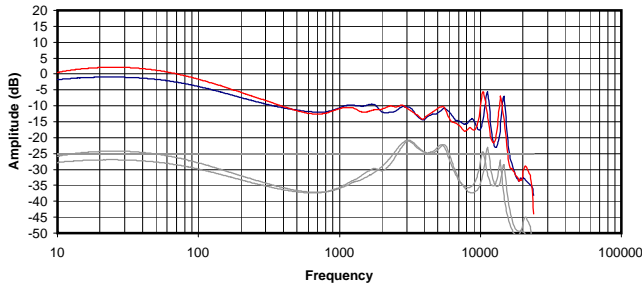


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

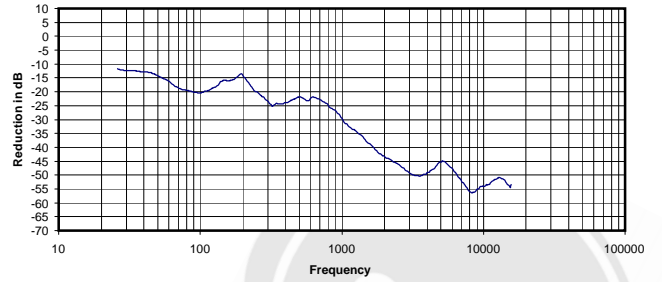
0.066 Vrms
37 Ohms
0.12 mW
-23 dB



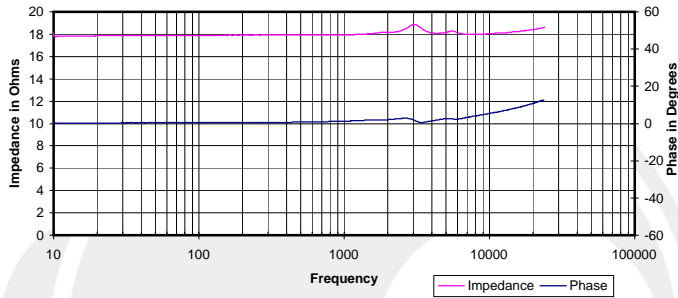
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



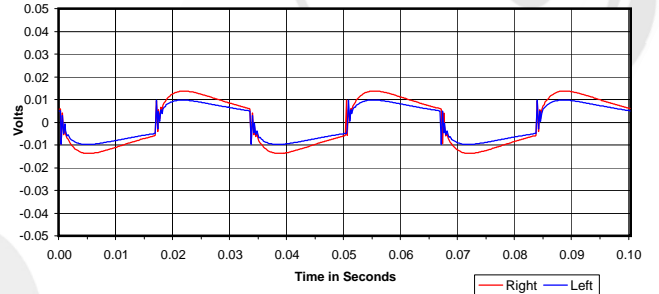
Isolation
Attenuation of External Sound vs. Frequency



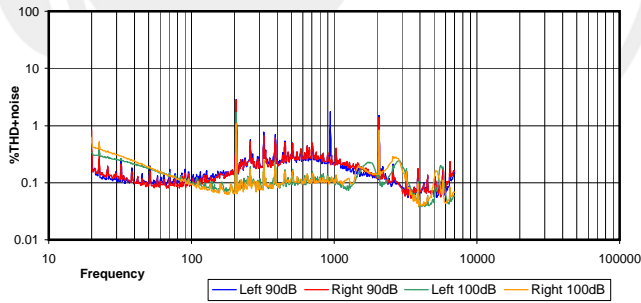
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



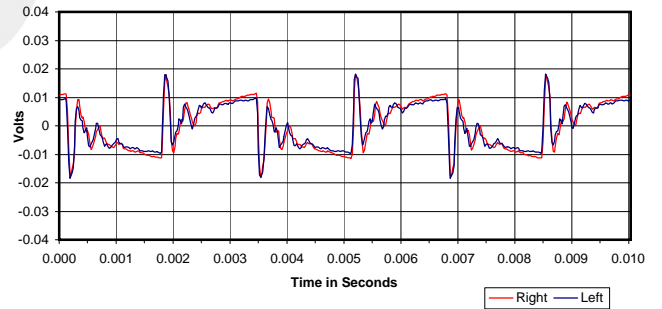
30 Hz Square Wave



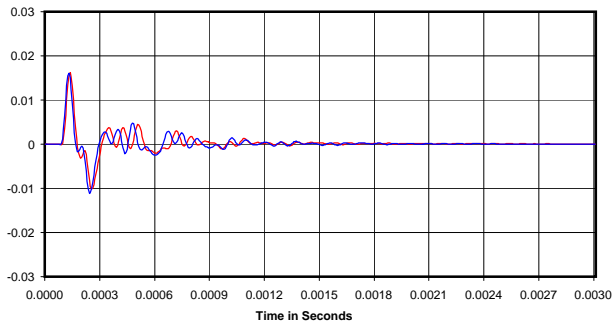
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

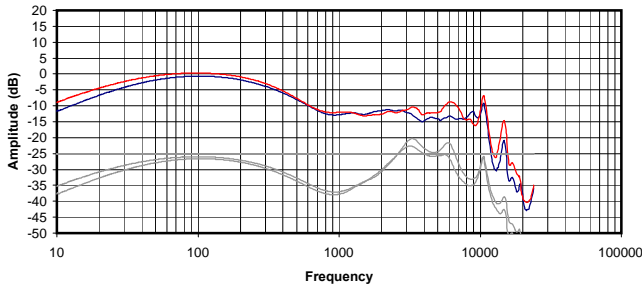


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

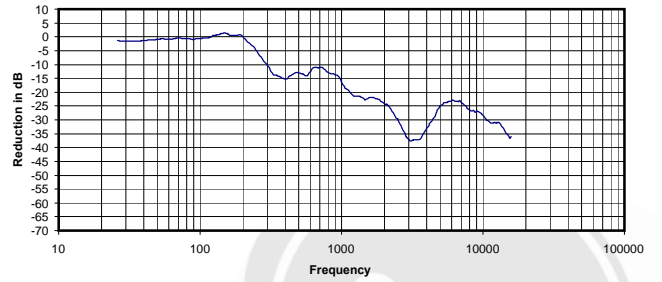
0.043 Vrms
18 Ohms
0.10 mW
-31 dB



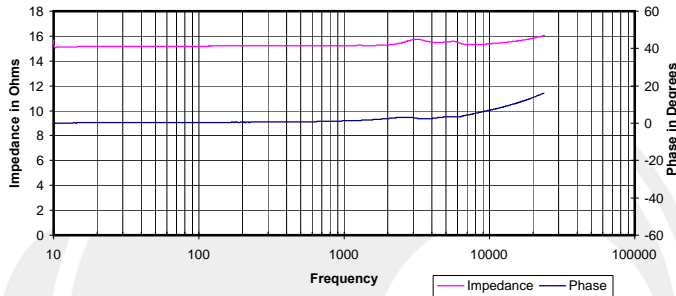
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



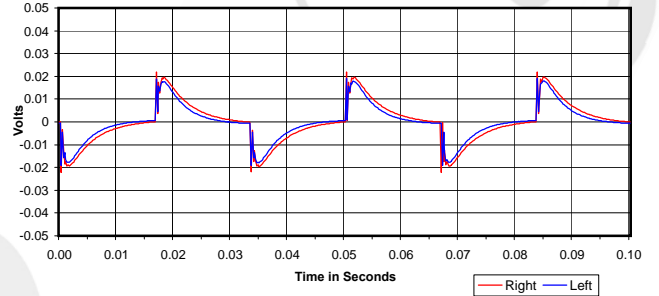
Isolation
Attenuation of External Sound vs. Frequency



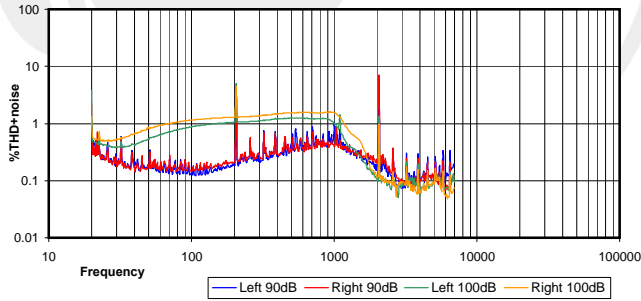
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



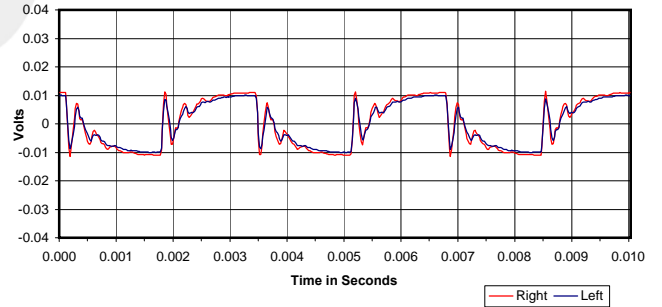
30 Hz Square Wave



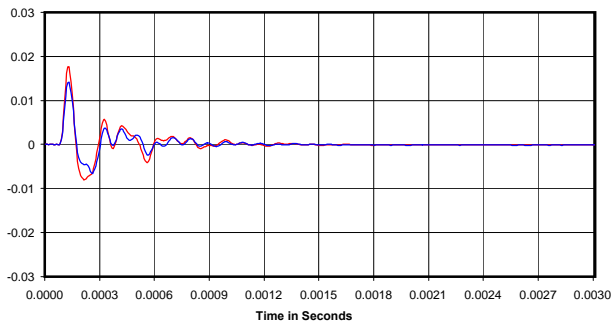
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

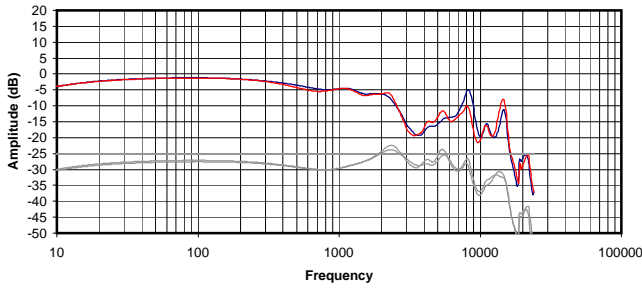


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

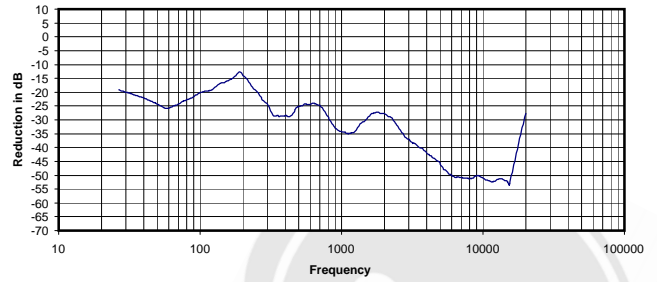
0.046 Vrms
15 Ohms
0.14 mW
-16 dB



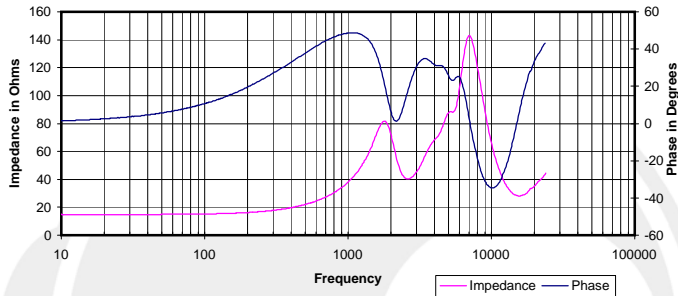
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



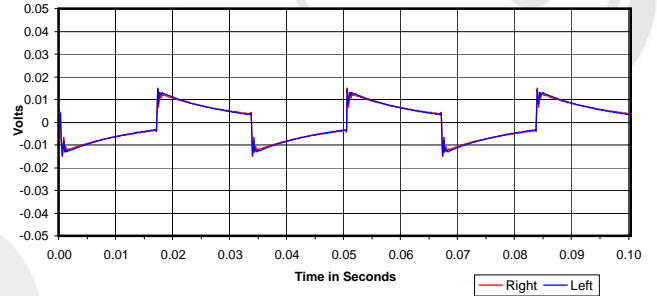
Isolation
Attenuation of External Sound vs. Frequency



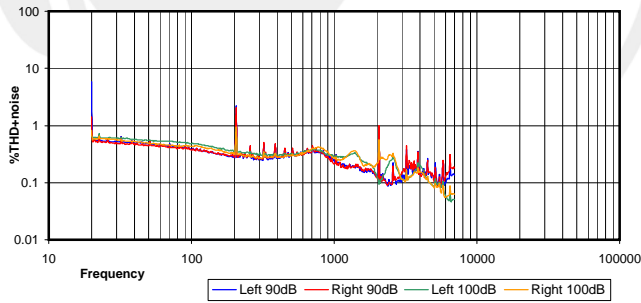
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



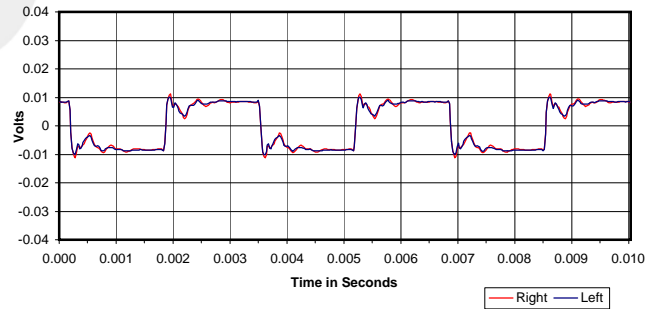
30 Hz Square Wave



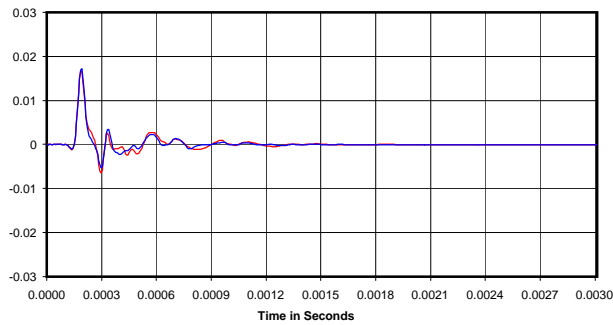
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



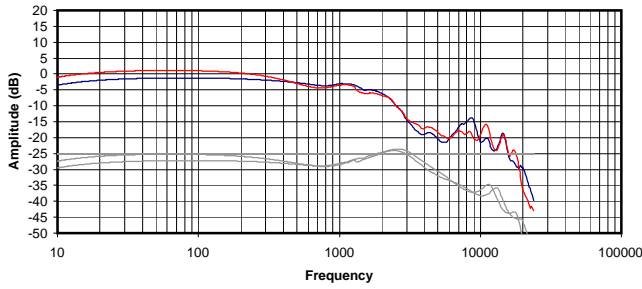
Impulse Response



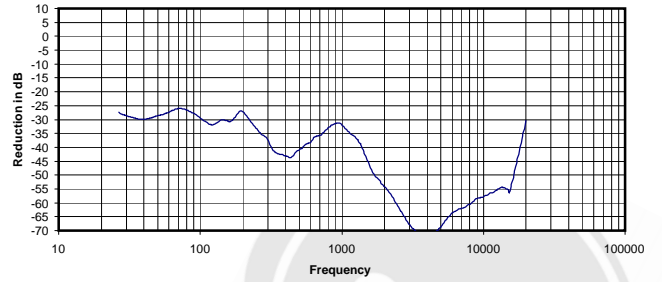
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
38 Ohms
0.01 mW
-31 dB

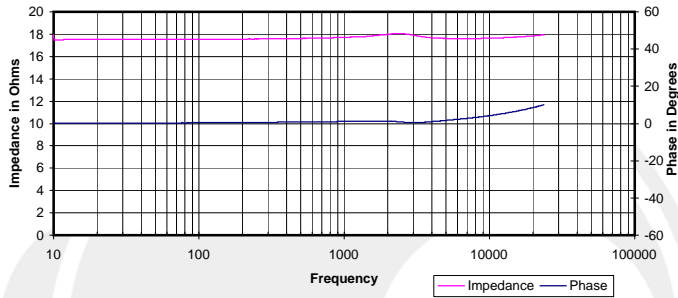
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



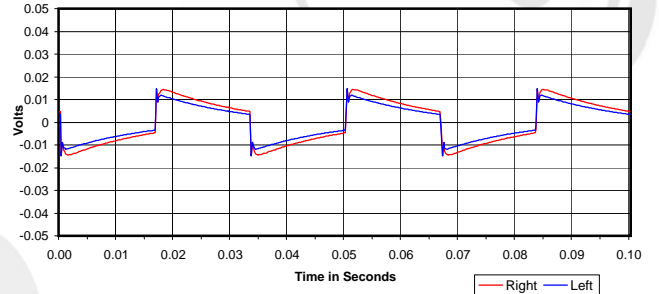
Isolation
Attenuation of External Sound vs. Frequency



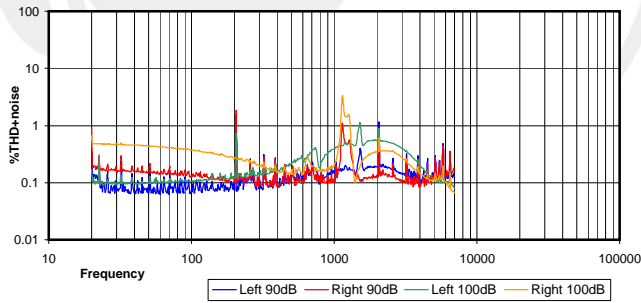
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



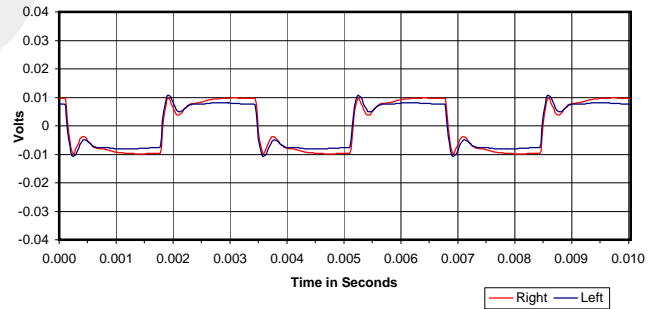
30 Hz Square Wave



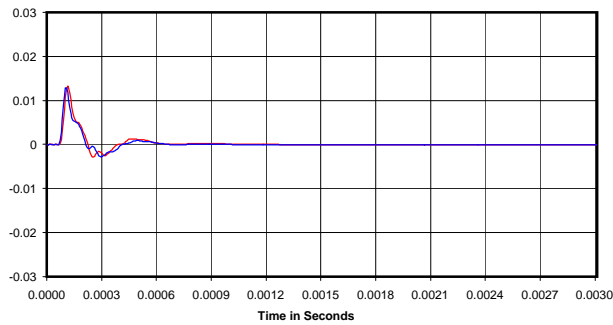
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

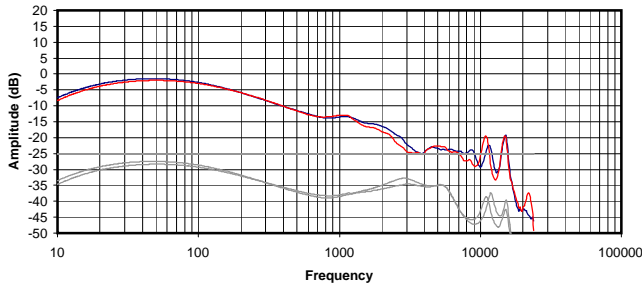


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

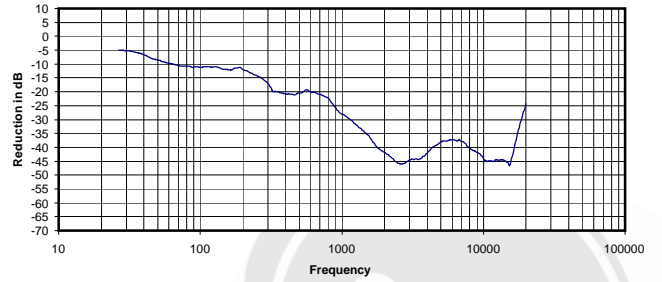
0.040 Vrms
18 Ohms
0.09 mW
-47 dB



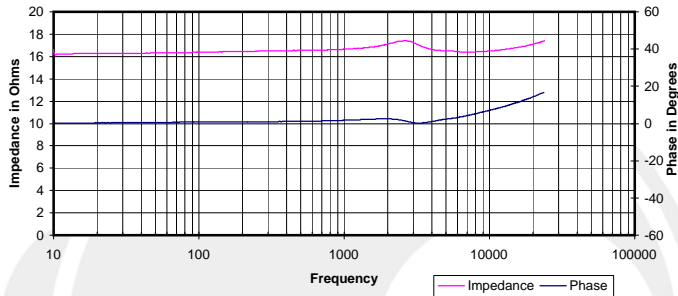
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



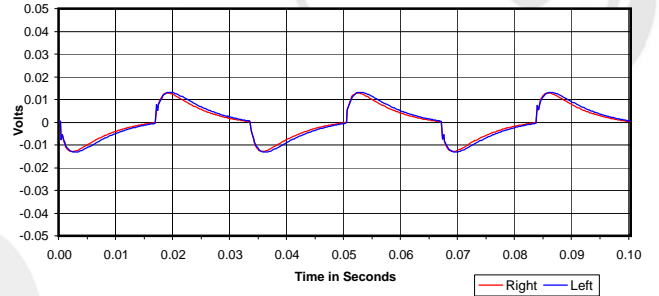
Isolation
Attenuation of External Sound vs. Frequency



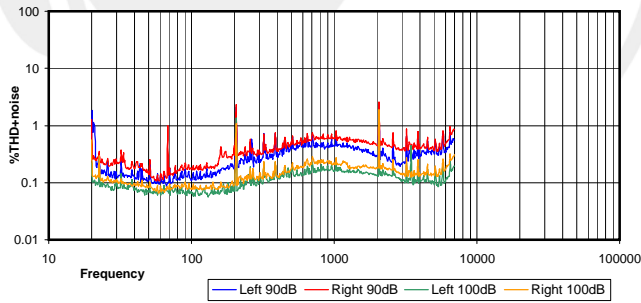
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



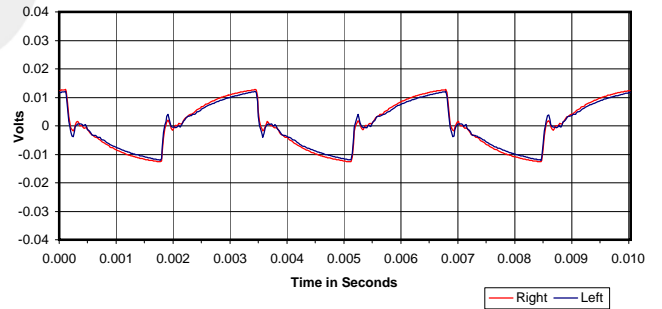
30 Hz Square Wave



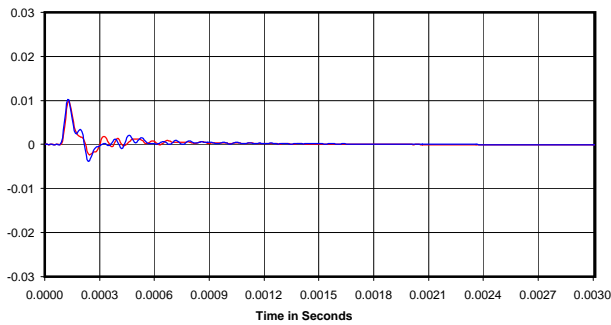
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

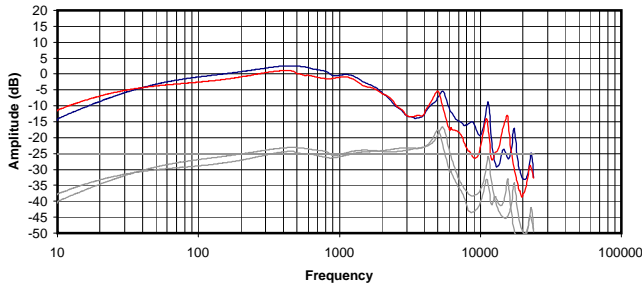


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

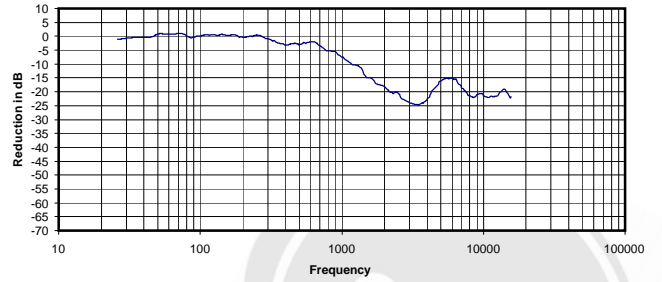
0.023 Vrms
17 Ohms
0.03 mW
-28 dB



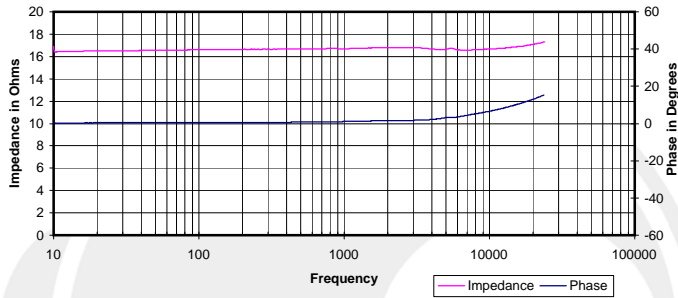
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



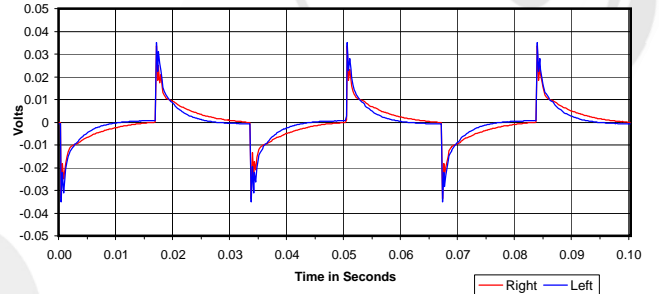
Isolation
Attenuation of External Sound vs. Frequency



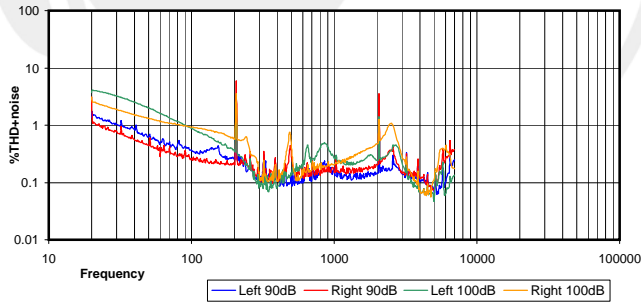
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



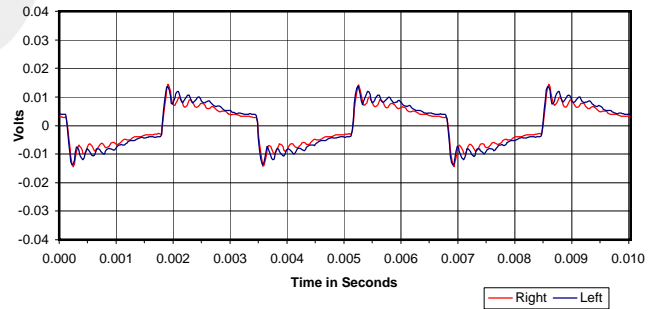
30 Hz Square Wave



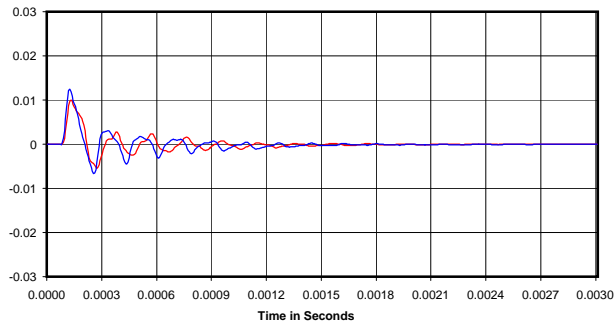
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

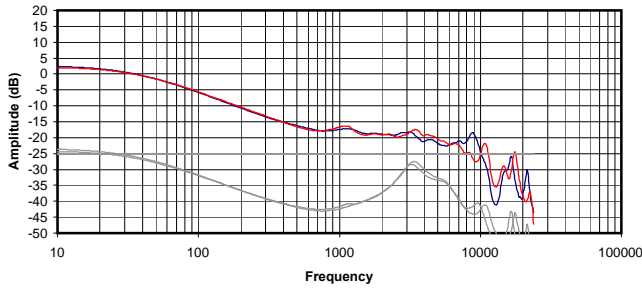


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

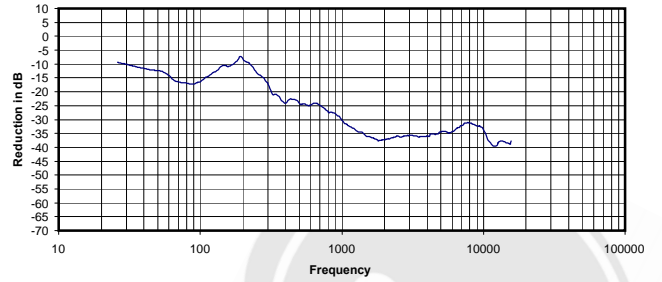
0.024 Vrms
17 Ohms
0.03 mW
-8 dB



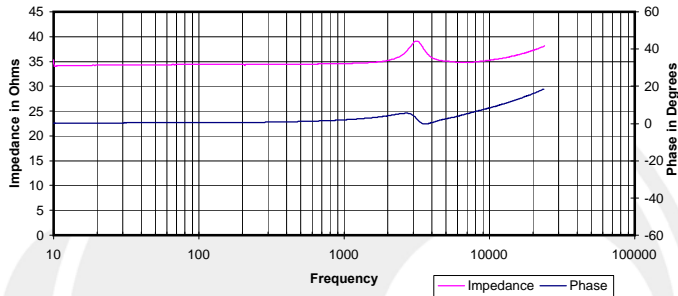
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



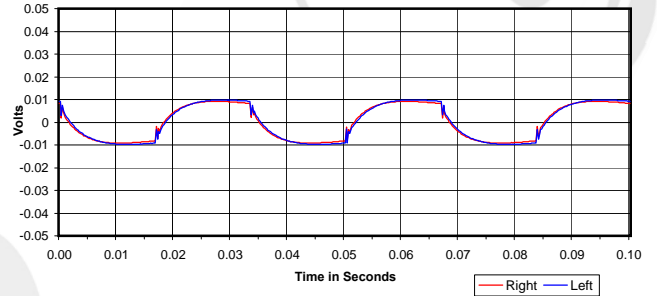
Isolation
Attenuation of External Sound vs. Frequency



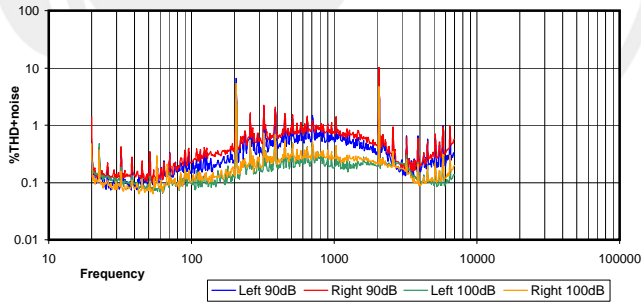
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



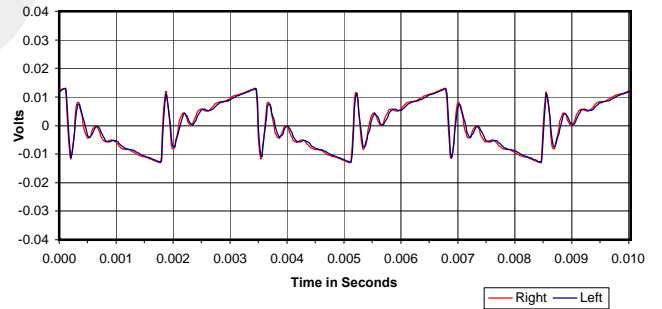
30 Hz Square Wave



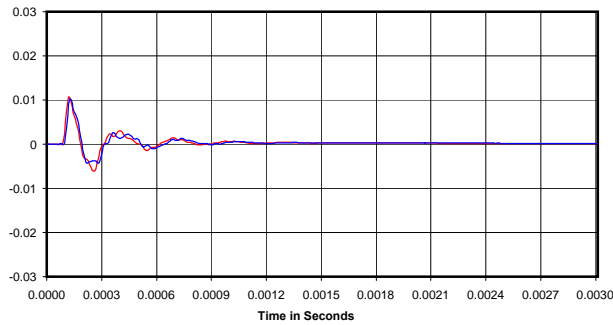
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

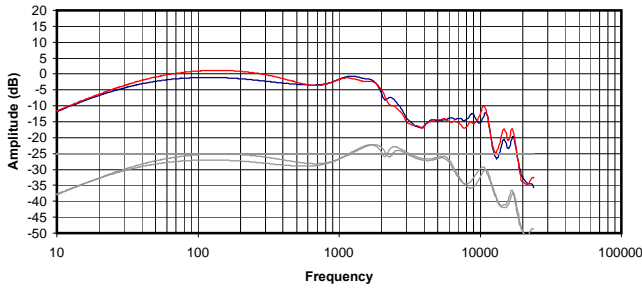


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

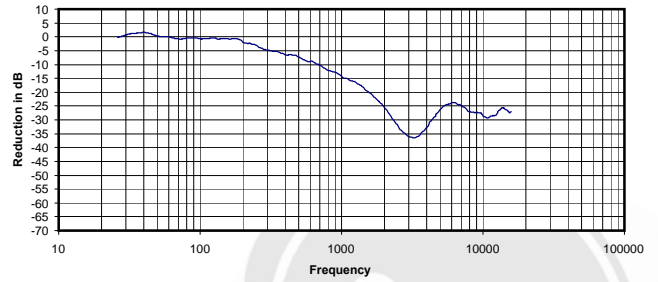
0.048 Vrms
35 Ohms
0.07 mW
-26 dB



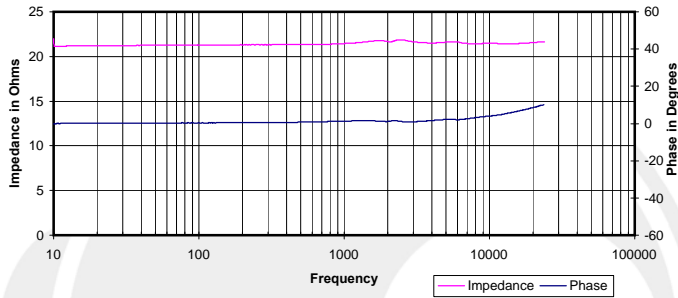
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



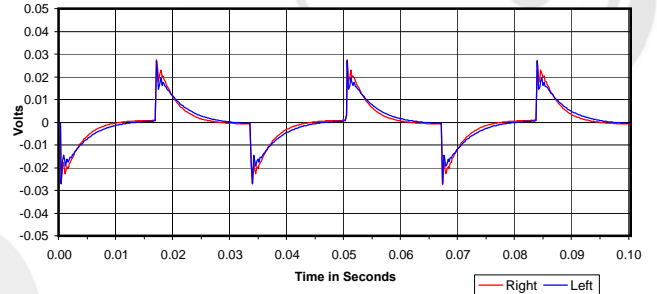
Isolation
Attenuation of External Sound vs. Frequency



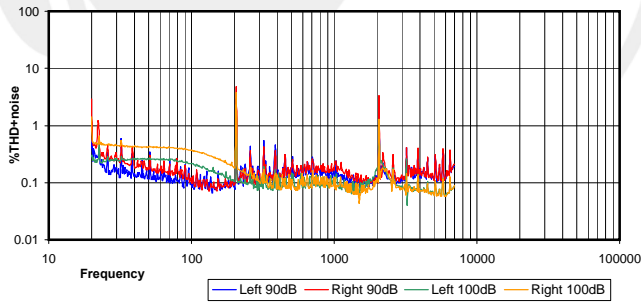
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



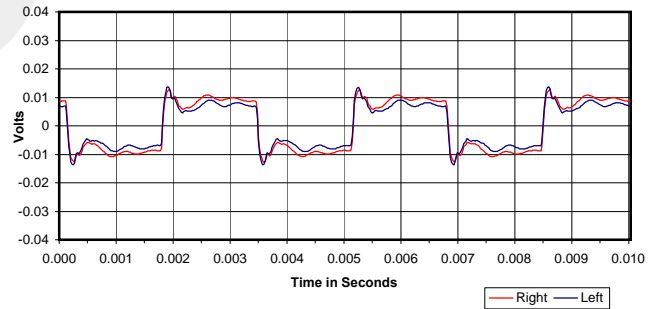
30 Hz Square Wave



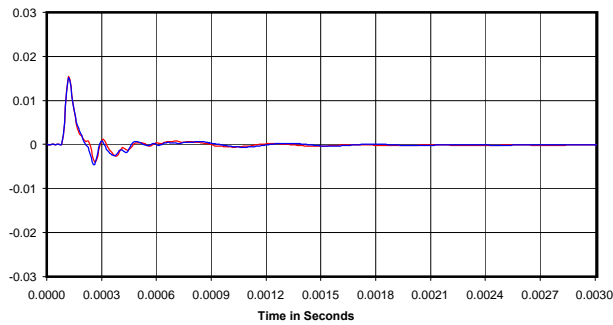
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



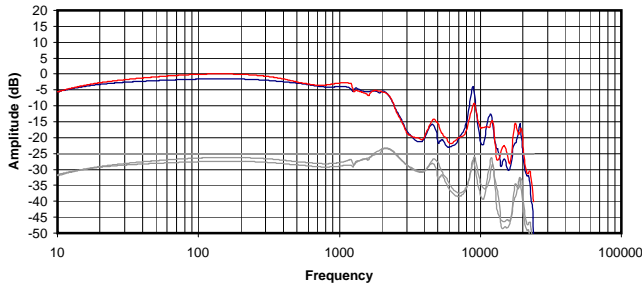
Impulse Response



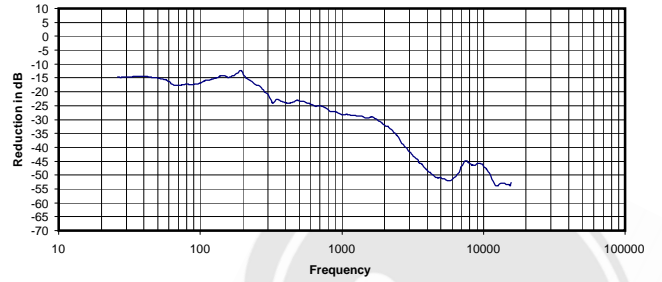
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
21 Ohms
0.01 mW
-14 dB

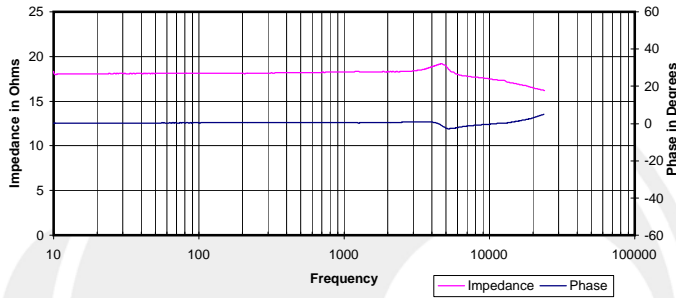
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



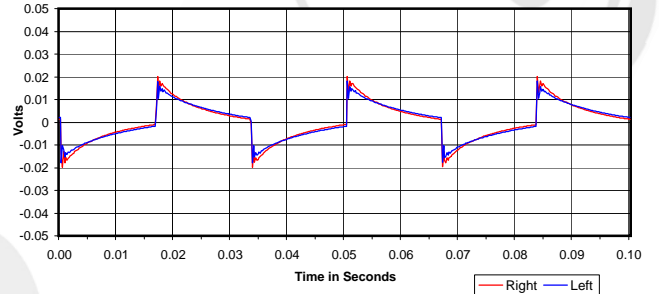
Isolation
Attenuation of External Sound vs. Frequency



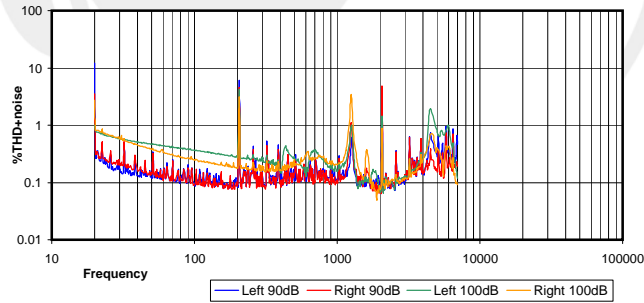
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



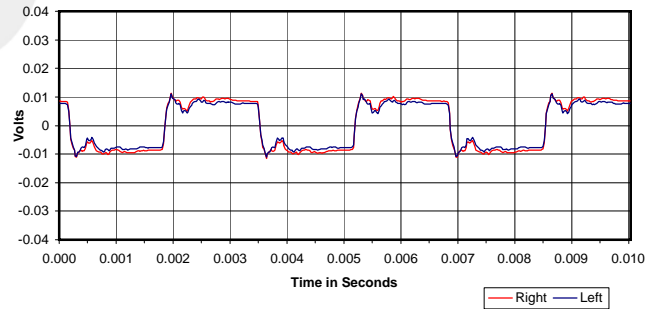
30 Hz Square Wave



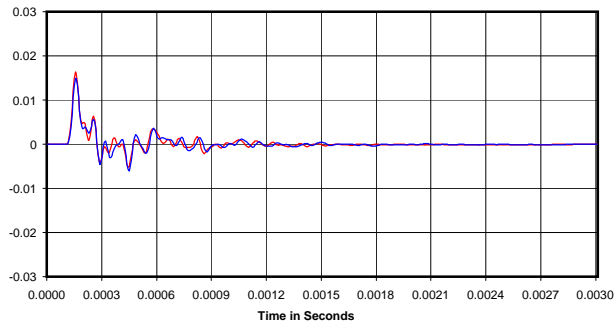
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



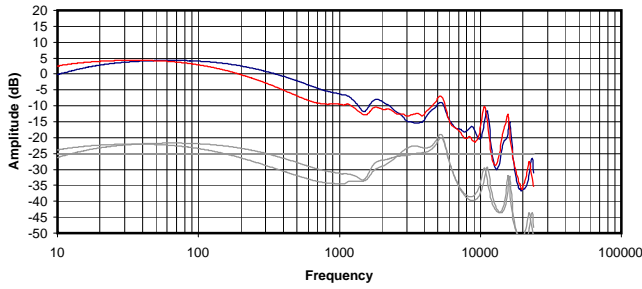
Impulse Response



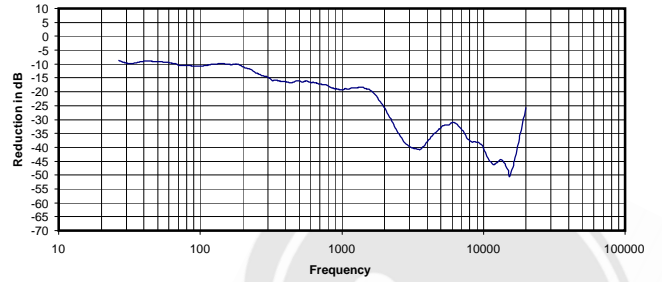
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
18 Ohms
0.07 mW
-28 dB

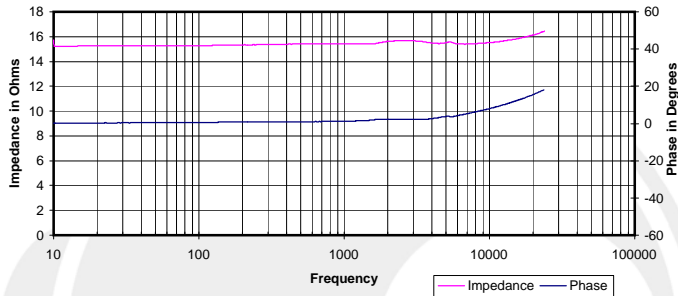
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



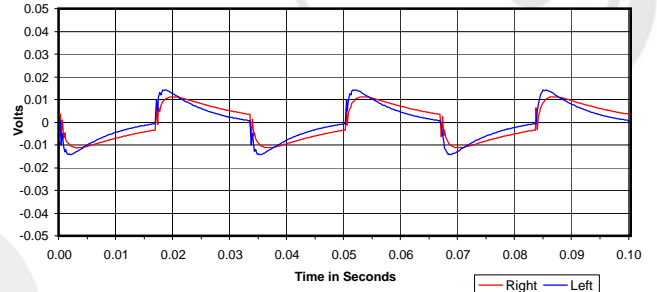
Isolation
Attenuation of External Sound vs. Frequency



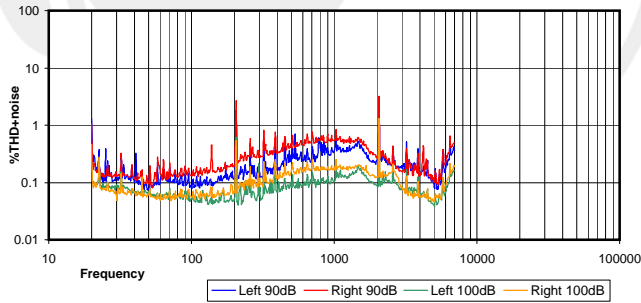
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



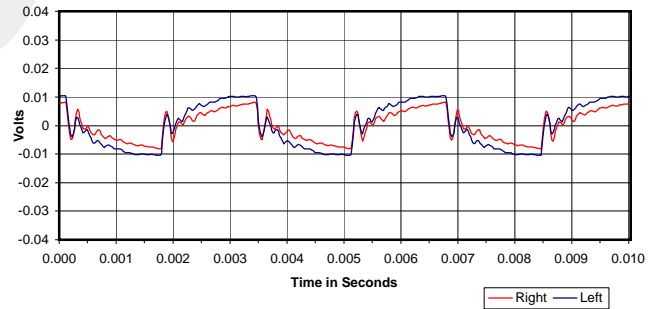
30 Hz Square Wave



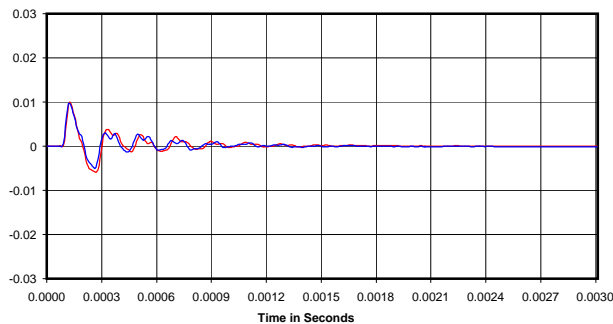
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



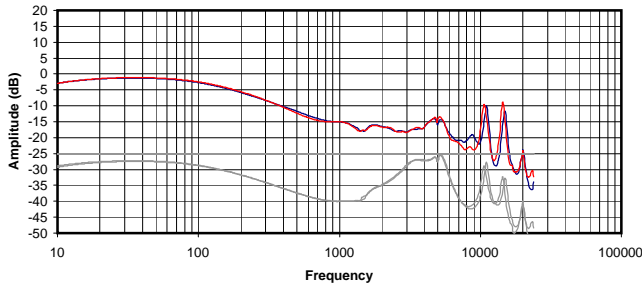
Impulse Response



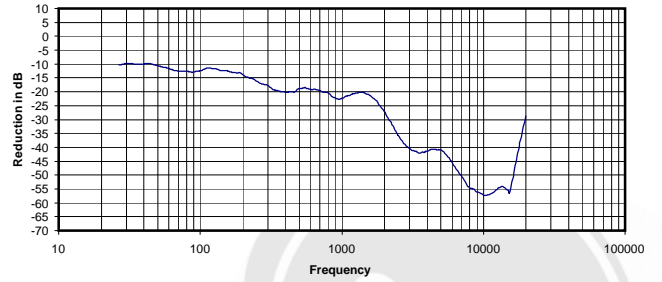
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
15 Ohms
0.05 mW
-23 dB

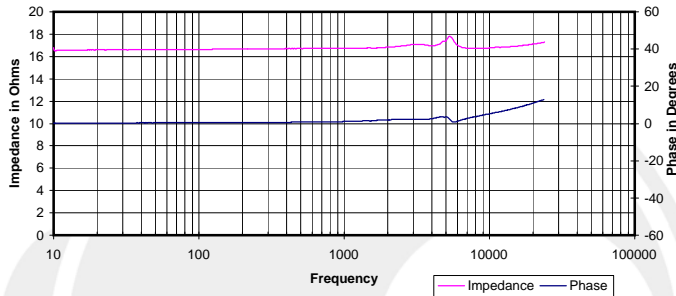
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



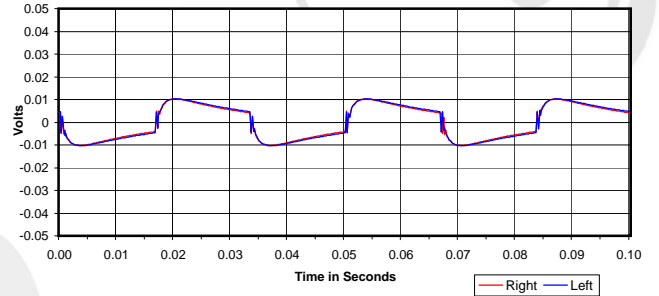
Isolation
Attenuation of External Sound vs. Frequency



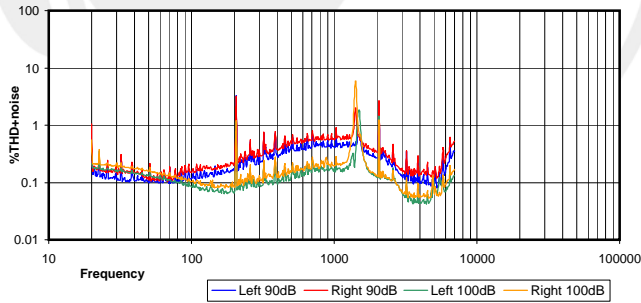
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



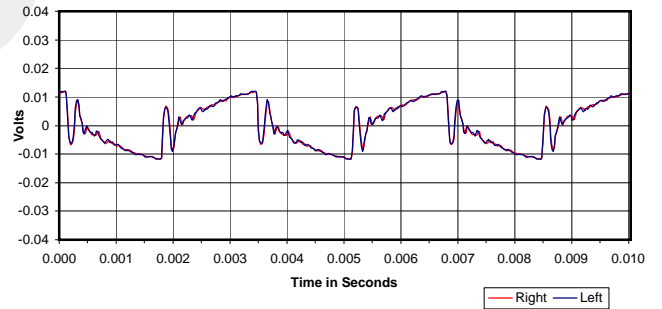
30 Hz Square Wave



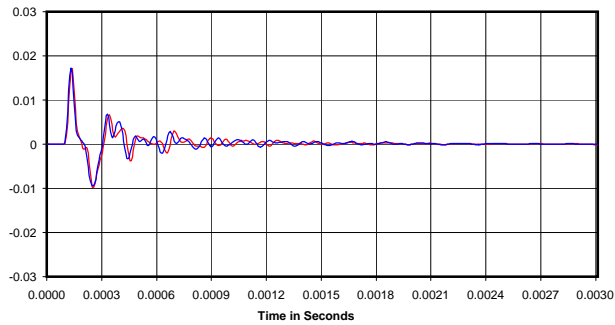
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

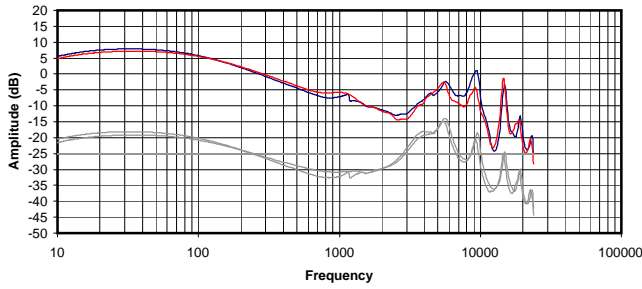


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

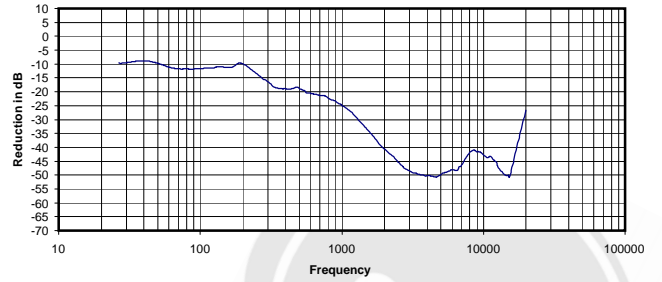
0.034 Vrms
17 Ohms
0.07 mW
-27 dB



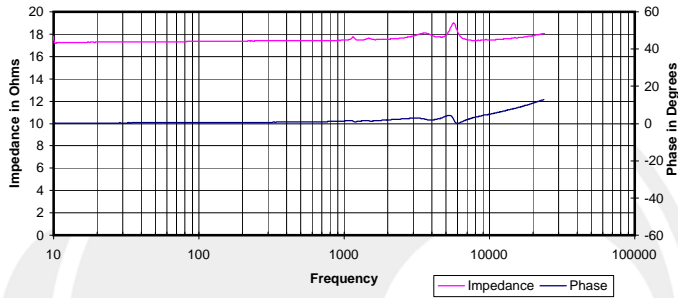
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



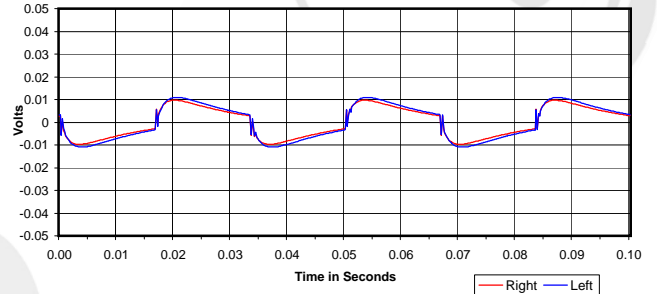
Isolation
Attenuation of External Sound vs. Frequency



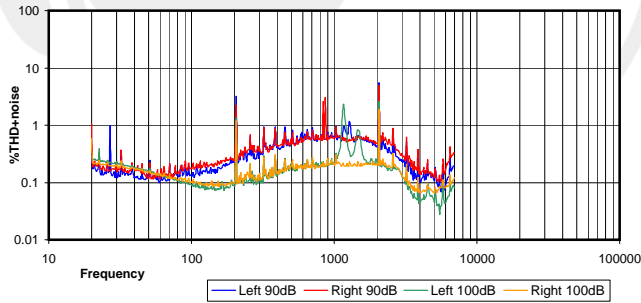
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



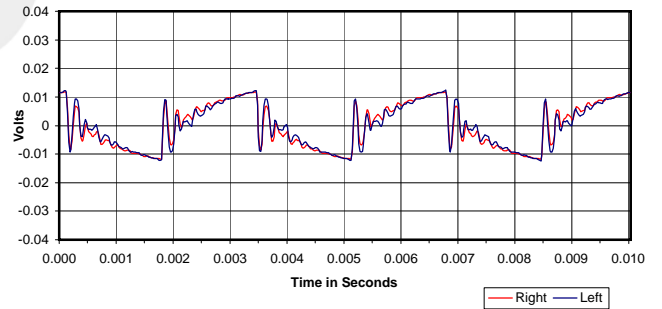
30 Hz Square Wave



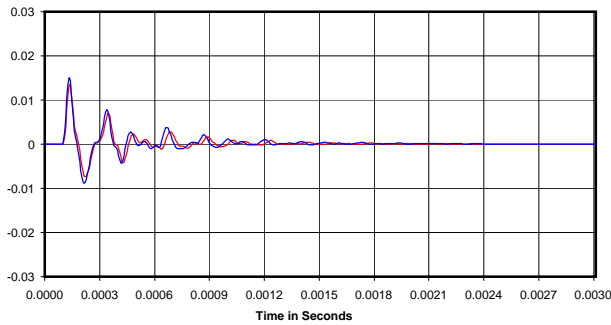
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

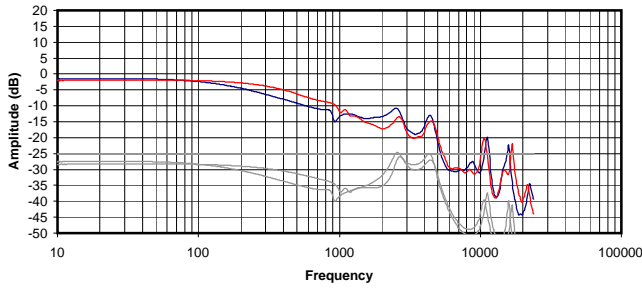


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

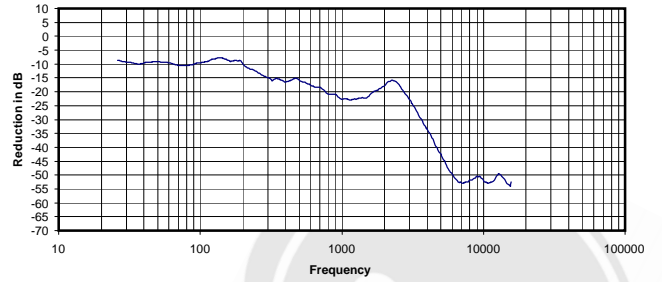
0.035 Vrms
17 Ohms
0.07 mW
-29 dB



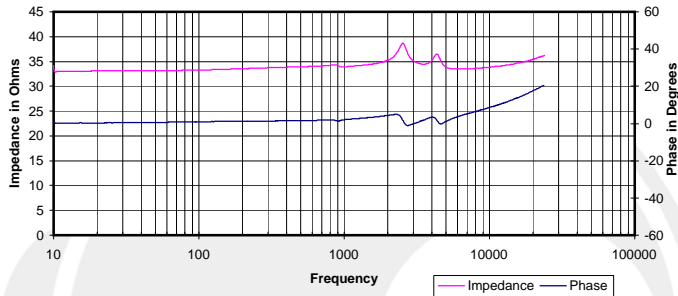
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



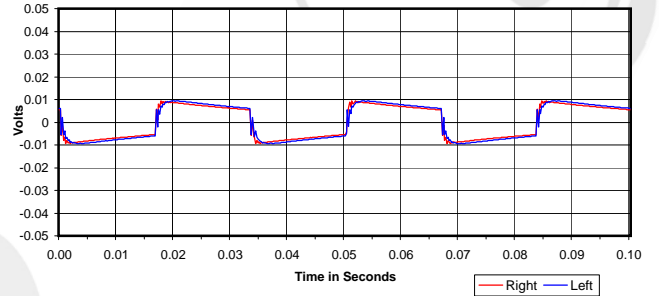
Isolation
Attenuation of External Sound vs. Frequency



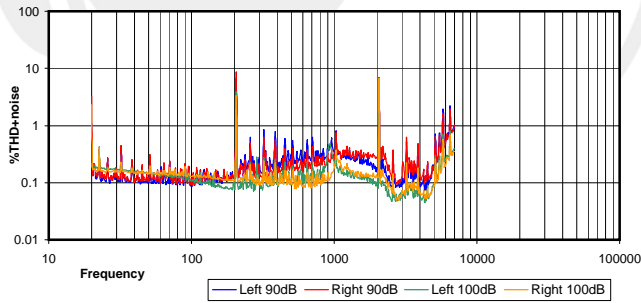
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



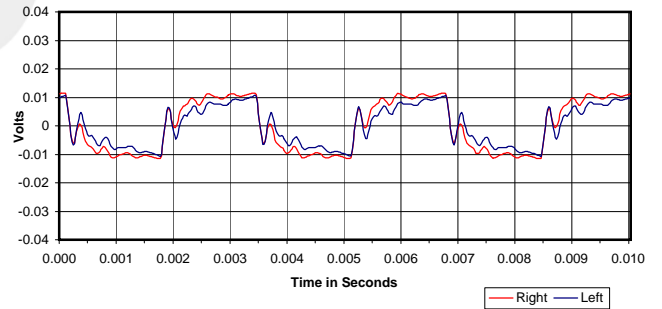
30 Hz Square Wave



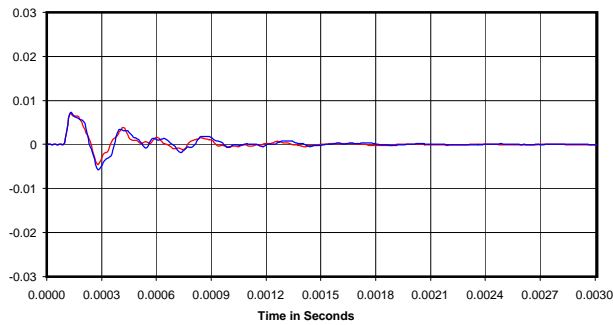
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

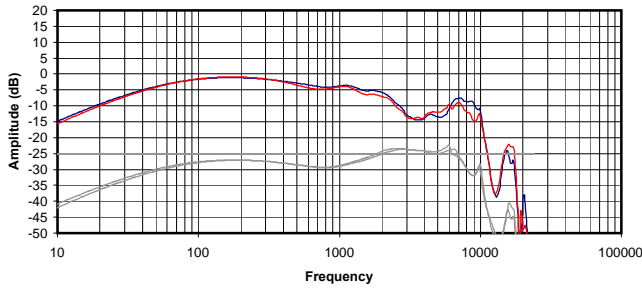


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

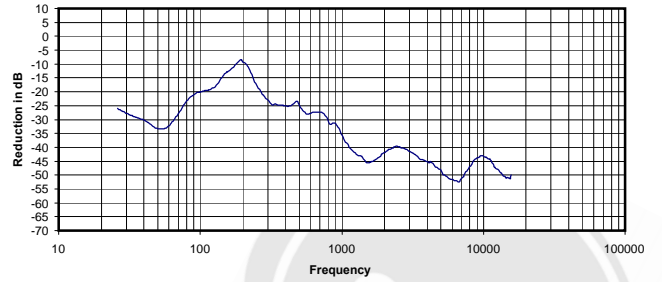
0.022 Vrms
34 Ohms
0.01 mW
-20 dB



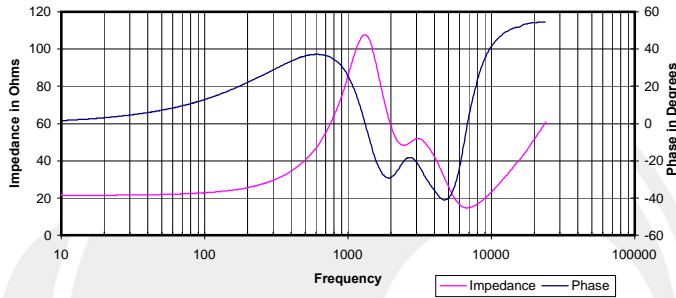
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



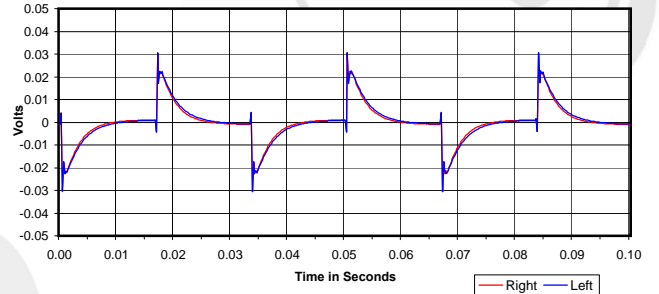
Isolation
Attenuation of External Sound vs. Frequency



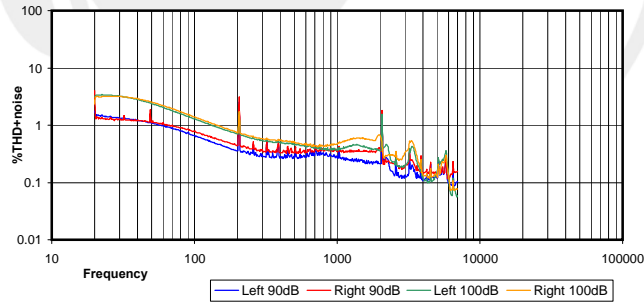
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



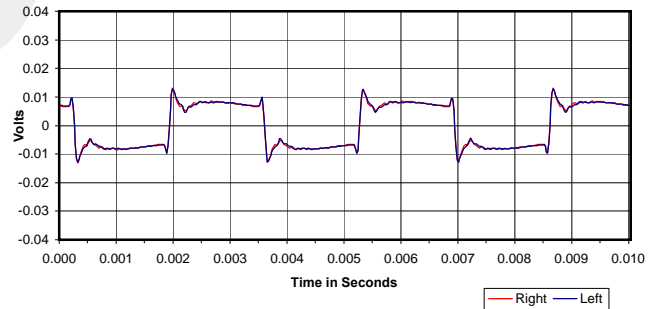
30 Hz Square Wave



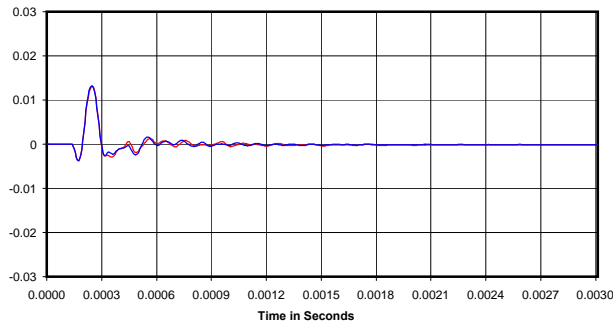
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



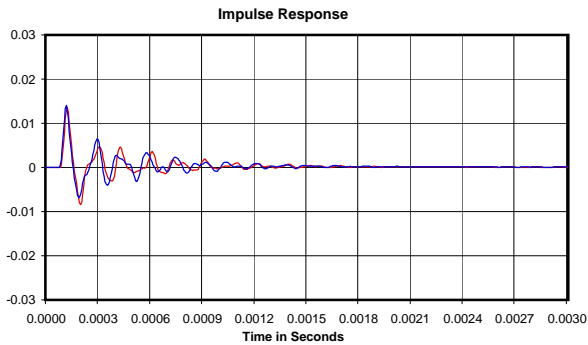
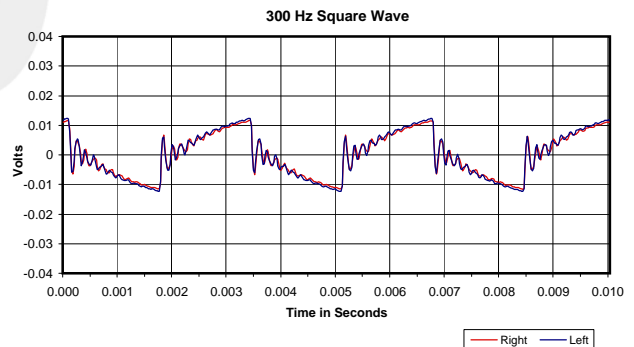
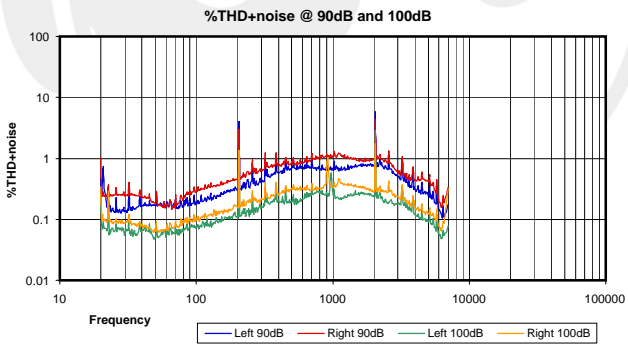
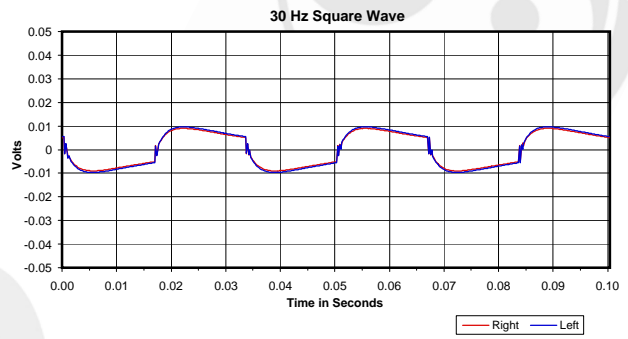
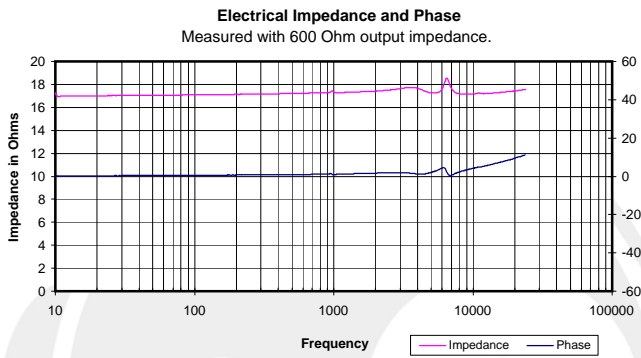
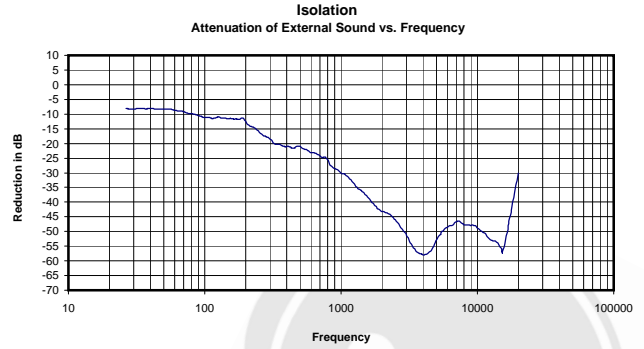
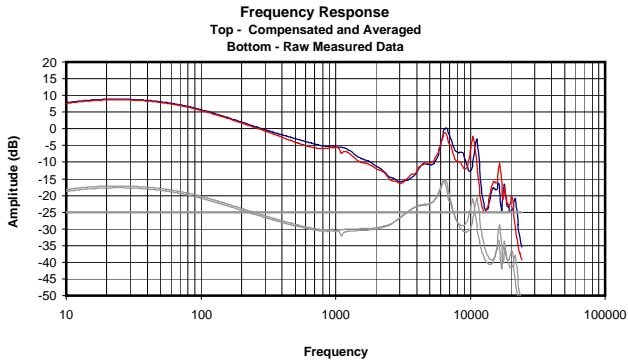
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.014 Vrms
86 Ohms
0.00 mW
-31 dB





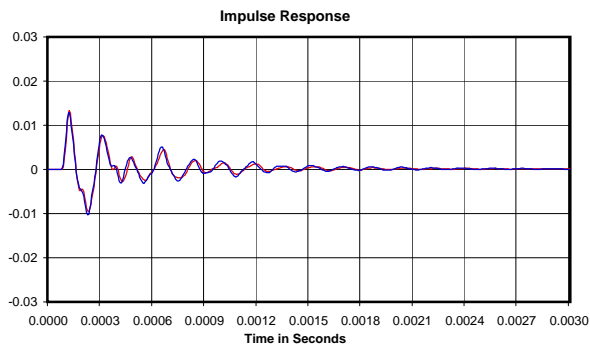
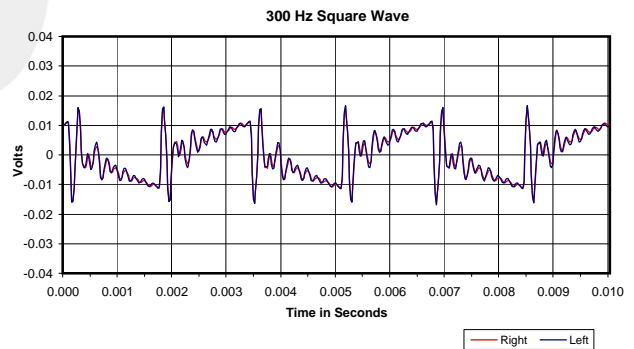
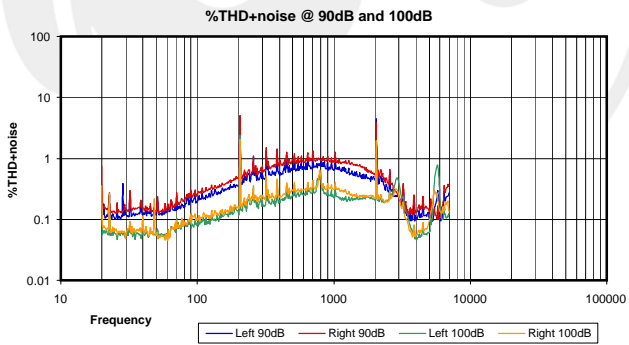
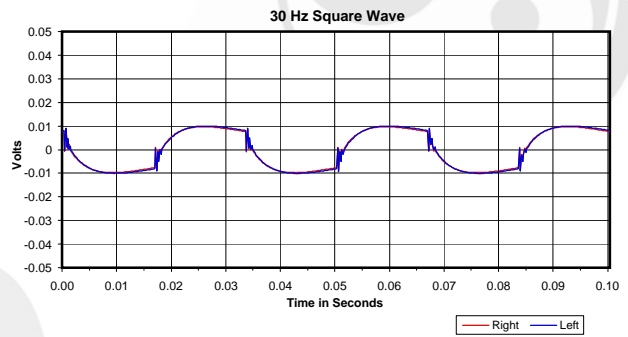
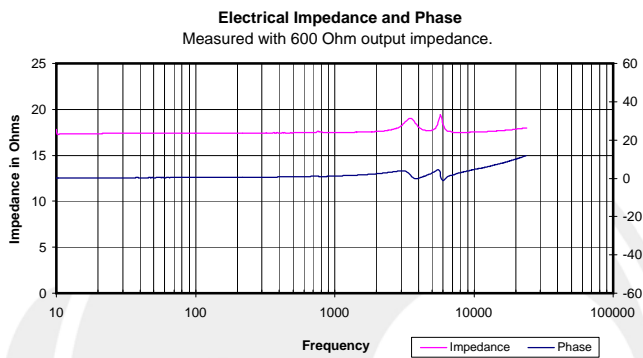
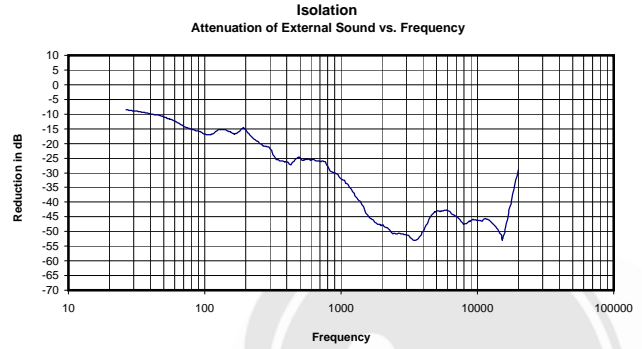
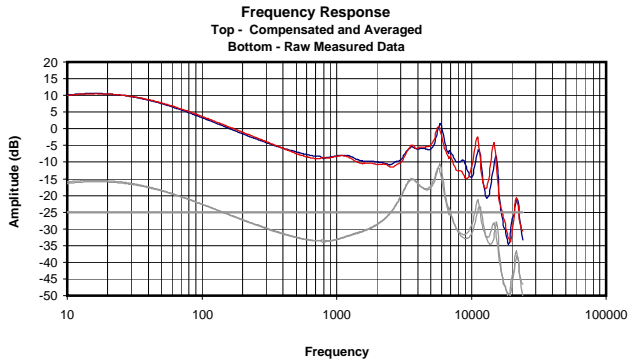
Headphone Measurements: **Cyberdrive Forte Impact Bass**



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
17 Ohms
0.02 mW
-32 dBr

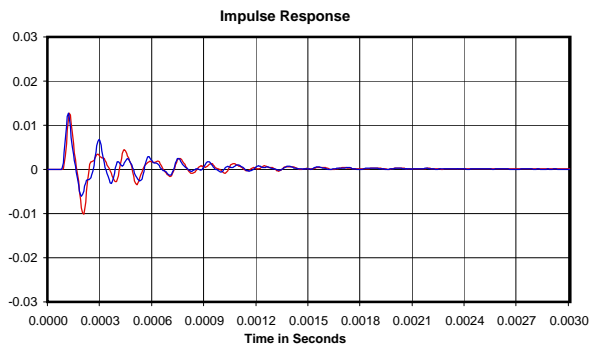
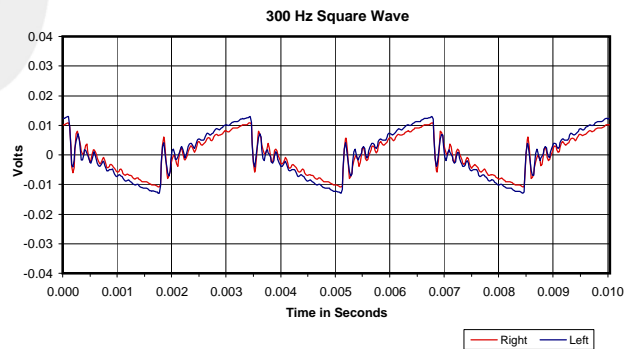
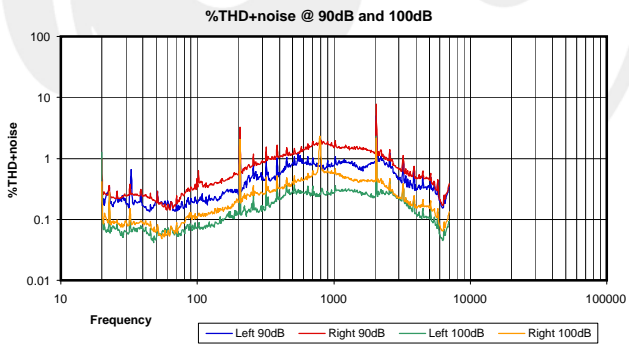
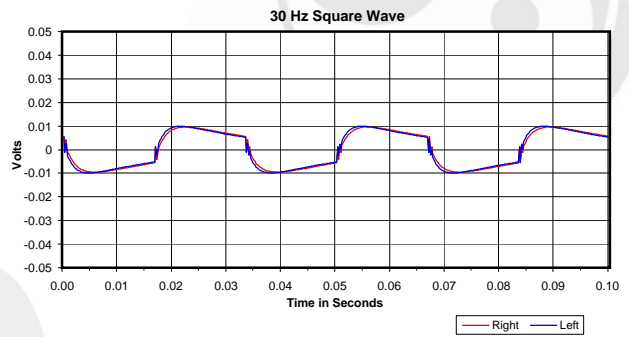
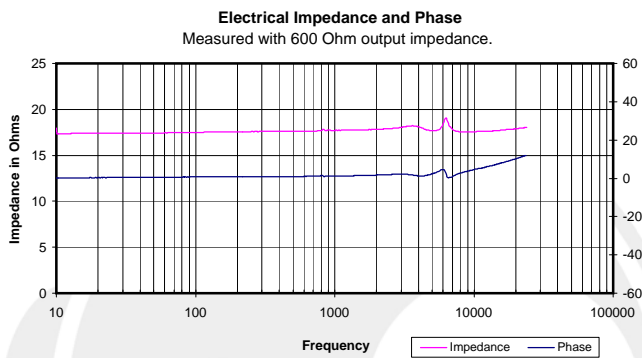
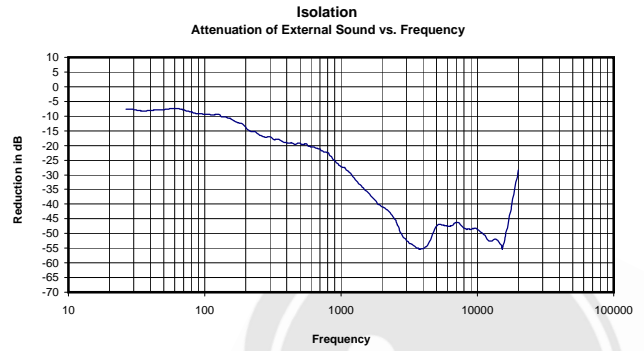
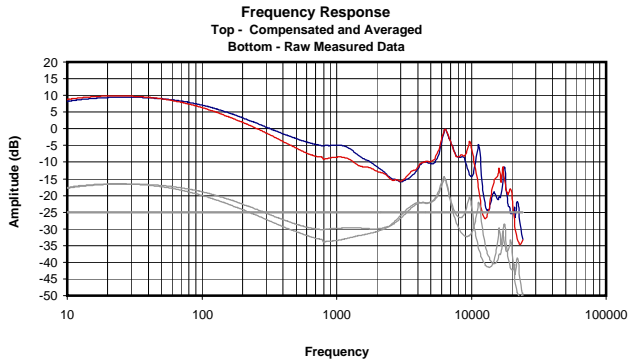




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
17 Ohms
0.07 mW
-34 dBr

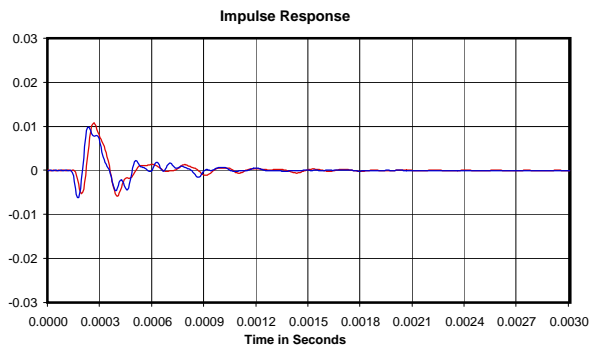
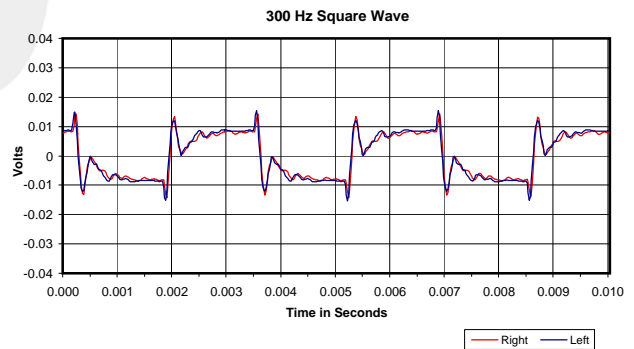
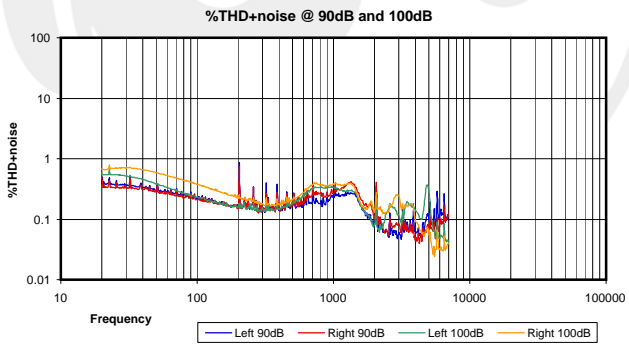
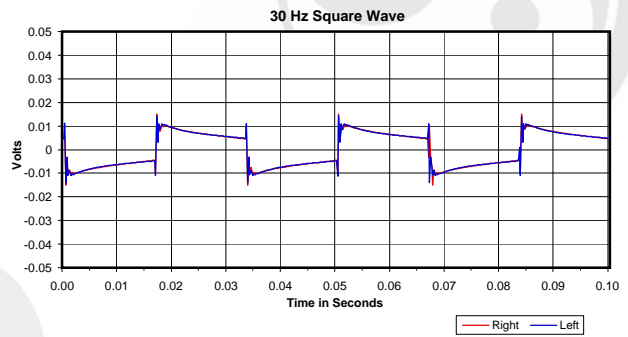
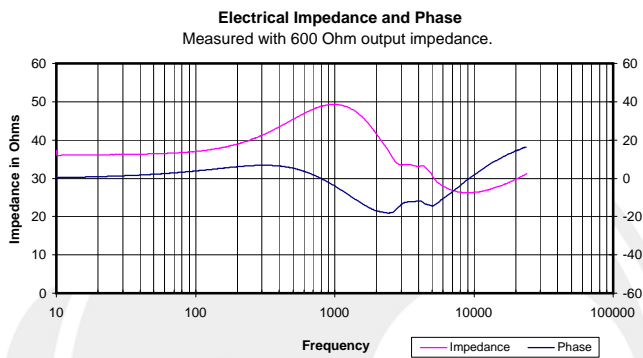
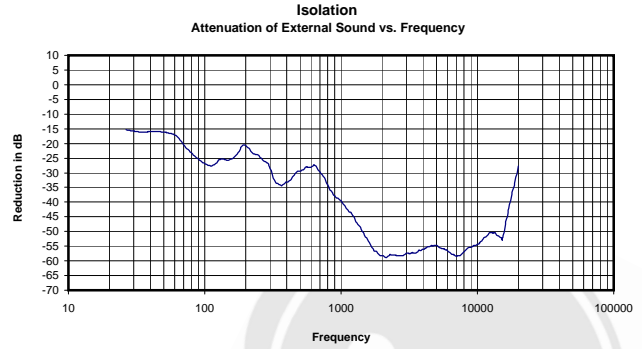
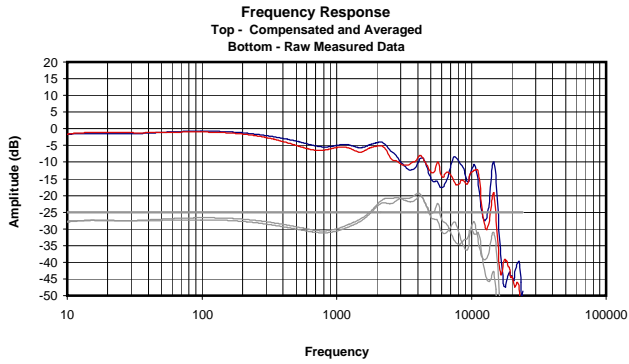




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
18 Ohms
0.02 mW
-31 dB

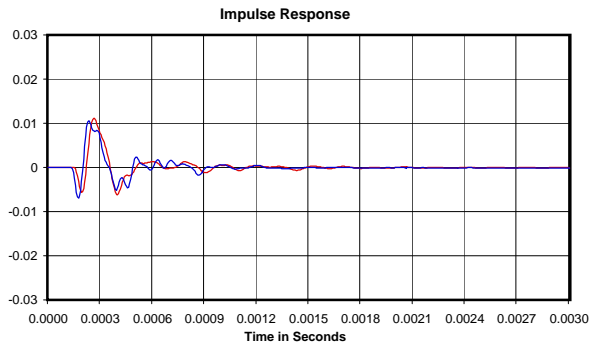
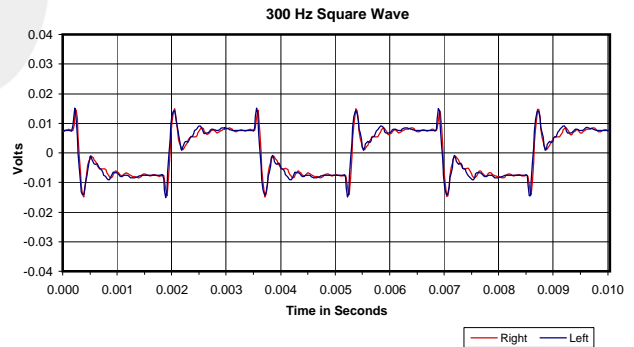
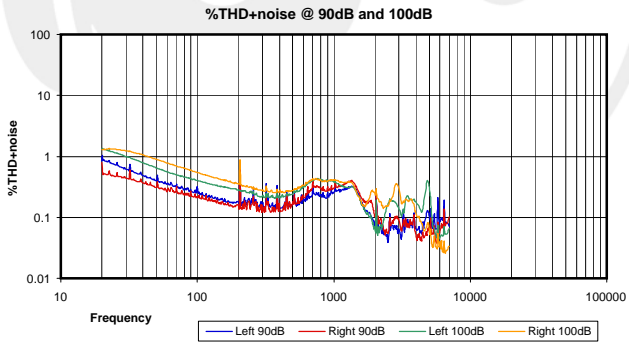
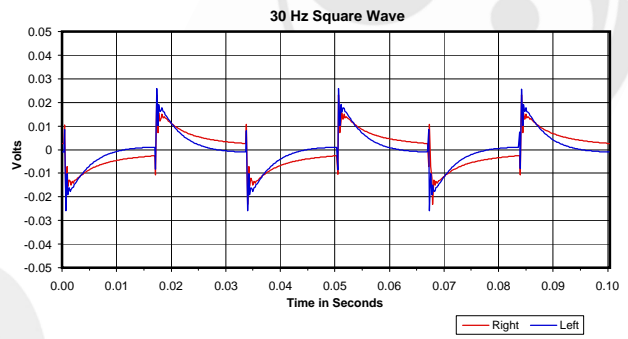
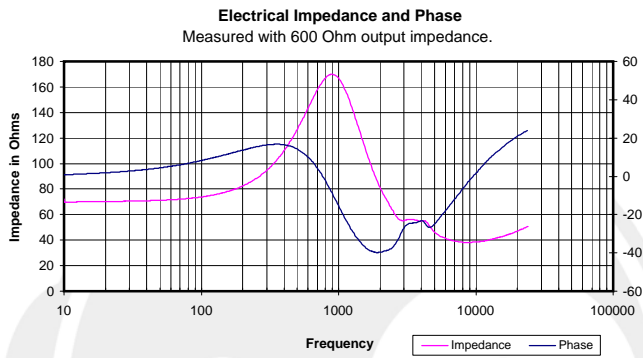
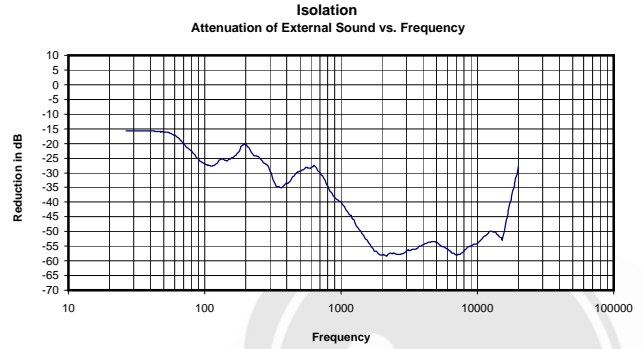
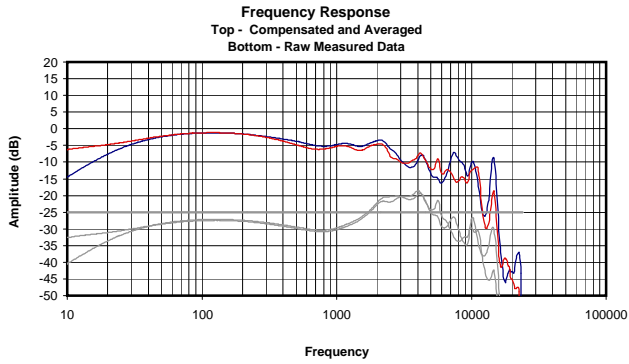




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

4.412 Vrms
49 Ohms
395.30 mW
-42 dB



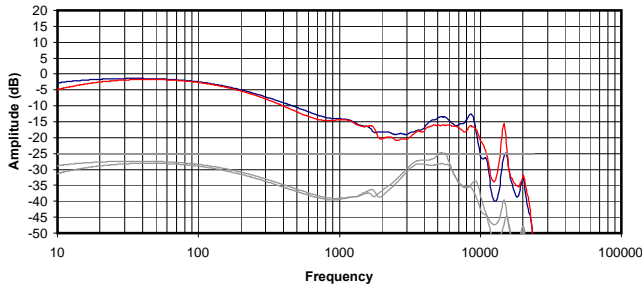


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

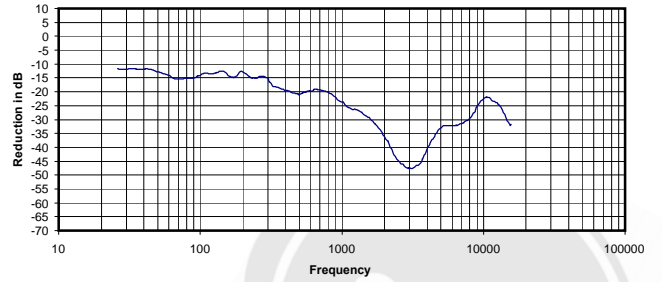
0.034 Vrms
166 Ohms
0.01 mW
-42 dB



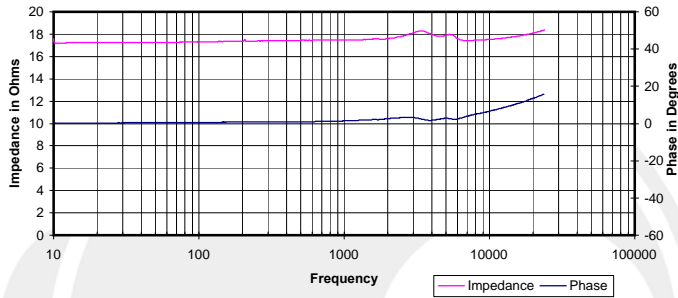
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



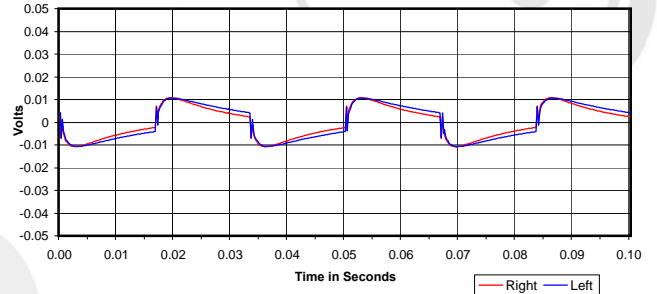
Isolation
Attenuation of External Sound vs. Frequency



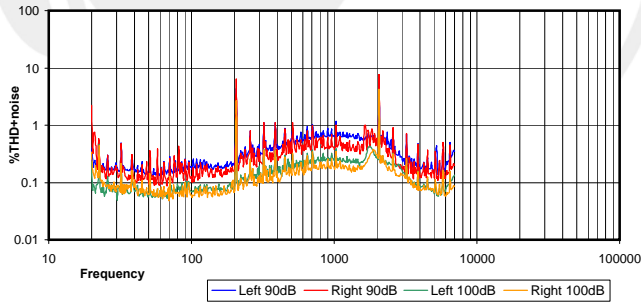
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



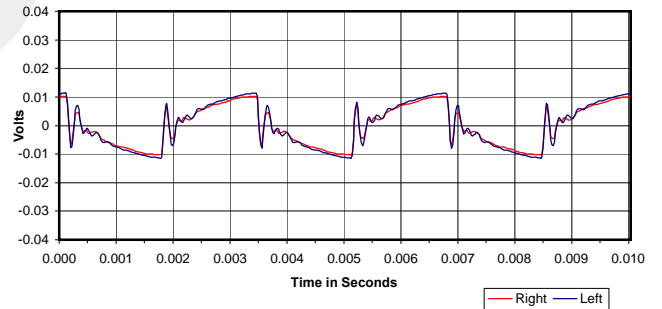
30 Hz Square Wave



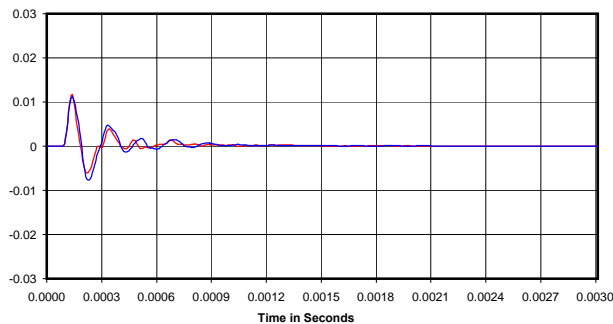
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

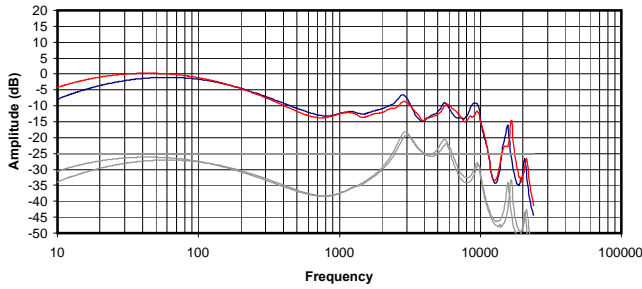


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

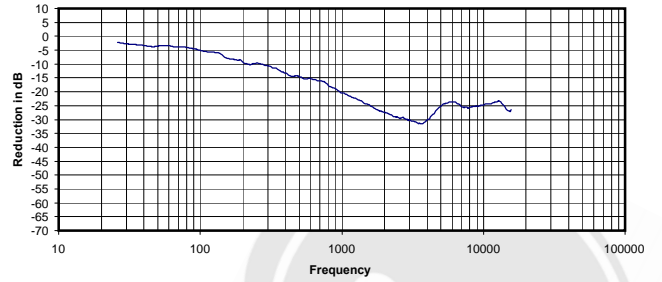
0.036 Vrms
17 Ohms
0.08 mW
-25 dB



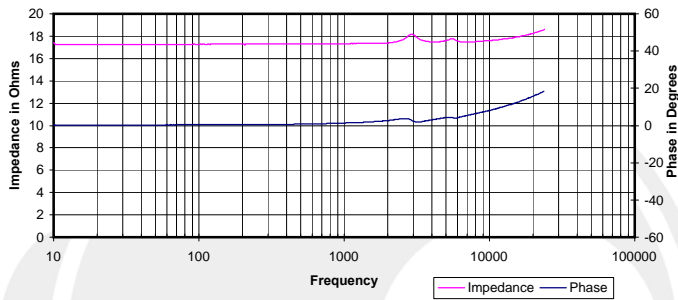
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



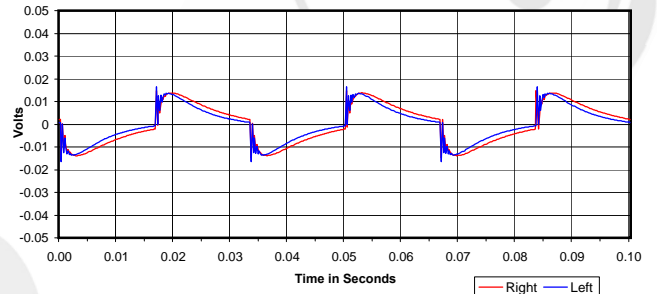
Isolation
Attenuation of External Sound vs. Frequency



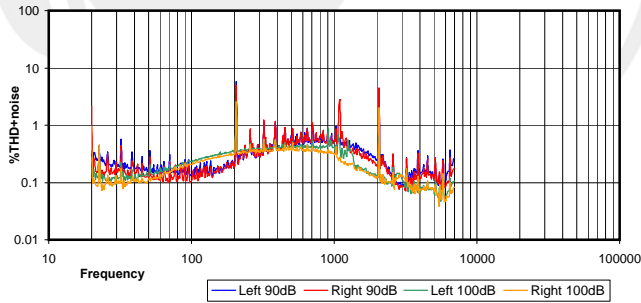
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



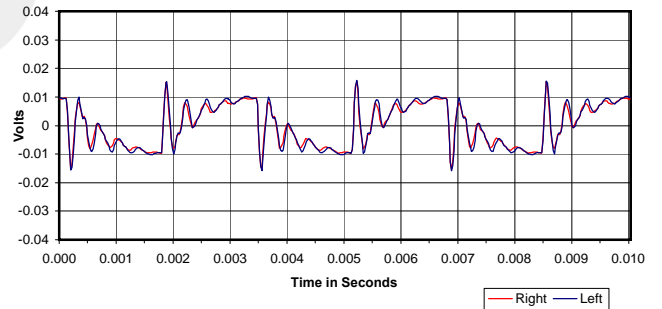
30 Hz Square Wave



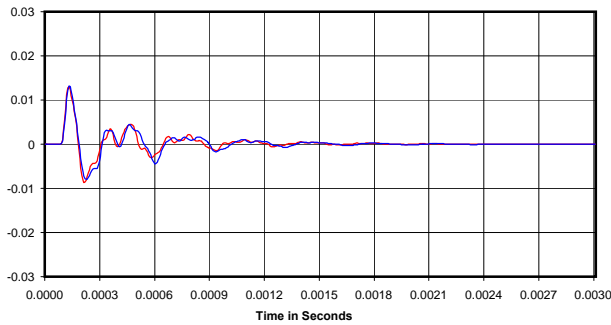
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

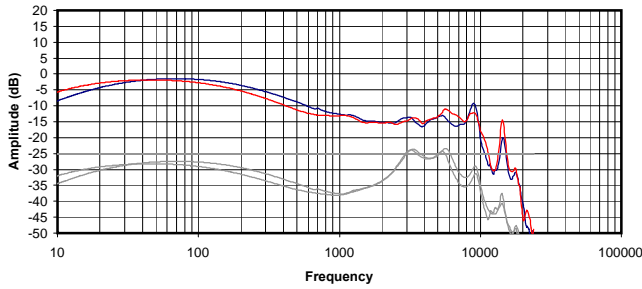


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

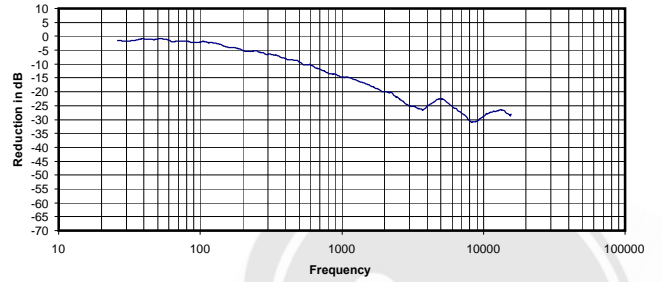
0.045 Vrms
17 Ohms
0.12 mW
-18 dB



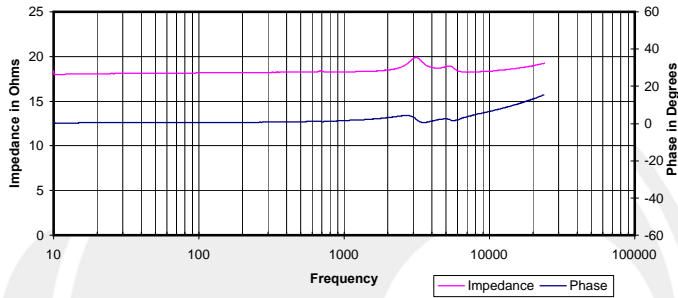
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



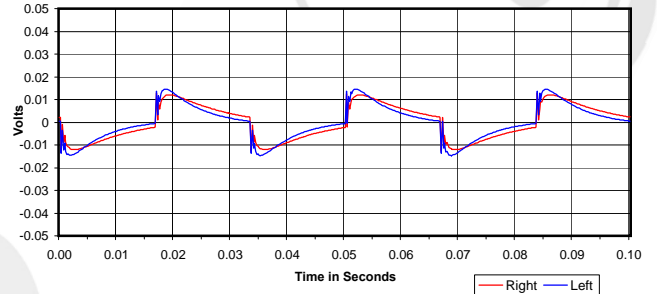
Isolation
Attenuation of External Sound vs. Frequency



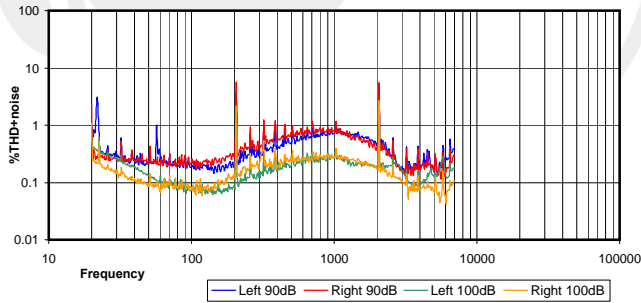
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



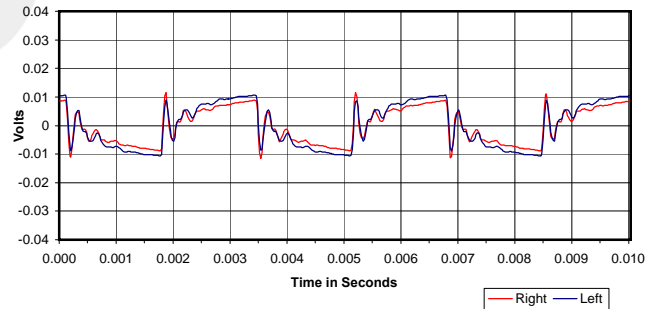
30 Hz Square Wave



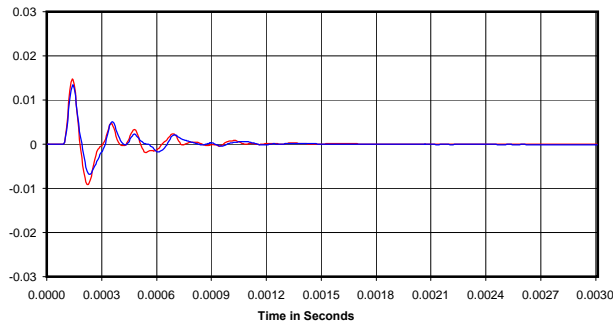
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

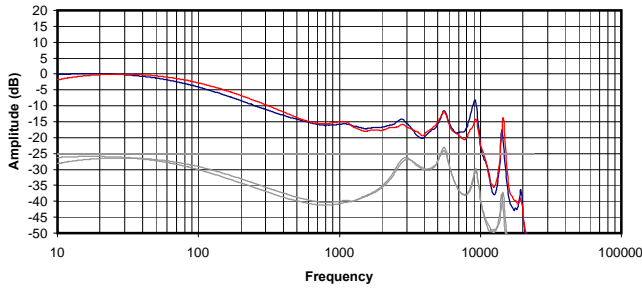


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

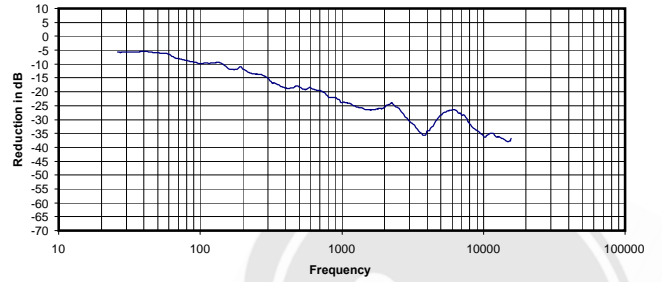
0.027 Vrms
18 Ohms
0.04 mW
-13 dB



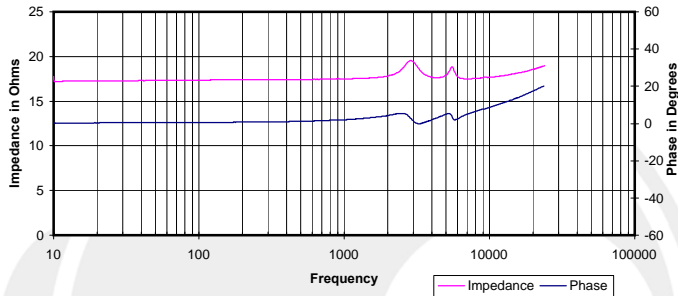
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



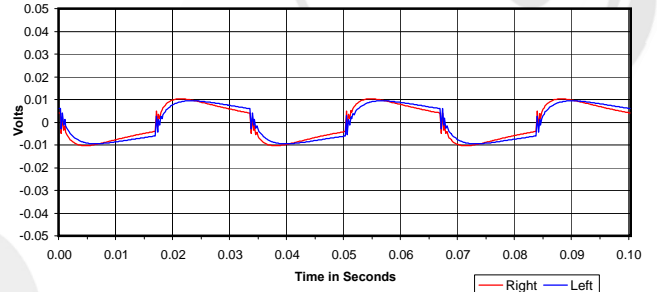
Isolation
Attenuation of External Sound vs. Frequency



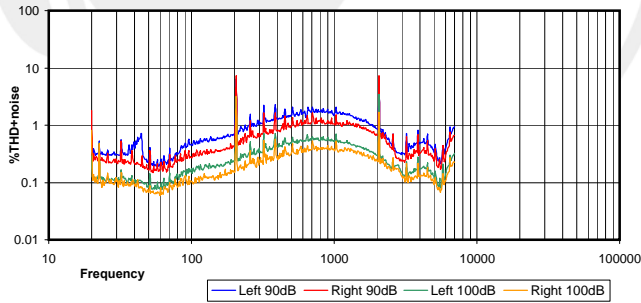
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



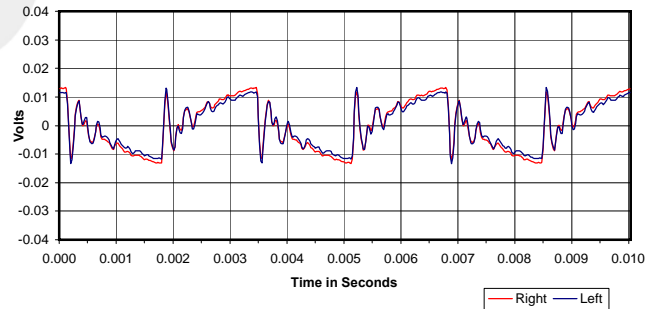
30 Hz Square Wave



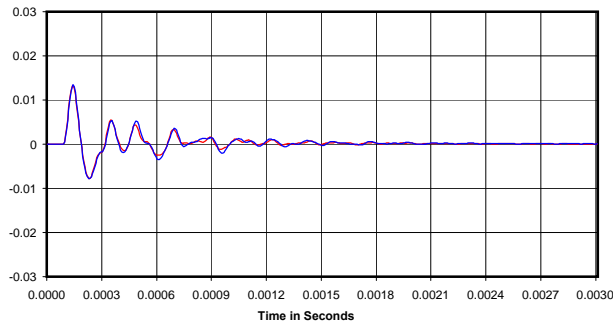
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

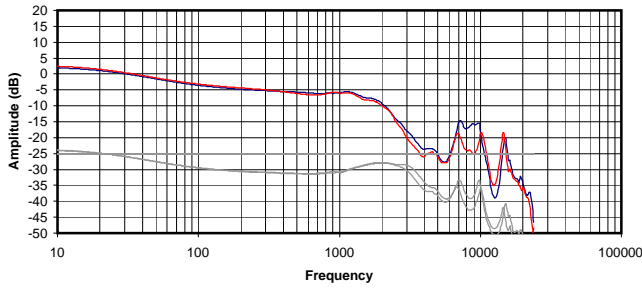


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

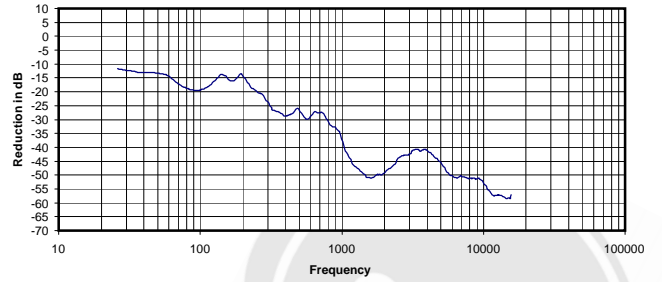
0.024 Vrms
17 Ohms
0.03 mW
-21 dB



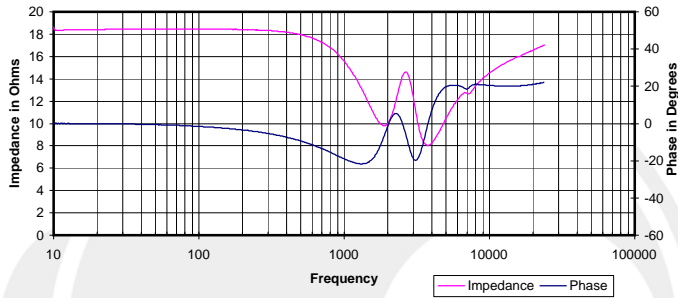
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



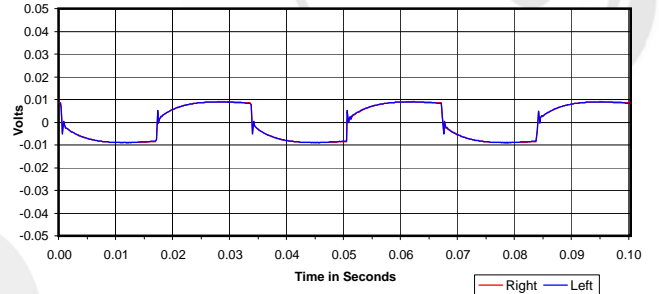
Isolation
Attenuation of External Sound vs. Frequency



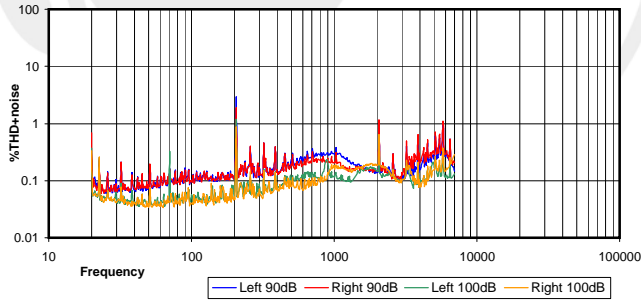
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



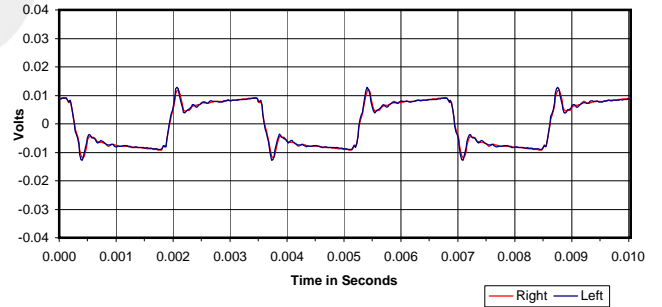
30 Hz Square Wave



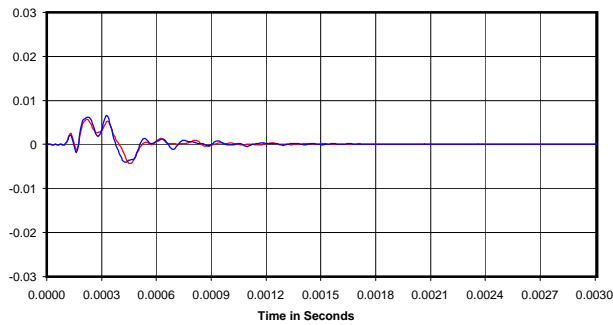
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

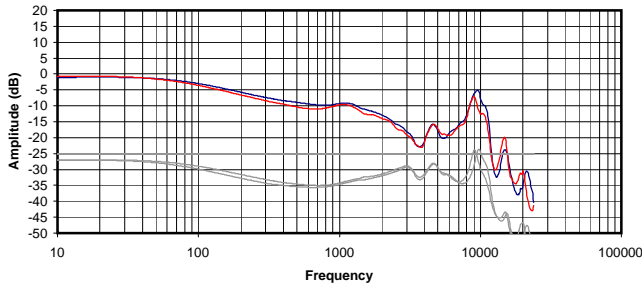


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

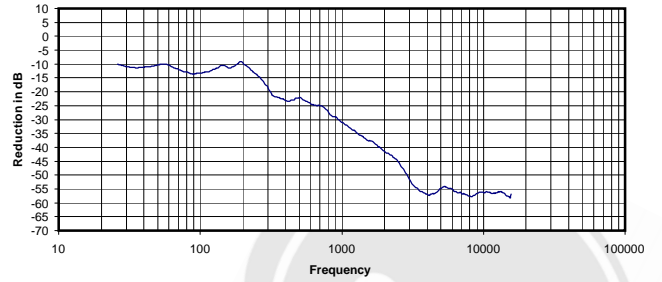
0.012 Vrms
16 Ohms
0.01 mW
-33 dB



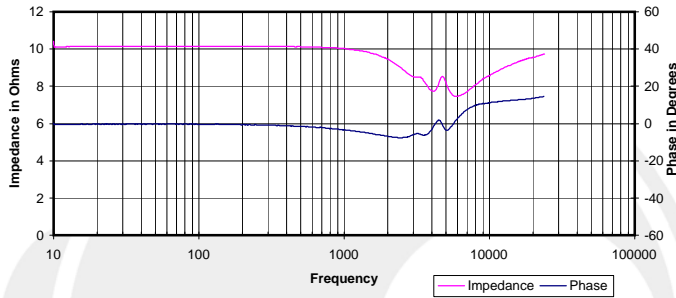
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



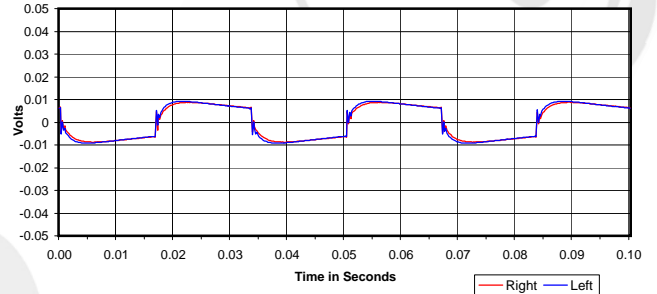
Isolation
Attenuation of External Sound vs. Frequency



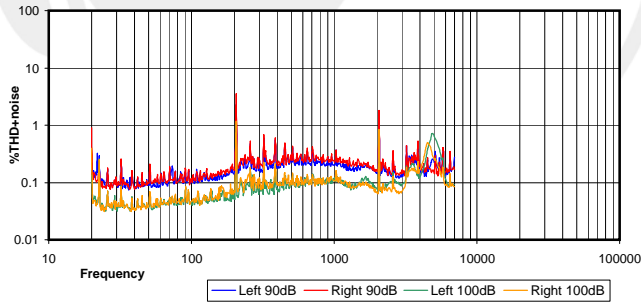
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



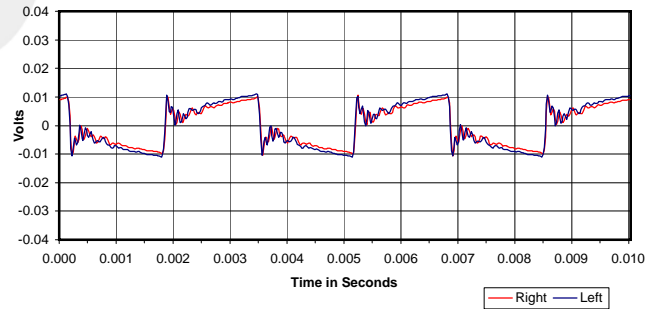
30 Hz Square Wave



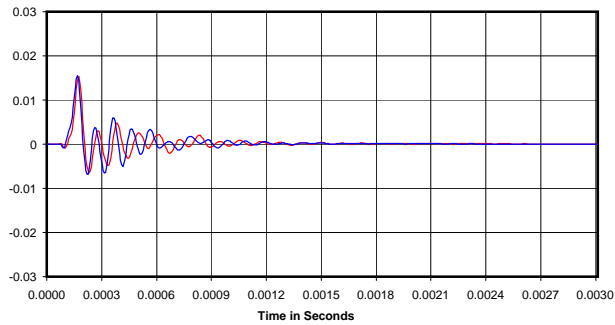
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

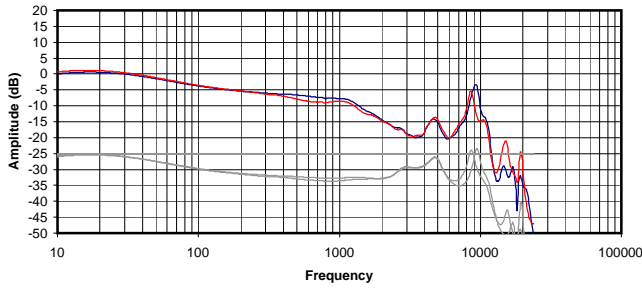


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

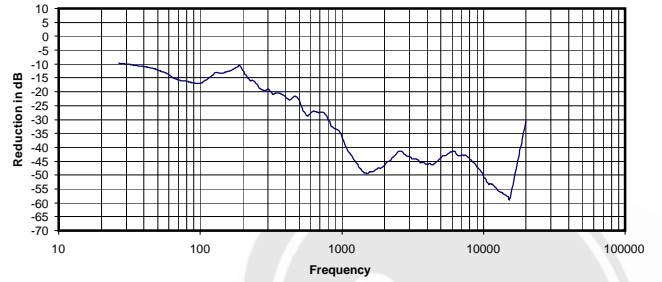
0.023 Vrms
10 Ohms
0.05 mW
-30 dB



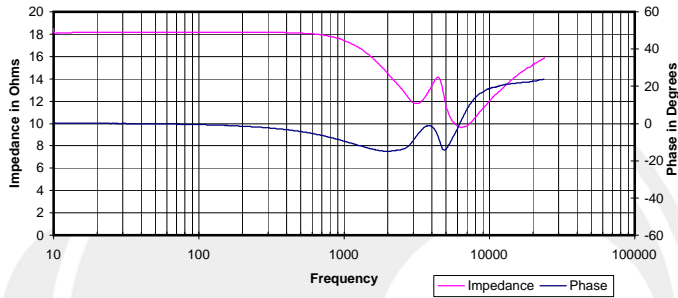
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



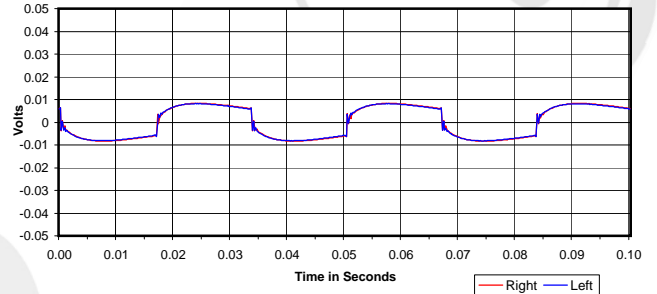
Isolation
Attenuation of External Sound vs. Frequency



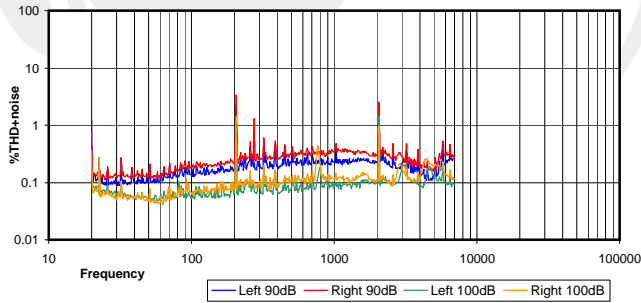
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



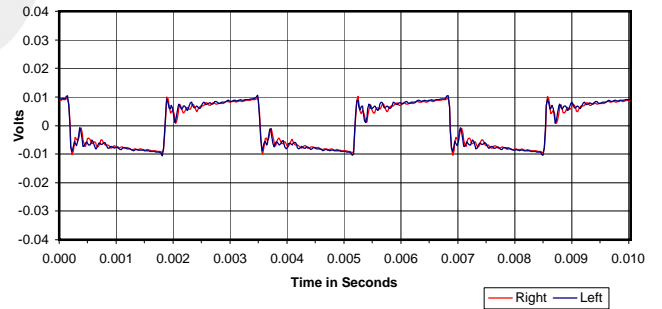
30 Hz Square Wave



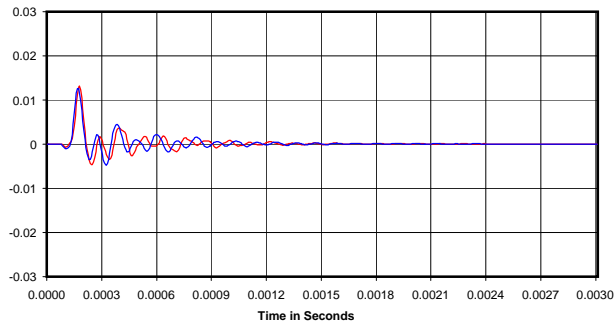
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

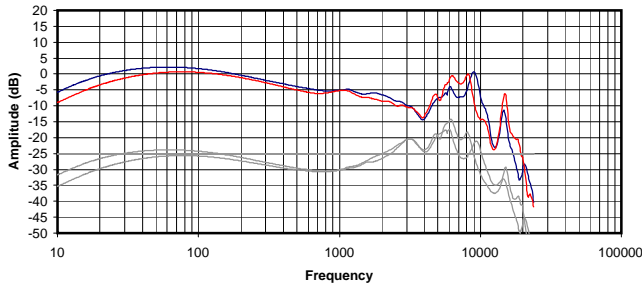


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

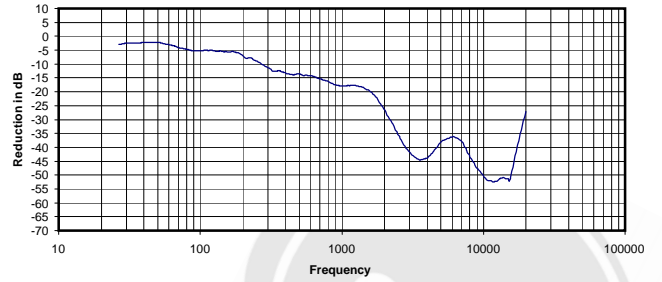
0.015 Vrms
17 Ohms
0.01 mW
-33 dB



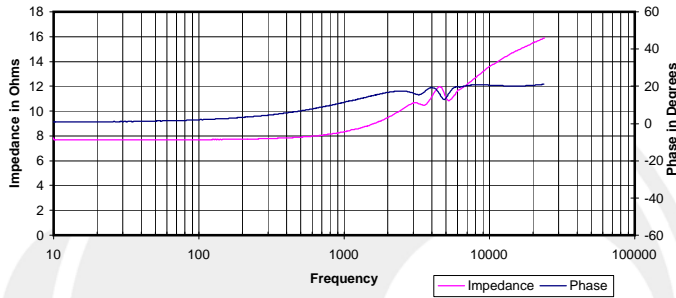
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



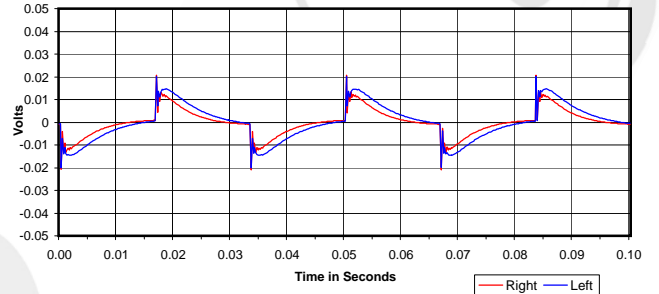
Isolation
Attenuation of External Sound vs. Frequency



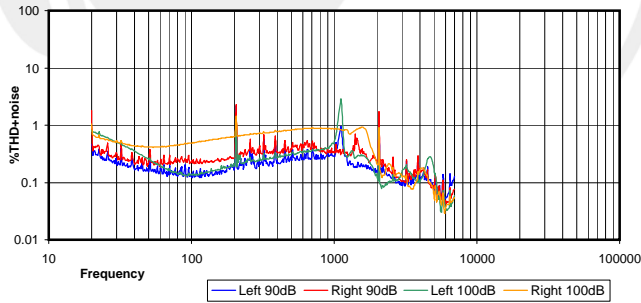
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



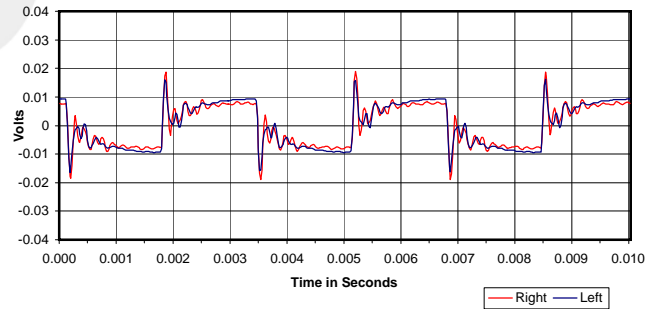
30 Hz Square Wave



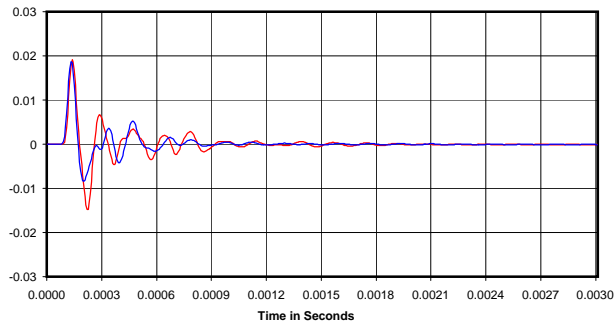
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

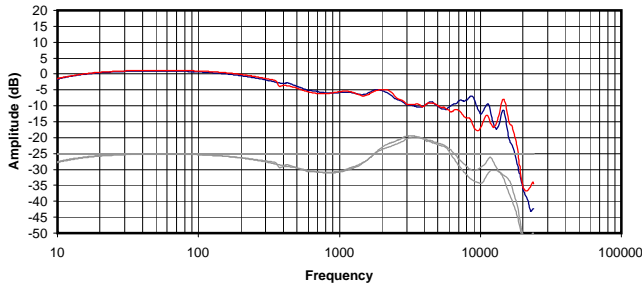


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

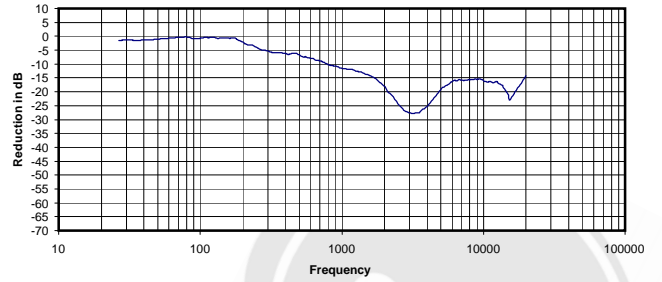
0.027 Vrms
8 Ohms
0.09 mW
-22 dB



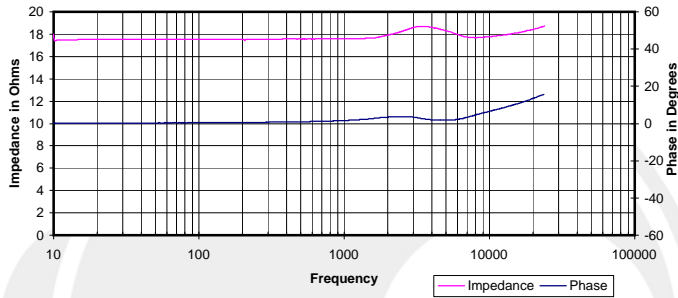
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



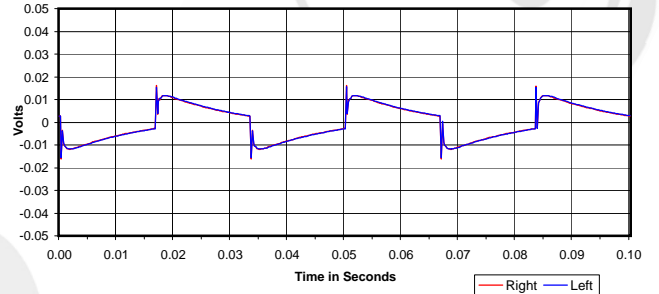
Isolation
Attenuation of External Sound vs. Frequency



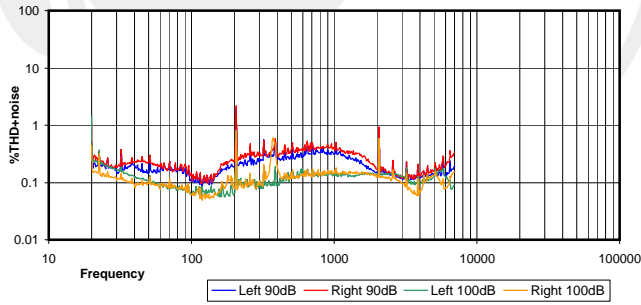
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



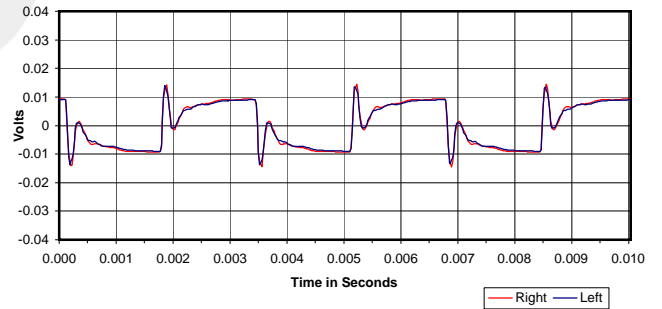
30 Hz Square Wave



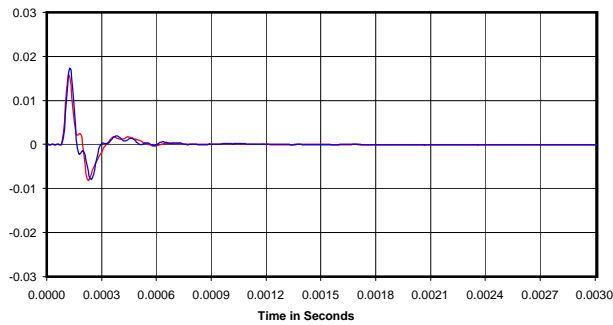
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



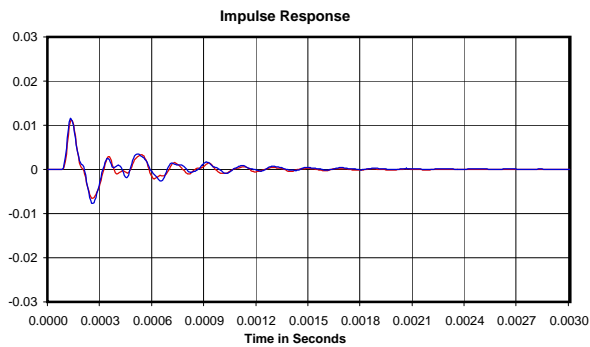
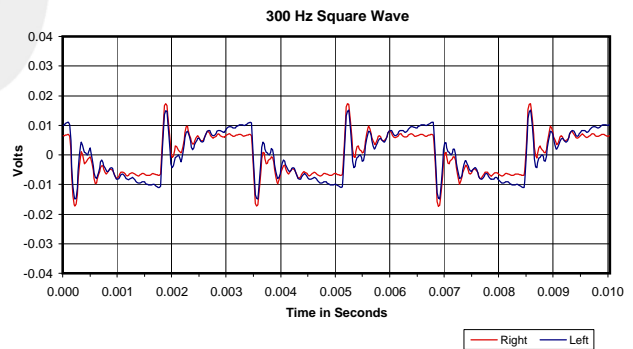
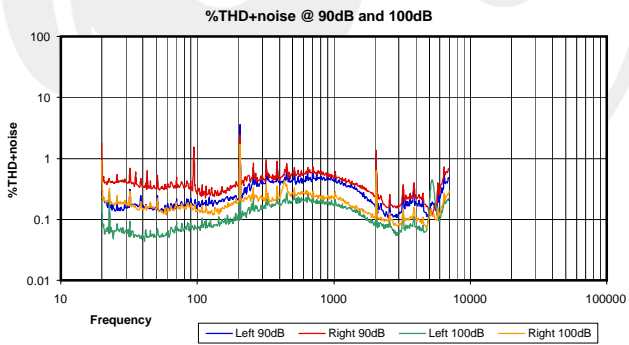
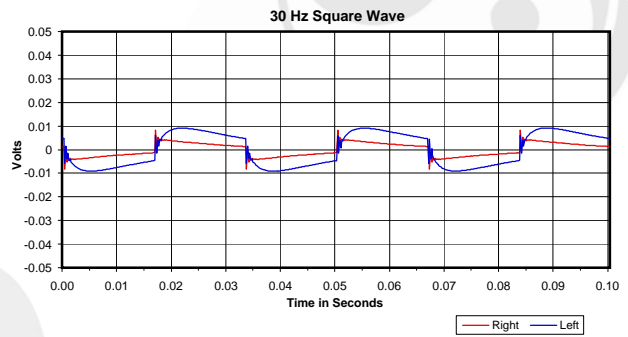
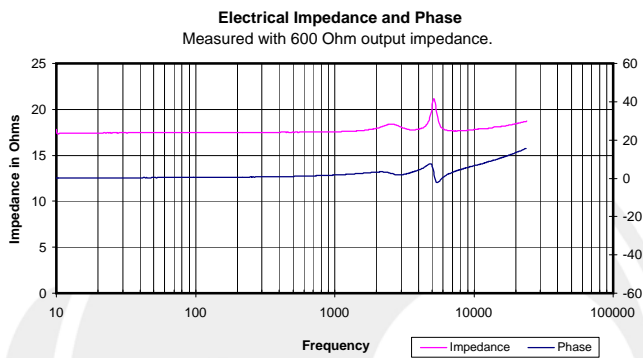
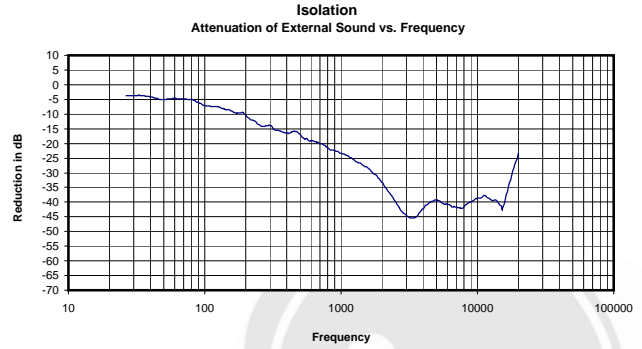
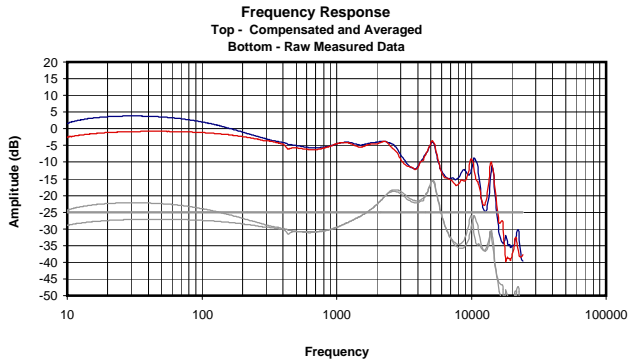
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
18 Ohms
0.10 mW
-12 dB

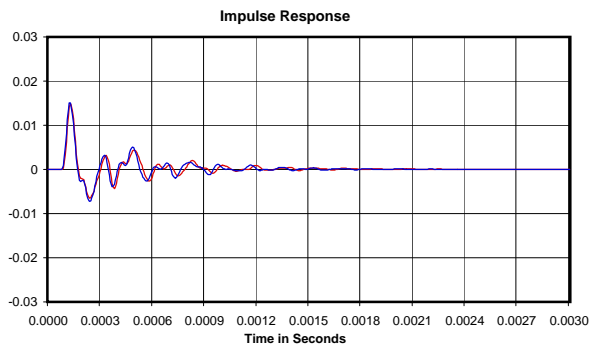
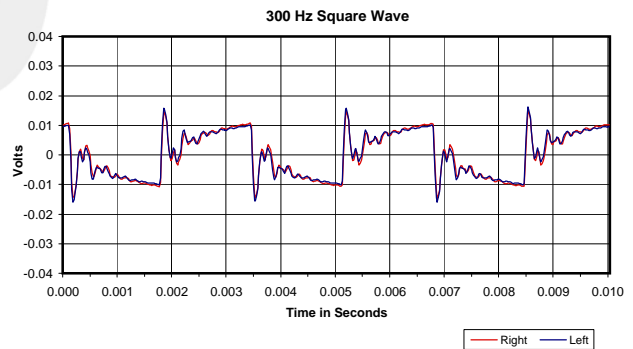
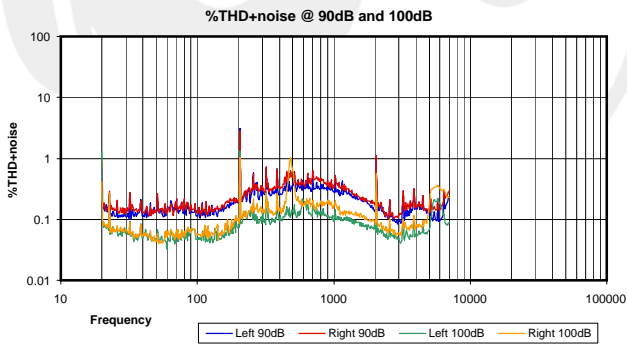
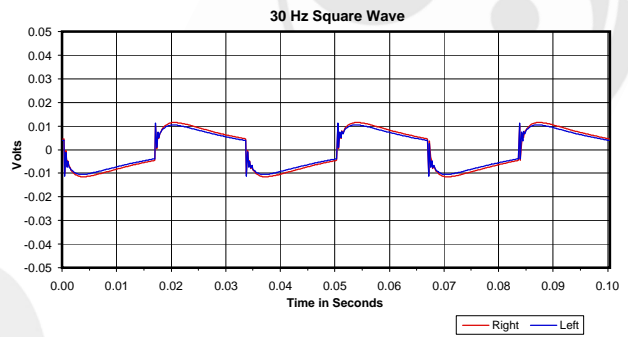
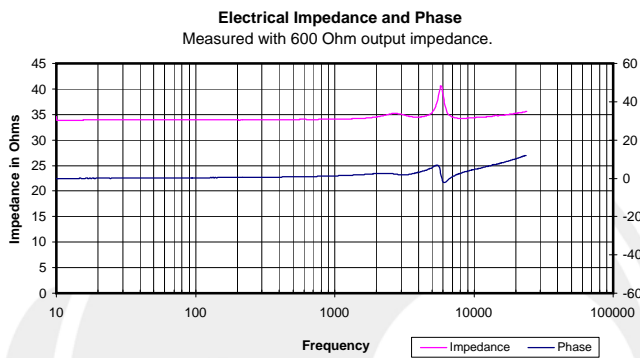
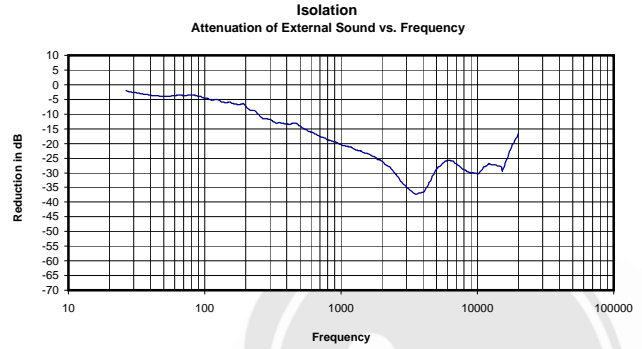
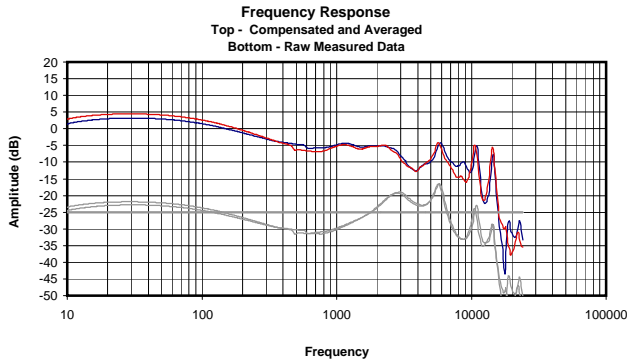




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
18 Ohms
0.02 mW
-26 dB



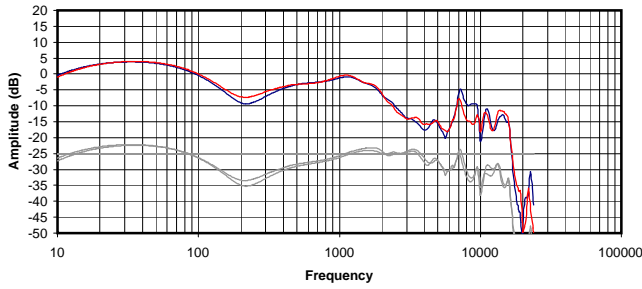


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

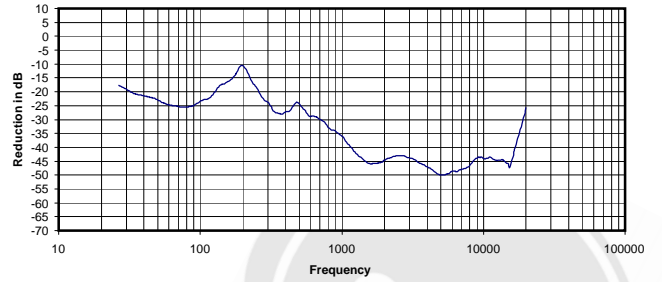
0.029 Vrms
34 Ohms
0.03 mW
-20 dBr



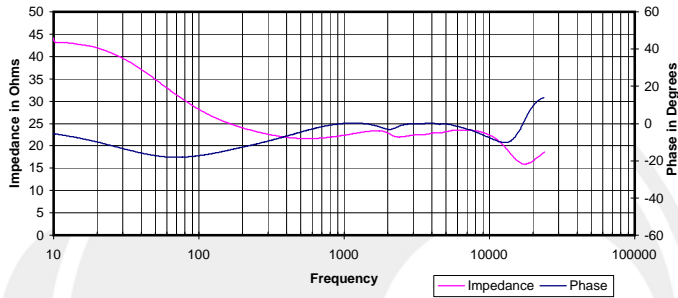
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



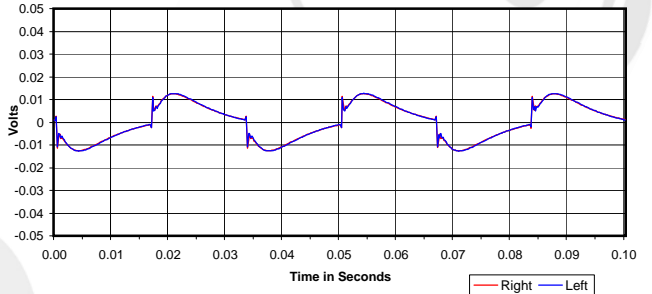
Isolation
Attenuation of External Sound vs. Frequency



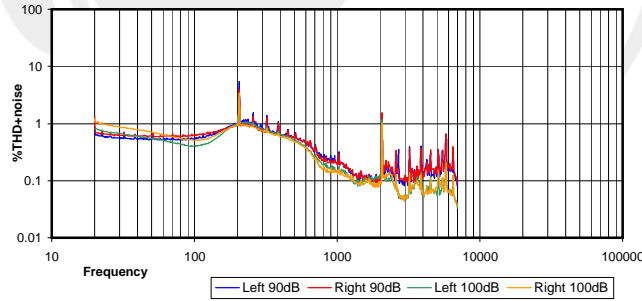
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



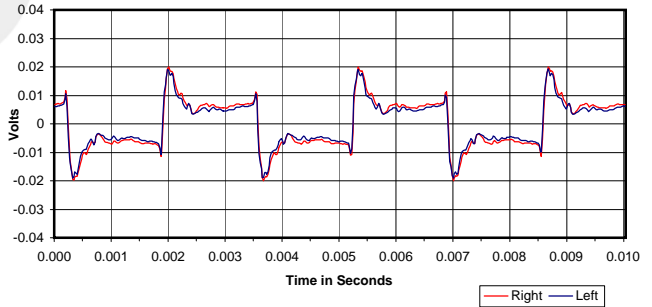
30 Hz Square Wave



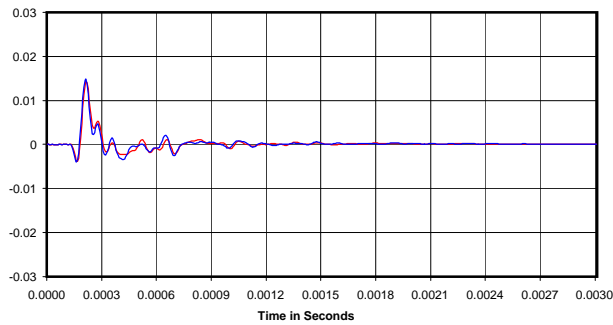
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

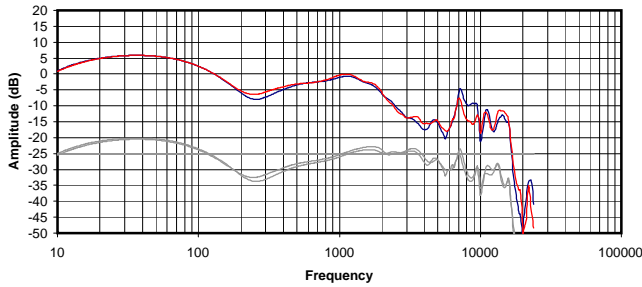


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

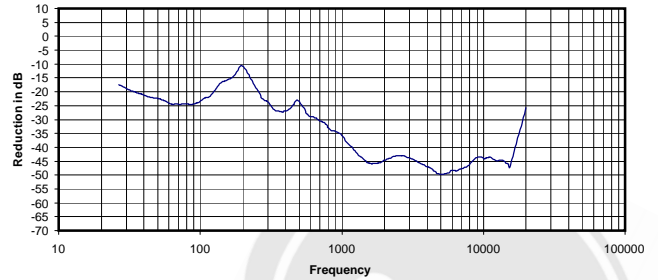
0.024 Vrms
22 Ohms
0.03 mW
-34 dB



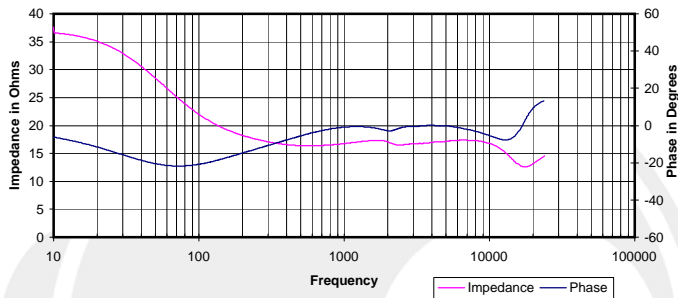
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



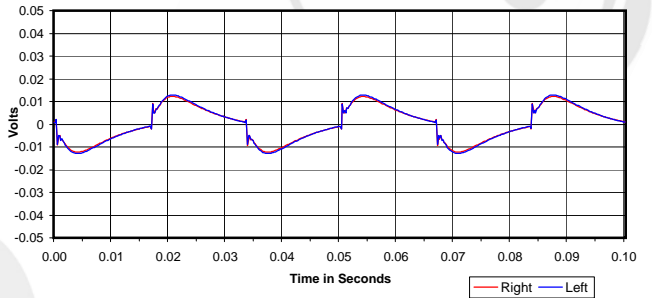
Isolation
Attenuation of External Sound vs. Frequency



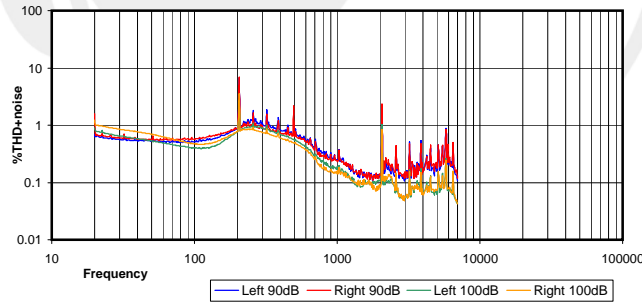
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



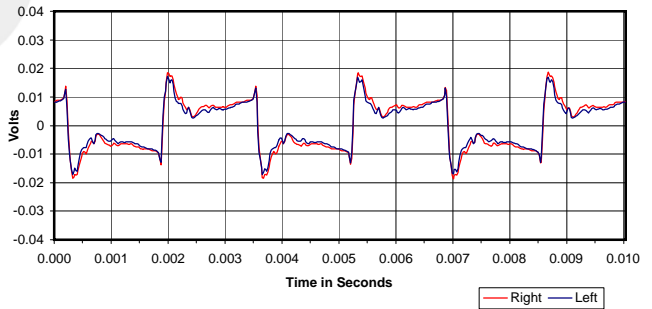
30 Hz Square Wave



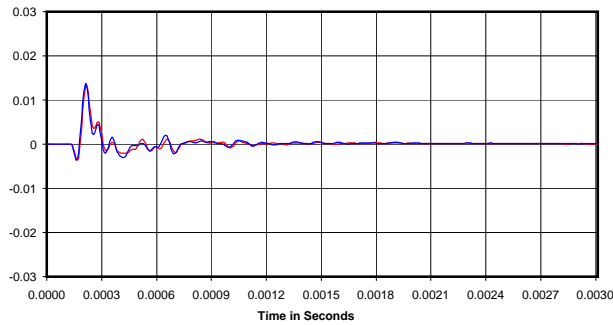
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

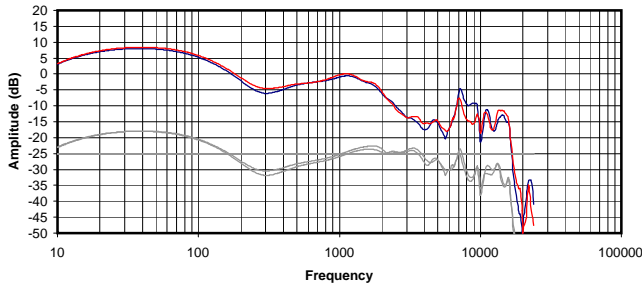


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

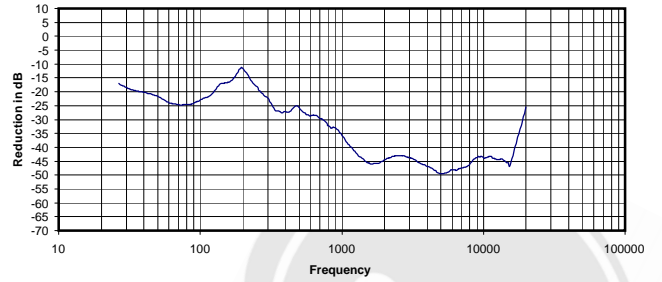
0.026 Vrms
17 Ohms
0.04 mW
-34 dB



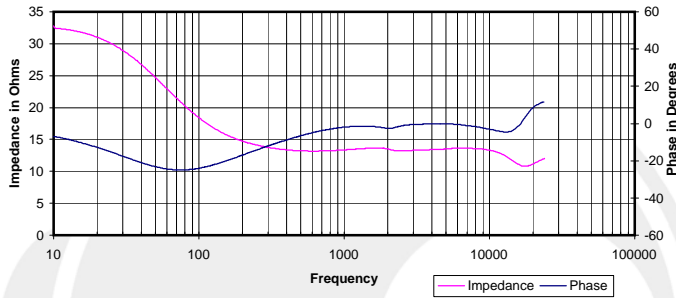
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



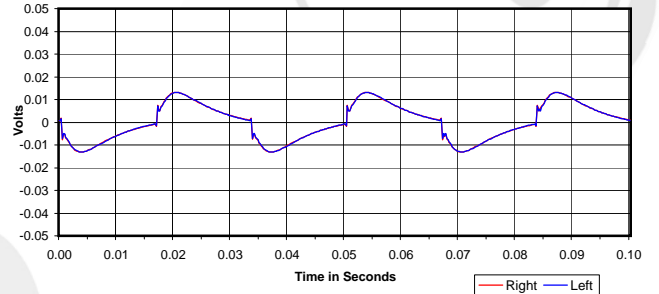
Isolation
Attenuation of External Sound vs. Frequency



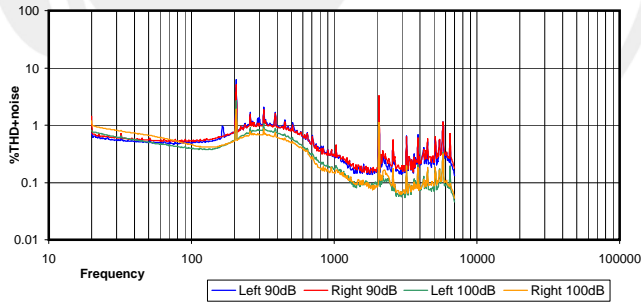
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



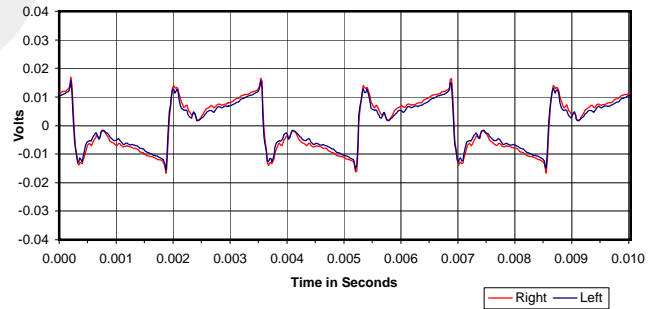
30 Hz Square Wave



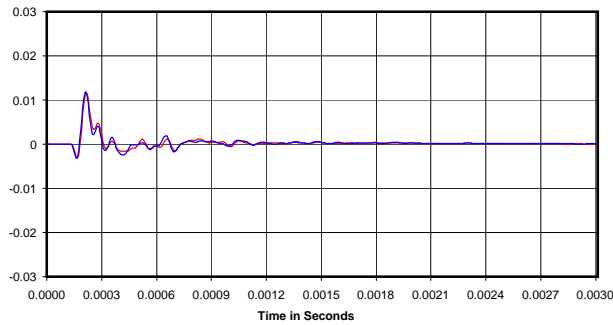
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



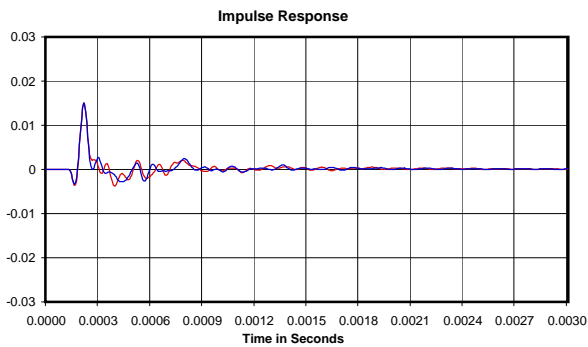
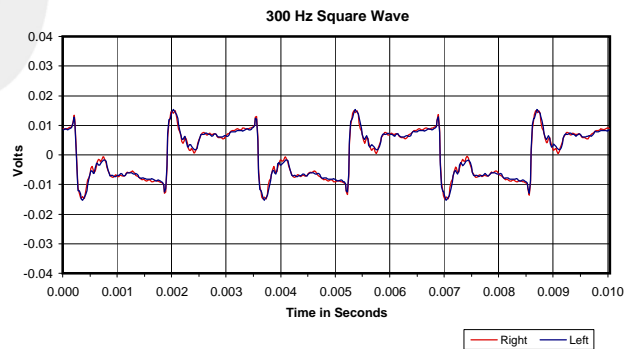
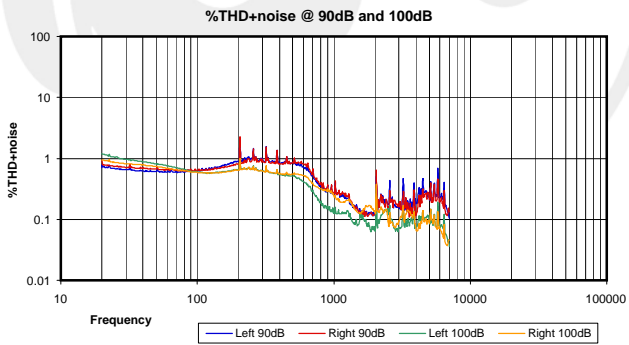
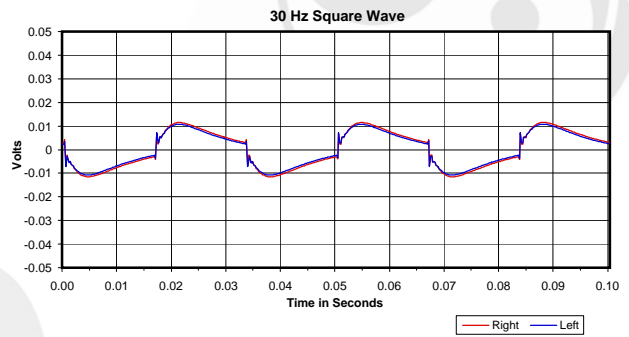
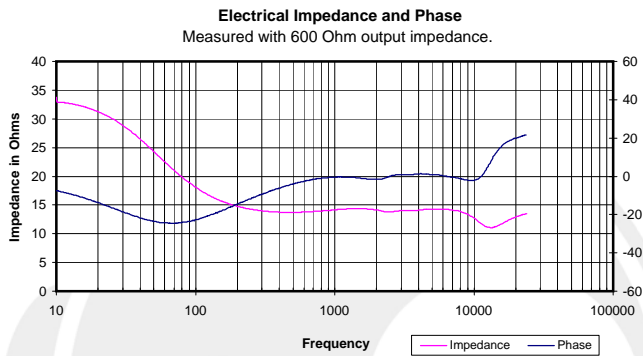
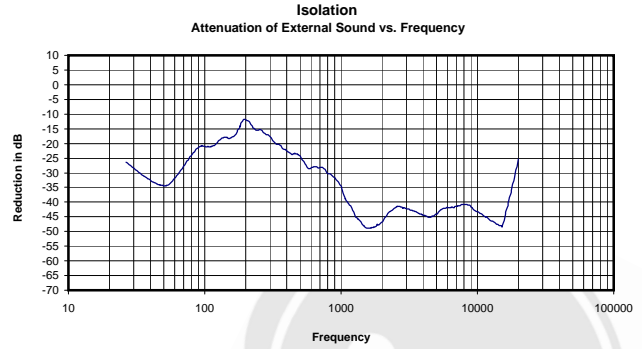
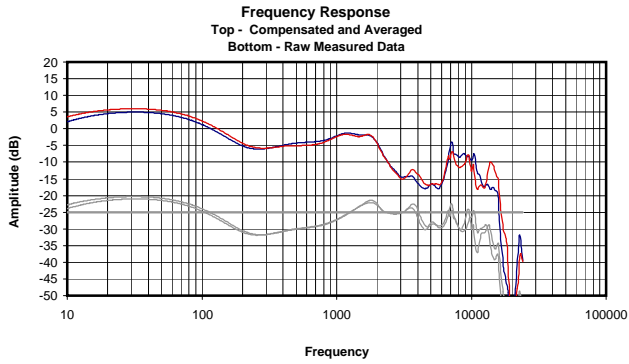
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
13 Ohms
0.06 mW
-34 dB

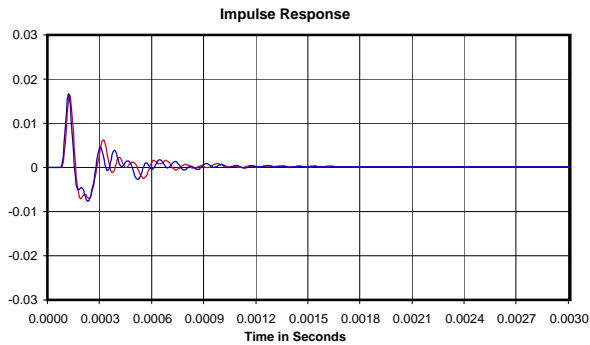
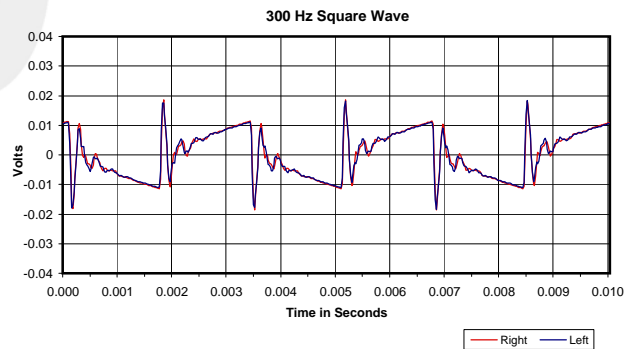
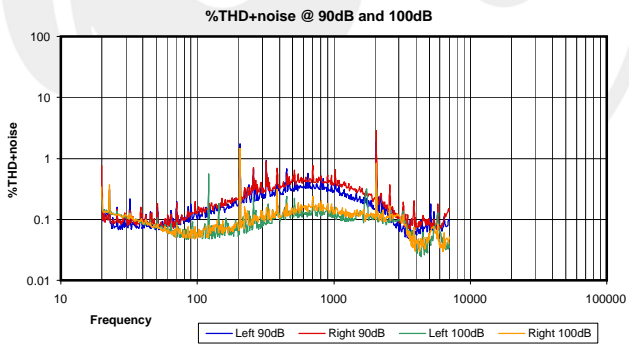
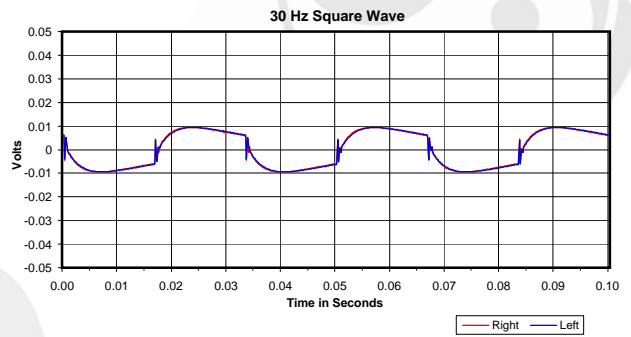
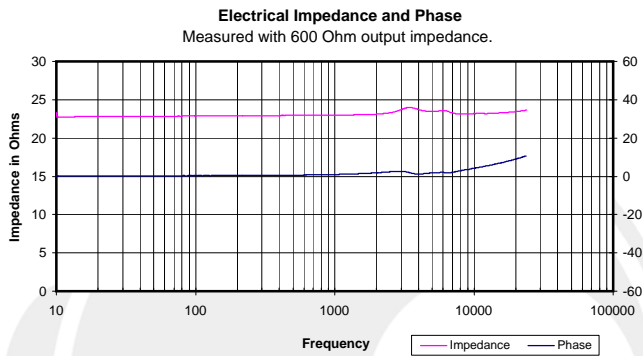
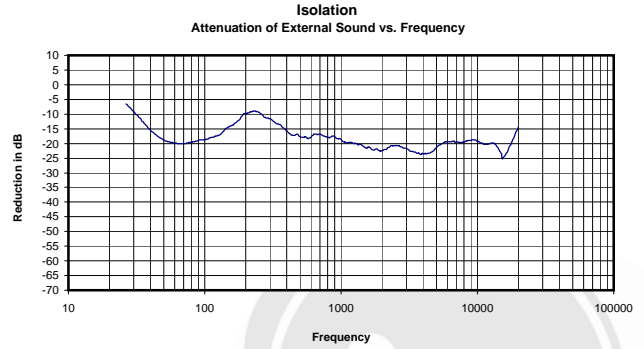
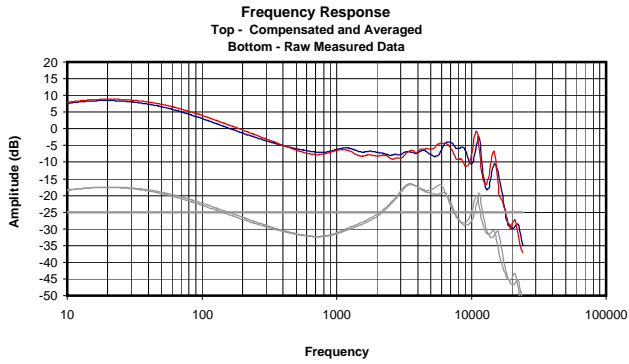




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
14 Ohms
0.05 mW
-33 dBr

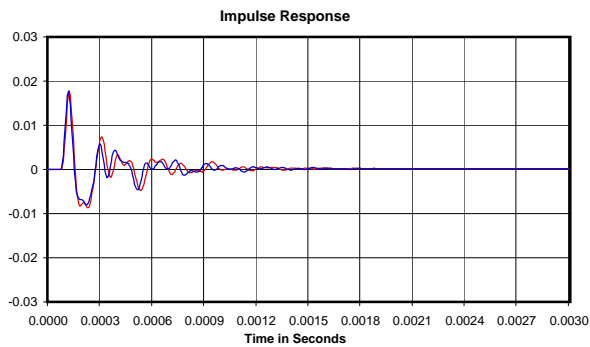
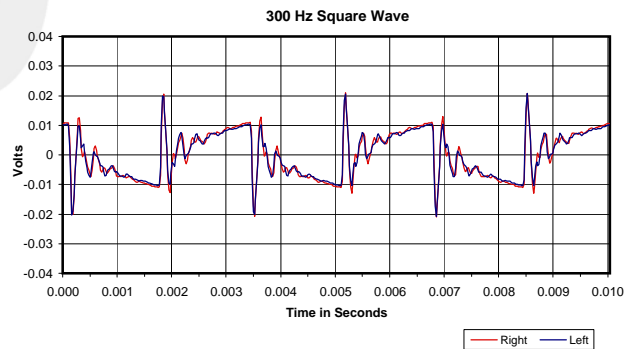
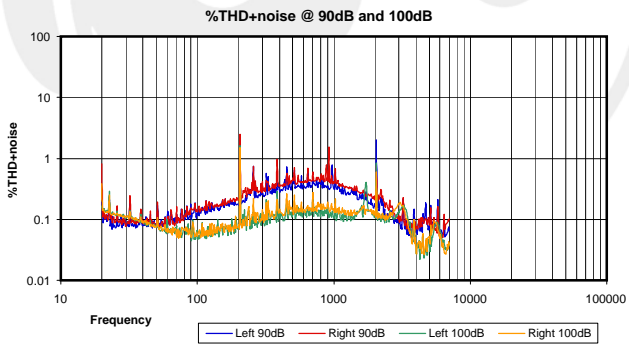
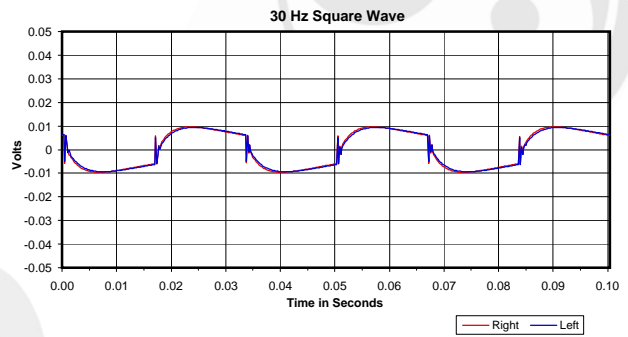
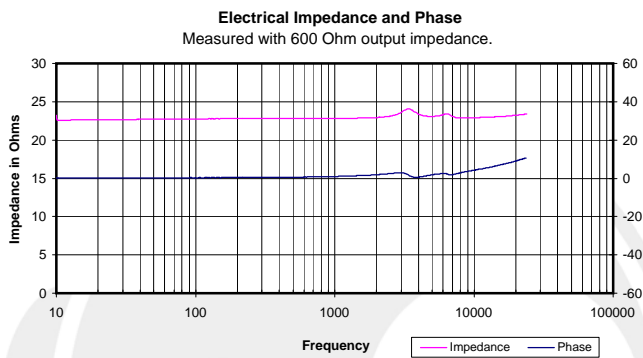
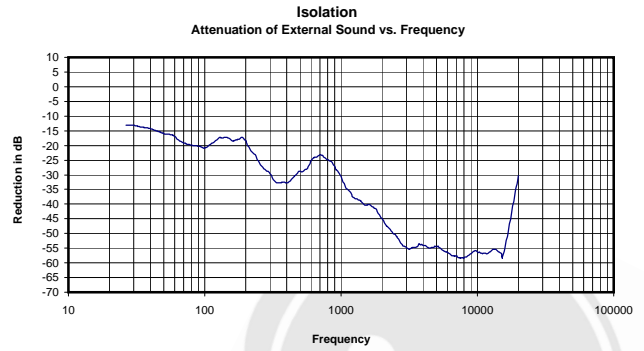
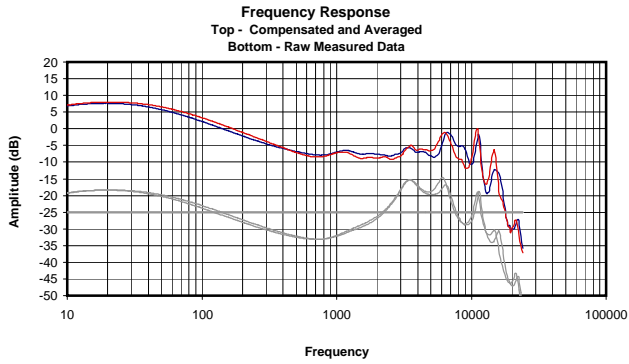




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.055 Vrms
23 Ohms
0.13 mW
-18 dB

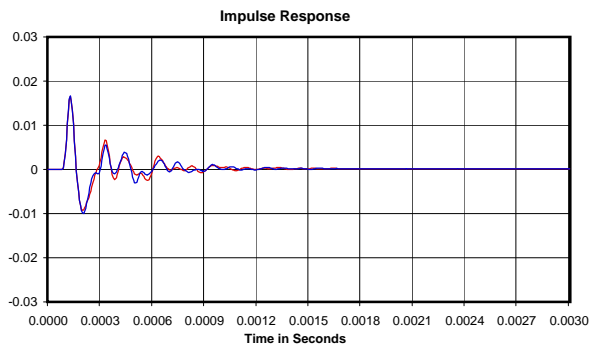
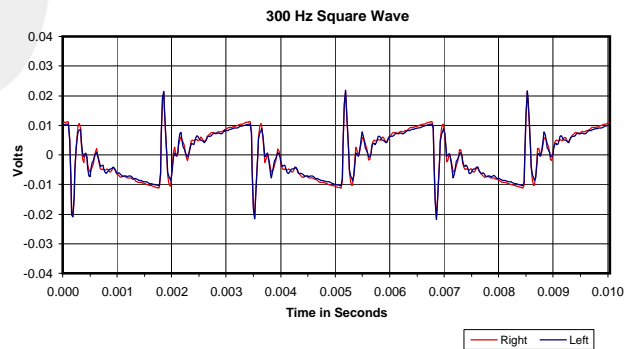
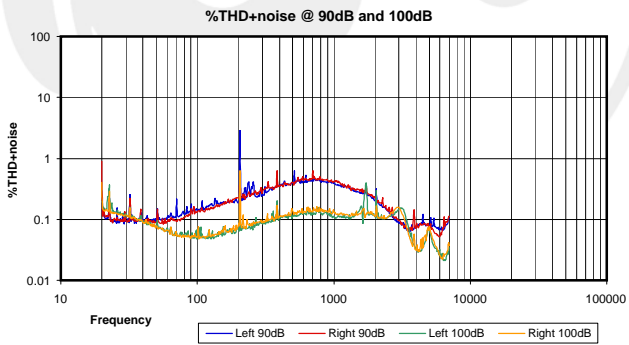
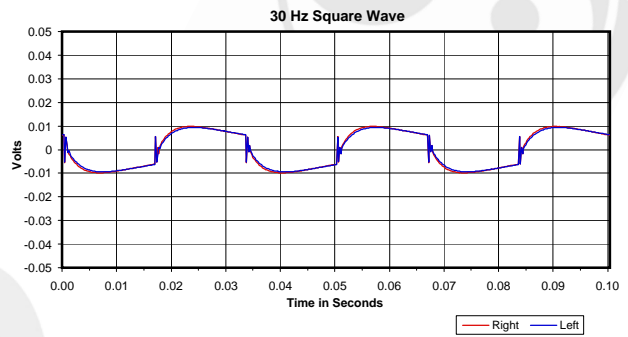
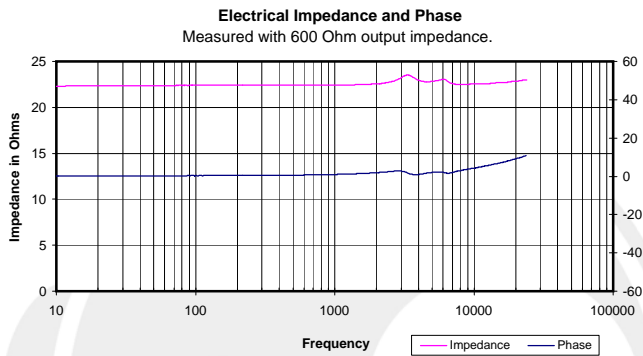
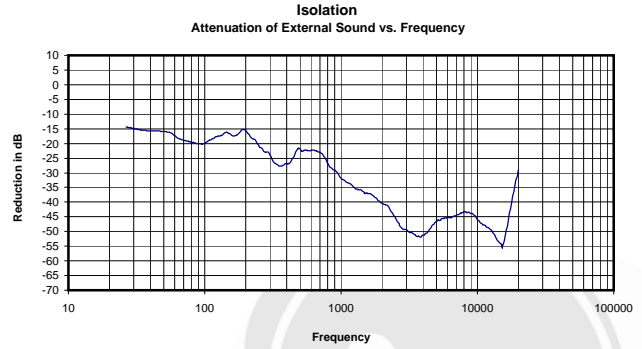
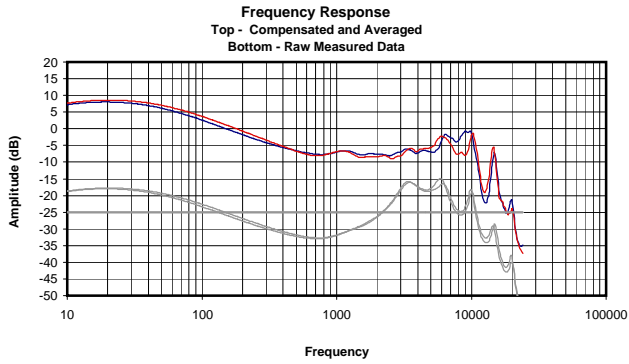




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.052 Vrms
23 Ohms
0.12 mW
-37 dB



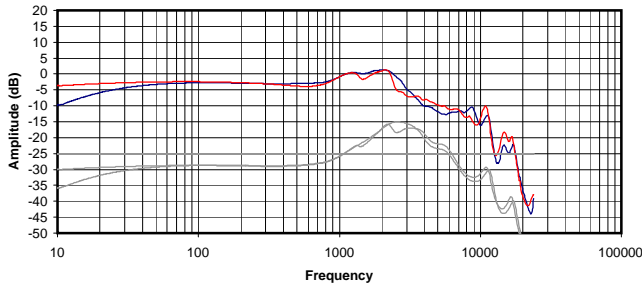


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

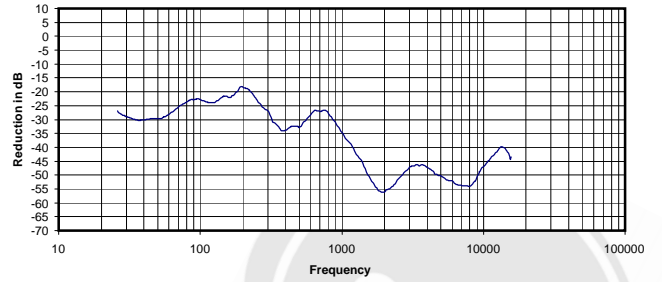
0.058 Vrms
22 Ohms
0.15 mW
-33 dB



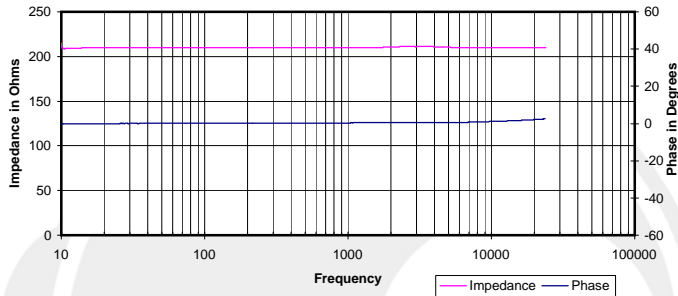
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



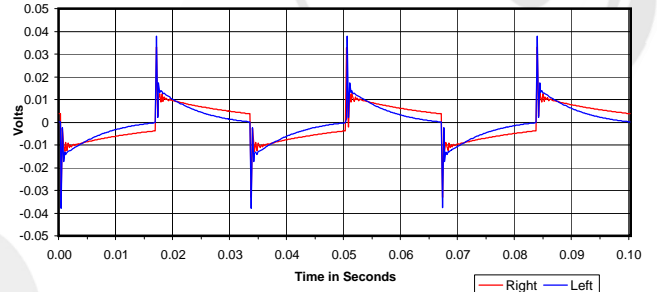
Isolation
Attenuation of External Sound vs. Frequency



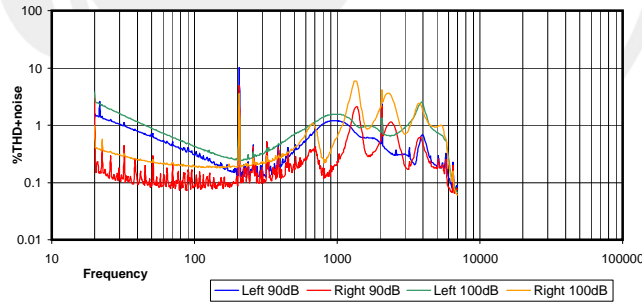
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



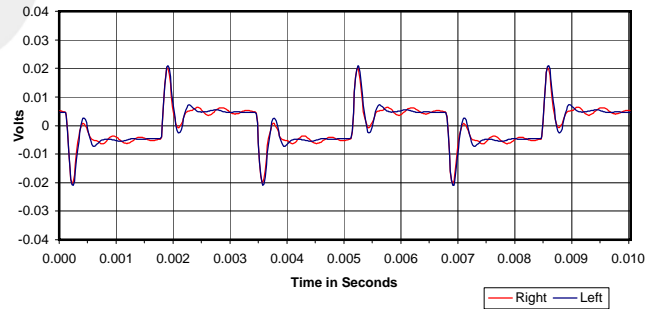
30 Hz Square Wave



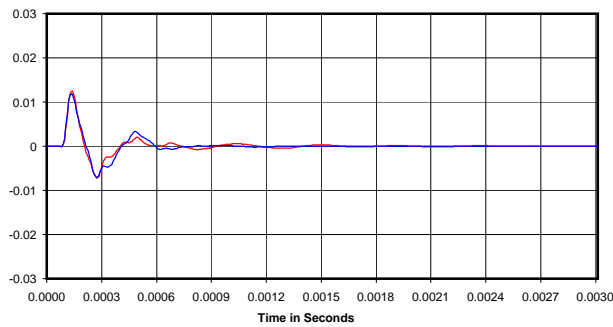
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

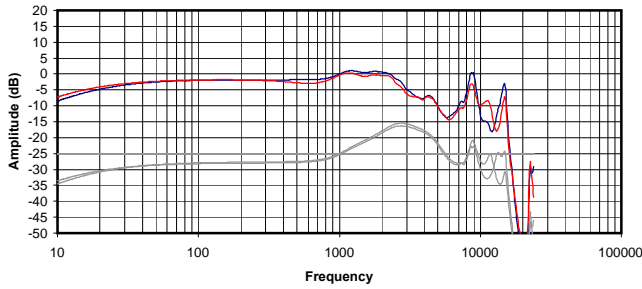


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

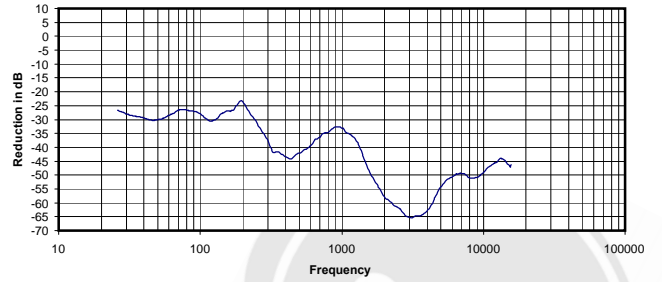
0.425 Vrms
210 Ohms
0.86 mW
-36 dB



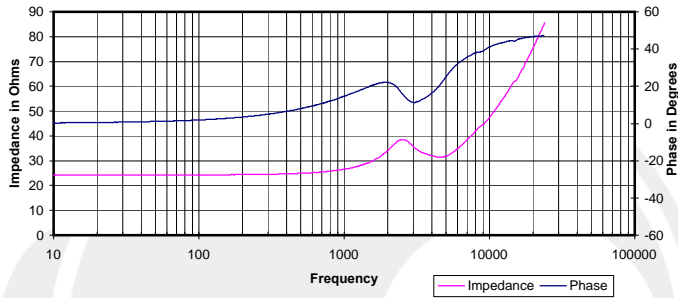
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



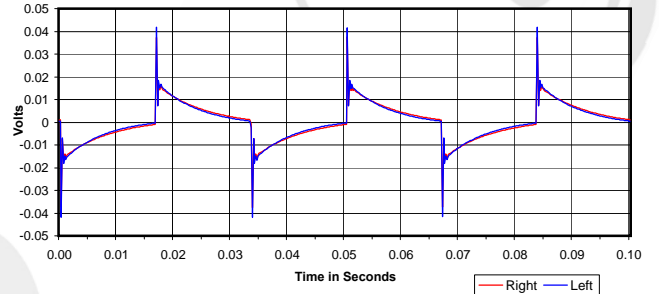
Isolation
Attenuation of External Sound vs. Frequency



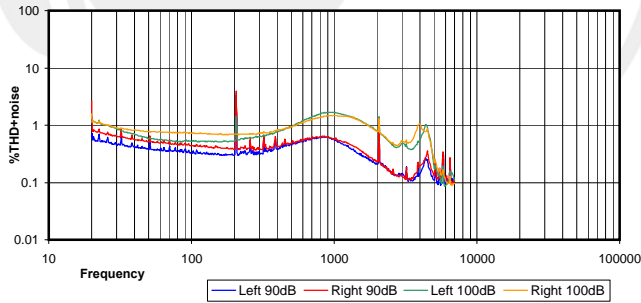
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



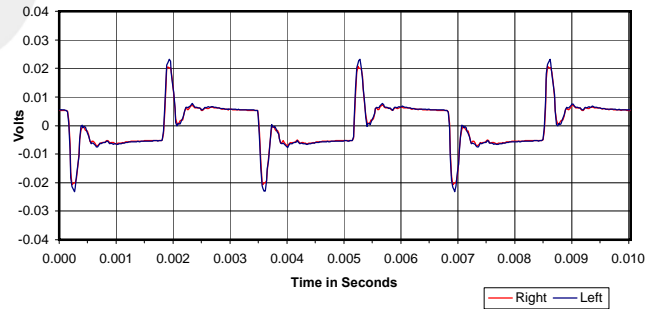
30 Hz Square Wave



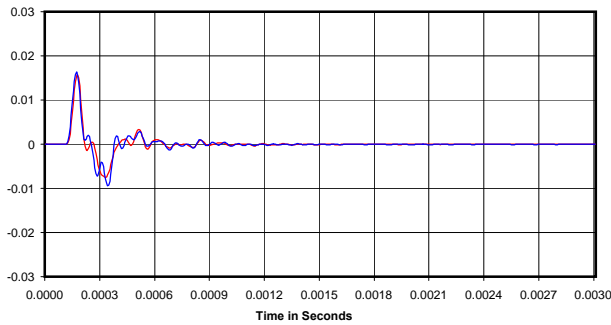
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



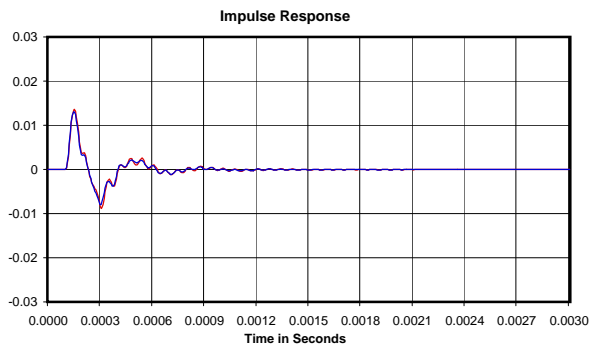
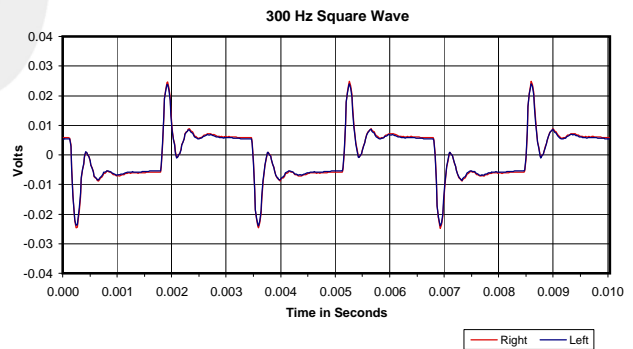
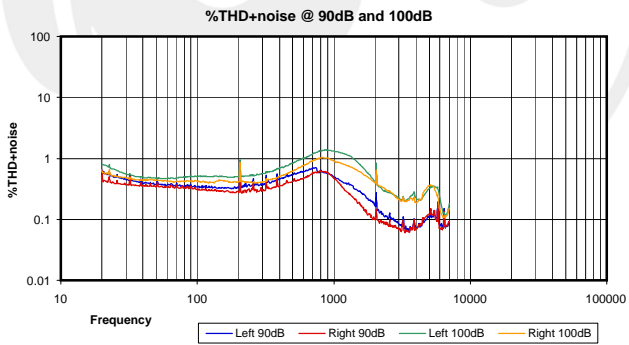
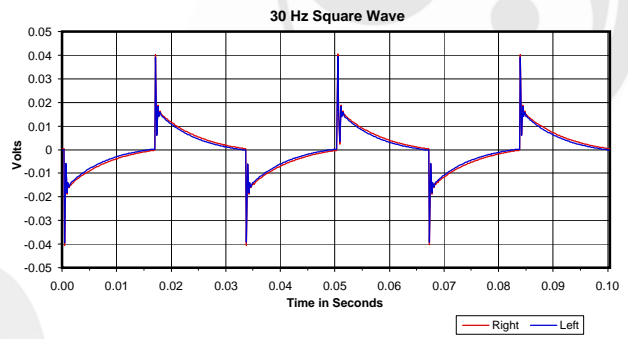
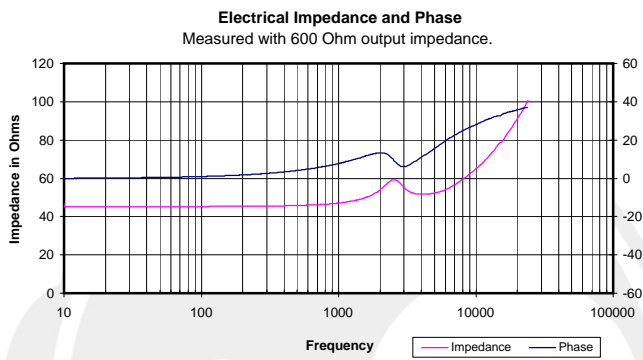
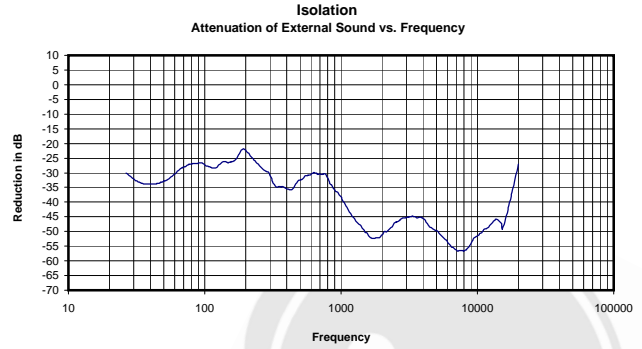
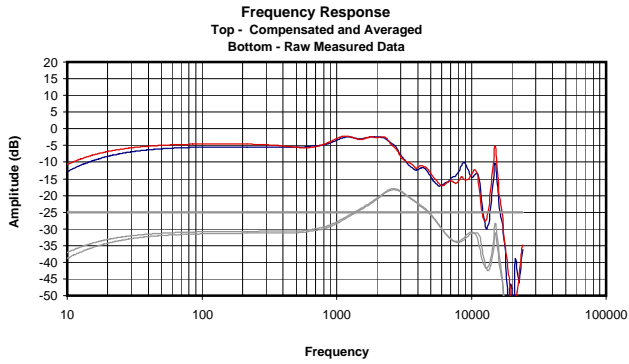
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
27 Ohms
0.03 mW
-43 dB

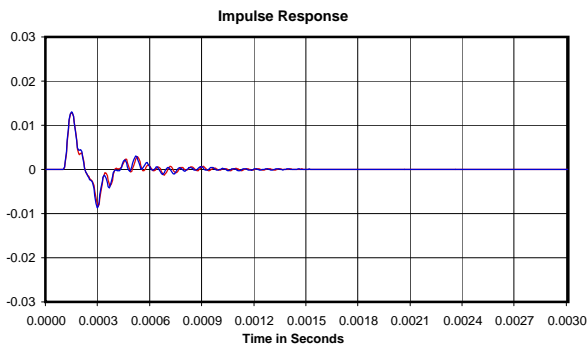
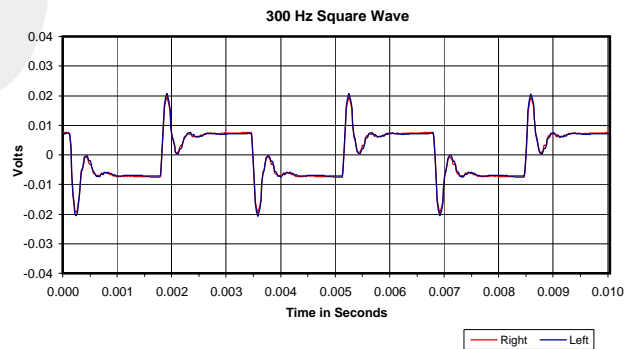
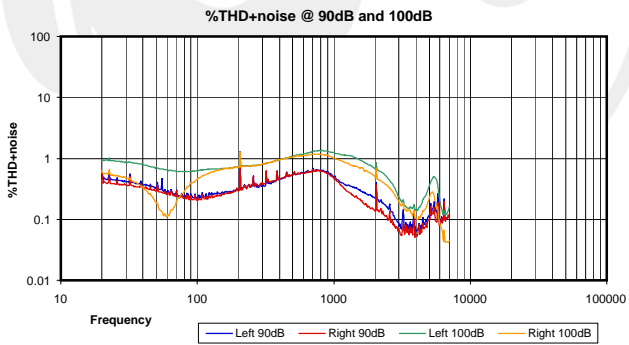
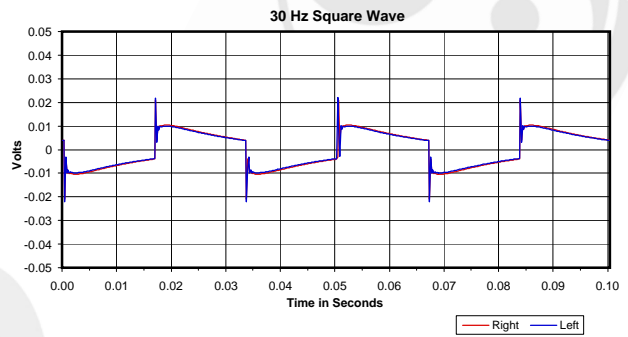
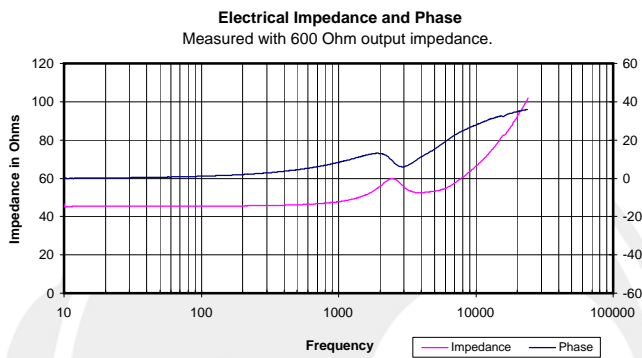
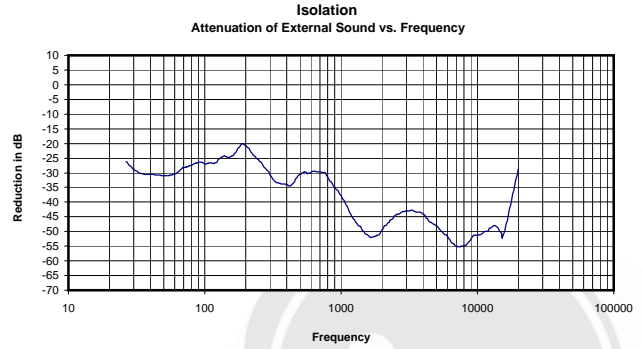
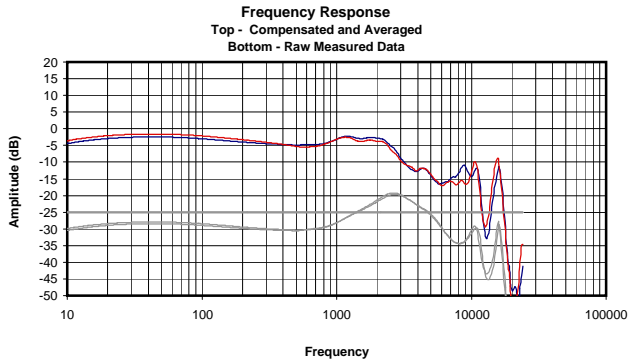




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.049 Vrms
47 Ohms
0.05 mW
-40 dBr



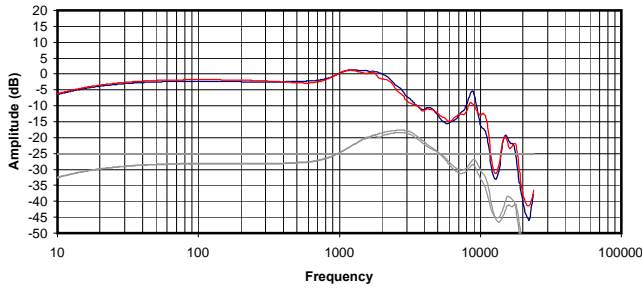


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

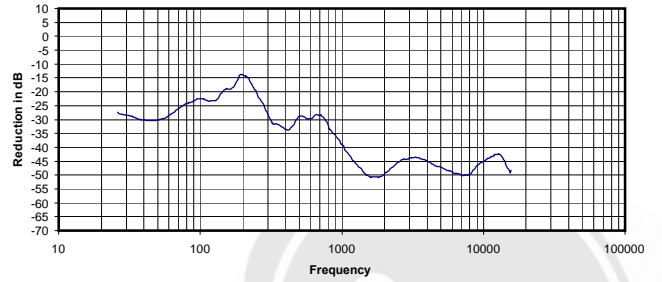
0.044 Vrms
48 Ohms
0.04 mW
-39 dBr



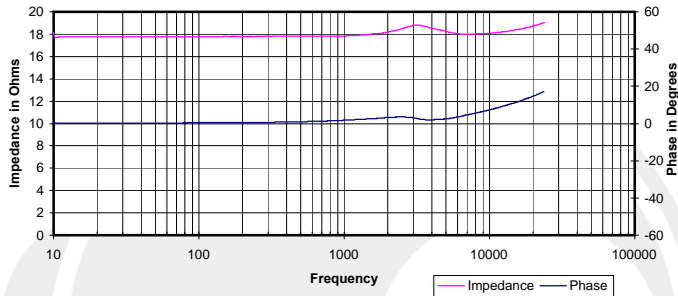
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



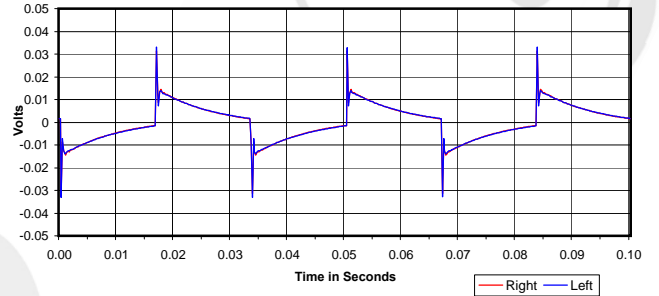
Isolation
Attenuation of External Sound vs. Frequency



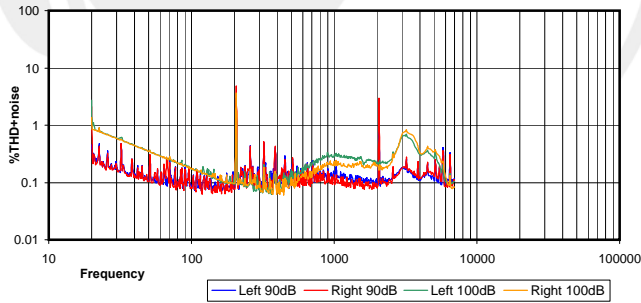
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



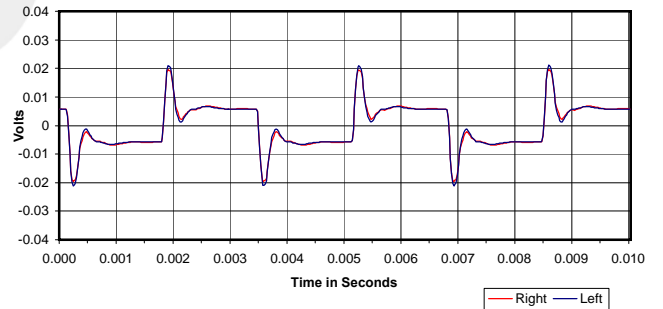
30 Hz Square Wave



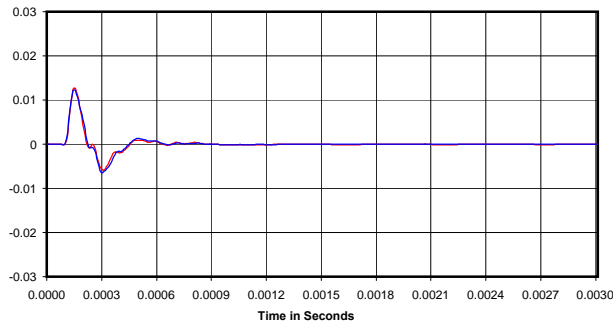
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

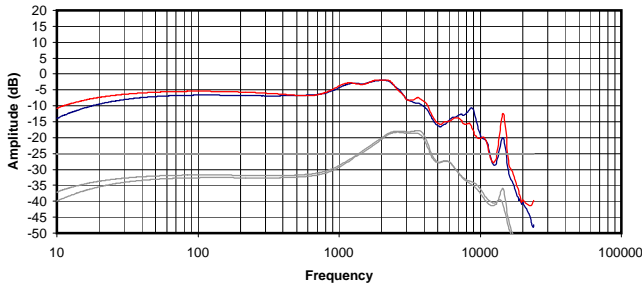


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

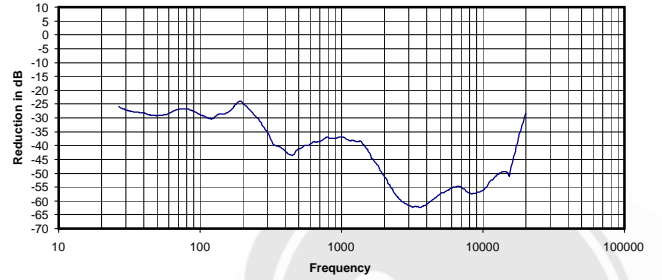
0.042 Vrms
18 Ohms
0.10 mW
-35 dB



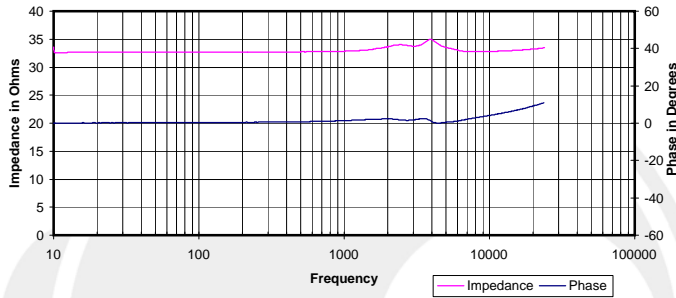
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



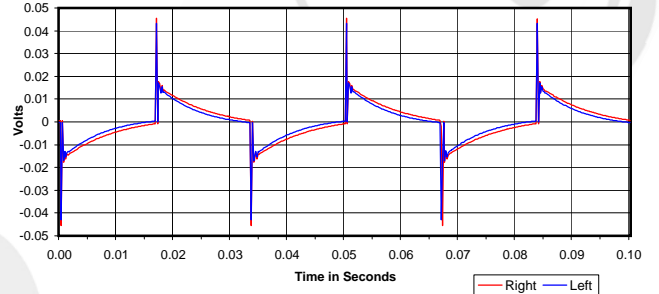
Isolation
Attenuation of External Sound vs. Frequency



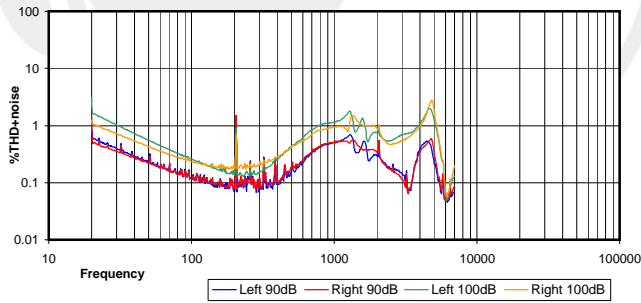
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



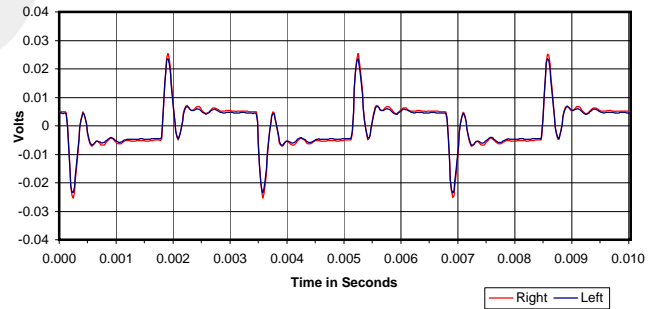
30 Hz Square Wave



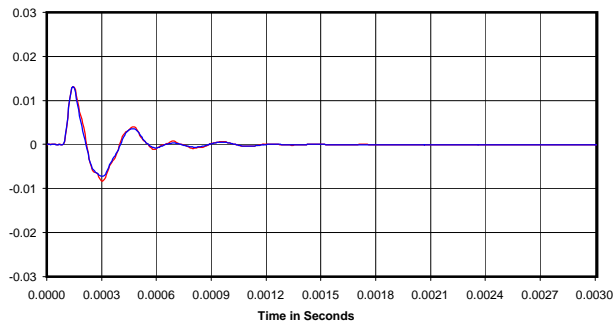
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



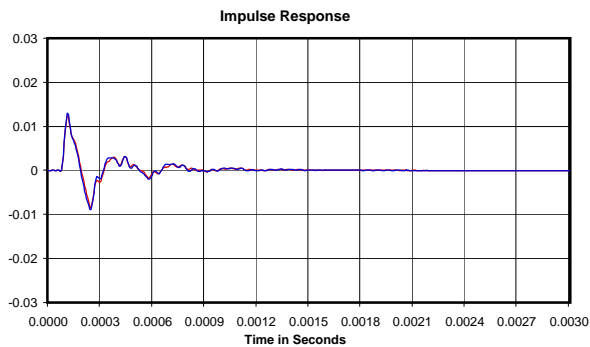
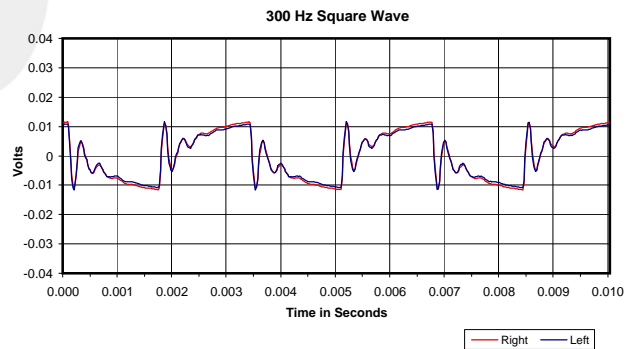
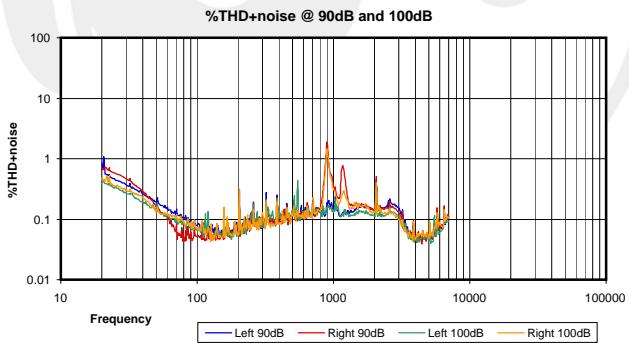
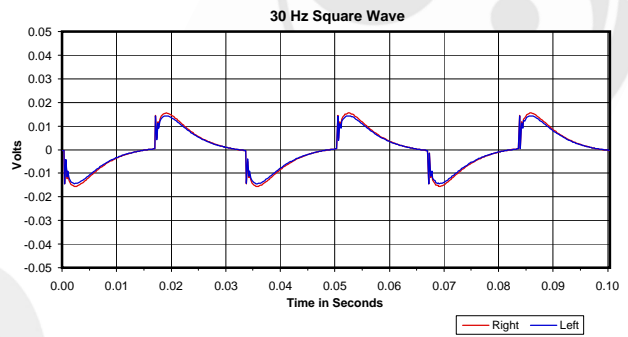
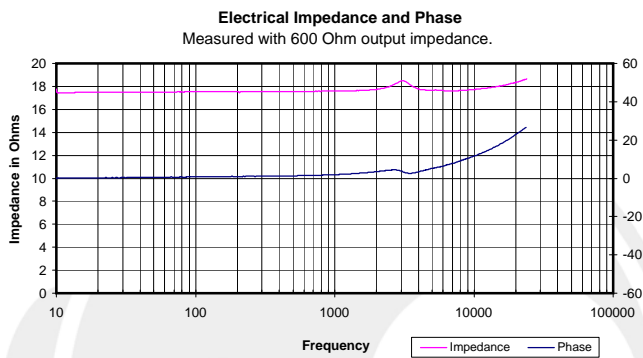
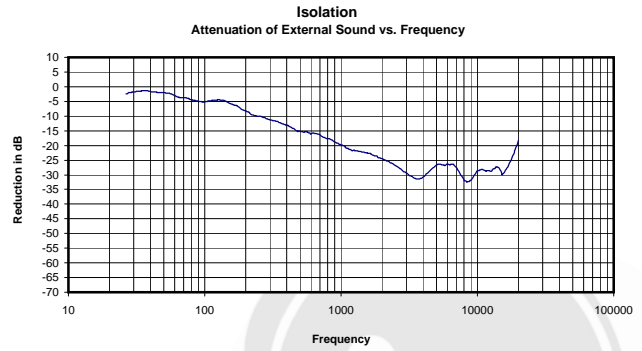
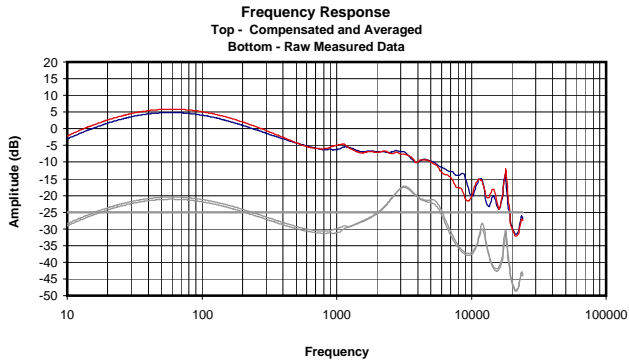
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
33 Ohms
0.12 mW
-44 dB

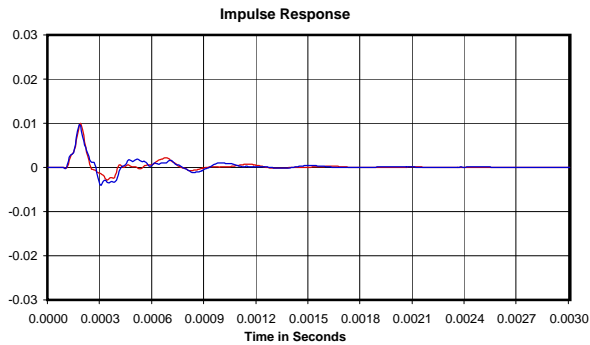
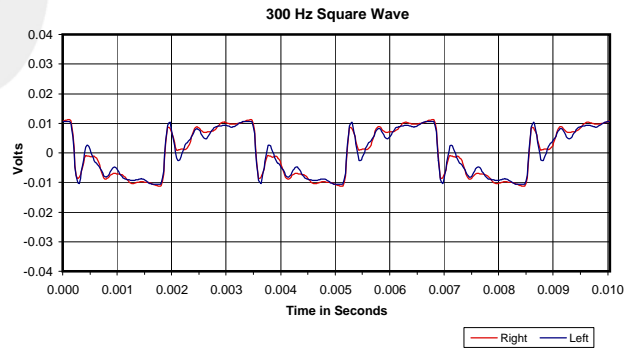
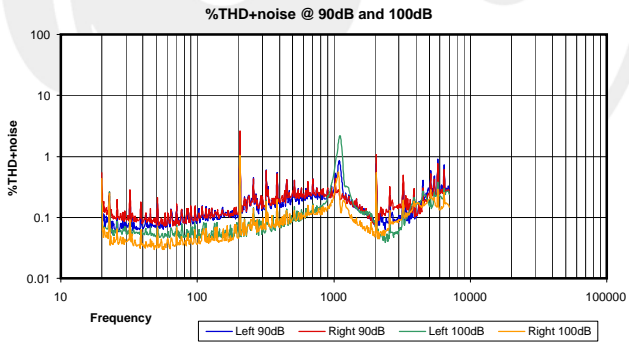
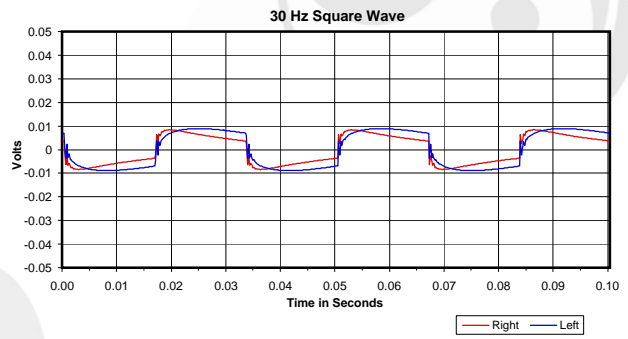
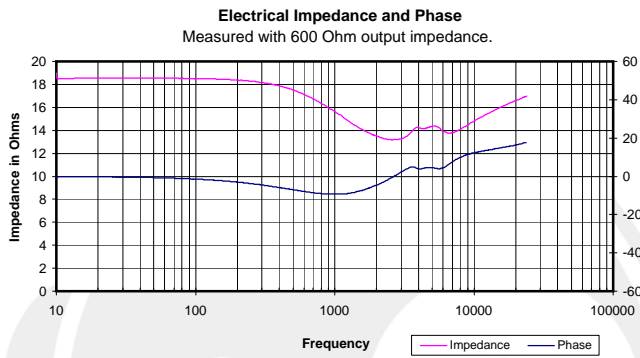
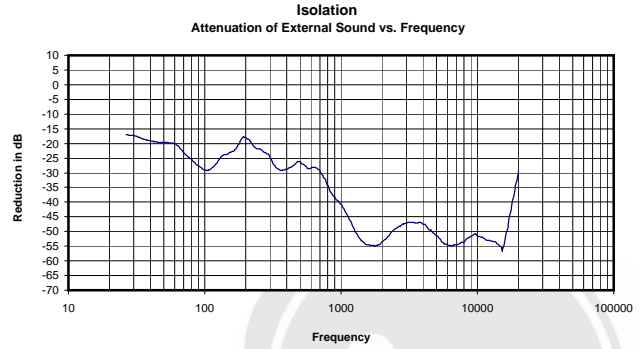
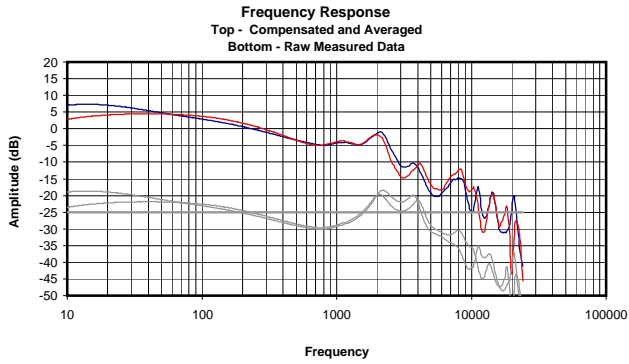




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
18 Ohms
0.12 mW
-19 dBr



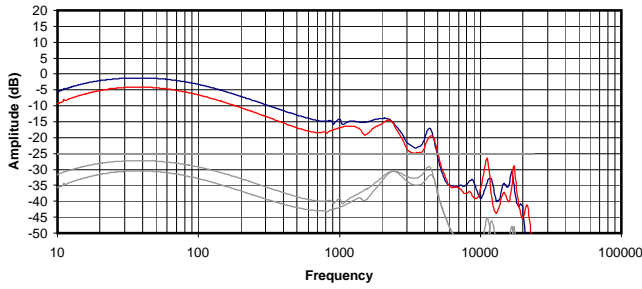


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

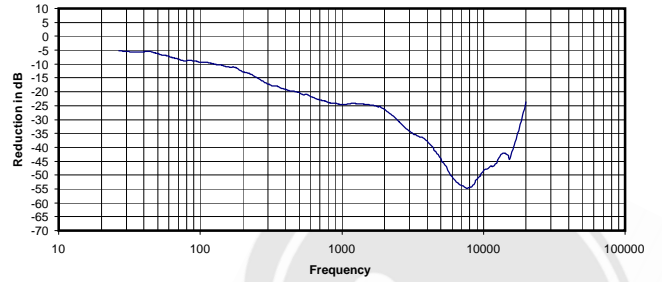
0.037 Vrms
16 Ohms
0.09 mW
-39 dBr



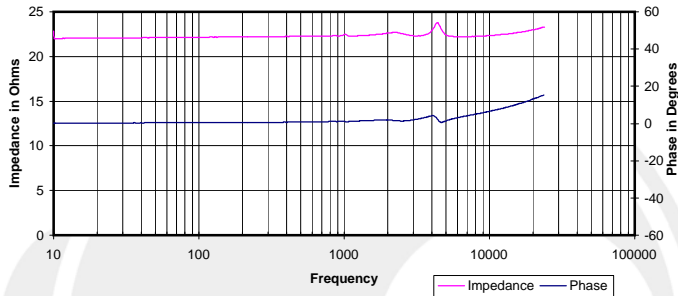
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



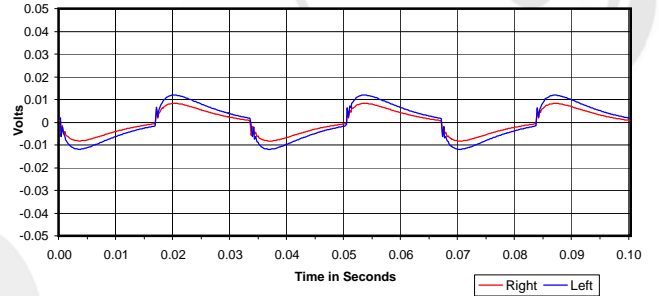
Isolation
Attenuation of External Sound vs. Frequency



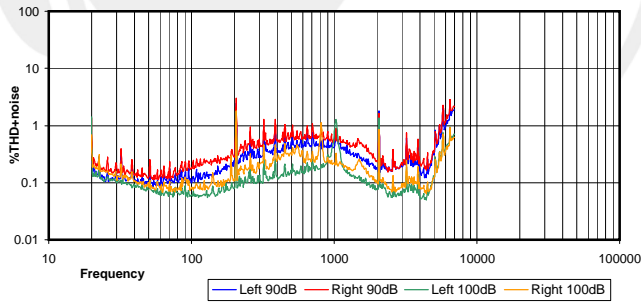
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



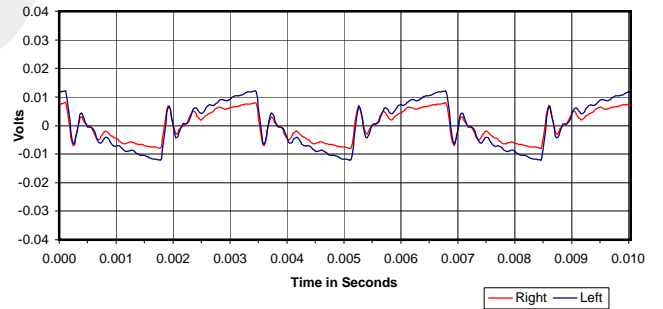
30 Hz Square Wave



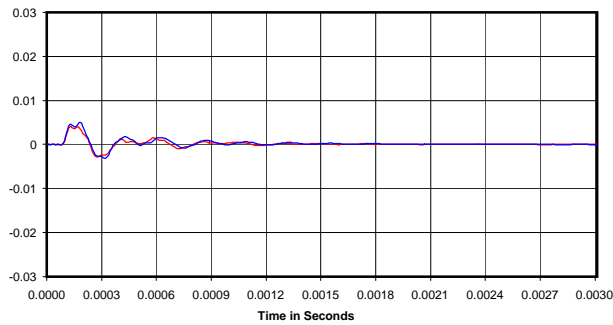
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



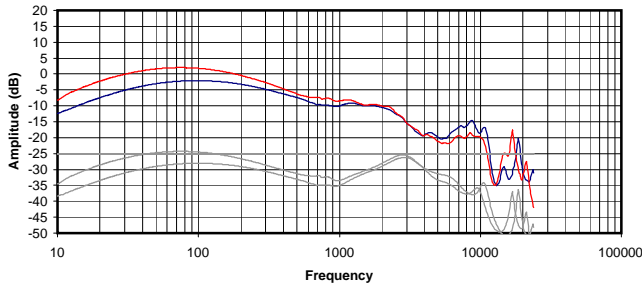
Impulse Response



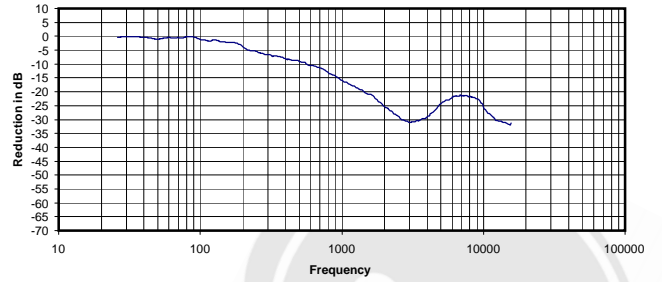
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.030 Vrms
22 Ohms
0.04 mW
-27 dB

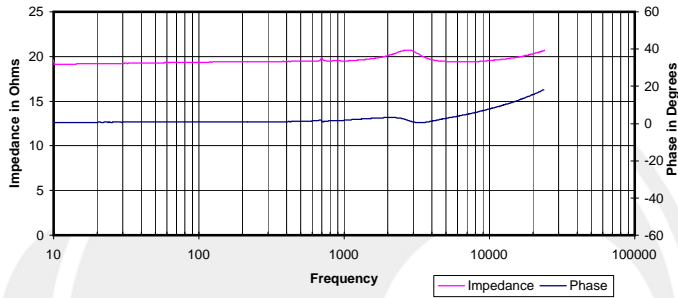
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



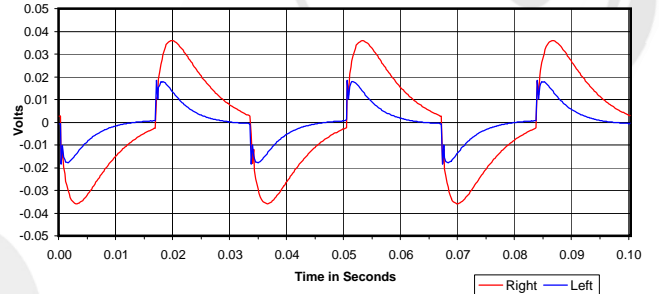
Isolation
Attenuation of External Sound vs. Frequency



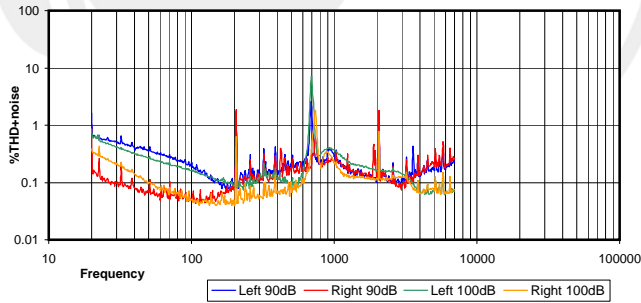
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



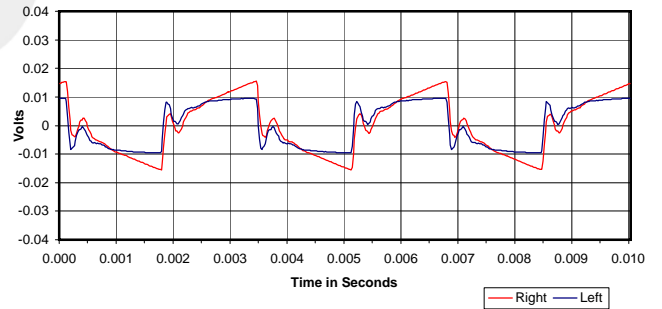
30 Hz Square Wave



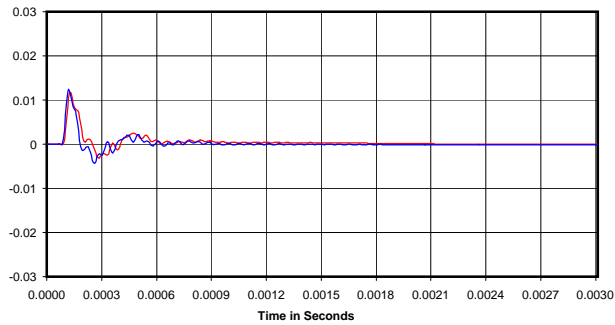
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

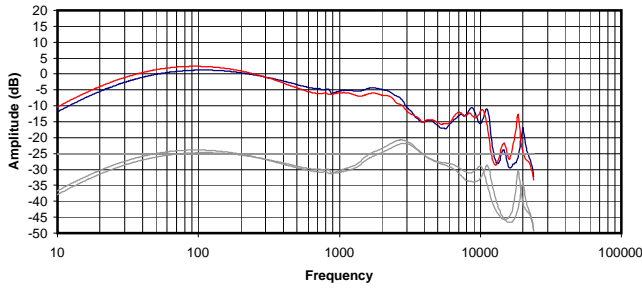


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

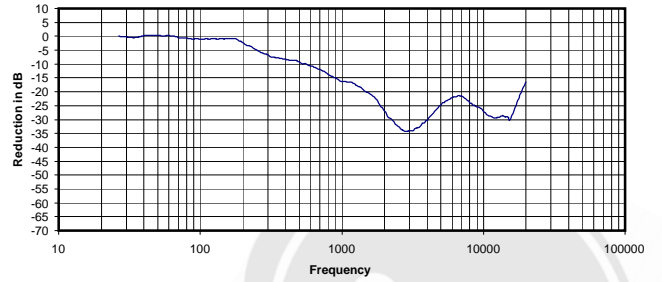
0.040 Vrms
20 Ohms
0.08 mW
-14 dB



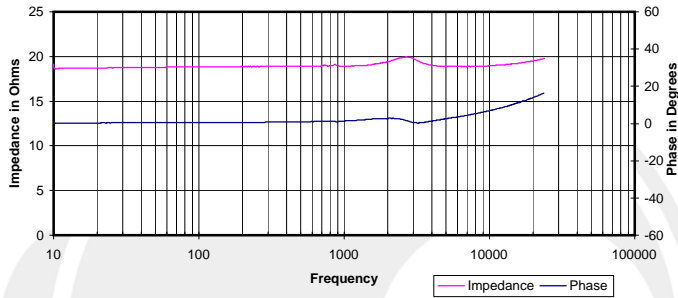
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



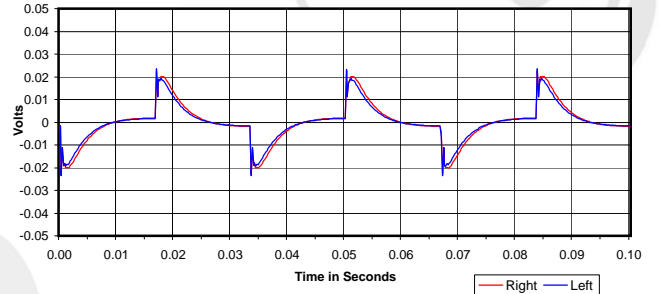
Isolation
Attenuation of External Sound vs. Frequency



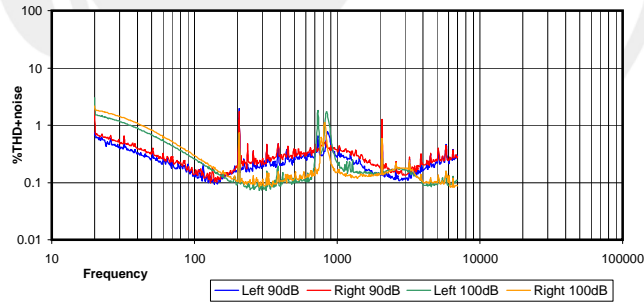
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



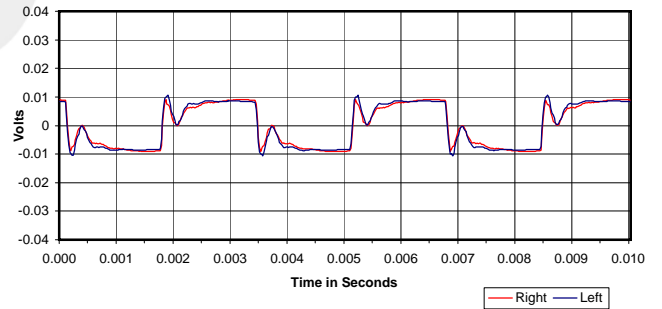
30 Hz Square Wave



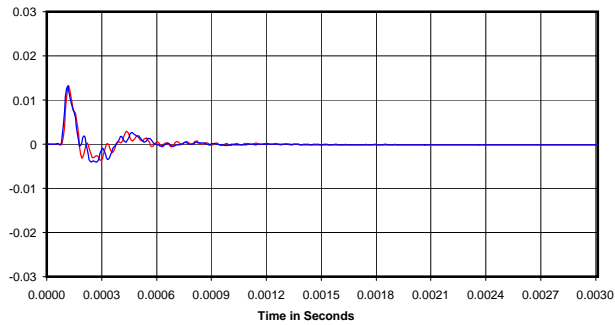
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



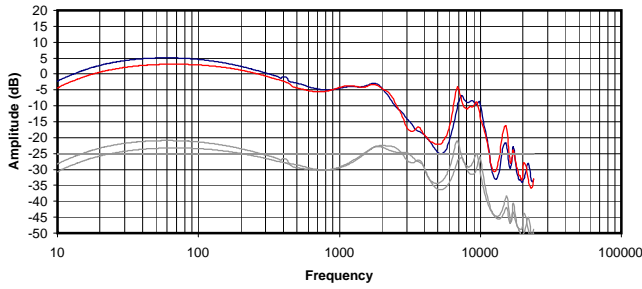
Impulse Response



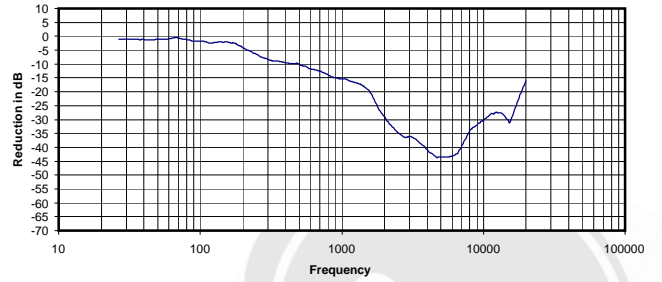
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
19 Ohms
0.09 mW
-16 dB

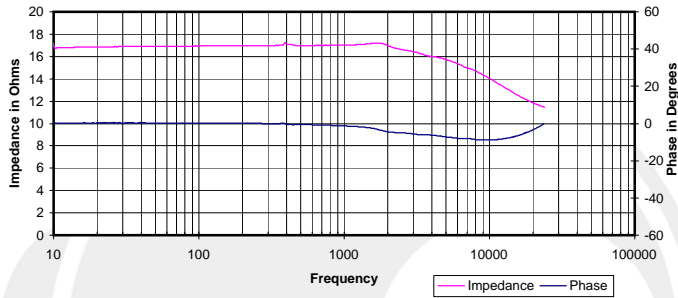
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



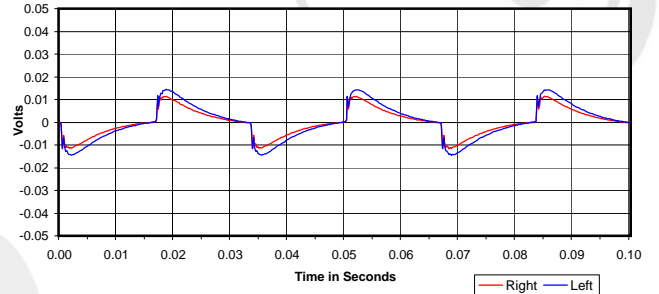
Isolation
Attenuation of External Sound vs. Frequency



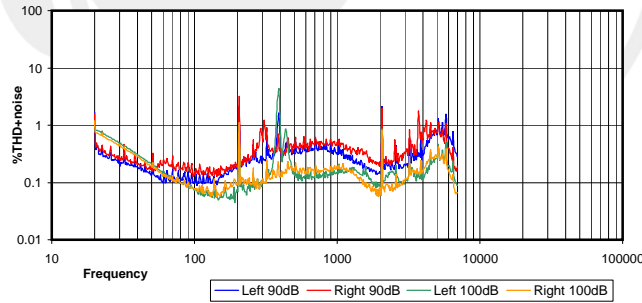
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



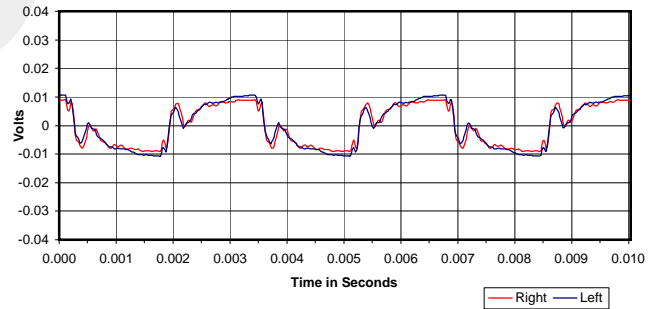
30 Hz Square Wave



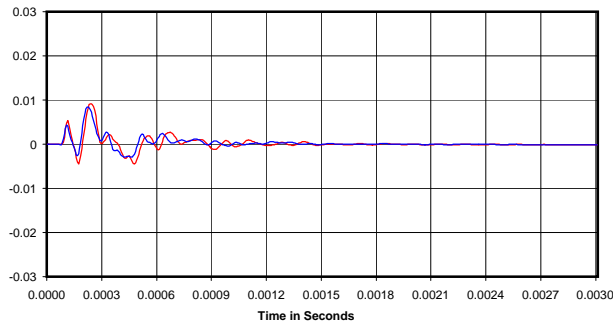
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



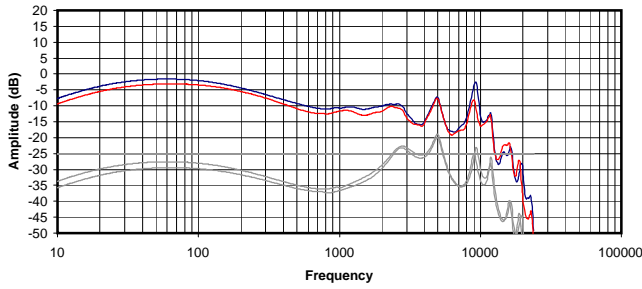
Impulse Response



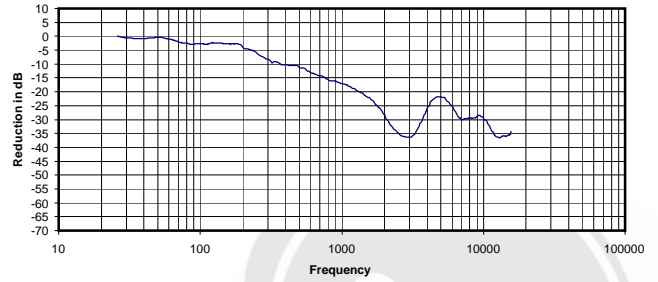
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
17 Ohms
0.04 mW
-20 dB

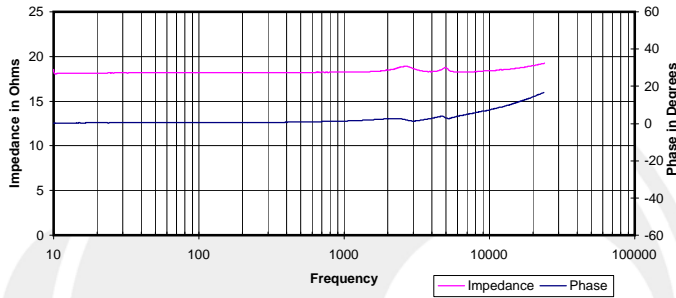
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



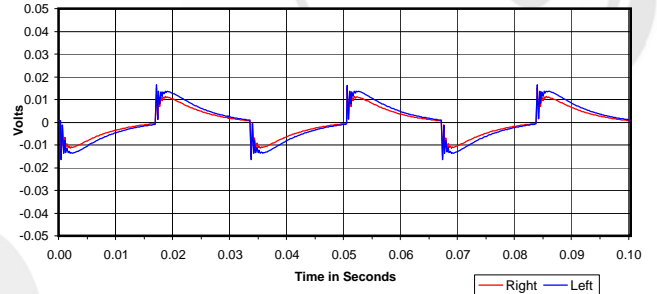
Isolation
Attenuation of External Sound vs. Frequency



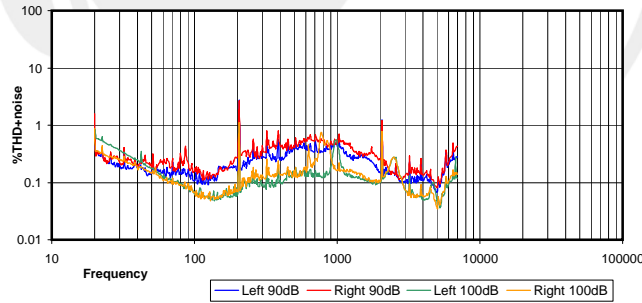
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



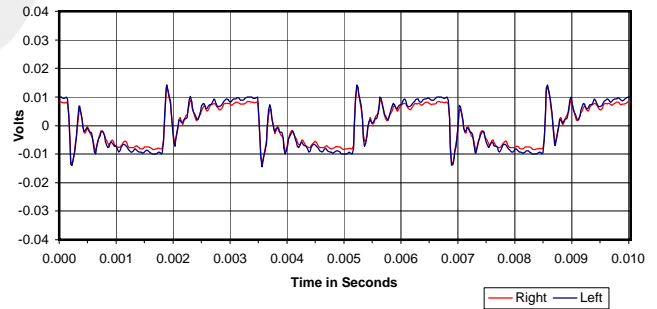
30 Hz Square Wave



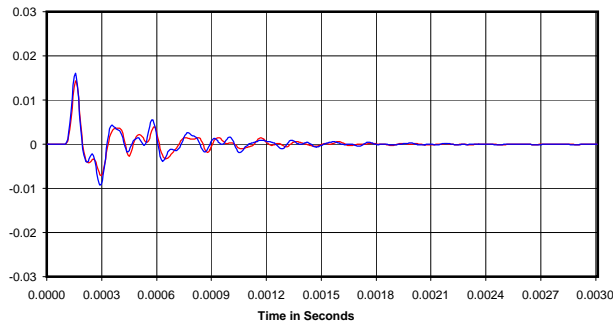
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

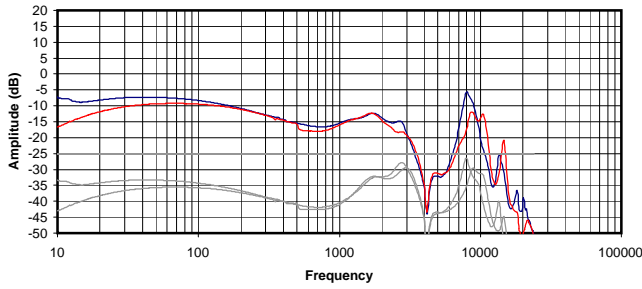


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

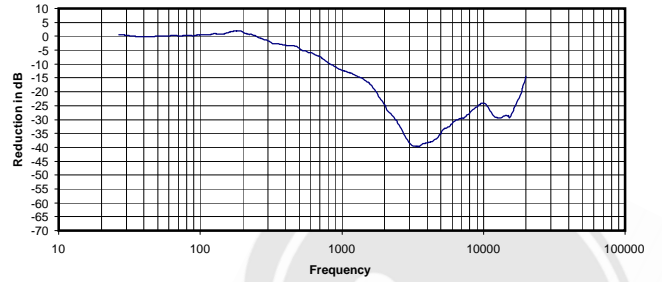
0.037 Vrms
18 Ohms
0.07 mW
-16 dB



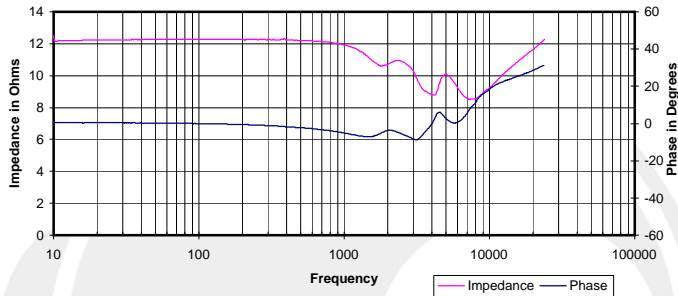
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



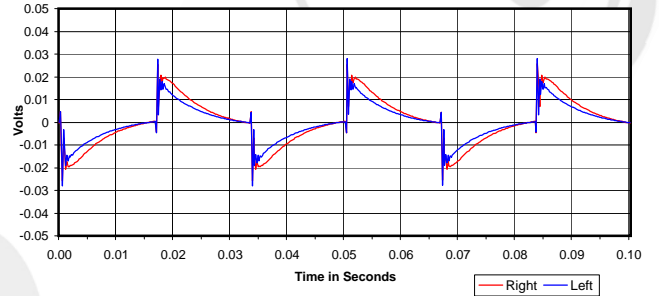
Isolation
Attenuation of External Sound vs. Frequency



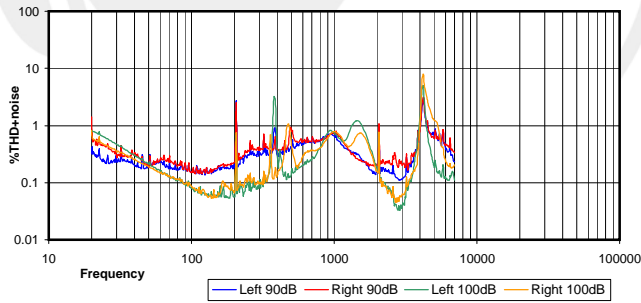
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



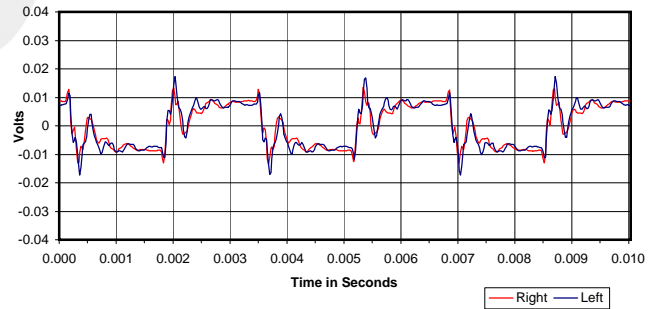
30 Hz Square Wave



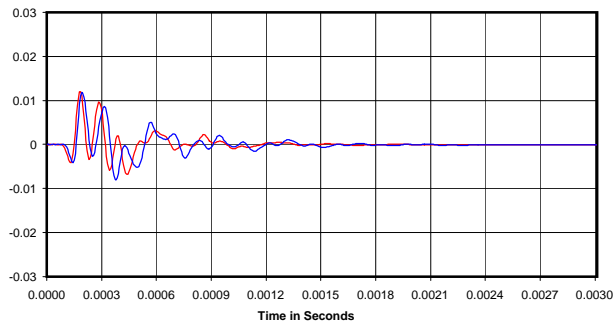
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

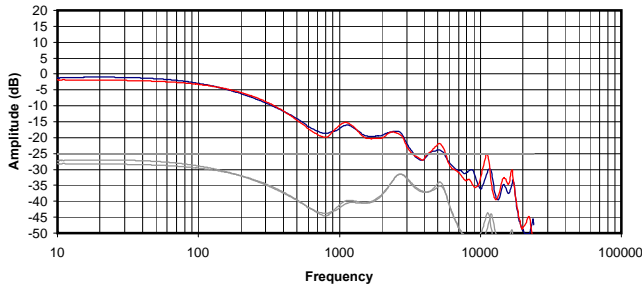


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

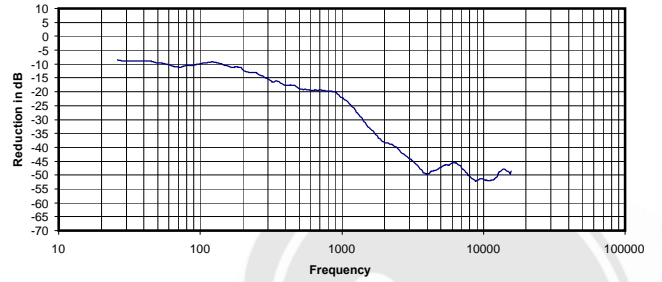
0.019 Vrms
12 Ohms
0.03 mW
-15 dB



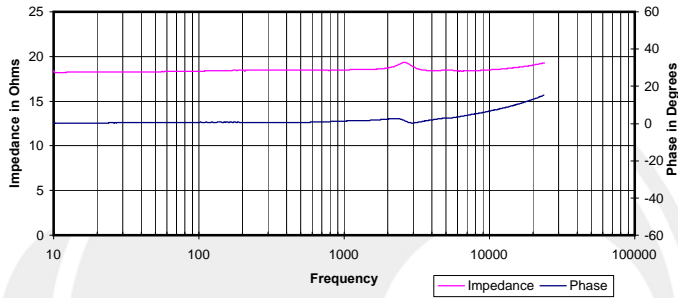
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



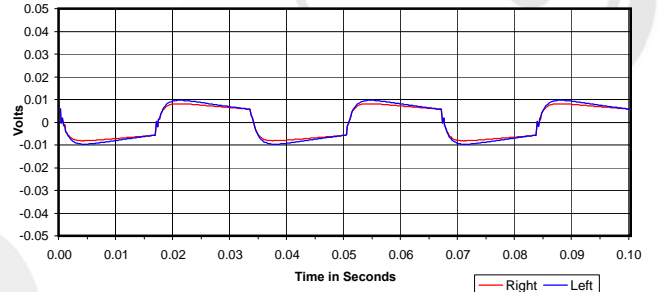
Isolation
Attenuation of External Sound vs. Frequency



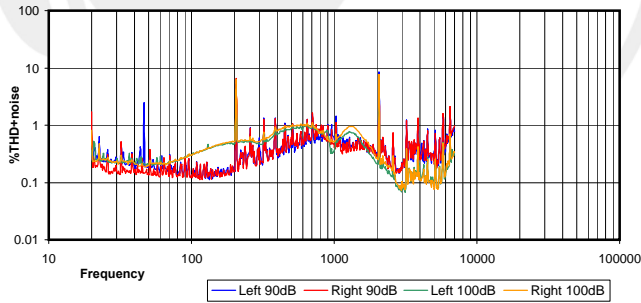
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



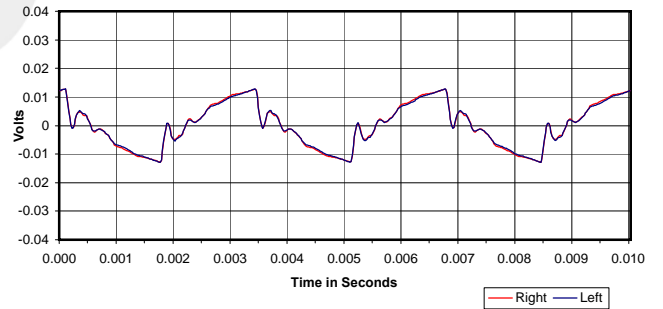
30 Hz Square Wave



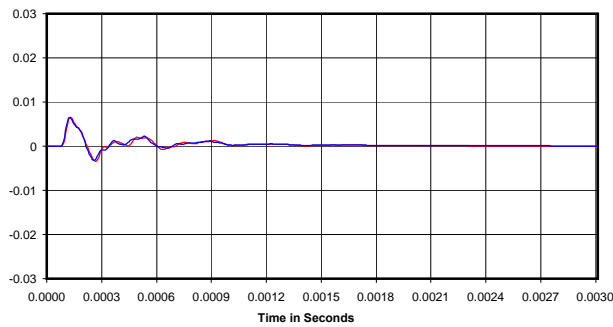
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

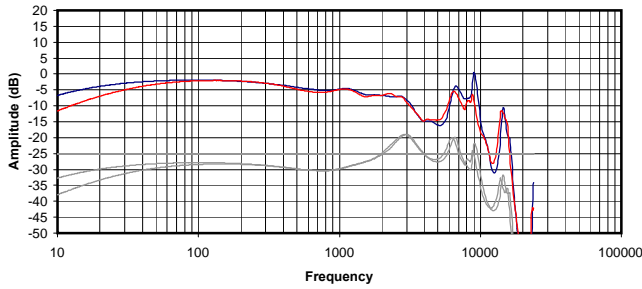


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

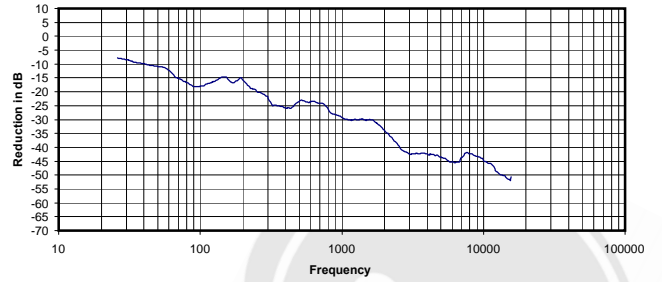
0.026 Vrms
18 Ohms
0.04 mW
-26 dB



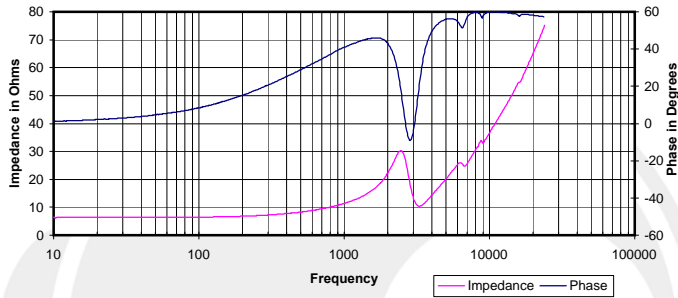
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



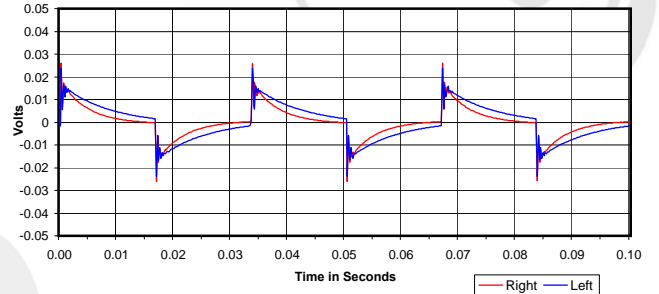
Isolation
Attenuation of External Sound vs. Frequency



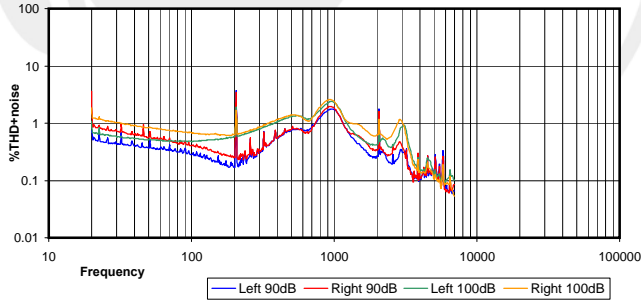
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



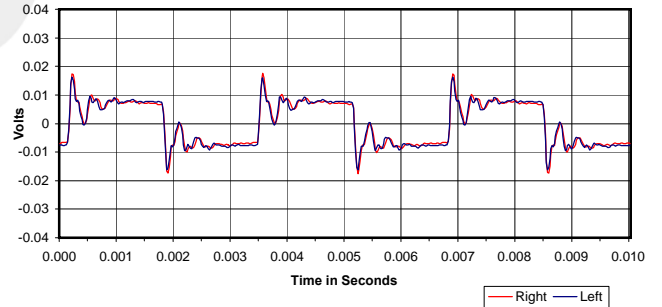
30 Hz Square Wave



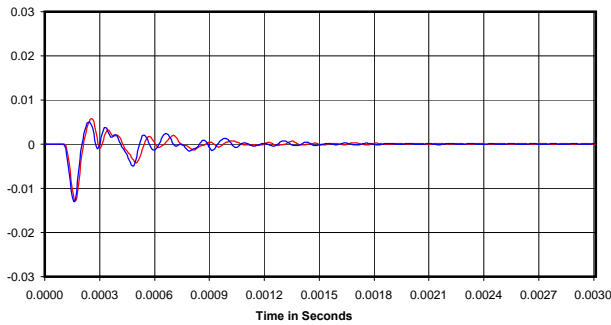
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

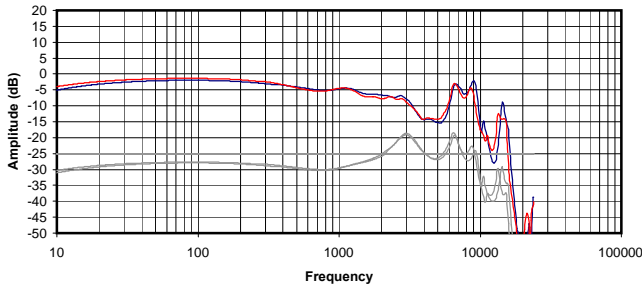


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

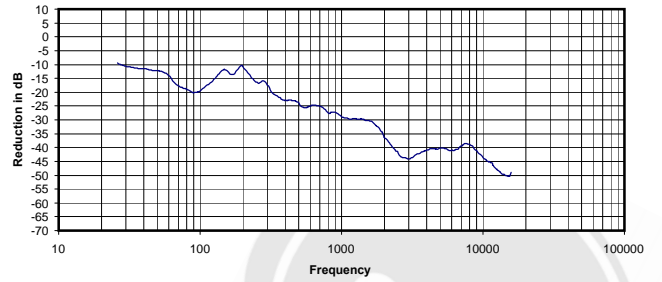
0.012 Vrms
11 Ohms
0.01 mW
-28 dB



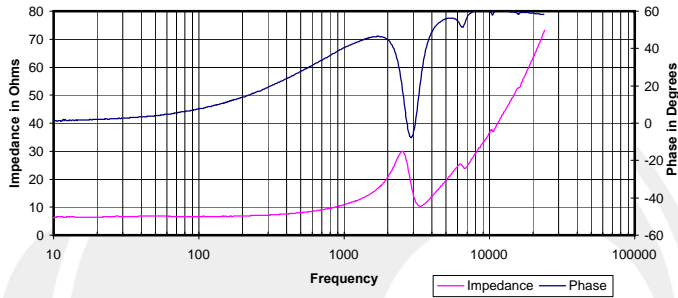
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



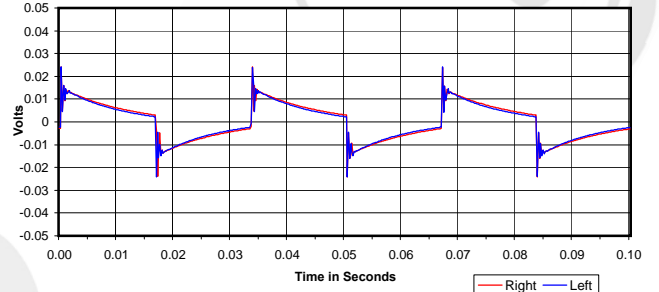
Isolation
Attenuation of External Sound vs. Frequency



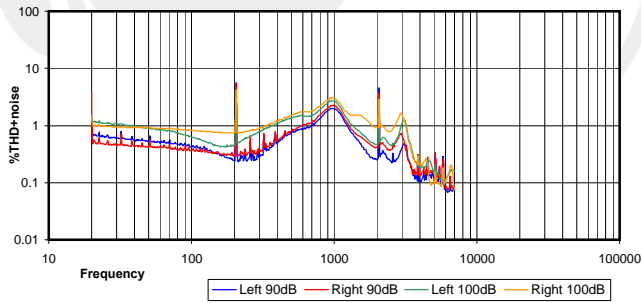
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



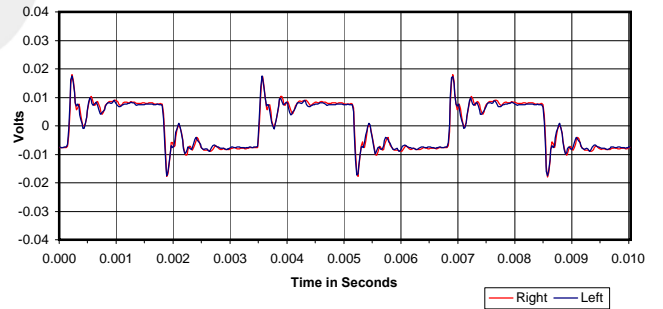
30 Hz Square Wave



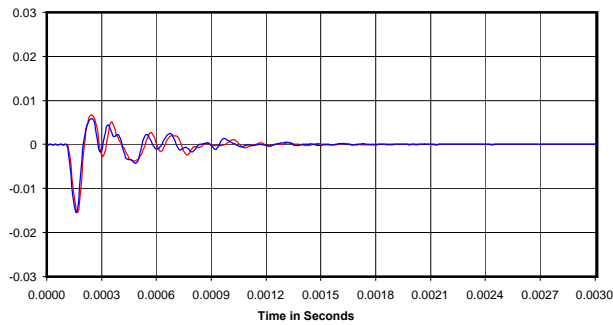
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



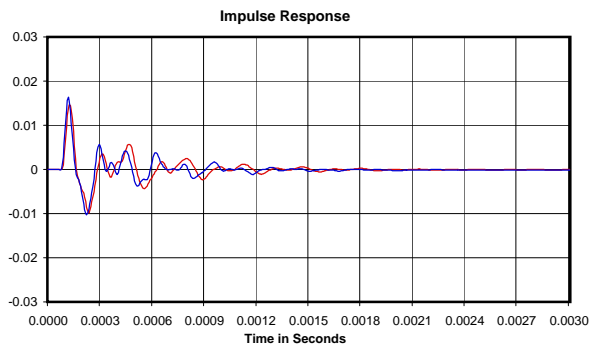
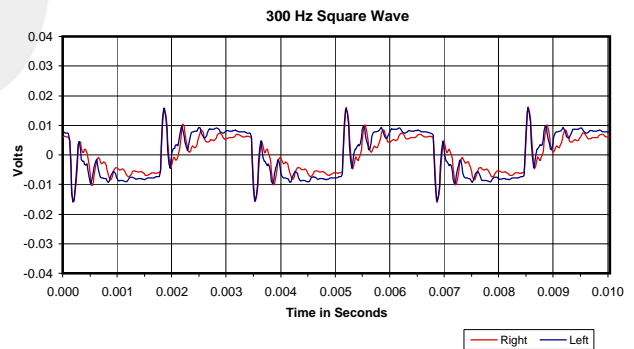
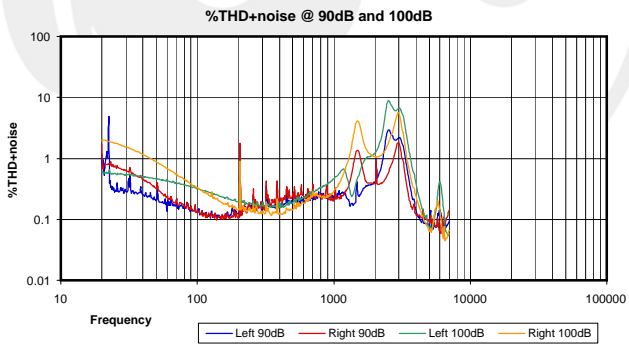
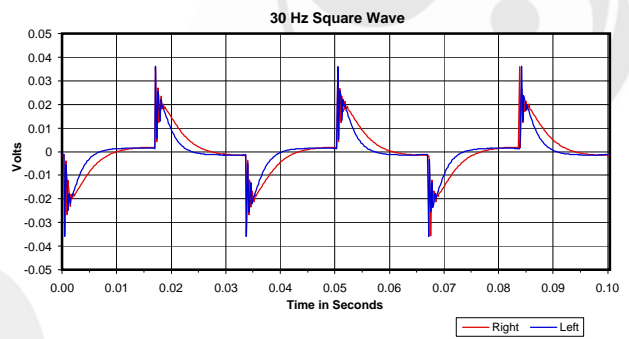
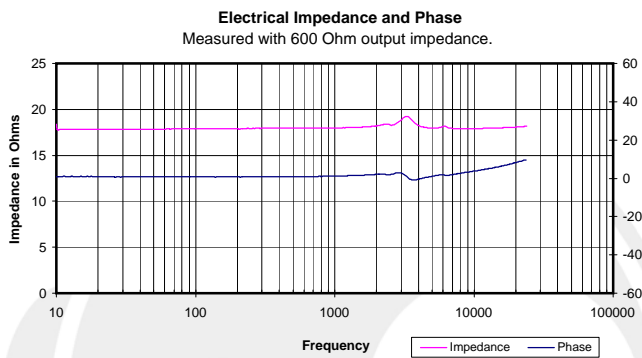
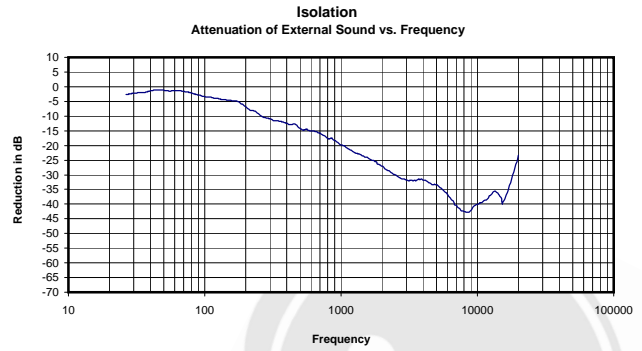
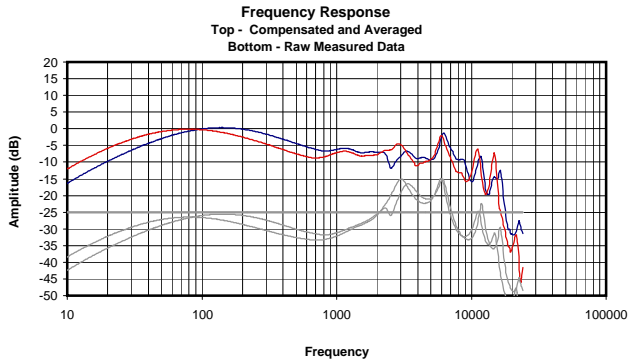
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
11 Ohms
0.01 mW
-27 dB



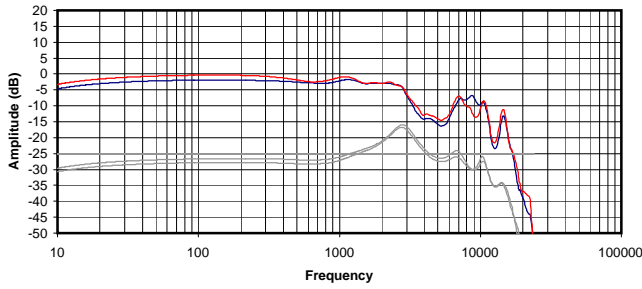


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

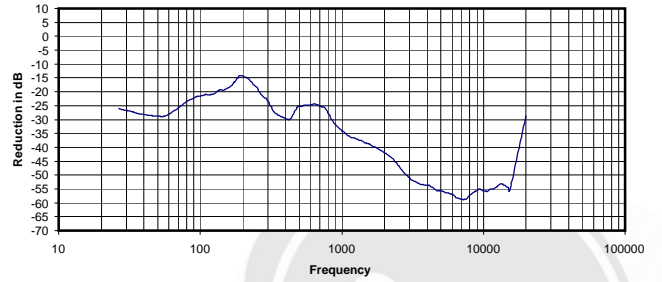
0.057 Vrms
18 Ohms
0.18 mW
-21 dB



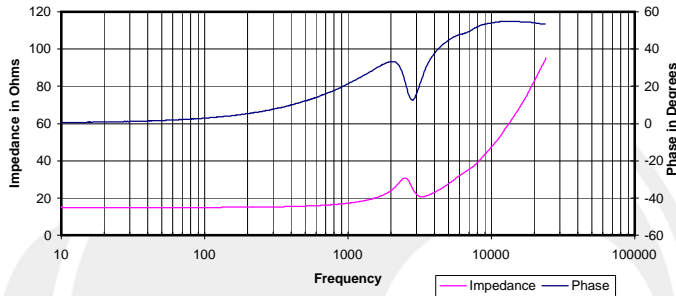
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



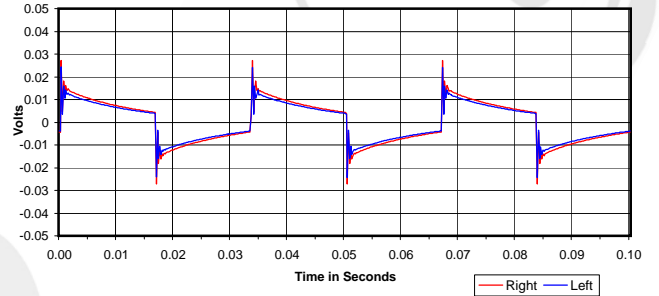
Isolation
Attenuation of External Sound vs. Frequency



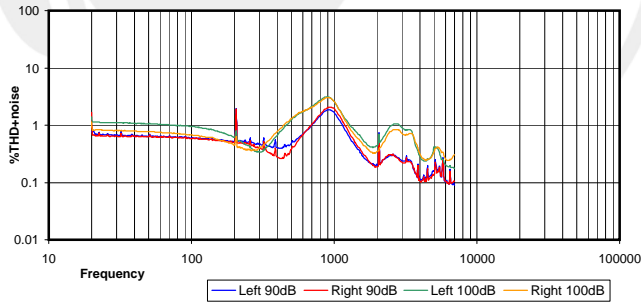
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



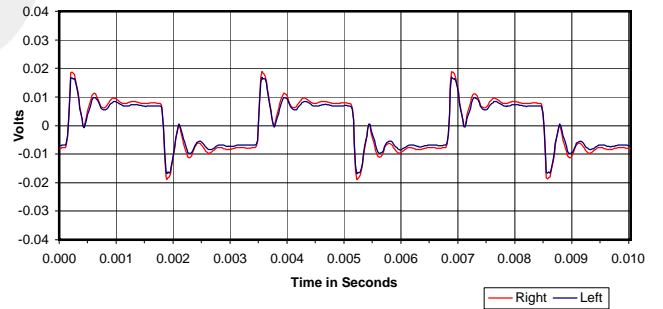
30 Hz Square Wave



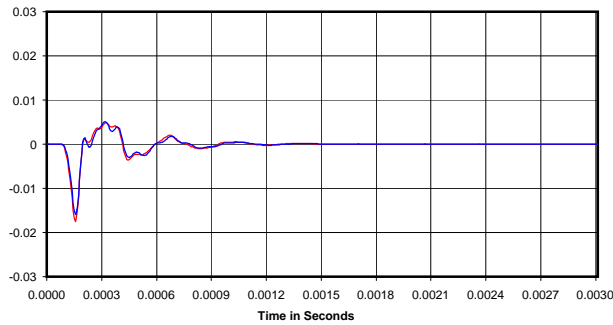
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

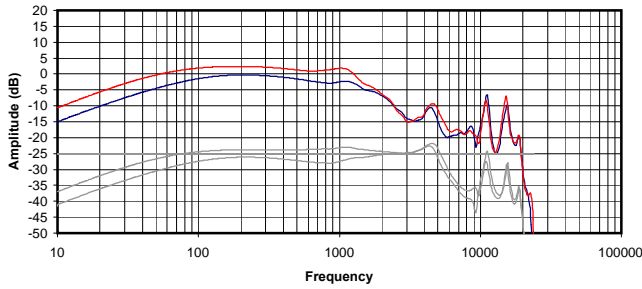


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

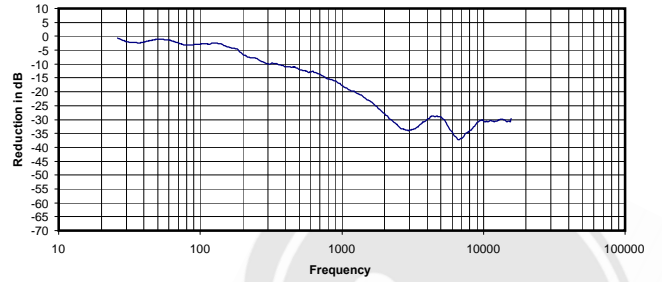
0.022 Vrms
17 Ohms
0.03 mW
-36 dB



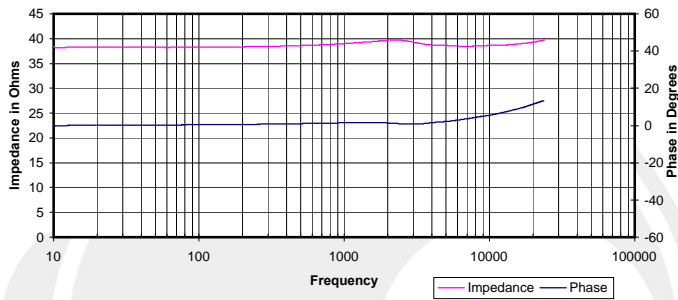
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



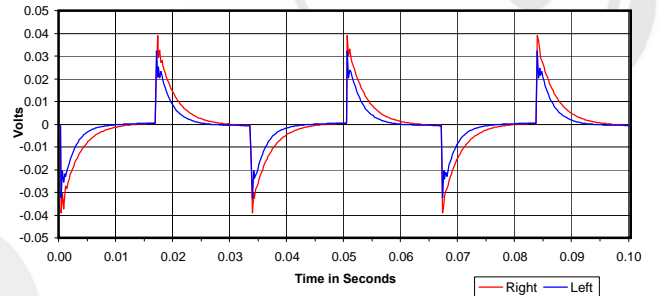
Isolation
Attenuation of External Sound vs. Frequency



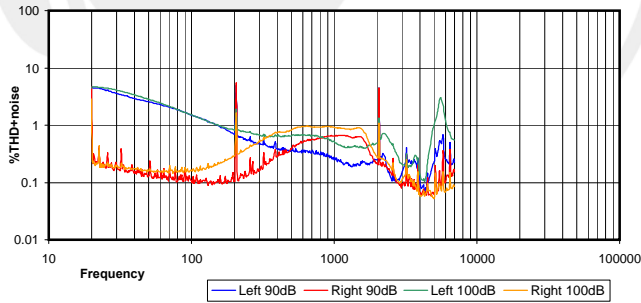
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



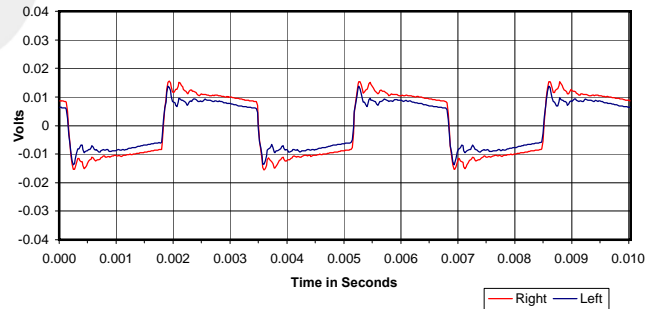
30 Hz Square Wave



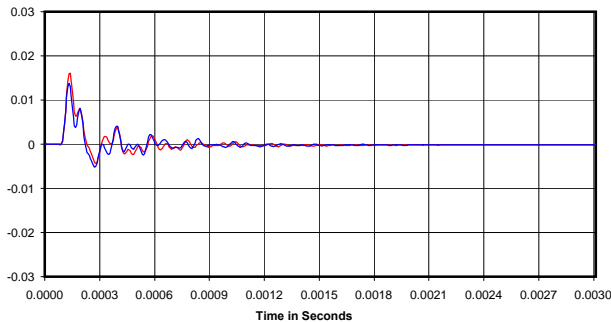
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

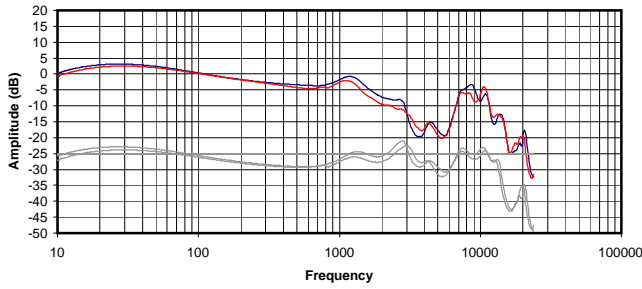


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

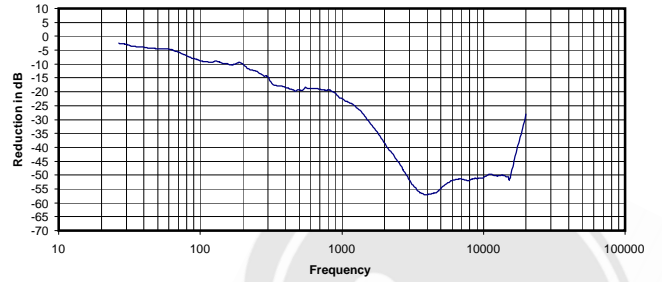
0.035 Vrms
39 Ohms
0.03 mW
-17 dB



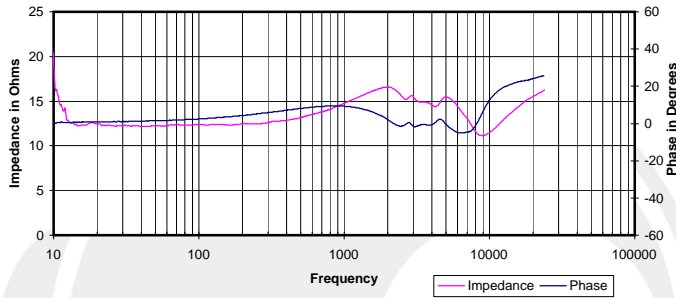
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



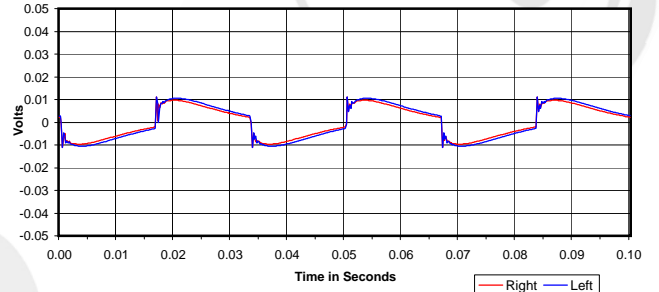
Isolation
Attenuation of External Sound vs. Frequency



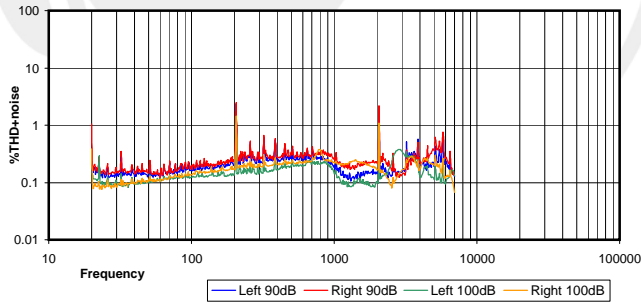
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



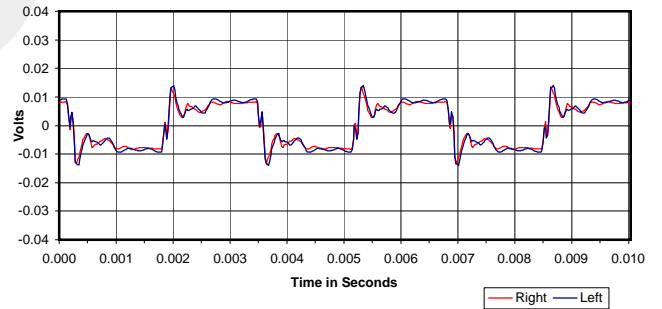
30 Hz Square Wave



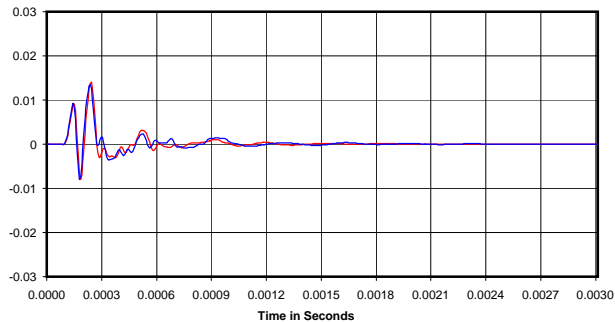
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



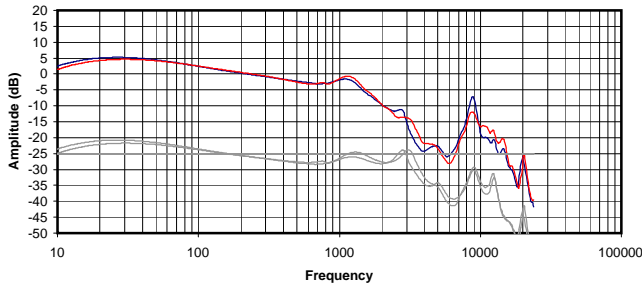
Impulse Response



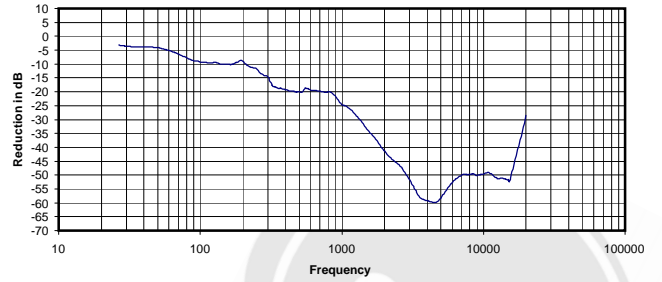
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
15 Ohms
0.01 mW
-30 dB

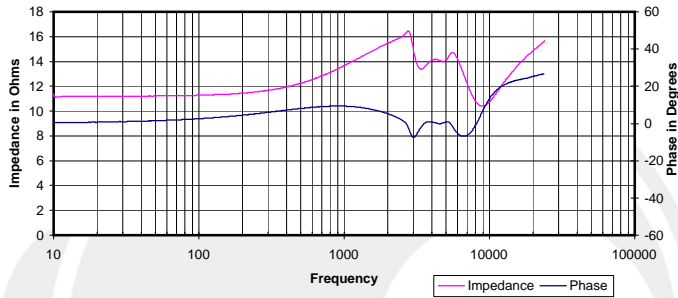
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



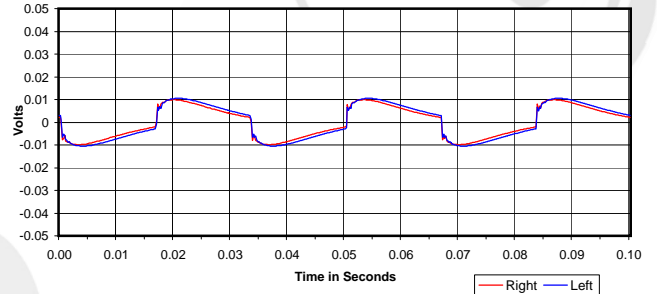
Isolation
Attenuation of External Sound vs. Frequency



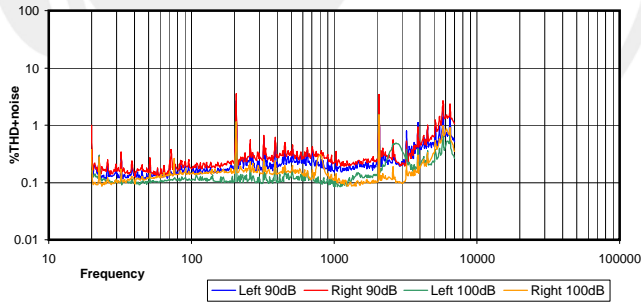
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



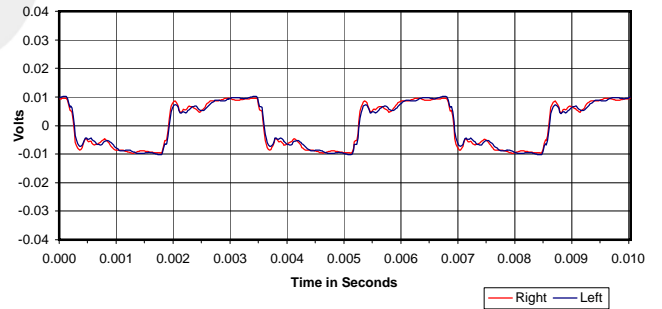
30 Hz Square Wave



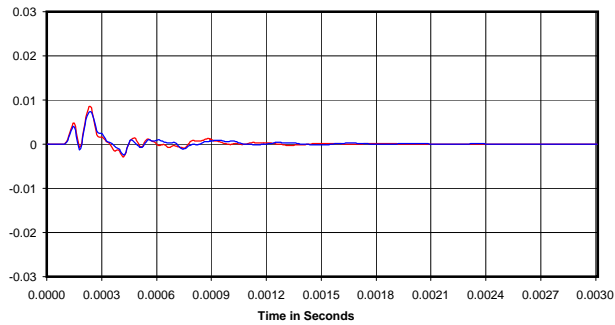
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

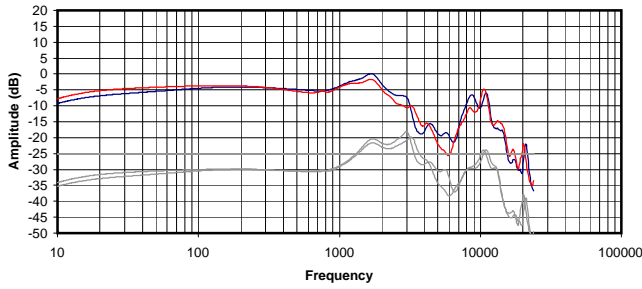


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

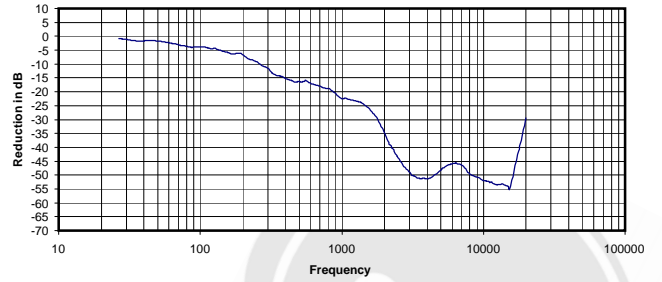
0.019 Vrms
14 Ohms
0.03 mW
-31 dB



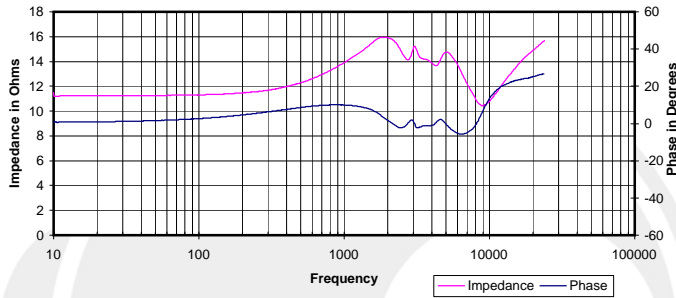
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



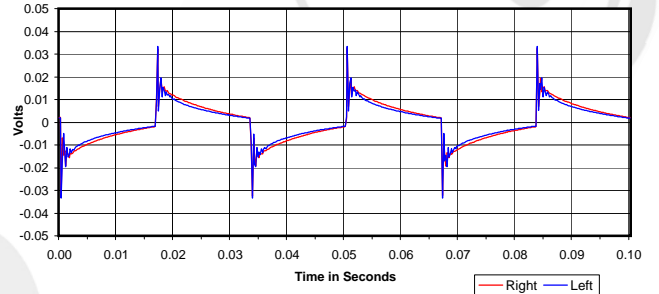
Isolation
Attenuation of External Sound vs. Frequency



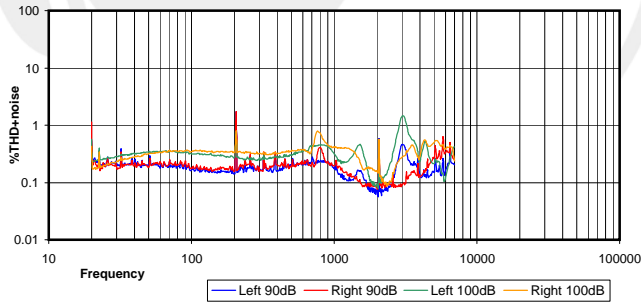
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



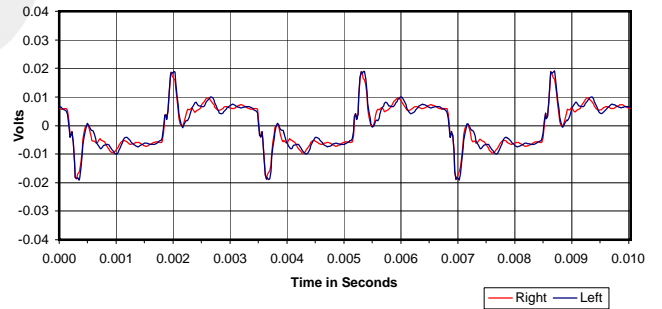
30 Hz Square Wave



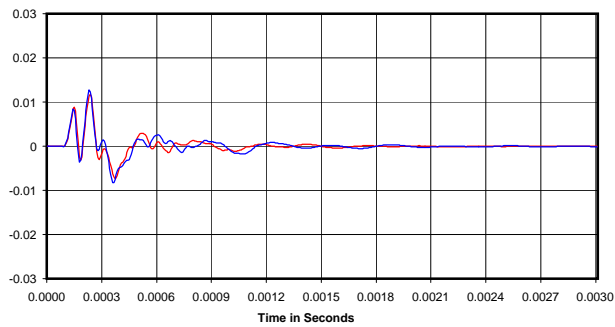
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

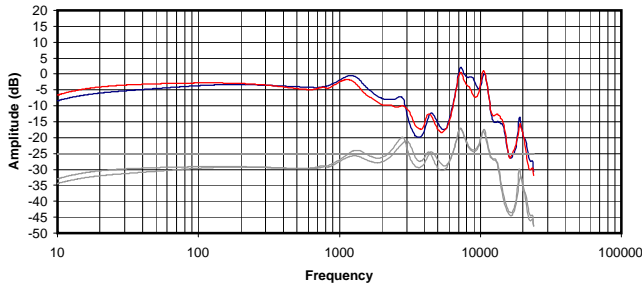


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

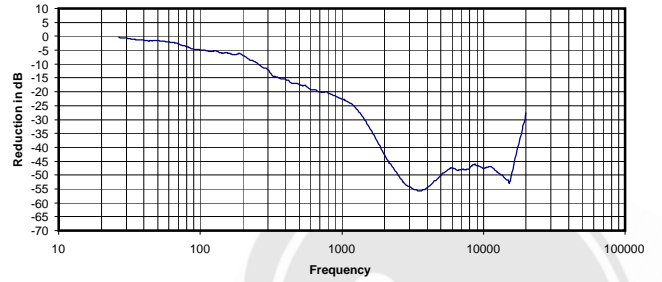
0.016 Vrms
14 Ohms
0.02 mW
-27 dB



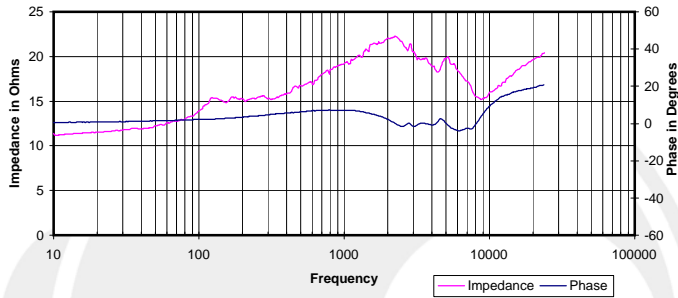
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



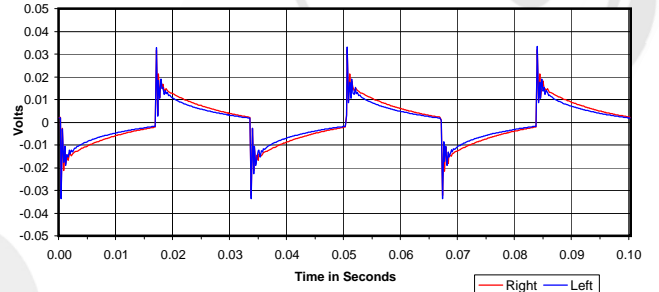
Isolation
Attenuation of External Sound vs. Frequency



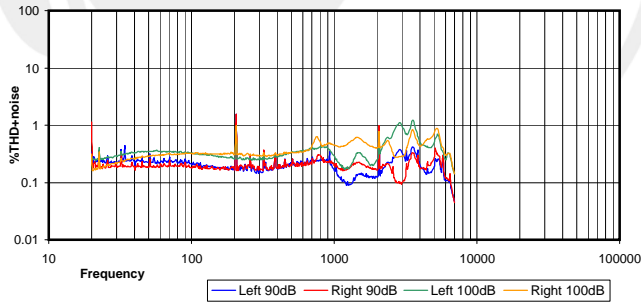
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



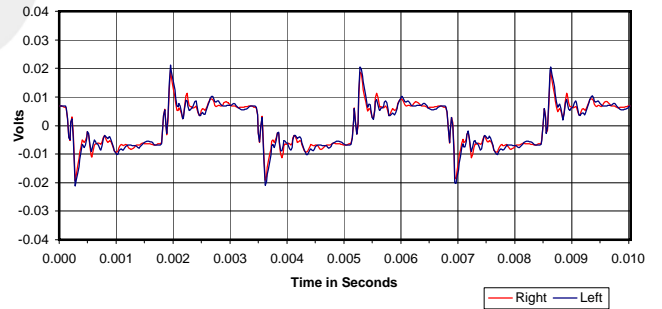
30 Hz Square Wave



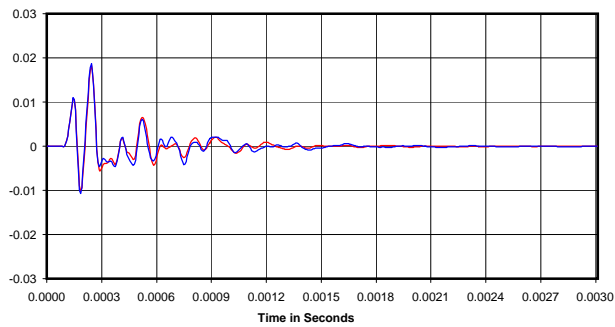
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



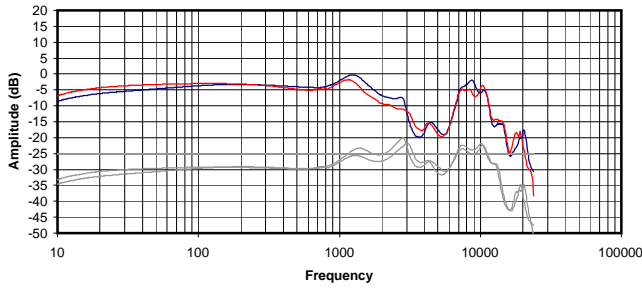
Impulse Response



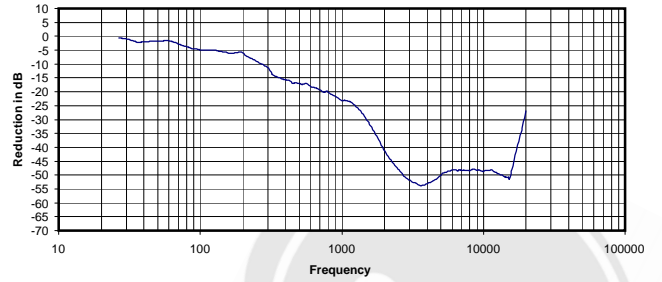
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.014 Vrms
19 Ohms
0.01 mW
-29 dB

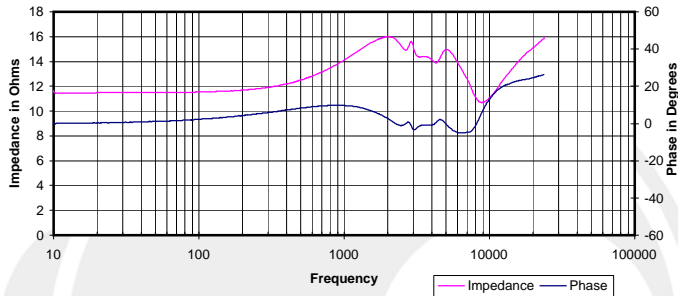
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



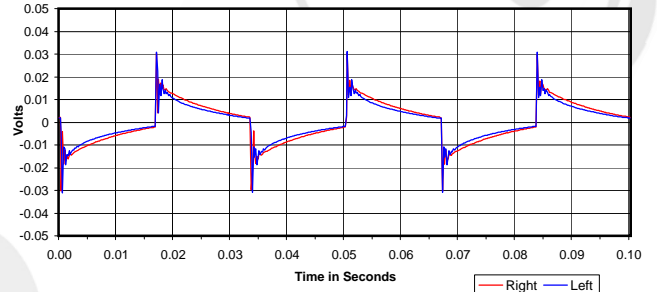
Isolation
Attenuation of External Sound vs. Frequency



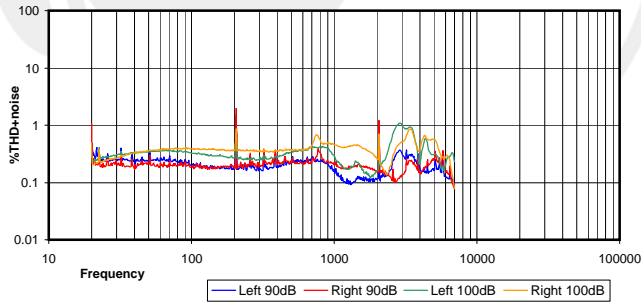
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



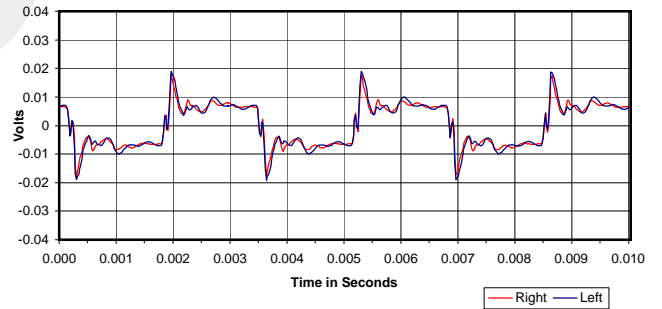
30 Hz Square Wave



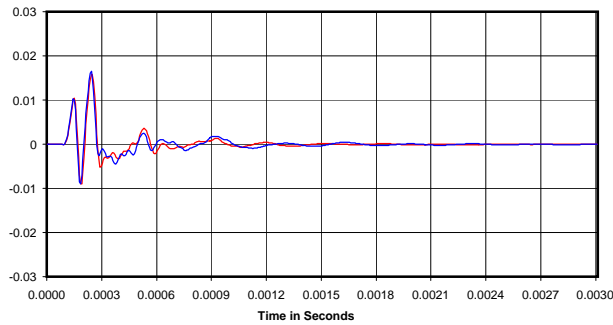
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

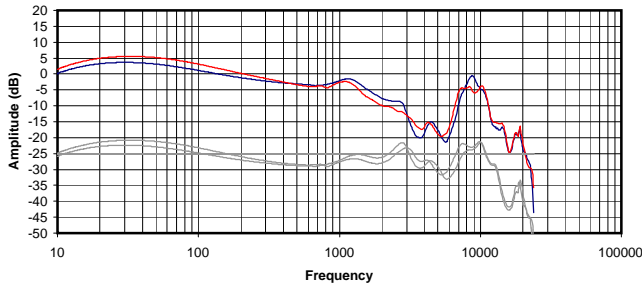


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

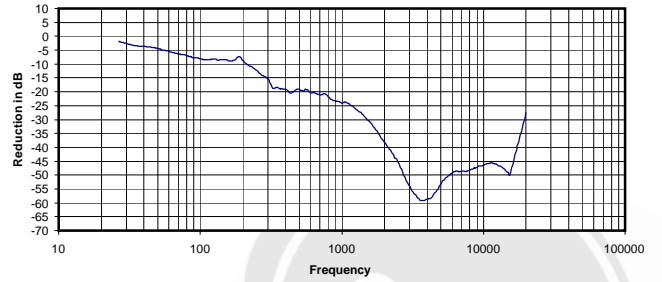
0.014 Vrms
14 Ohms
0.01 mW
-28 dB



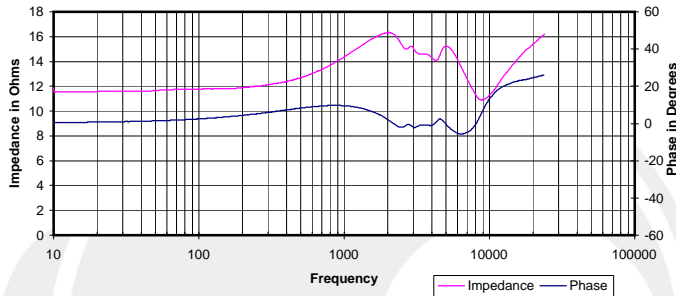
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



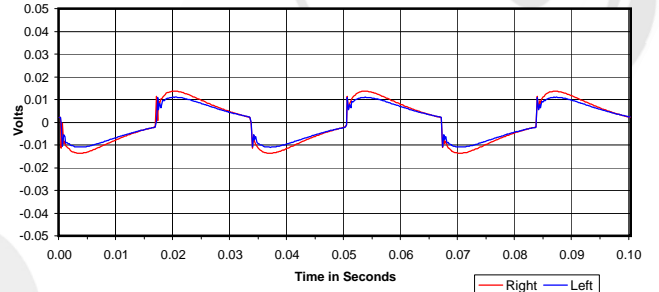
Isolation
Attenuation of External Sound vs. Frequency



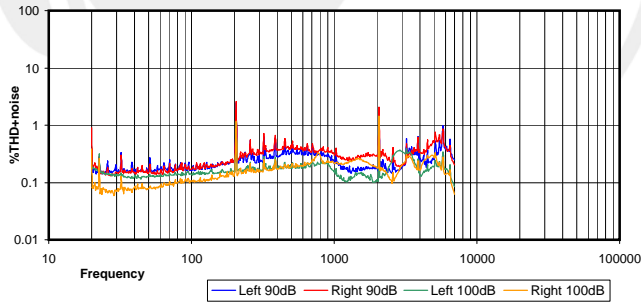
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



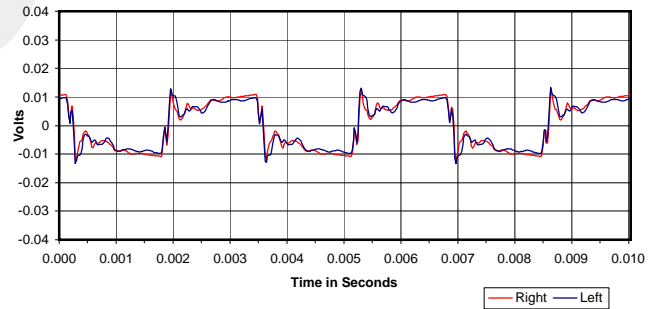
30 Hz Square Wave



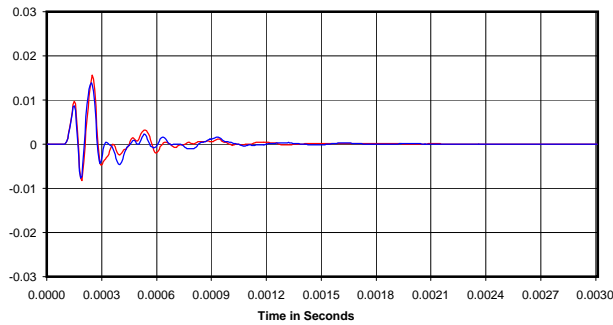
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



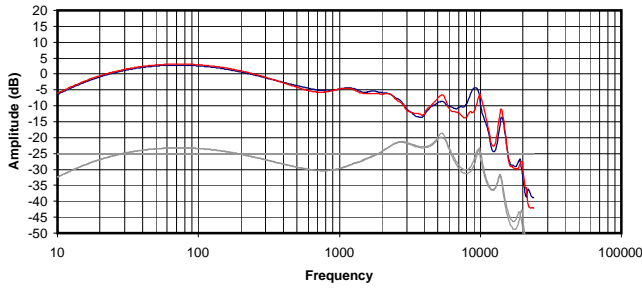
Impulse Response



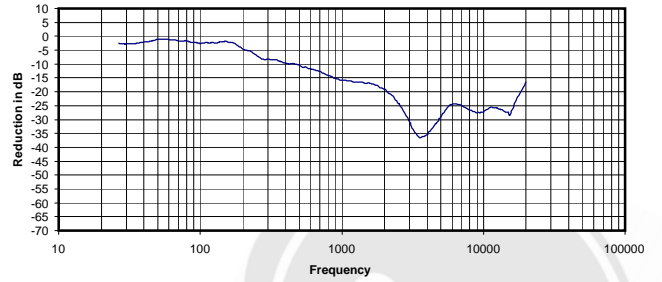
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.015 Vrms
14 Ohms
0.01 mW
-30 dB

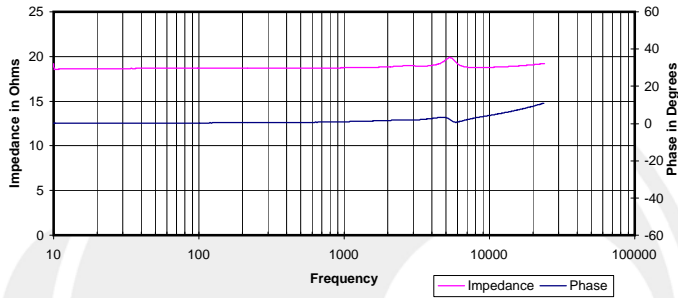
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



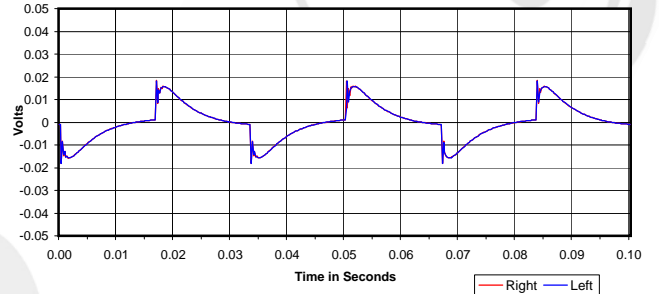
Isolation
Attenuation of External Sound vs. Frequency



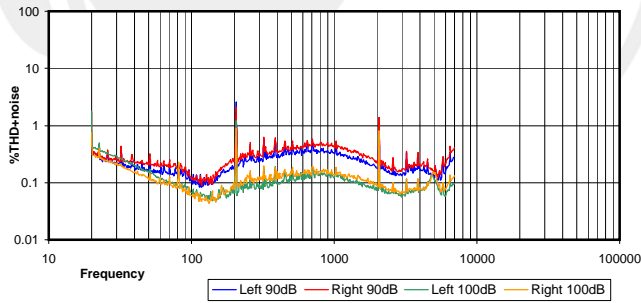
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



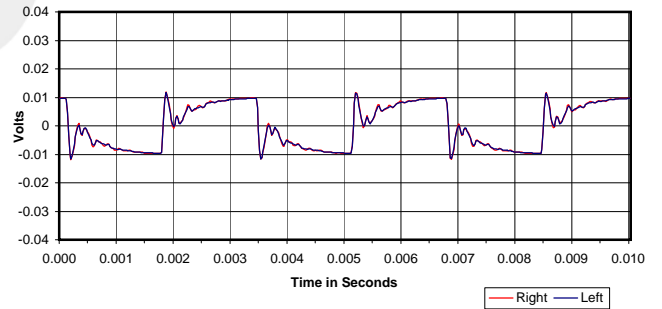
30 Hz Square Wave



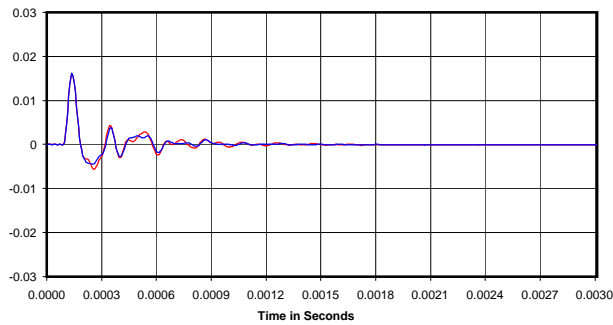
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



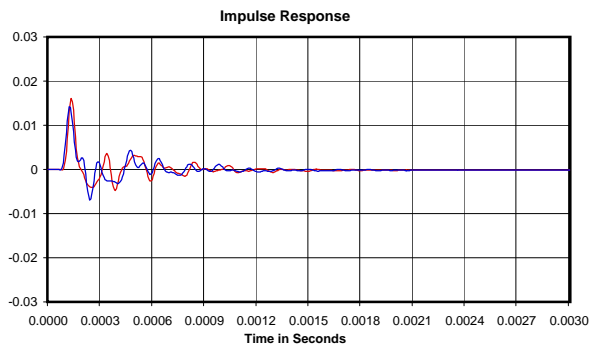
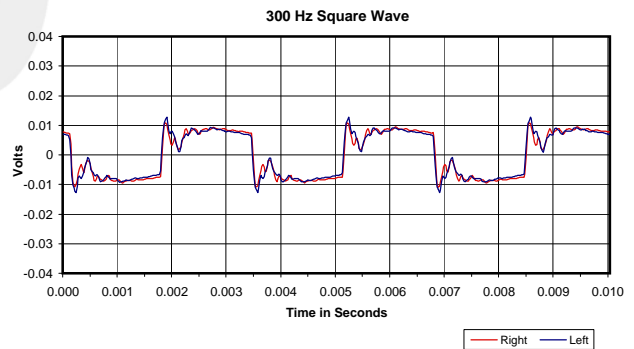
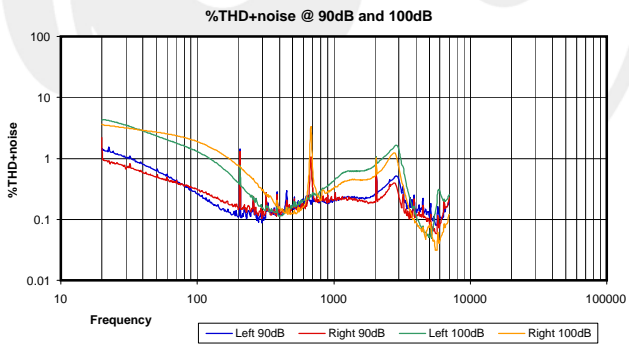
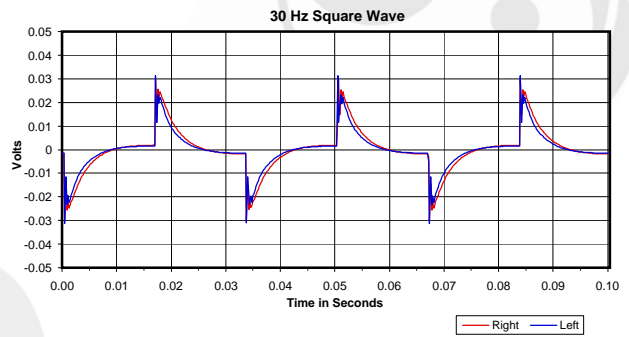
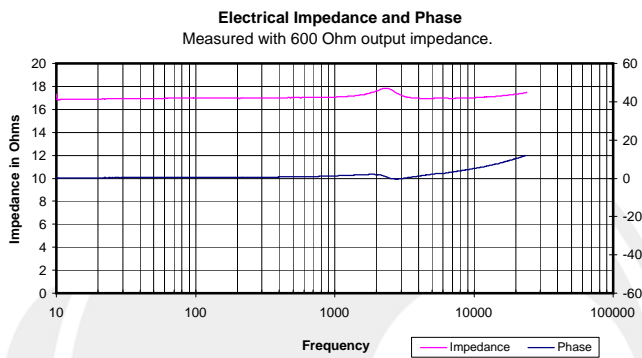
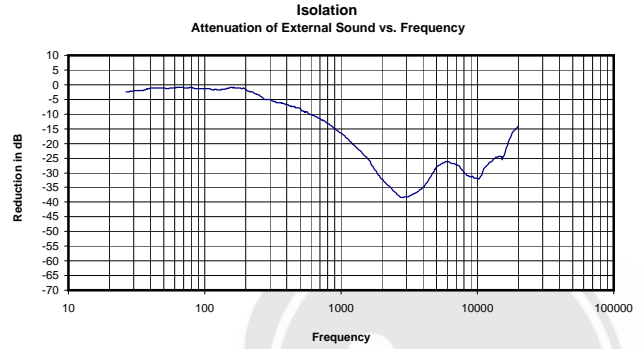
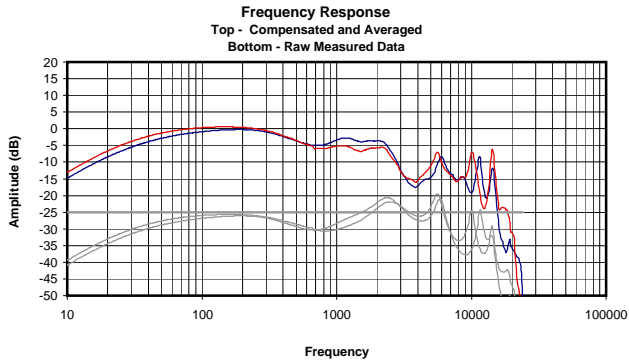
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
19 Ohms
0.09 mW
-16 dB



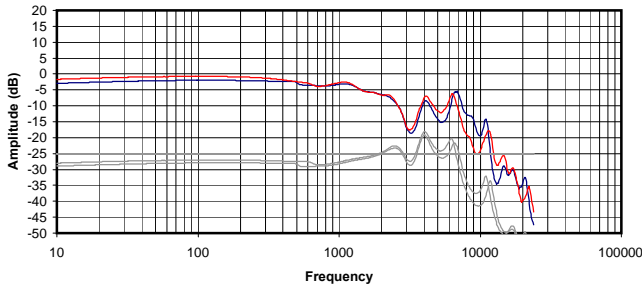


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

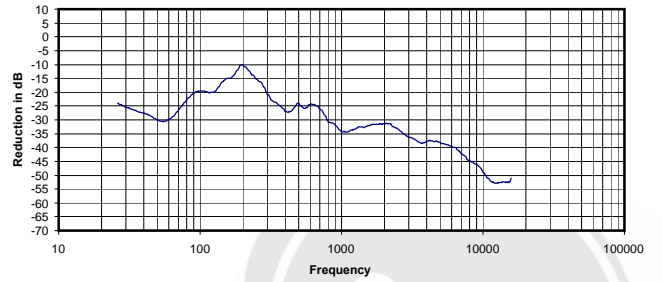
0.029 Vrms
17 Ohms
0.05 mW
-18 dBr



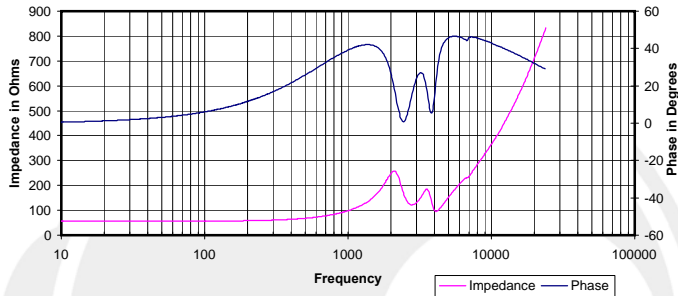
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



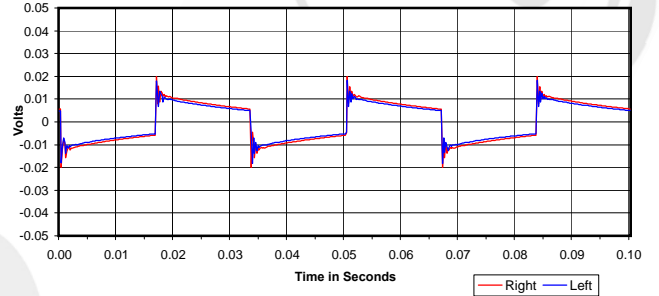
Isolation
Attenuation of External Sound vs. Frequency



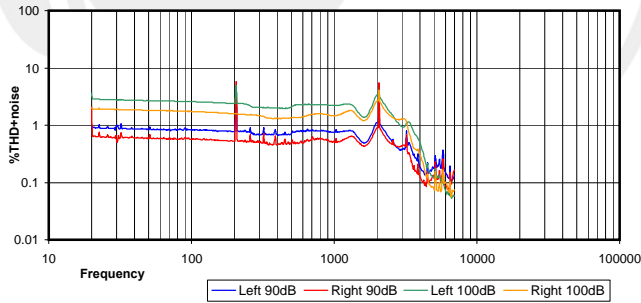
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



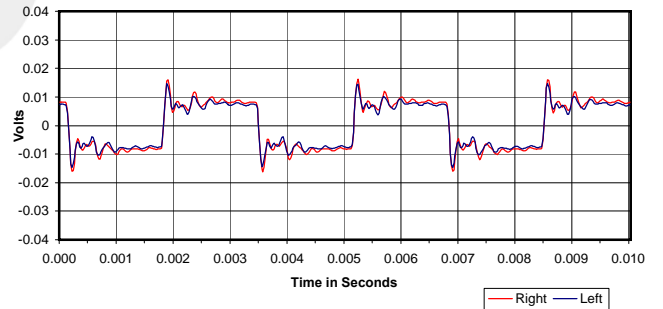
30 Hz Square Wave



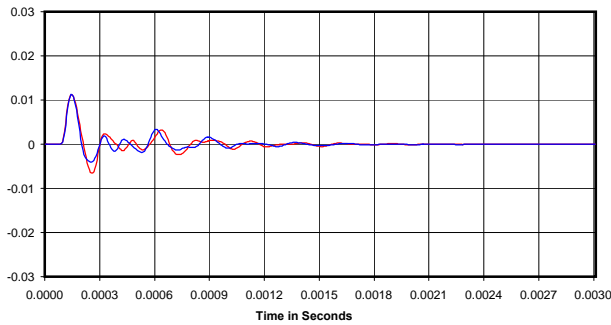
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

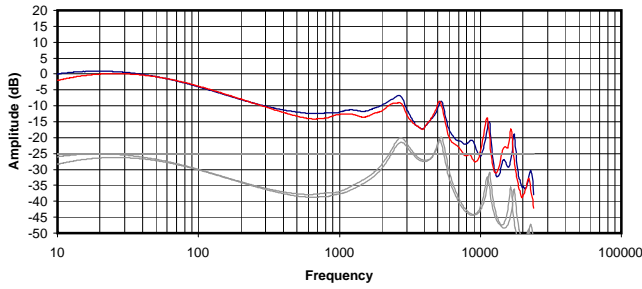


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

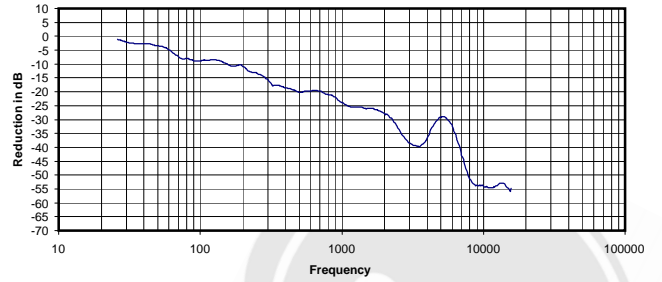
0.025 Vrms
99 Ohms
0.01 mW
-27 dB



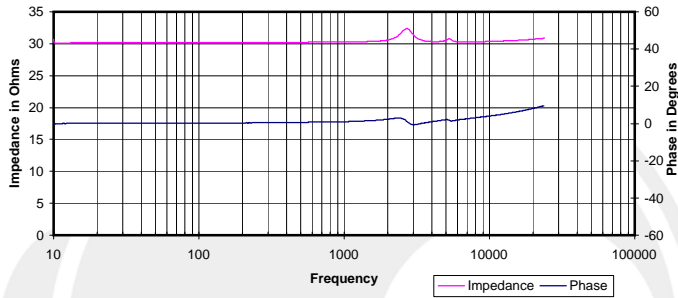
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



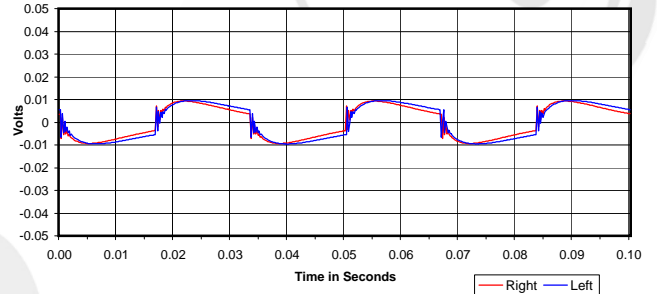
Isolation
Attenuation of External Sound vs. Frequency



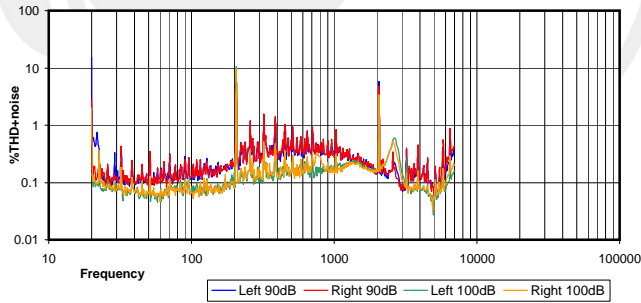
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



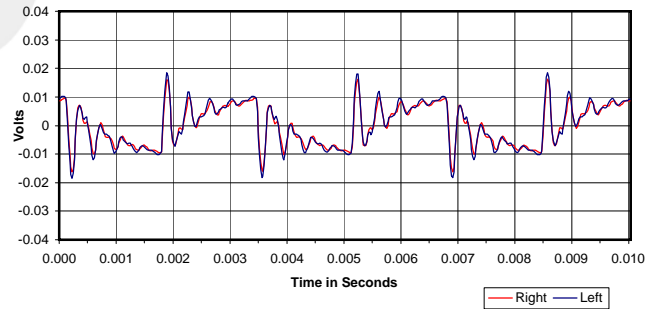
30 Hz Square Wave



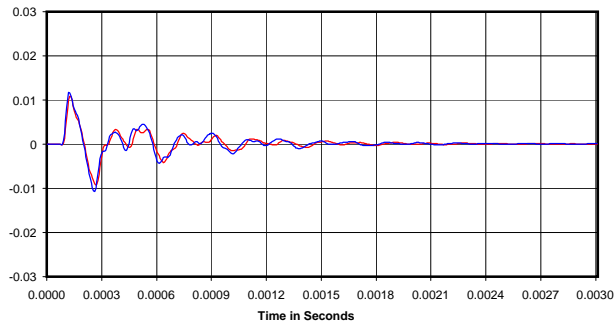
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

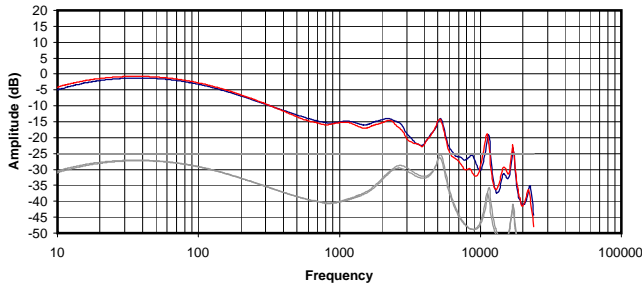


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

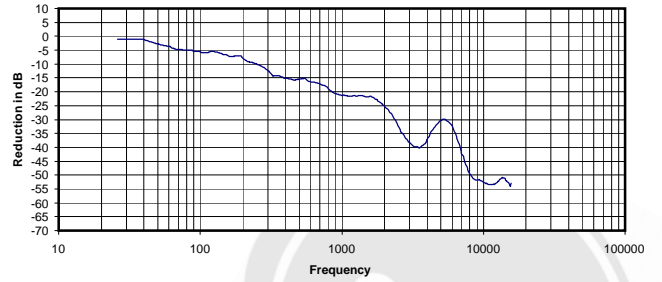
0.054 Vrms
30 Ohms
0.09 mW
-22 dB



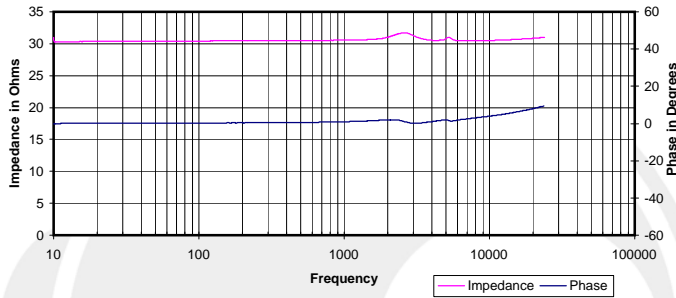
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



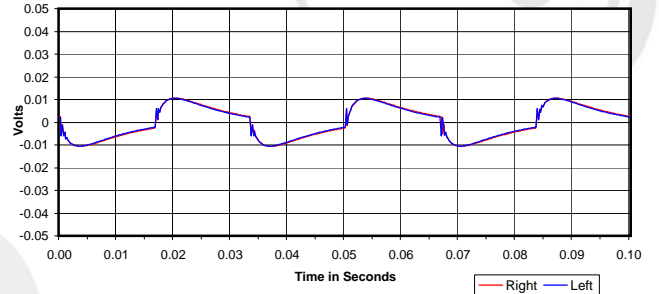
Isolation
Attenuation of External Sound vs. Frequency



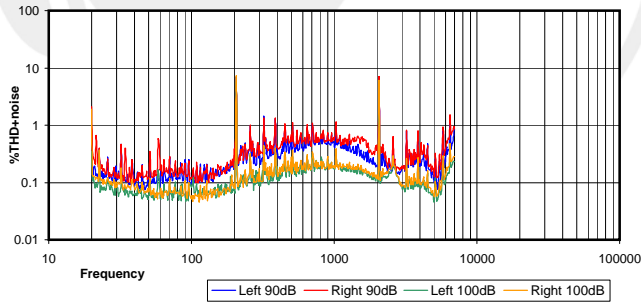
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



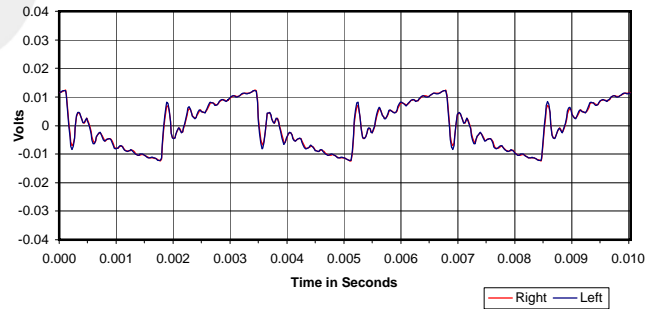
30 Hz Square Wave



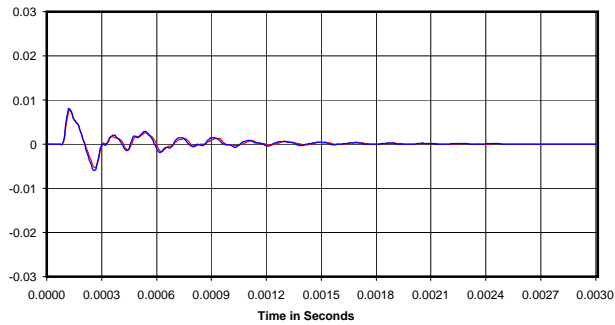
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



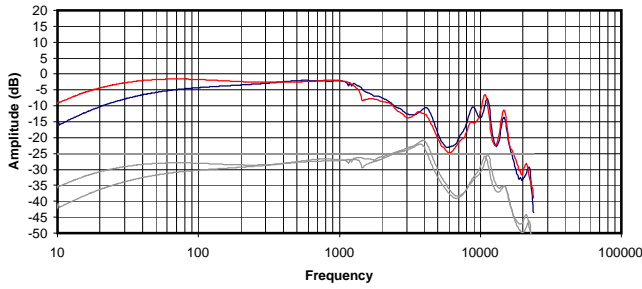
Impulse Response



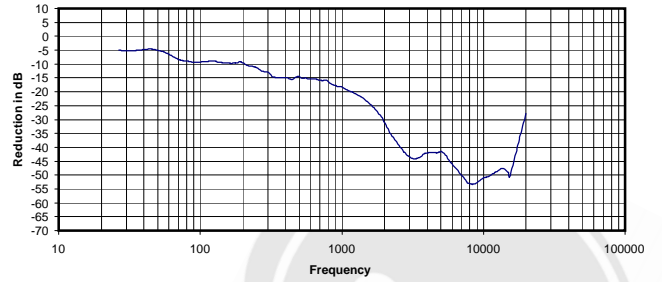
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
31 Ohms
0.06 mW
-19 dB

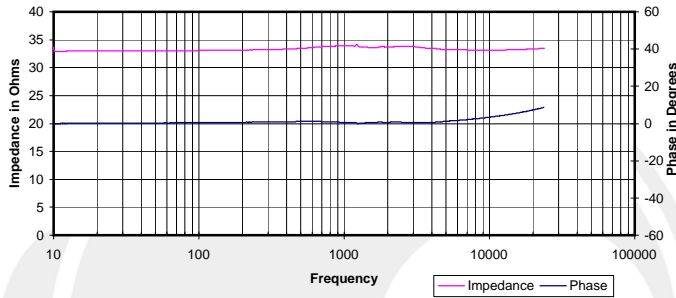
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



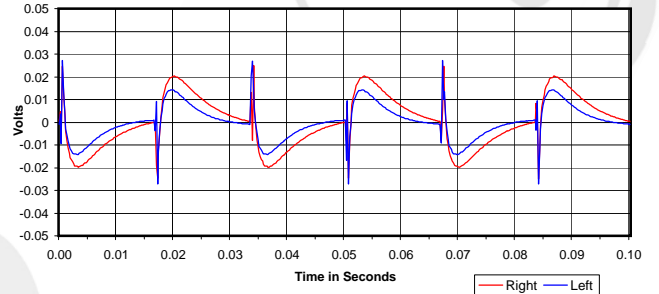
Isolation
Attenuation of External Sound vs. Frequency



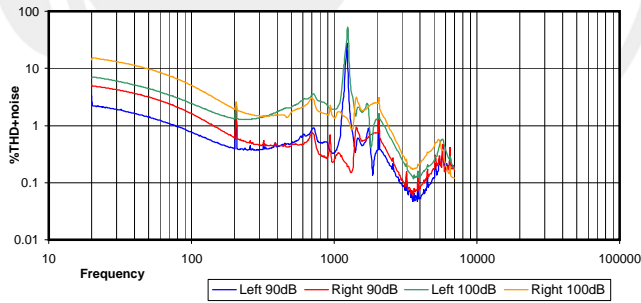
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



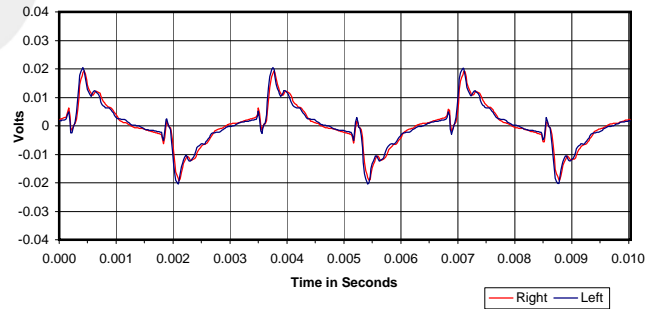
30 Hz Square Wave



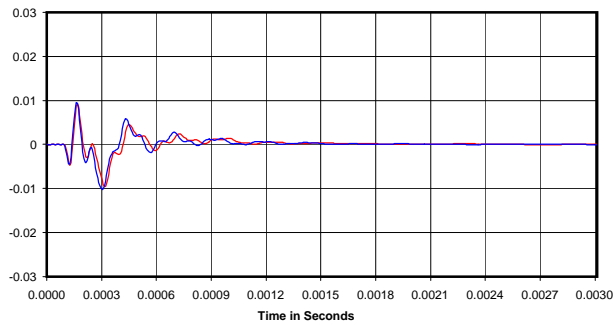
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

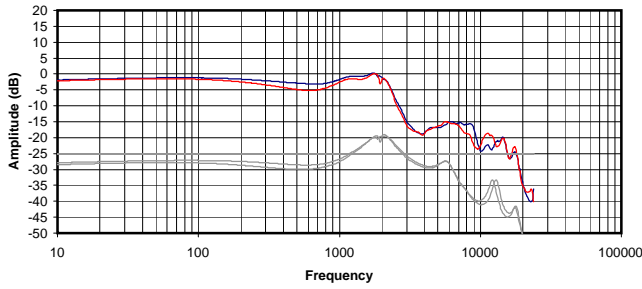


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

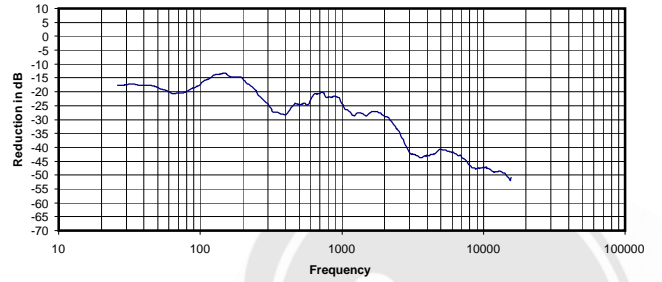
0.049 Vrms
34 Ohms
0.07 mW
-26 dB



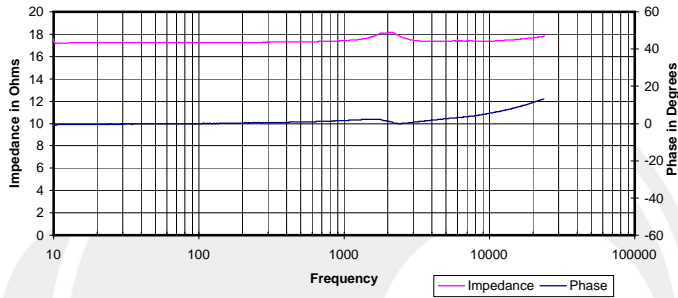
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



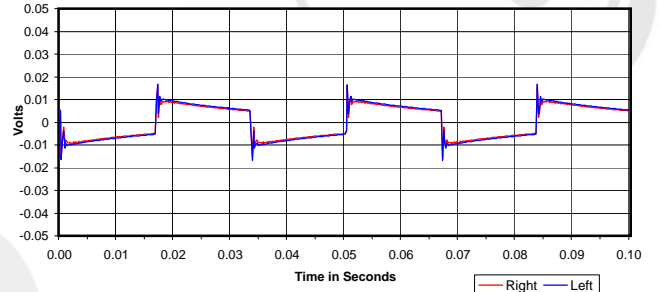
Isolation
Attenuation of External Sound vs. Frequency



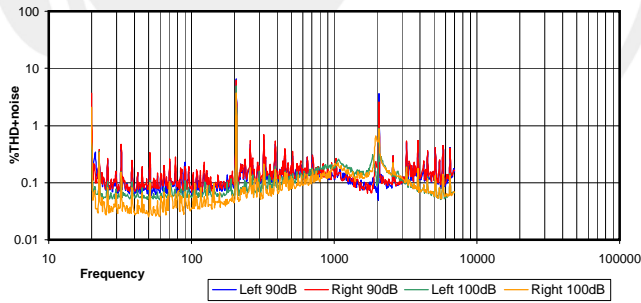
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



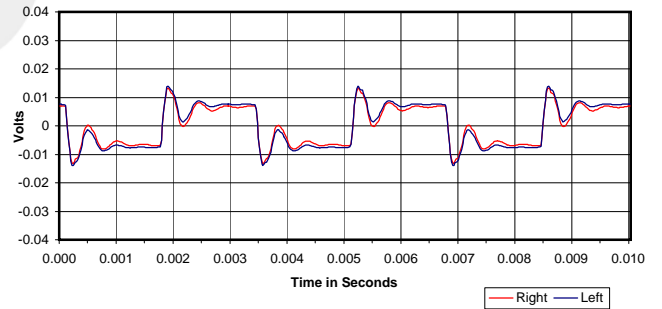
30 Hz Square Wave



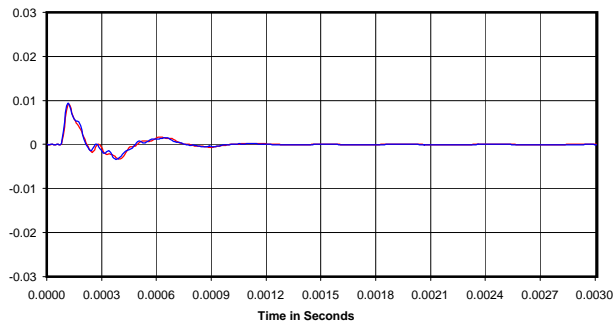
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

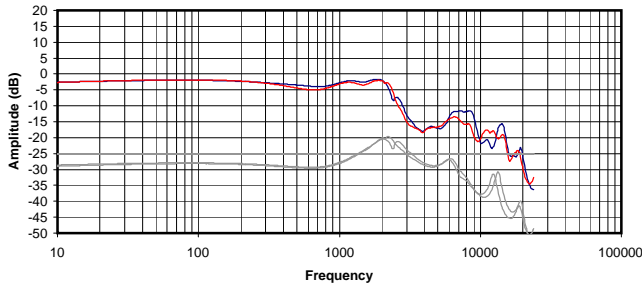


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

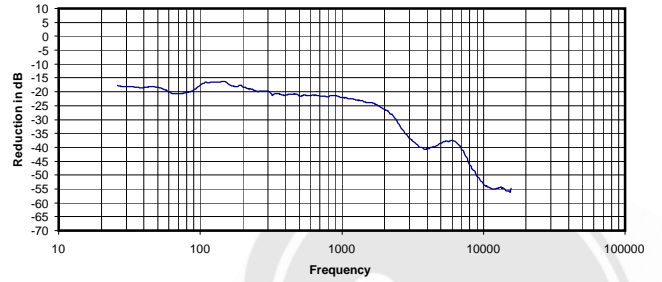
0.018 Vrms
17 Ohms
0.02 mW
-27 dB



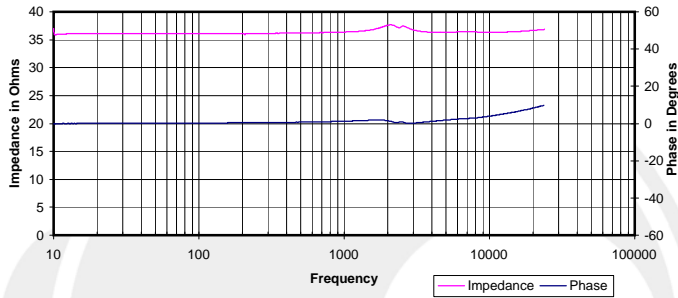
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



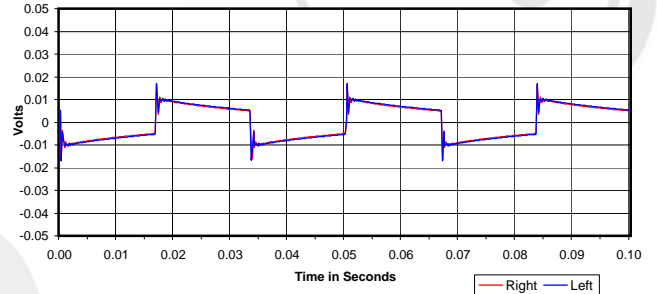
Isolation
Attenuation of External Sound vs. Frequency



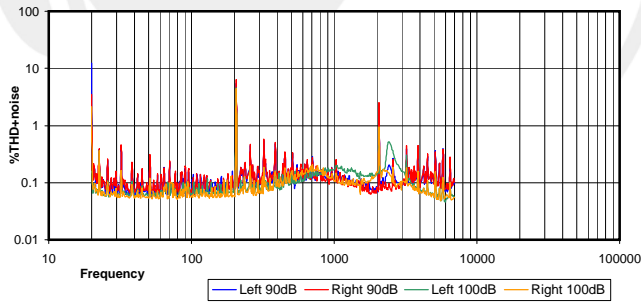
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



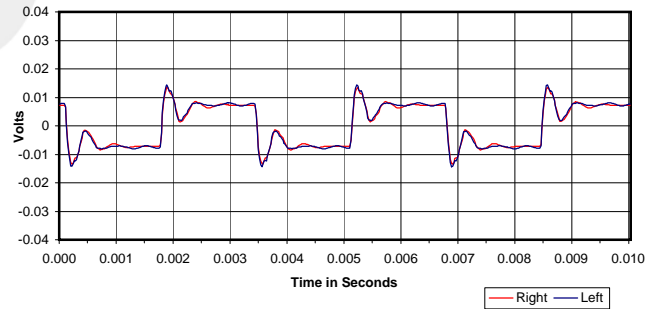
30 Hz Square Wave



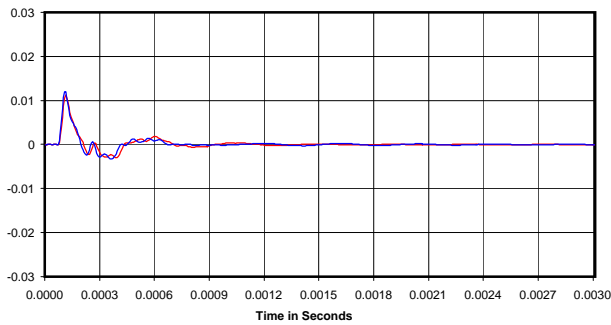
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

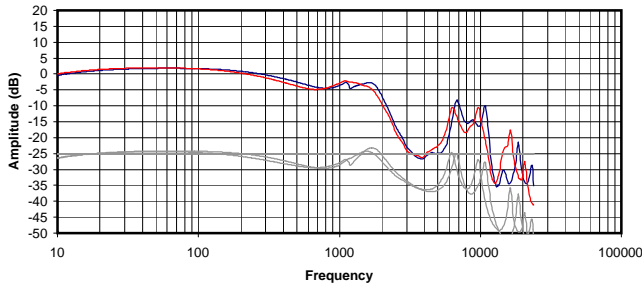


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

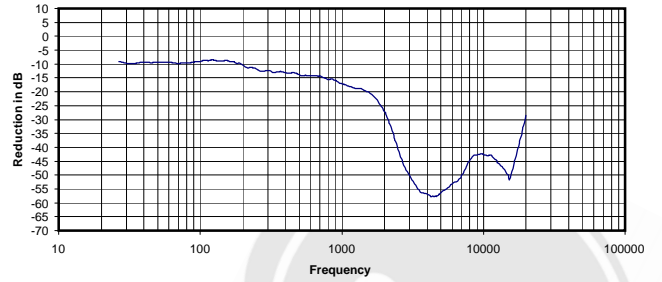
0.029 Vrms
36 Ohms
0.02 mW
-25 dB



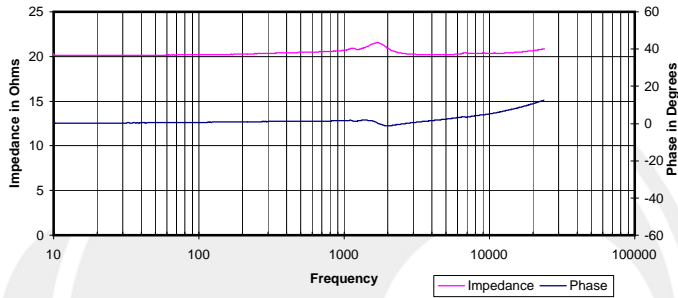
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



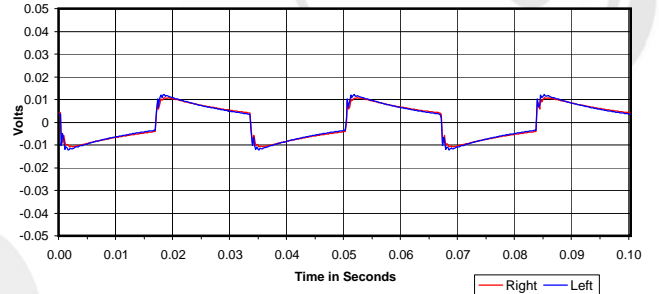
Isolation
Attenuation of External Sound vs. Frequency



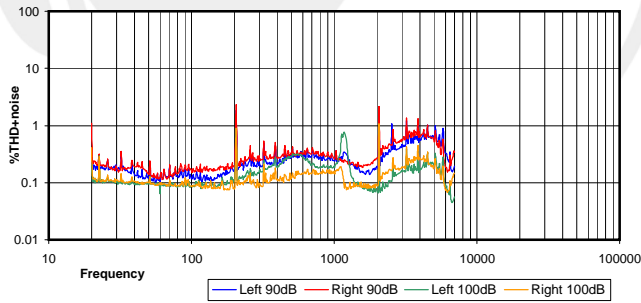
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



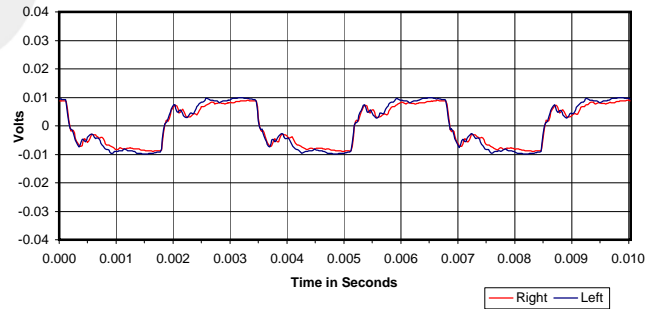
30 Hz Square Wave



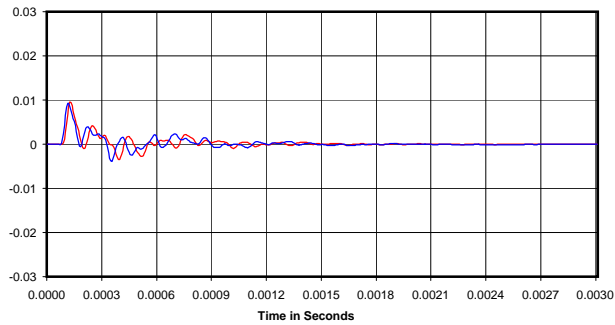
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

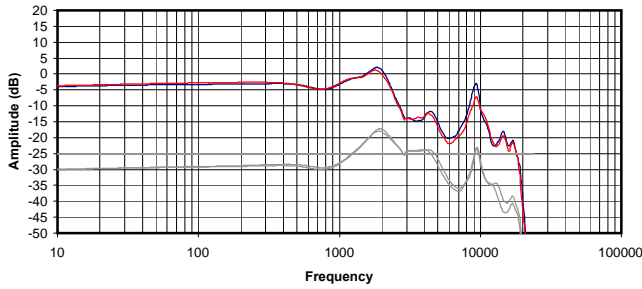


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

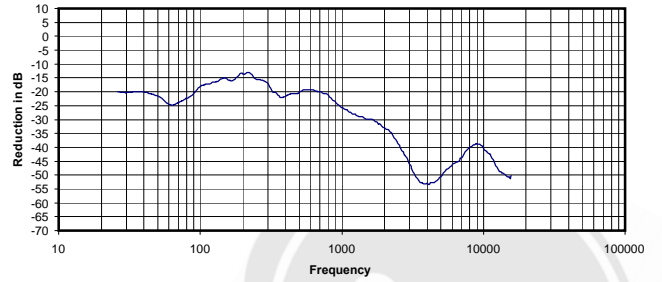
0.011 Vrms
21 Ohms
0.01 mW
-26 dB



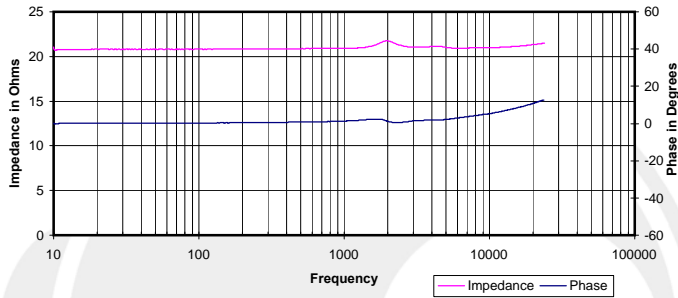
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



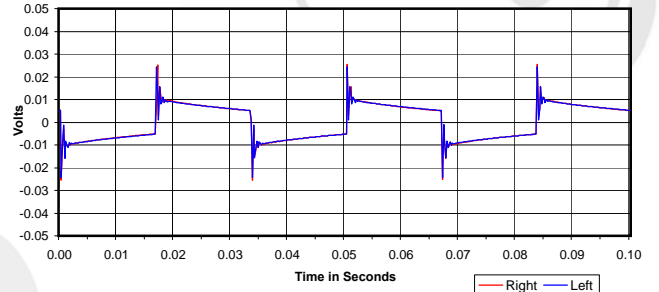
Isolation
Attenuation of External Sound vs. Frequency



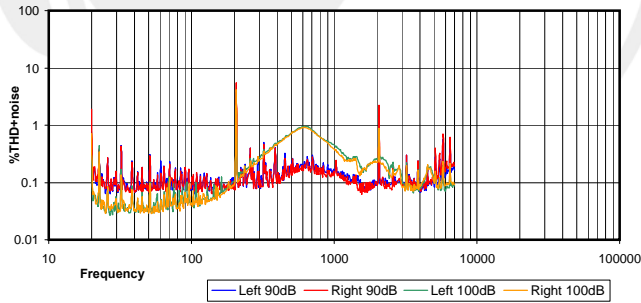
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



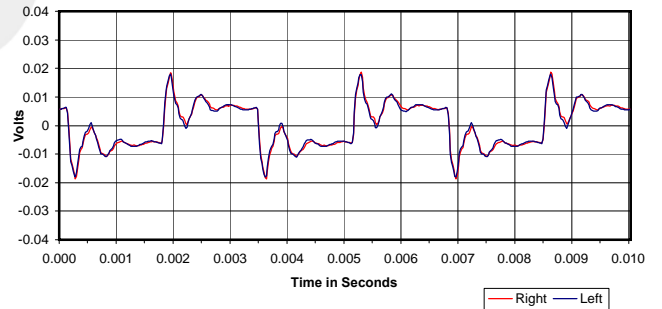
30 Hz Square Wave



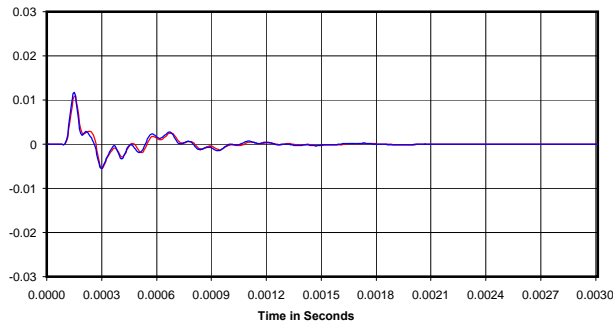
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



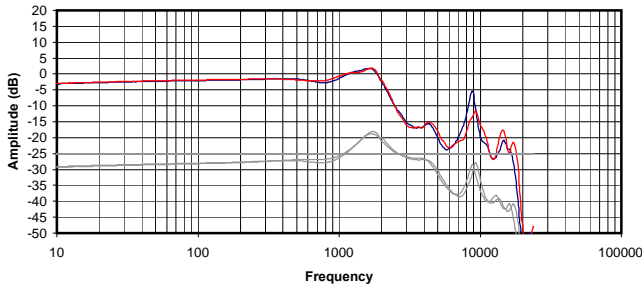
Impulse Response



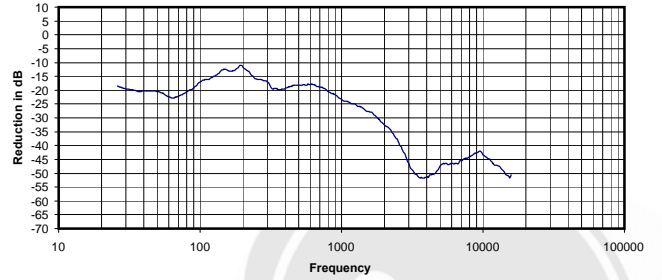
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.029 Vrms
21 Ohms
0.04 mW
-28 dB

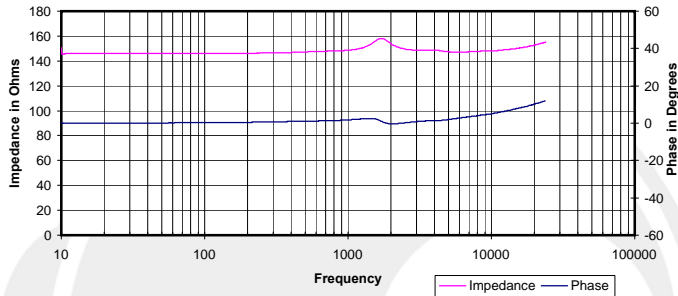
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



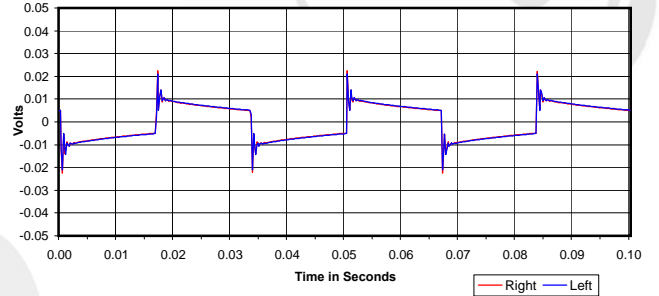
Isolation
Attenuation of External Sound vs. Frequency



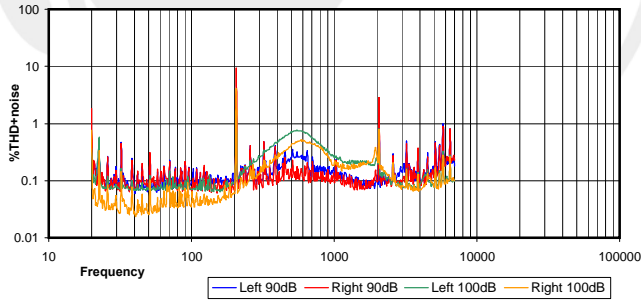
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



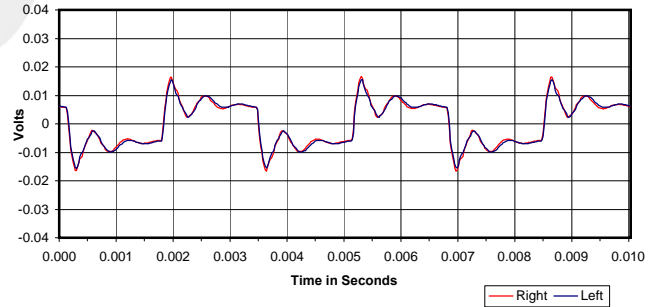
30 Hz Square Wave



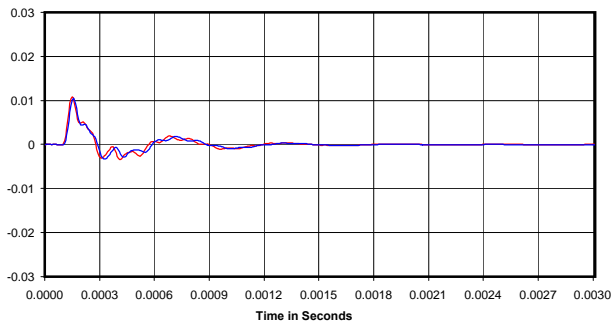
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



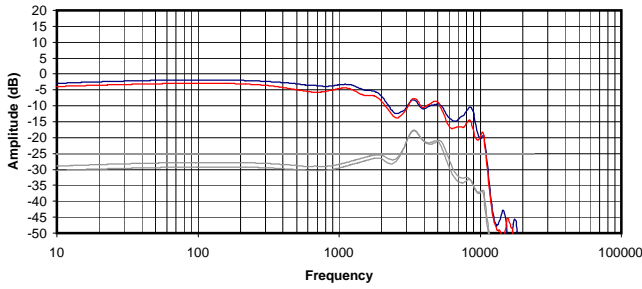
Impulse Response



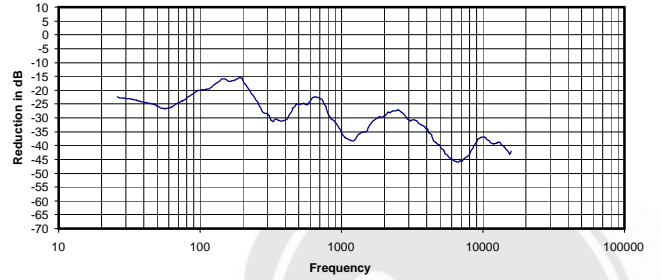
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
149 Ohms
0.01 mW
-26 dB

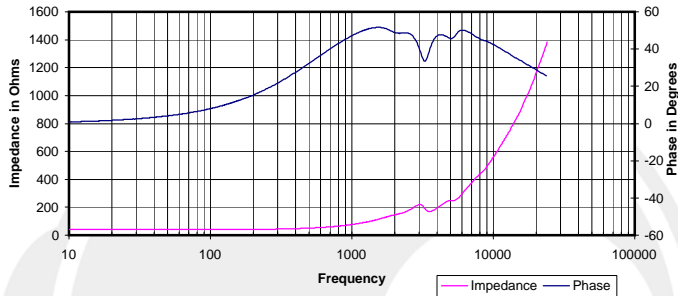
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



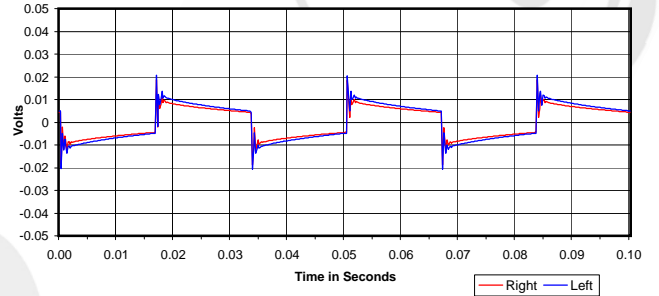
Isolation
Attenuation of External Sound vs. Frequency



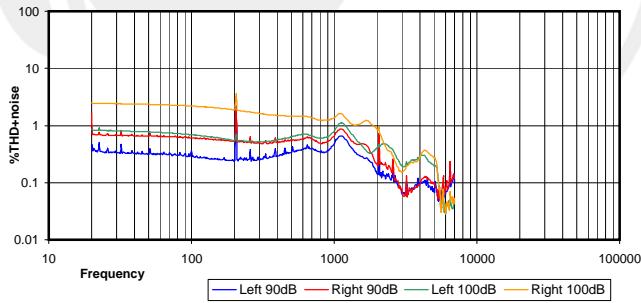
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



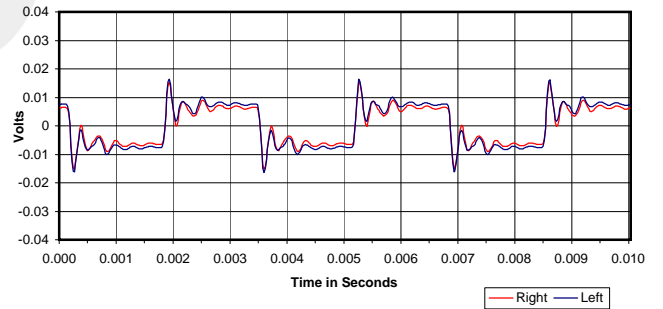
30 Hz Square Wave



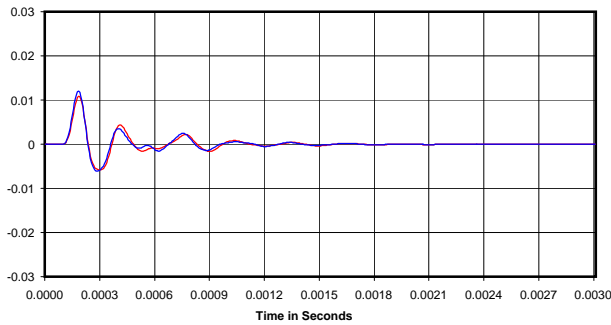
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

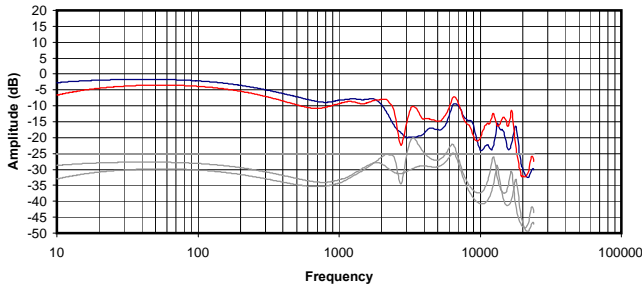


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

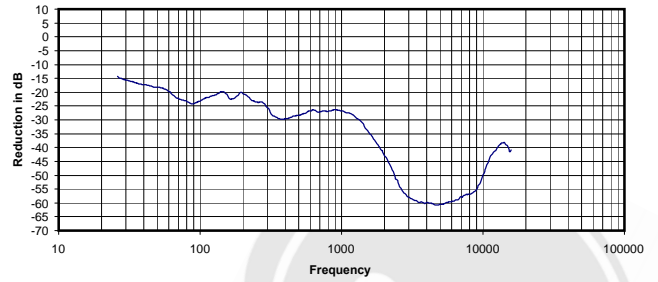
0.044 Vrms
76 Ohms
0.03 mW
-28 dB



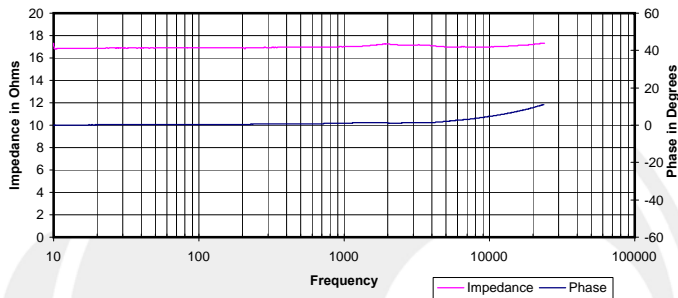
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



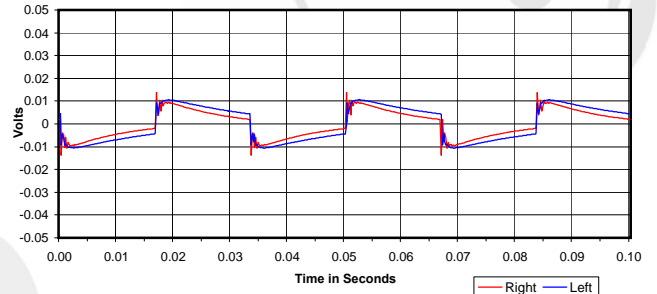
Isolation
Attenuation of External Sound vs. Frequency



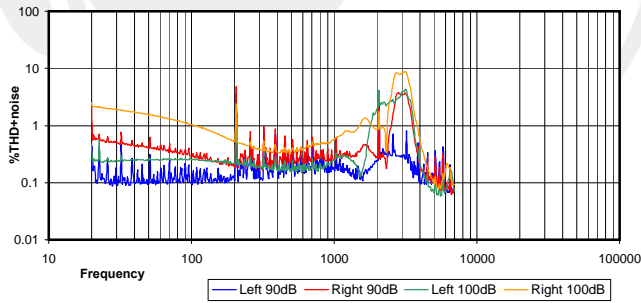
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



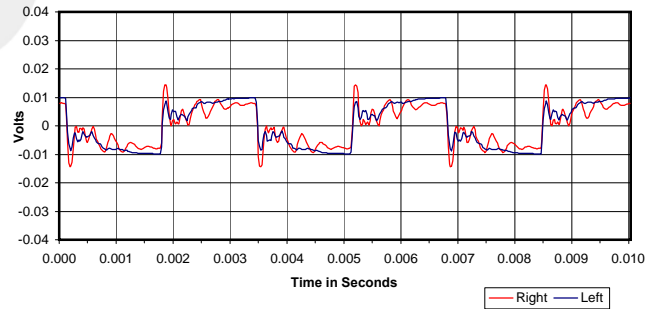
30 Hz Square Wave



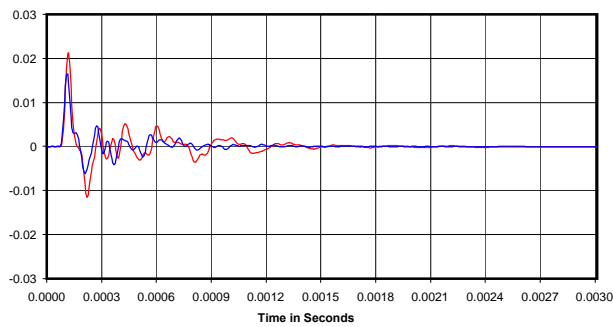
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

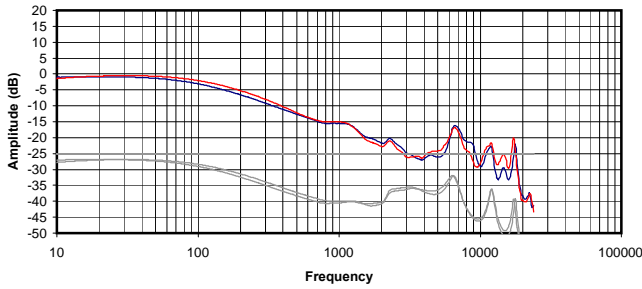


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

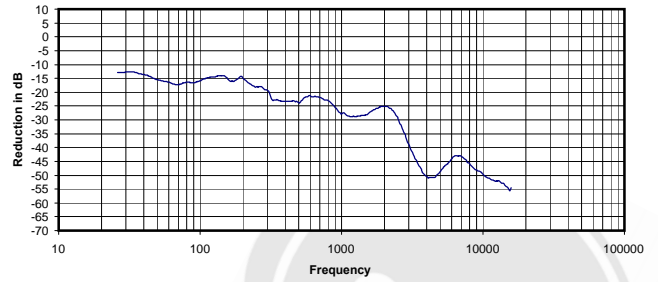
0.062 Vrms
17 Ohms
0.23 mW
-35 dB



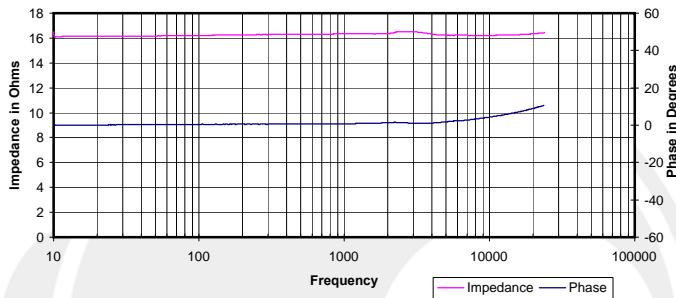
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



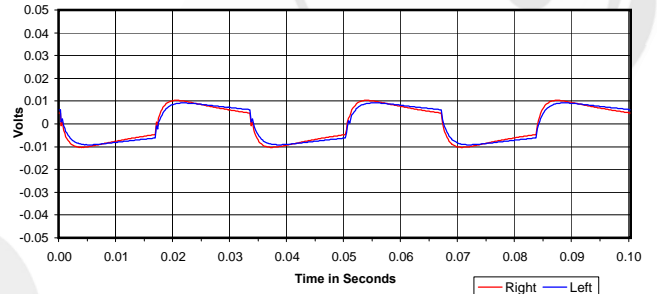
Isolation
Attenuation of External Sound vs. Frequency



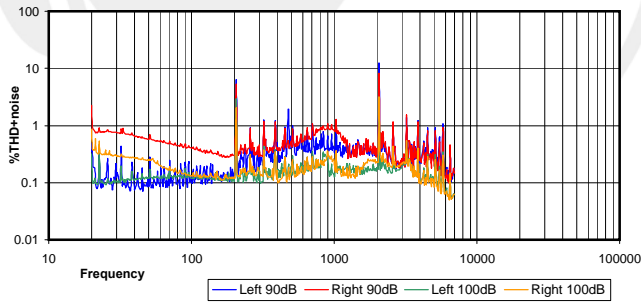
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



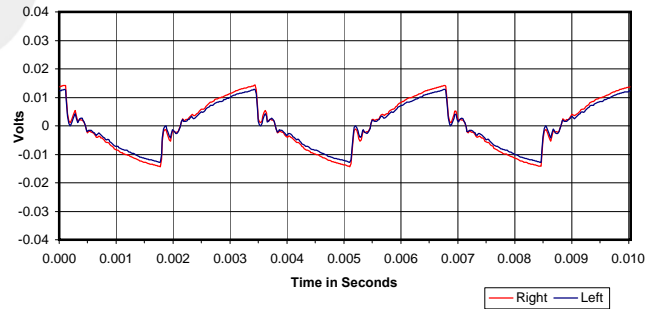
30 Hz Square Wave



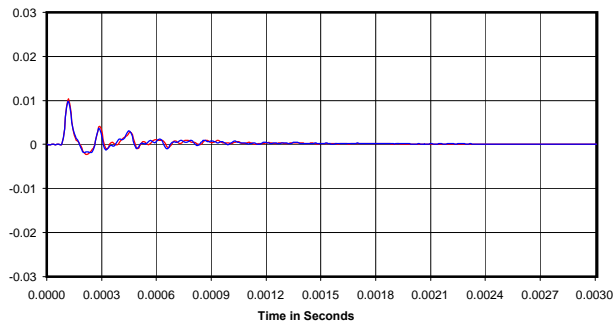
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

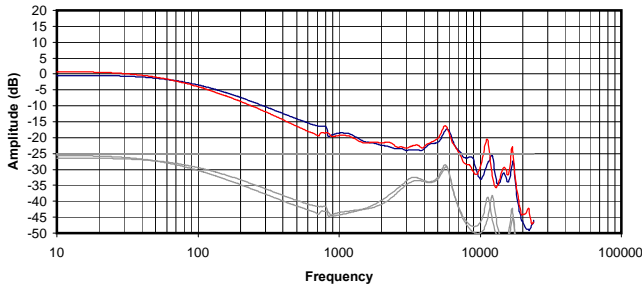


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

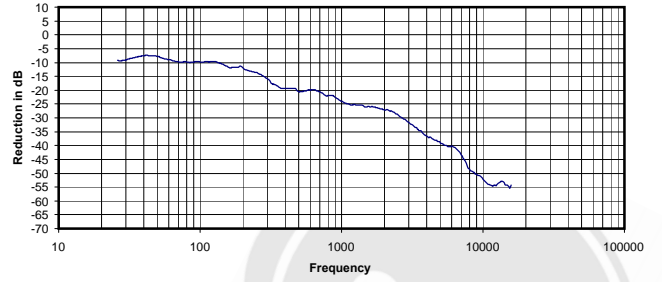
0.041 Vrms
16 Ohms
0.10 mW
-27 dB



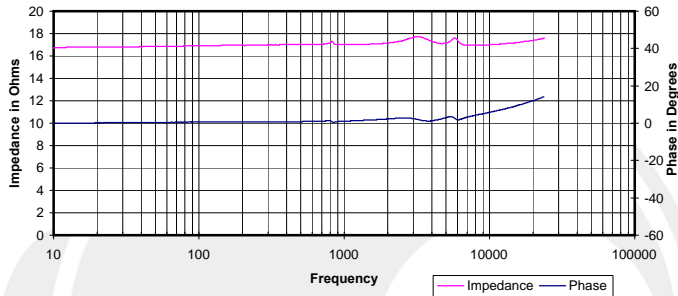
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



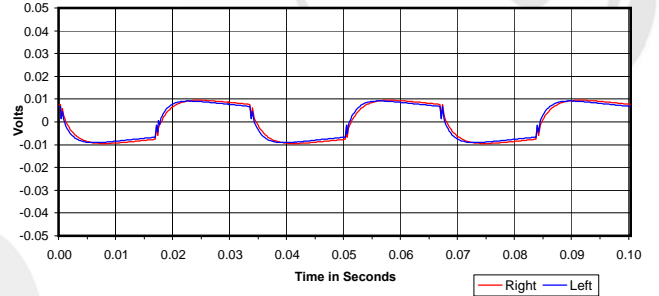
Isolation
Attenuation of External Sound vs. Frequency



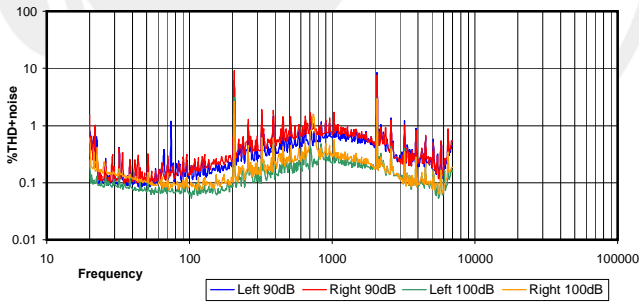
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



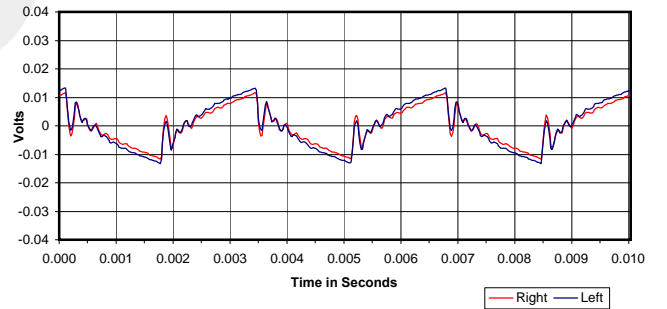
30 Hz Square Wave



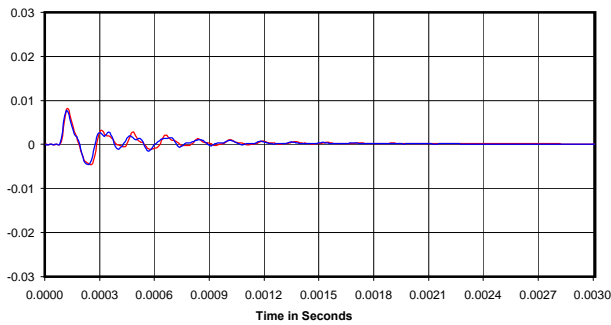
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

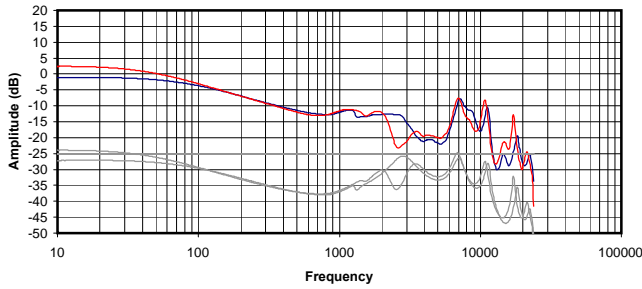


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

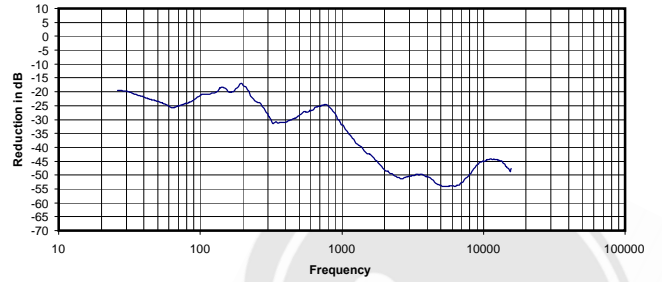
0.028 Vrms
17 Ohms
0.05 mW
-22 dB



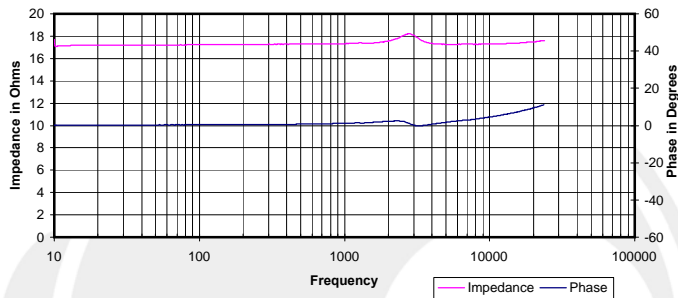
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



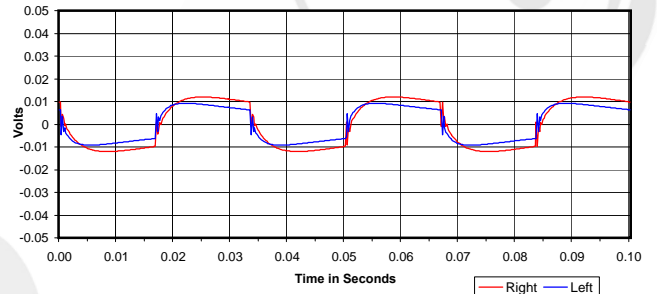
Isolation
Attenuation of External Sound vs. Frequency



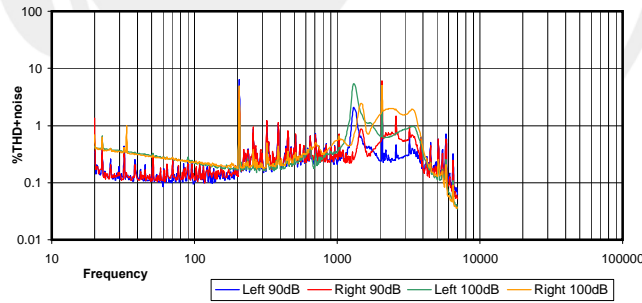
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



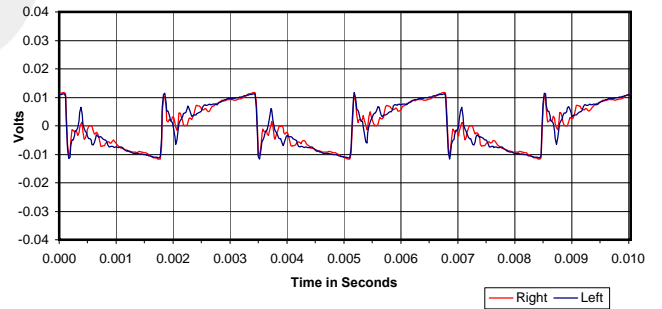
30 Hz Square Wave



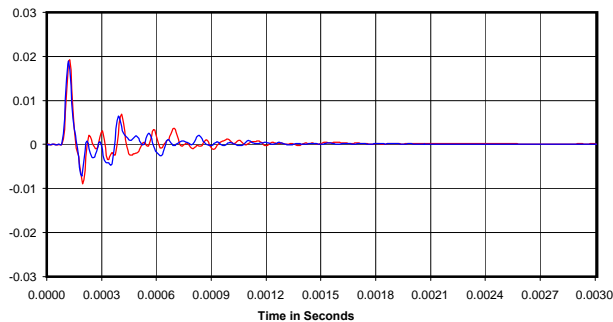
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

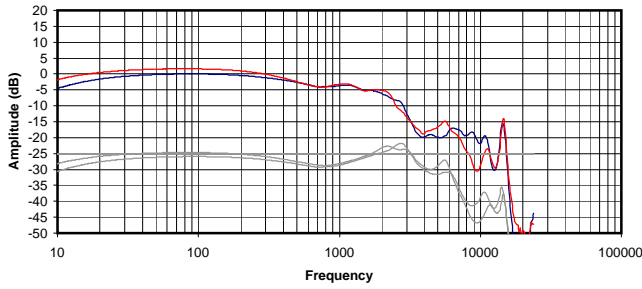


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

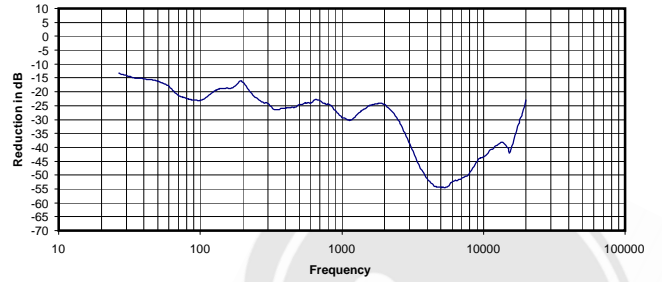
0.062 Vrms
17 Ohms
0.22 mW
-34 dB



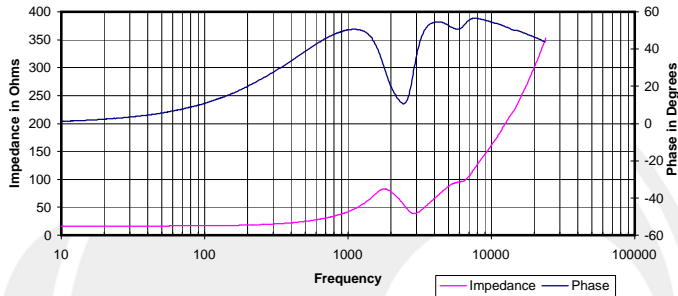
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



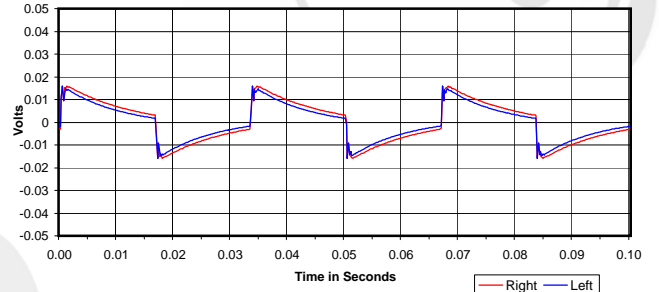
Isolation
Attenuation of External Sound vs. Frequency



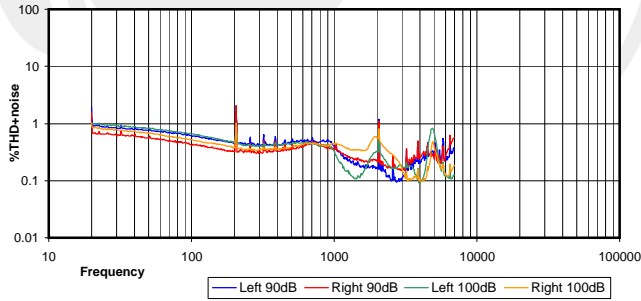
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



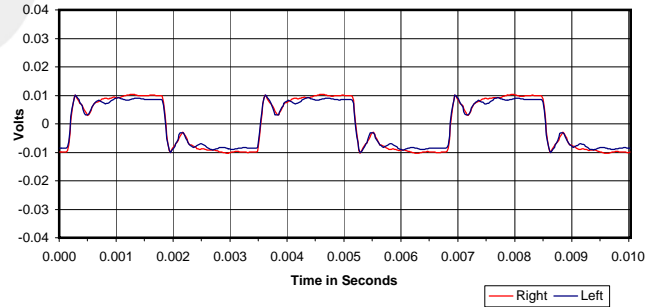
30 Hz Square Wave



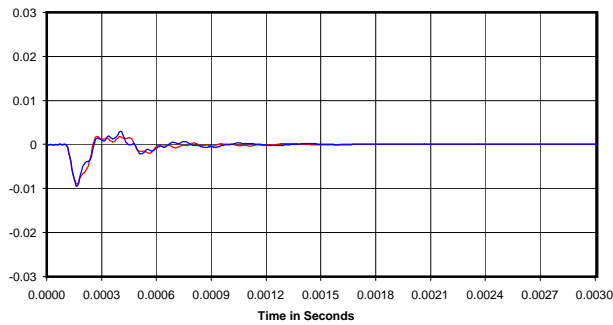
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

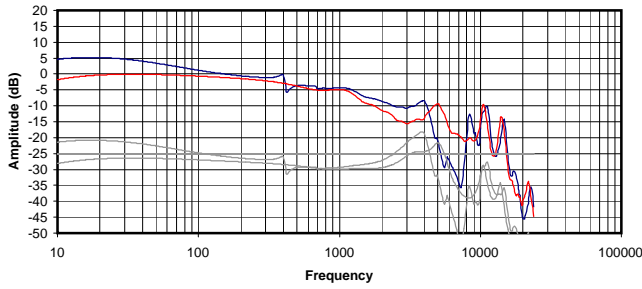


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

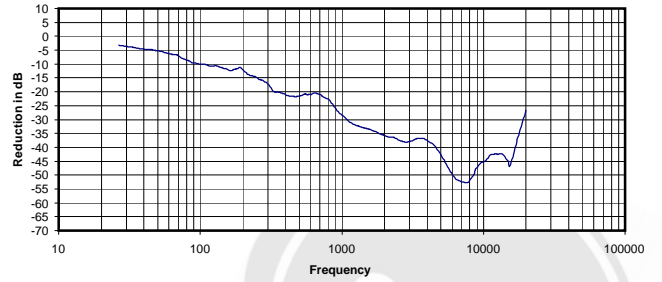
0.014 Vrms
42 Ohms
0.00 mW
-31 dB



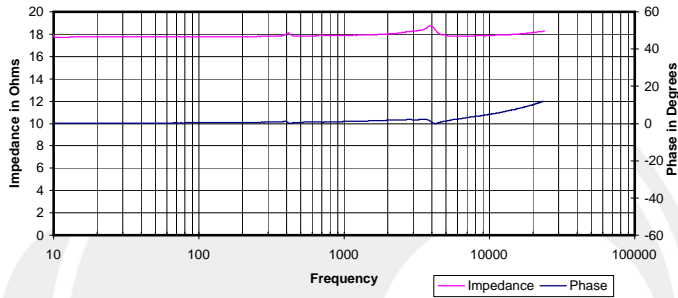
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



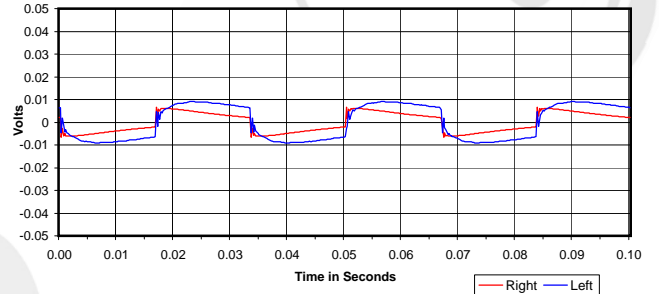
Isolation
Attenuation of External Sound vs. Frequency



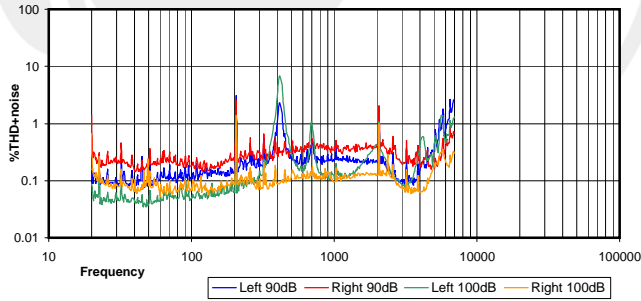
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



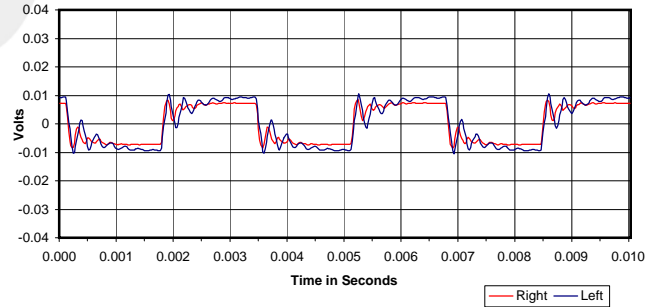
30 Hz Square Wave



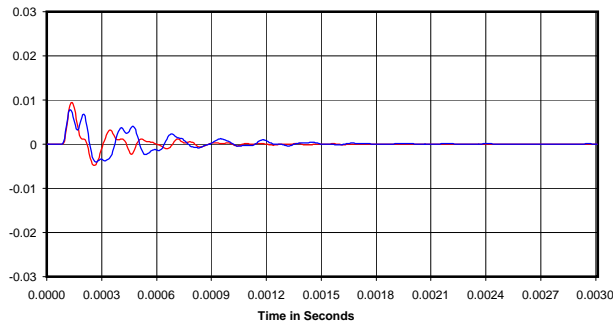
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



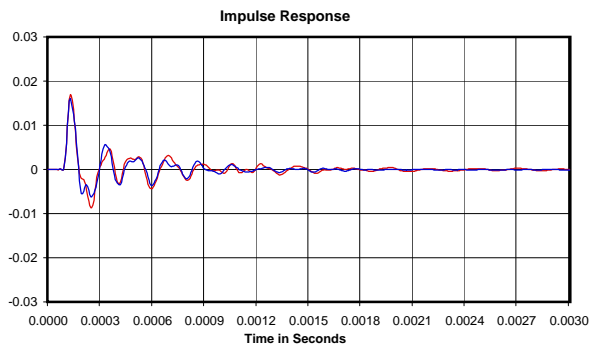
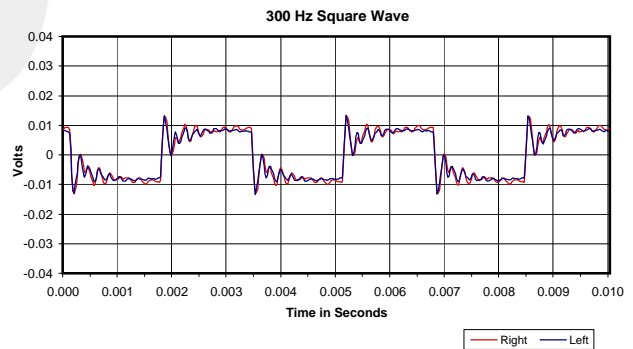
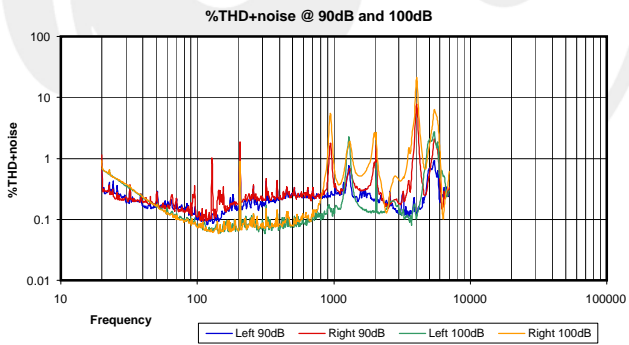
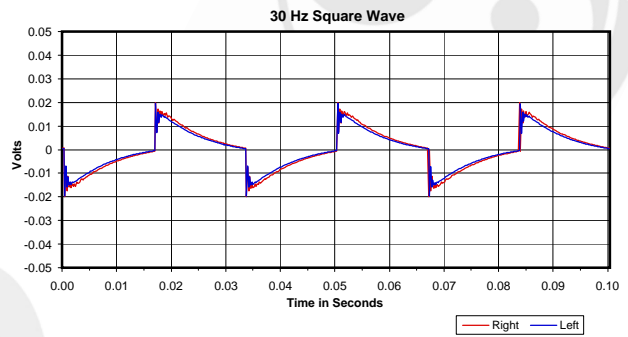
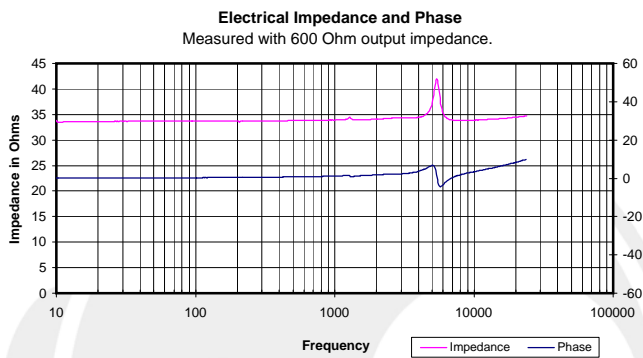
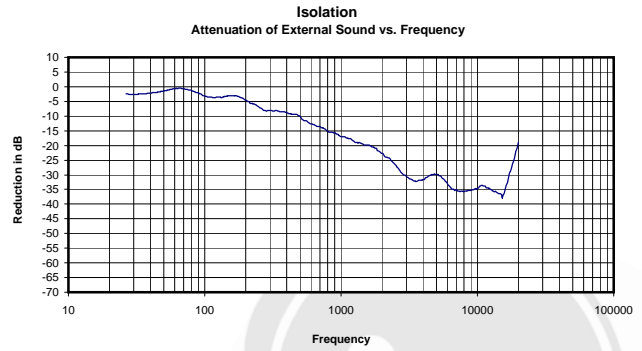
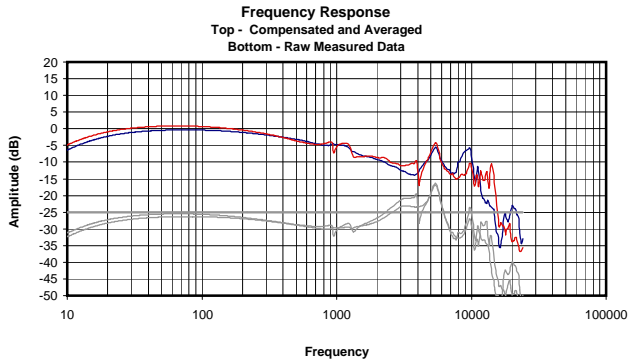
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
18 Ohms
0.03 mW
-29 dB



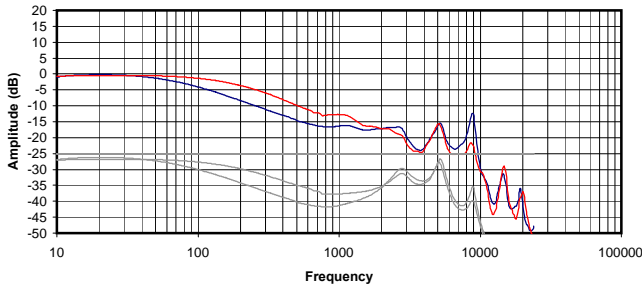


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

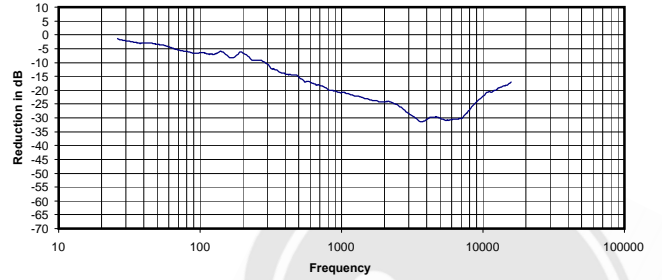
0.034 Vrms
34 Ohms
0.03 mW
-18 dBr



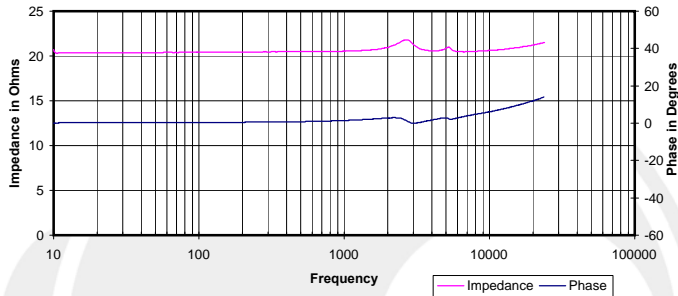
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



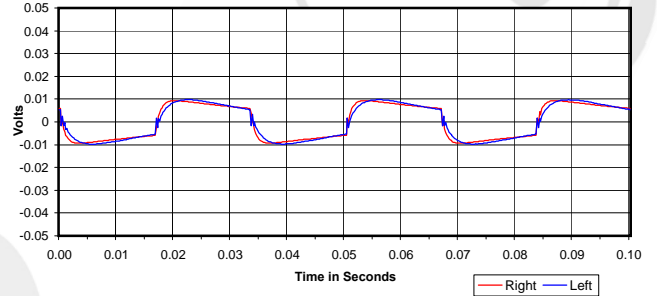
Isolation
Attenuation of External Sound vs. Frequency



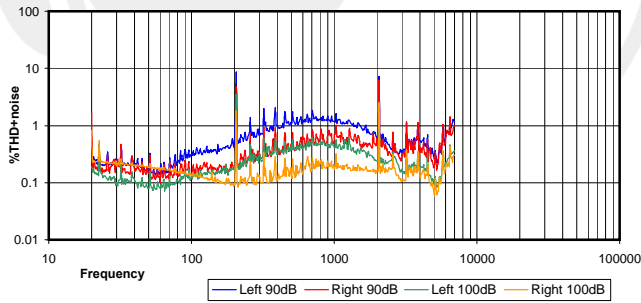
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



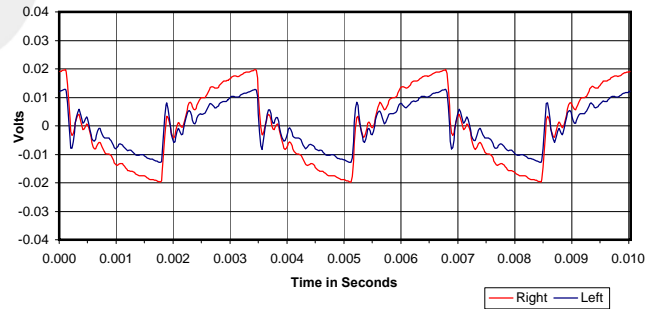
30 Hz Square Wave



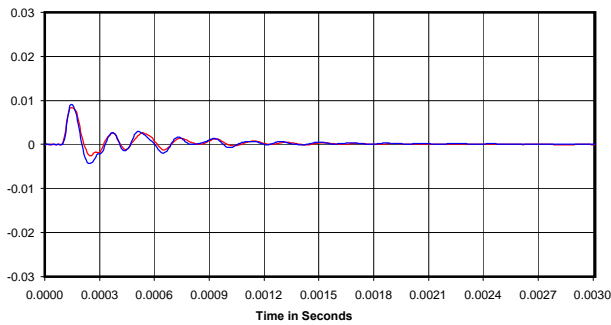
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

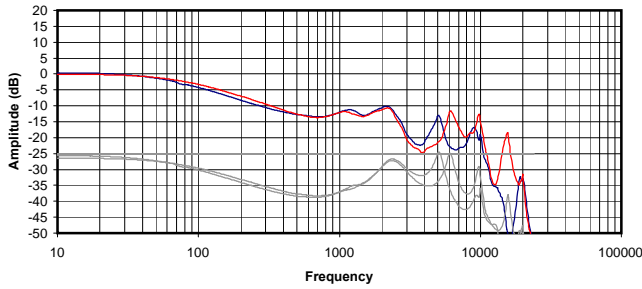


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

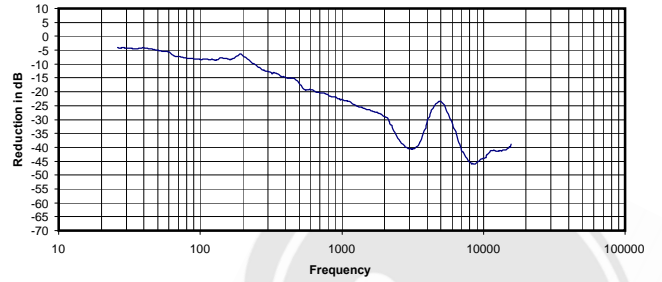
0.030 Vrms
21 Ohms
0.04 mW
-18 dB



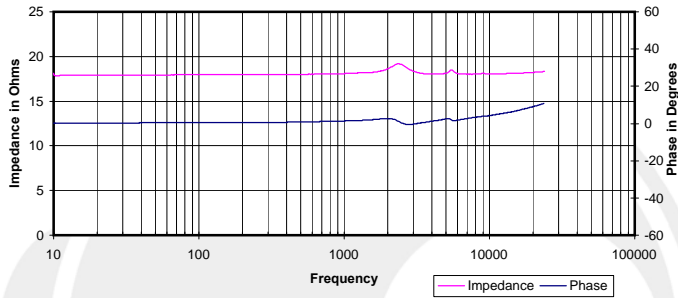
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



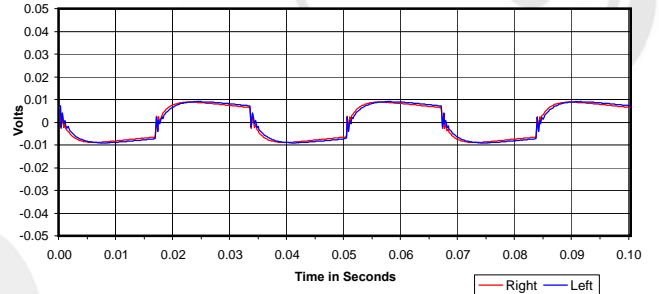
Isolation
Attenuation of External Sound vs. Frequency



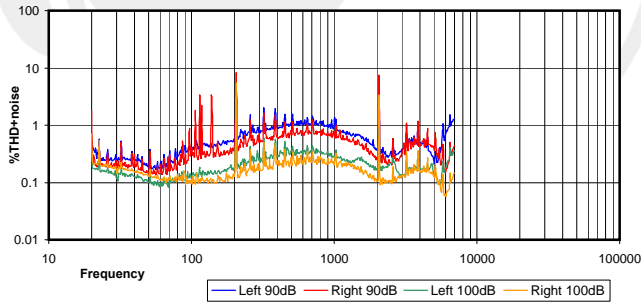
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



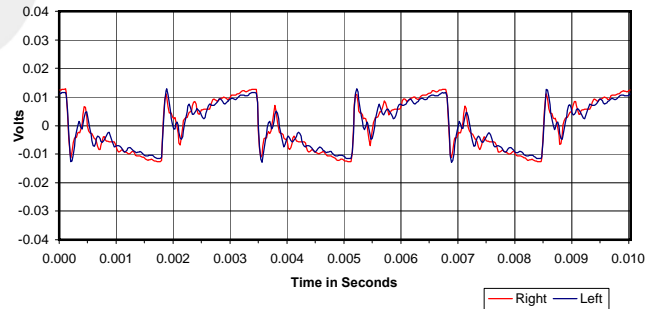
30 Hz Square Wave



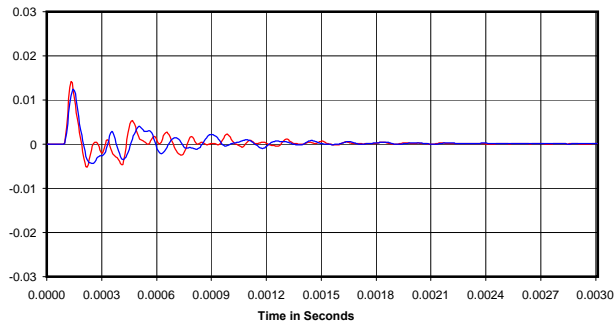
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

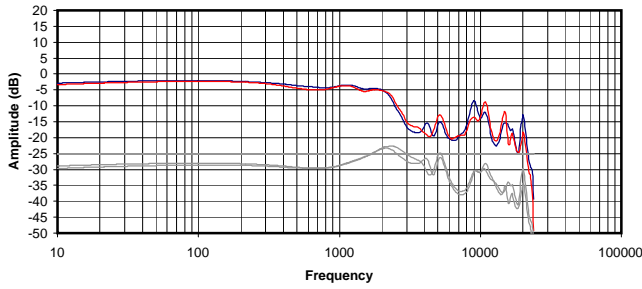


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

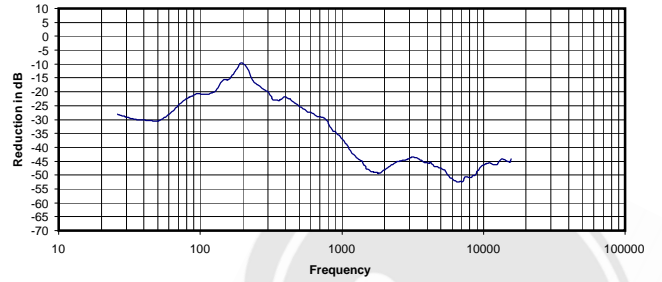
0.021 Vrms
18 Ohms
0.02 mW
-20 dB



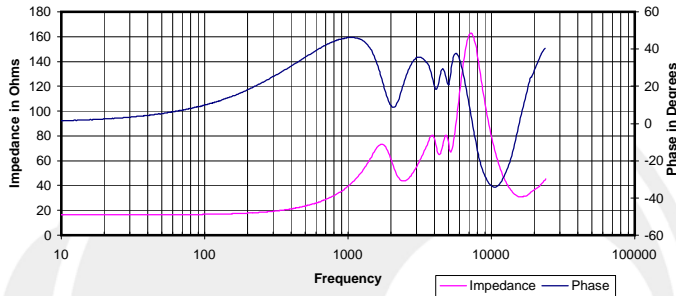
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



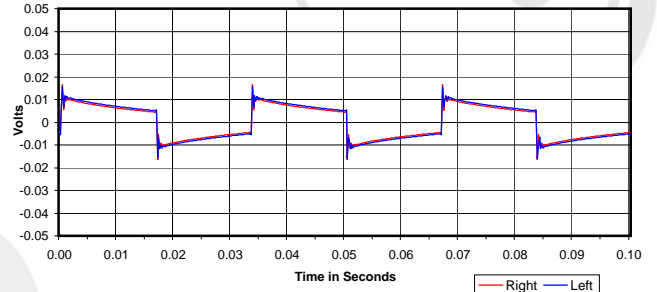
Isolation
Attenuation of External Sound vs. Frequency



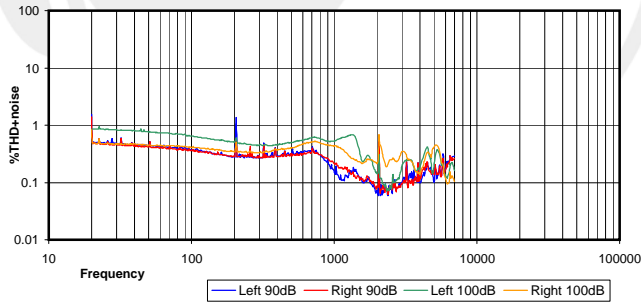
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



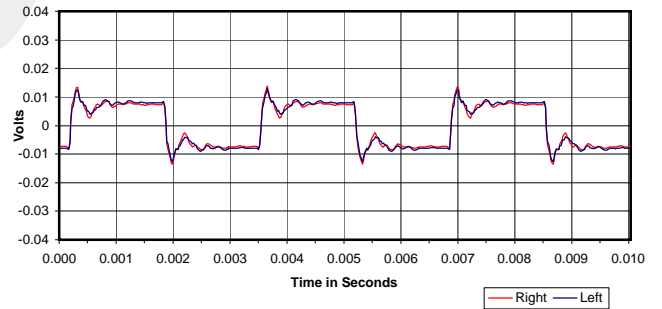
30 Hz Square Wave



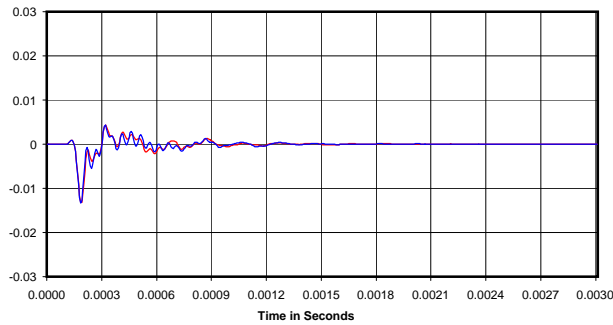
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

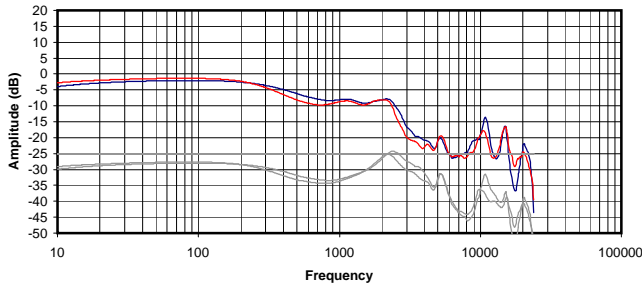


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

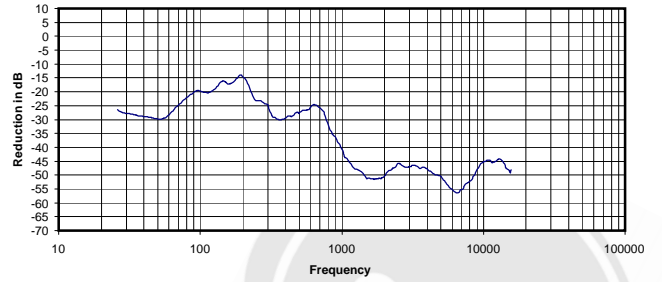
0.015 Vrms
40 Ohms
0.01 mW
-32 dB



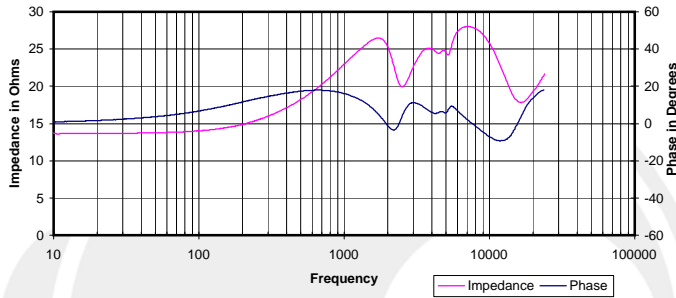
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



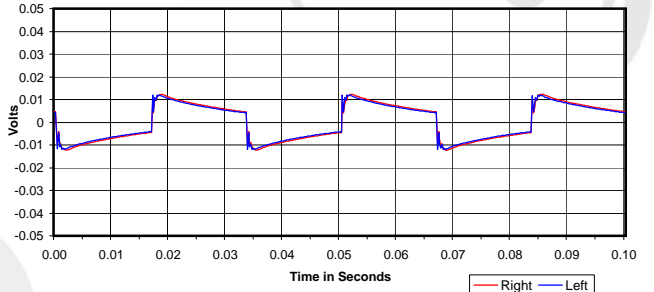
Isolation
Attenuation of External Sound vs. Frequency



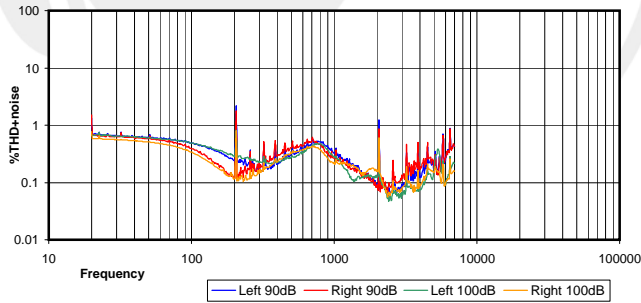
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



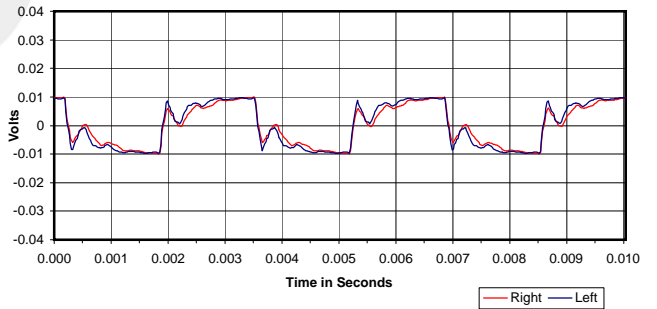
30 Hz Square Wave



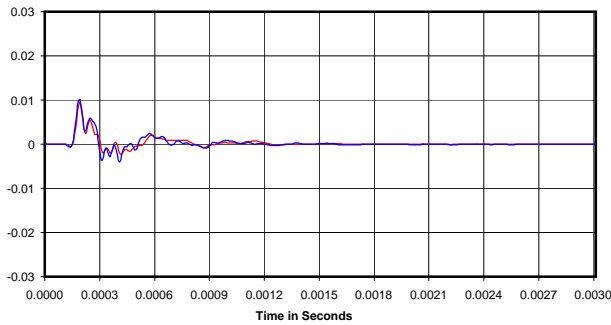
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

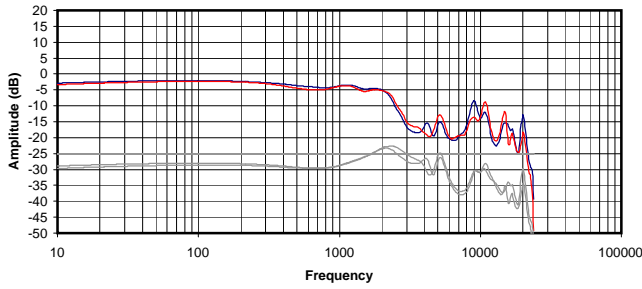


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

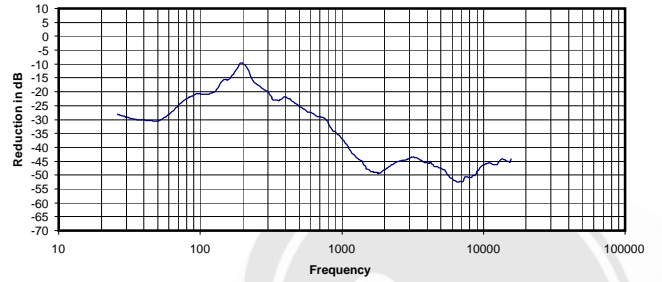
0.018 Vrms
23 Ohms
0.01 mW
-35 dB



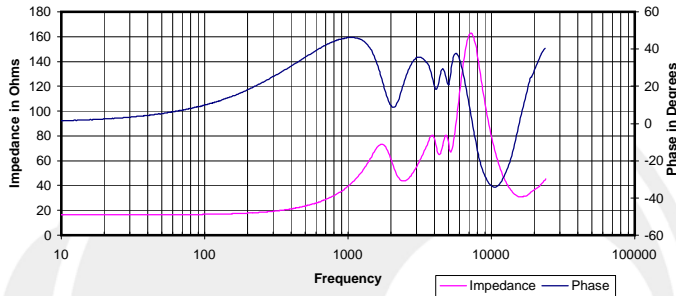
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



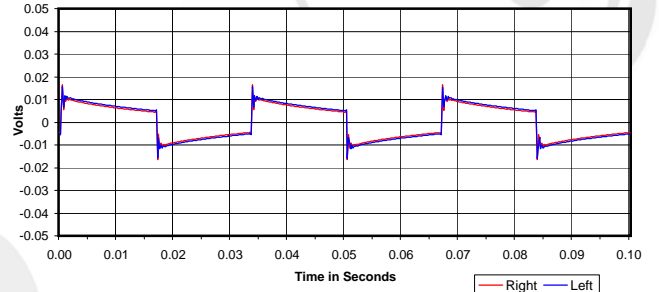
Isolation
Attenuation of External Sound vs. Frequency



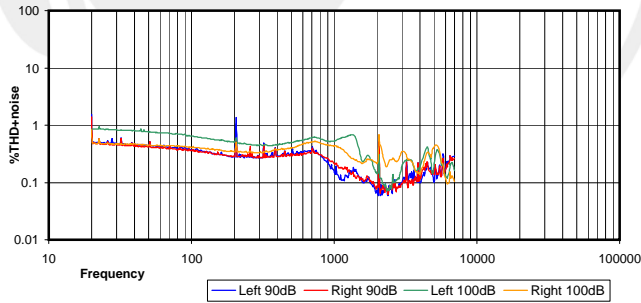
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



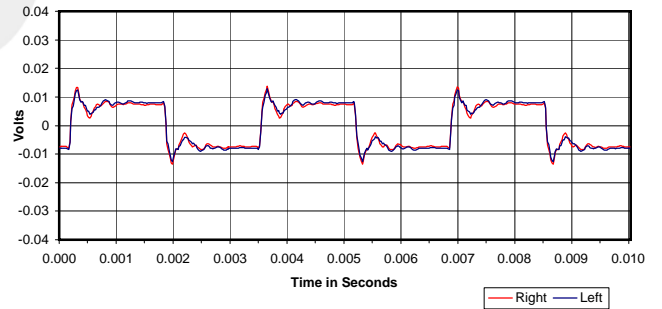
30 Hz Square Wave



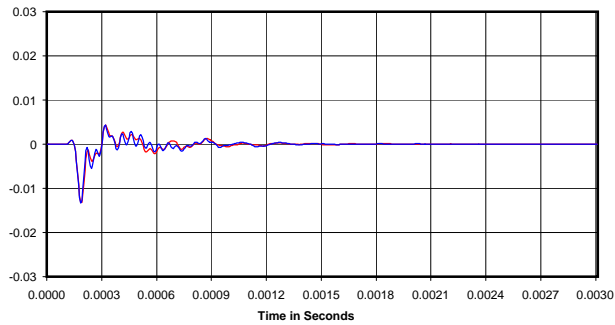
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

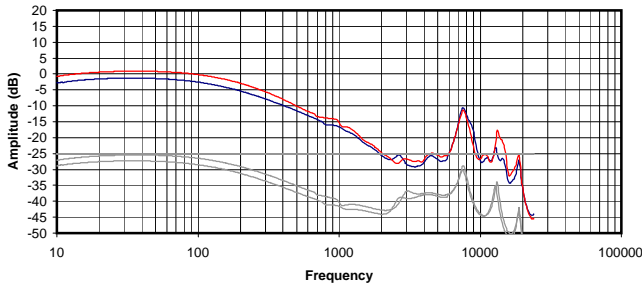


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

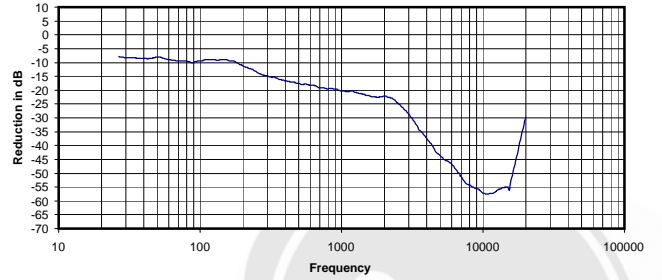
0.015 Vrms
40 Ohms
0.01 mW
-32 dB



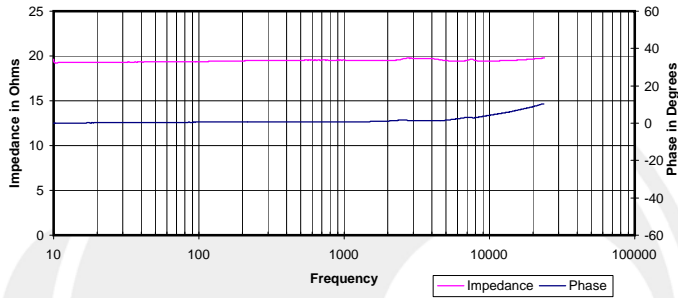
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



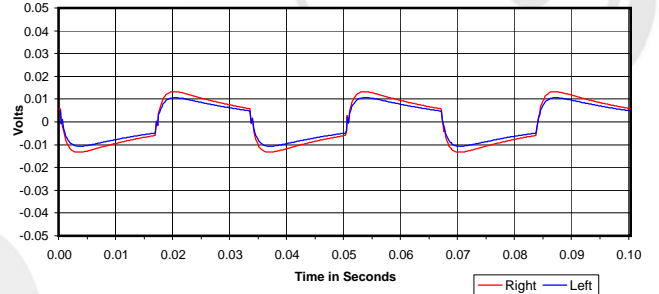
Isolation
Attenuation of External Sound vs. Frequency



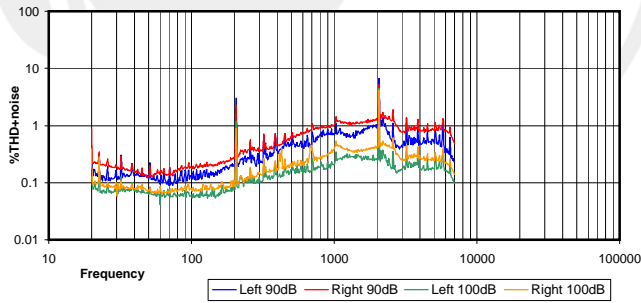
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



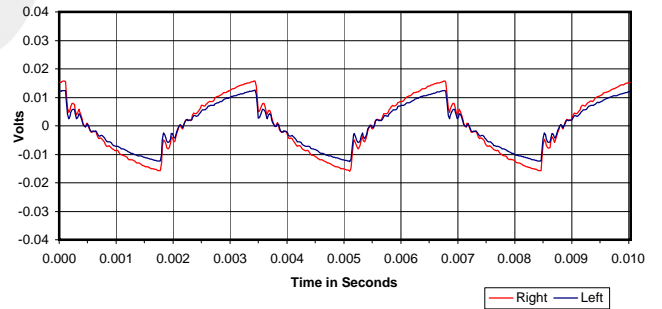
30 Hz Square Wave



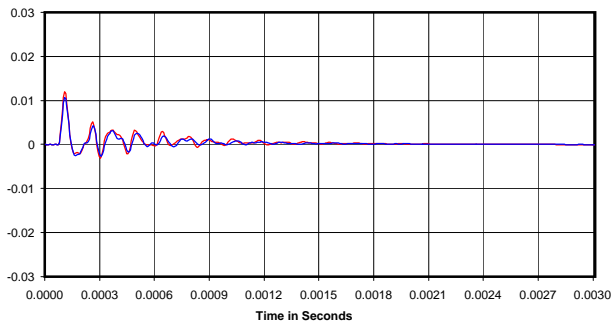
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

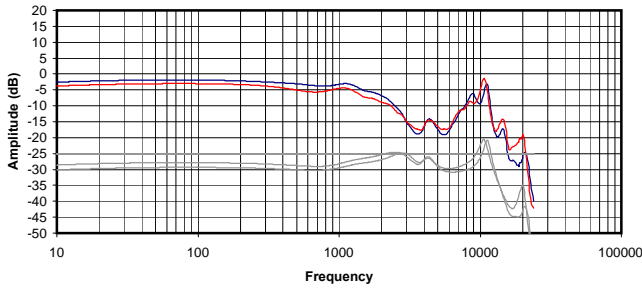


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

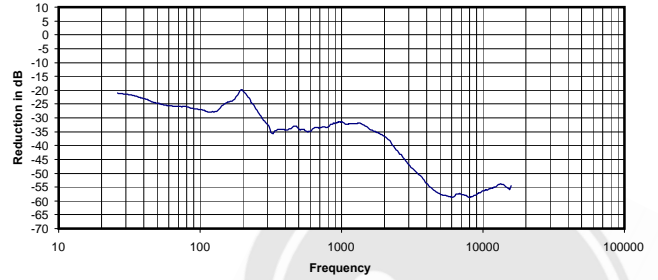
0.030 Vrms
20 Ohms
0.05 mW
-25 dB



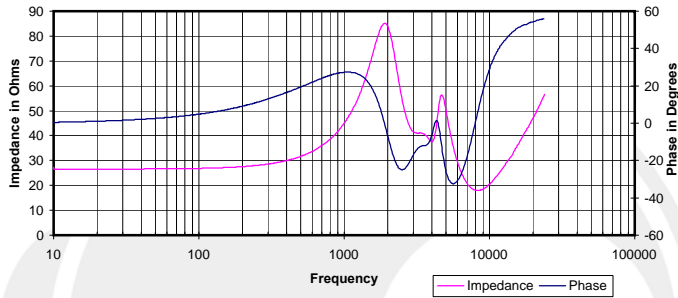
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



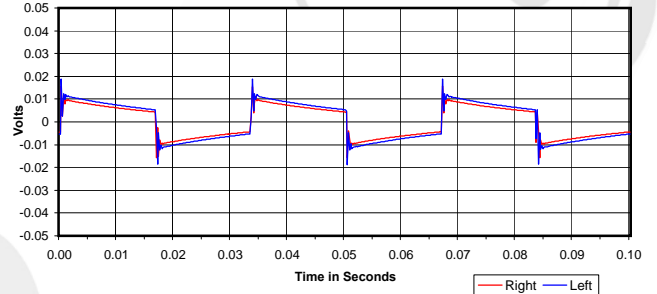
Isolation
Attenuation of External Sound vs. Frequency



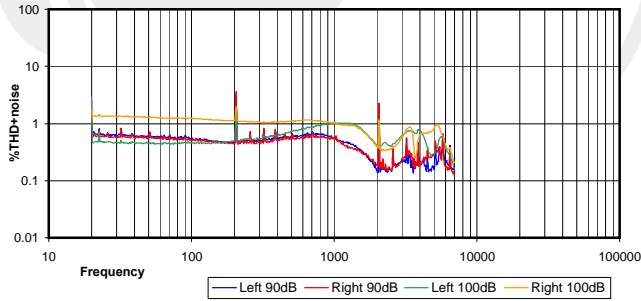
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



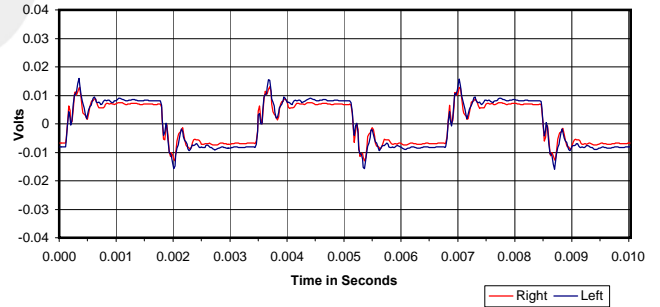
30 Hz Square Wave



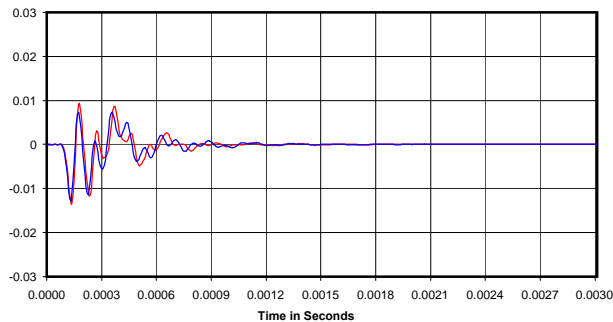
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



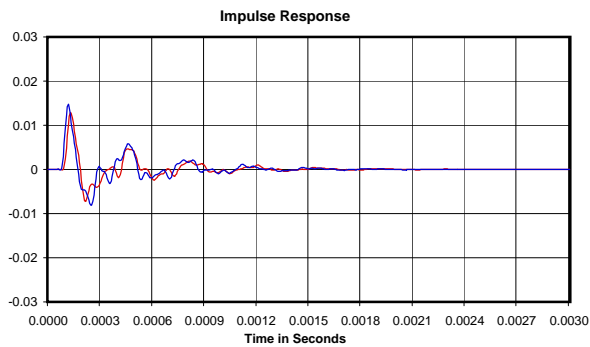
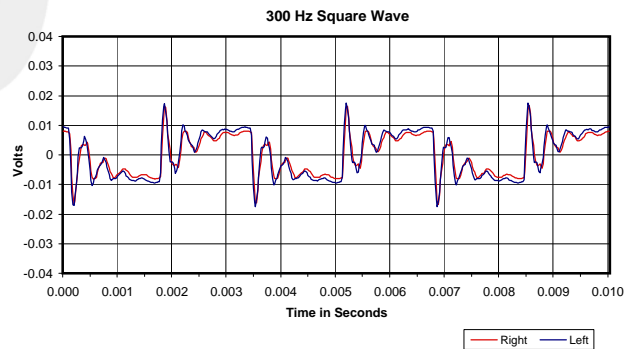
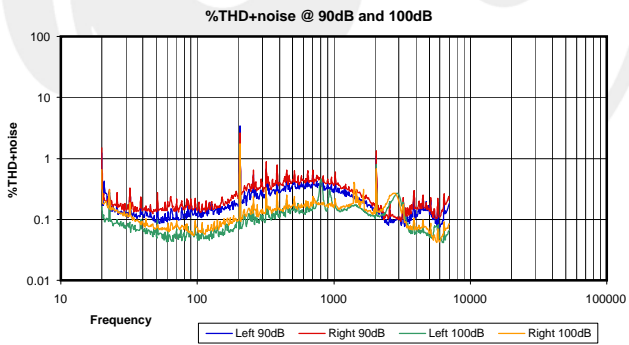
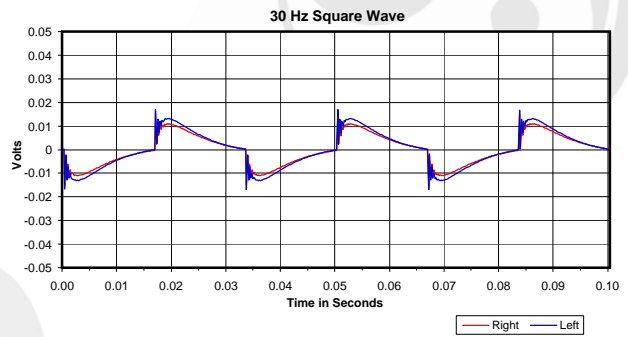
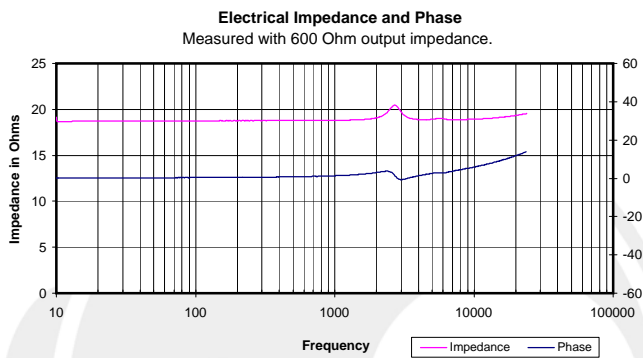
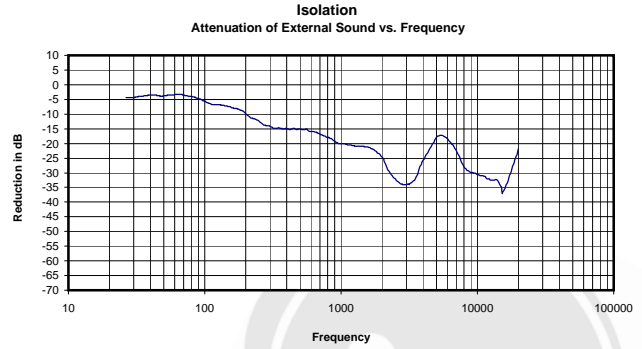
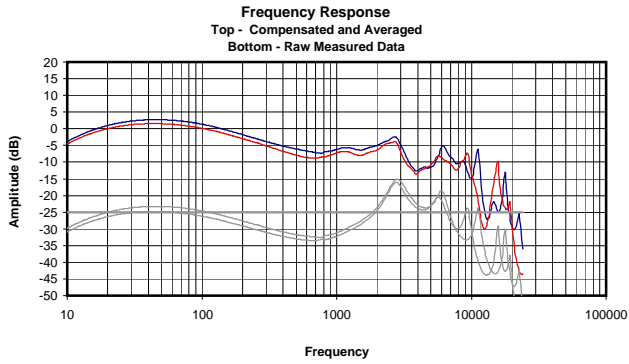
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
45 Ohms
0.02 mW
-36 dB



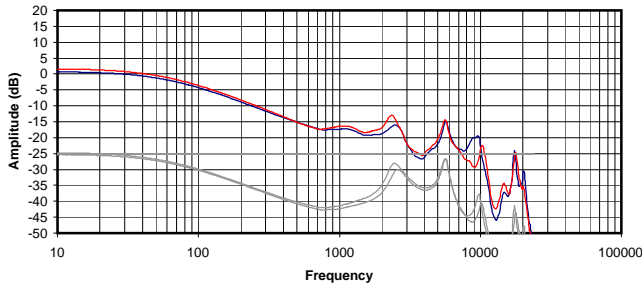


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

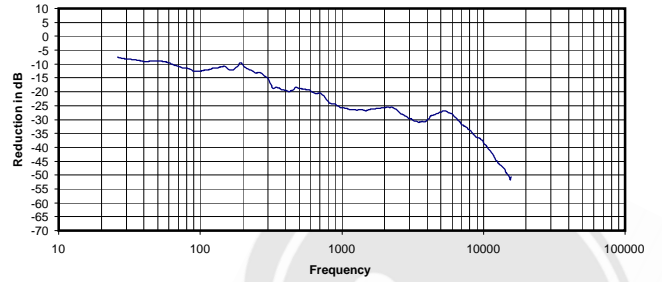
0.037 Vrms
19 Ohms
0.07 mW
-19 dBr



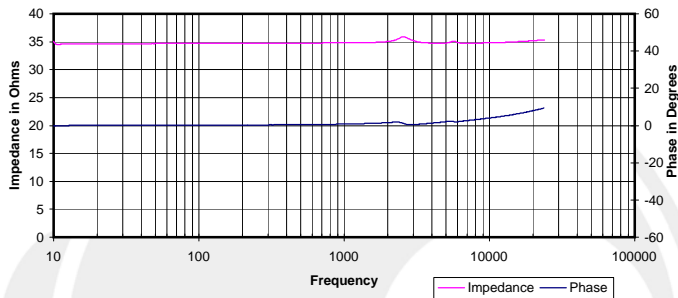
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



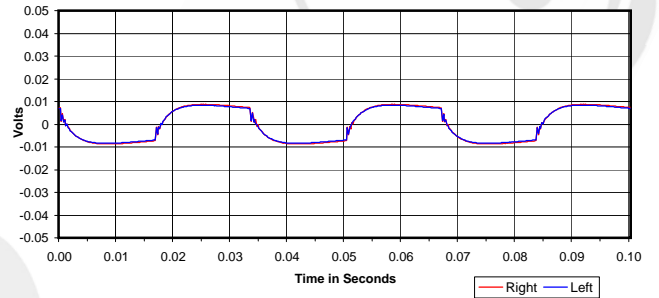
Isolation
Attenuation of External Sound vs. Frequency



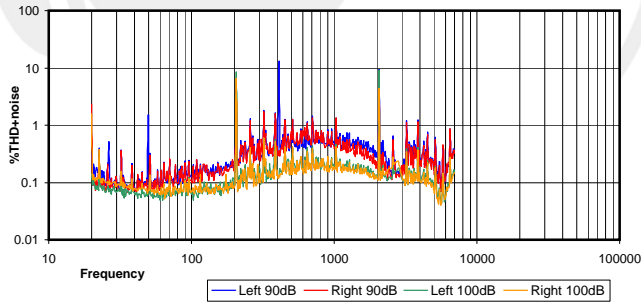
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



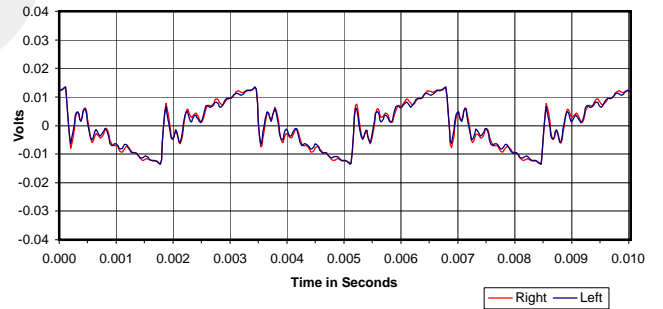
30 Hz Square Wave



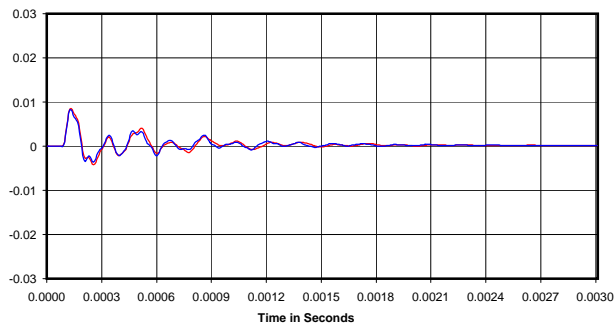
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

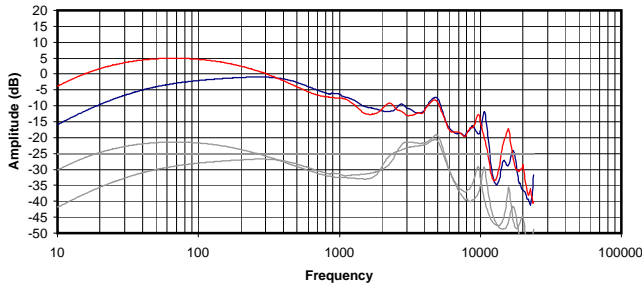


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

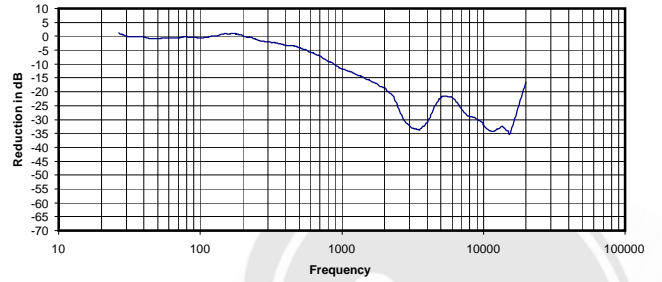
0.063 Vrms
35 Ohms
0.12 mW
-21 dB



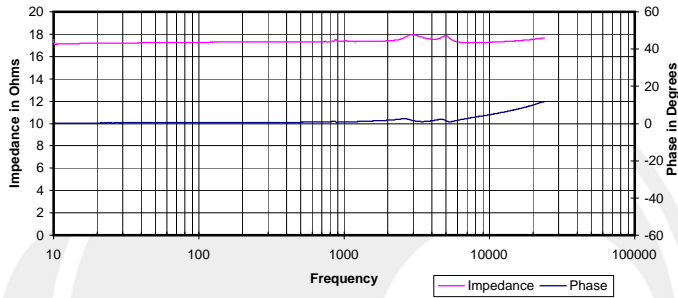
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



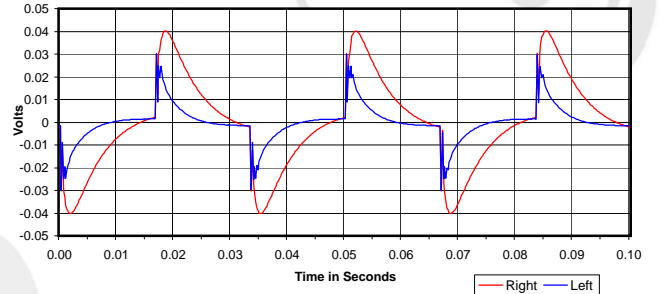
Isolation
Attenuation of External Sound vs. Frequency



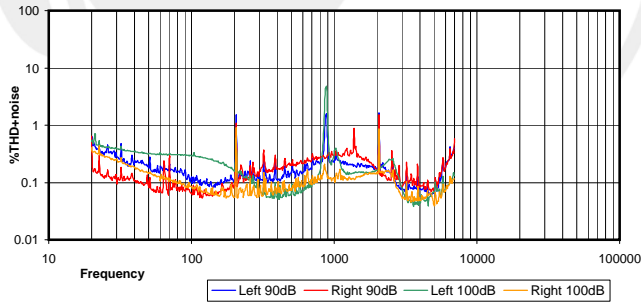
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



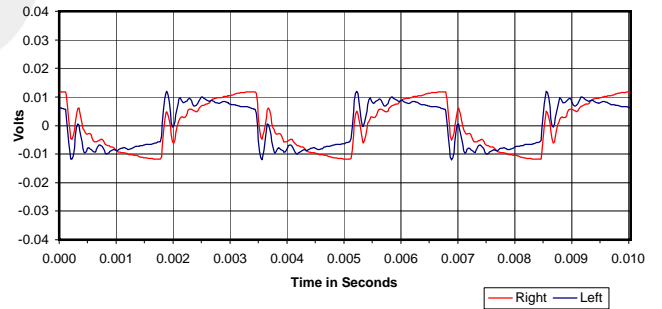
30 Hz Square Wave



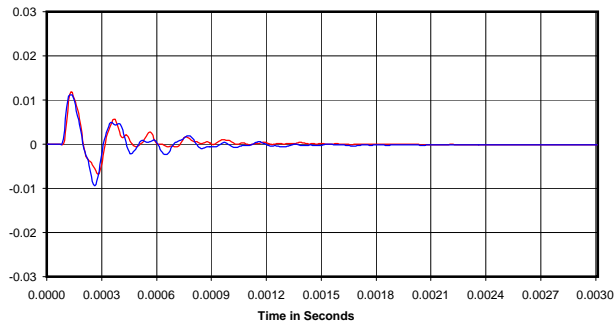
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

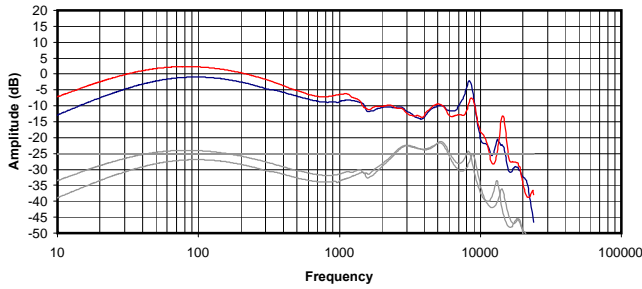


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

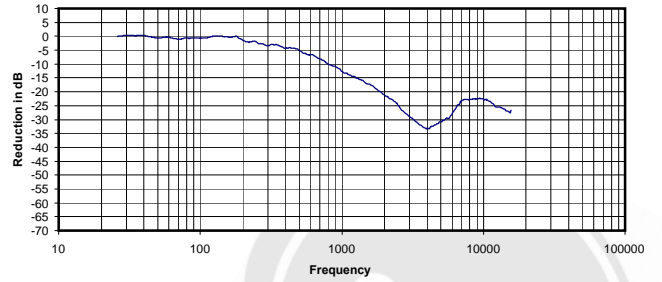
0.027 Vrms
17 Ohms
0.04 mW
-13 dB



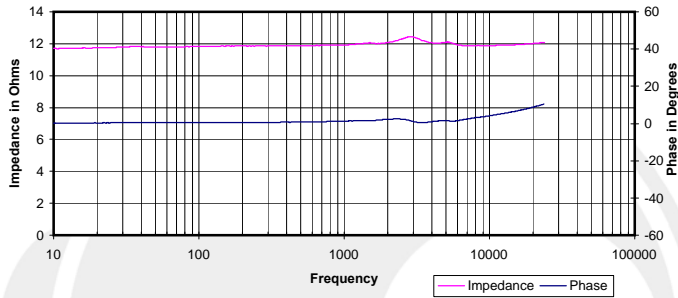
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



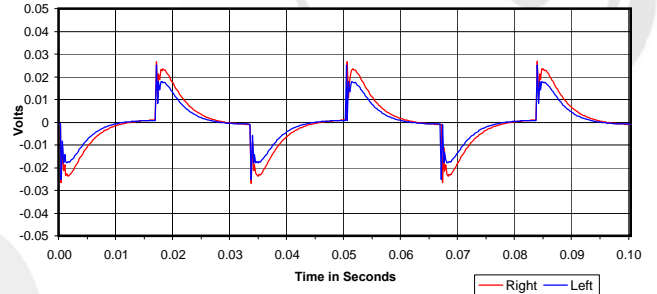
Isolation
Attenuation of External Sound vs. Frequency



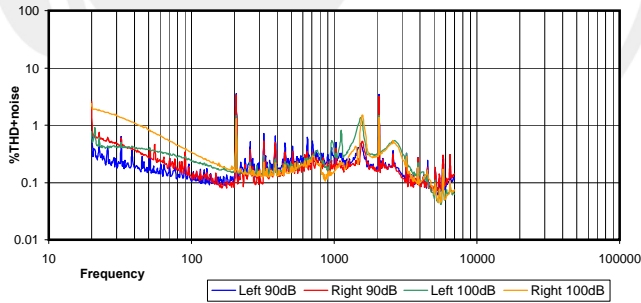
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



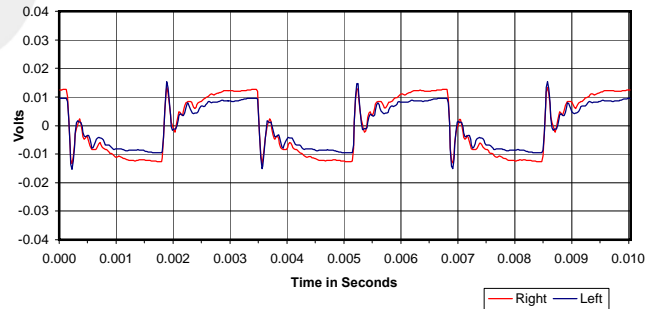
30 Hz Square Wave



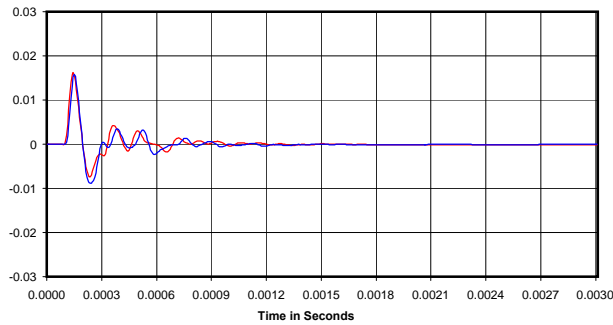
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



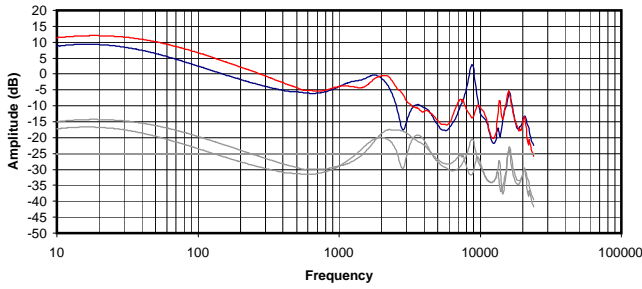
Impulse Response



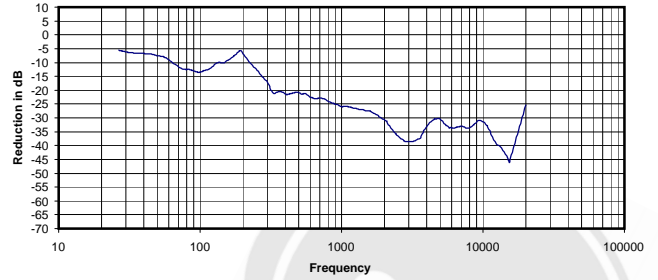
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
12 Ohms
0.09 mW
-13 dB

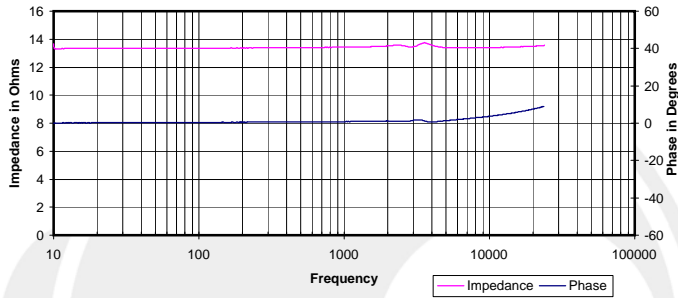
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



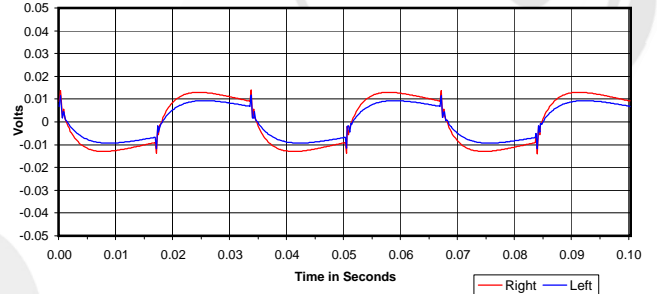
Isolation
Attenuation of External Sound vs. Frequency



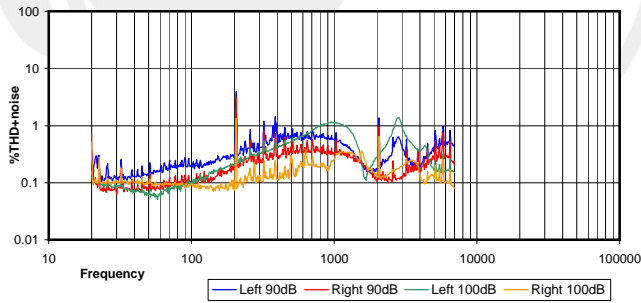
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



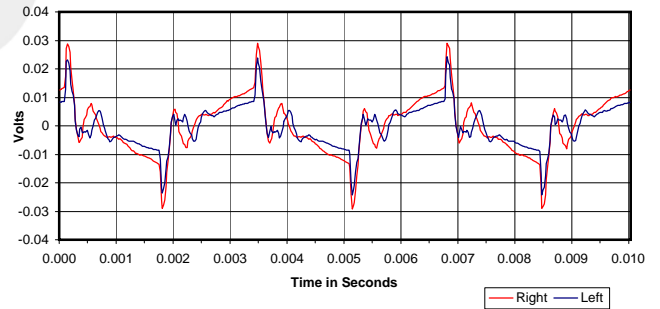
30 Hz Square Wave



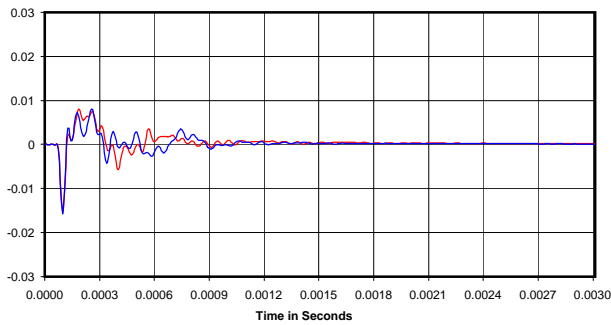
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



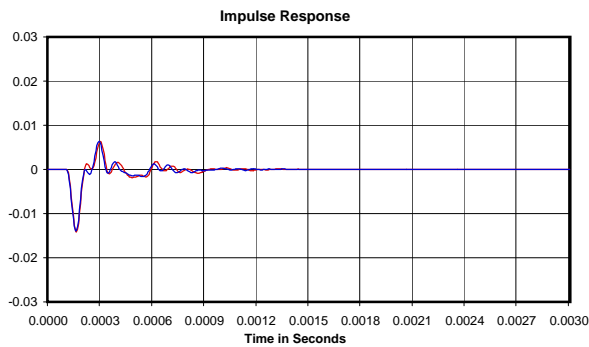
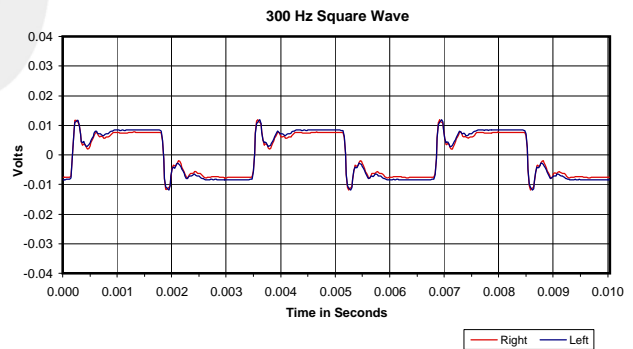
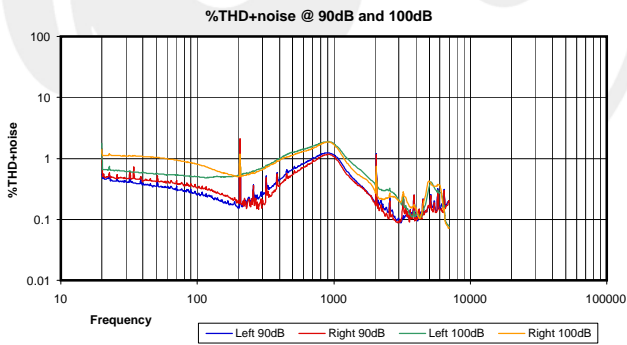
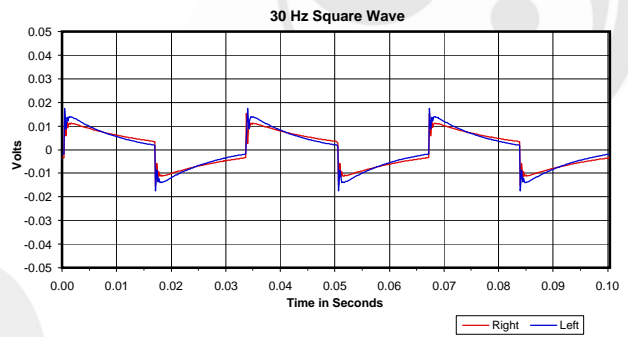
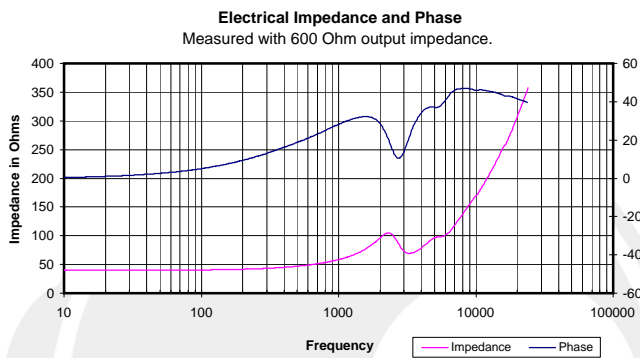
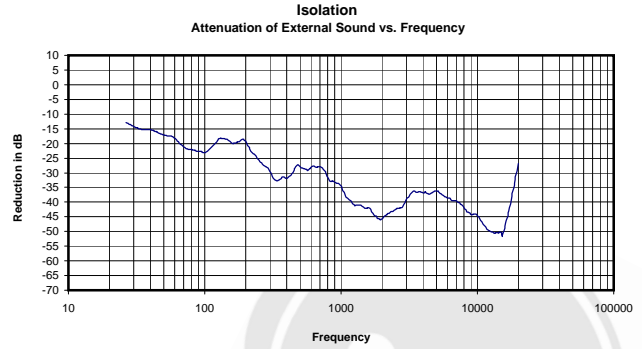
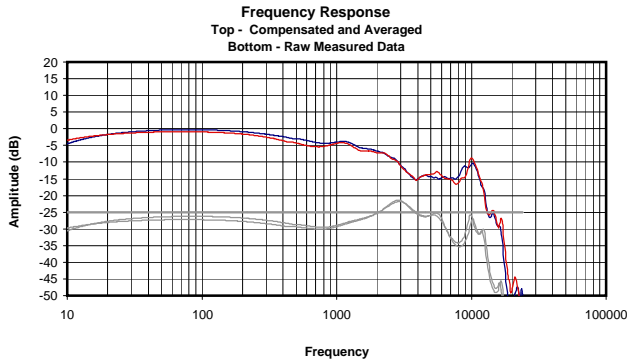
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.078 Vrms
13 Ohms
0.46 mW
-24 dB

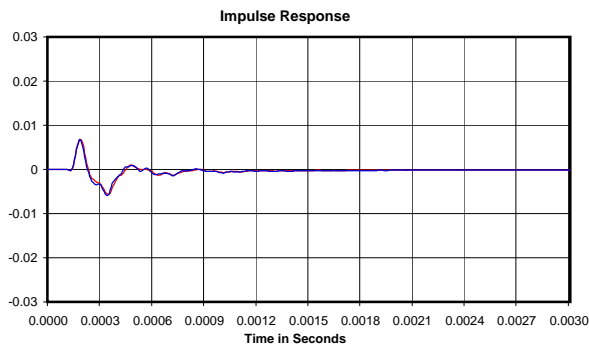
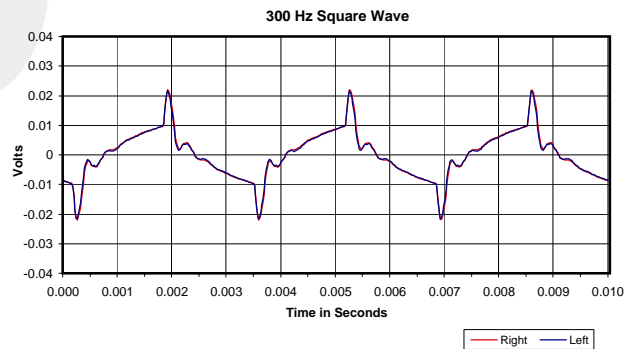
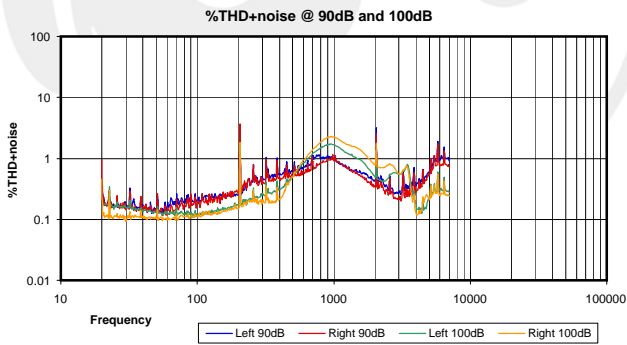
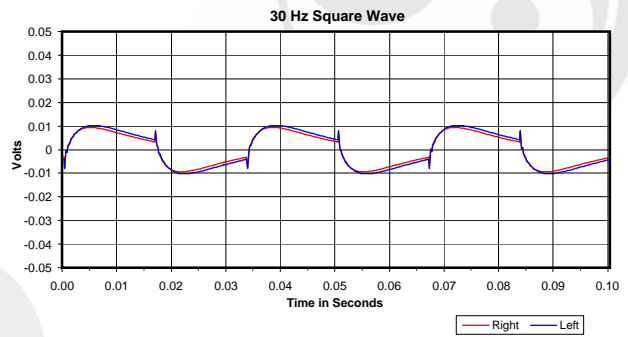
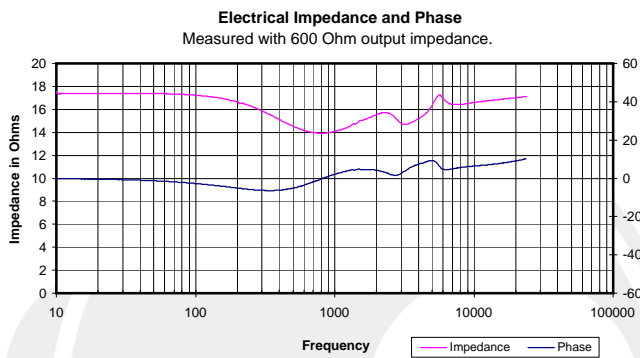
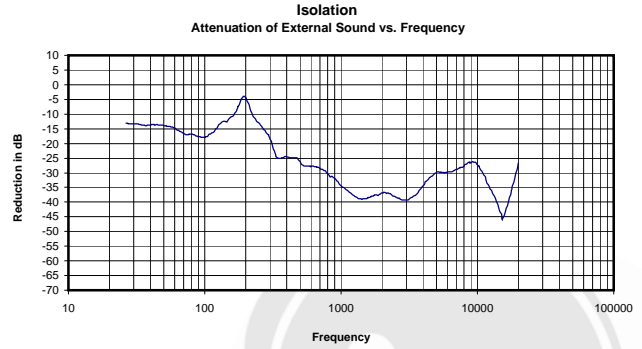
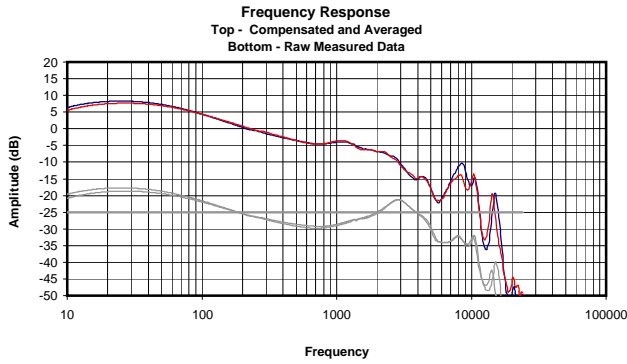




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
58 Ohms
0.01 mW
-33 dBr



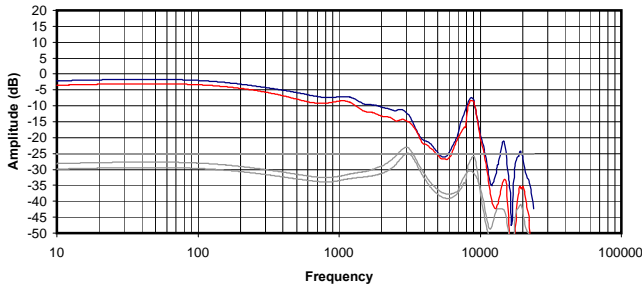


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

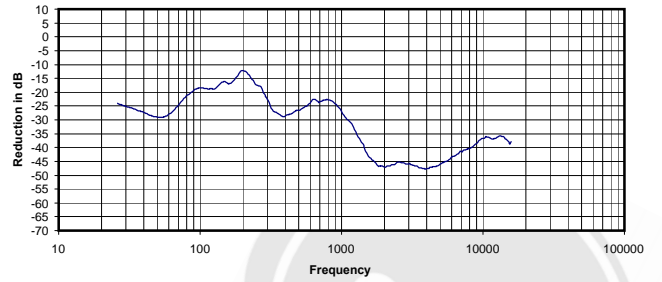
0.035 Vrms
14 Ohms
0.08 mW
-27 dB



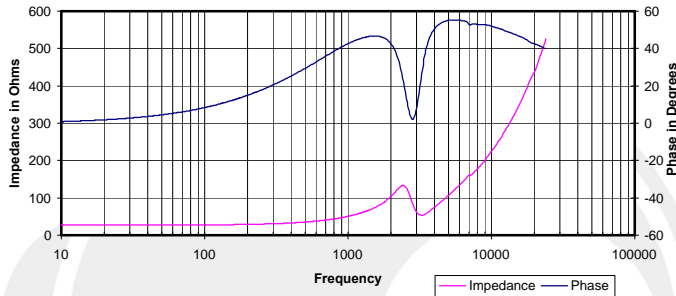
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



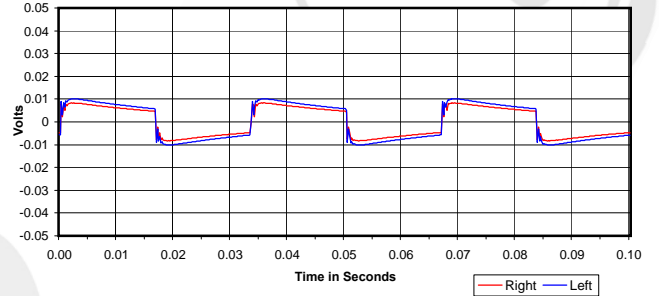
Isolation
Attenuation of External Sound vs. Frequency



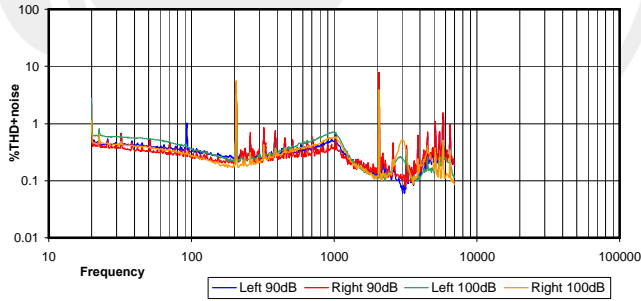
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



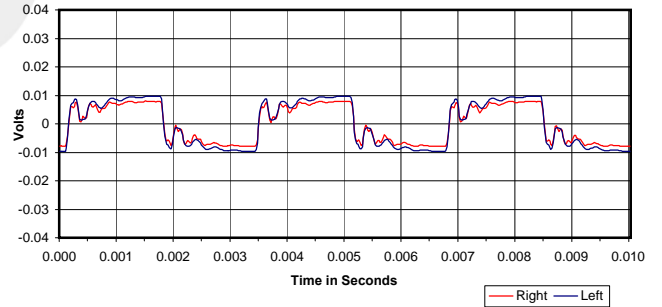
30 Hz Square Wave



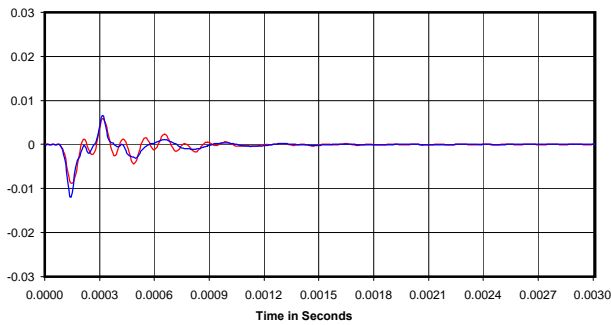
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



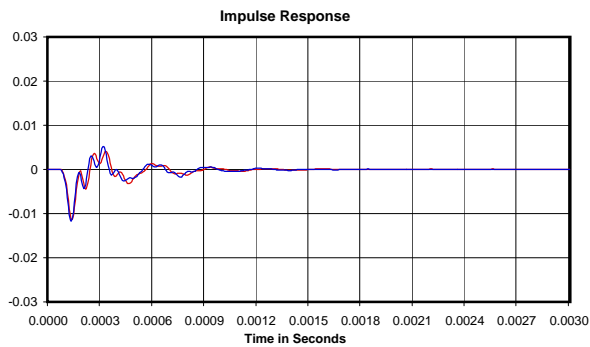
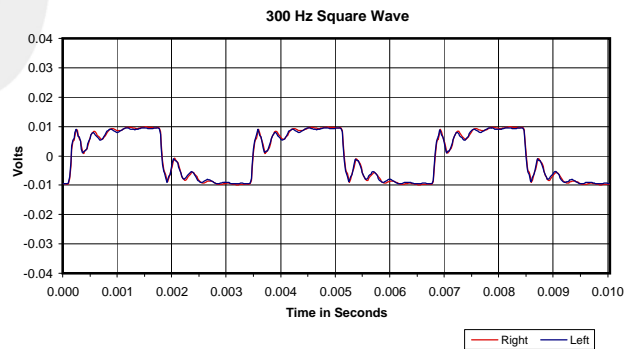
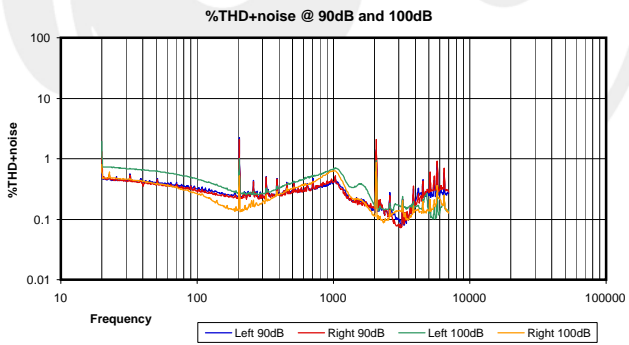
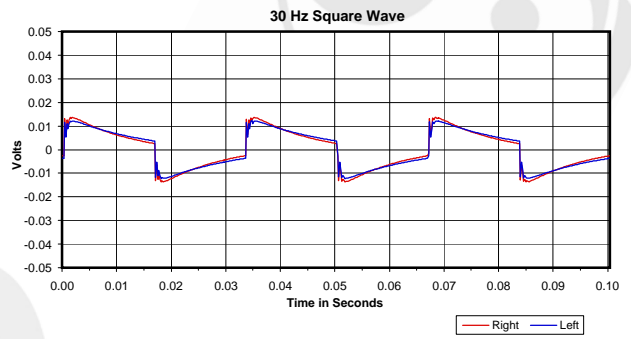
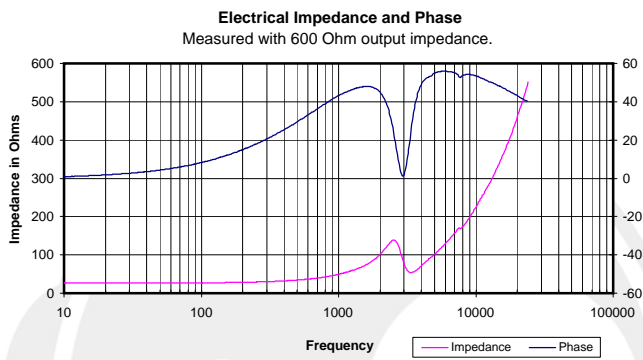
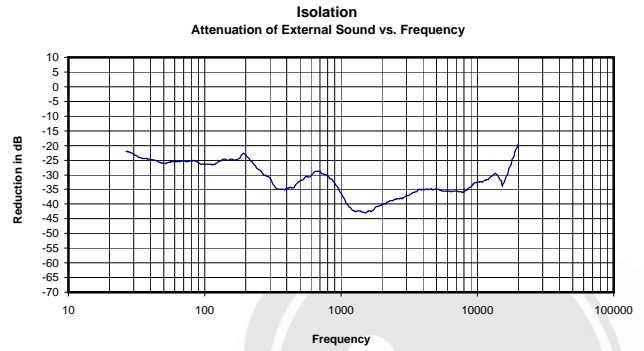
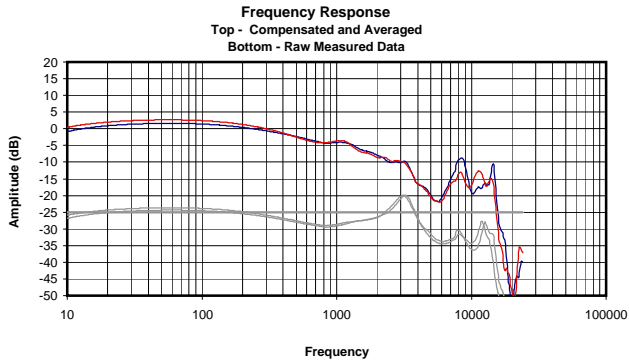
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
50 Ohms
0.02 mW
-31 dB

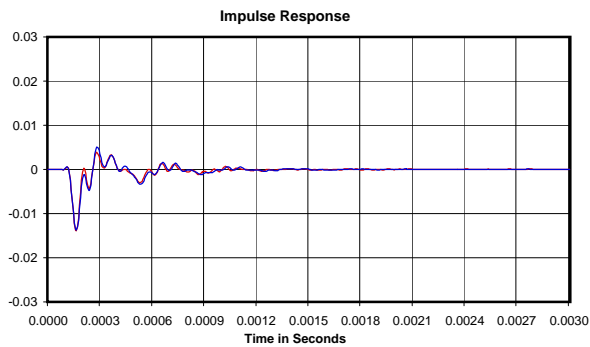
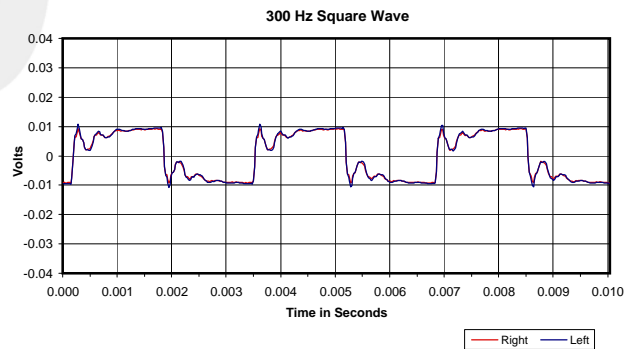
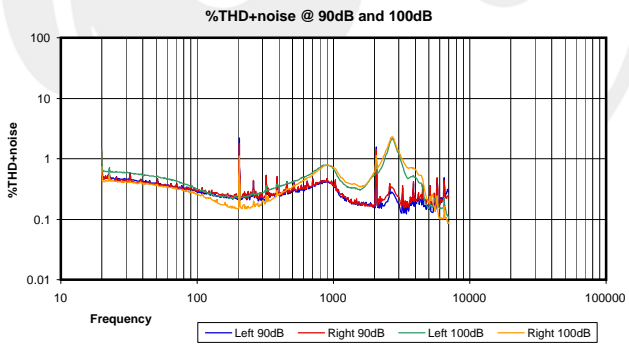
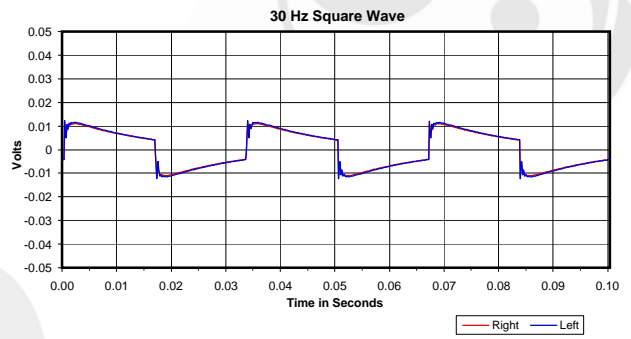
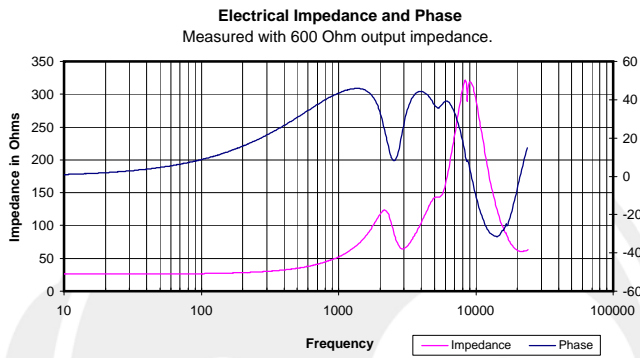
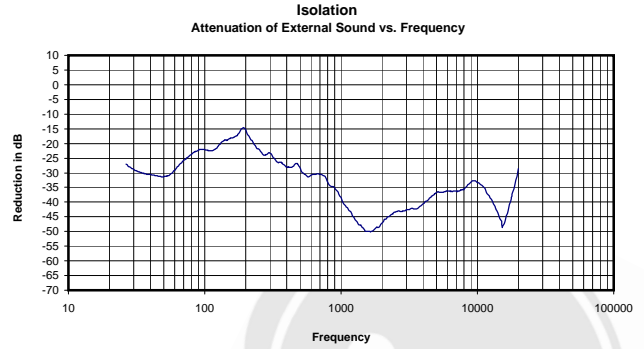
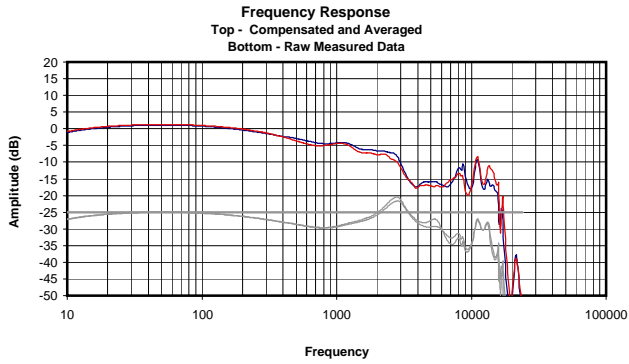




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
49 Ohms
0.02 mW
-34 dBr

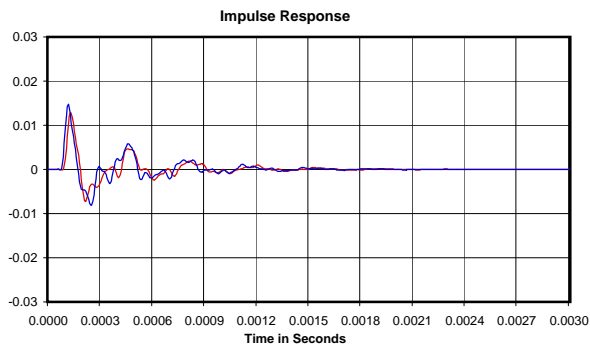
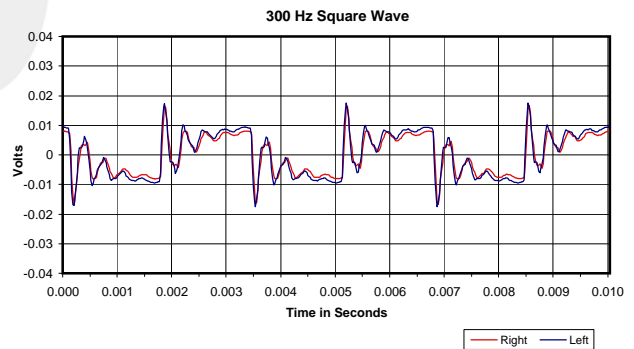
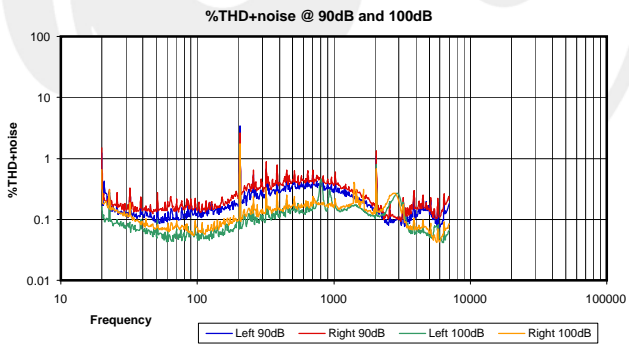
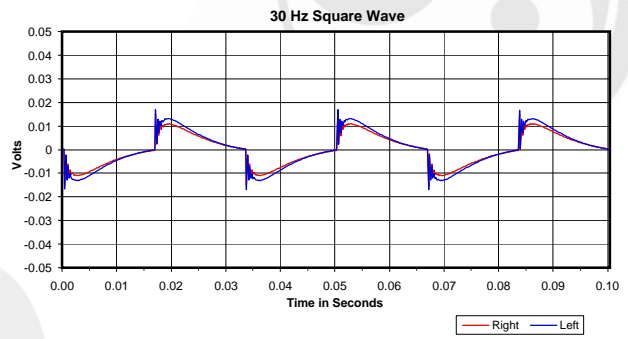
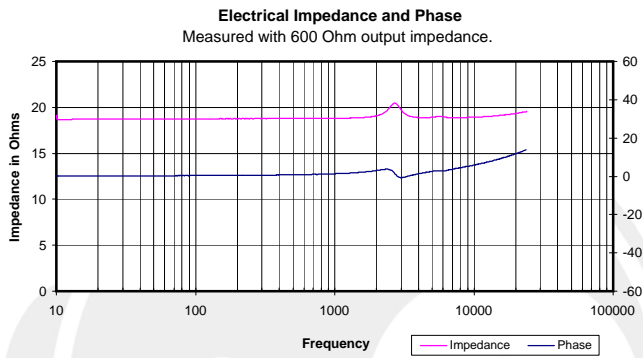
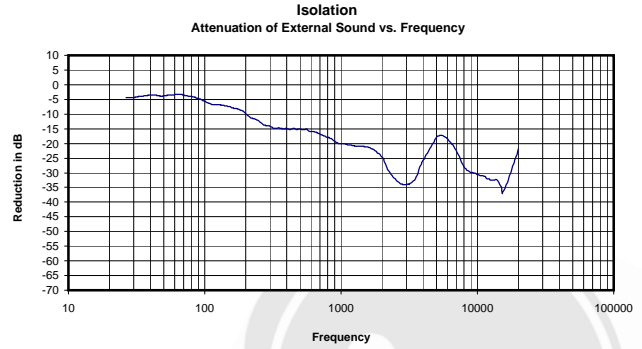
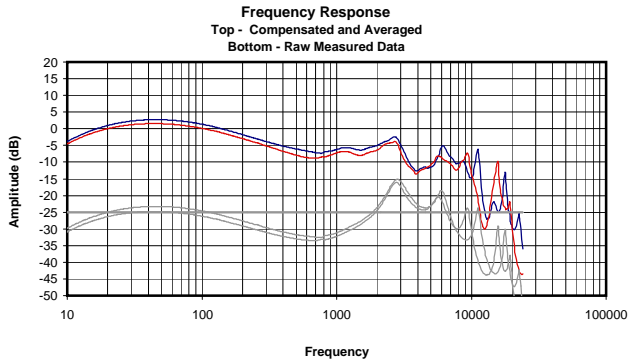




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
52 Ohms
0.02 mW
-33 dBr

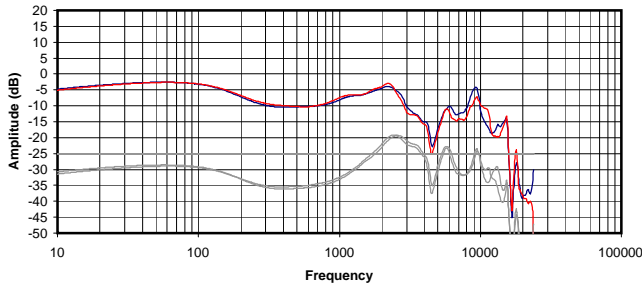




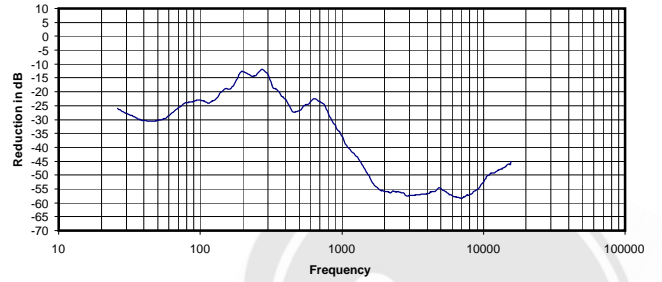
Volts RMS required to reach 90dB SPL: 0.037 Vrms
 Impedance @ 1kHz: 19 Ohms
 Power Needed for 90d BSPL: 0.07 mW
 Broadband Isolation in dB (100Hz to 10kHz): -19 dBr



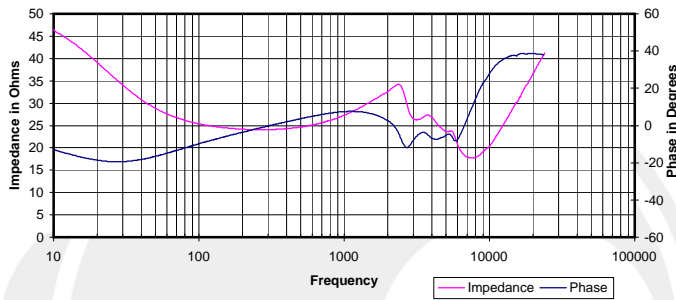
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



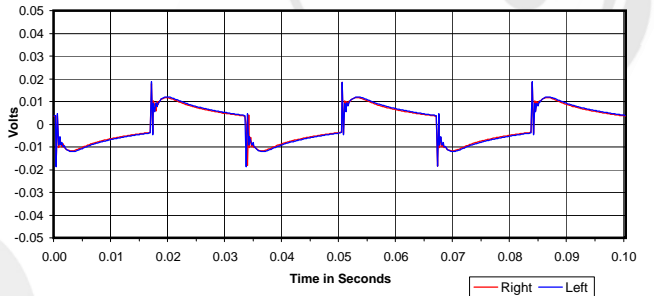
Isolation
Attenuation of External Sound vs. Frequency



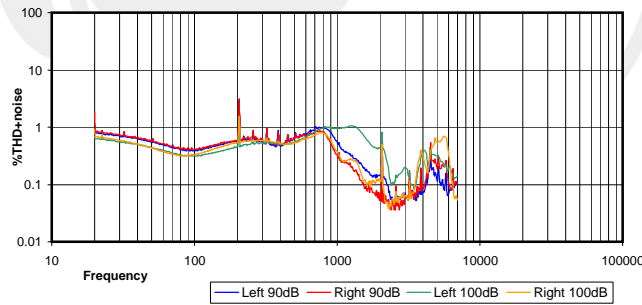
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



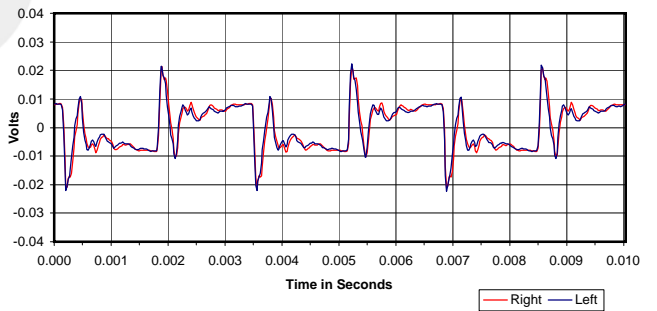
30 Hz Square Wave



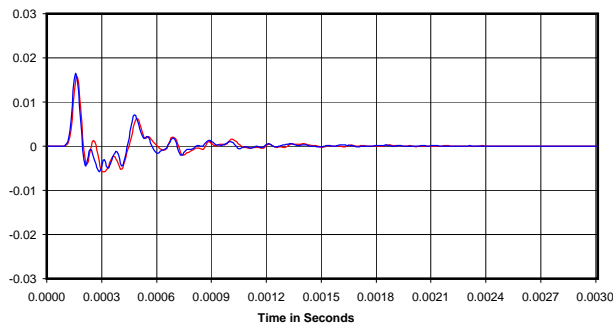
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

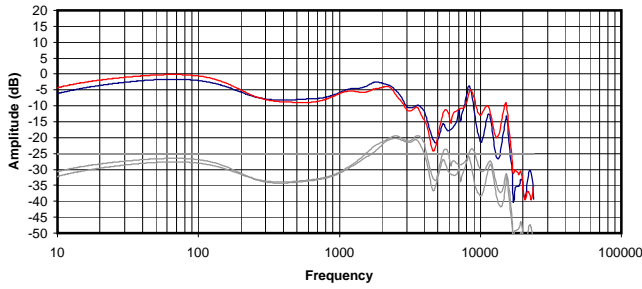


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

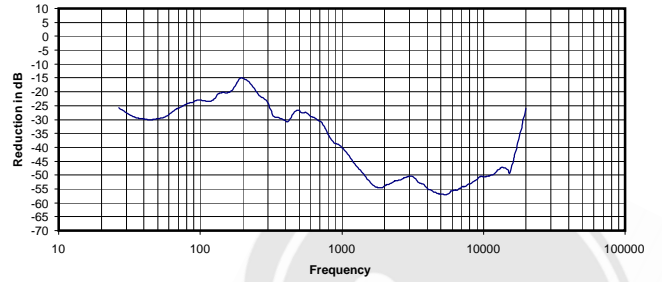
0.032 Vrms
27 Ohms
0.04 mW
-35 dB



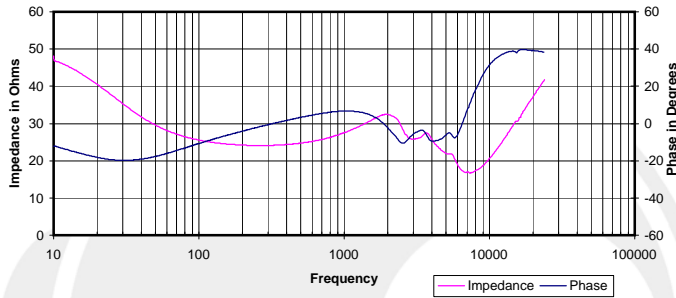
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



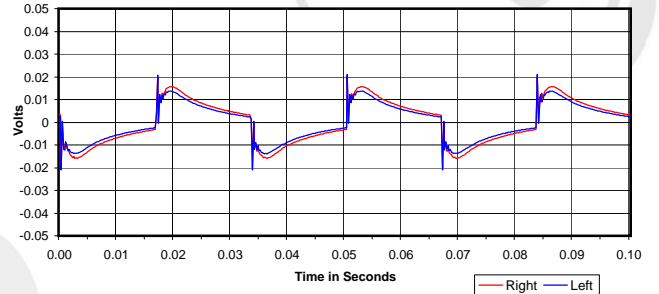
Isolation
Attenuation of External Sound vs. Frequency



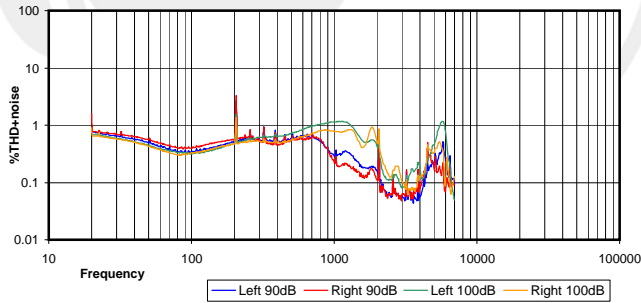
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



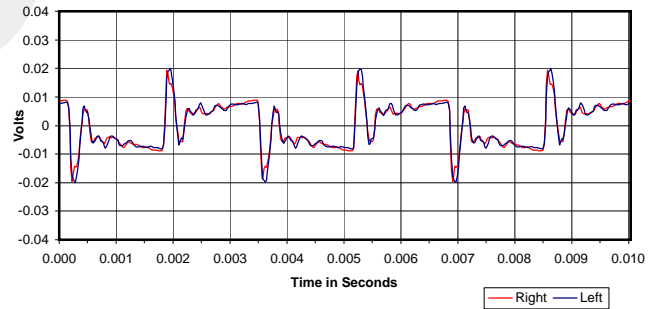
30 Hz Square Wave



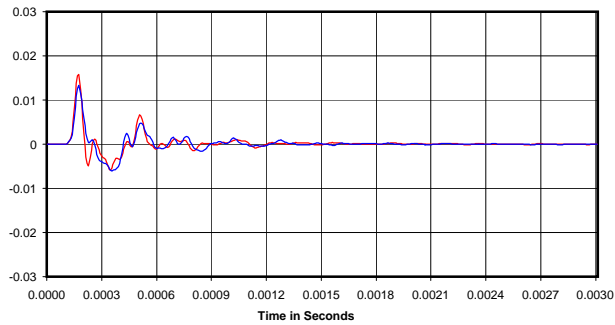
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



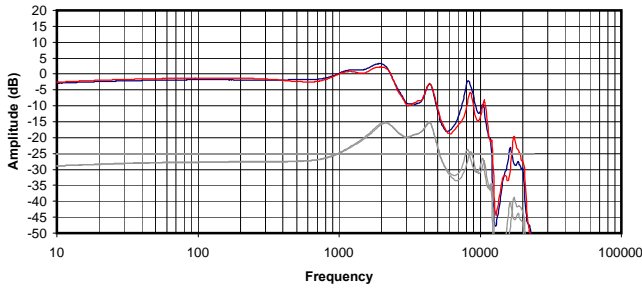
Impulse Response



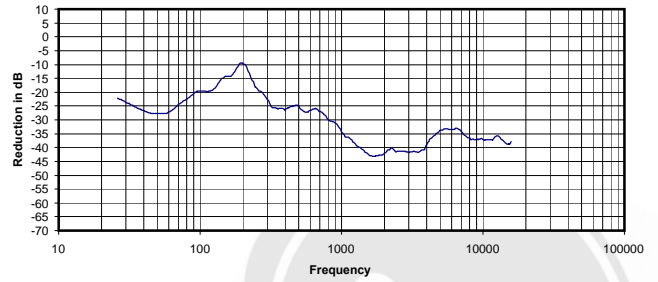
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
28 Ohms
0.03 mW
-39 dB

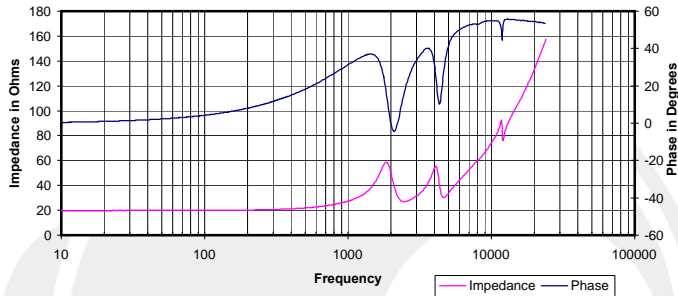
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



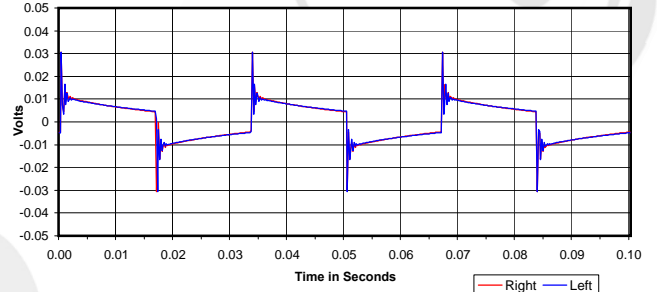
Isolation
Attenuation of External Sound vs. Frequency



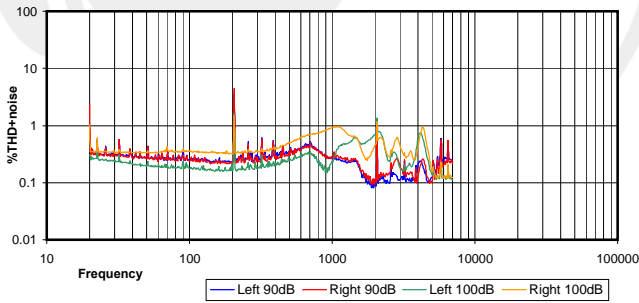
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



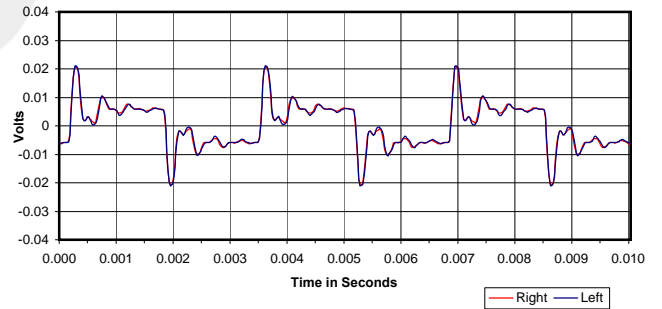
30 Hz Square Wave



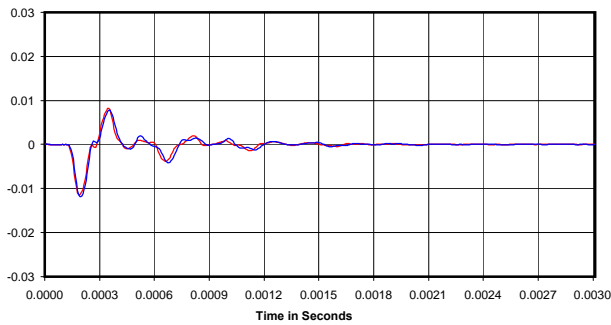
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

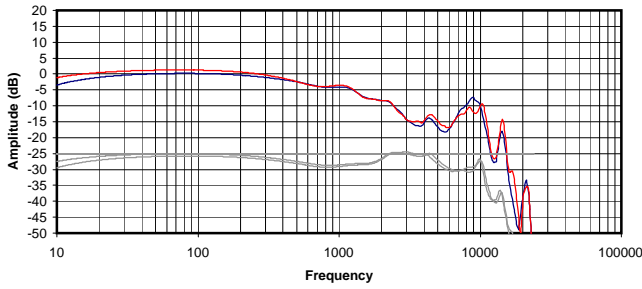


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

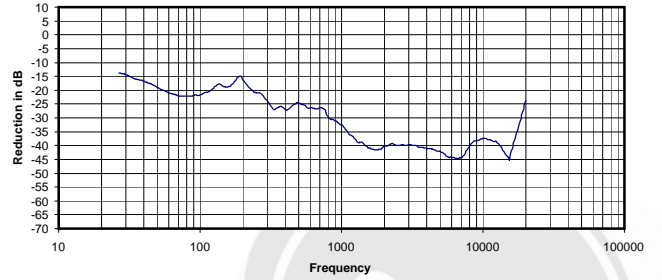
0.012 Vrms
27 Ohms
0.01 mW
-29 dB



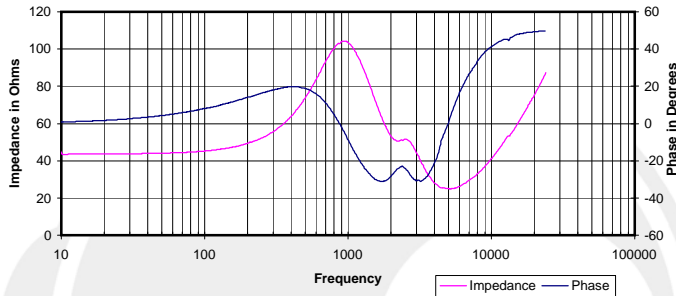
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



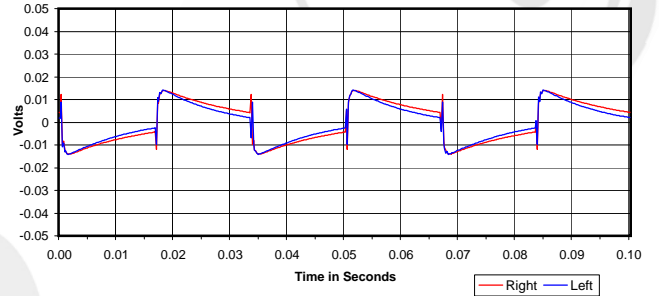
Isolation
Attenuation of External Sound vs. Frequency



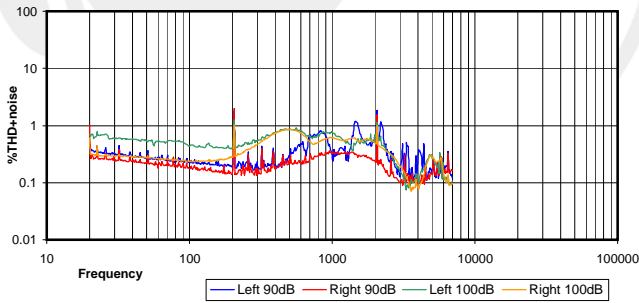
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



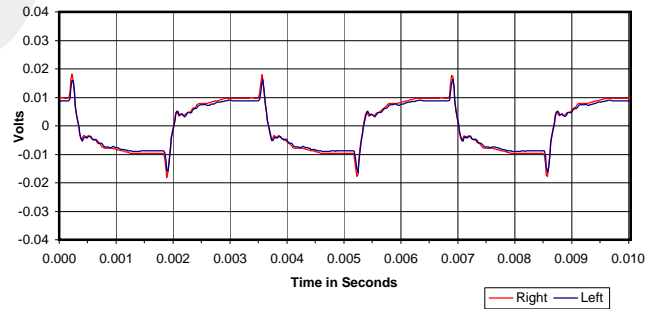
30 Hz Square Wave



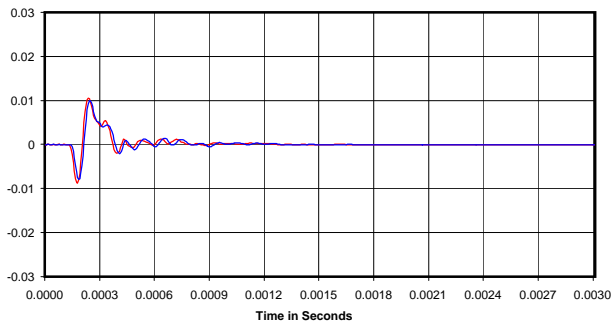
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

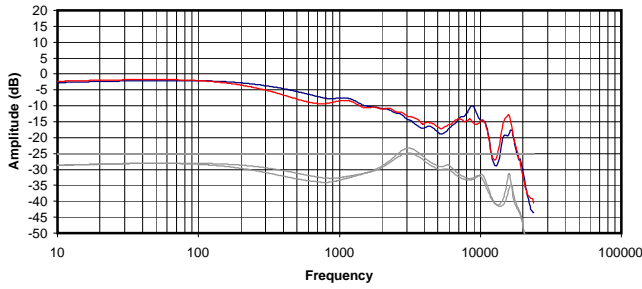


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

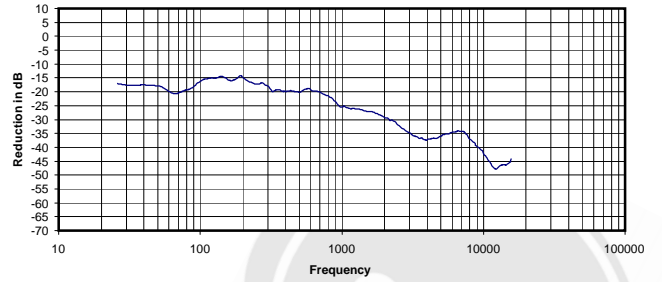
0.027 Vrms
103 Ohms
0.01 mW
-32 dB



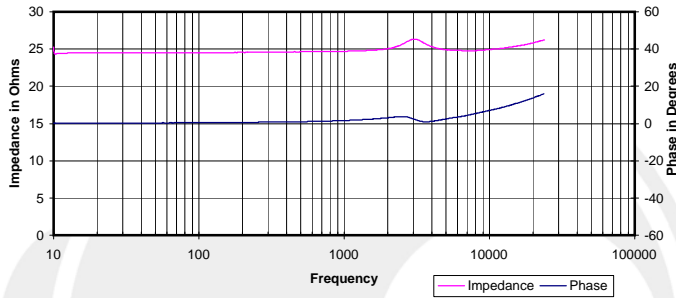
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



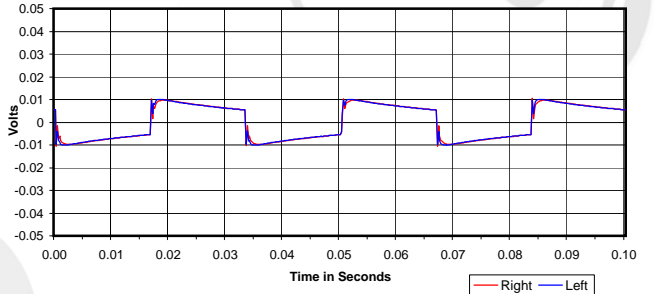
Isolation
Attenuation of External Sound vs. Frequency



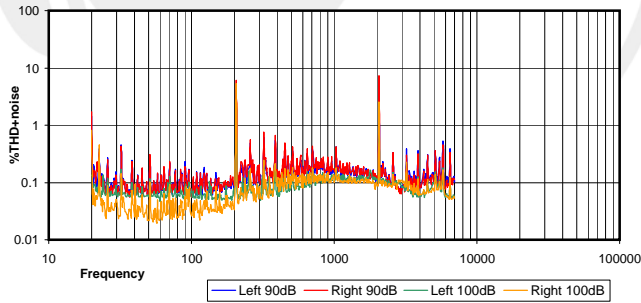
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



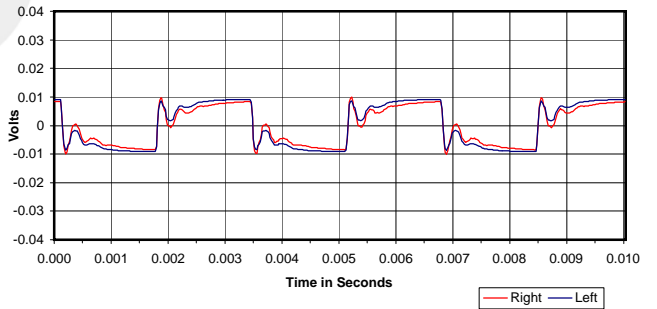
30 Hz Square Wave



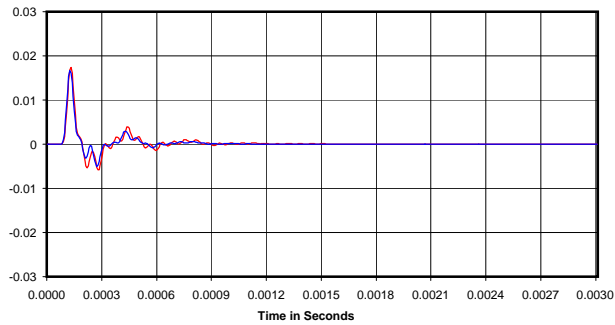
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

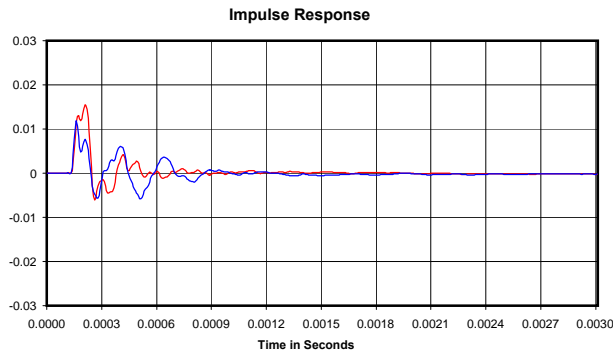
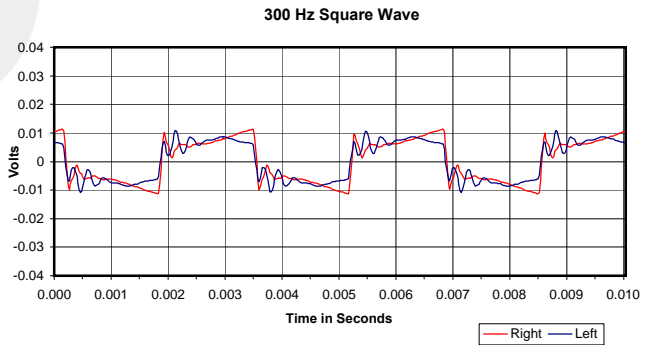
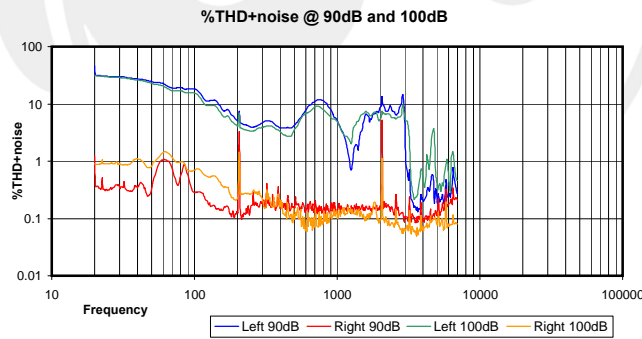
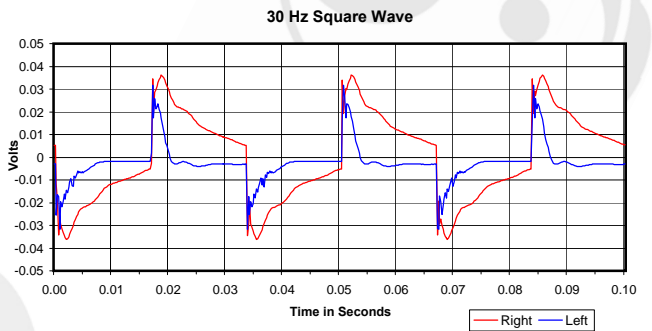
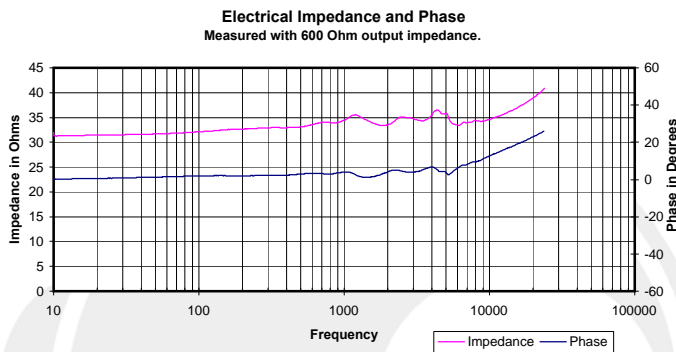
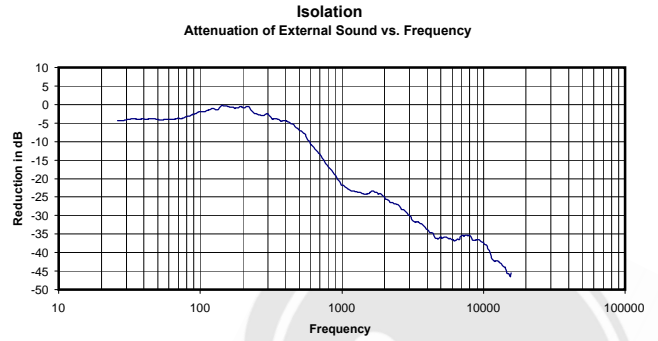
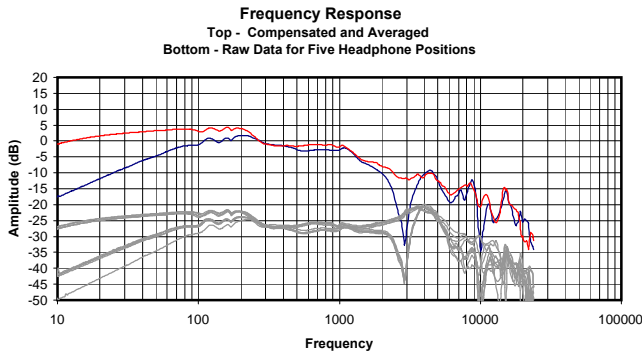


Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.032 Vrms
25 Ohms
0.04 mW
-24 dB

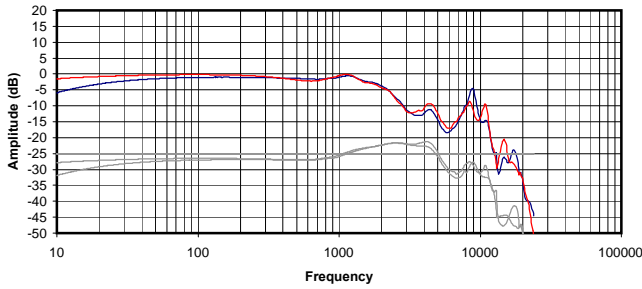


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

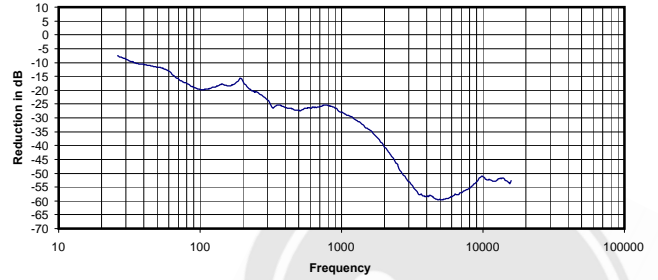
0.043 Vrms
34 Ohms
0.05 mW
-16 dB



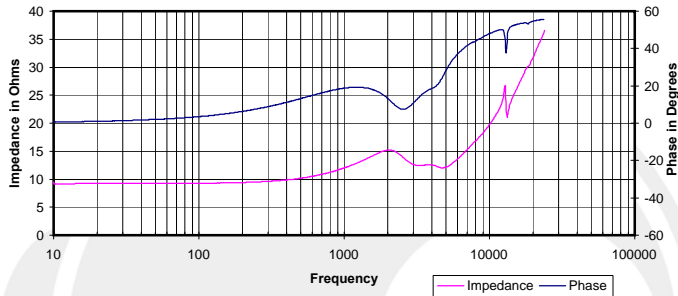
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



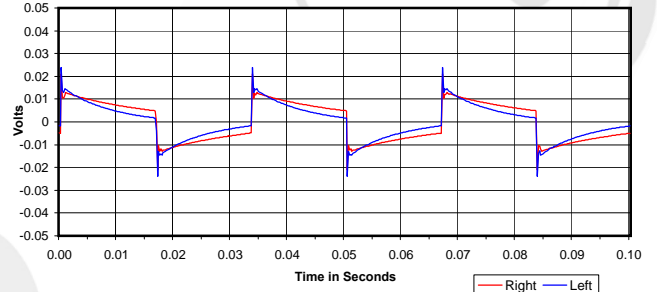
Isolation
Attenuation of External Sound vs. Frequency



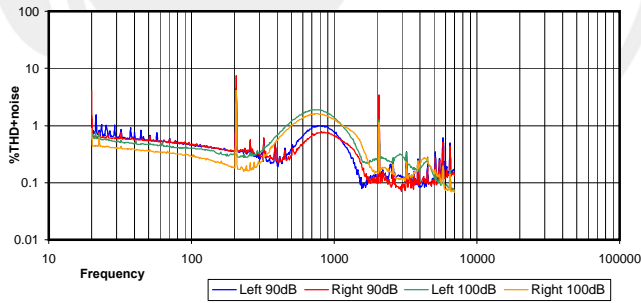
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



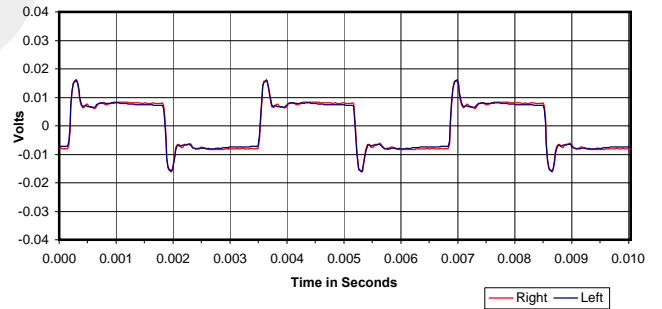
30 Hz Square Wave



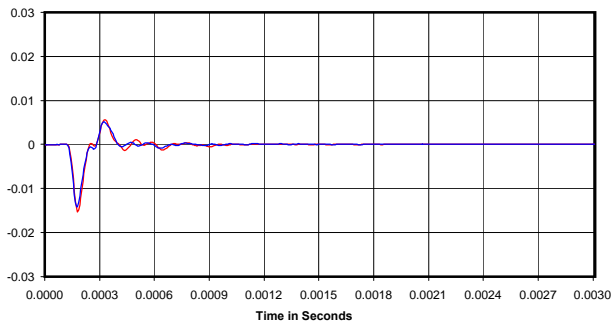
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

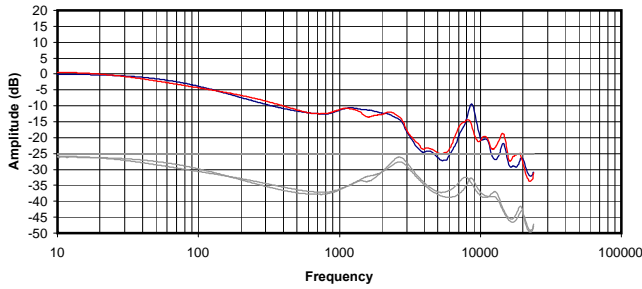


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

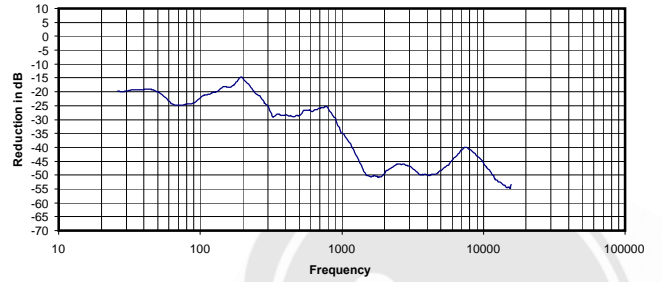
0.010 Vrms
12 Ohms
0.01 mW
-33 dB



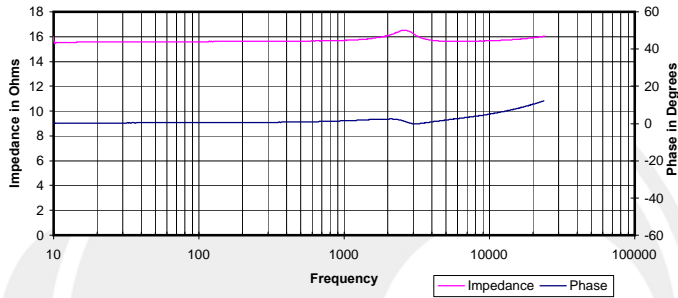
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



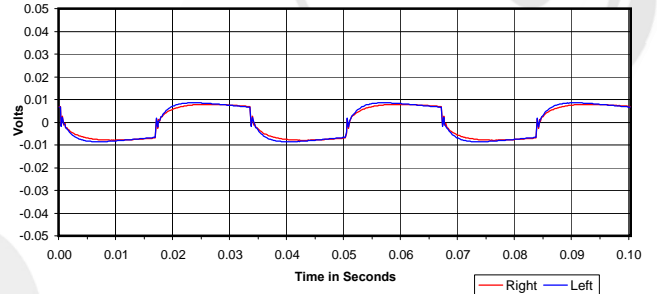
Isolation
Attenuation of External Sound vs. Frequency



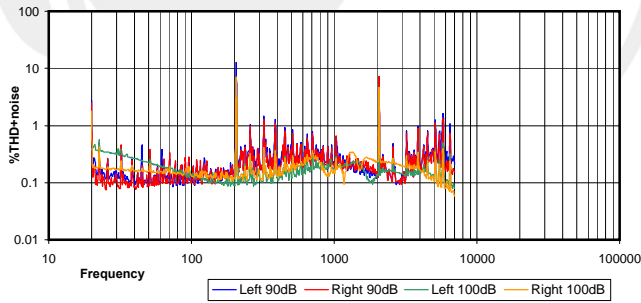
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



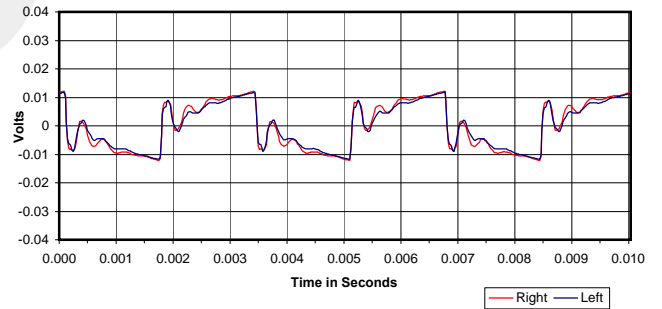
30 Hz Square Wave



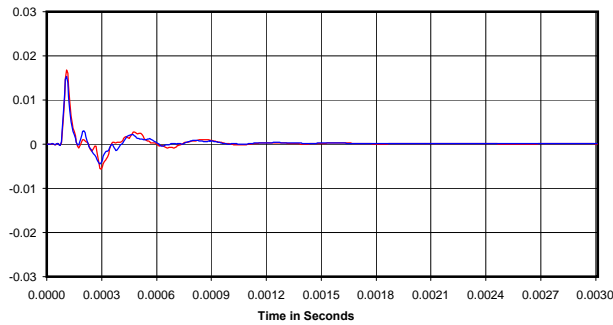
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

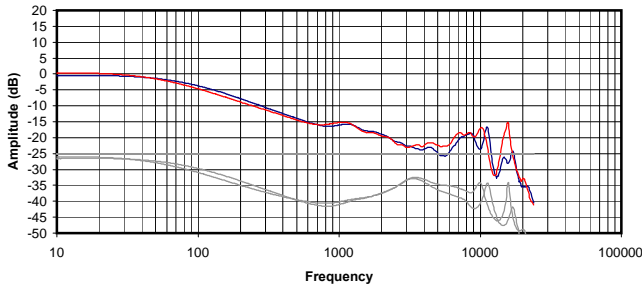


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

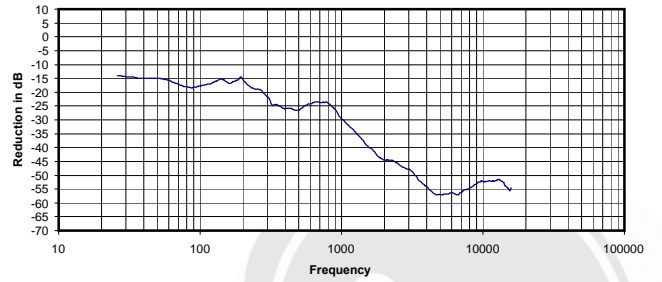
0.041 Vrms
16 Ohms
0.11 mW
-34 dB



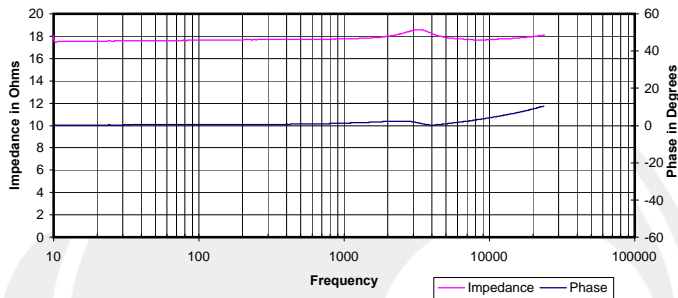
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



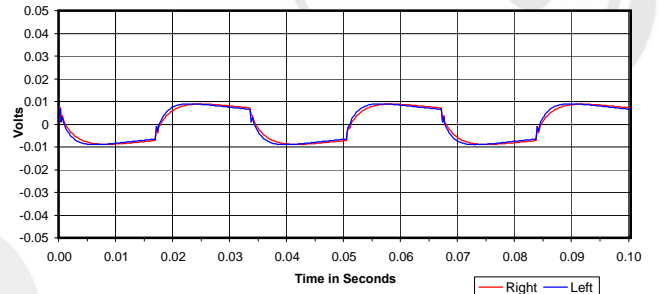
Isolation
Attenuation of External Sound vs. Frequency



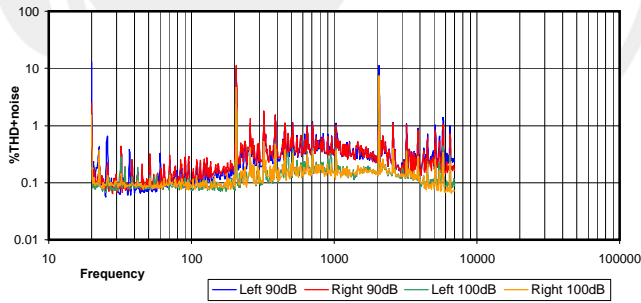
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



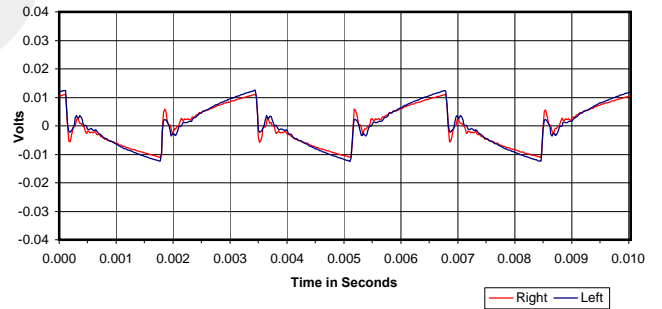
30 Hz Square Wave



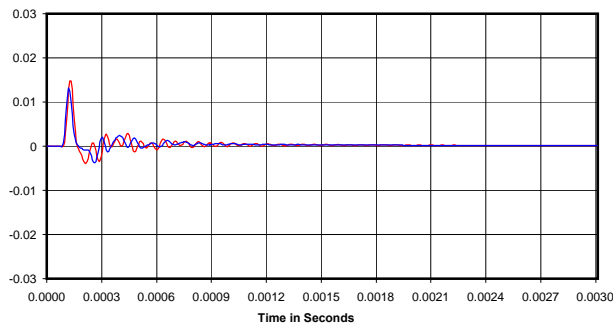
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

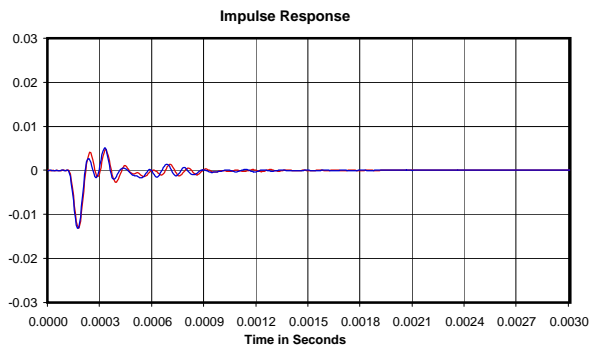
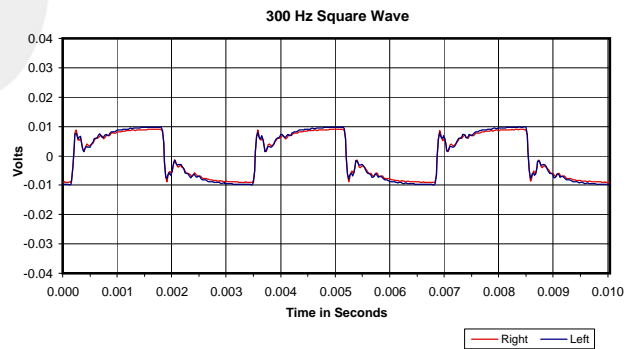
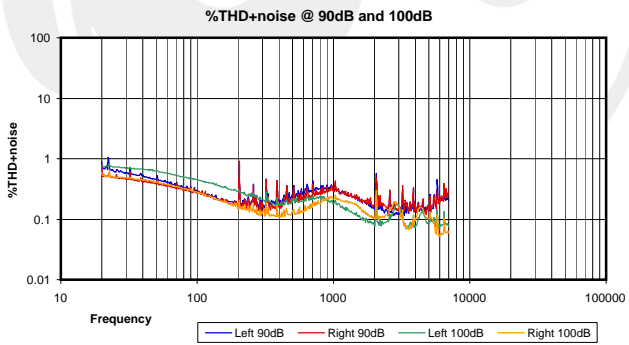
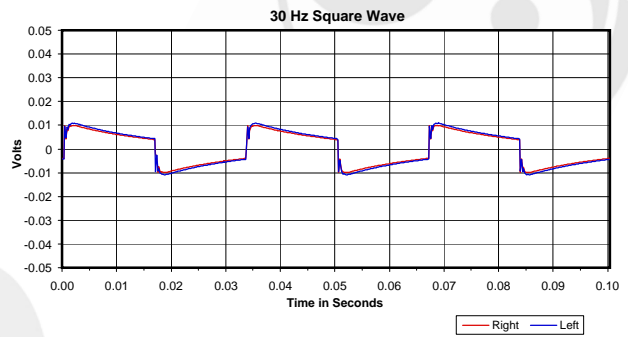
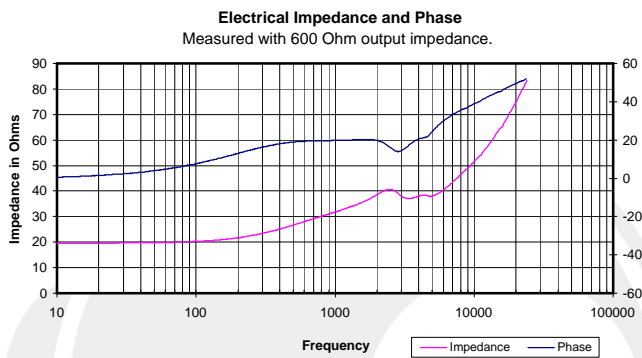
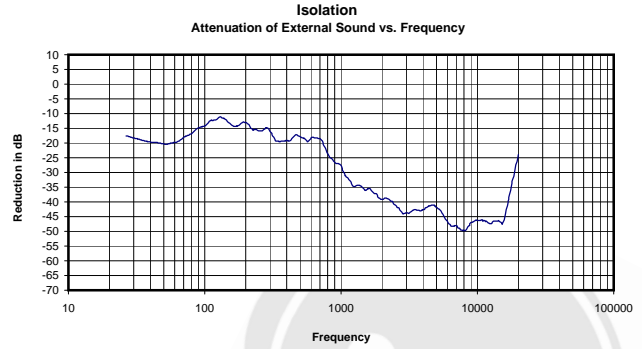
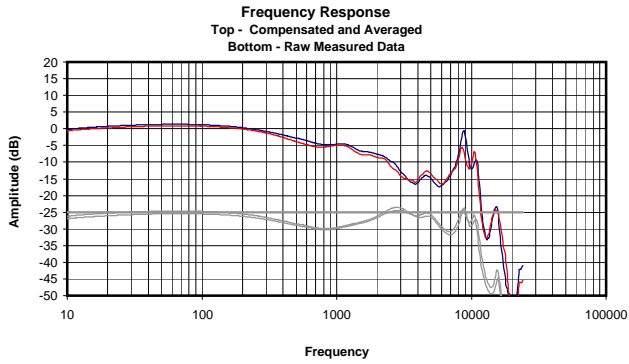


Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

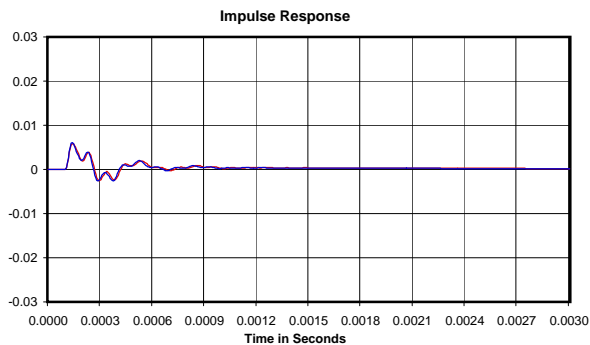
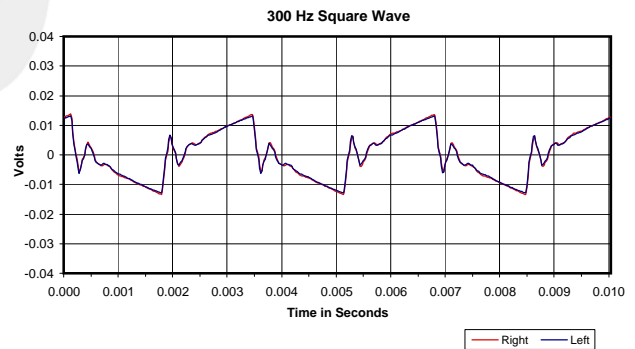
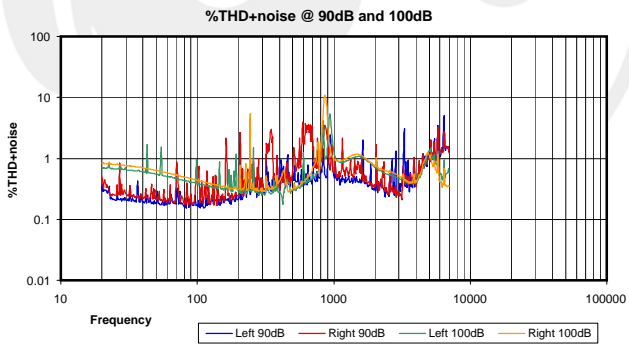
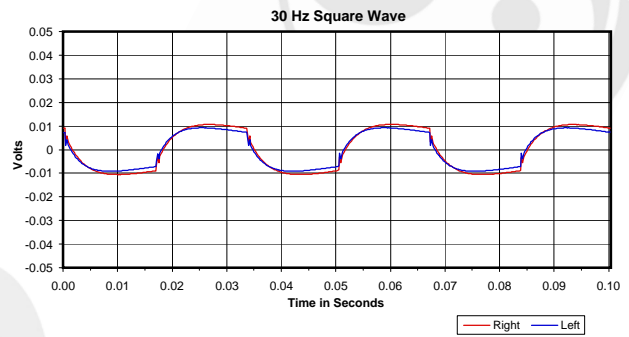
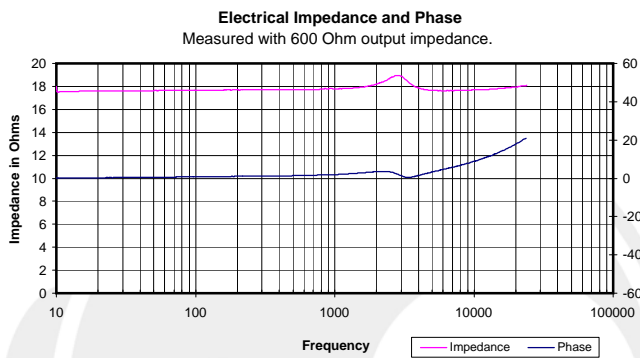
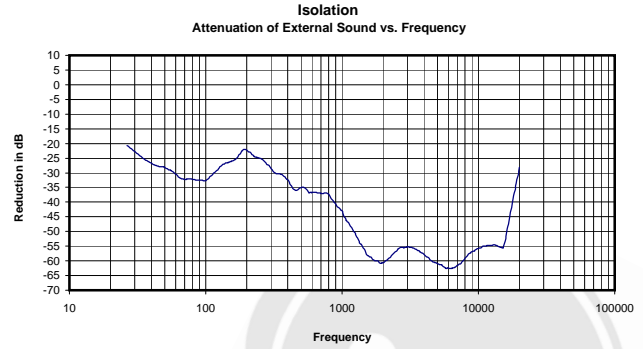
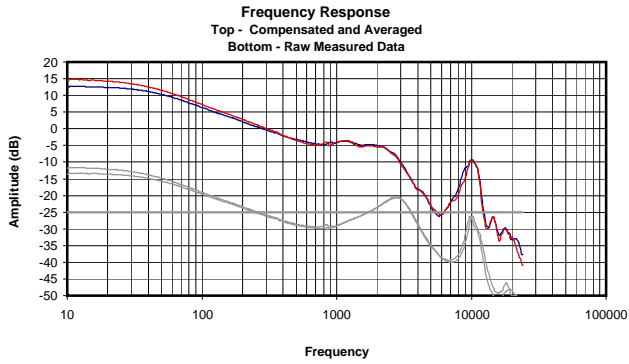
0.037 Vrms
18 Ohms
0.08 mW
-32 dB



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
32 Ohms
0.02 mW
-29 dB



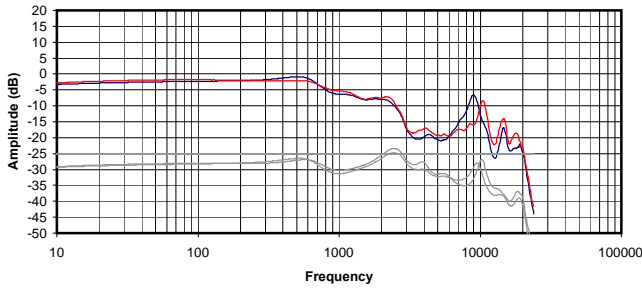


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

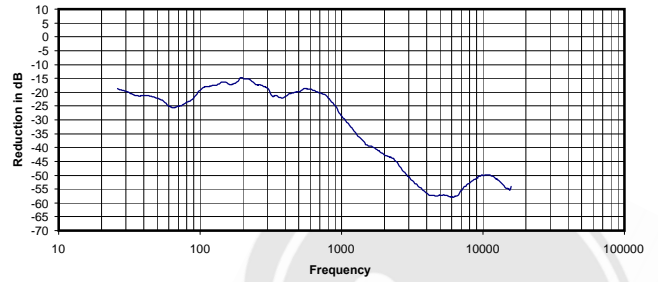
0.141 Vrms
18 Ohms
1.12 mW
-44 dB



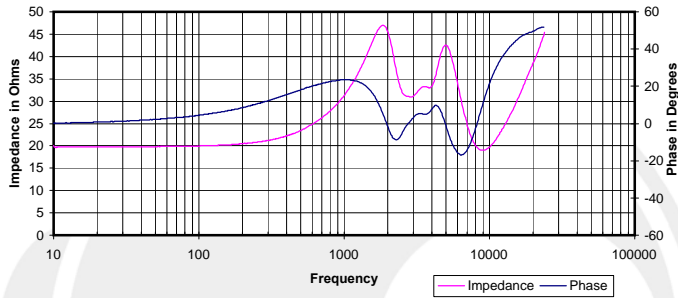
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



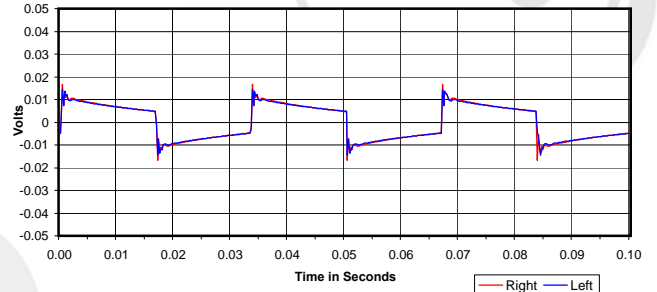
Isolation
Attenuation of External Sound vs. Frequency



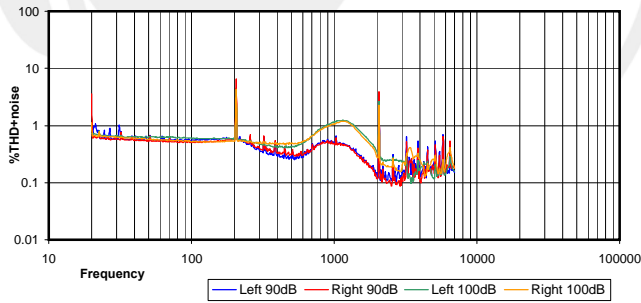
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



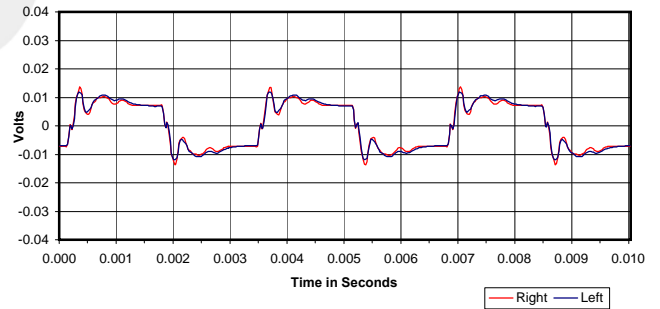
30 Hz Square Wave



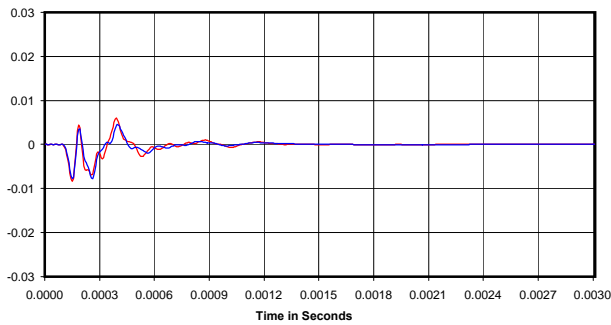
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

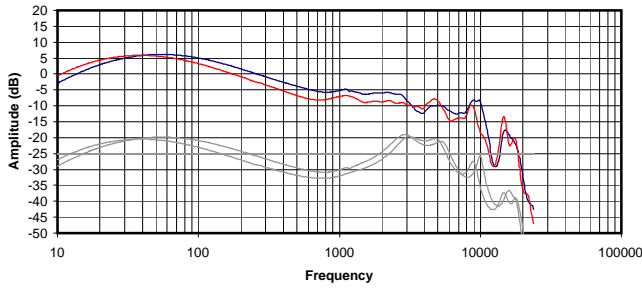


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

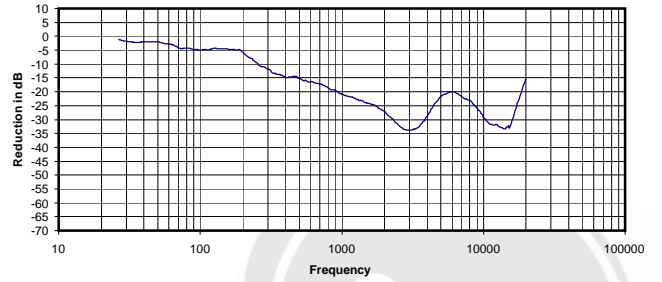
0.022 Vrms
31 Ohms
0.02 mW
-31 dB



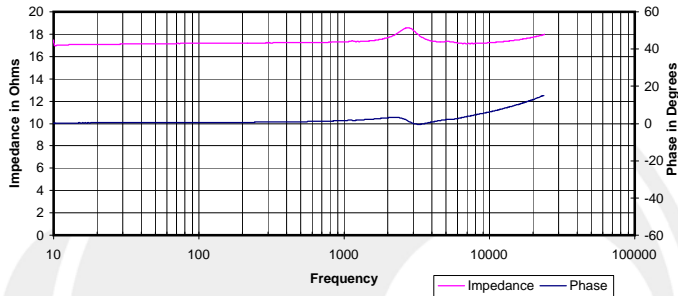
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



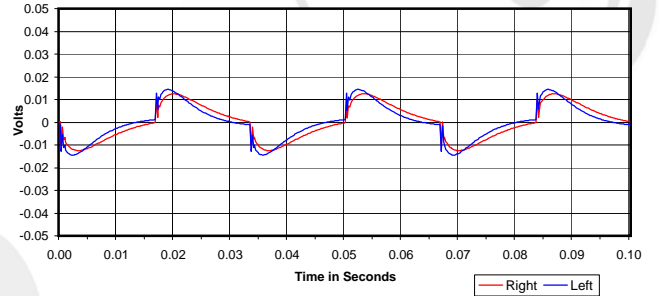
Isolation
Attenuation of External Sound vs. Frequency



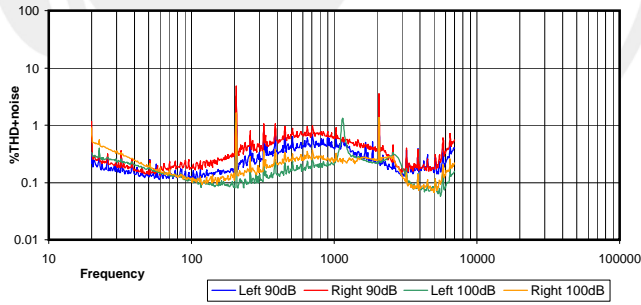
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



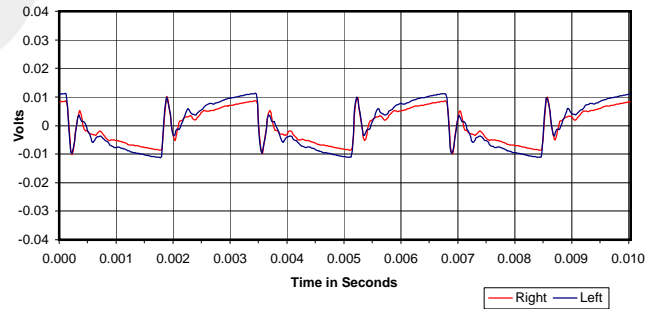
30 Hz Square Wave



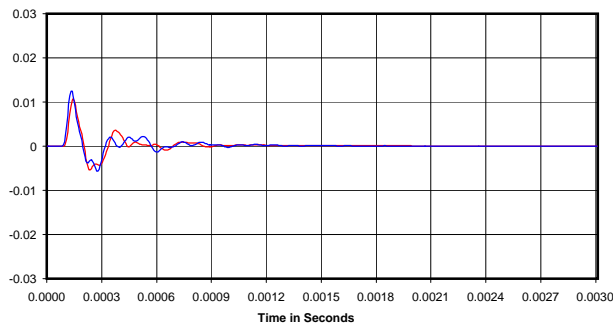
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

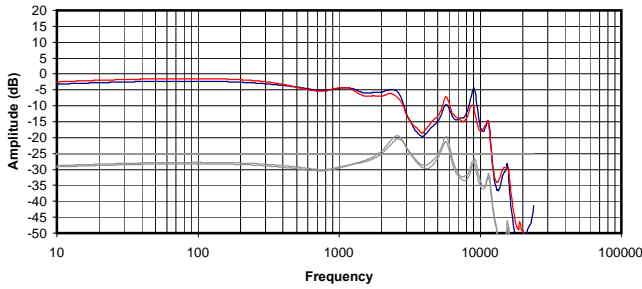


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

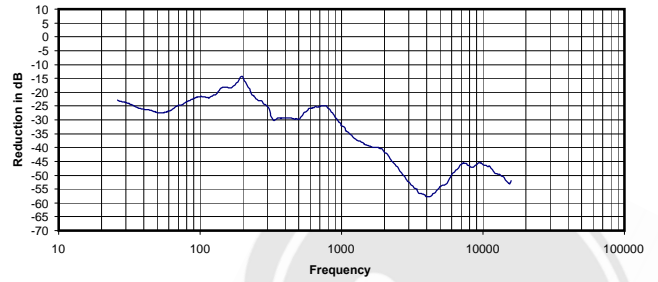
0.038 Vrms
17 Ohms
0.08 mW
-19 dB



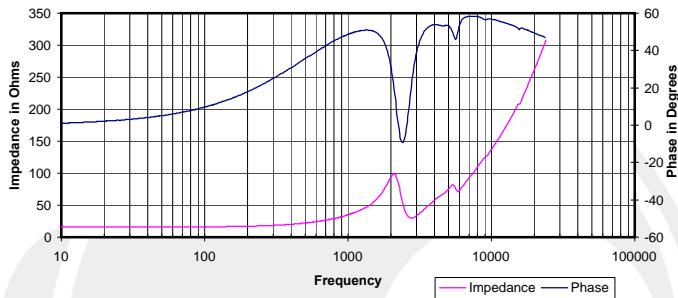
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



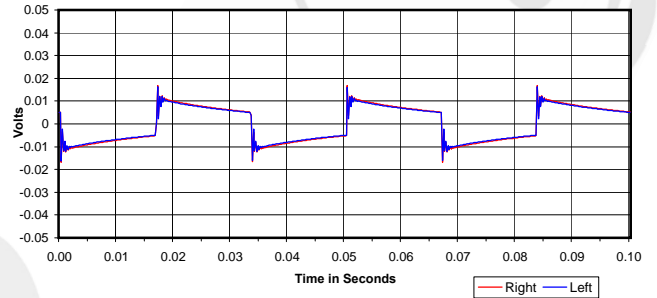
Isolation
Attenuation of External Sound vs. Frequency



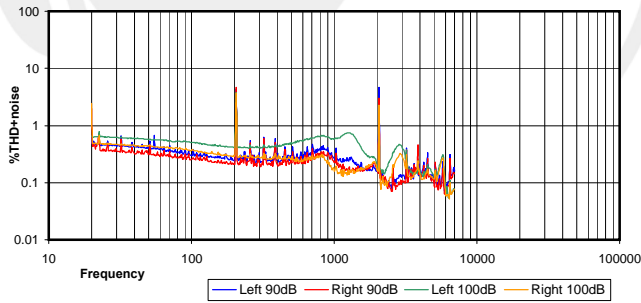
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



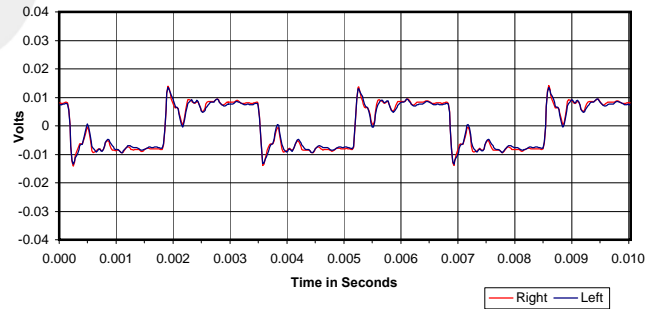
30 Hz Square Wave



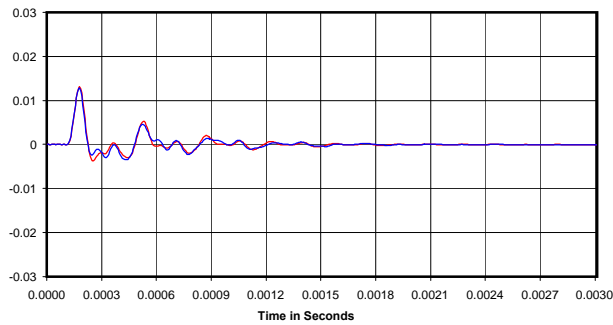
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

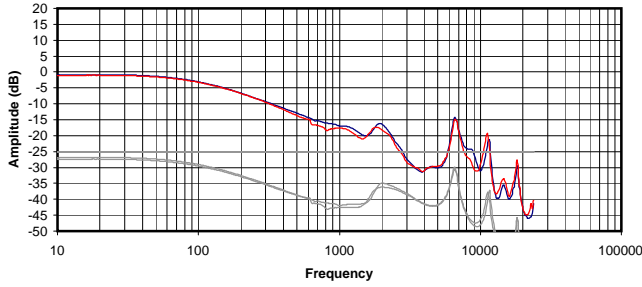


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

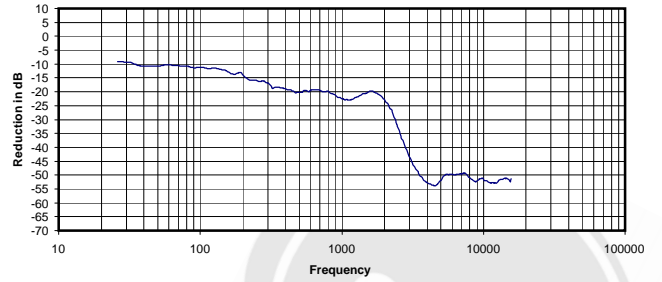
0.017 Vrms
35 Ohms
0.01 mW
-34 dB



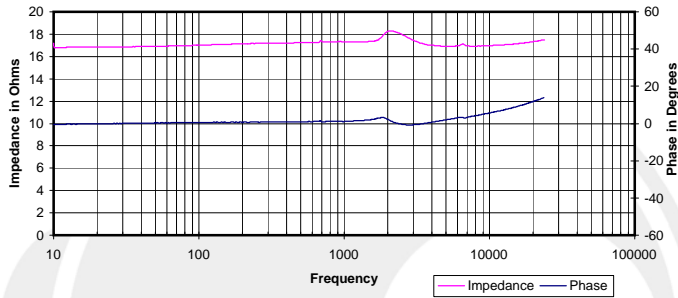
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



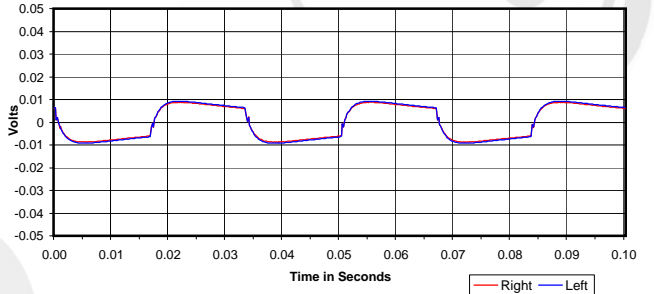
Isolation
Attenuation of External Sound vs. Frequency



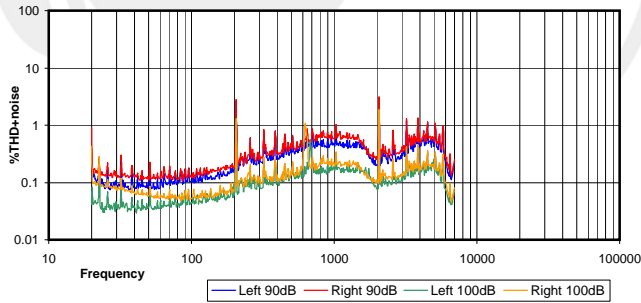
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



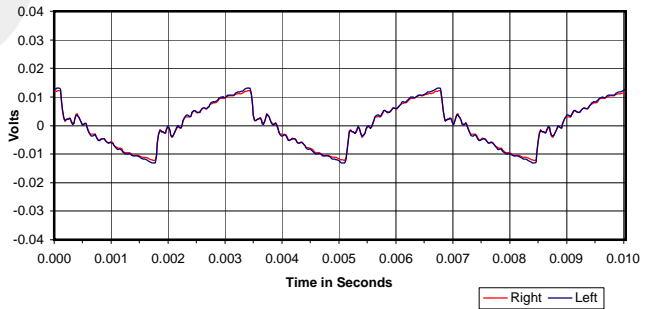
30 Hz Square Wave



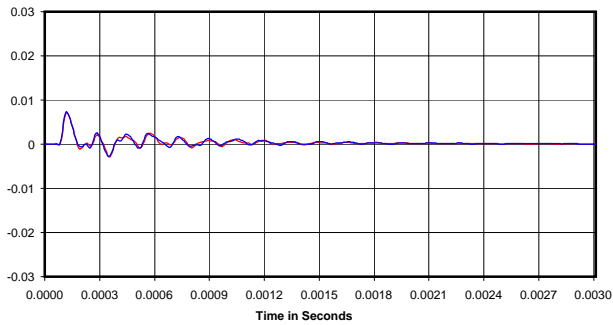
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



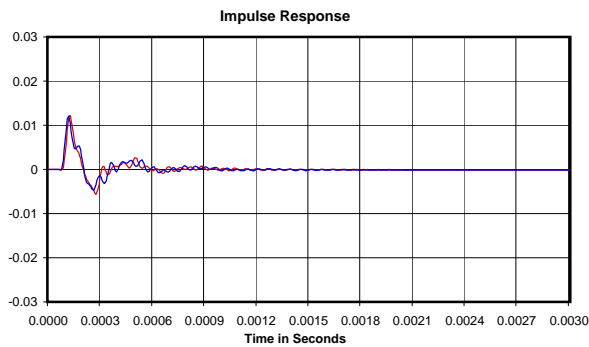
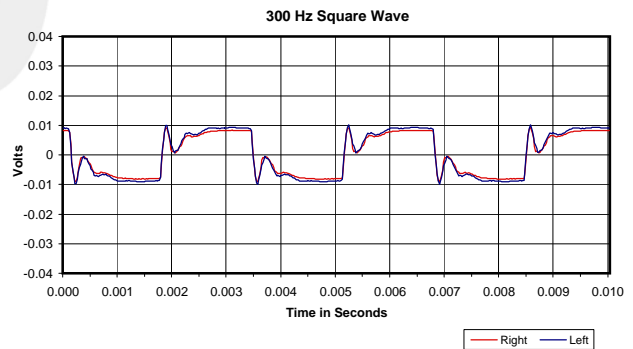
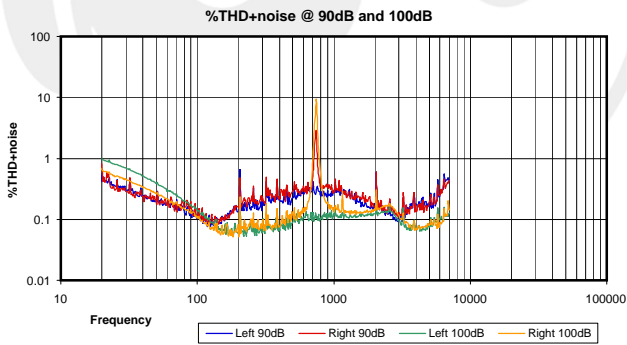
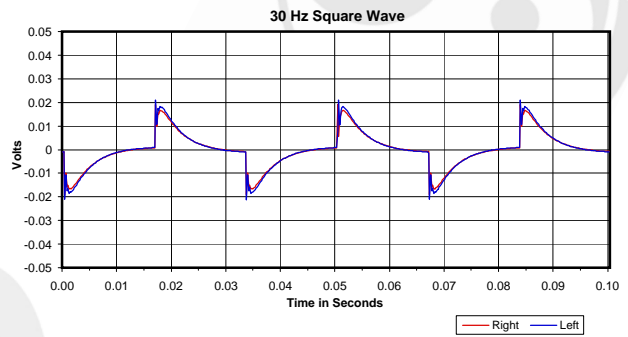
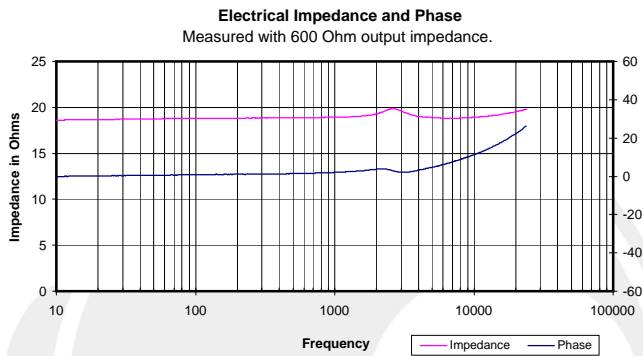
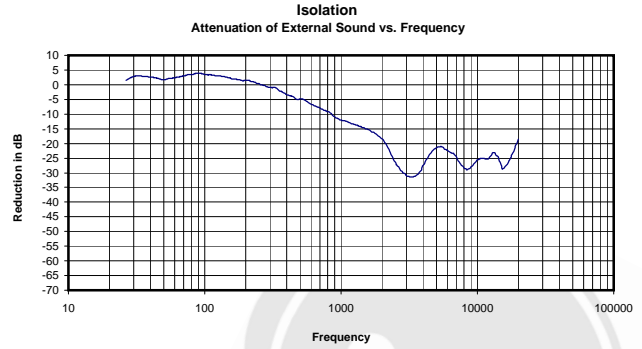
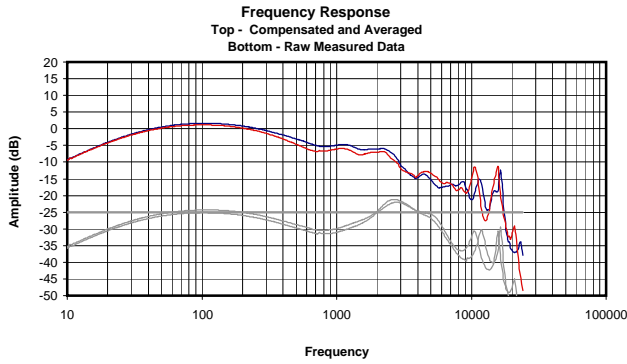
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
17 Ohms
0.03 mW
-25 dB

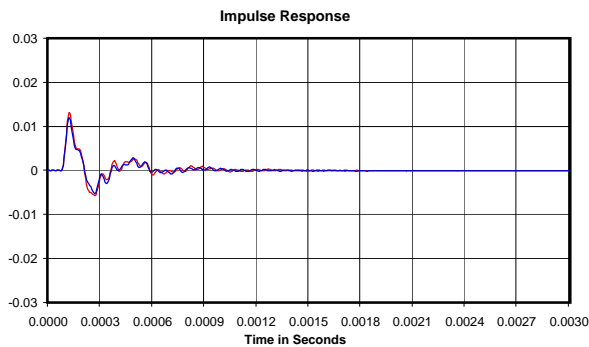
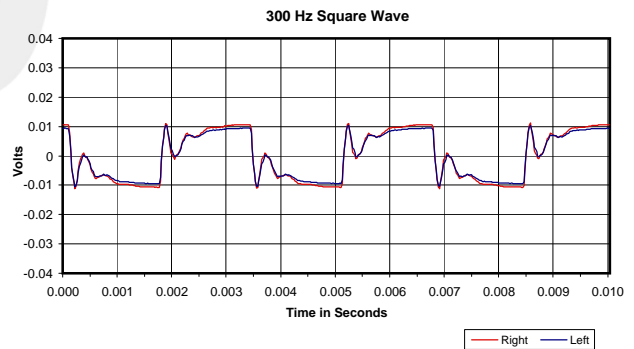
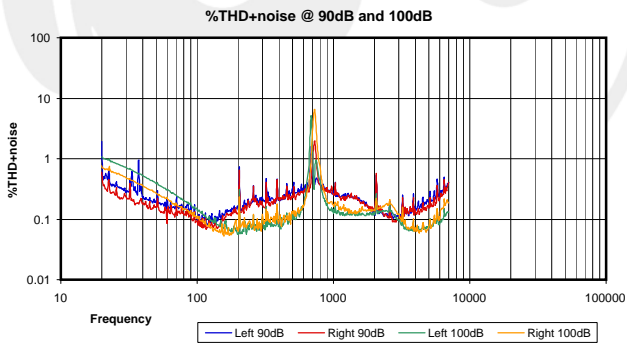
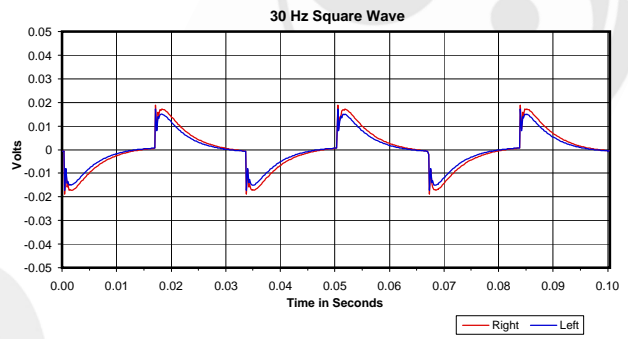
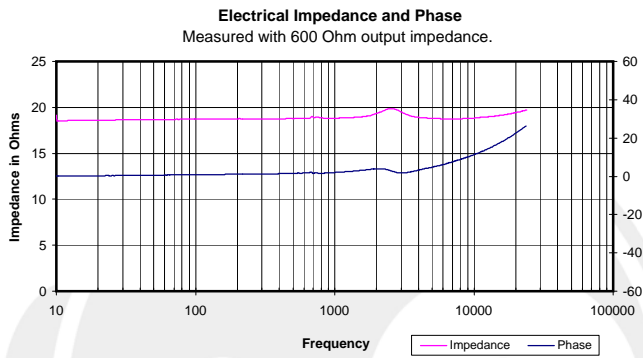
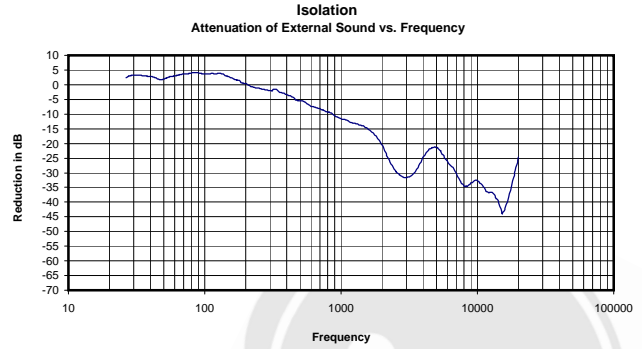
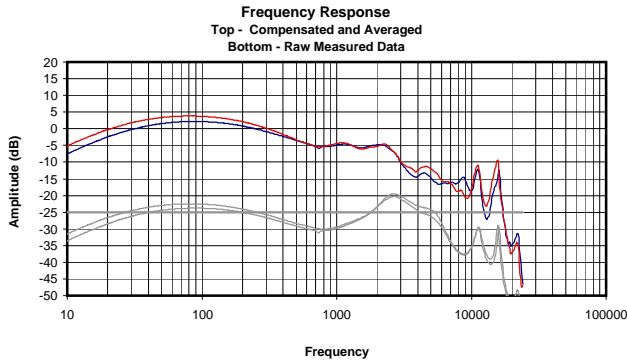




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
19 Ohms
0.06 mW
-13 dBr



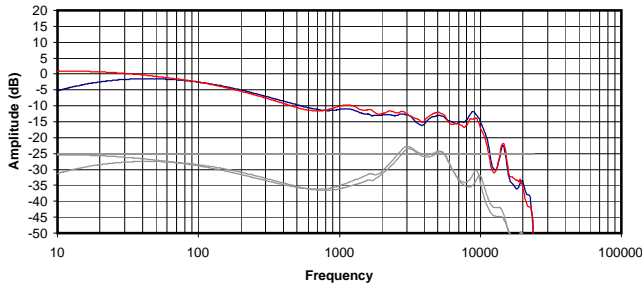


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

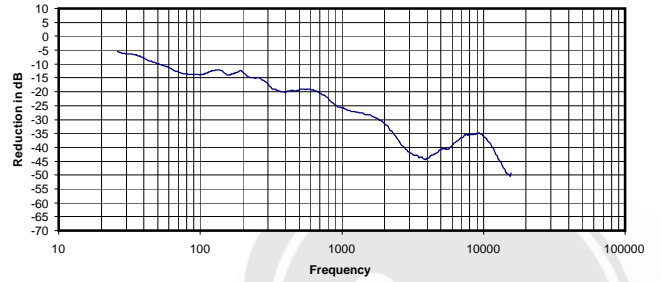
0.000 Vrms
19 Ohms
0.00 mW
-13 dBr



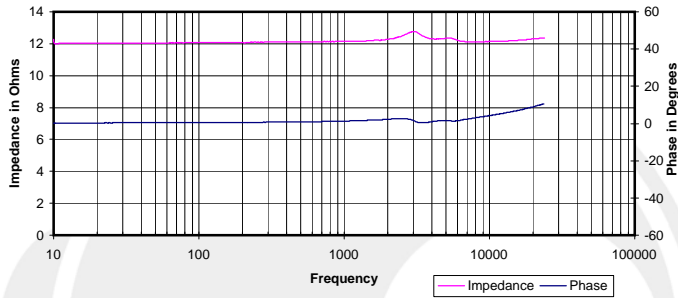
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



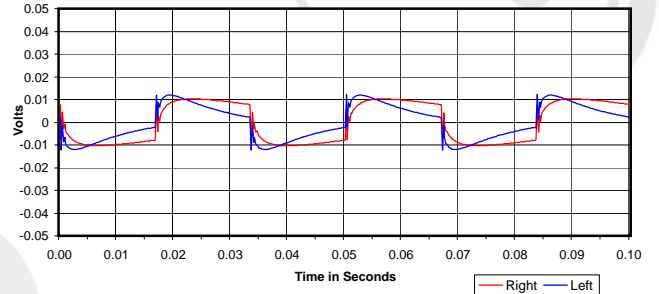
Isolation
Attenuation of External Sound vs. Frequency



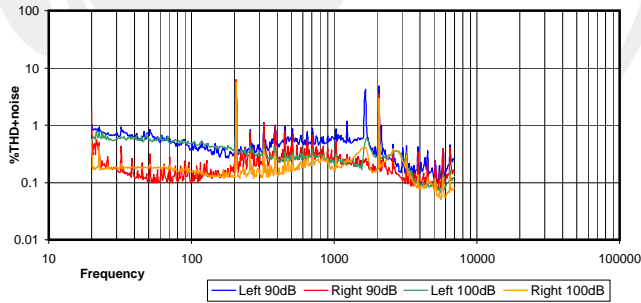
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



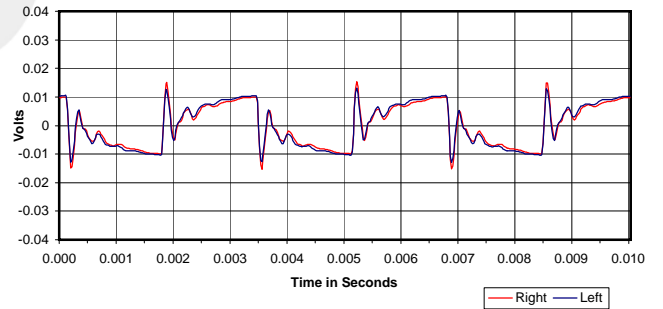
30 Hz Square Wave



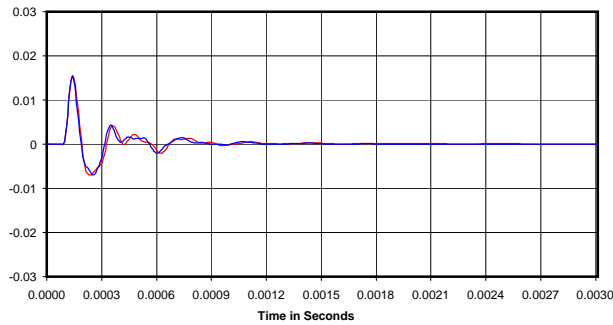
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

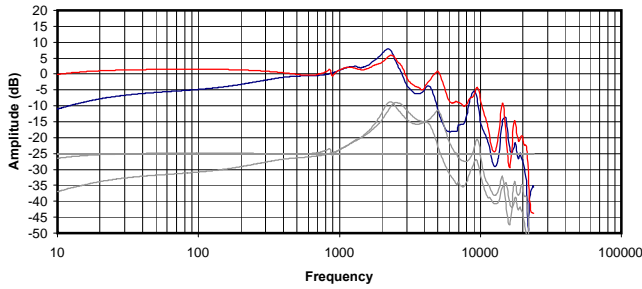


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

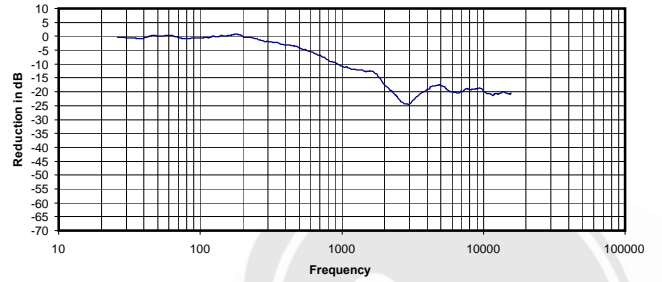
0.033 Vrms
12 Ohms
0.09 mW
-25 dB



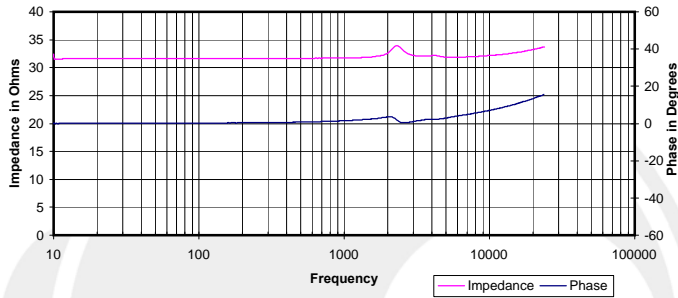
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



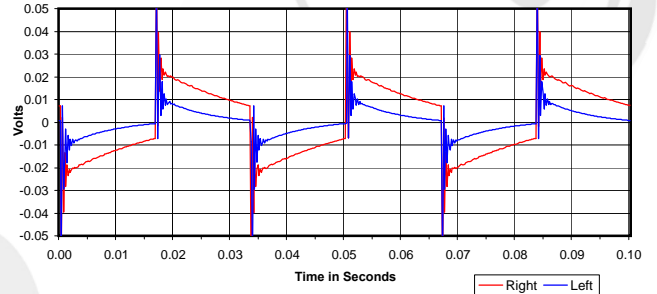
Isolation
Attenuation of External Sound vs. Frequency



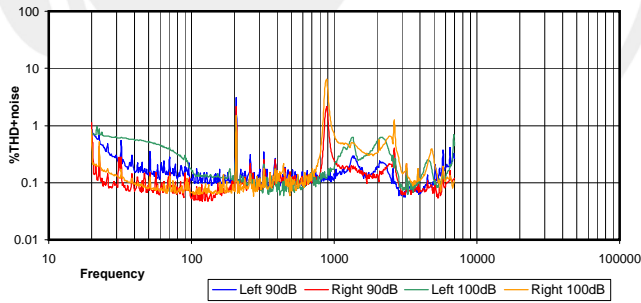
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



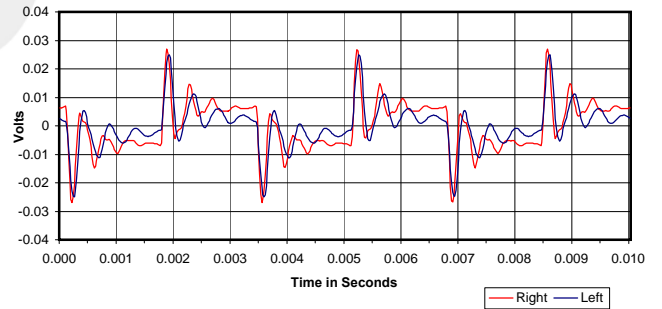
30 Hz Square Wave



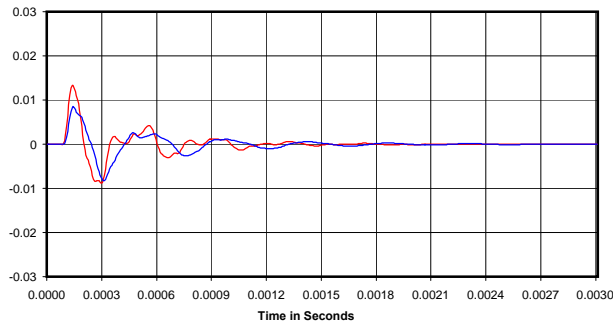
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

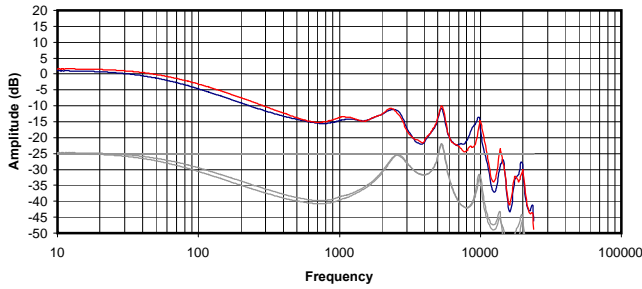


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

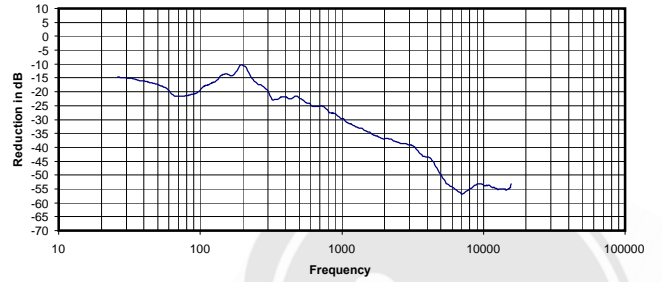
0.038 Vrms
32 Ohms
0.05 mW
-9 dB



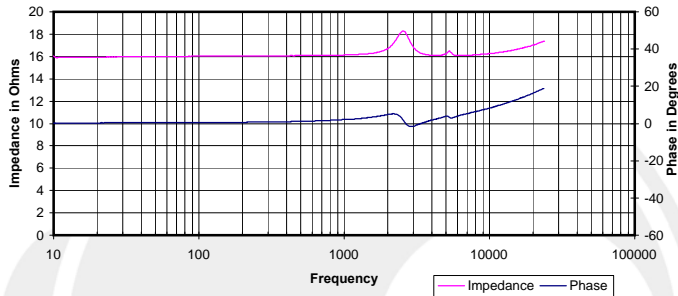
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



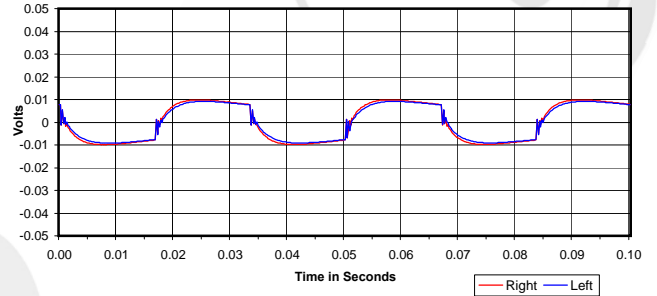
Isolation
Attenuation of External Sound vs. Frequency



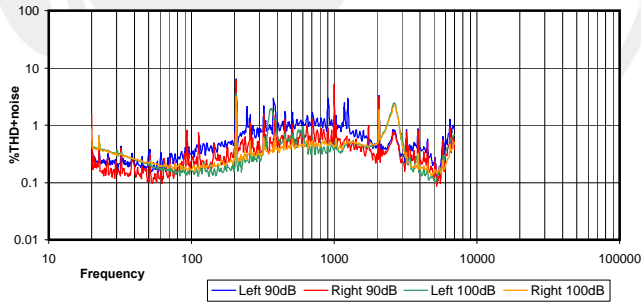
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



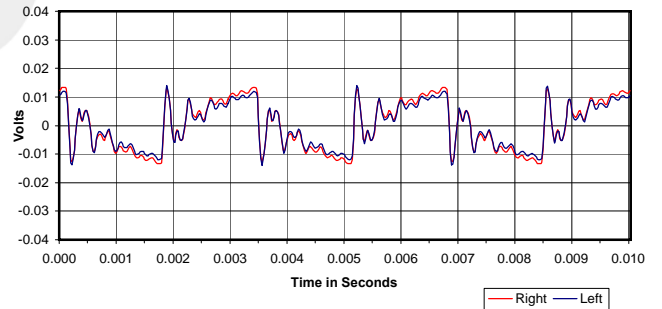
30 Hz Square Wave



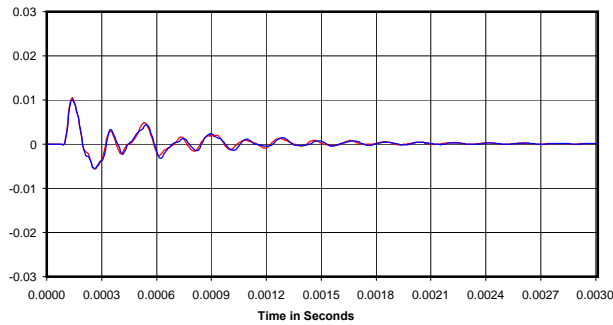
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

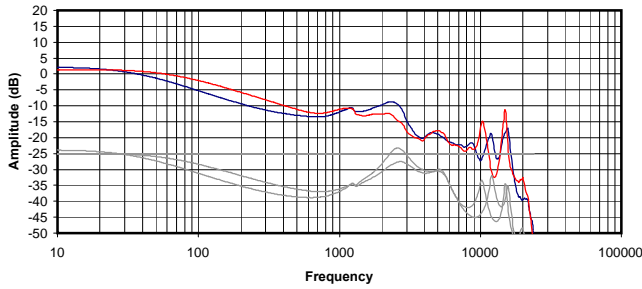


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

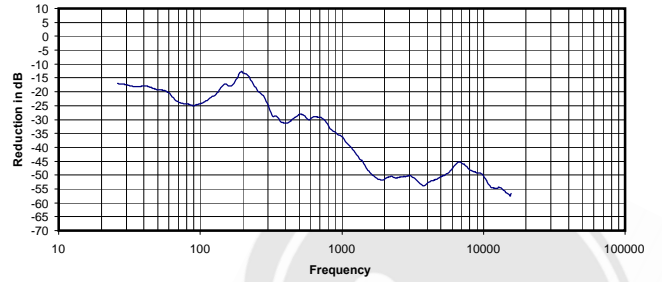
0.037 Vrms
16 Ohms
0.08 mW
-29 dB



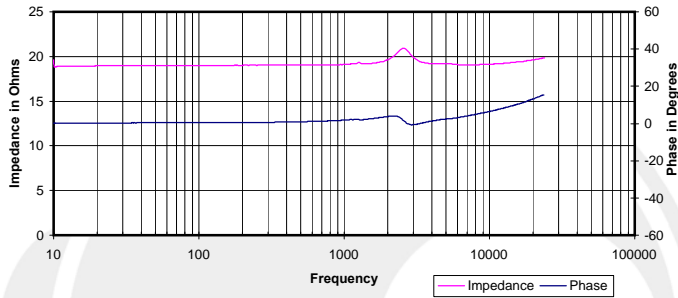
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



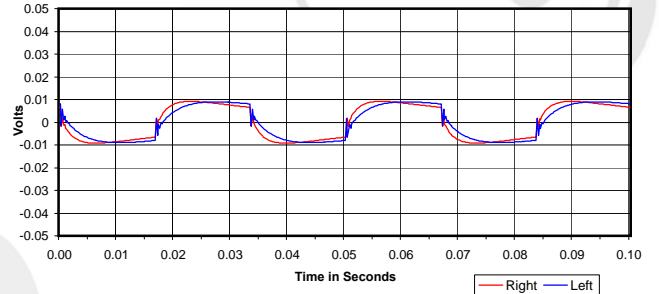
Isolation
Attenuation of External Sound vs. Frequency



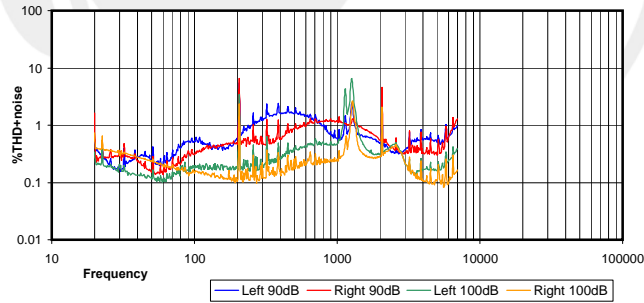
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



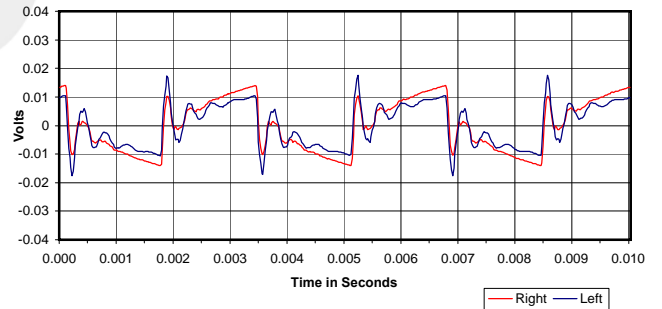
30 Hz Square Wave



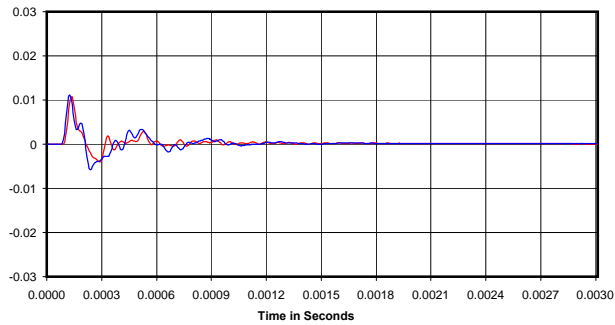
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

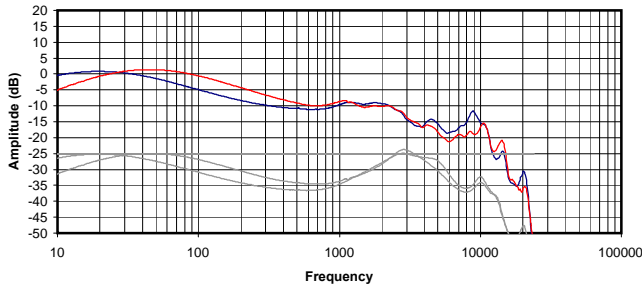


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

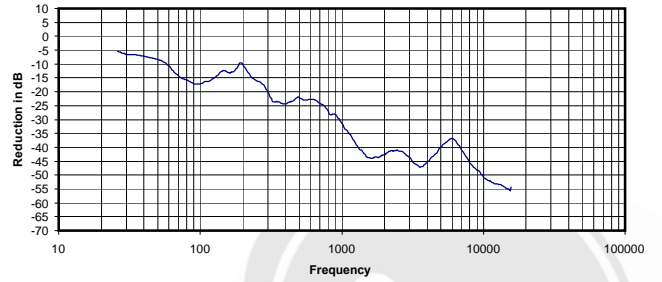
0.036 Vrms
19 Ohms
0.07 mW
-35 dB



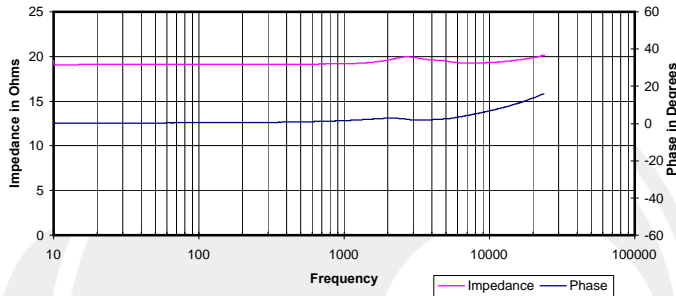
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



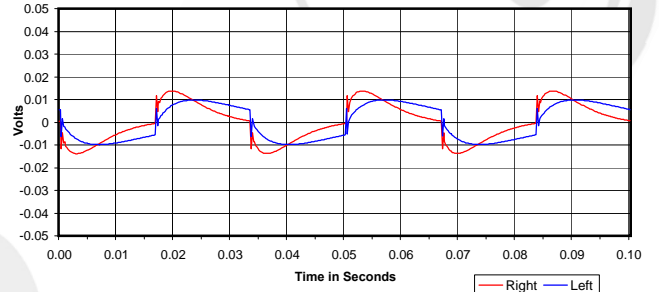
Isolation
Attenuation of External Sound vs. Frequency



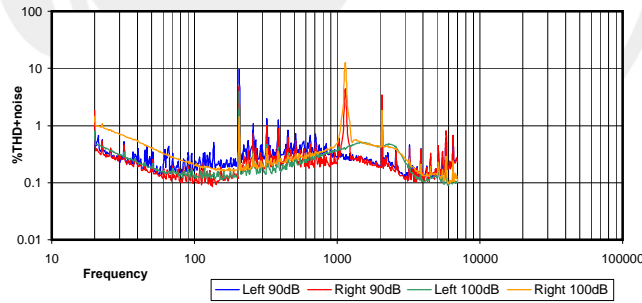
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



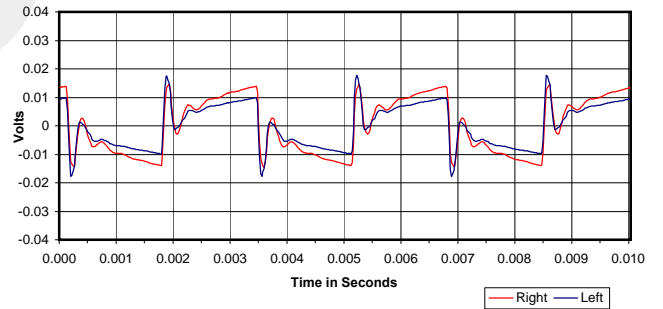
30 Hz Square Wave



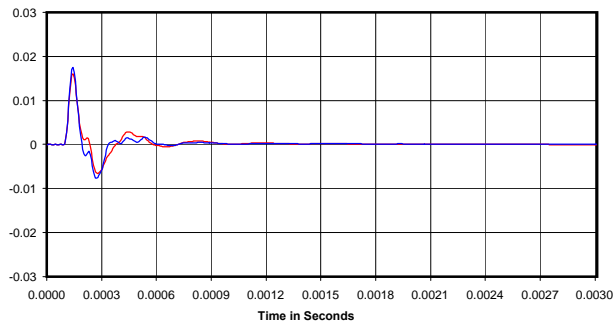
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

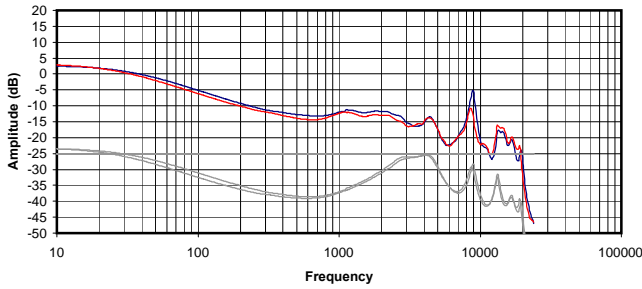


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

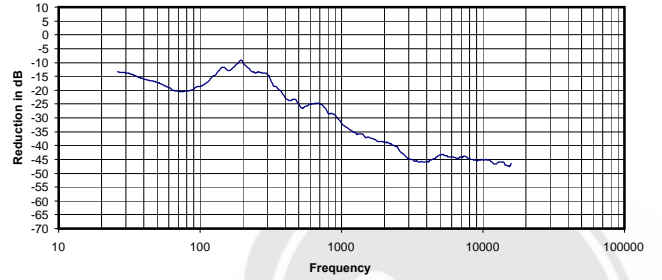
0.052 Vrms
19 Ohms
0.14 mW
-29 dB



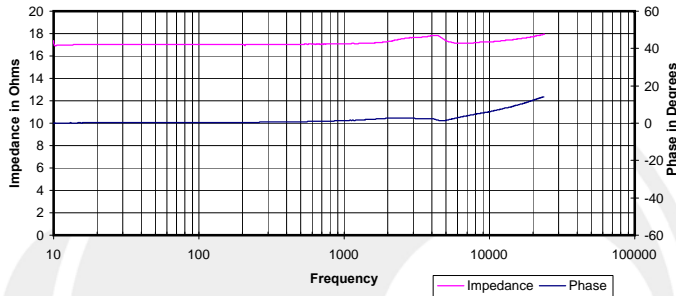
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



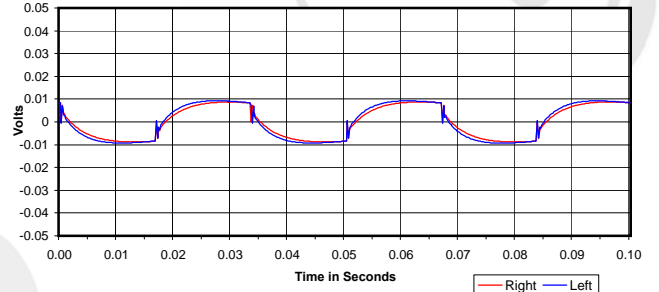
Isolation
Attenuation of External Sound vs. Frequency



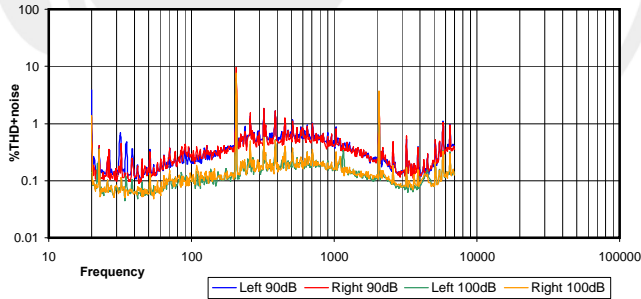
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



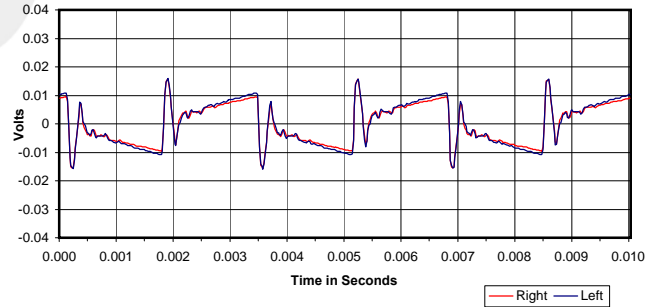
30 Hz Square Wave



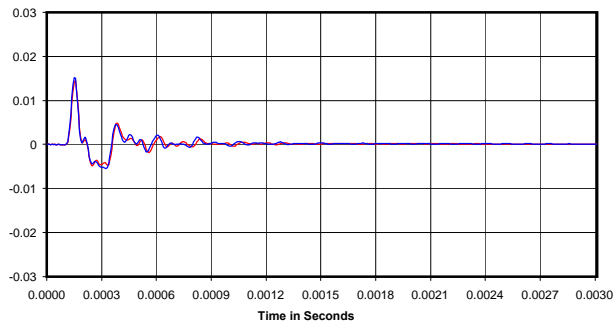
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

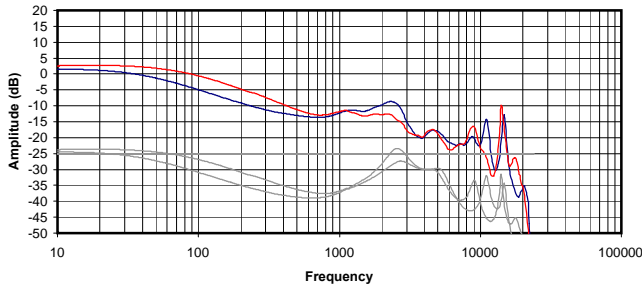


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

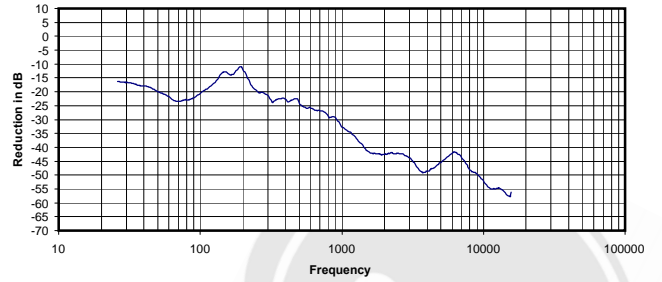
0.042 Vrms
17 Ohms
0.11 mW
-28 dB



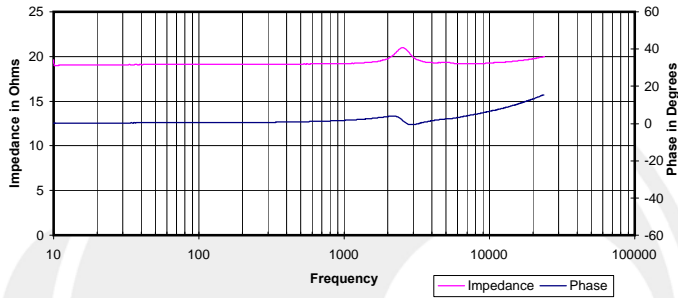
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



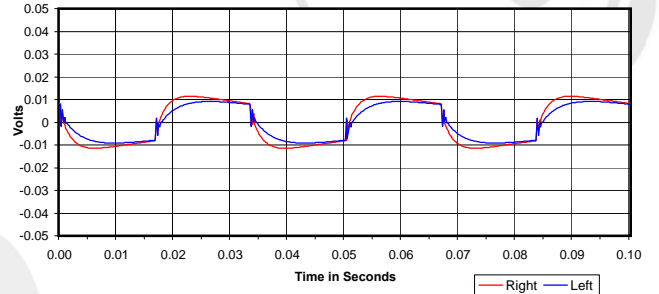
Isolation
Attenuation of External Sound vs. Frequency



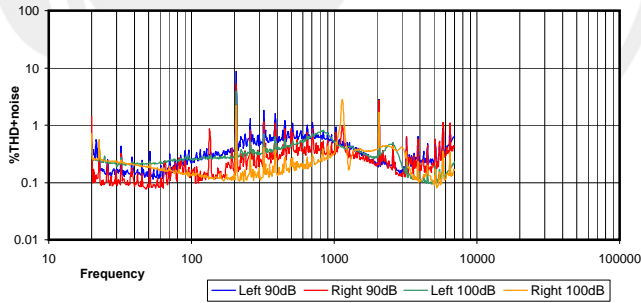
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



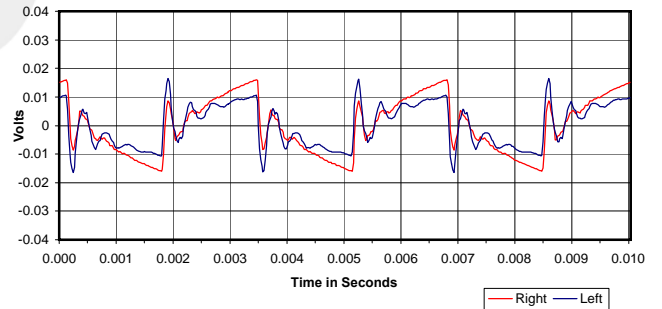
30 Hz Square Wave



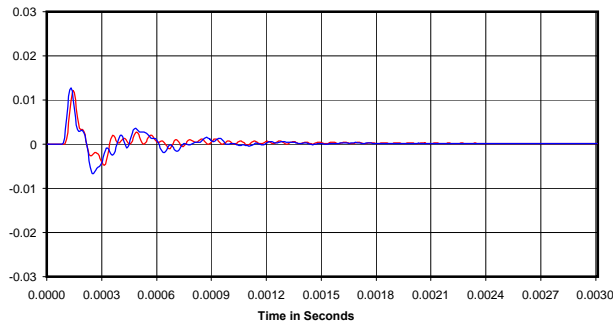
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

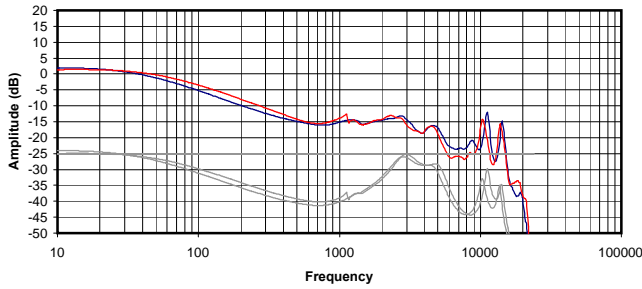


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

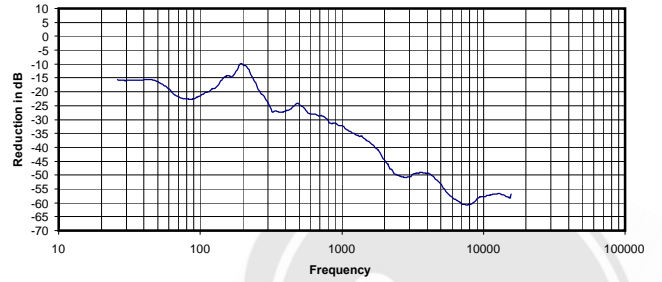
0.039 Vrms
19 Ohms
0.08 mW
-30 dB



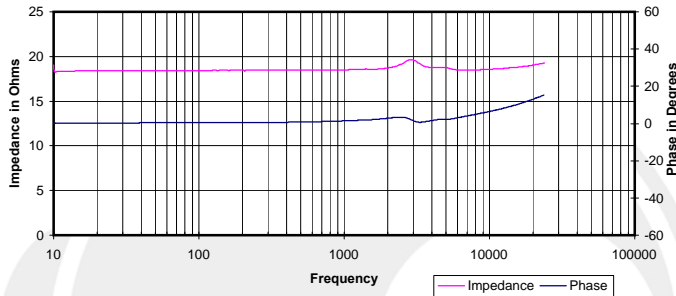
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



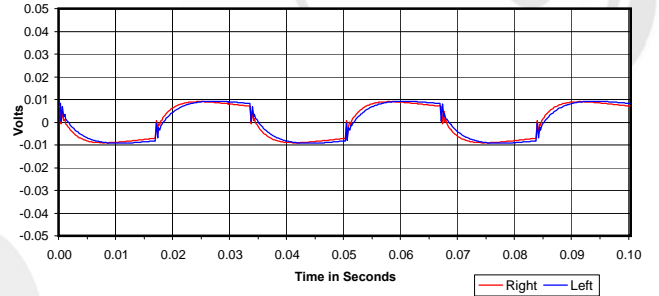
Isolation
Attenuation of External Sound vs. Frequency



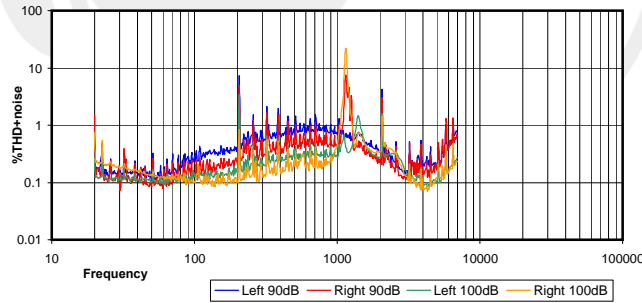
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



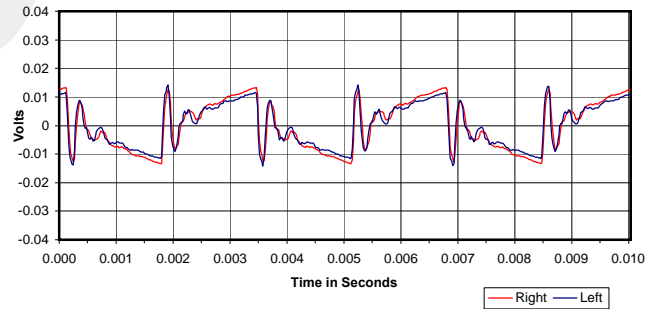
30 Hz Square Wave



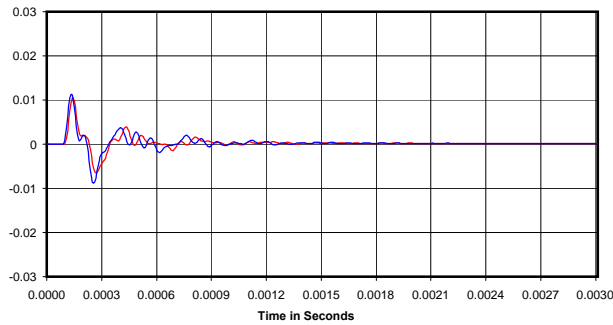
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

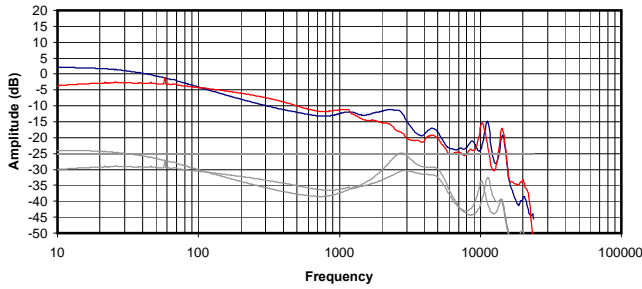


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

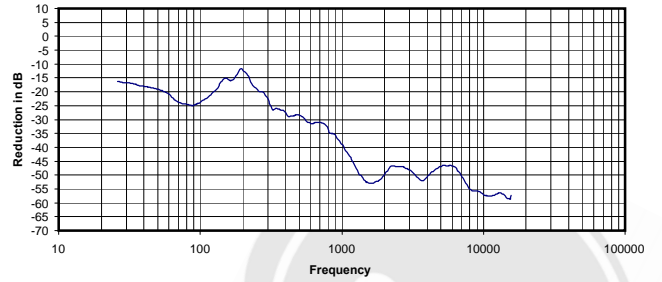
0.049 Vrms
19 Ohms
0.13 mW
-32 dB



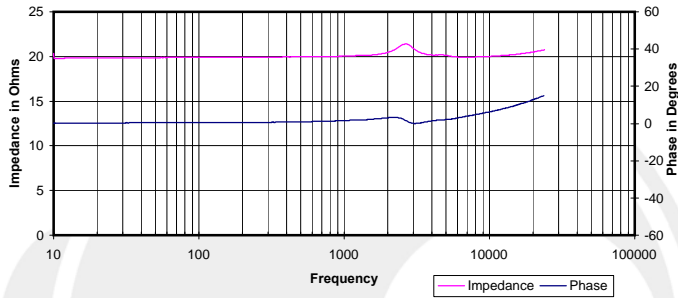
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



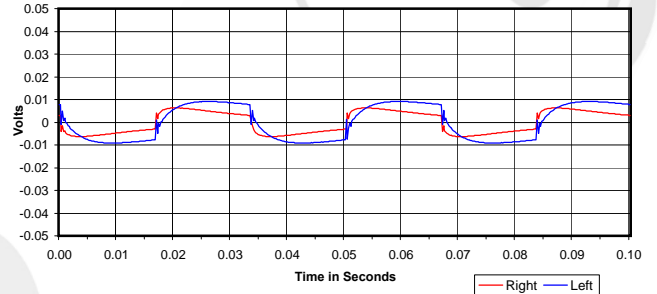
Isolation
Attenuation of External Sound vs. Frequency



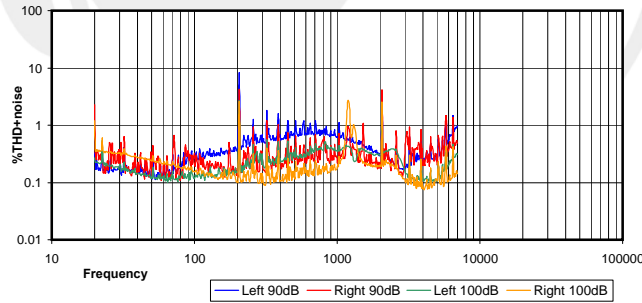
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



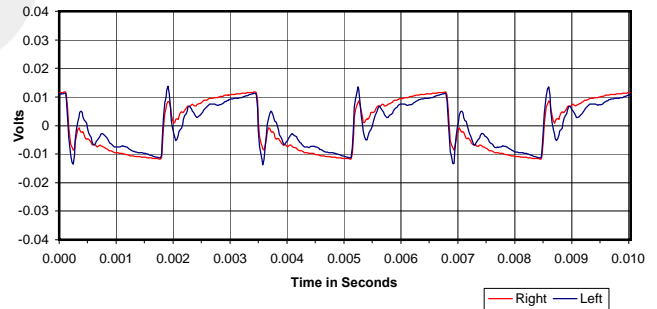
30 Hz Square Wave



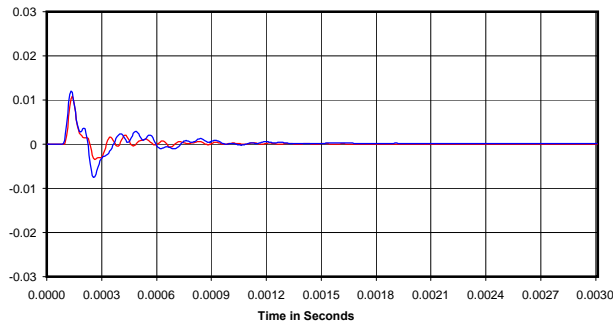
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

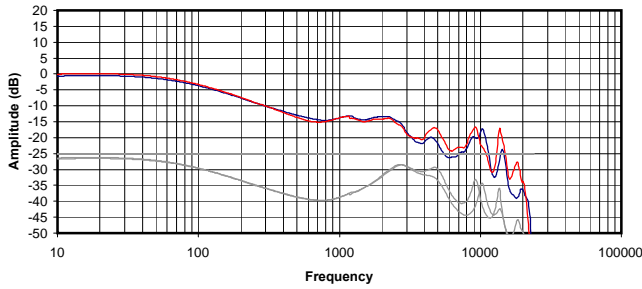


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

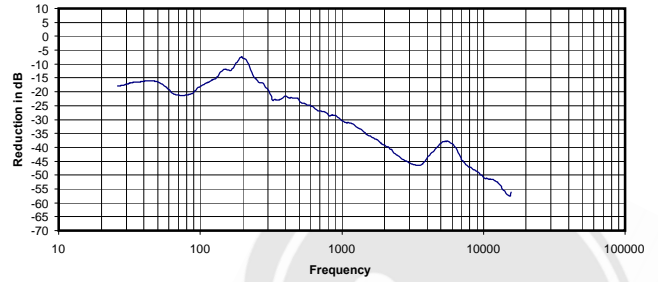
0.039 Vrms
20 Ohms
0.08 mW
-35 dB



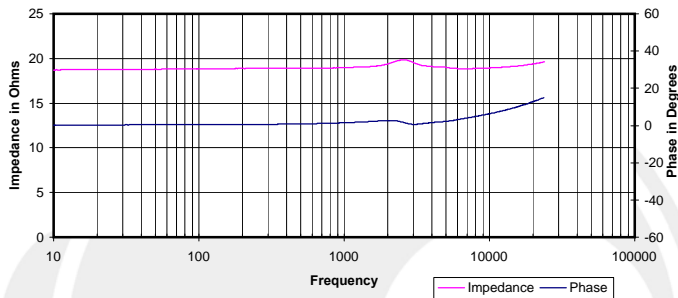
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



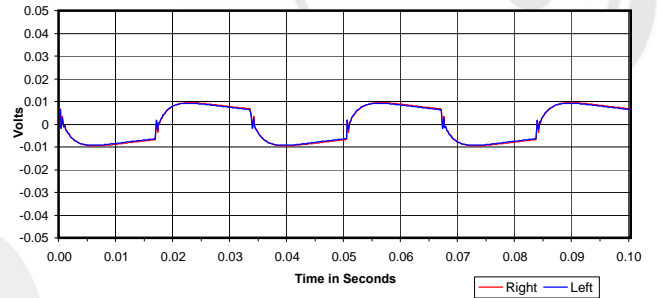
Isolation
Attenuation of External Sound vs. Frequency



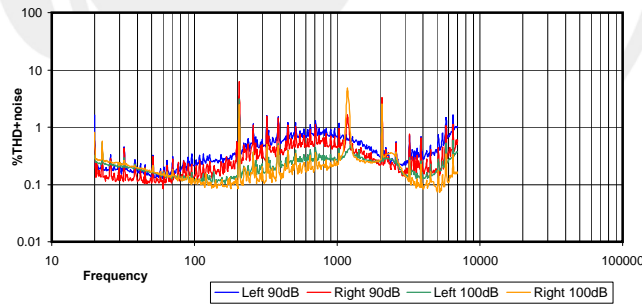
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



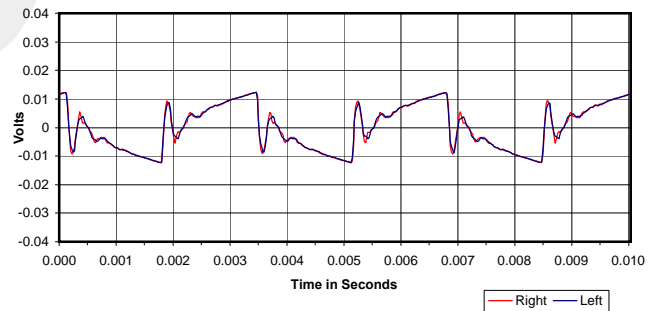
30 Hz Square Wave



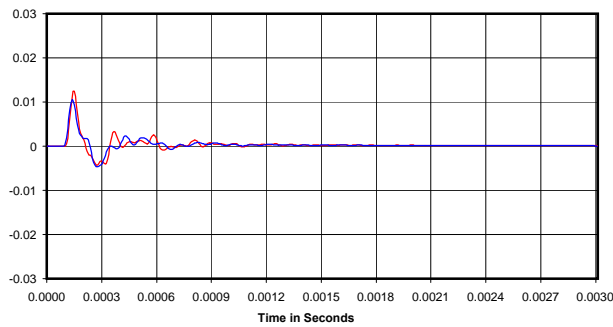
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

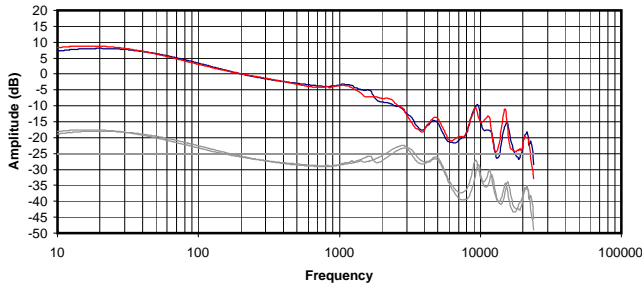


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

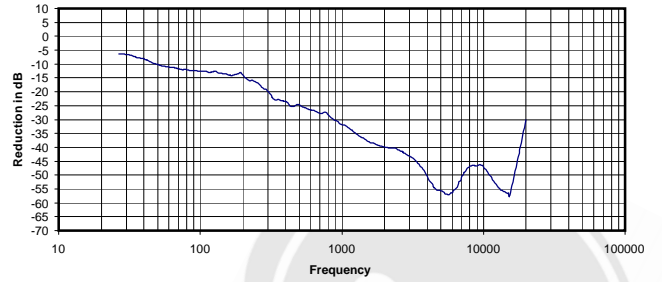
0.041 Vrms
19 Ohms
0.09 mW
-28 dB



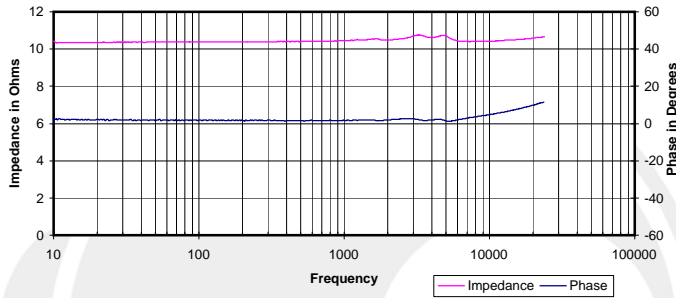
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



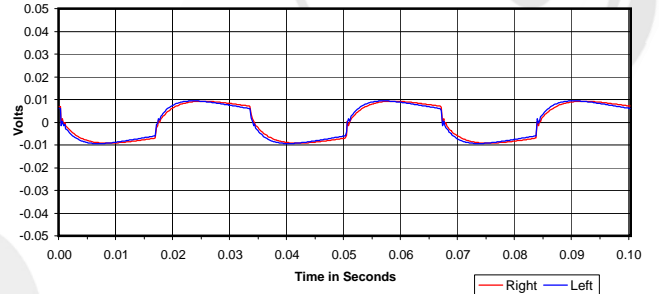
Isolation
Attenuation of External Sound vs. Frequency



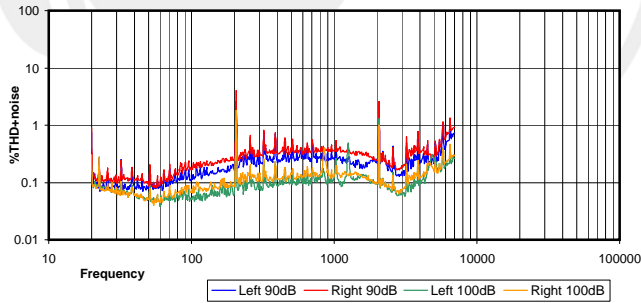
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



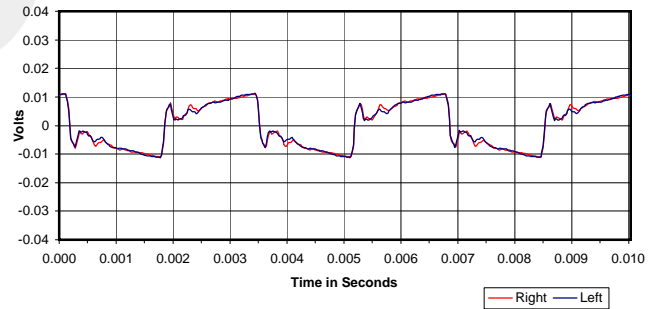
30 Hz Square Wave



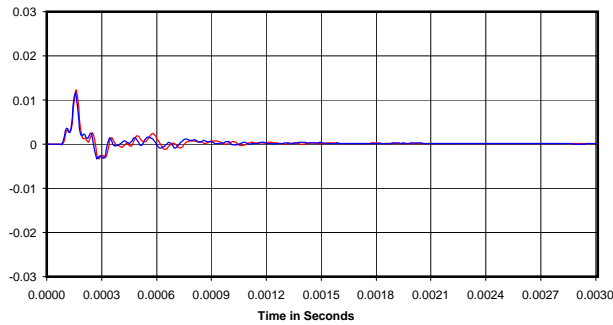
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

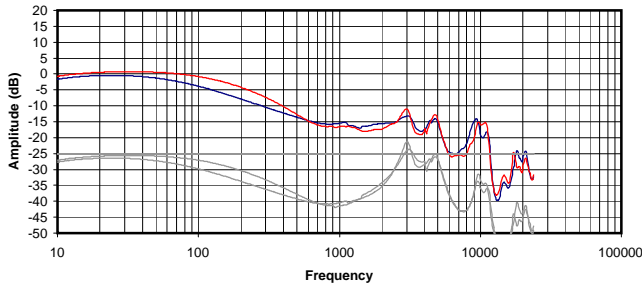


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

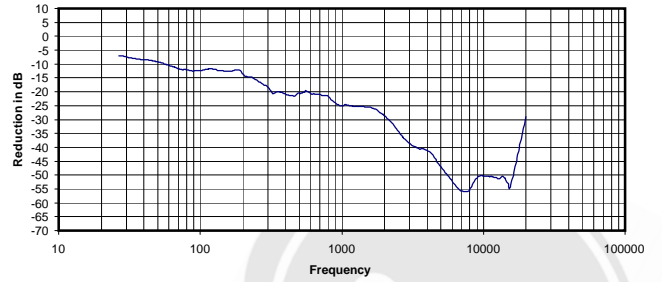
0.026 Vrms
10 Ohms
0.07 mW
-32 dB



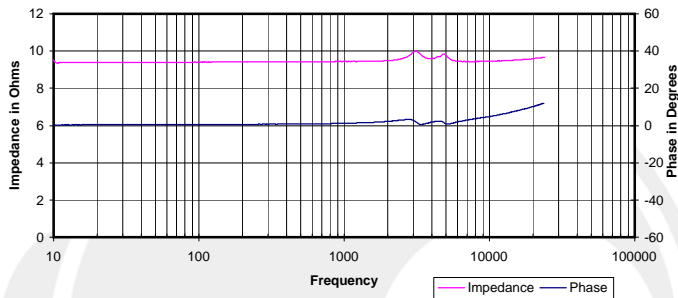
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



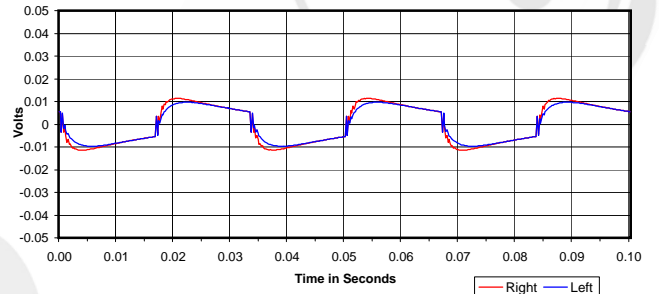
Isolation
Attenuation of External Sound vs. Frequency



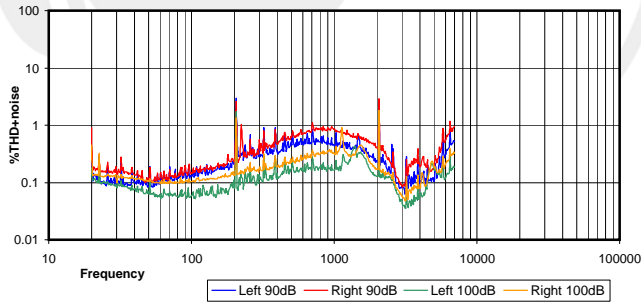
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



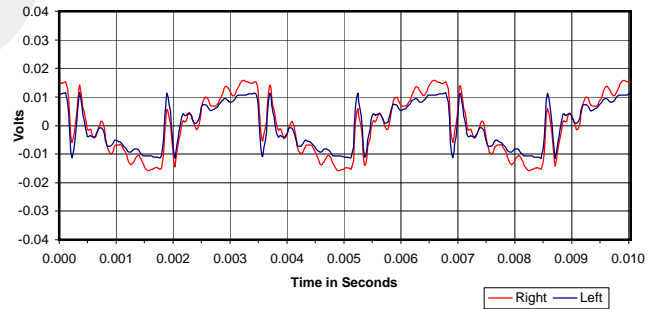
30 Hz Square Wave



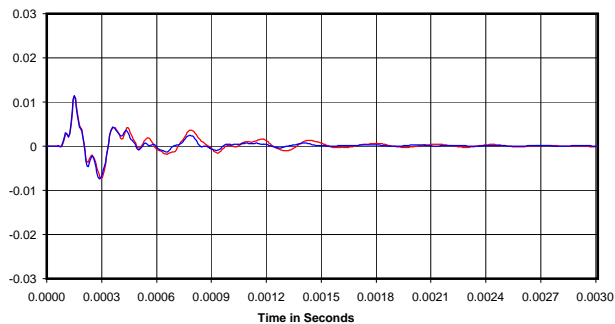
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

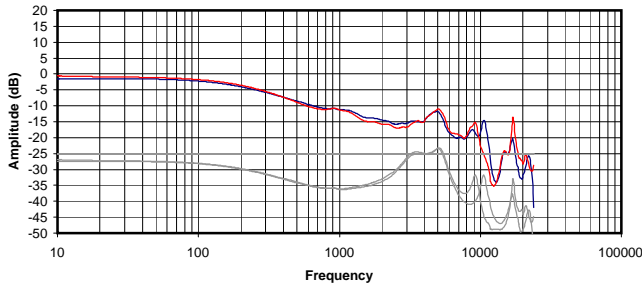


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

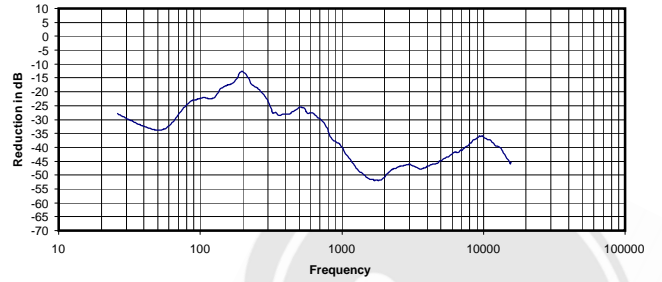
0.036 Vrms
9 Ohms
0.13 mW
-28 dB



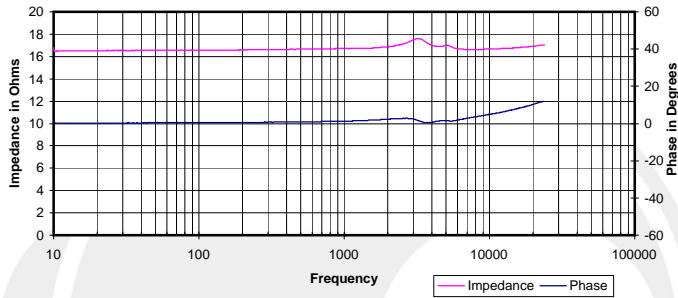
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



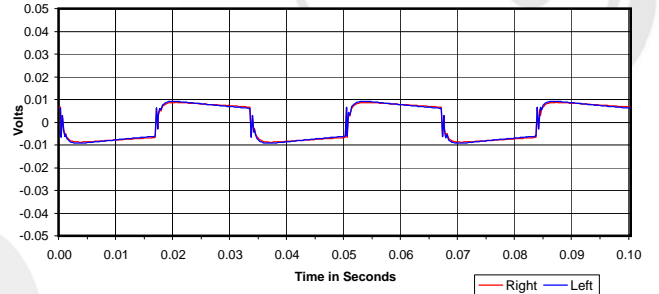
Isolation
Attenuation of External Sound vs. Frequency



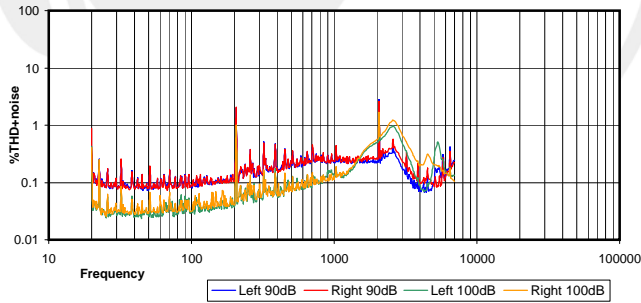
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



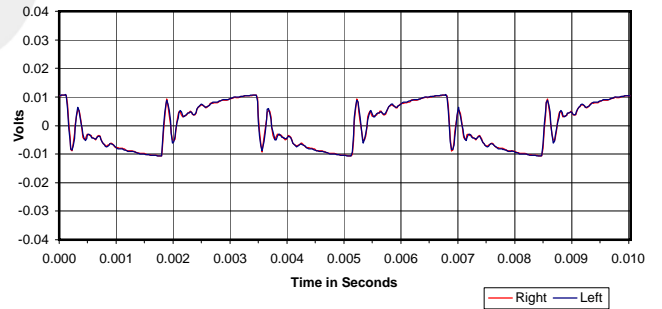
30 Hz Square Wave



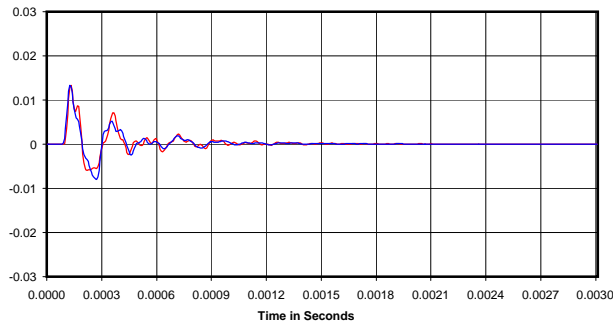
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

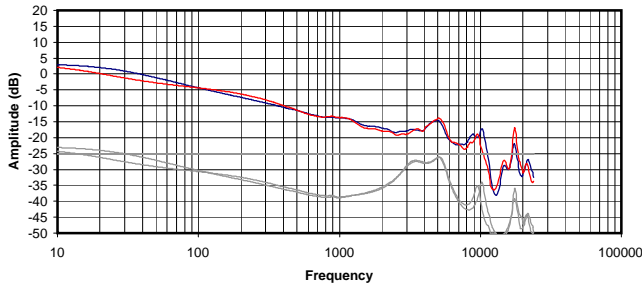


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

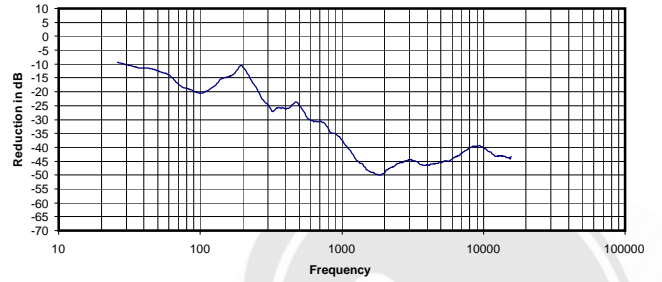
0.033 Vrms
17 Ohms
0.06 mW
-34 dB



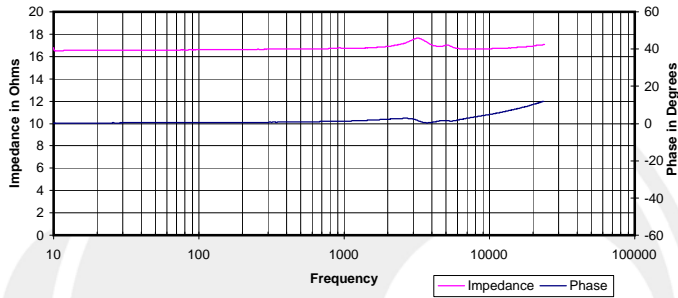
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



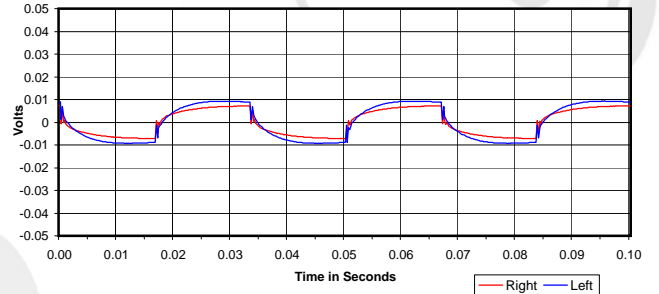
Isolation
Attenuation of External Sound vs. Frequency



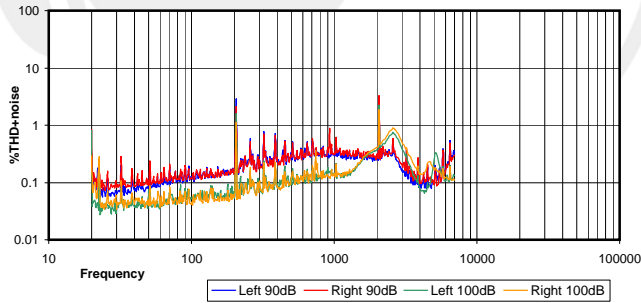
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



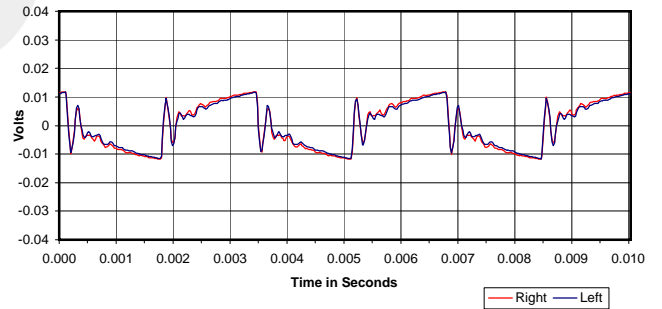
30 Hz Square Wave



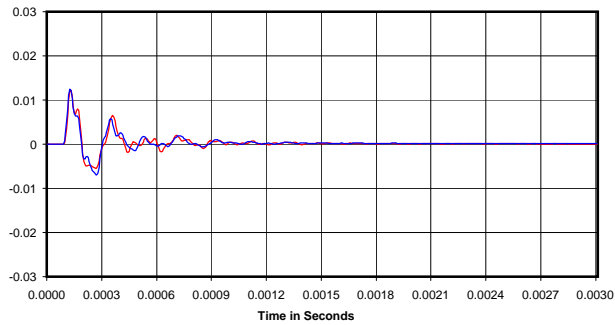
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

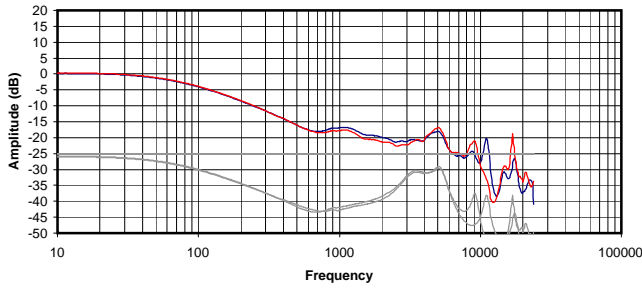


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

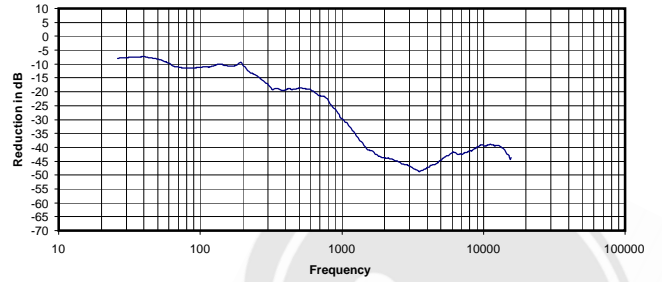
0.034 Vrms
17 Ohms
0.07 mW
-33 dB



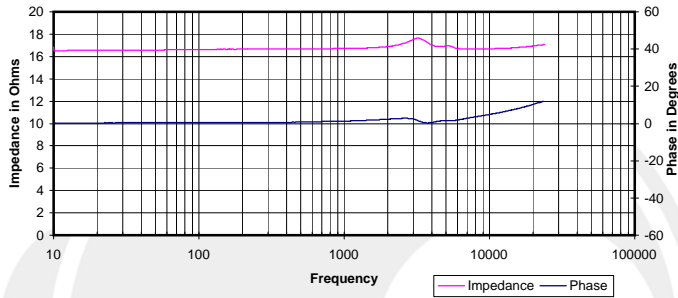
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



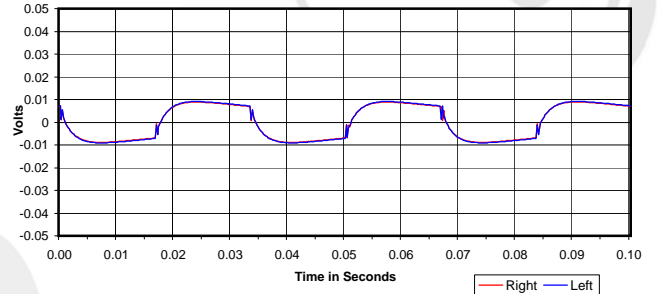
Isolation
Attenuation of External Sound vs. Frequency



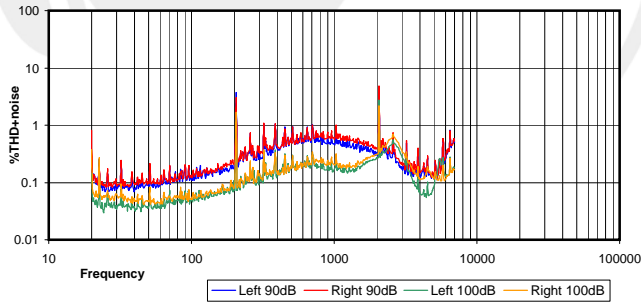
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



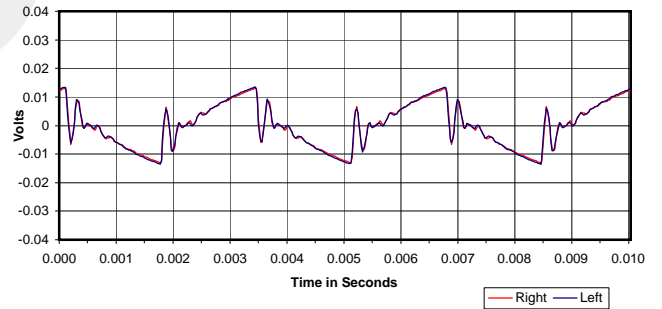
30 Hz Square Wave



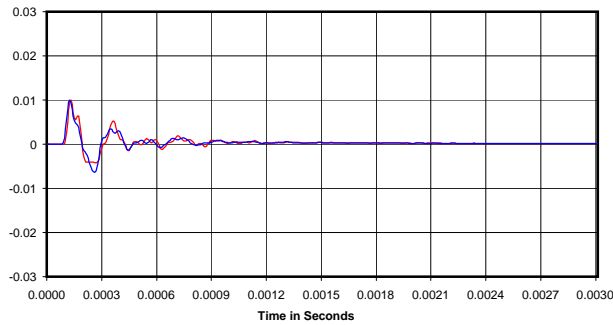
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

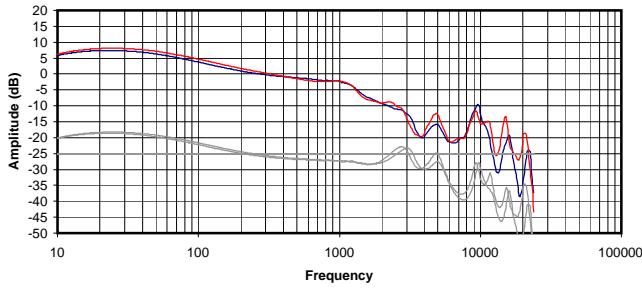


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

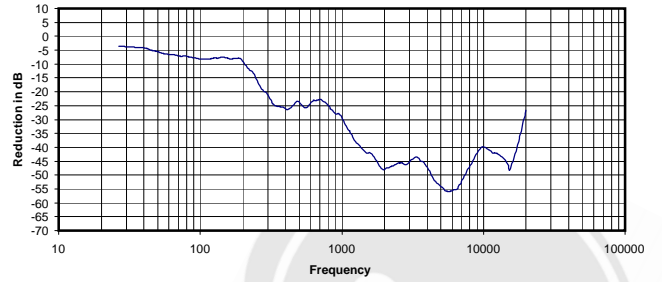
0.033 Vrms
17 Ohms
0.06 mW
-28 dB



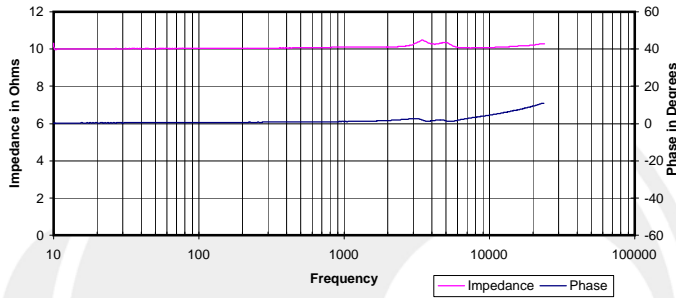
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



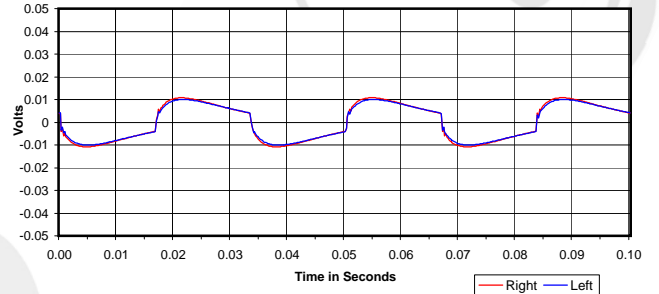
Isolation
Attenuation of External Sound vs. Frequency



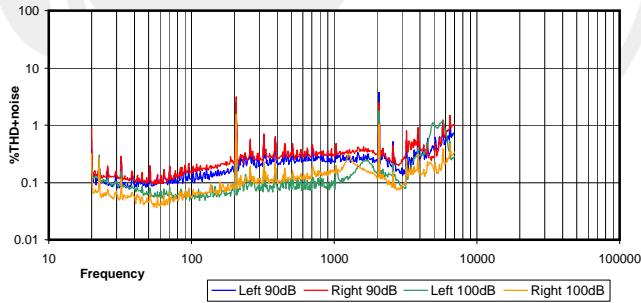
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



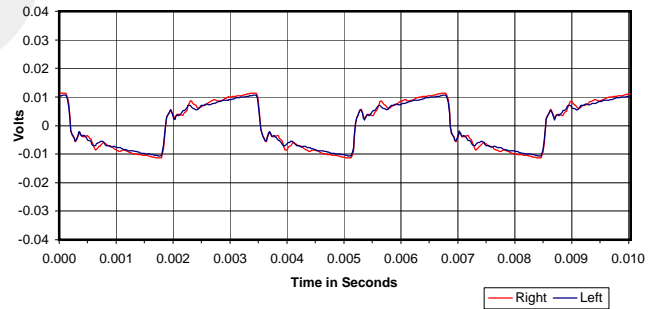
30 Hz Square Wave



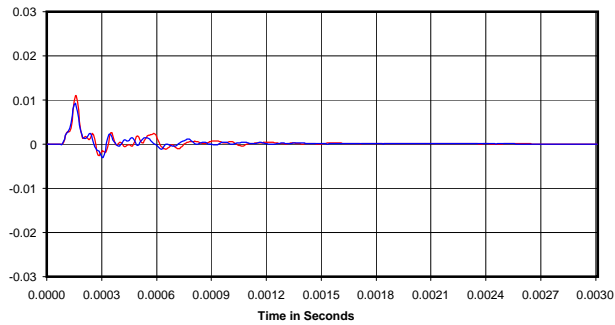
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

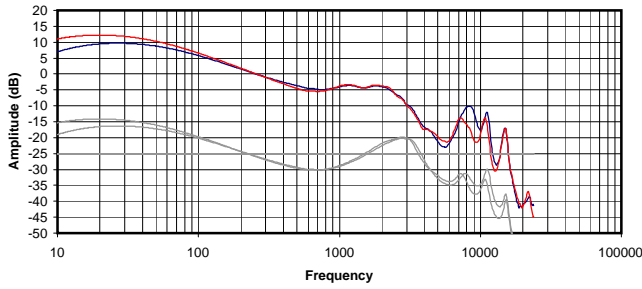


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

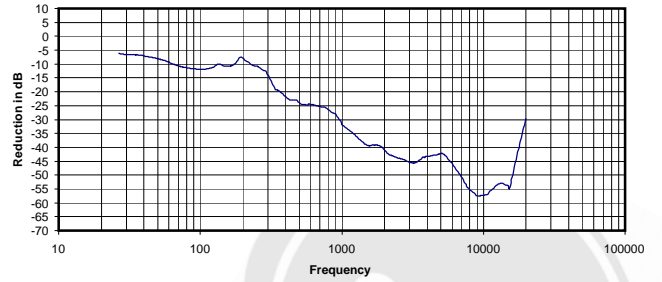
0.022 Vrms
10 Ohms
0.05 mW
-32 dB



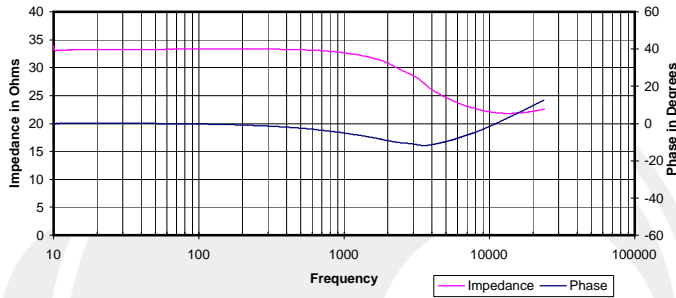
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



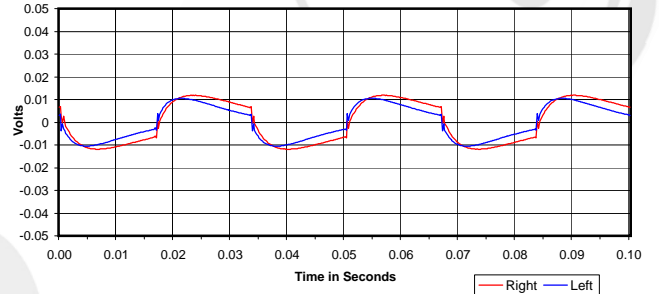
Isolation
Attenuation of External Sound vs. Frequency



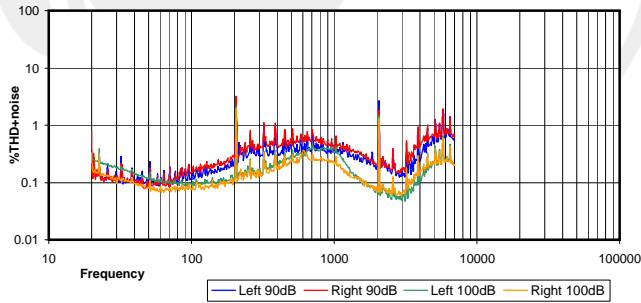
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



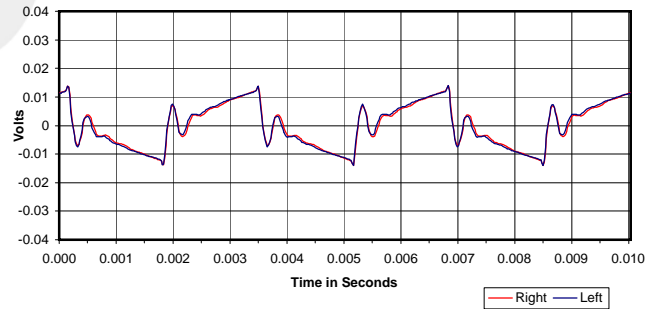
30 Hz Square Wave



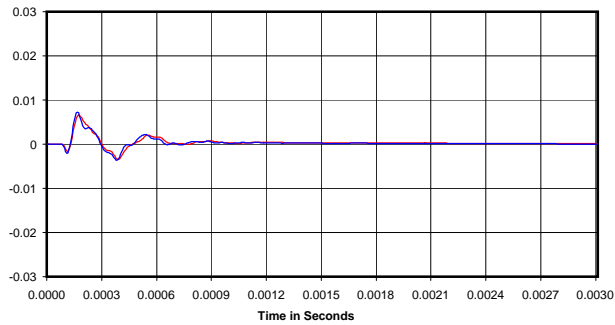
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

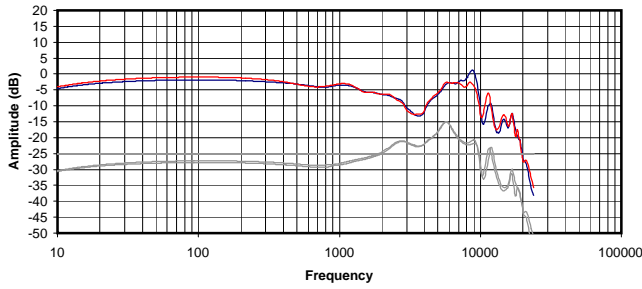


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

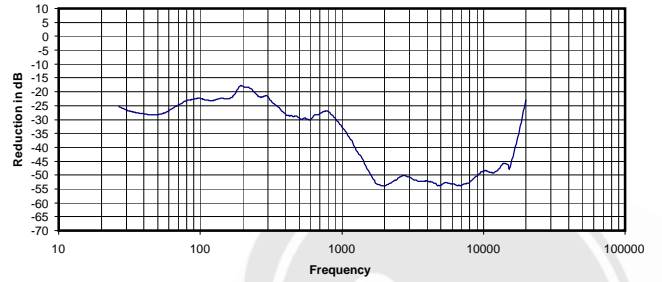
0.040 Vrms
33 Ohms
0.05 mW
-31 dB



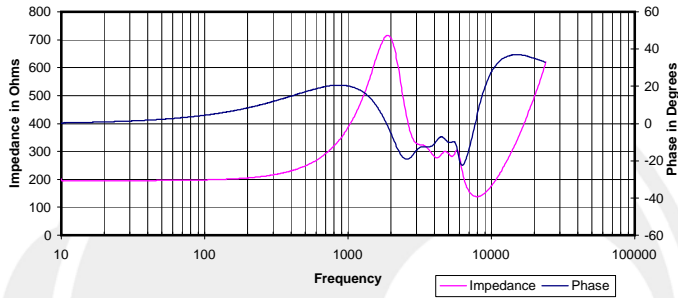
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



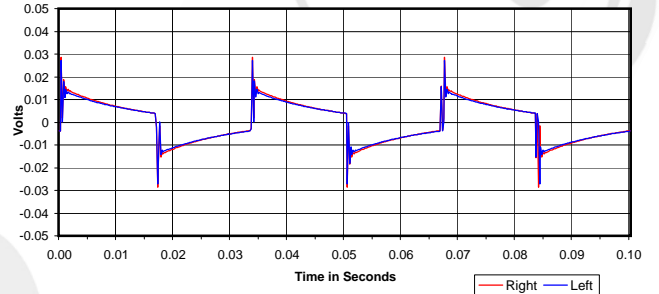
Isolation
Attenuation of External Sound vs. Frequency



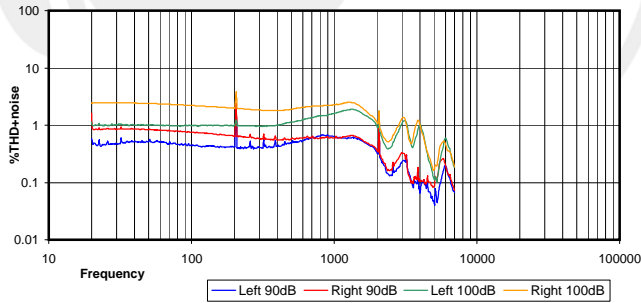
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



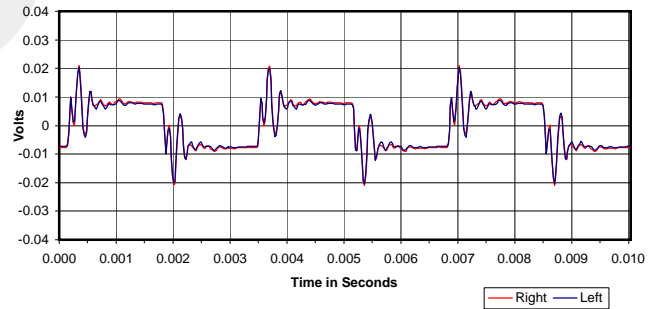
30 Hz Square Wave



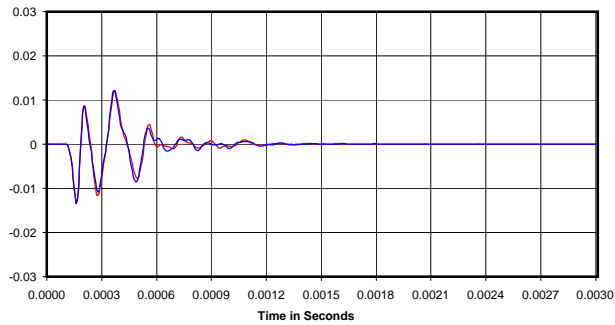
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

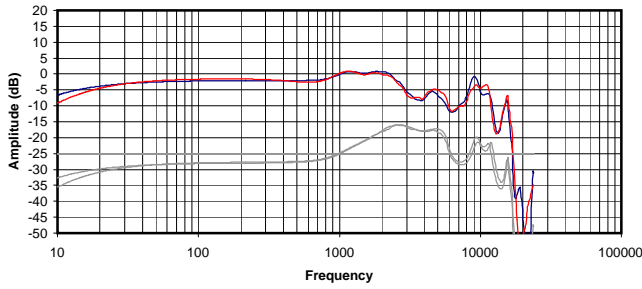


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

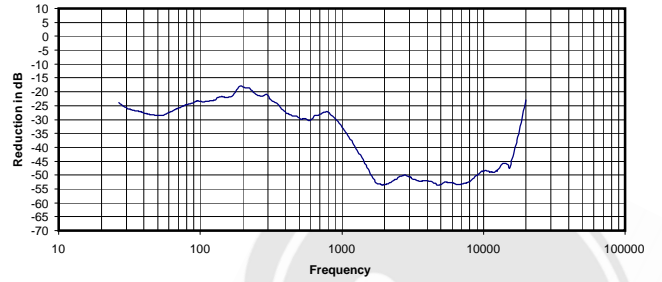
0.084 Vrms
387 Ohms
0.02 mW
-37 dB



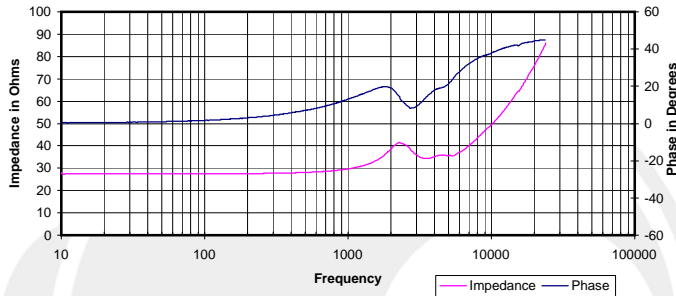
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



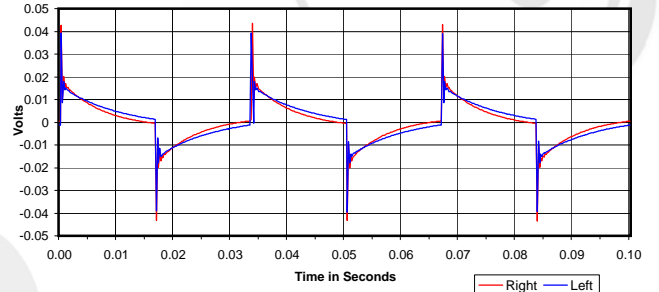
Isolation
Attenuation of External Sound vs. Frequency



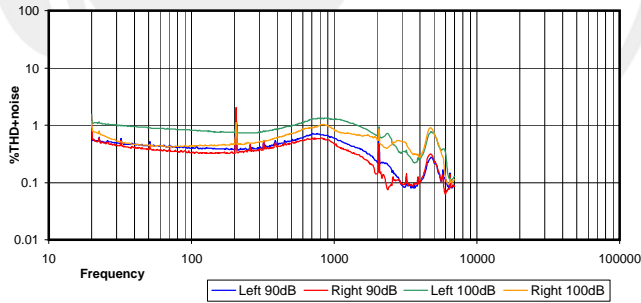
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



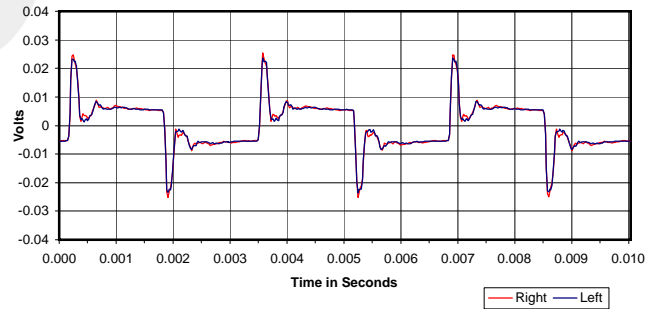
30 Hz Square Wave



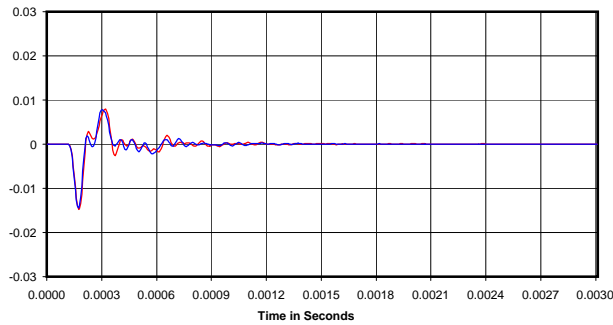
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

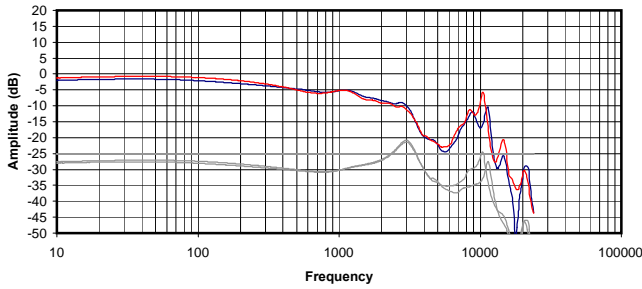


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

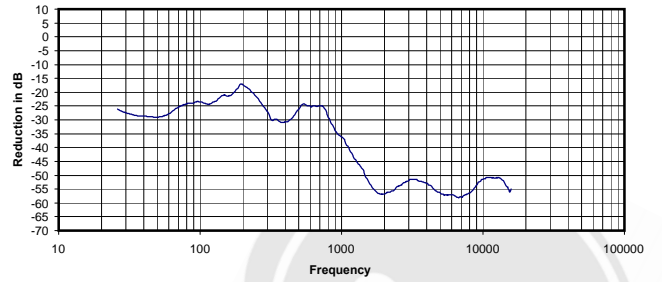
0.029 Vrms
30 Ohms
0.03 mW
-37 dB



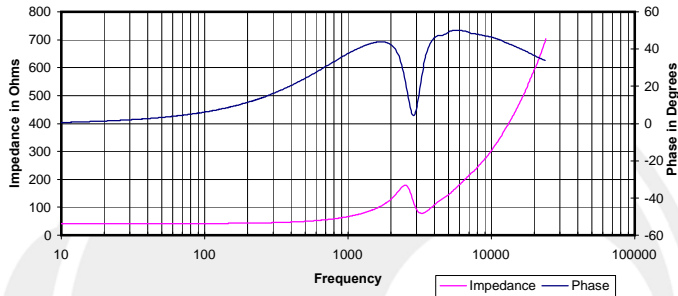
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



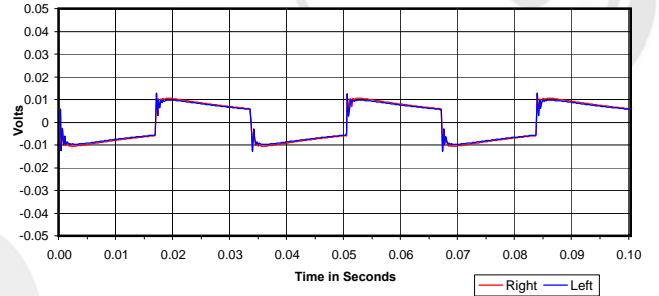
Isolation
Attenuation of External Sound vs. Frequency



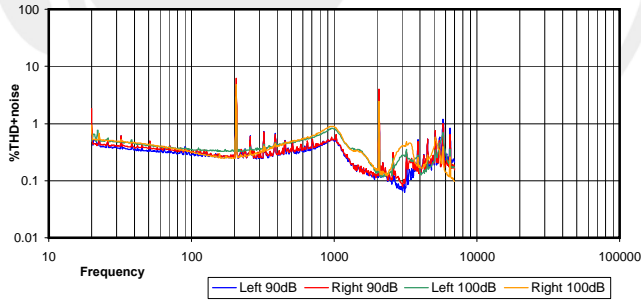
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



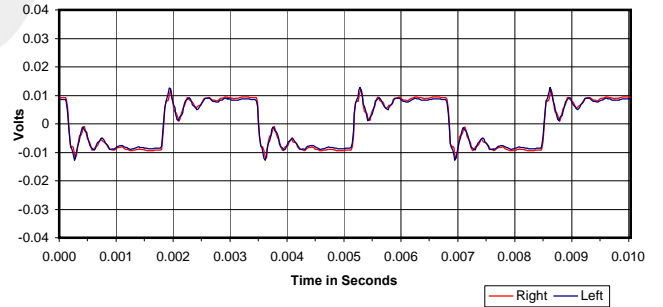
30 Hz Square Wave



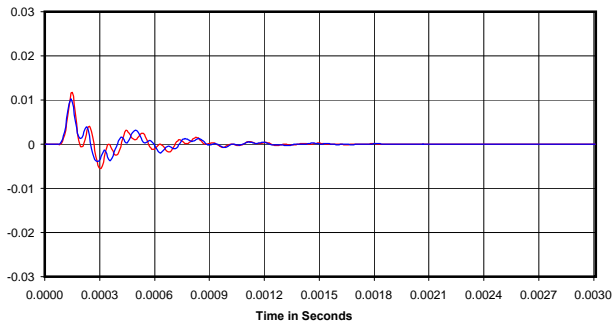
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

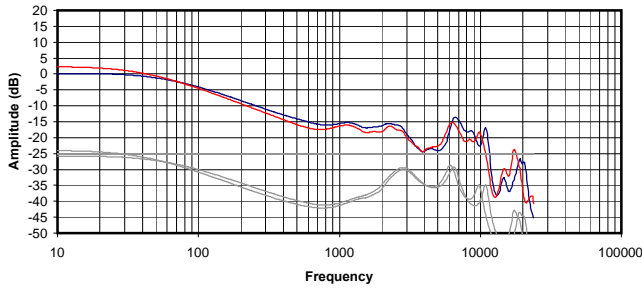


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

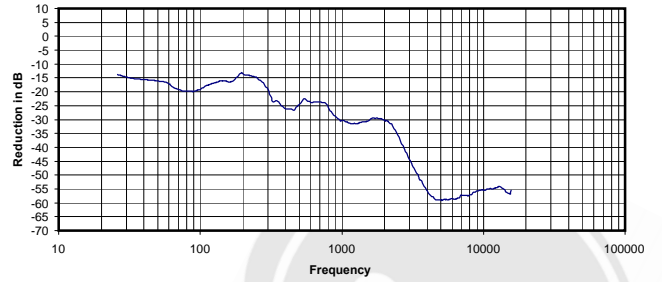
0.042 Vrms
67 Ohms
0.03 mW
-37 dB



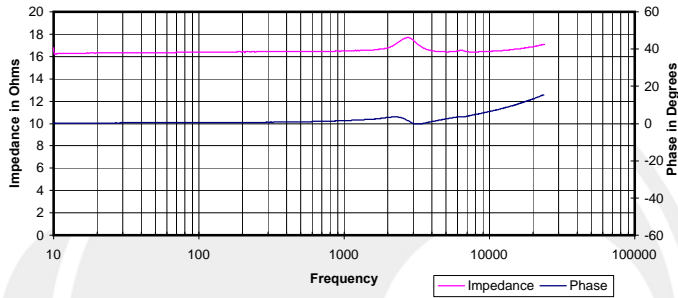
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



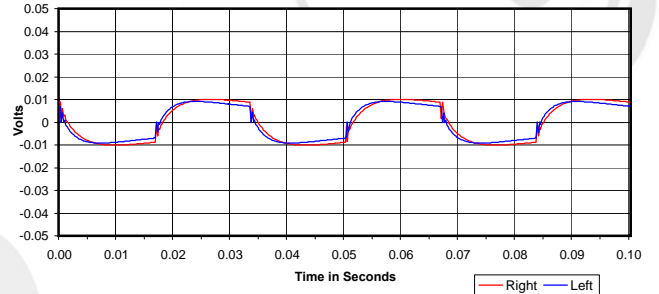
Isolation
Attenuation of External Sound vs. Frequency



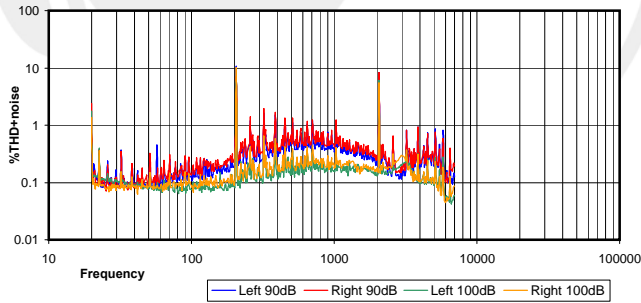
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



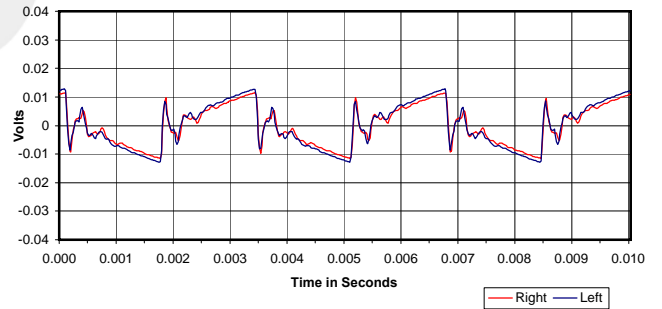
30 Hz Square Wave



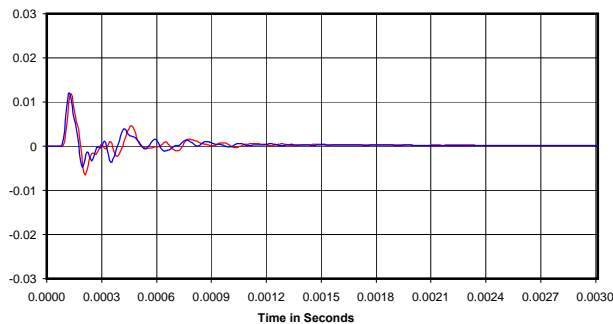
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

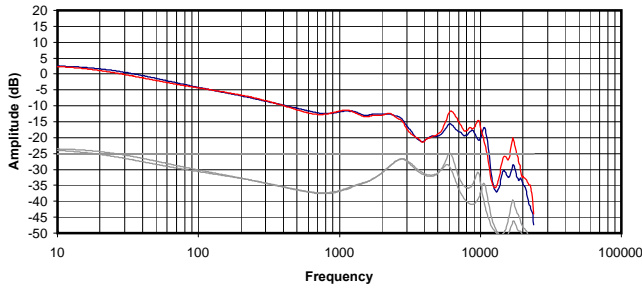


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

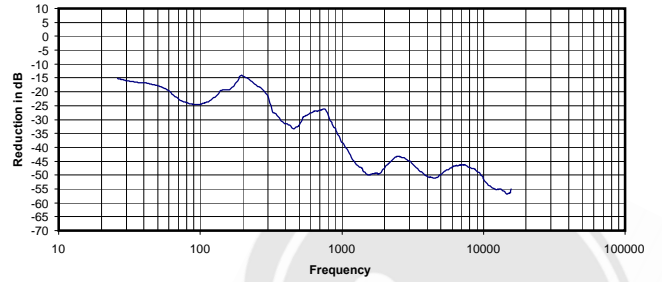
0.036 Vrms
16 Ohms
0.08 mW
-30 dB



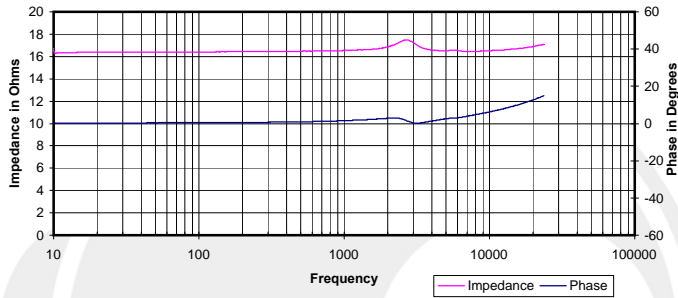
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



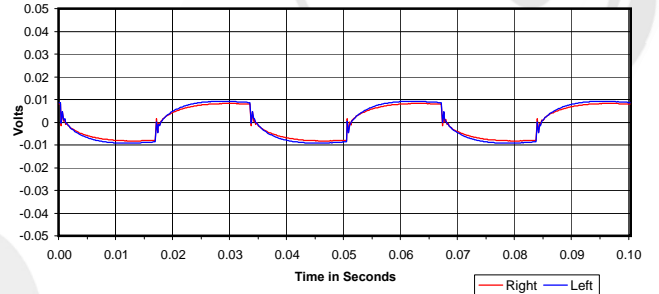
Isolation
Attenuation of External Sound vs. Frequency



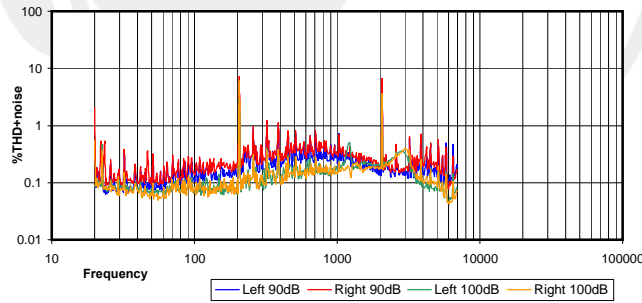
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



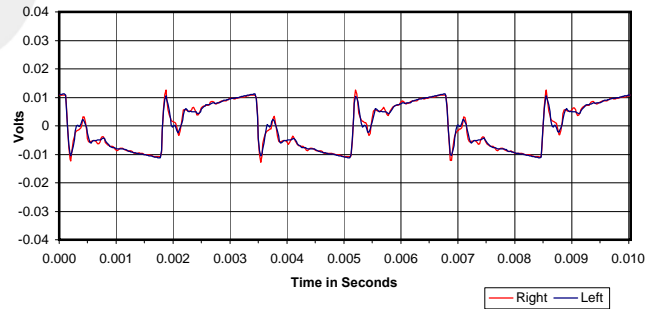
30 Hz Square Wave



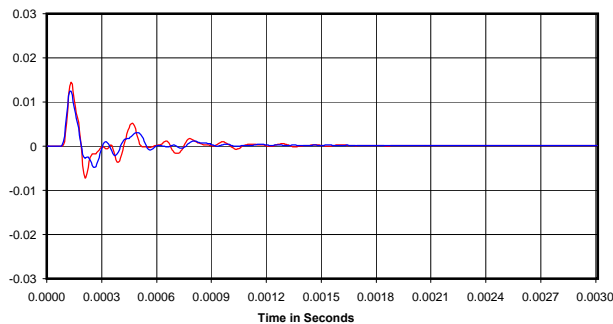
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

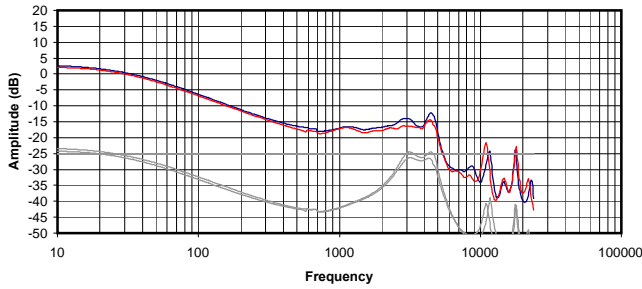


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

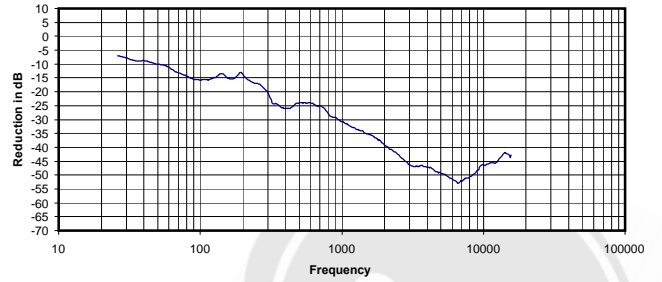
0.036 Vrms
17 Ohms
0.08 mW
-34 dB



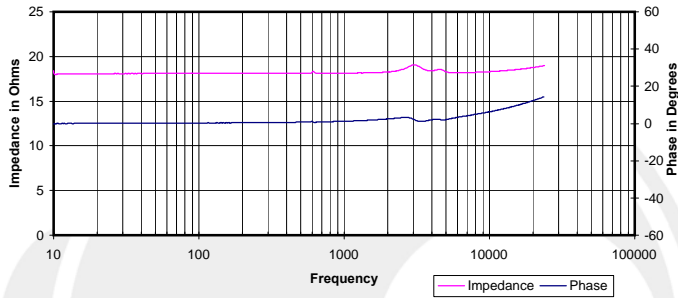
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



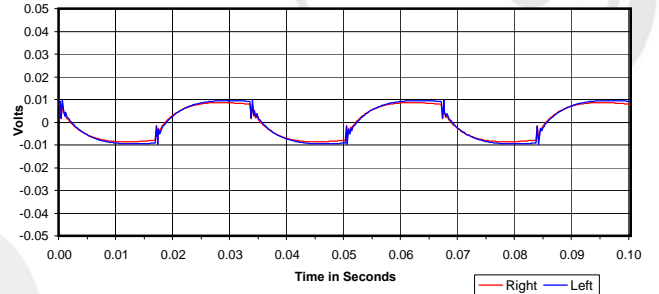
Isolation
Attenuation of External Sound vs. Frequency



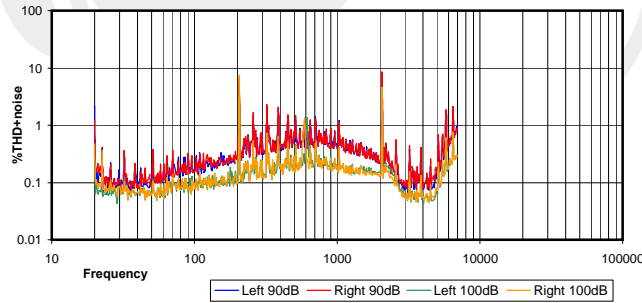
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



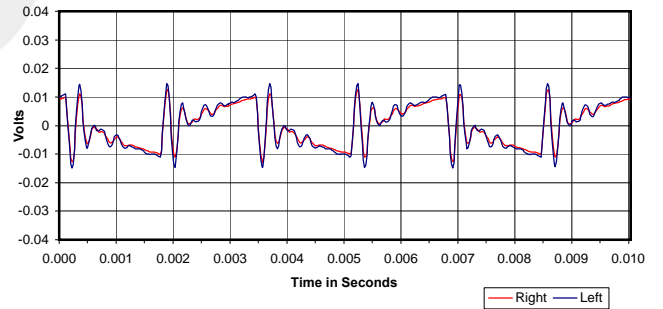
30 Hz Square Wave



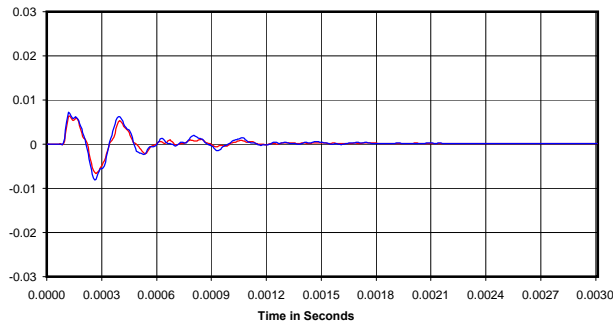
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



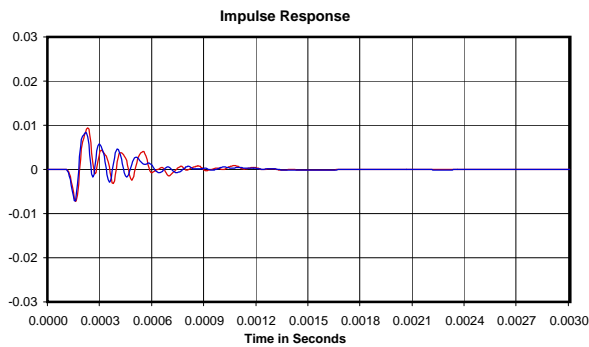
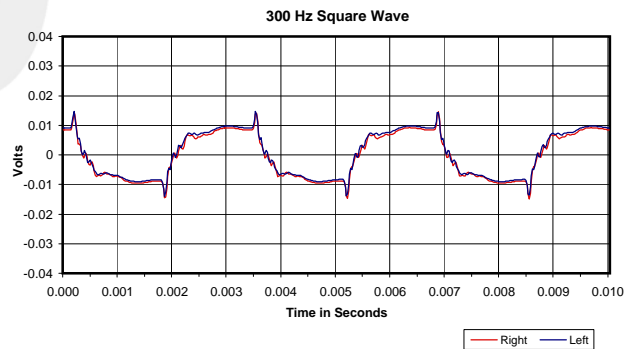
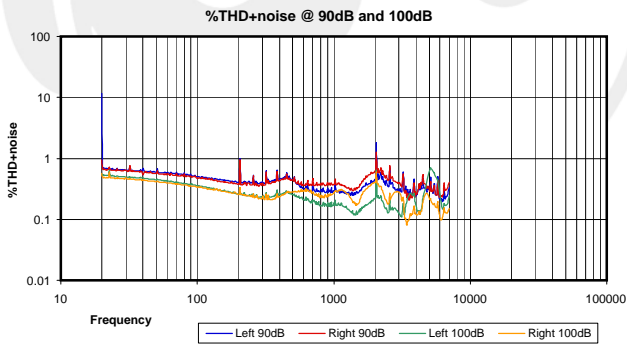
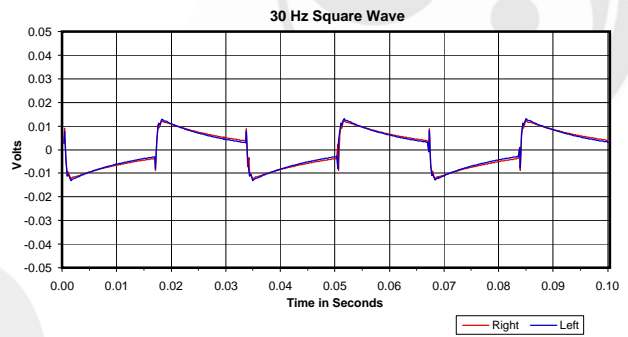
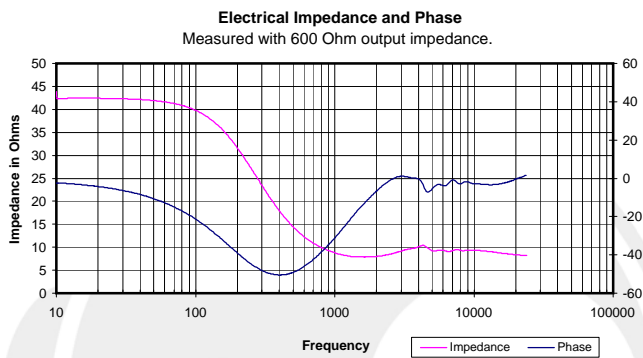
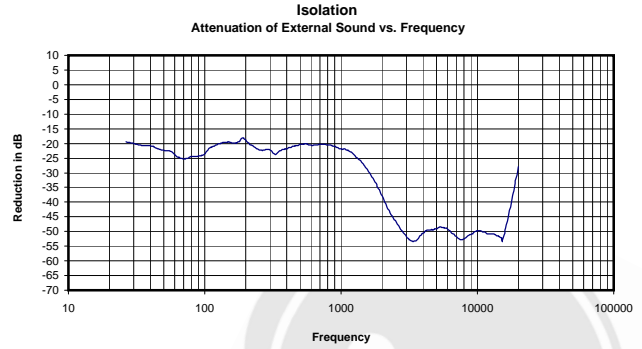
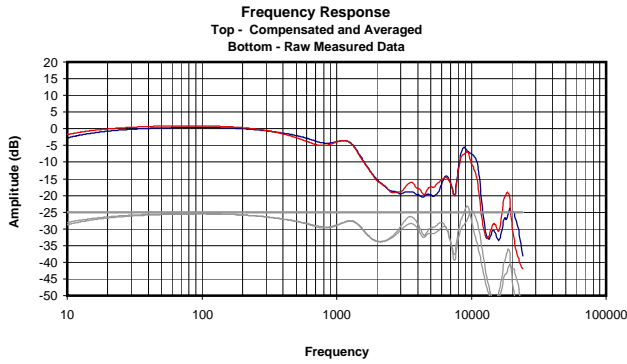
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.046 Vrms
18 Ohms
0.12 mW
-30 dB



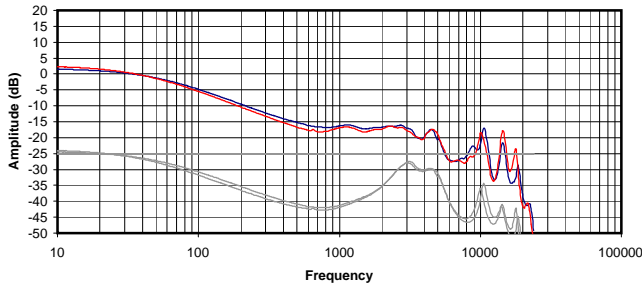


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

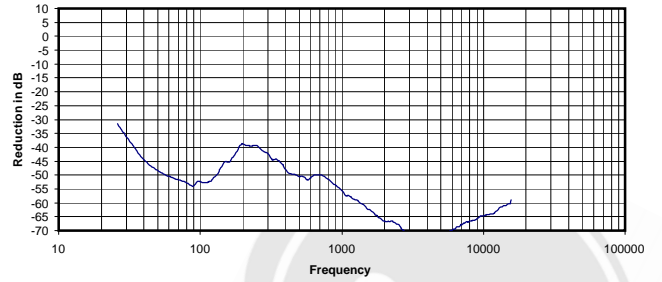
0.010 Vrms
9 Ohms
0.01 mW
-32 dBr



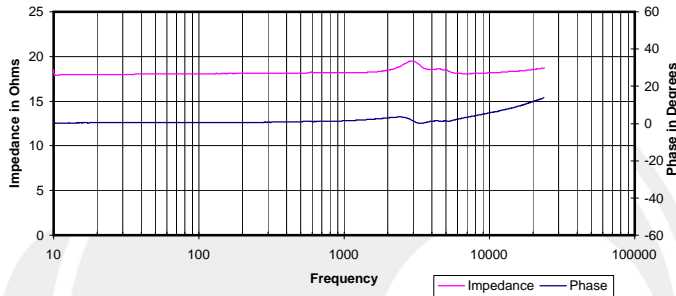
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



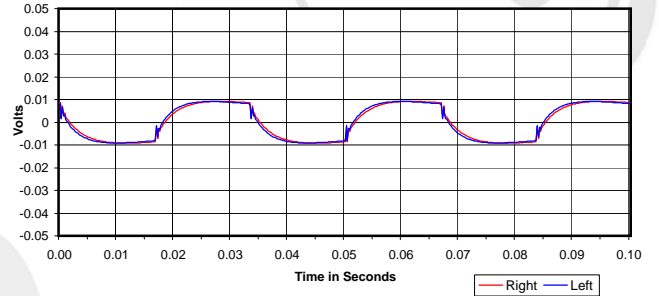
Isolation
Attenuation of External Sound vs. Frequency



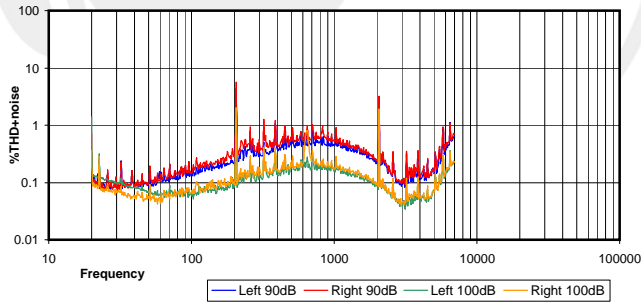
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



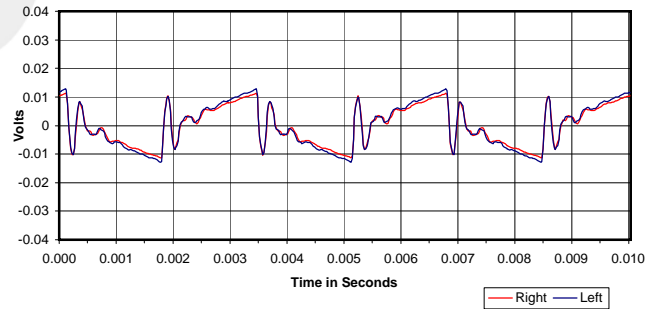
30 Hz Square Wave



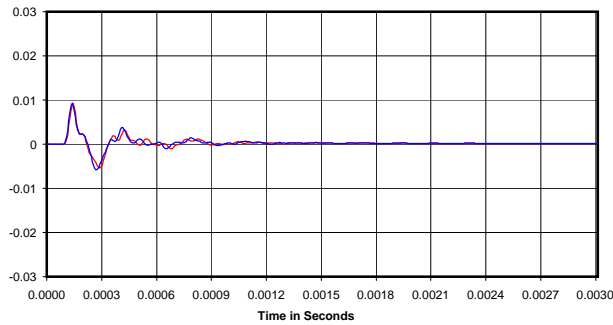
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

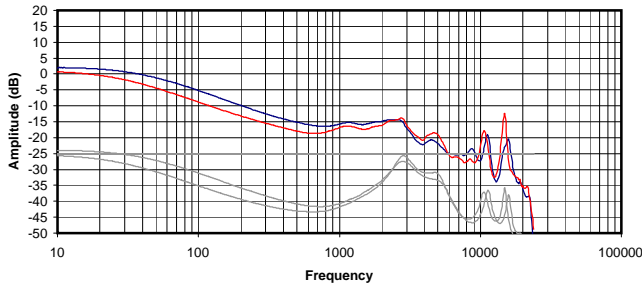


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

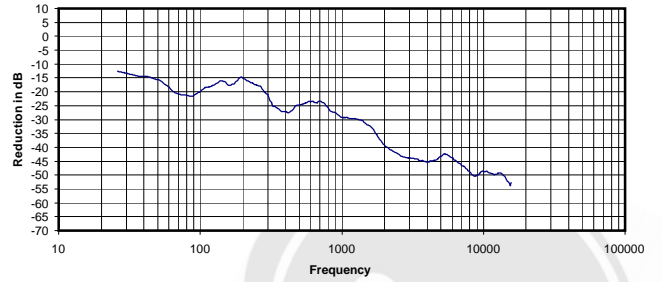
0.026 Vrms
18 Ohms
0.04 mW
-56 dB



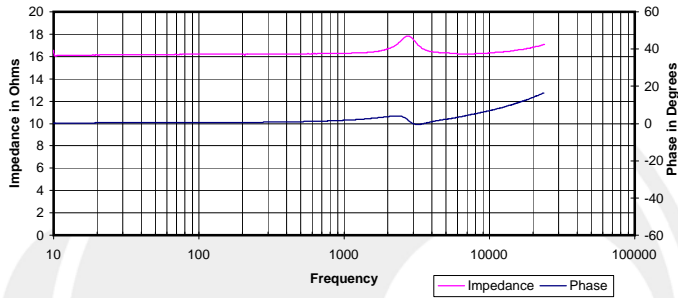
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



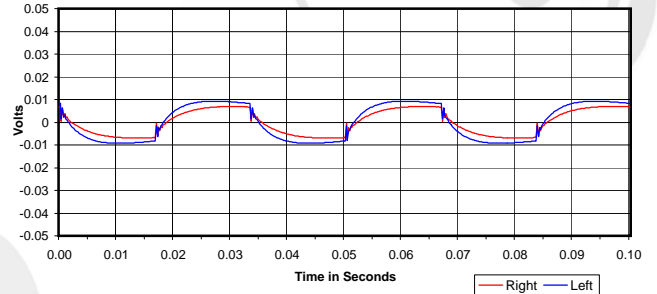
Isolation
Attenuation of External Sound vs. Frequency



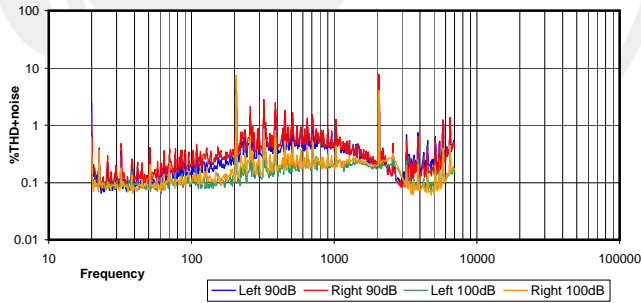
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



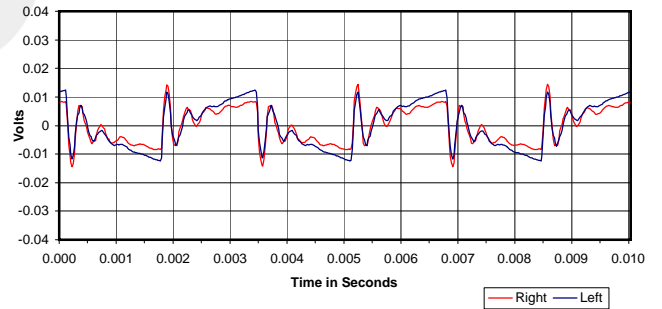
30 Hz Square Wave



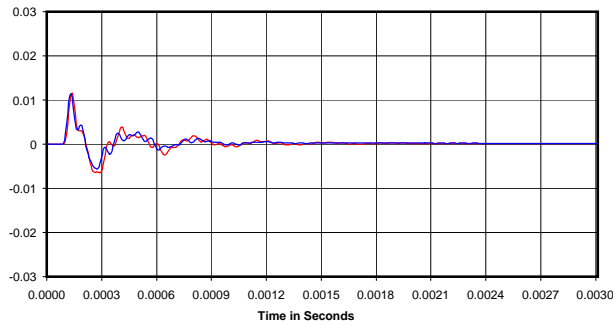
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



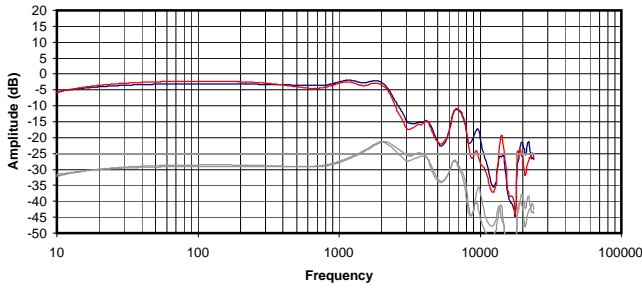
Impulse Response



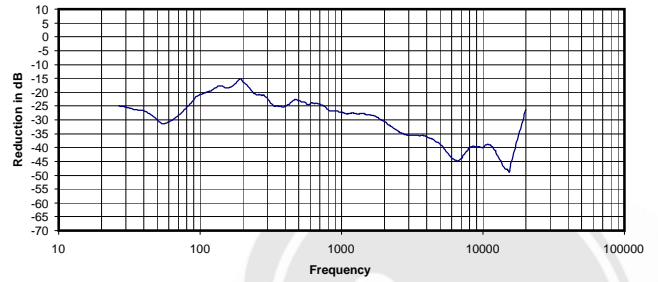
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
16 Ohms
0.08 mW
-29 dB

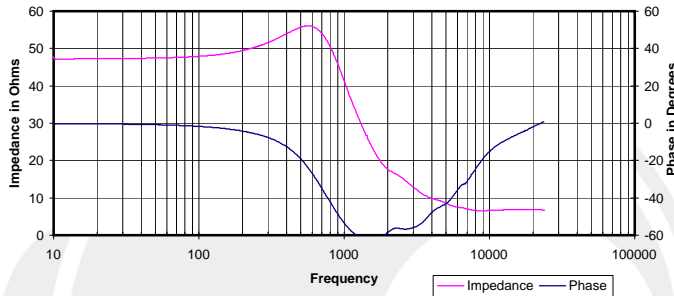
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



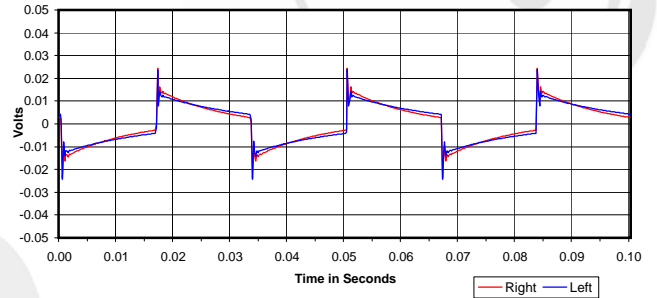
Isolation
Attenuation of External Sound vs. Frequency



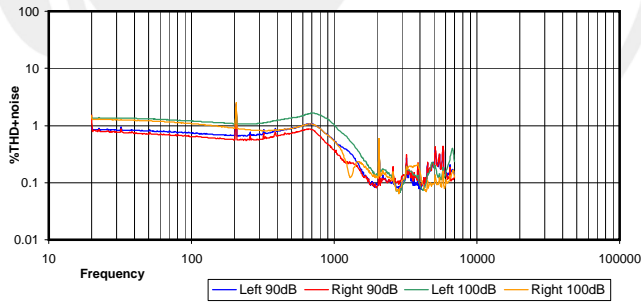
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



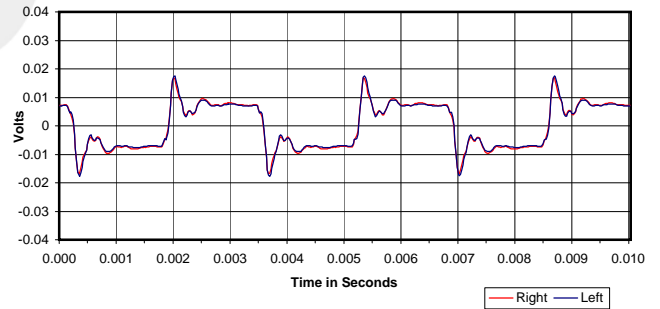
30 Hz Square Wave



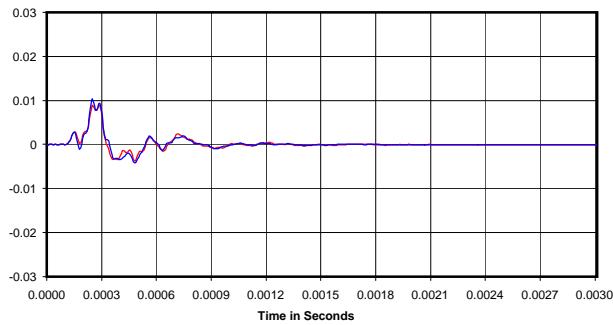
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

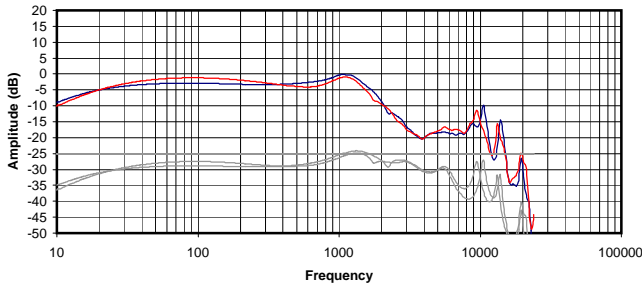


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

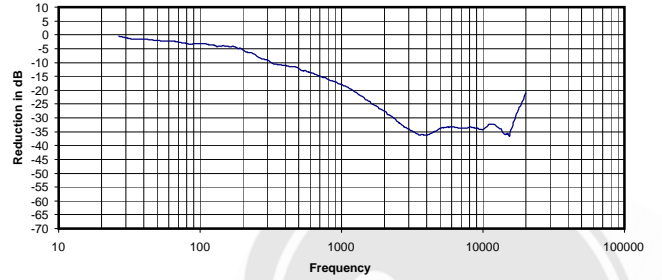
0.014 Vrms
41 Ohms
0.00 mW
-28 dB



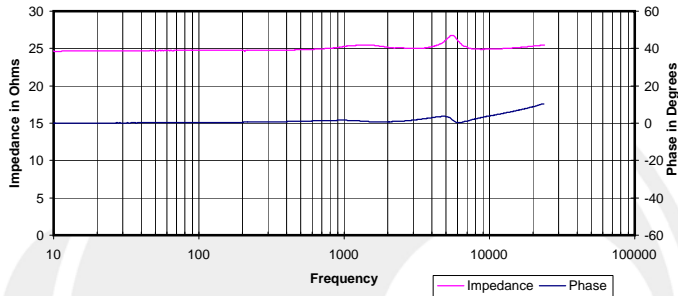
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



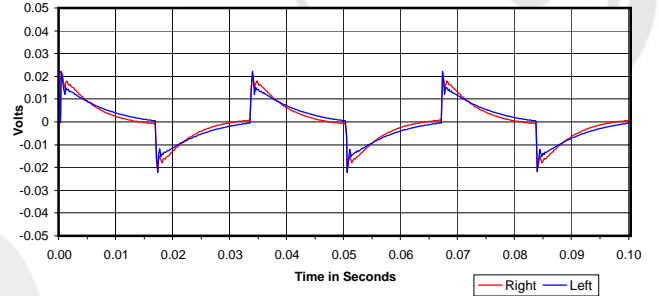
Isolation
Attenuation of External Sound vs. Frequency



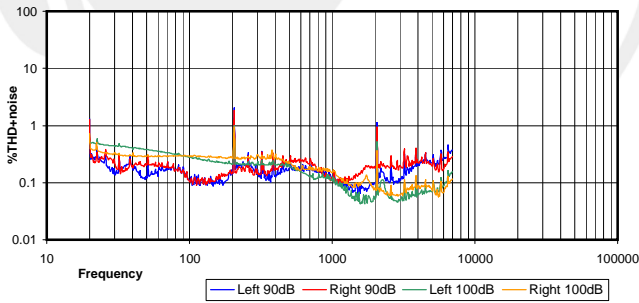
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



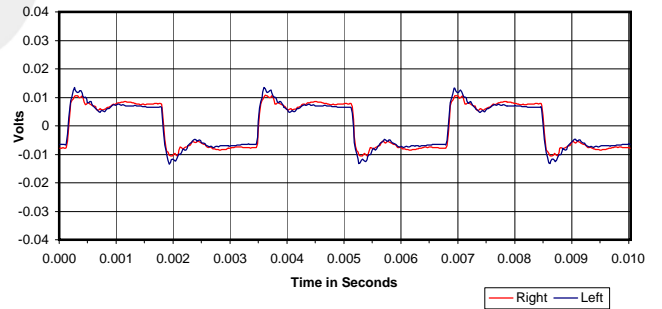
30 Hz Square Wave



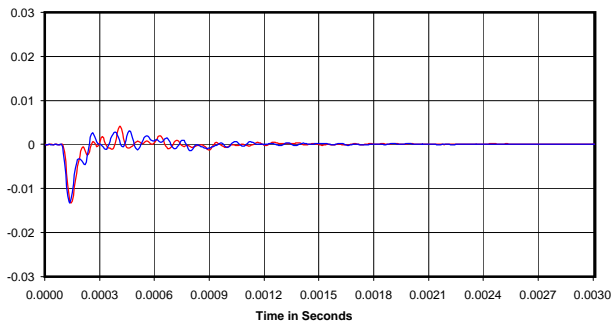
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

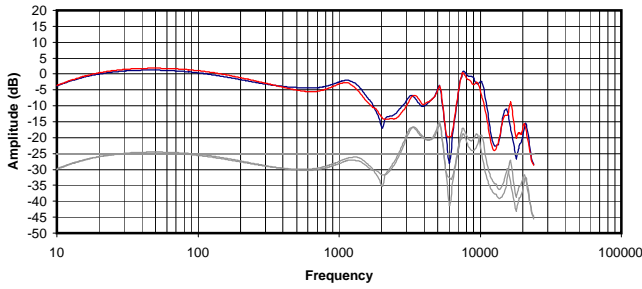


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

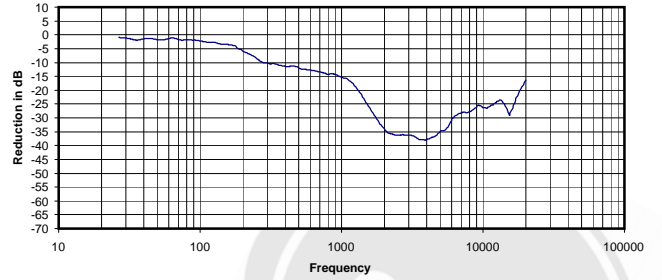
0.011 Vrms
25 Ohms
0.01 mW
-20 dB



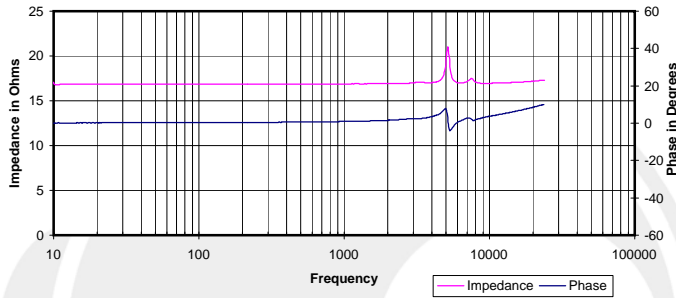
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



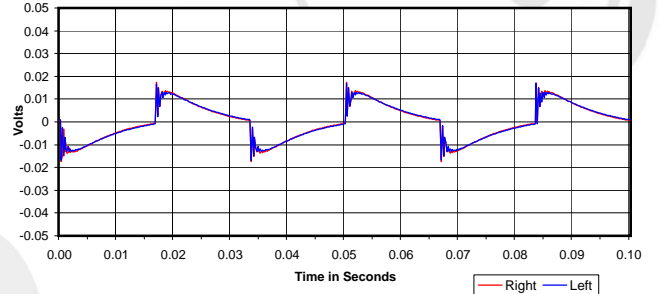
Isolation
Attenuation of External Sound vs. Frequency



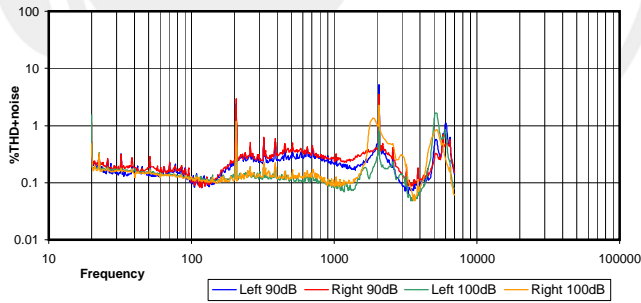
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



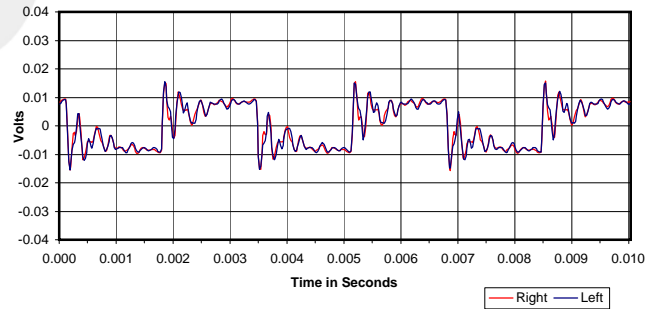
30 Hz Square Wave



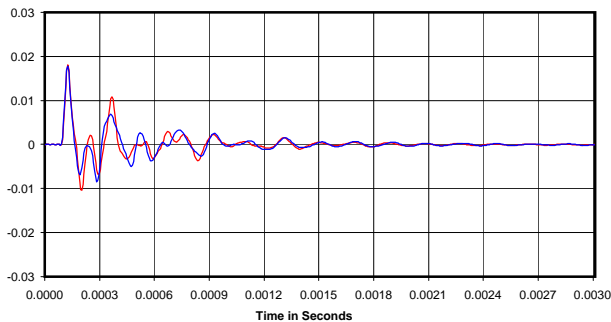
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



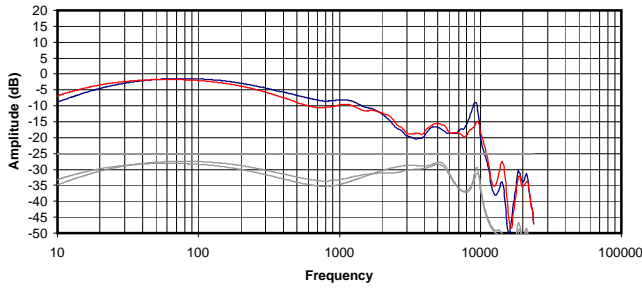
Impulse Response



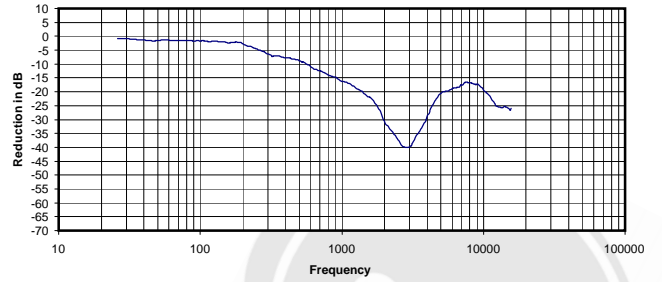
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
17 Ohms
0.08 mW
-20 dB

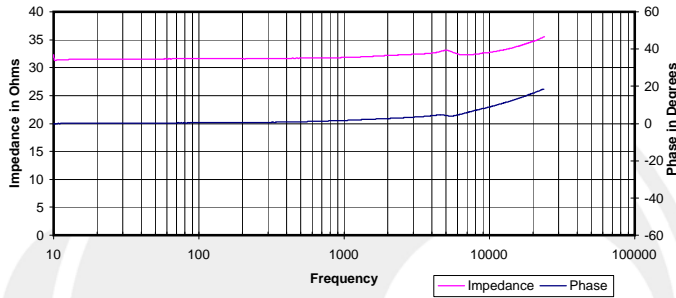
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



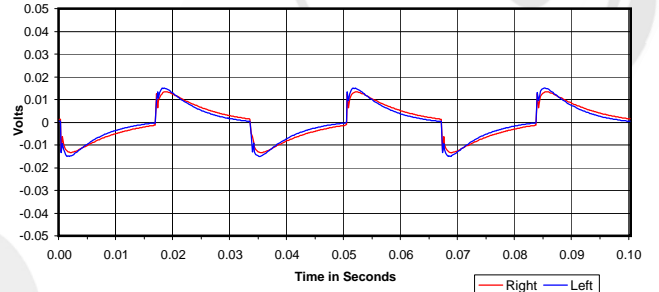
Isolation
Attenuation of External Sound vs. Frequency



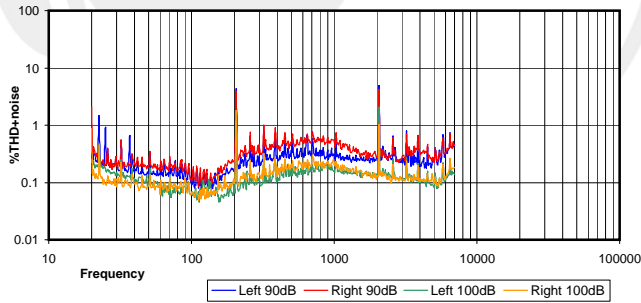
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



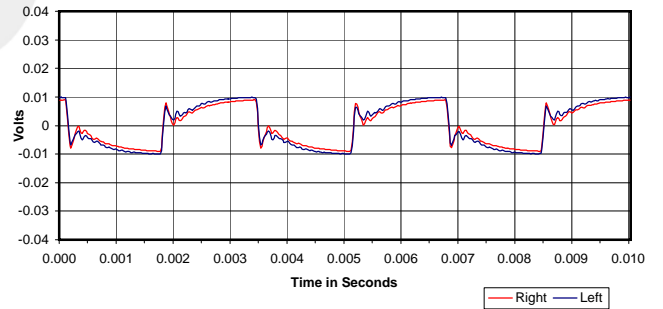
30 Hz Square Wave



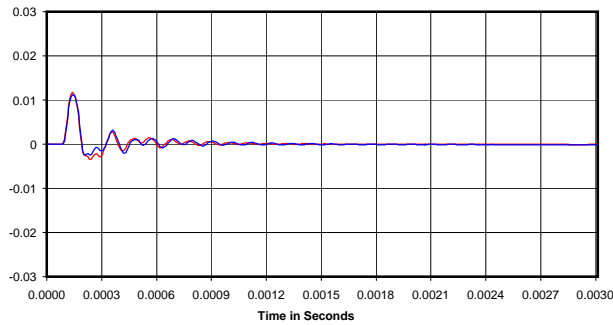
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

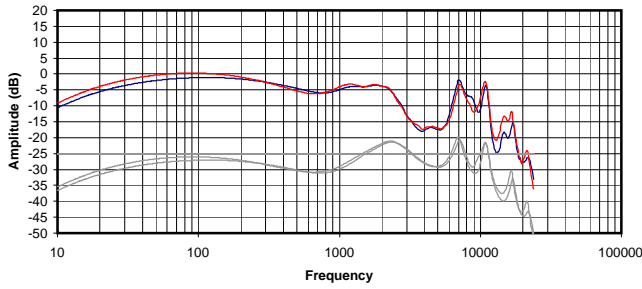


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

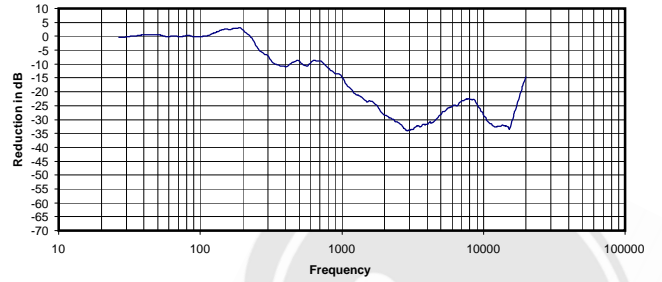
0.029 Vrms
32 Ohms
0.03 mW
-15 dB



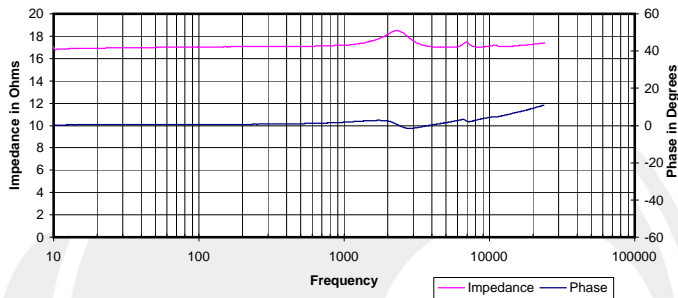
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



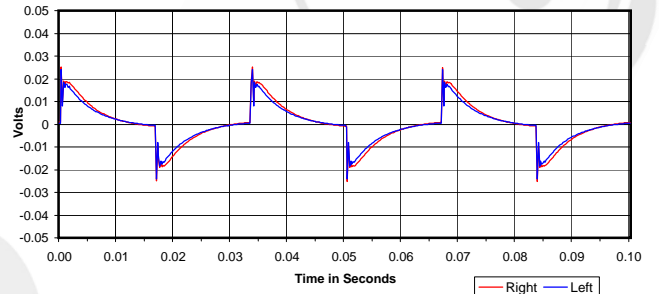
Isolation
Attenuation of External Sound vs. Frequency



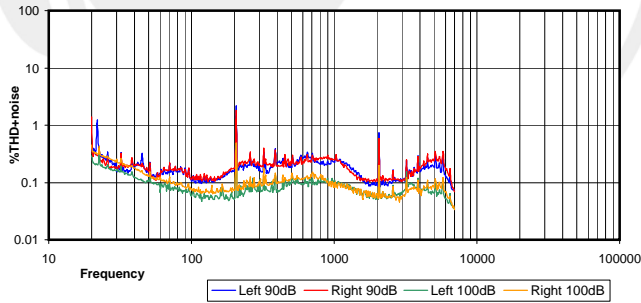
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



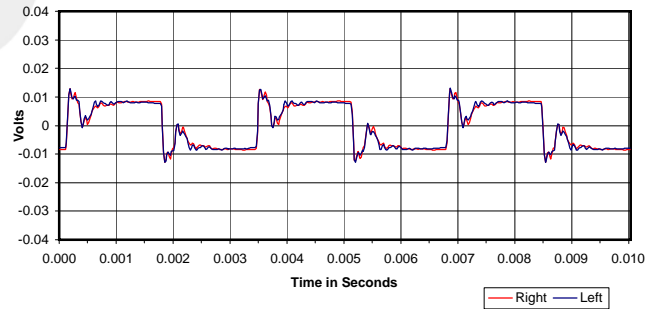
30 Hz Square Wave



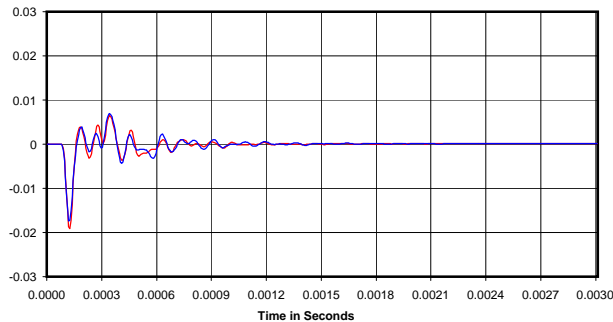
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

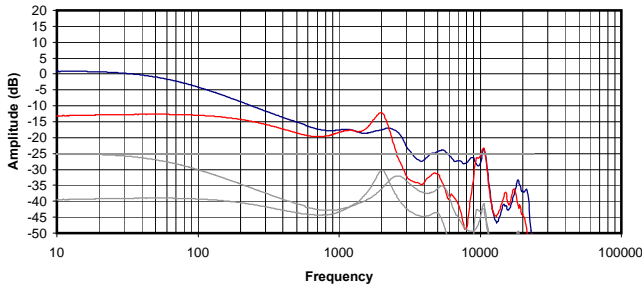


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

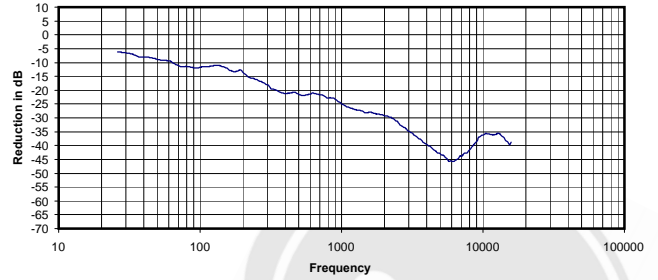
0.016 Vrms
17 Ohms
0.01 mW
-16 dB



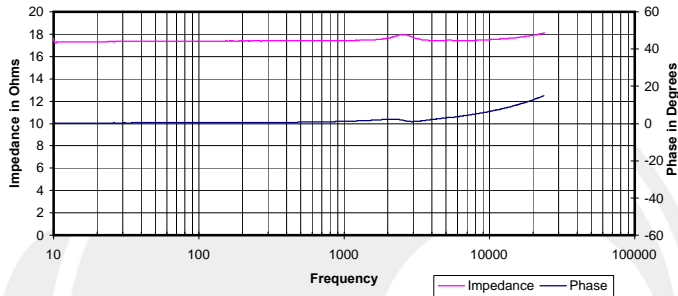
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



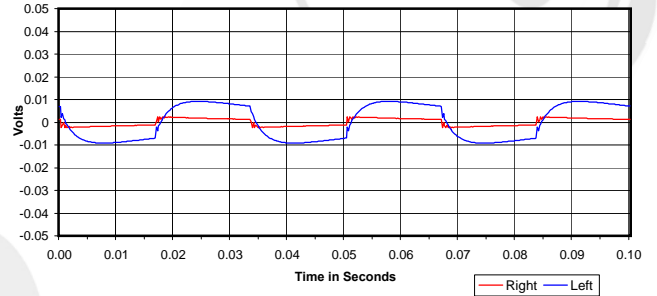
Isolation
Attenuation of External Sound vs. Frequency



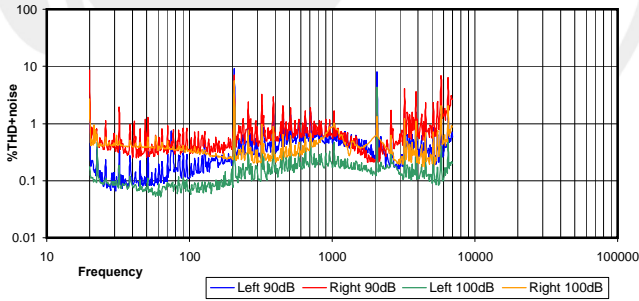
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



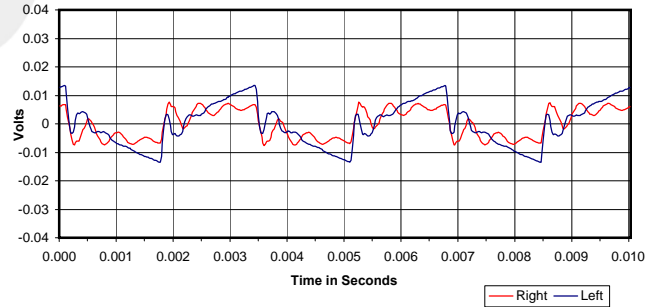
30 Hz Square Wave



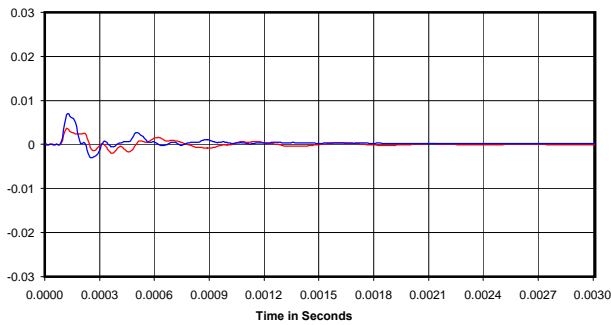
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



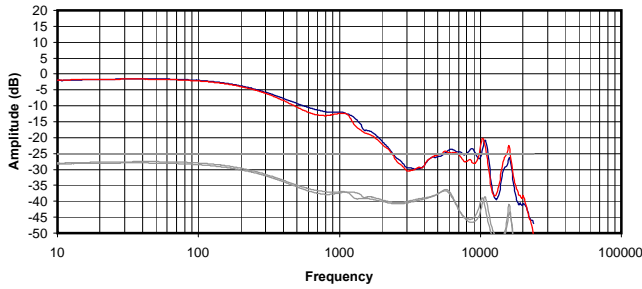
Impulse Response



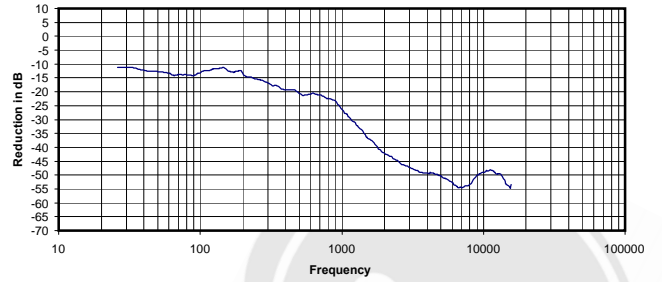
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
17 Ohms
0.10 mW
-25 dB

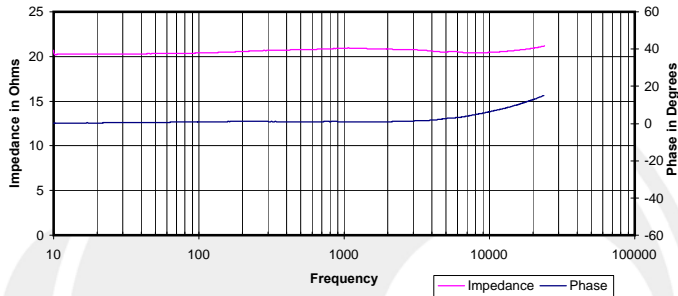
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



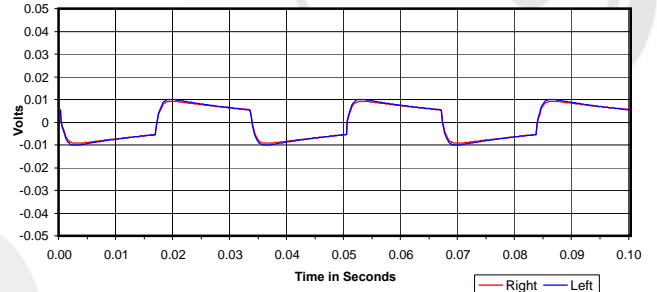
Isolation
Attenuation of External Sound vs. Frequency



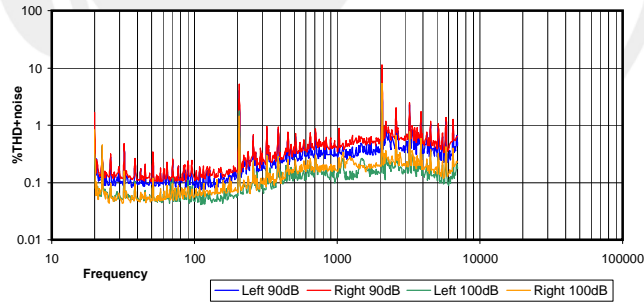
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



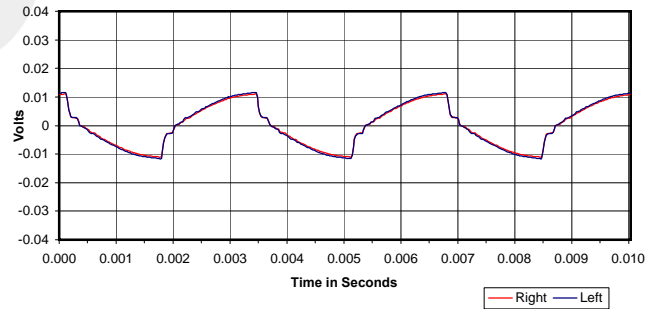
30 Hz Square Wave



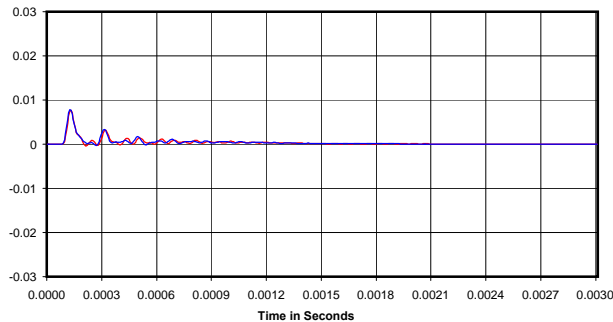
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



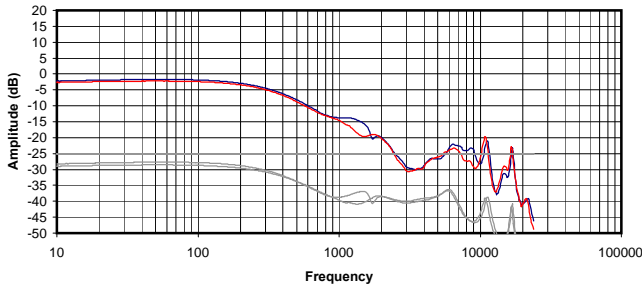
Impulse Response



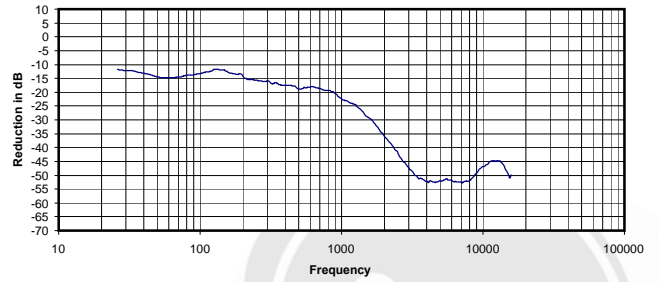
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
21 Ohms
0.02 mW
-28 dB

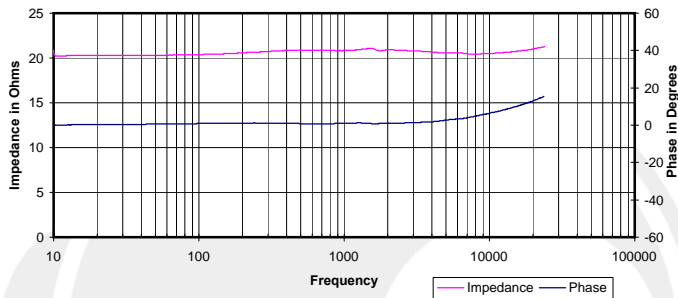
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



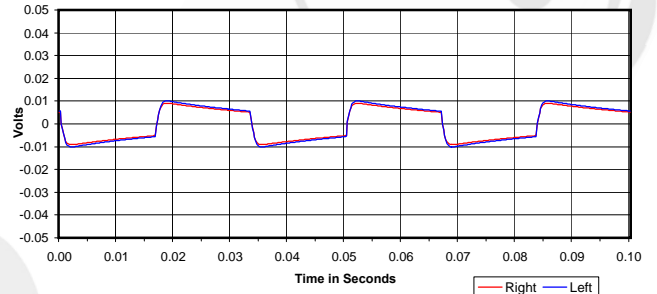
Isolation
Attenuation of External Sound vs. Frequency



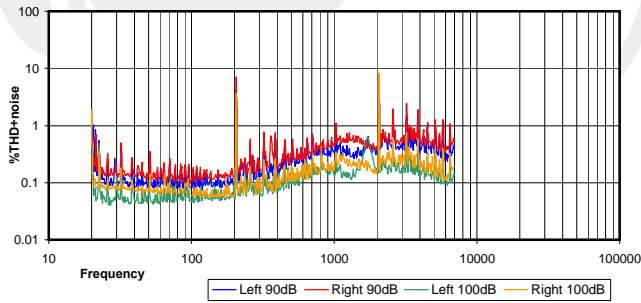
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



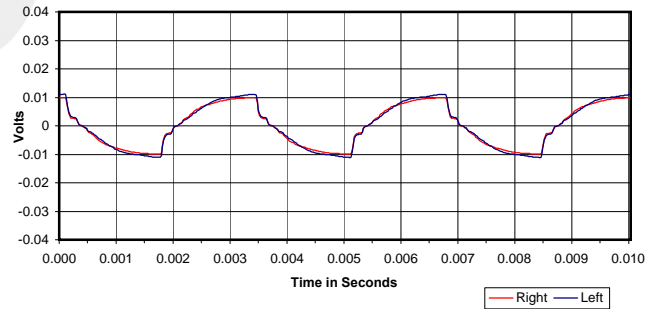
30 Hz Square Wave



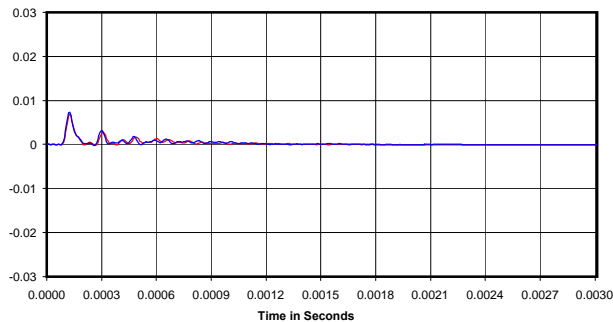
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

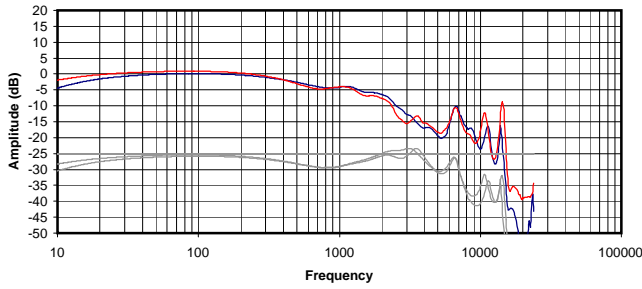


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

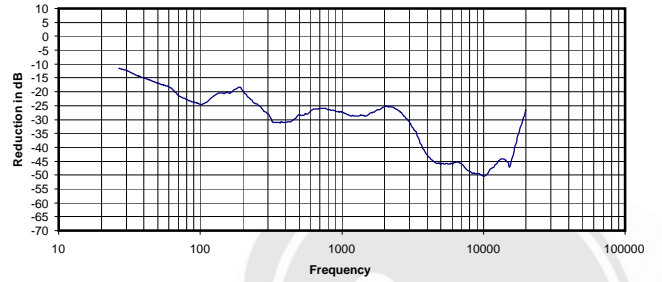
0.024 Vrms
21 Ohms
0.03 mW
-27 dB



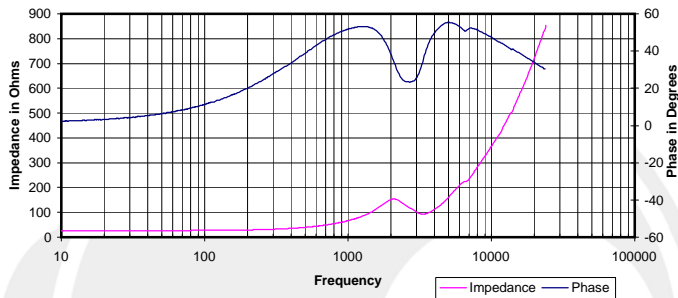
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



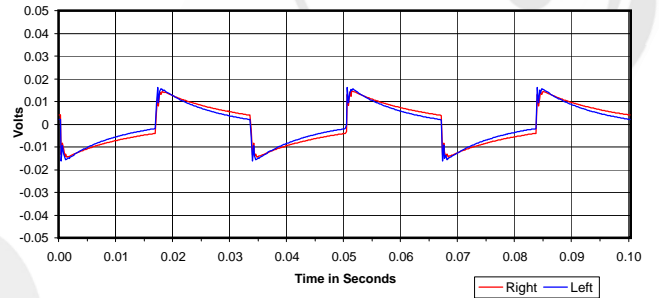
Isolation
Attenuation of External Sound vs. Frequency



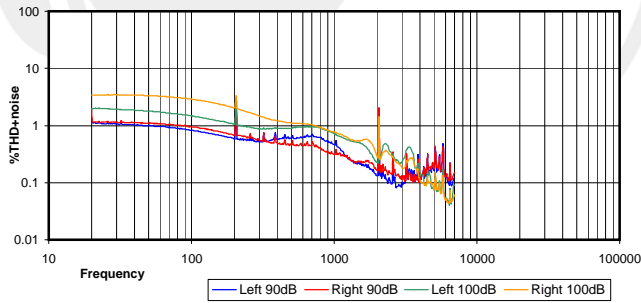
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



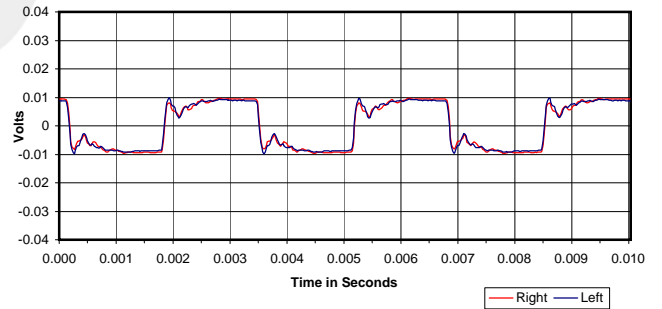
30 Hz Square Wave



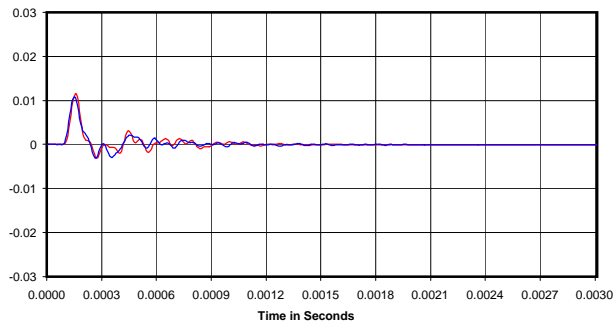
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

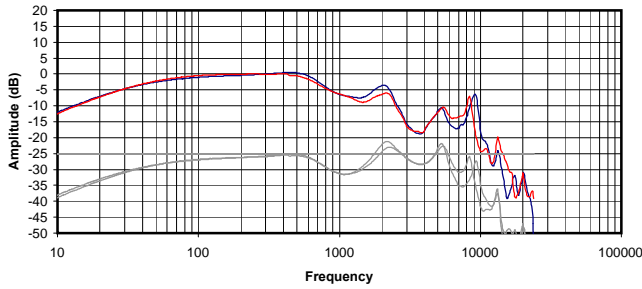


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

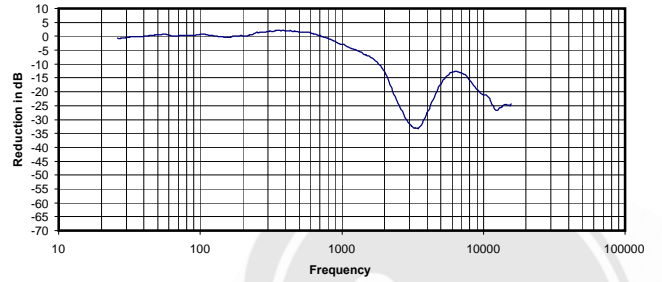
0.023 Vrms
67 Ohms
0.01 mW
-31 dB



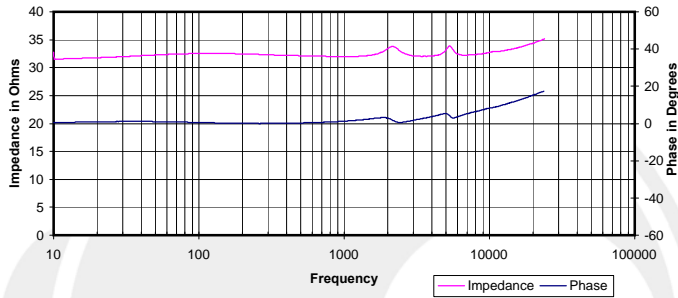
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



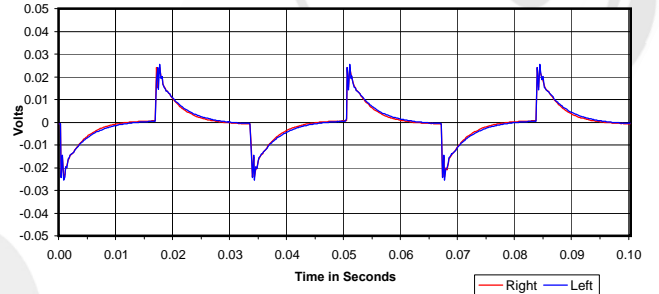
Isolation
Attenuation of External Sound vs. Frequency



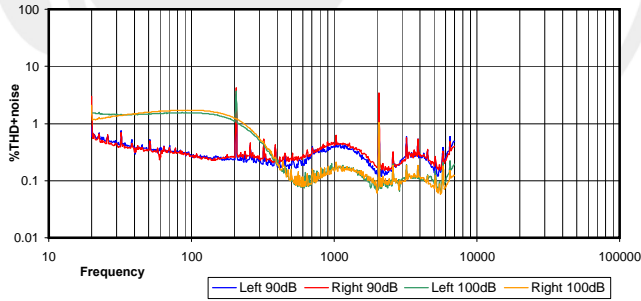
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



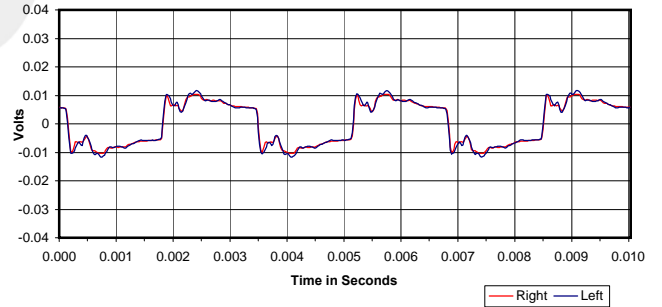
30 Hz Square Wave



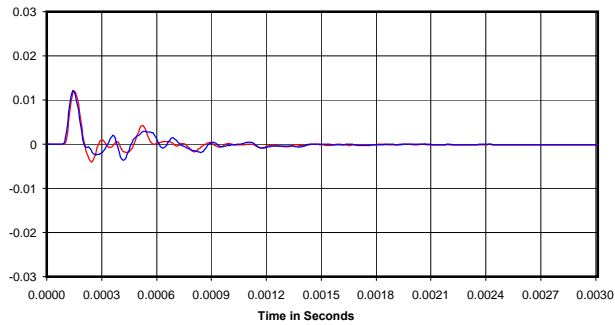
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



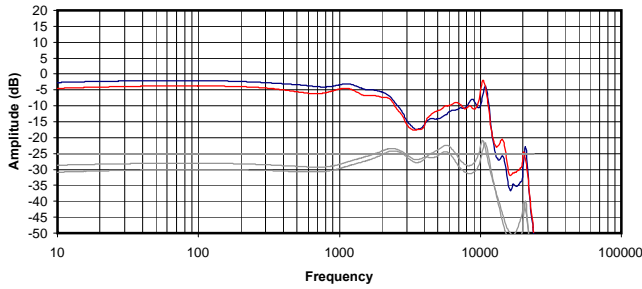
Impulse Response



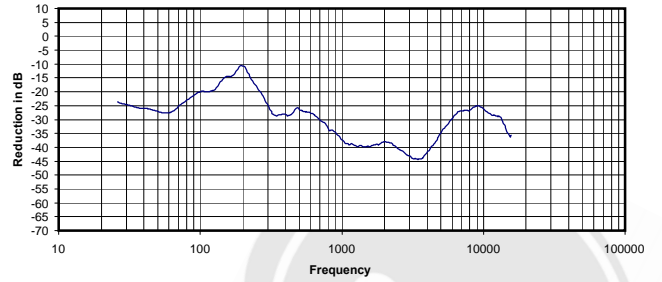
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
32 Ohms
0.02 mW
-7 dB

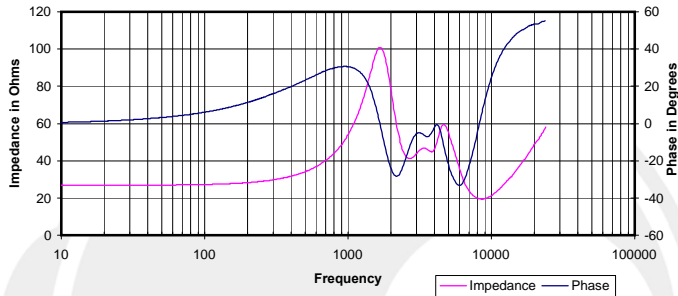
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



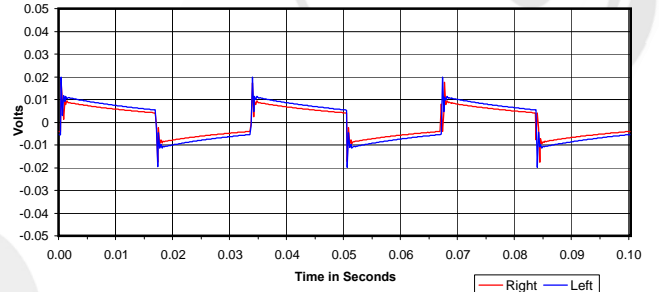
Isolation
Attenuation of External Sound vs. Frequency



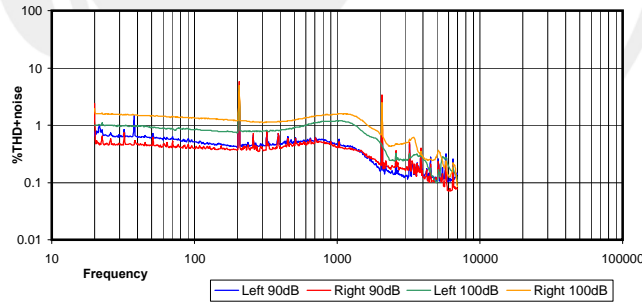
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



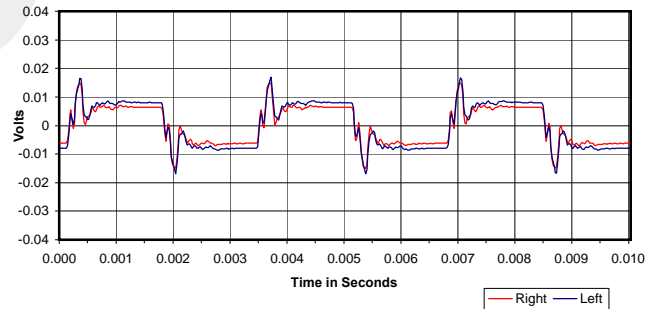
30 Hz Square Wave



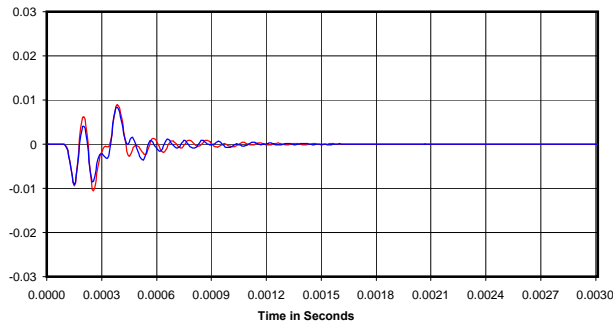
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



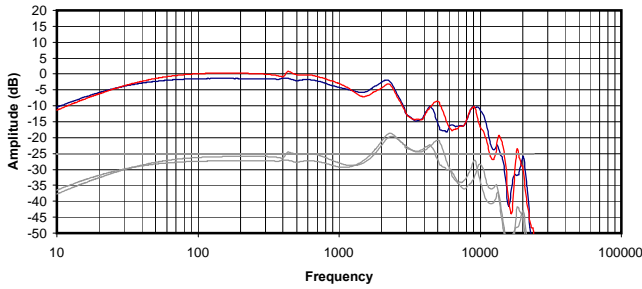
Impulse Response



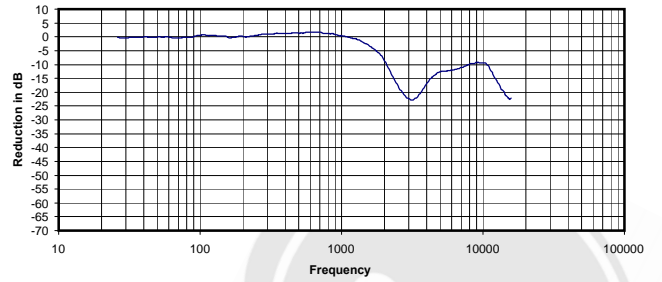
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.023 Vrms
54 Ohms
0.01 mW
-30 dB

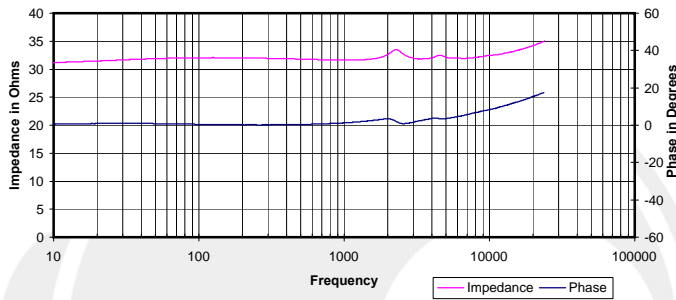
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



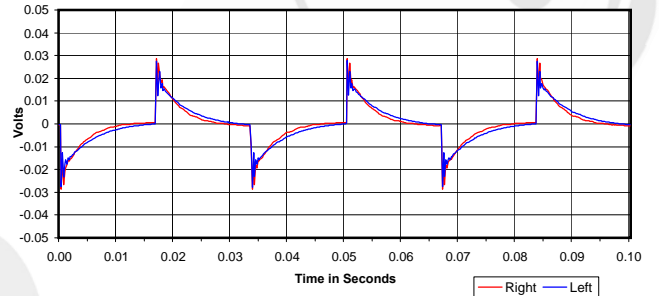
Isolation
Attenuation of External Sound vs. Frequency



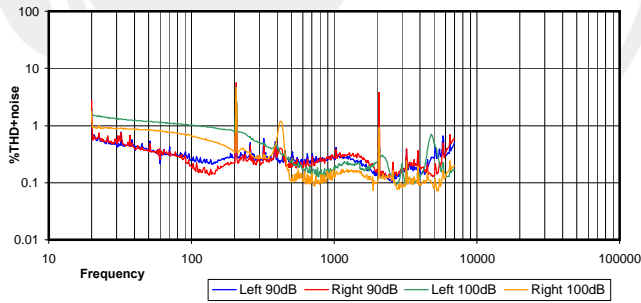
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



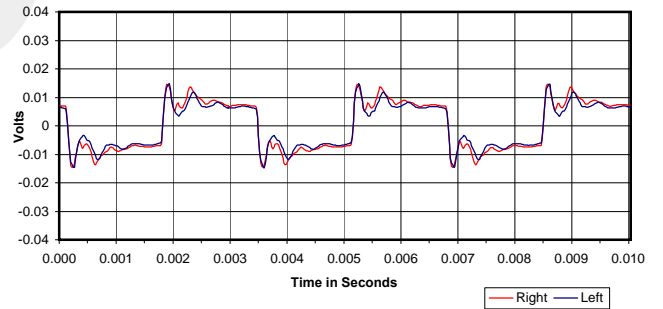
30 Hz Square Wave



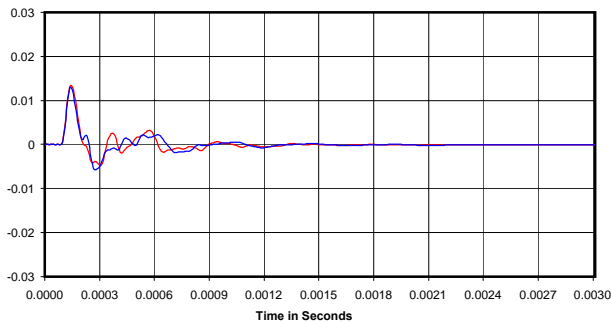
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

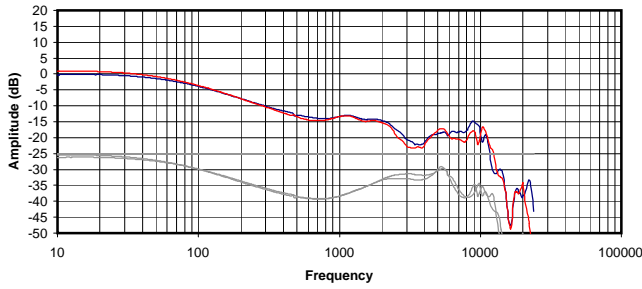


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

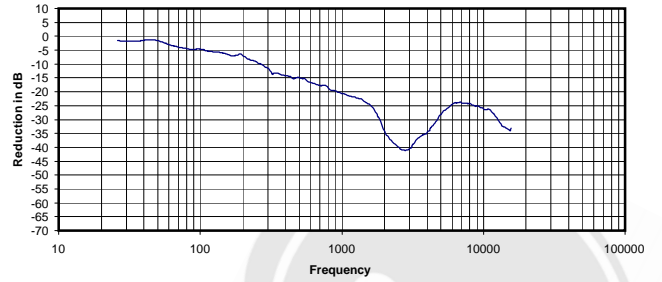
0.034 Vrms
32 Ohms
0.04 mW
-4 dB



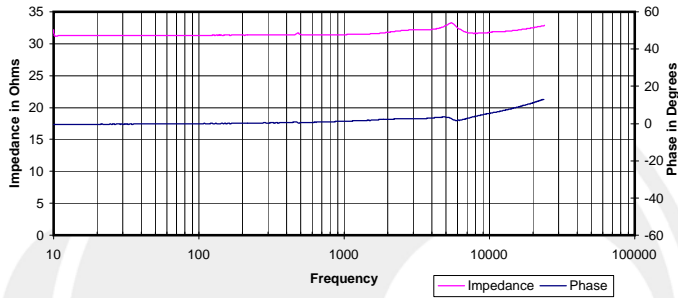
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



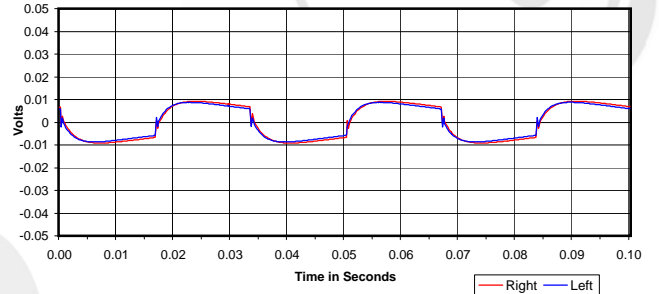
Isolation
Attenuation of External Sound vs. Frequency



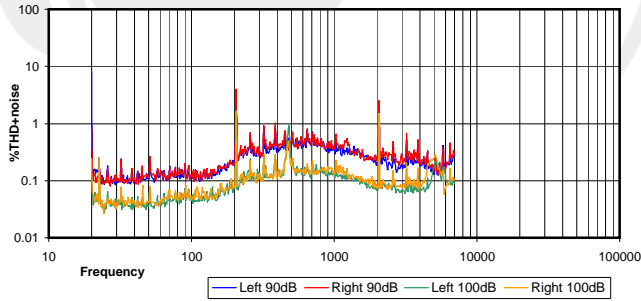
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



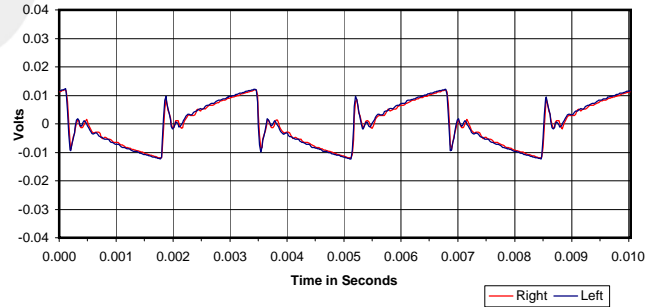
30 Hz Square Wave



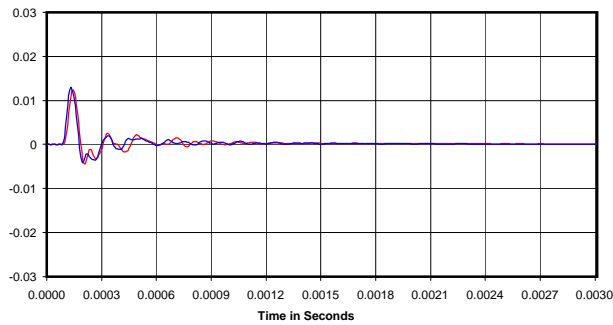
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



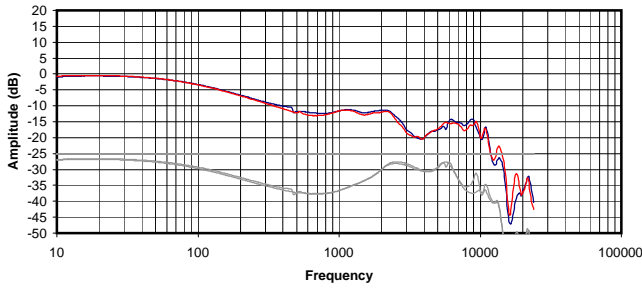
Impulse Response



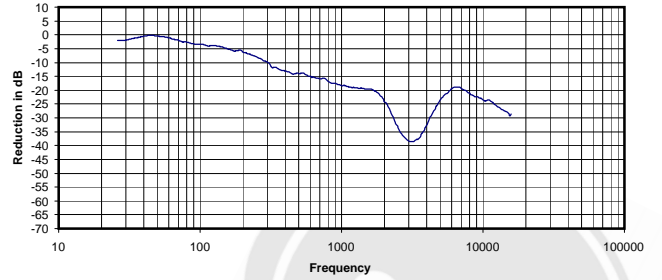
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
31 Ohms
0.05 mW
-20 dB

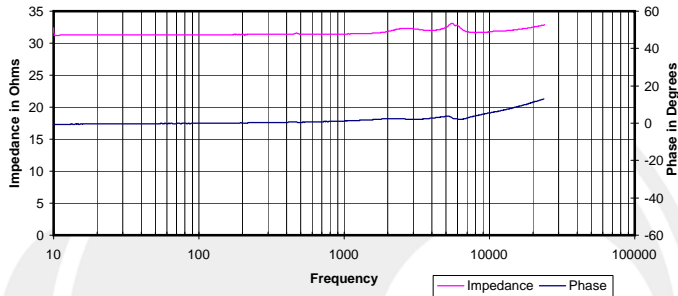
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



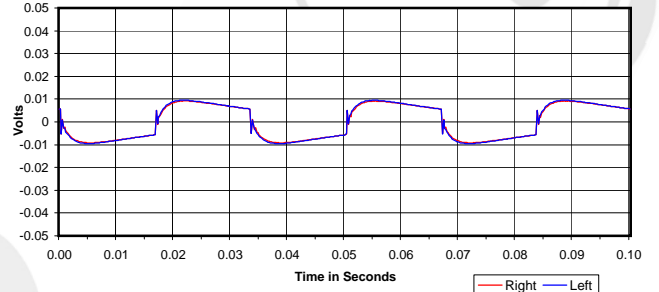
Isolation
Attenuation of External Sound vs. Frequency



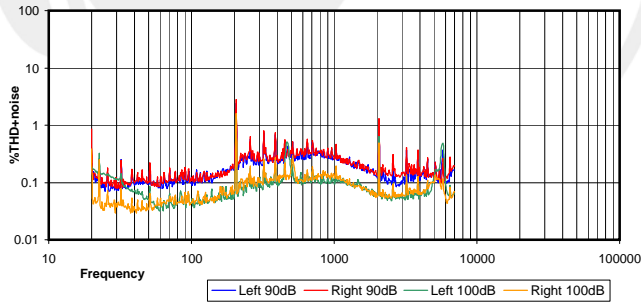
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



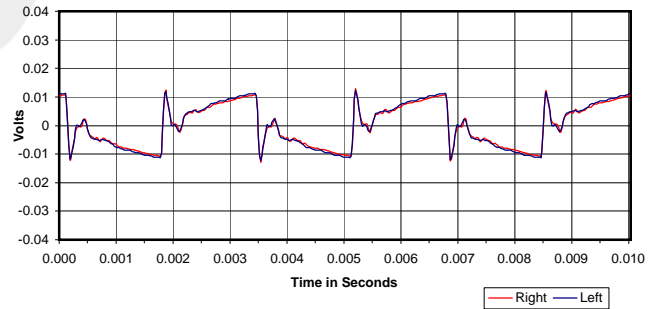
30 Hz Square Wave



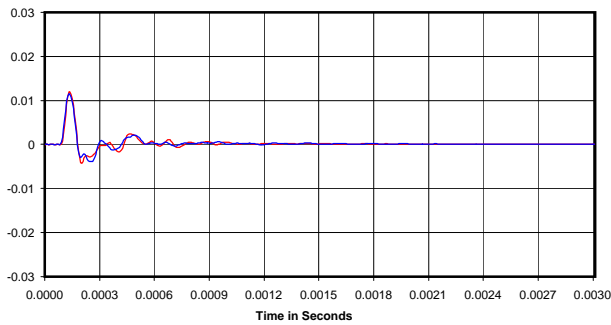
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

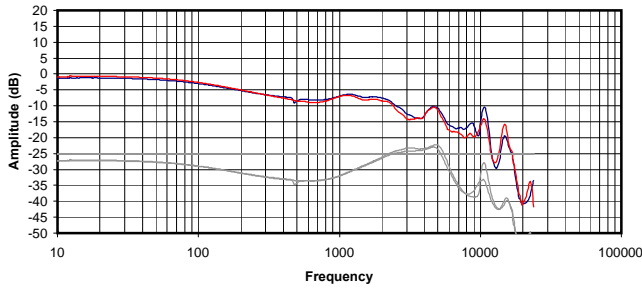


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

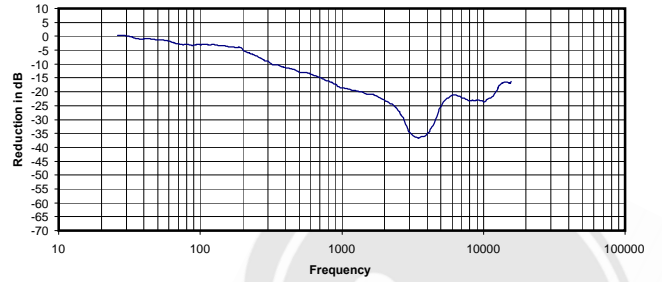
0.036 Vrms
31 Ohms
0.04 mW
-17 dB



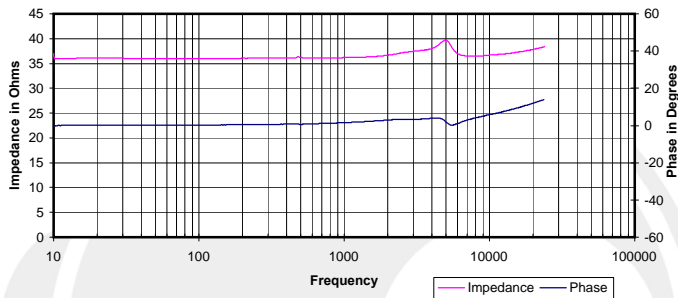
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



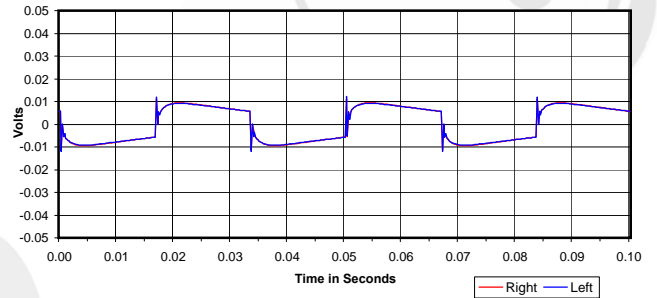
Isolation
Attenuation of External Sound vs. Frequency



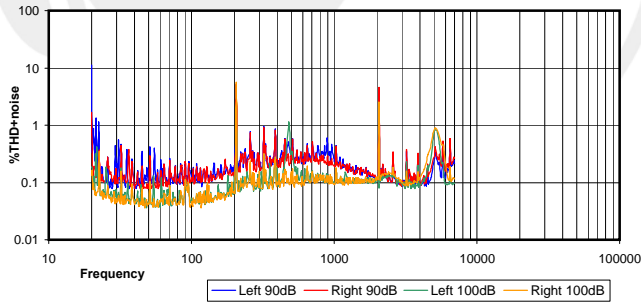
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



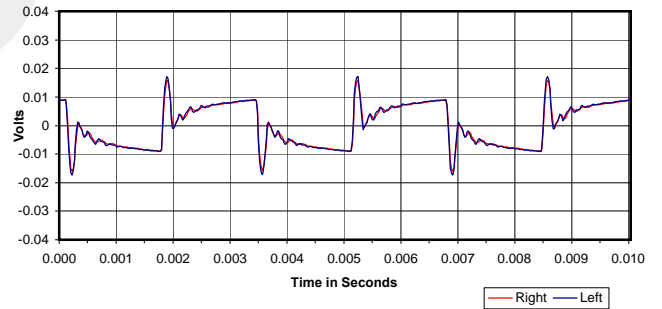
30 Hz Square Wave



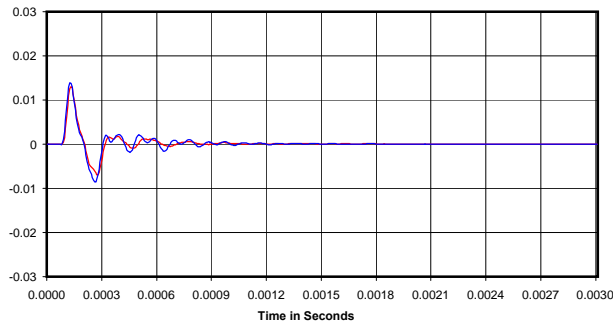
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

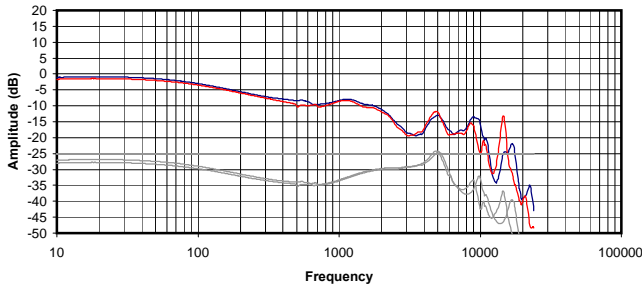


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

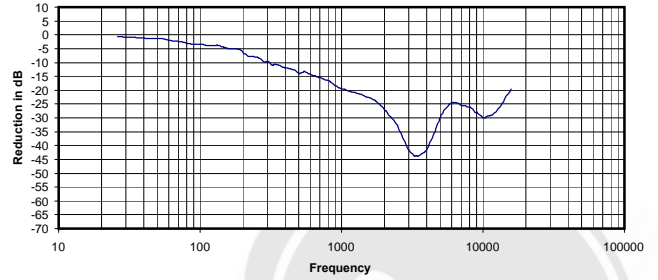
0.039 Vrms
36 Ohms
0.04 mW
-16 dB



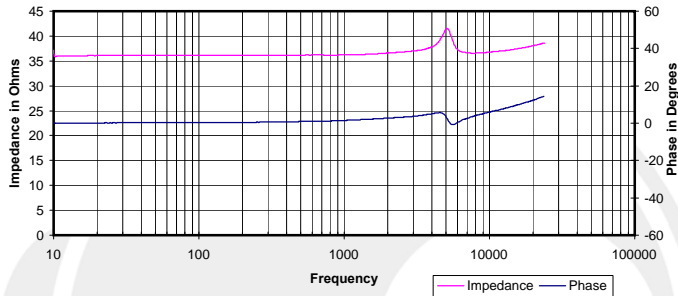
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



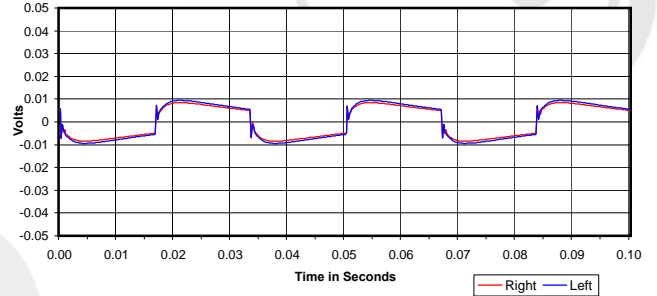
Isolation
Attenuation of External Sound vs. Frequency



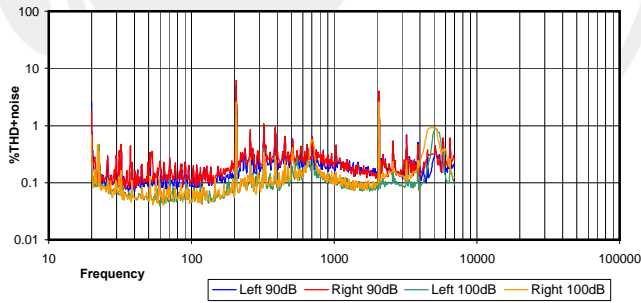
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



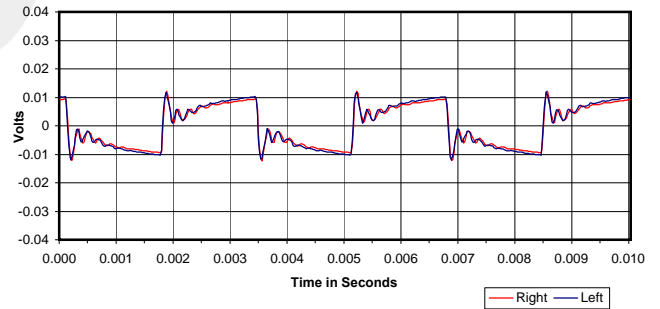
30 Hz Square Wave



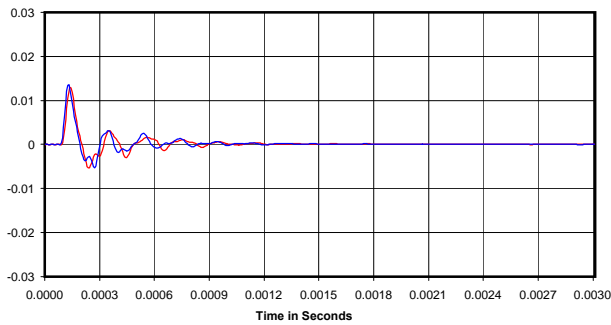
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

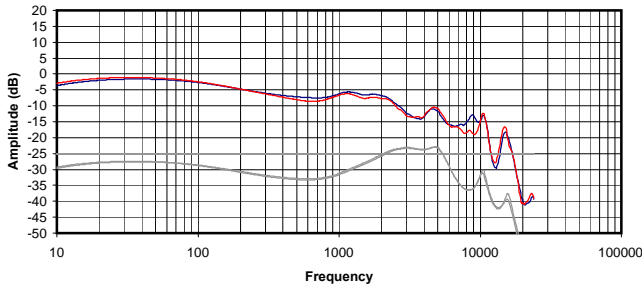


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

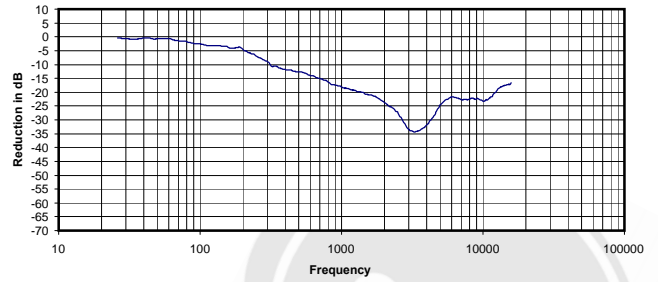
0.046 Vrms
36 Ohms
0.06 mW
-19 dB



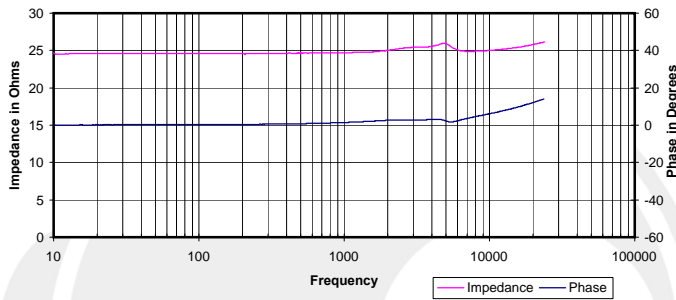
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



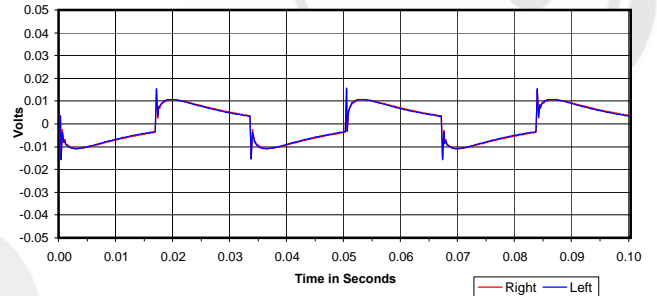
Isolation
Attenuation of External Sound vs. Frequency



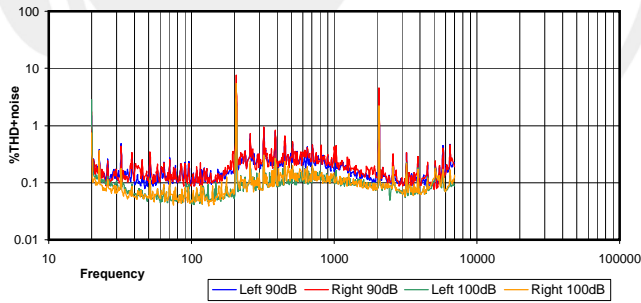
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



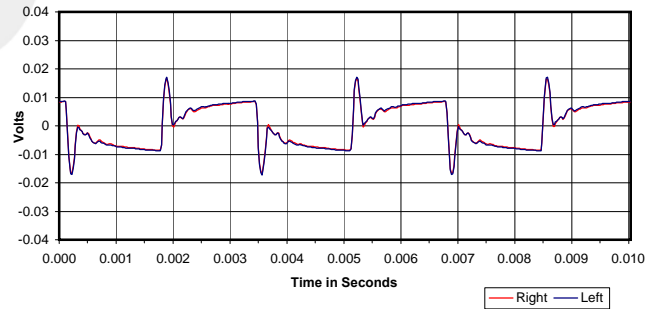
30 Hz Square Wave



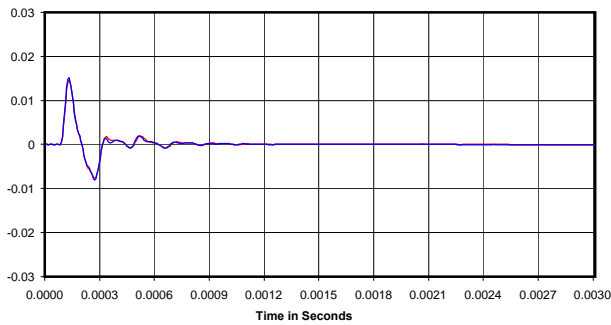
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

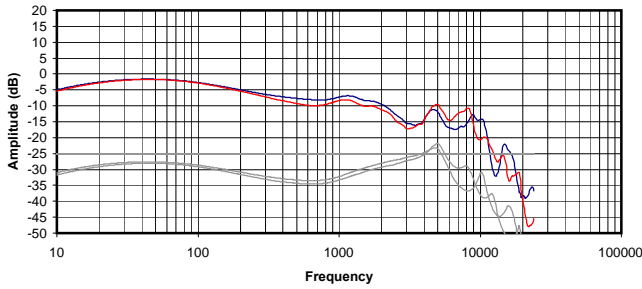


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

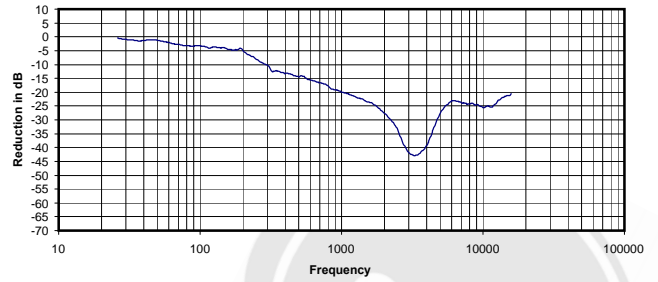
0.034 Vrms
25 Ohms
0.05 mW
-16 dB



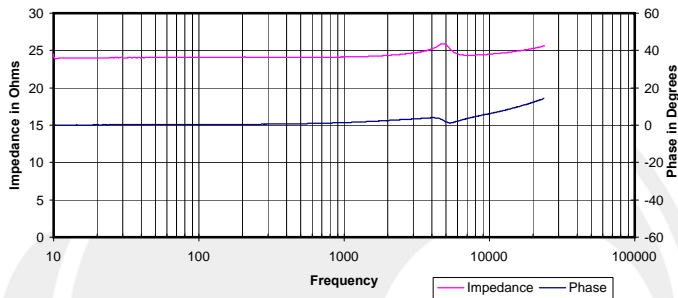
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



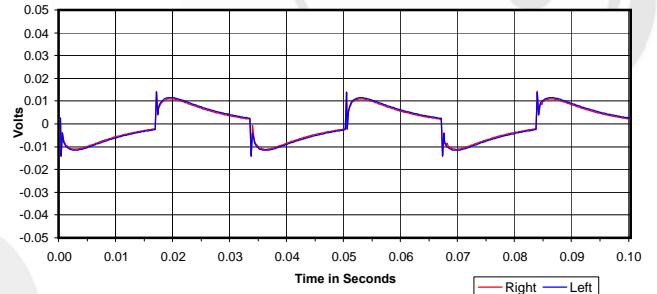
Isolation
Attenuation of External Sound vs. Frequency



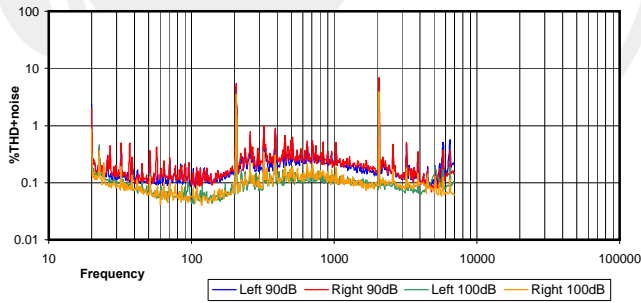
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



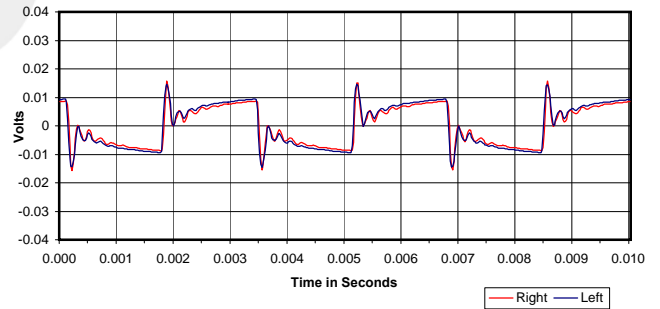
30 Hz Square Wave



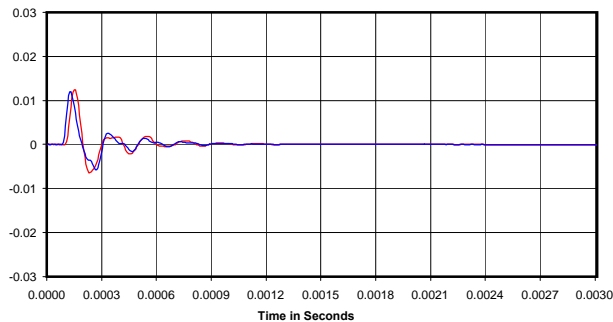
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

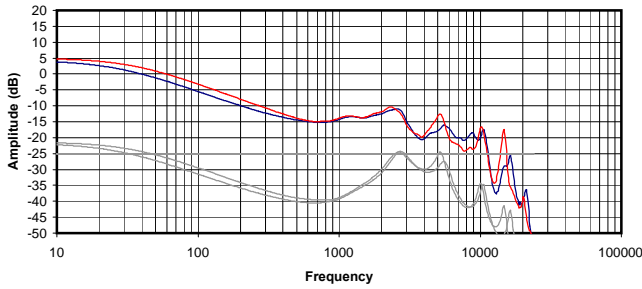


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

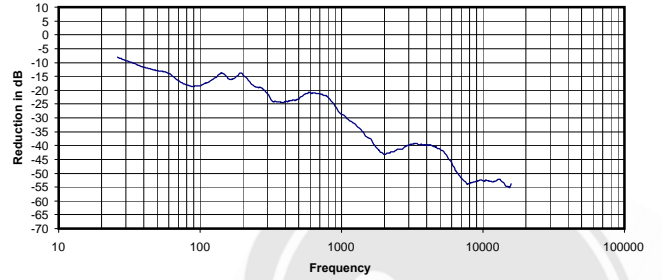
0.044 Vrms
24 Ohms
0.08 mW
-19 dB



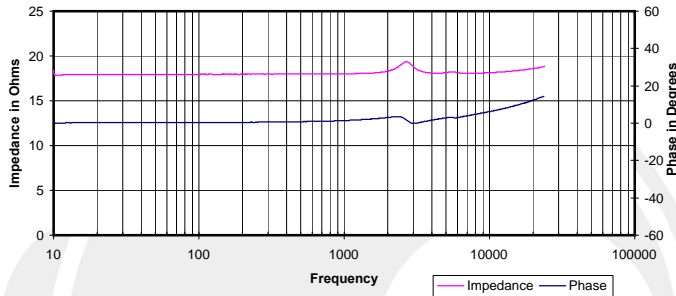
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



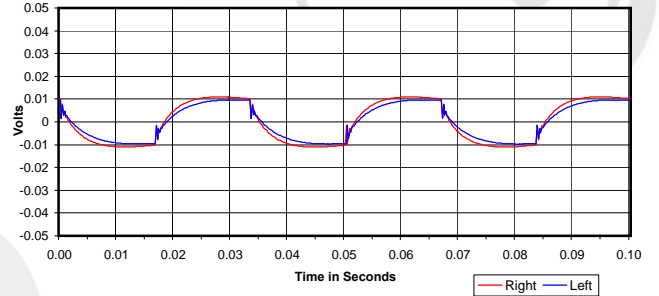
Isolation
Attenuation of External Sound vs. Frequency



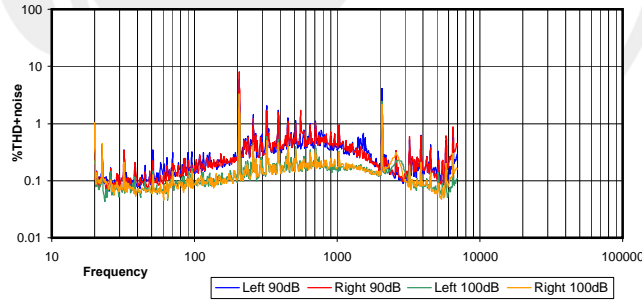
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



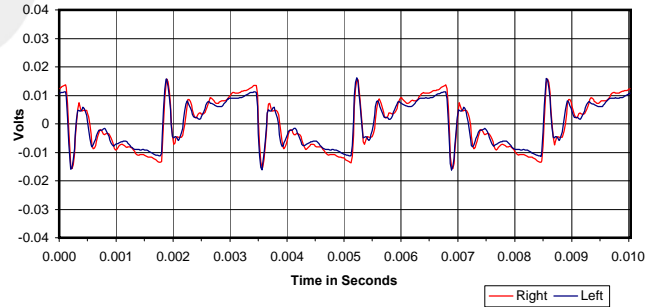
30 Hz Square Wave



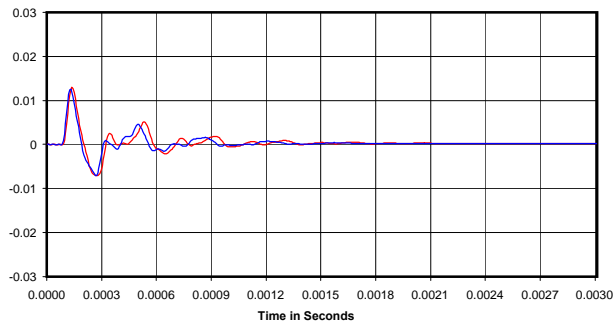
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



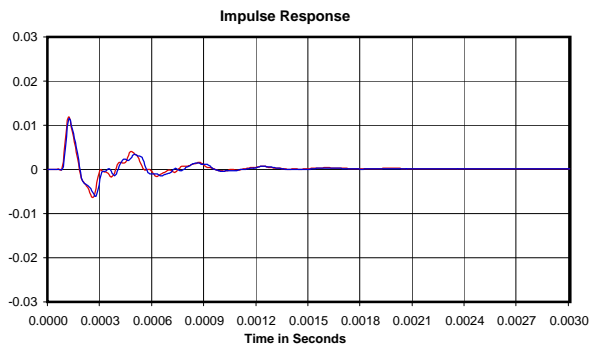
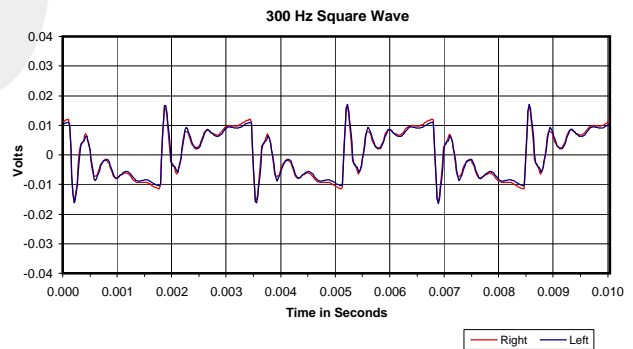
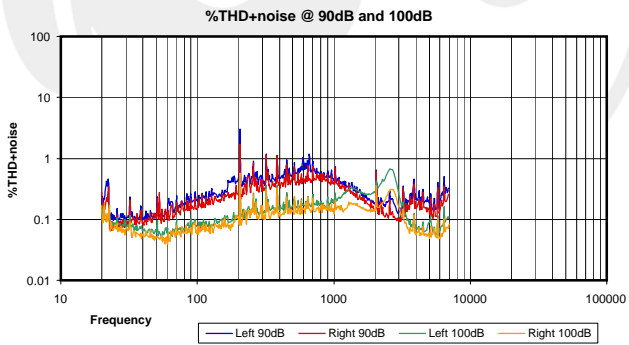
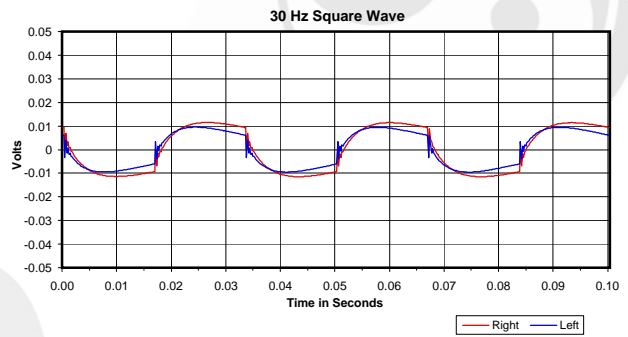
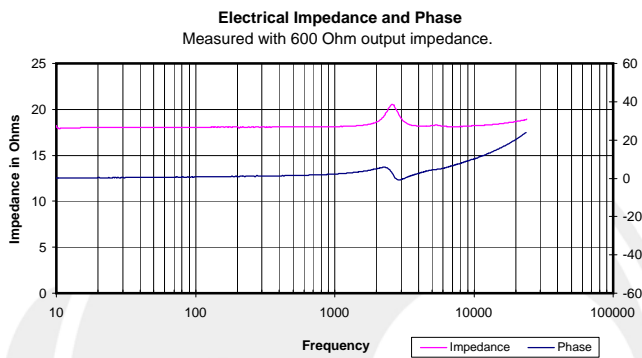
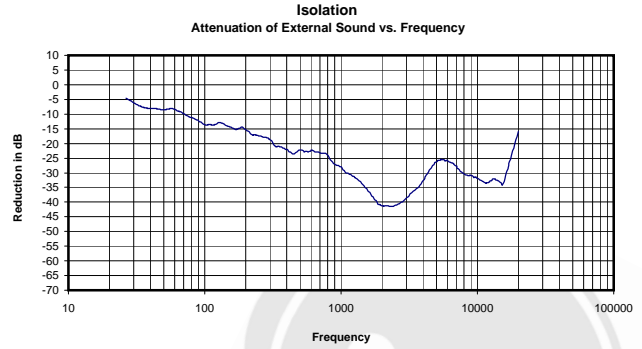
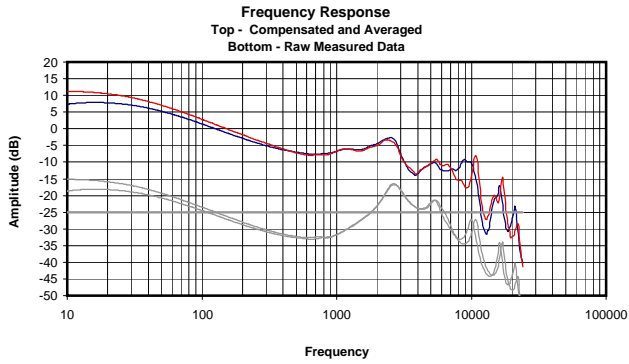
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.038 Vrms
18 Ohms
0.08 mW
-28 dB



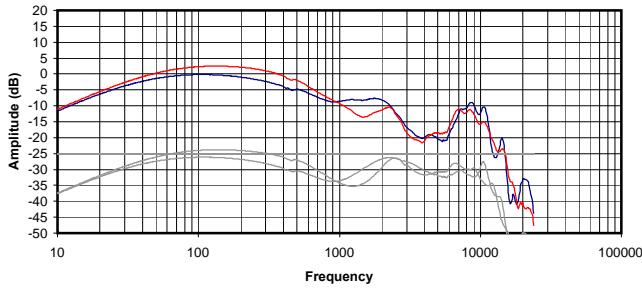


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

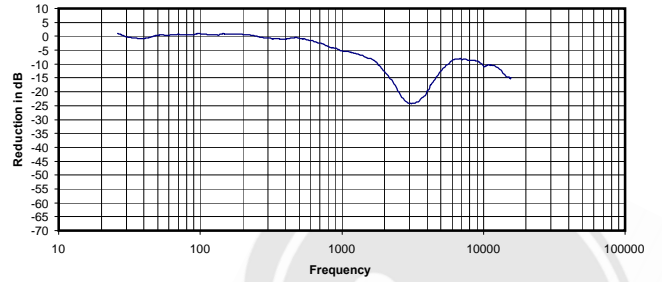
0.043 Vrms
18 Ohms
0.10 mW
-26 dB



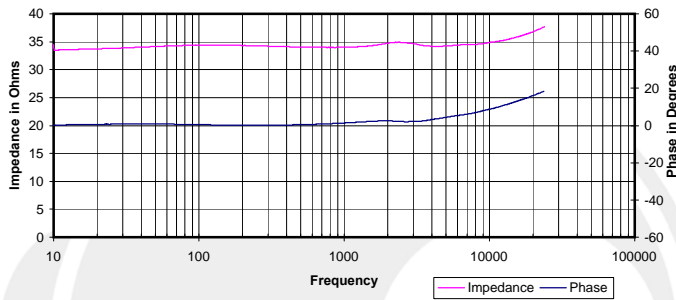
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



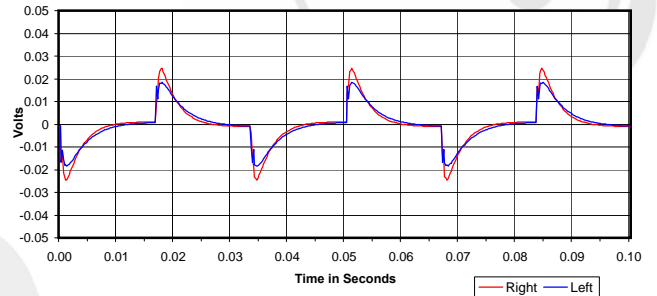
Isolation
Attenuation of External Sound vs. Frequency



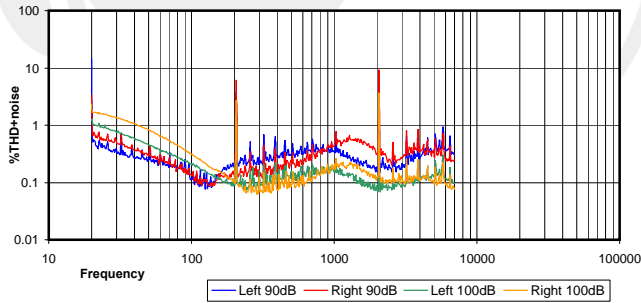
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



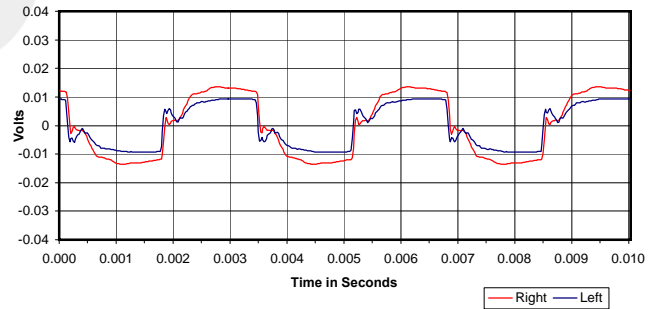
30 Hz Square Wave



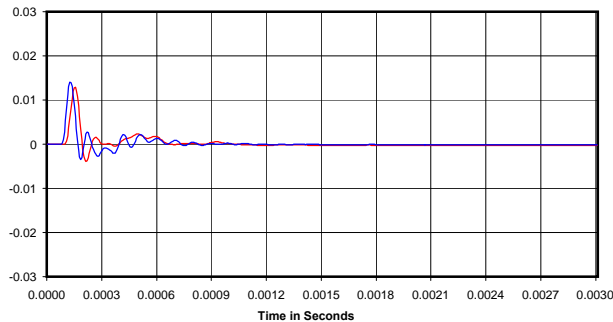
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

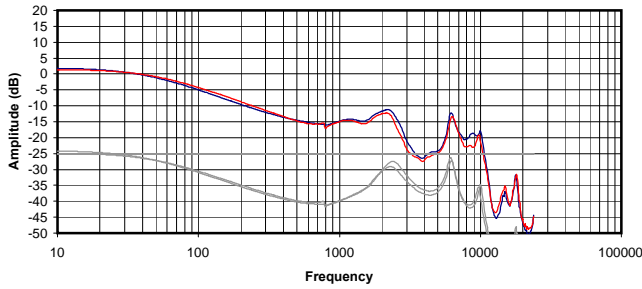


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

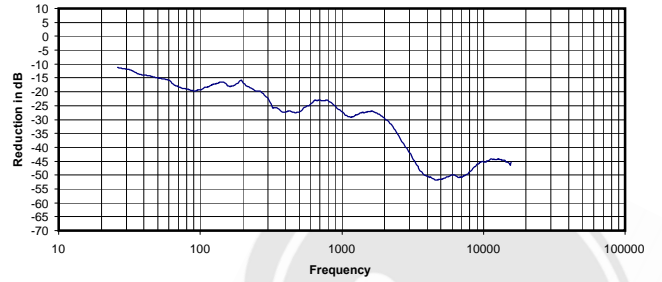
0.047 Vrms
34 Ohms
0.07 mW
-6 dB



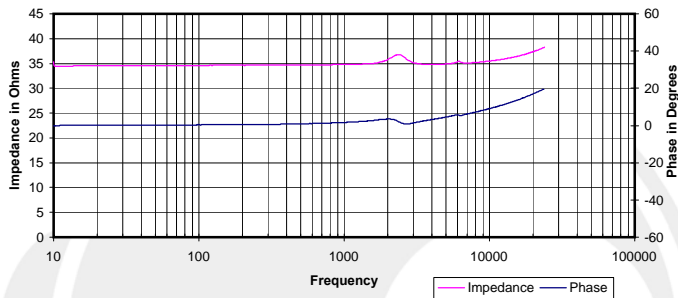
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



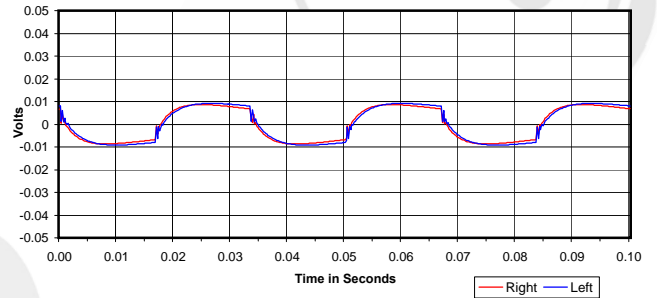
Isolation
Attenuation of External Sound vs. Frequency



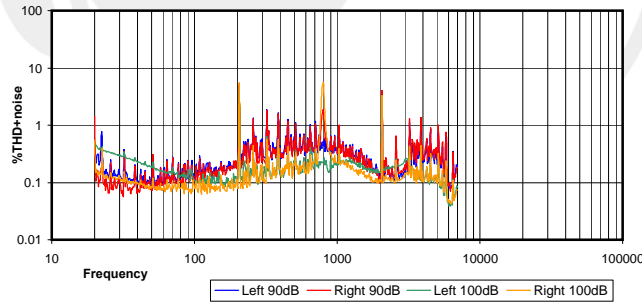
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



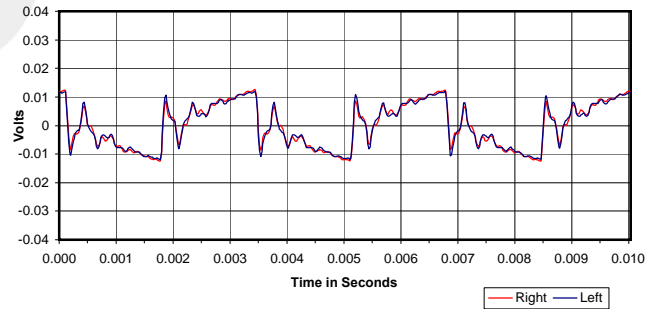
30 Hz Square Wave



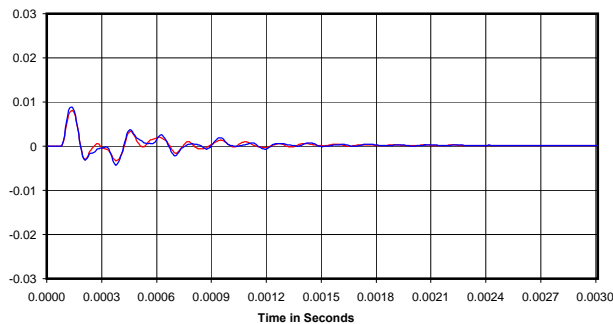
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

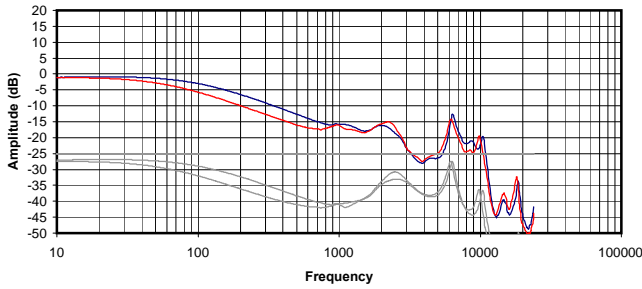


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

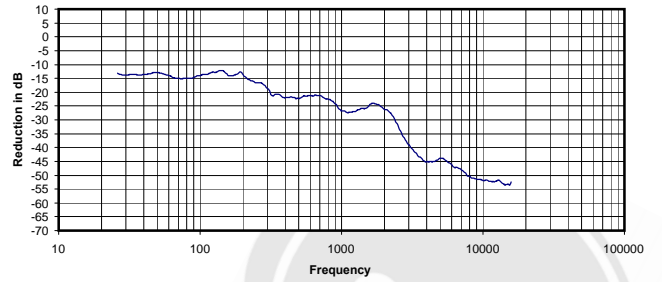
0.057 Vrms
35 Ohms
0.09 mW
-29 dB



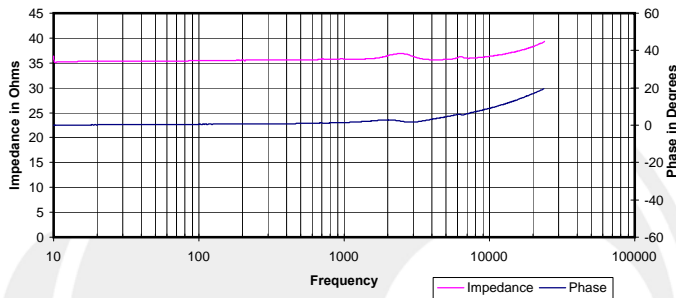
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



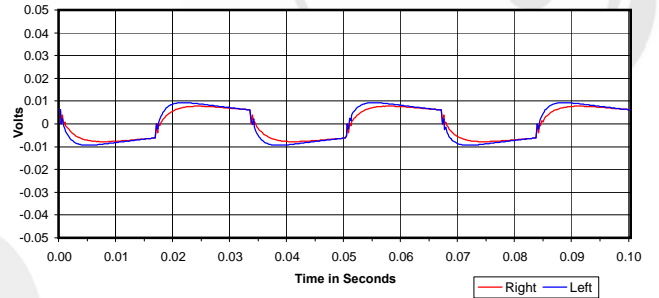
Isolation
Attenuation of External Sound vs. Frequency



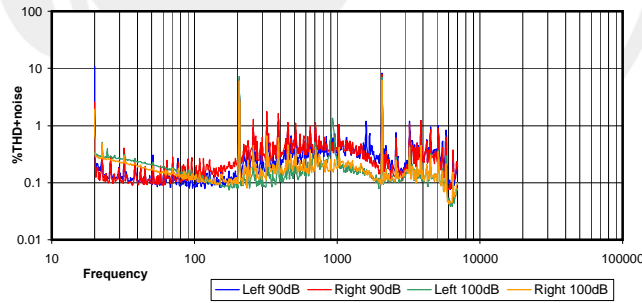
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



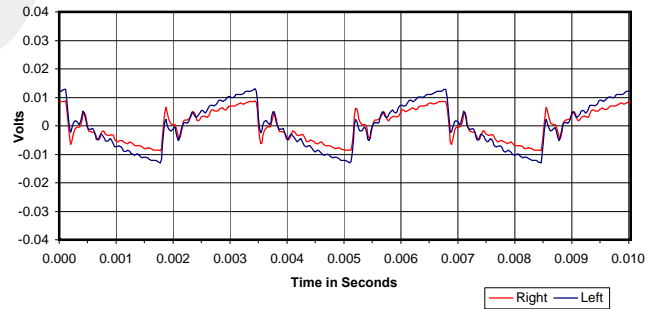
30 Hz Square Wave



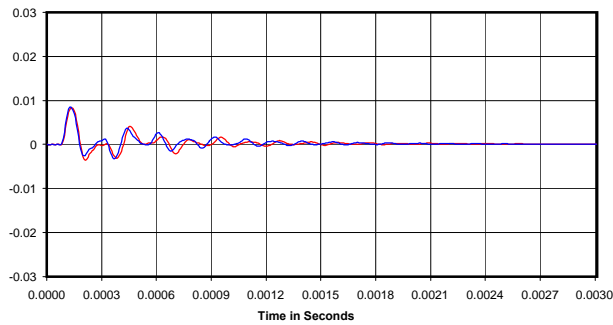
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

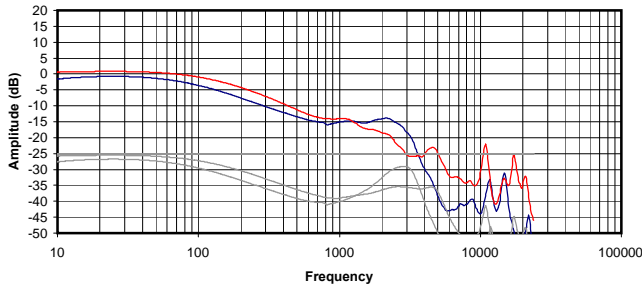


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

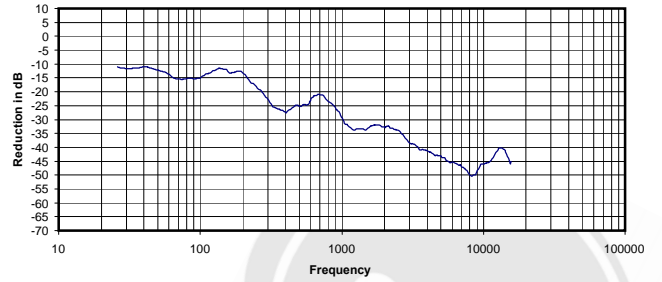
0.050 Vrms
36 Ohms
0.07 mW
-25 dB



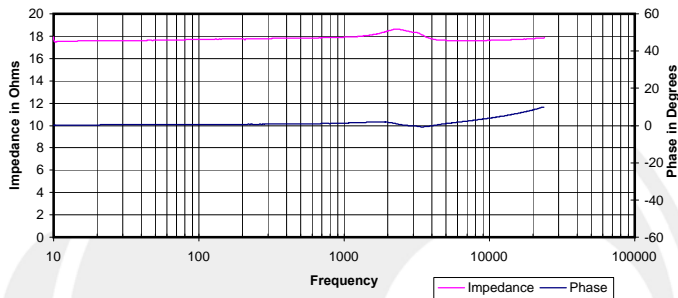
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



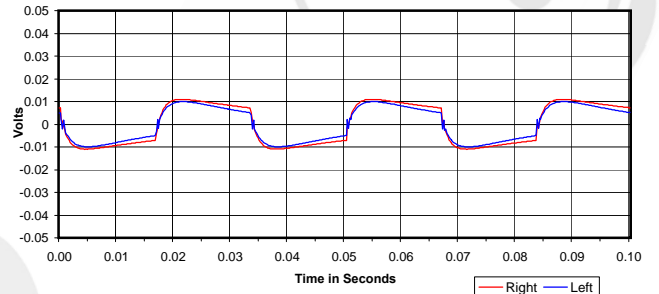
Isolation
Attenuation of External Sound vs. Frequency



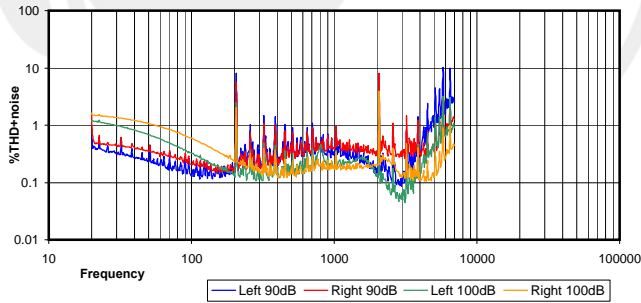
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



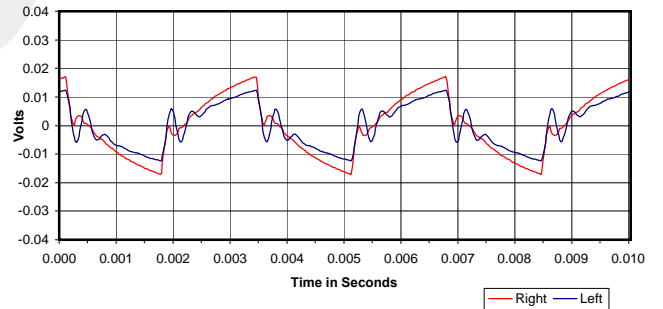
30 Hz Square Wave



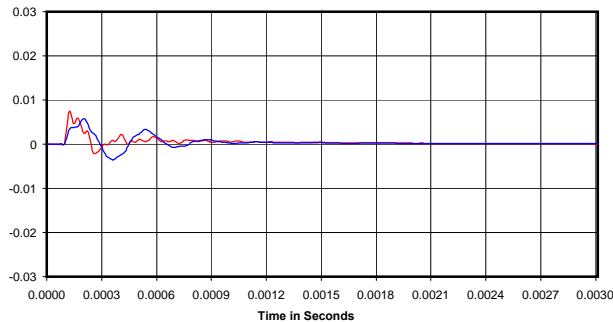
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

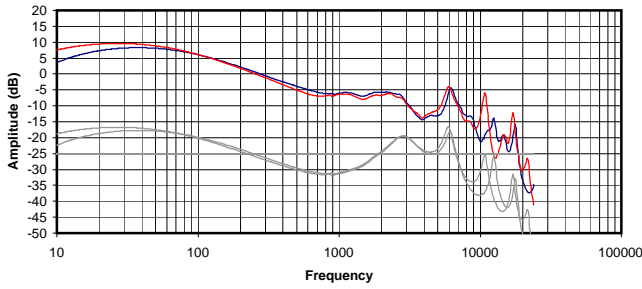


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

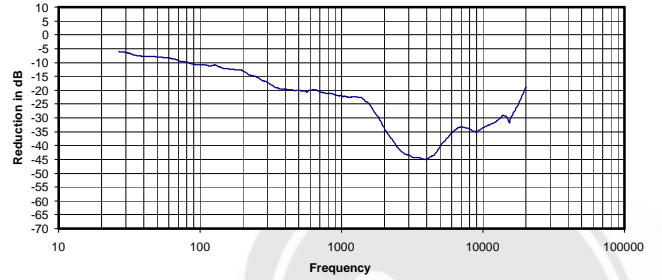
0.032 Vrms
18 Ohms
0.06 mW
-27 dB



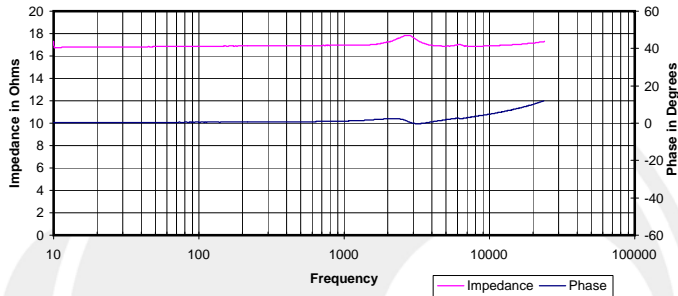
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



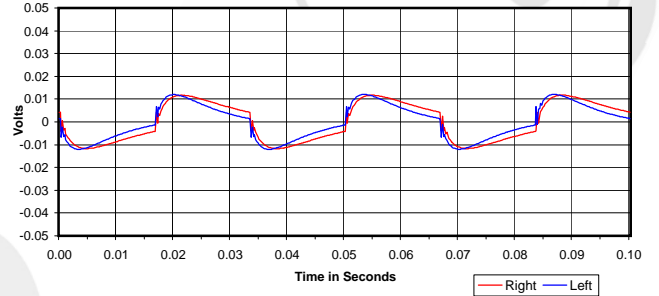
Isolation
Attenuation of External Sound vs. Frequency



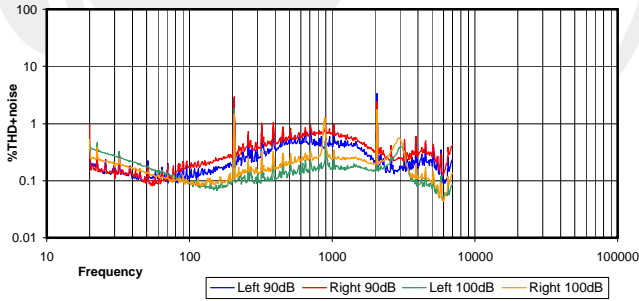
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



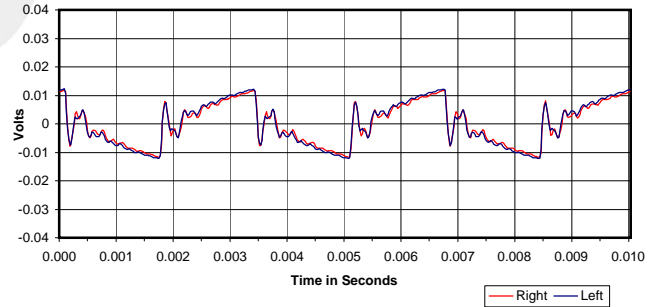
30 Hz Square Wave



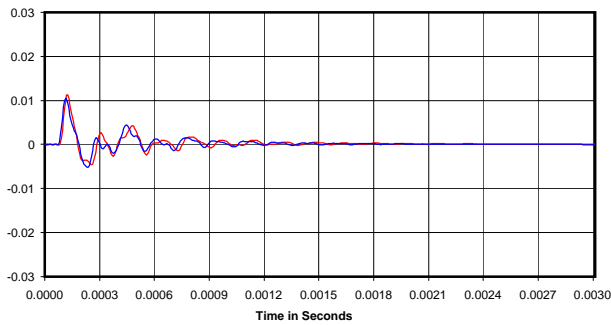
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



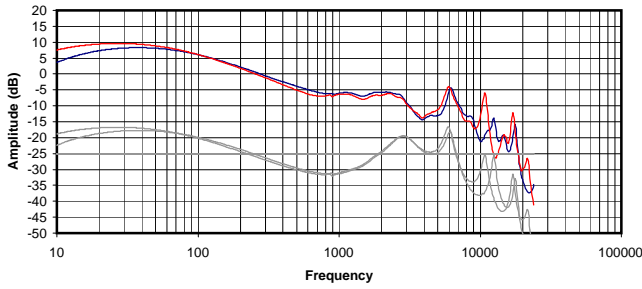
Impulse Response



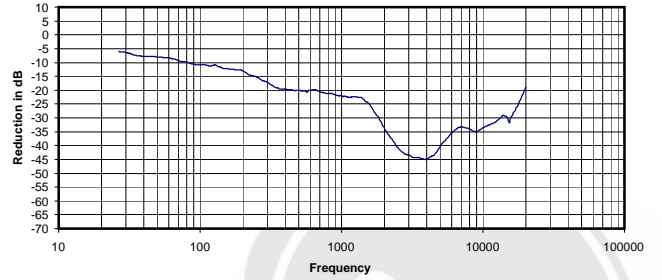
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
17 Ohms
0.08 mW
-26 dB

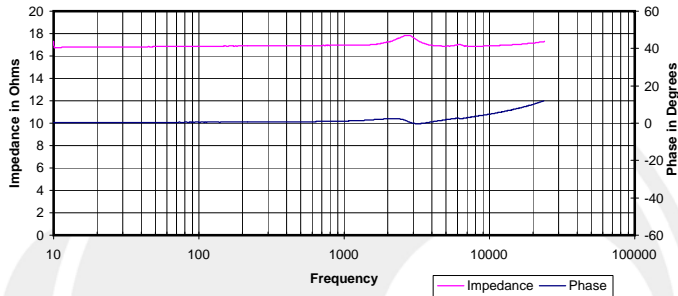
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



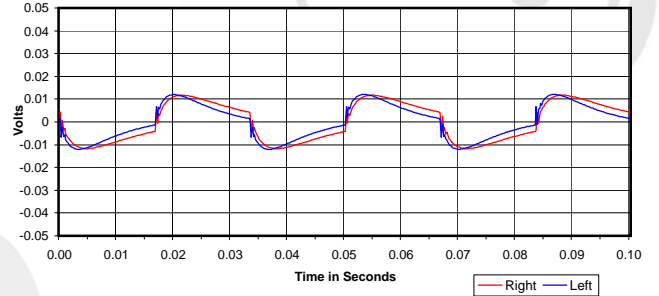
Isolation
Attenuation of External Sound vs. Frequency



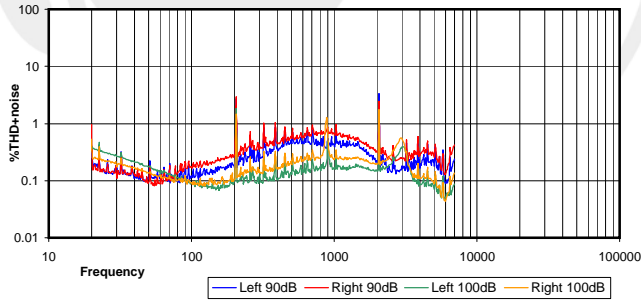
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



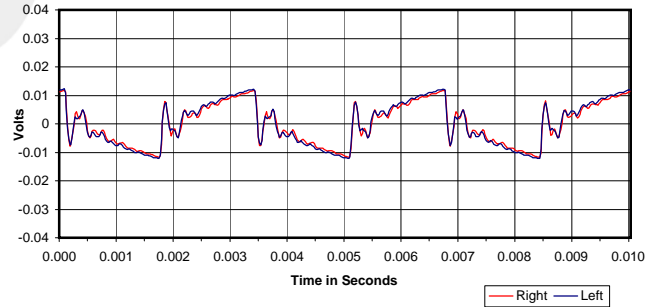
30 Hz Square Wave



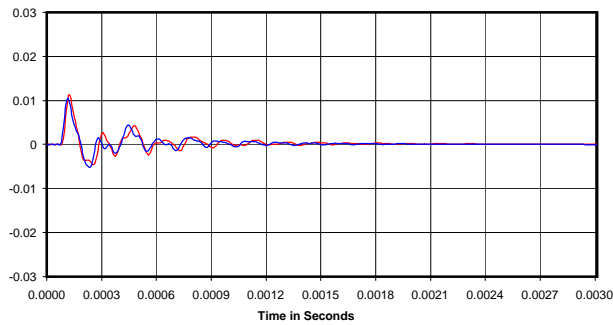
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



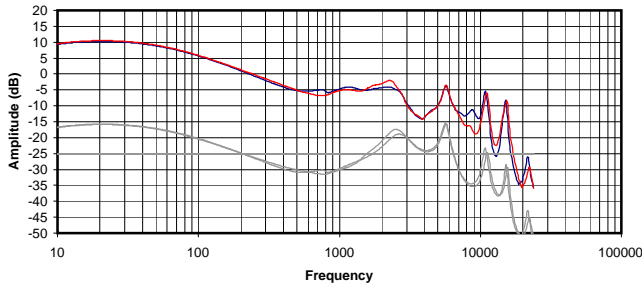
Impulse Response



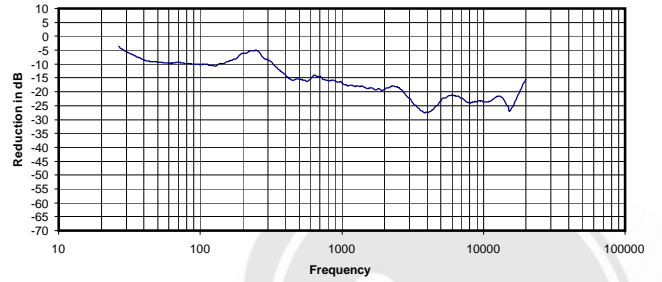
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
17 Ohms
0.08 mW
-26 dB

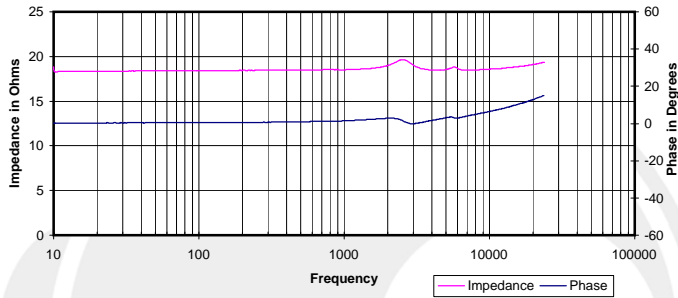
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



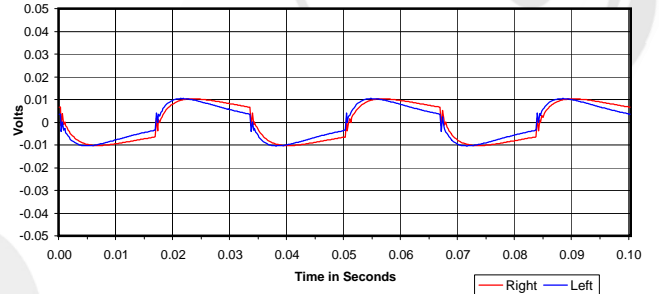
Isolation
Attenuation of External Sound vs. Frequency



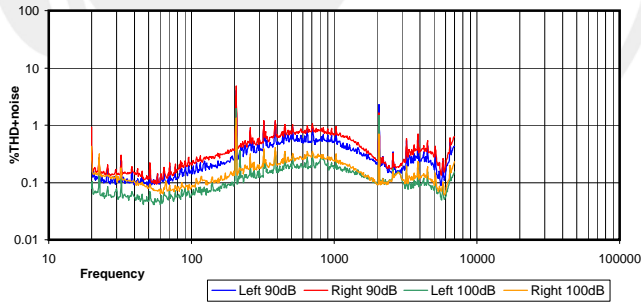
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



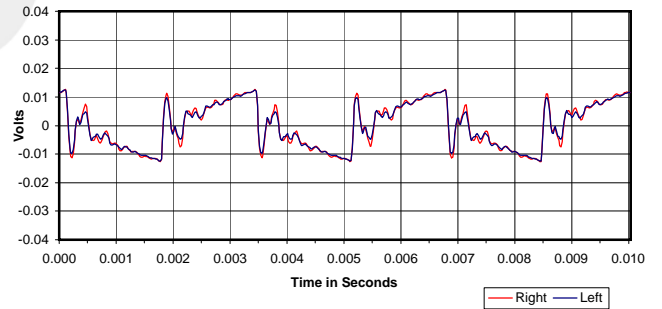
30 Hz Square Wave



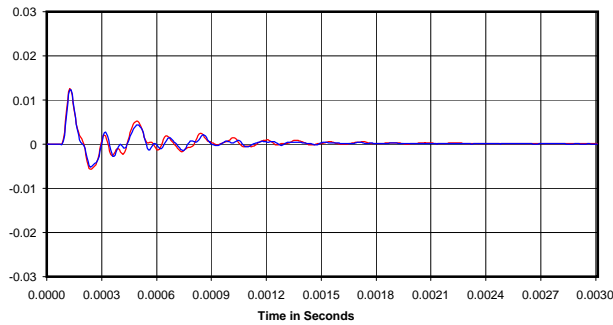
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



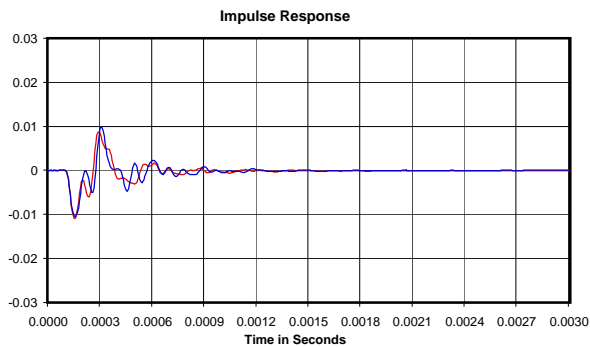
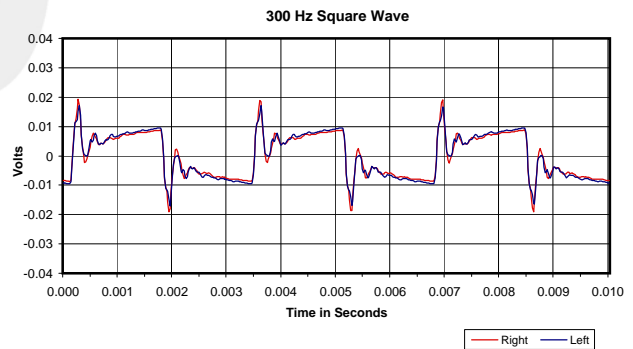
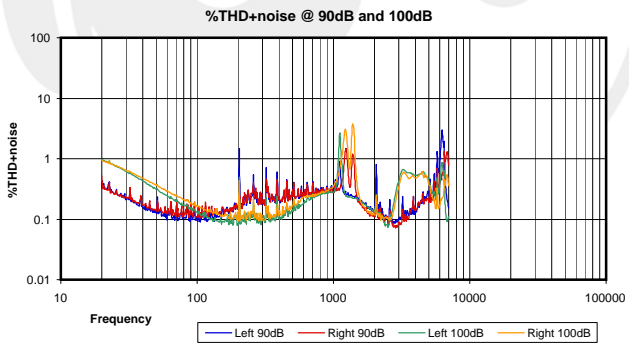
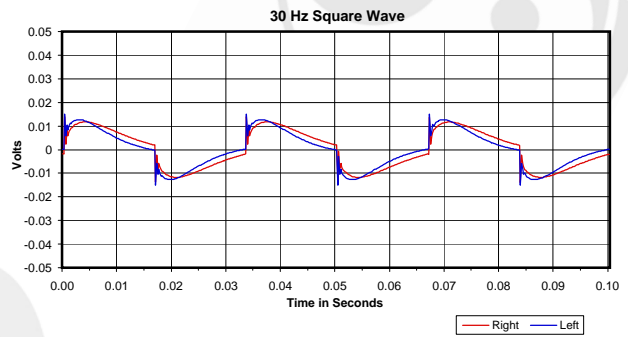
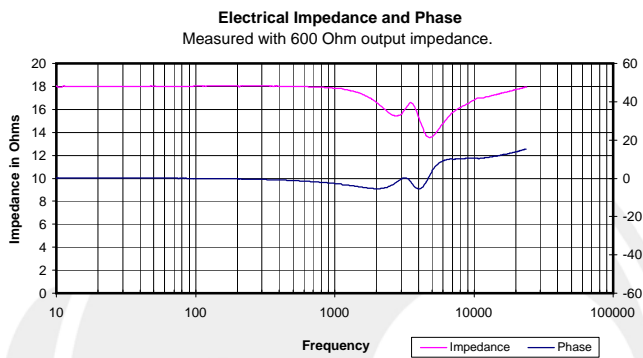
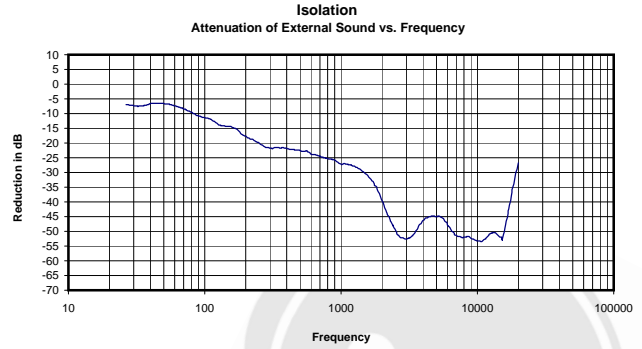
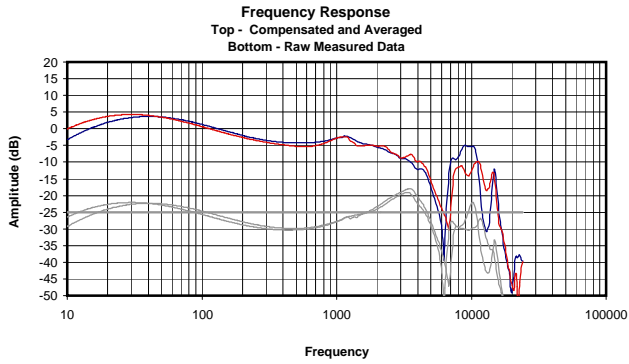
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
19 Ohms
0.04 mW
-17 dB



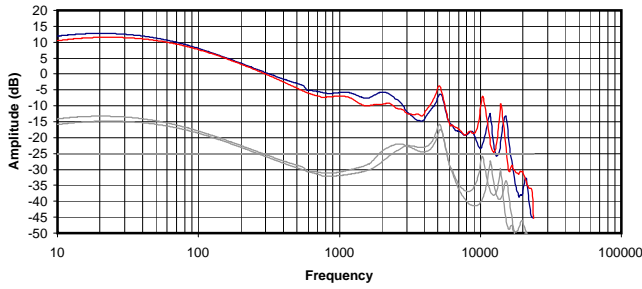


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

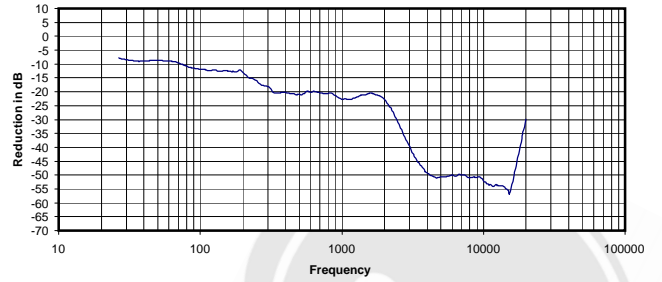
0.045 Vrms
18 Ohms
0.12 mW
-32 dBr



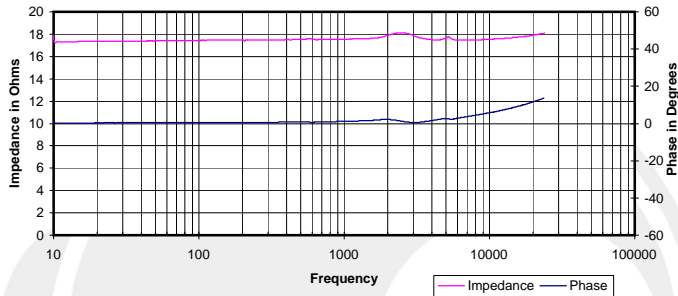
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



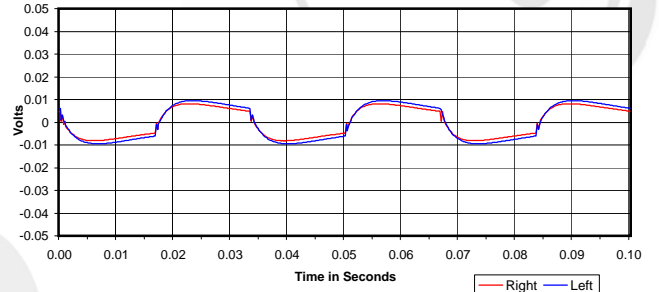
Isolation
Attenuation of External Sound vs. Frequency



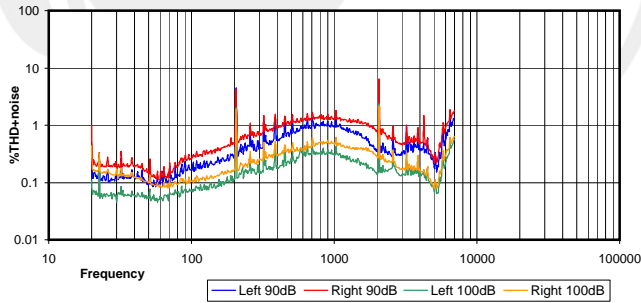
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



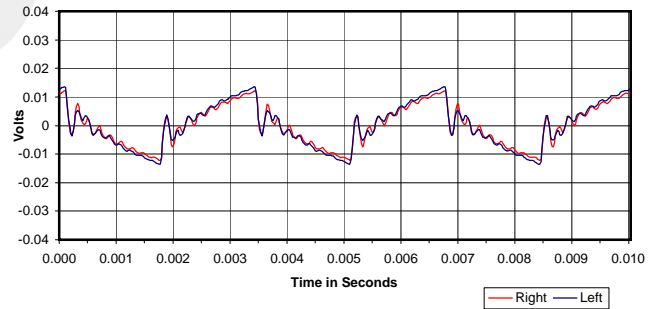
30 Hz Square Wave



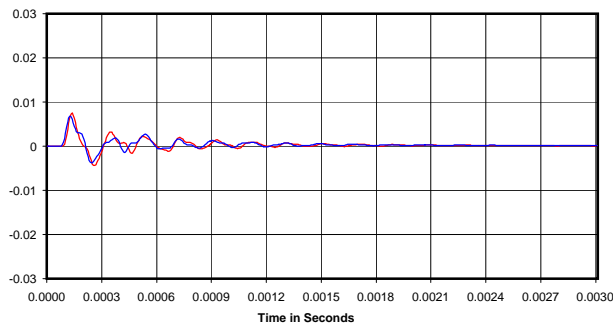
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

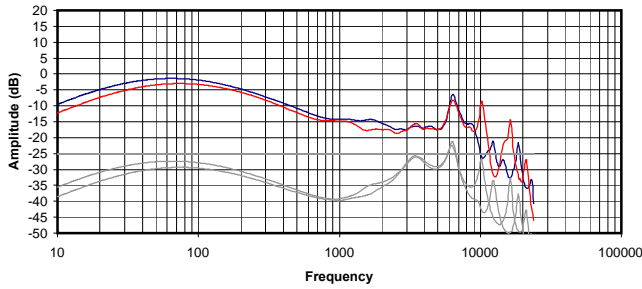


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

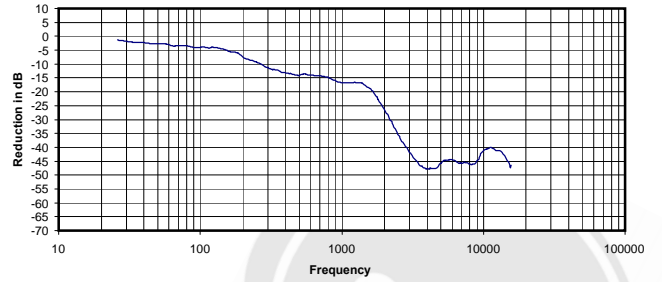
0.029 Vrms
18 Ohms
0.05 mW
-28 dB



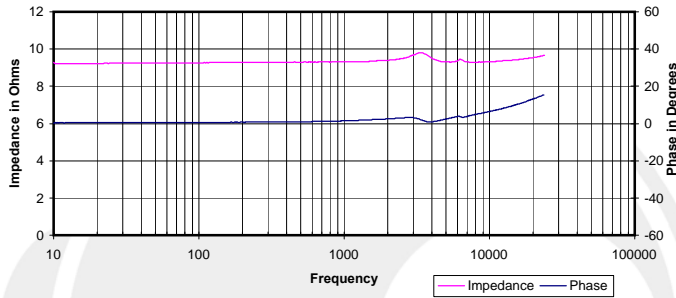
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



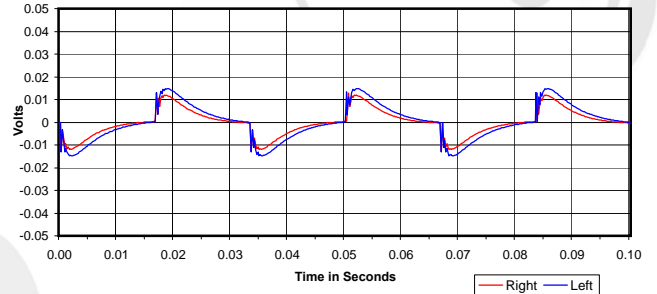
Isolation
Attenuation of External Sound vs. Frequency



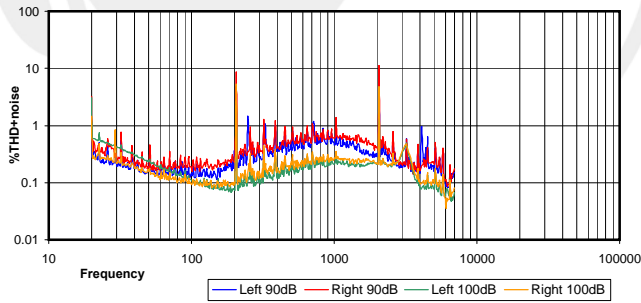
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



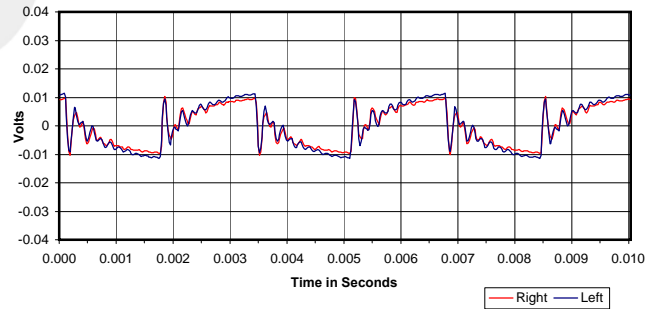
30 Hz Square Wave



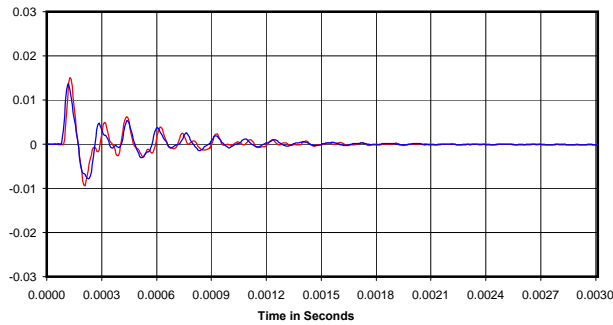
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

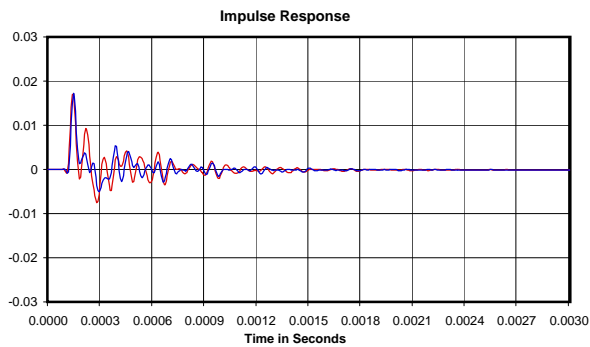
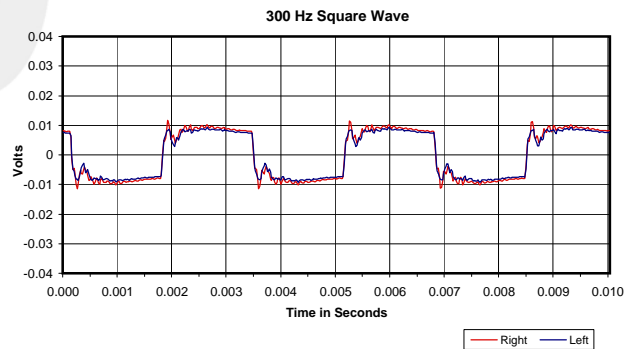
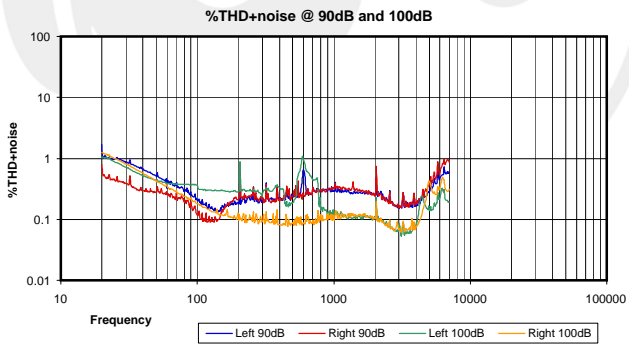
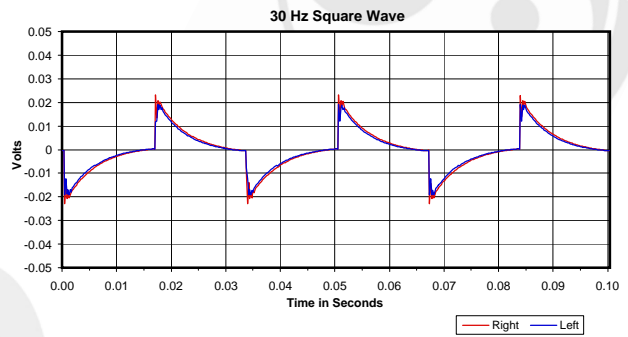
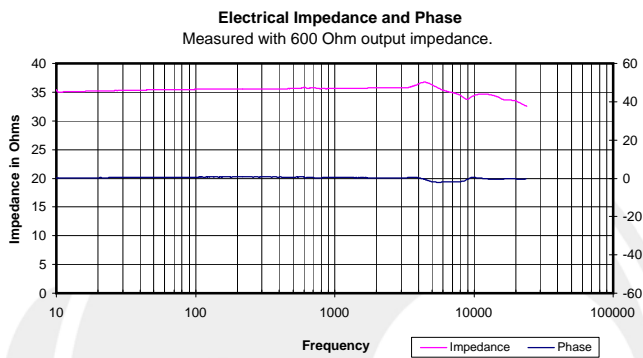
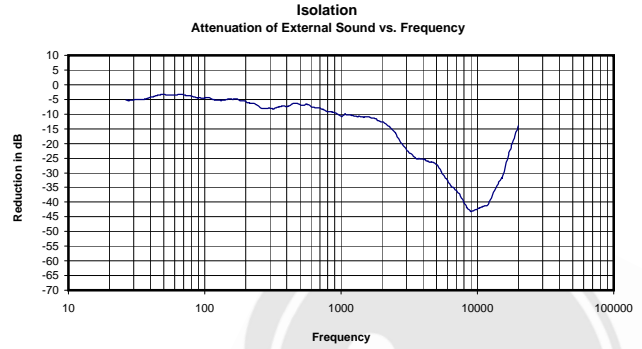
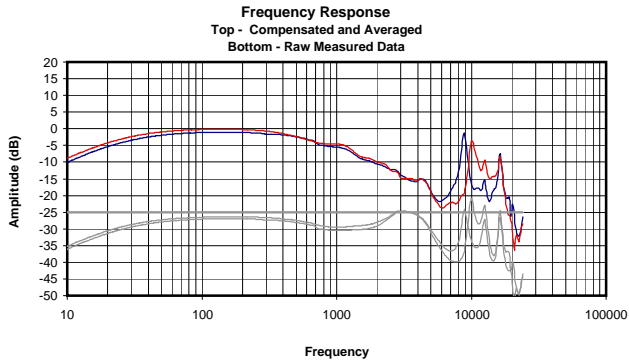


Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

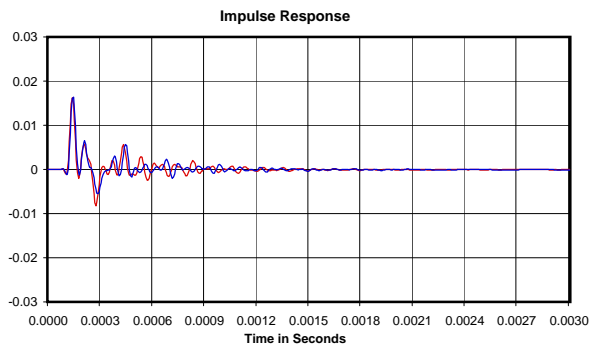
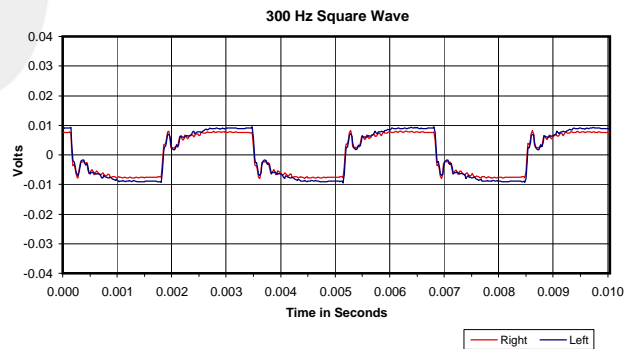
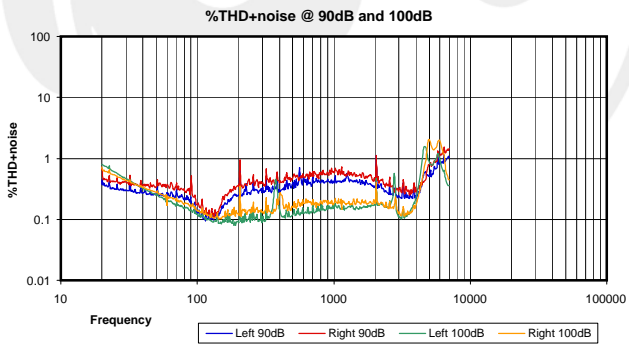
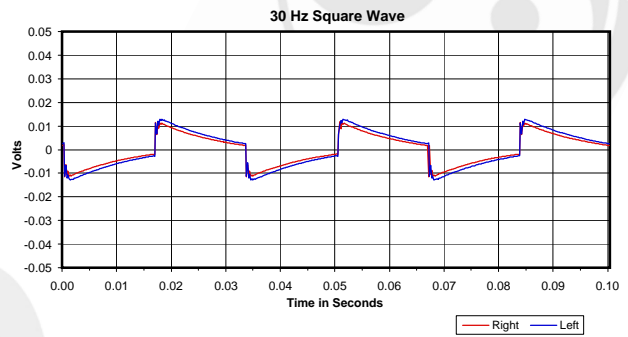
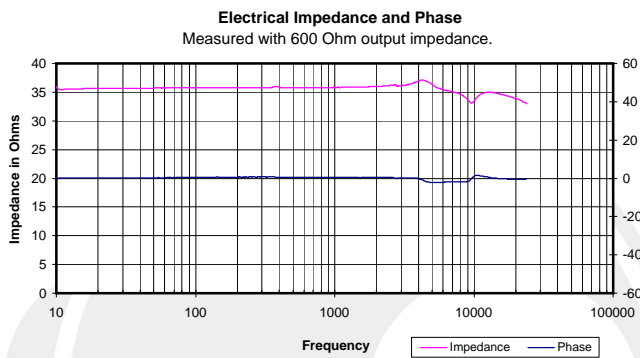
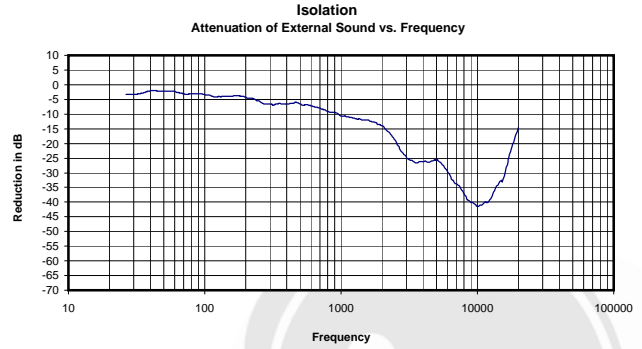
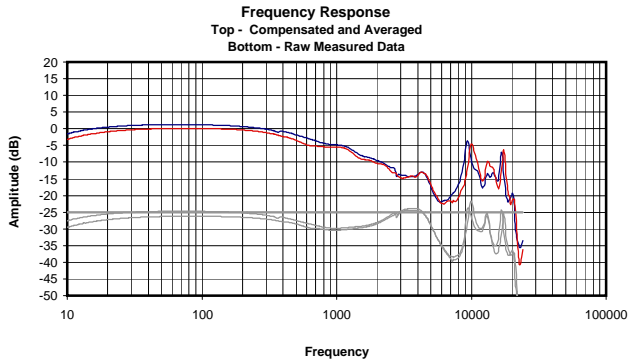
0.032 Vrms
9 Ohms
0.11 mW
-20 dB



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

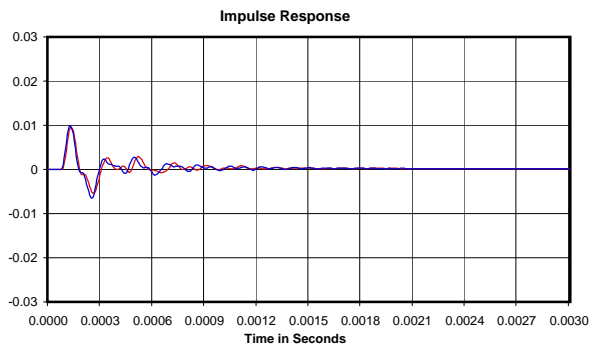
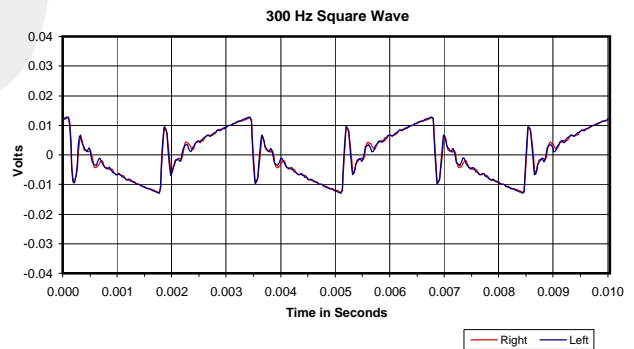
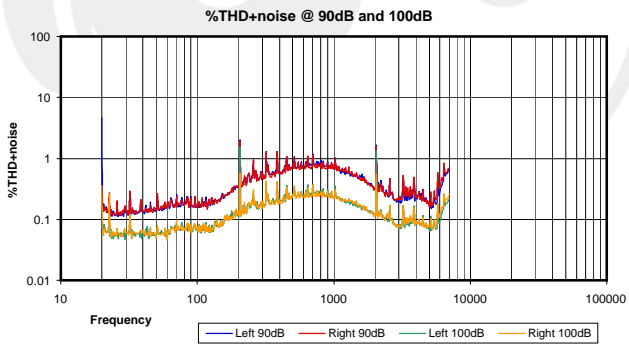
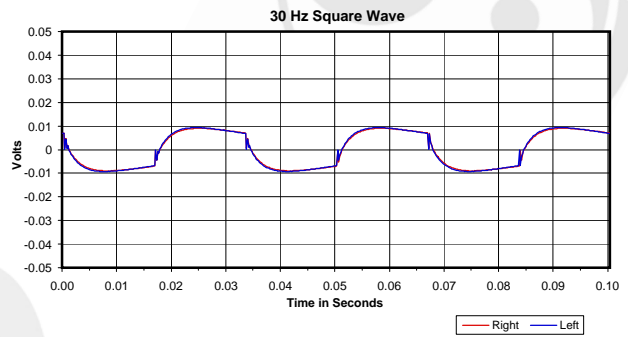
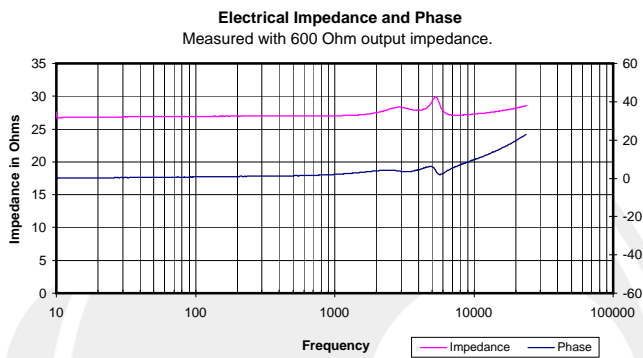
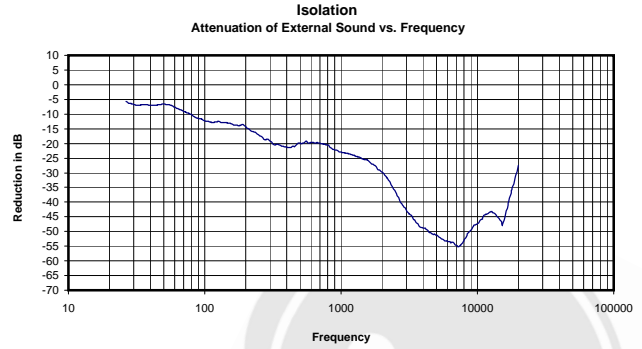
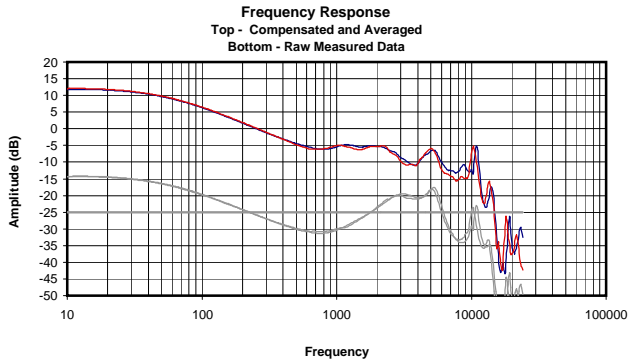
0.072 Vrms
36 Ohms
0.14 mW
-15 dBr





Volts RMS required to reach 90dB SPL: 0.038 Vrms
 Impedance @ 1kHz: 36 Ohms
 Power Needed for 90d BSPL: 0.04 mW
 Broadband Isolation in dB (100Hz to 10kHz): -14 dBr

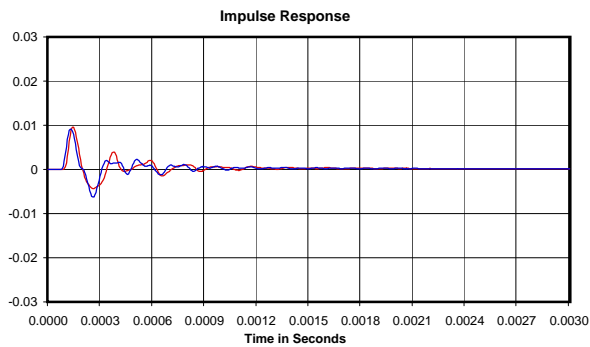
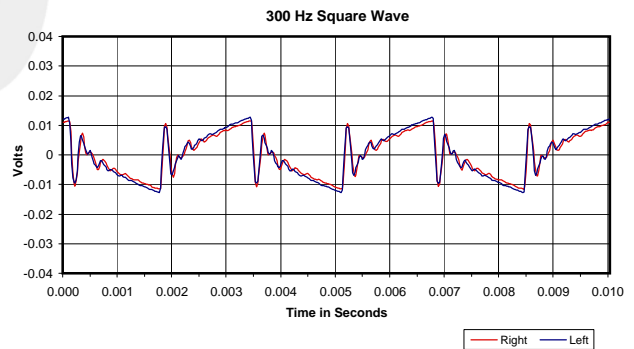
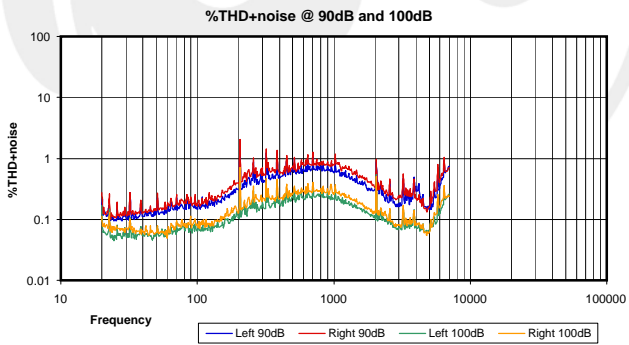
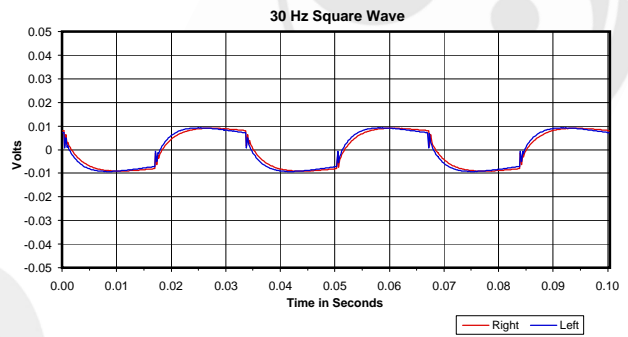
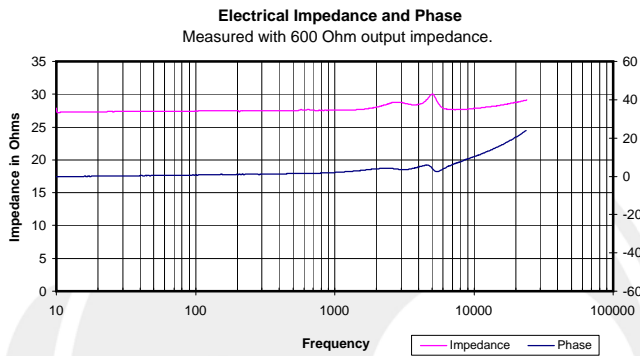
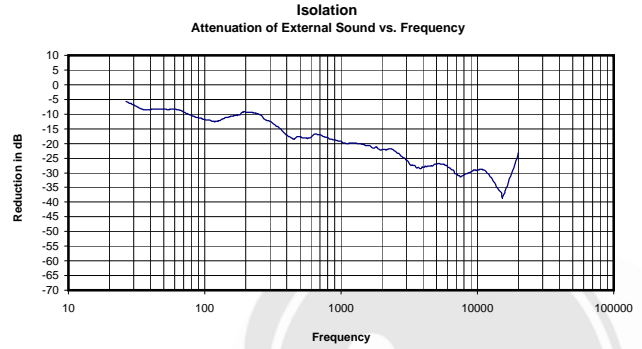
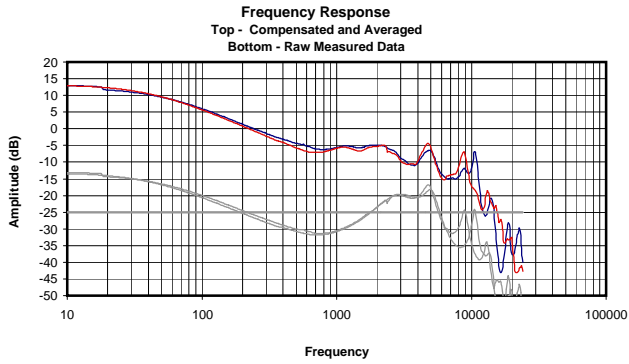




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
27 Ohms
0.03 mW
-29 dB

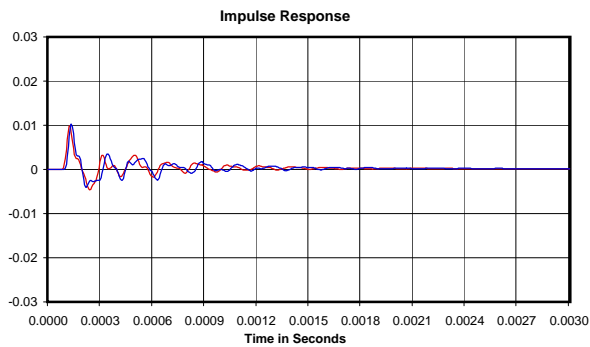
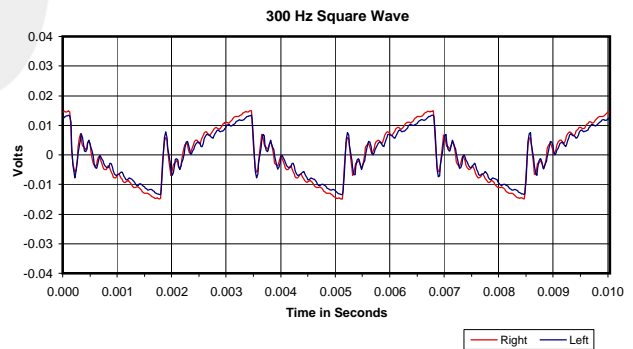
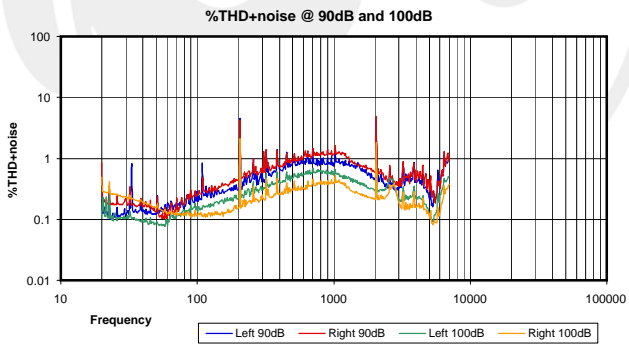
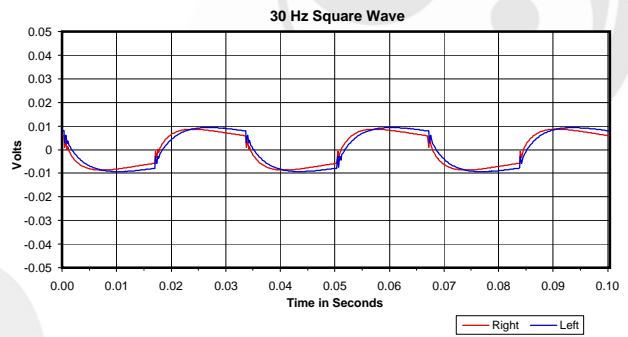
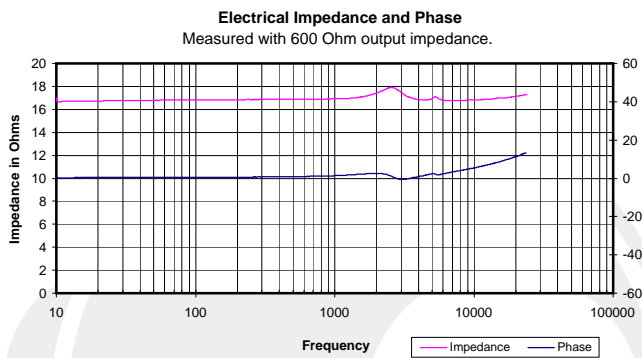
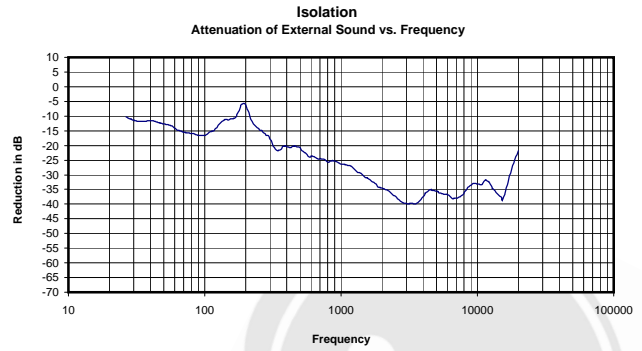
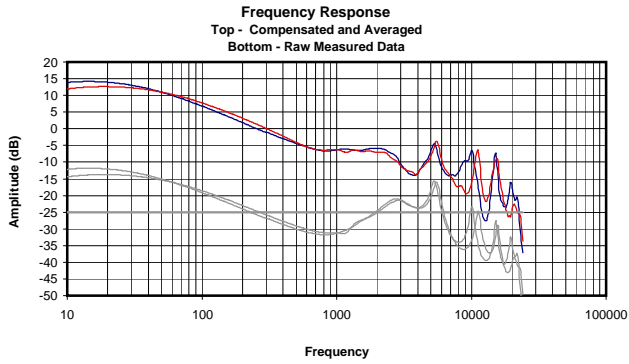




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
28 Ohms
0.03 mW
-20 dBr



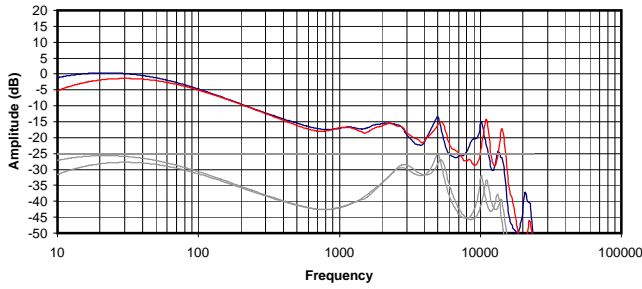


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

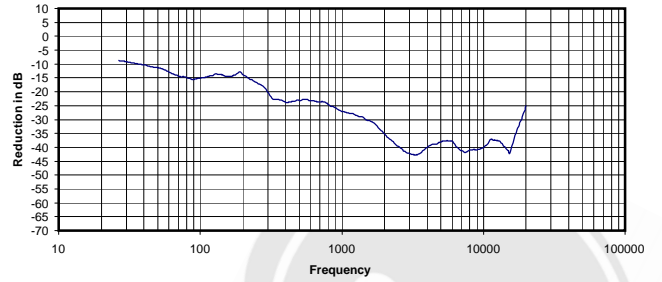
0.037 Vrms
17 Ohms
0.08 mW
-26 dBr



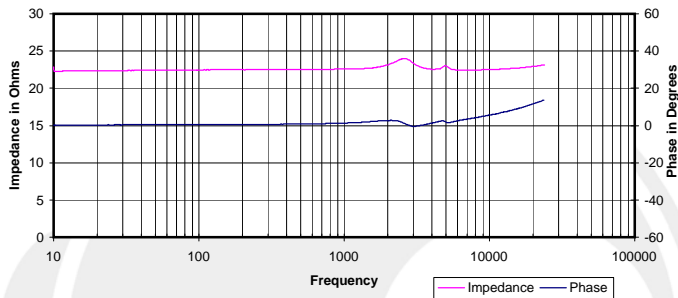
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



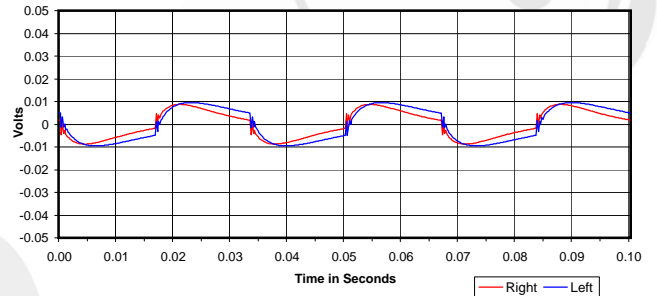
Isolation
Attenuation of External Sound vs. Frequency



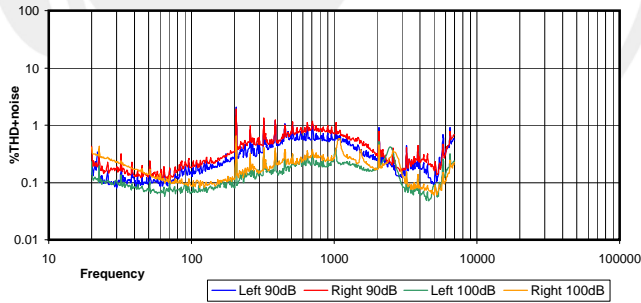
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



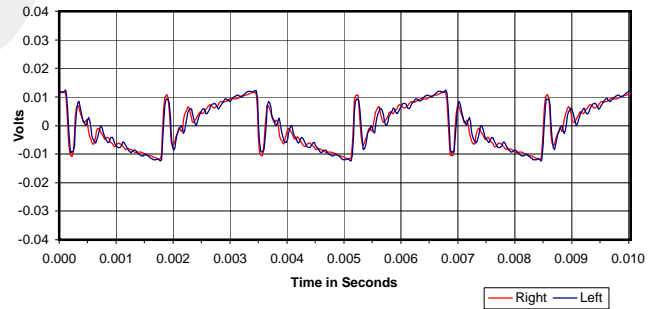
30 Hz Square Wave



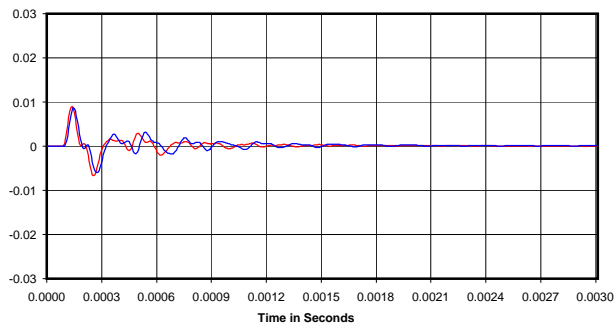
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



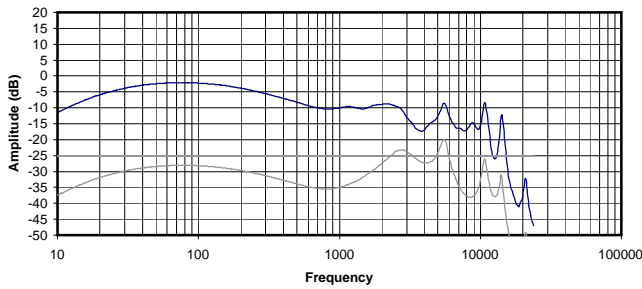
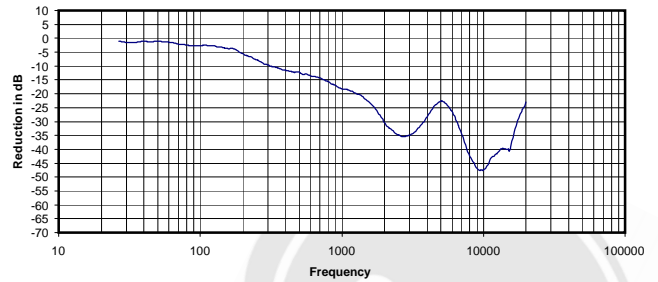
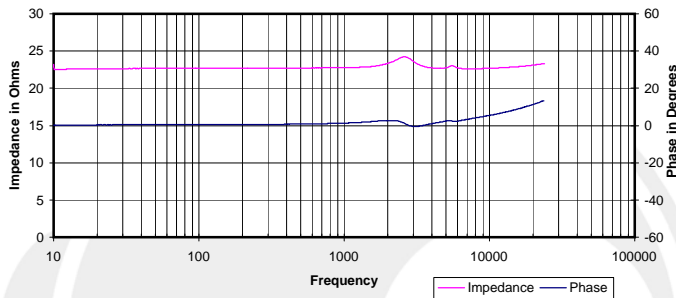
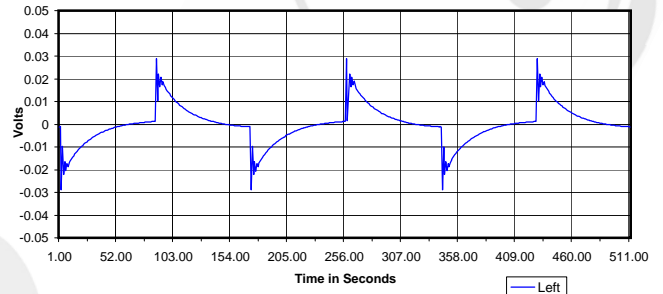
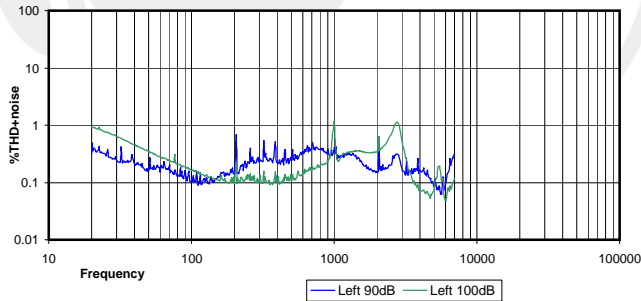
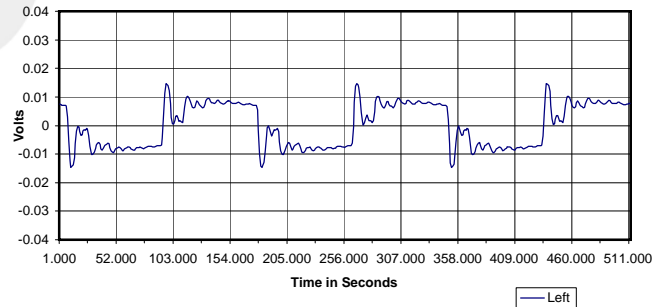
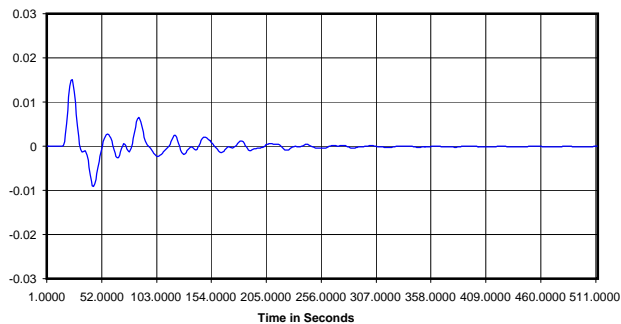
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
23 Ohms
0.08 mW
-28 dB



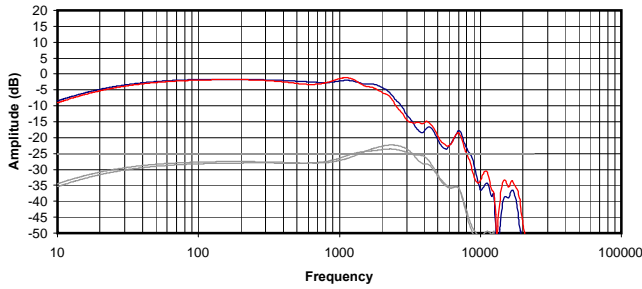
Headphone Measurements:

Rock Jaw Alpha Genus Black Filter (Left Channel Only, black filter in right ear faulty)

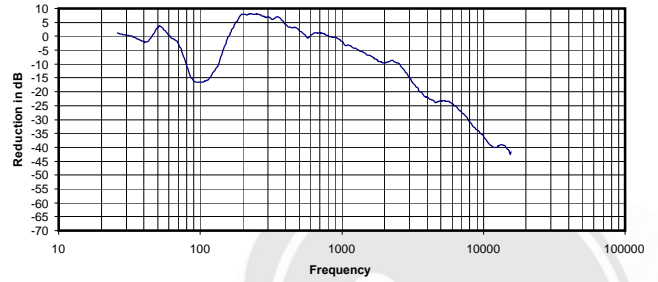
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Measured Data

Isolation
 Attenuation of External Sound vs. Frequency

Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.

30 Hz Square Wave

%THD+noise @ 90dB and 100dB

300 Hz Square Wave

Impulse Response

 Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

 0.042 Vrms
 23 Ohms
 0.08 mW
 -20 dB

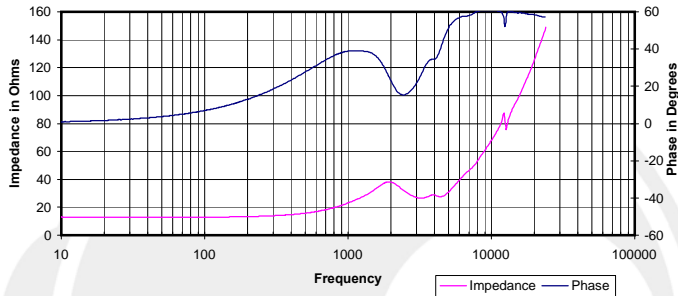
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



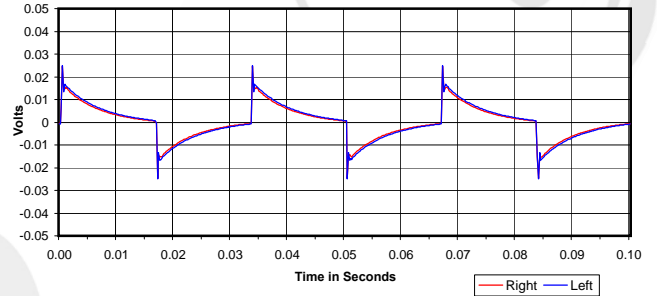
Isolation
Attenuation of External Sound vs. Frequency



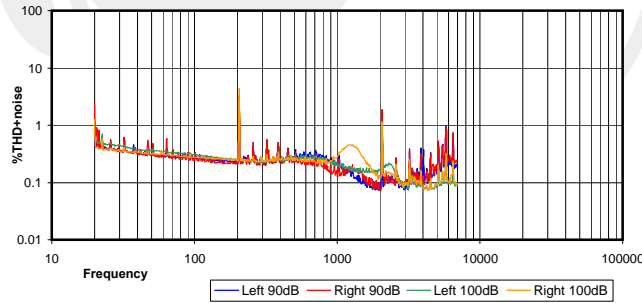
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



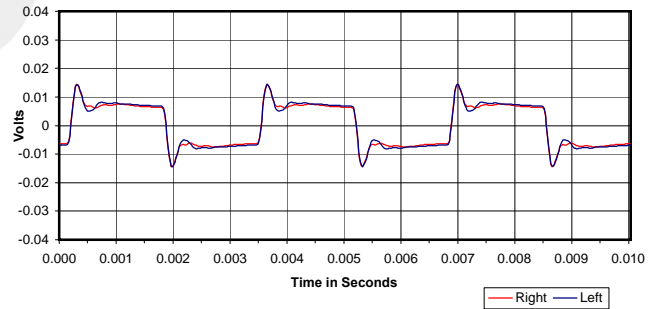
30 Hz Square Wave



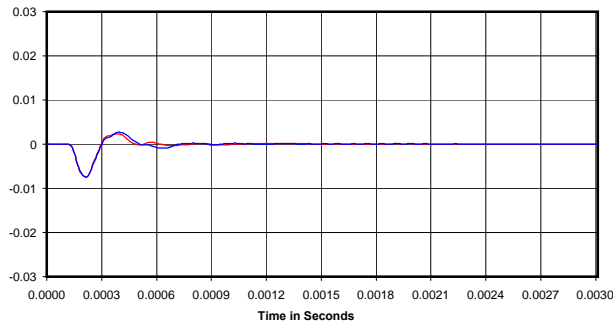
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

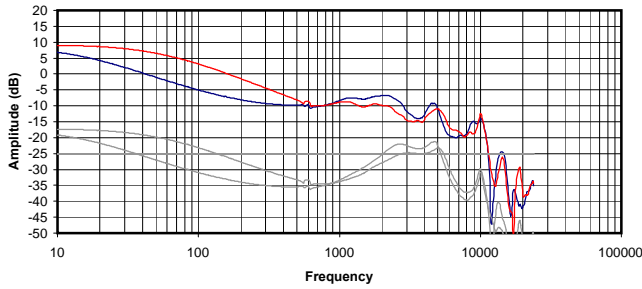


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

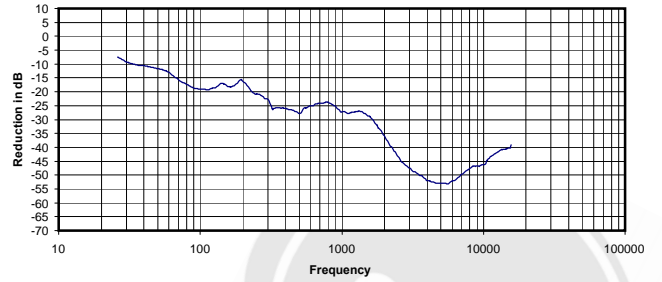
0.011 Vrms
23 Ohms
0.00 mW
-6 dB



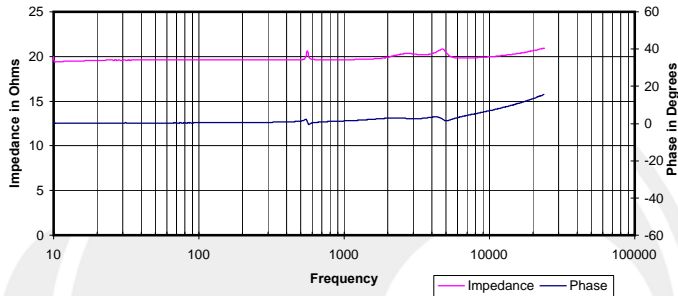
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



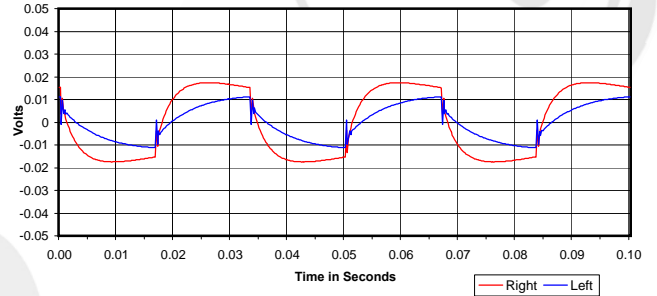
Isolation
Attenuation of External Sound vs. Frequency



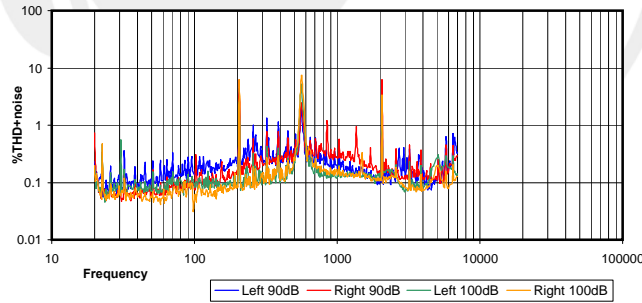
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



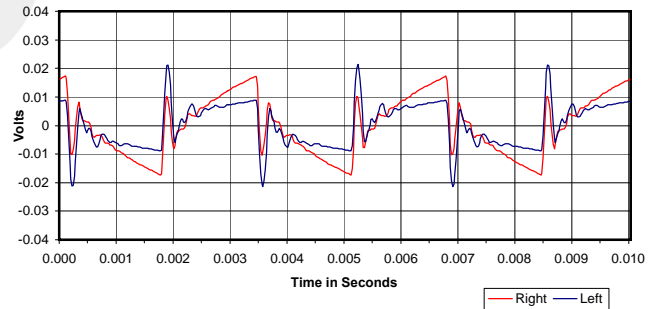
30 Hz Square Wave



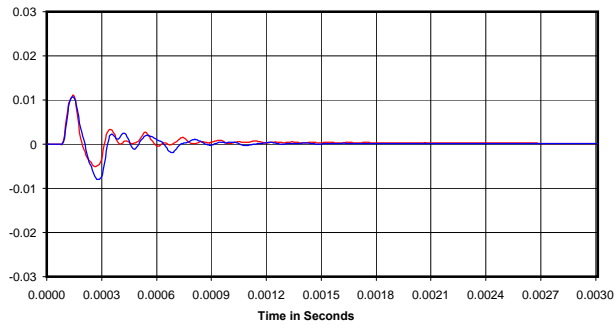
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

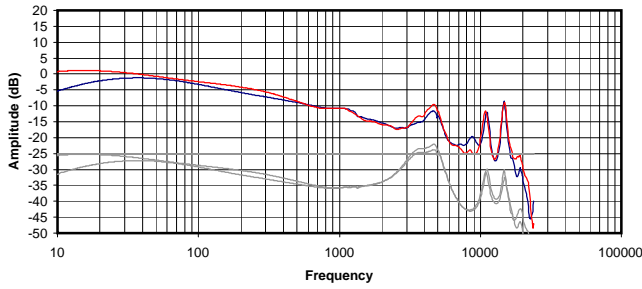


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

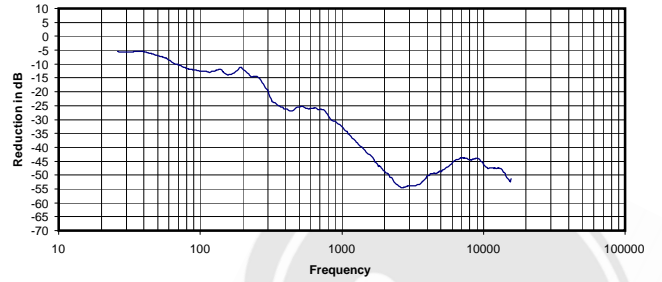
0.031 Vrms
20 Ohms
0.05 mW
-31 dB



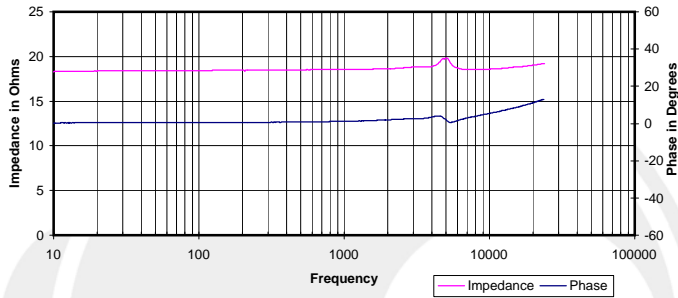
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



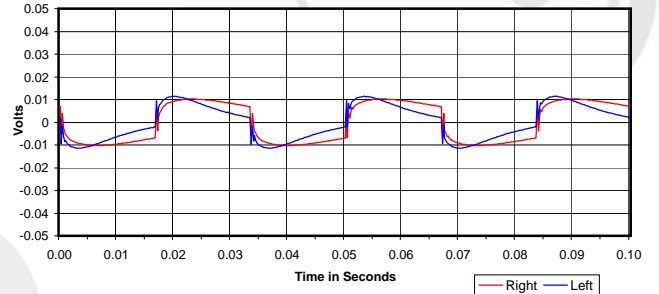
Isolation
Attenuation of External Sound vs. Frequency



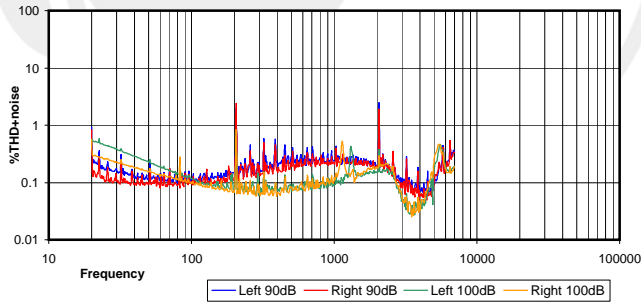
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



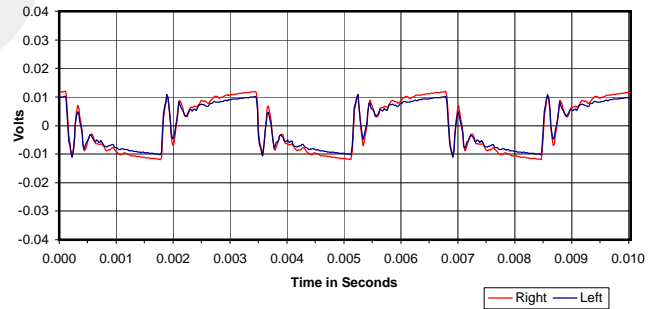
30 Hz Square Wave



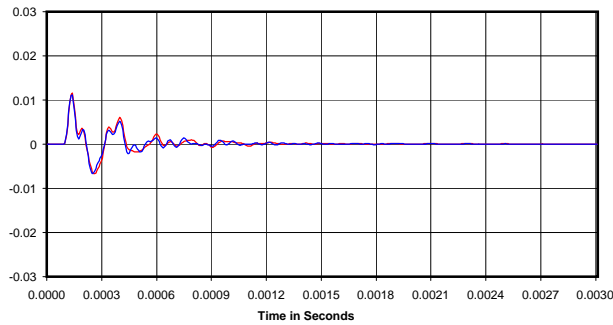
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

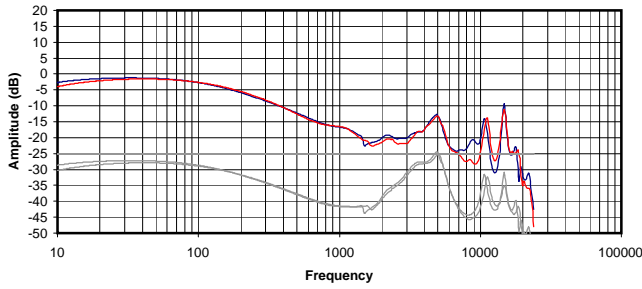


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

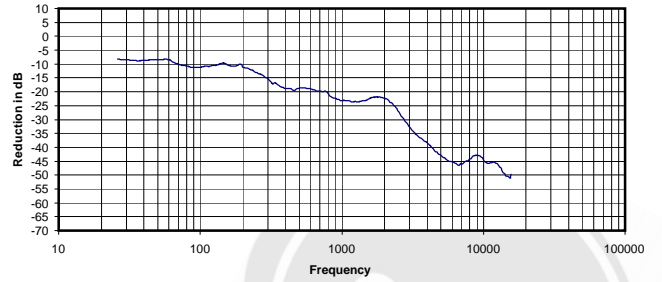
0.032 Vrms
19 Ohms
0.06 mW
-32 dB



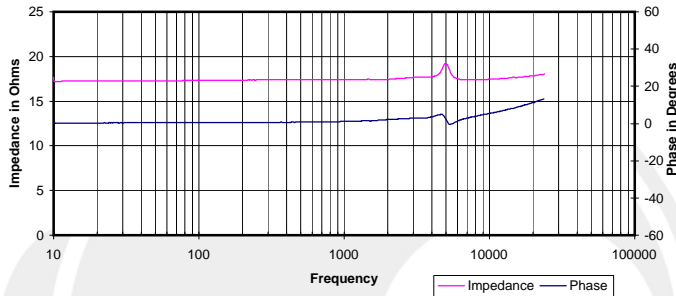
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



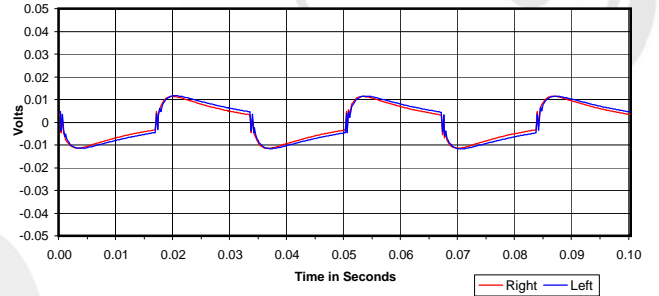
Isolation
Attenuation of External Sound vs. Frequency



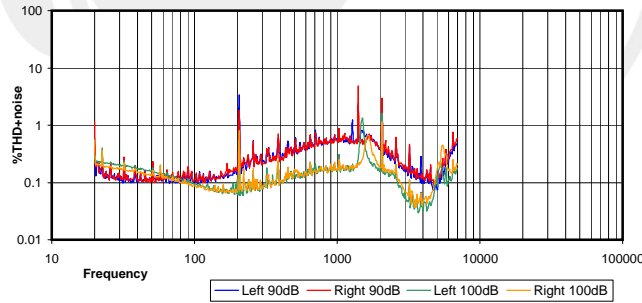
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



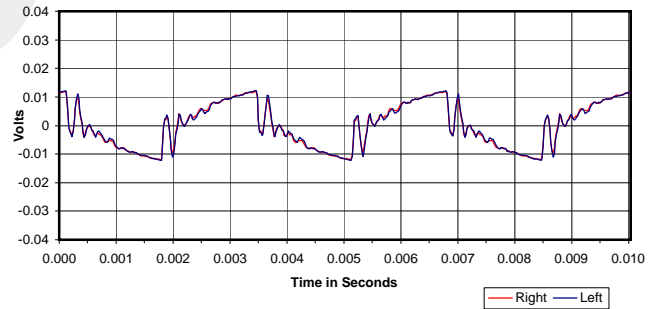
30 Hz Square Wave



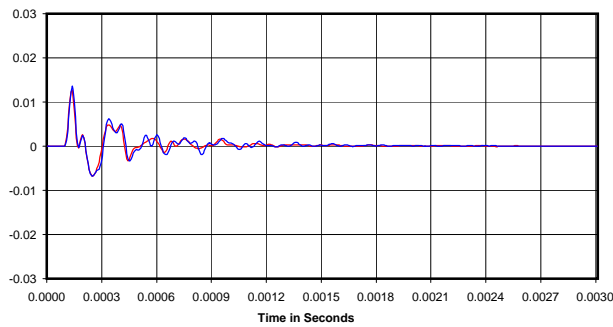
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

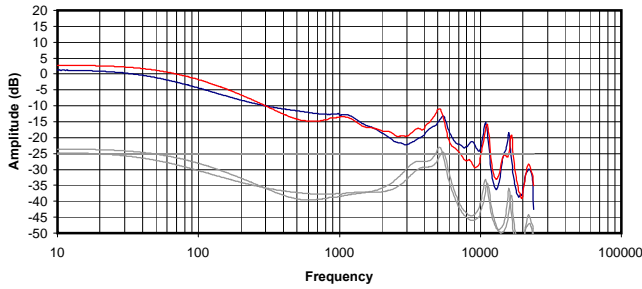


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

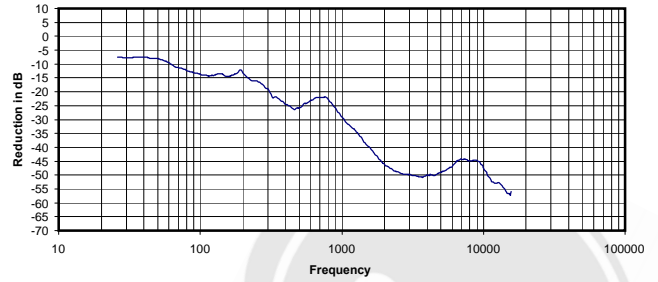
0.041 Vrms
17 Ohms
0.10 mW
-22 dB



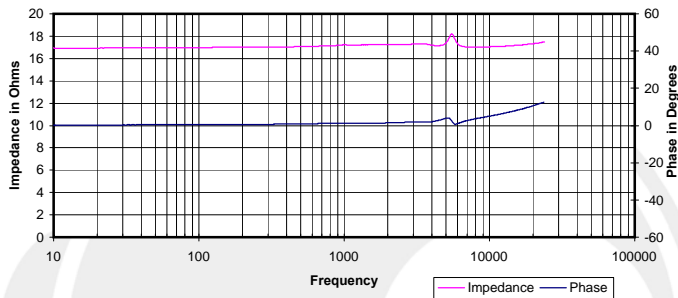
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



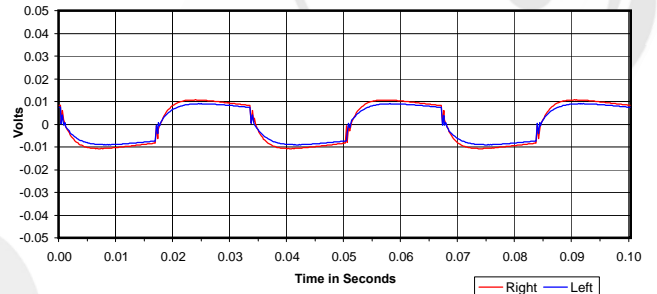
Isolation
Attenuation of External Sound vs. Frequency



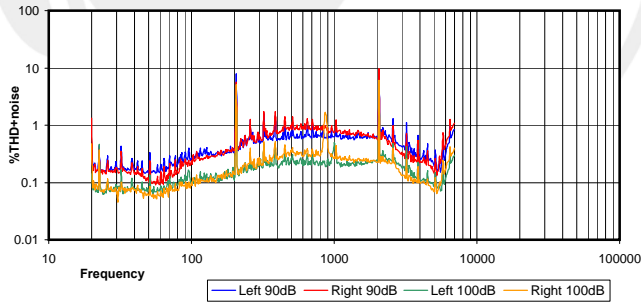
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



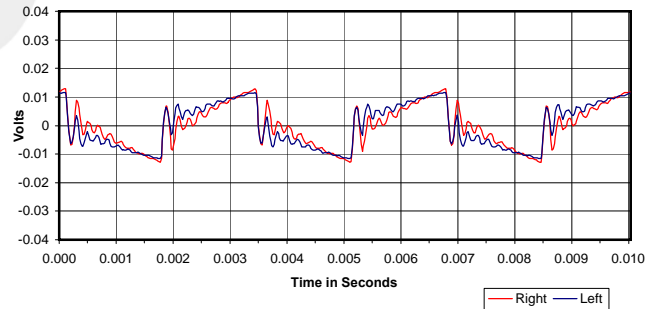
30 Hz Square Wave



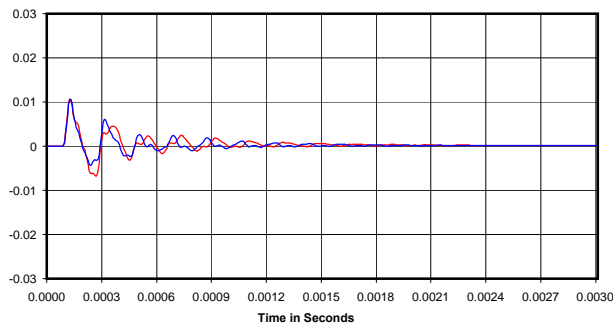
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

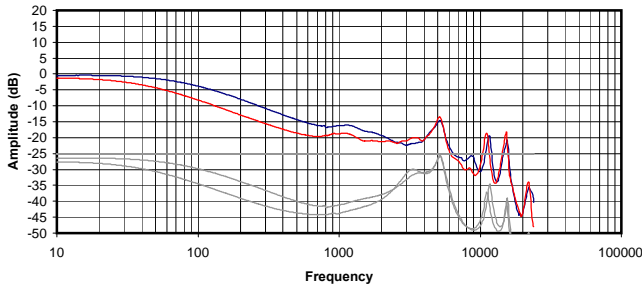


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

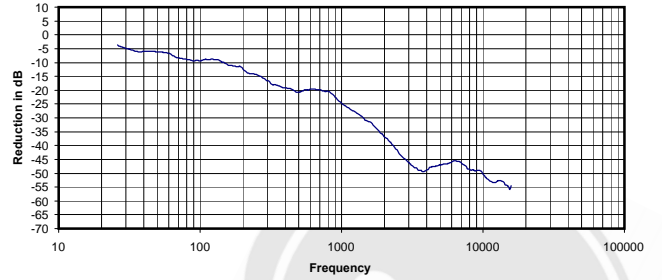
0.020 Vrms
17 Ohms
0.02 mW
-30 dB



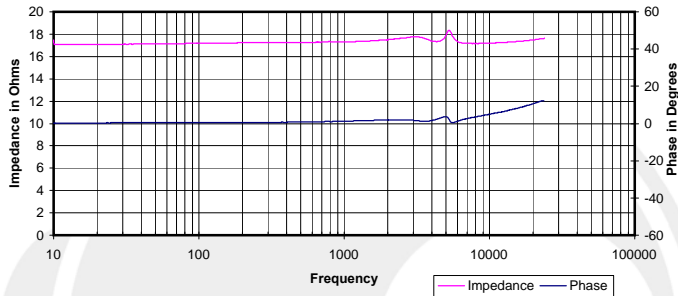
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



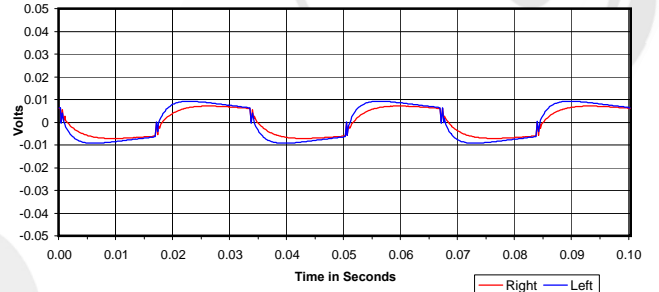
Isolation
Attenuation of External Sound vs. Frequency



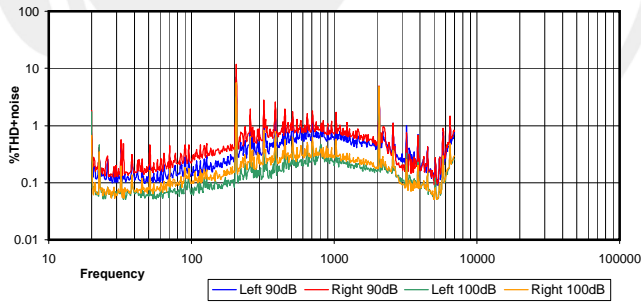
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



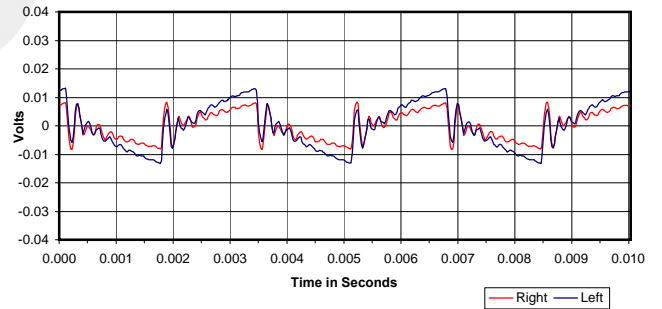
30 Hz Square Wave



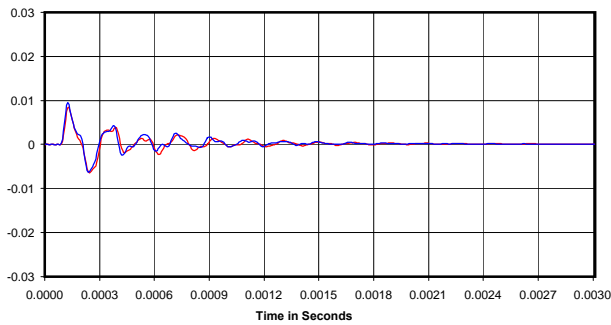
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



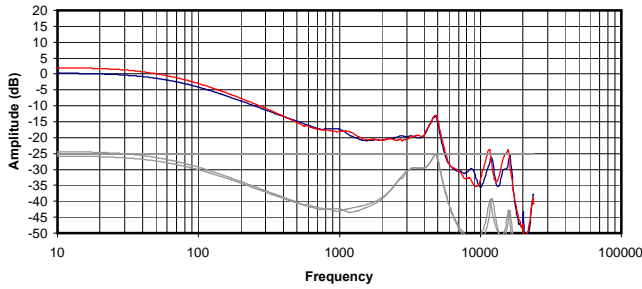
Impulse Response



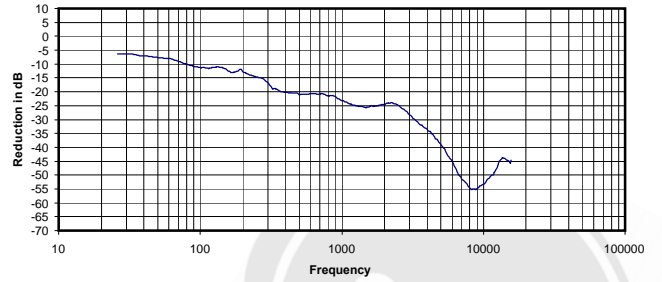
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.022 Vrms
17 Ohms
0.03 mW
-26 dB

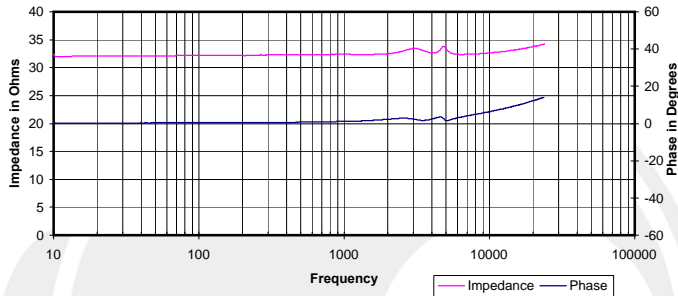
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



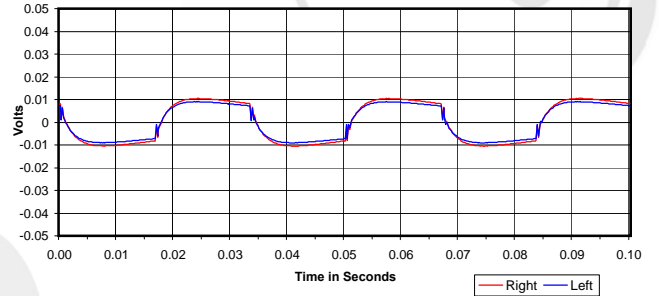
Isolation
Attenuation of External Sound vs. Frequency



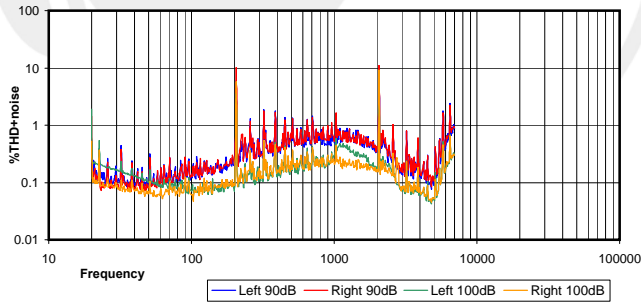
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



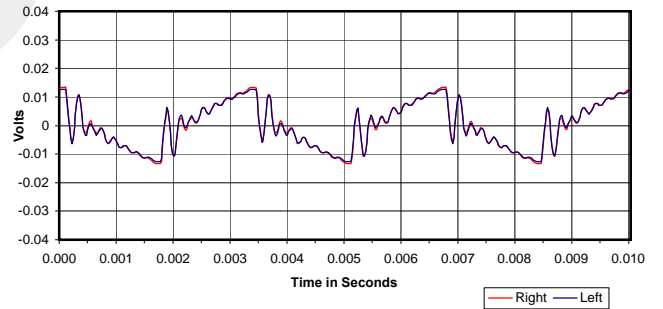
30 Hz Square Wave



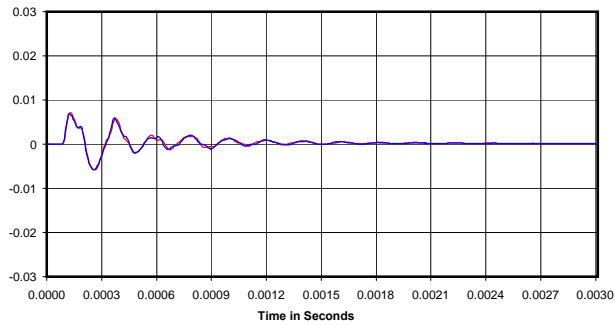
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



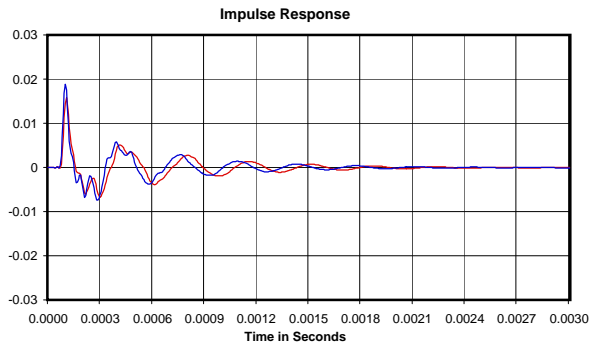
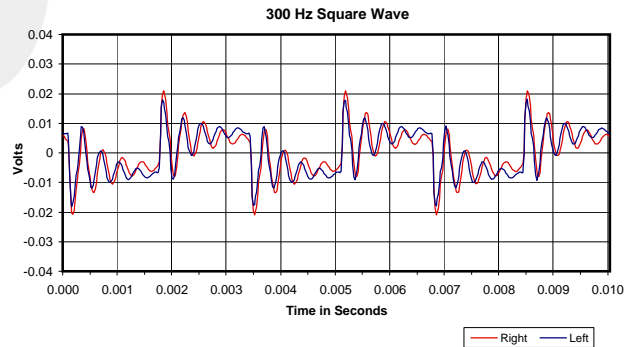
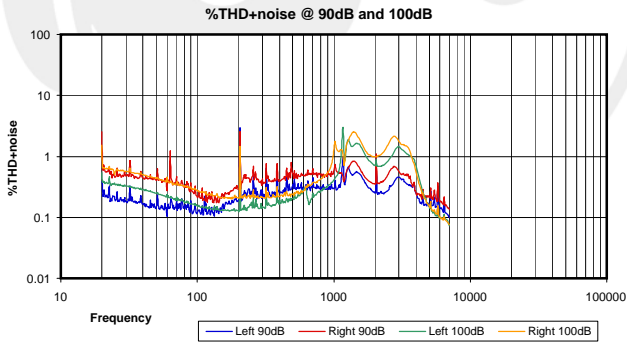
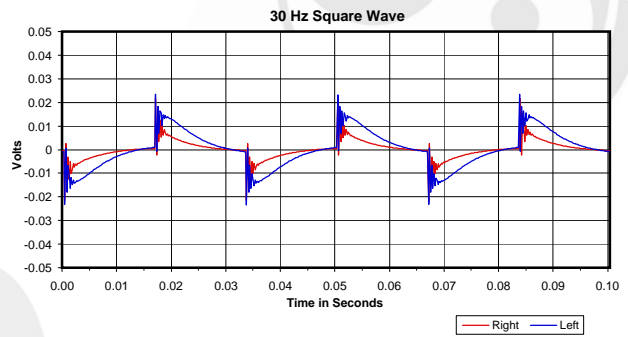
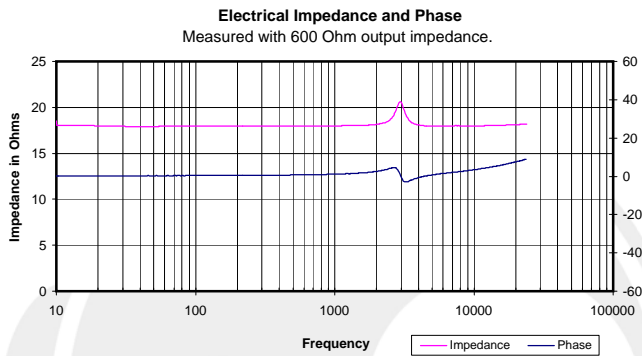
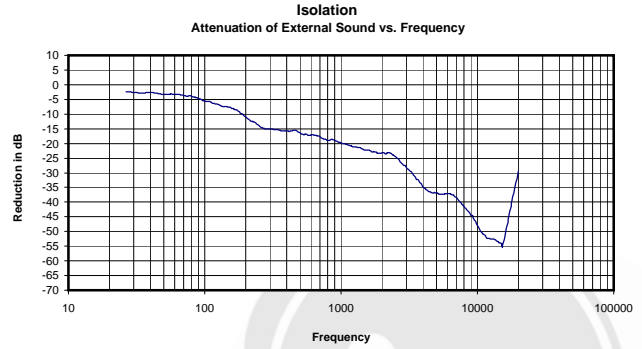
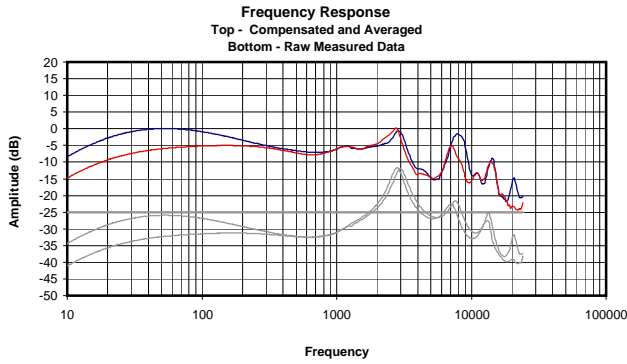
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
32 Ohms
0.06 mW
-22 dB



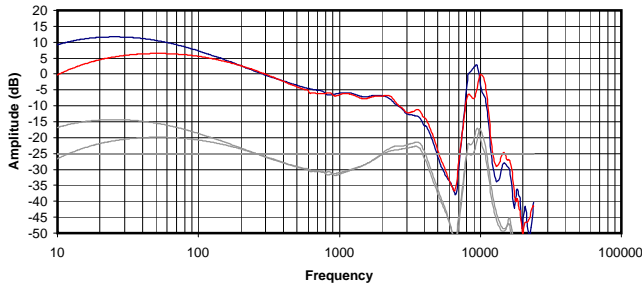


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

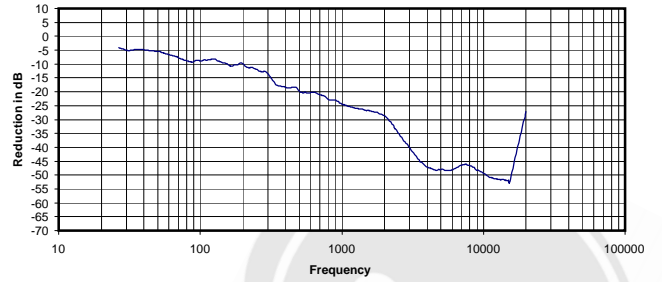
0.060 Vrms
18 Ohms
0.20 mW
-22 dB



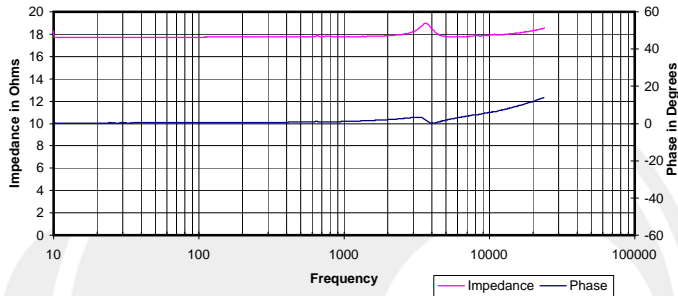
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



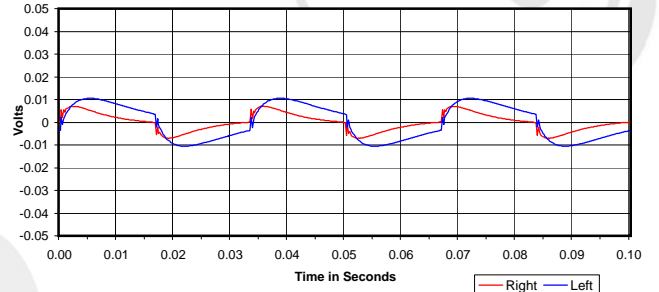
Isolation
Attenuation of External Sound vs. Frequency



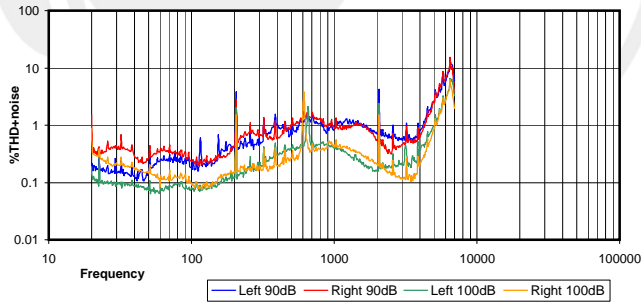
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



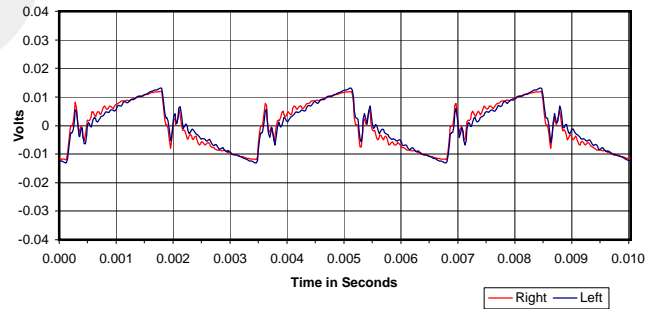
30 Hz Square Wave



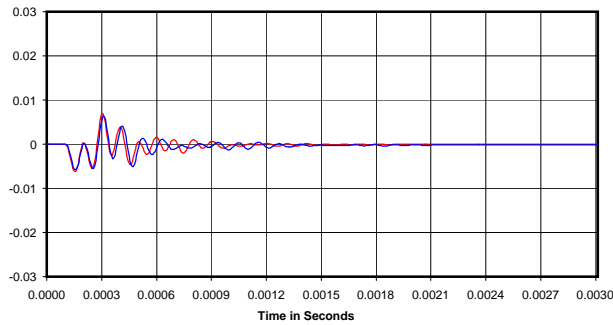
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

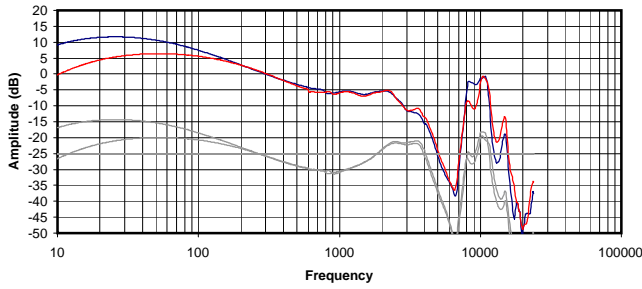


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

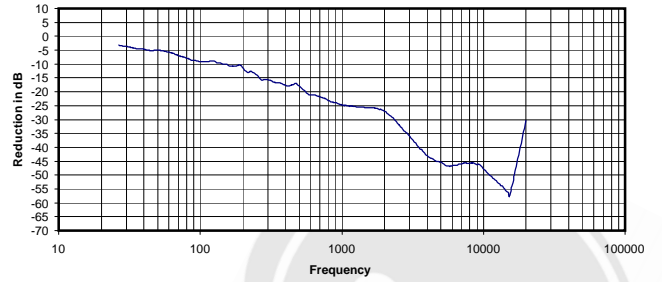
0.050 Vrms
18 Ohms
0.14 mW
-27 dB



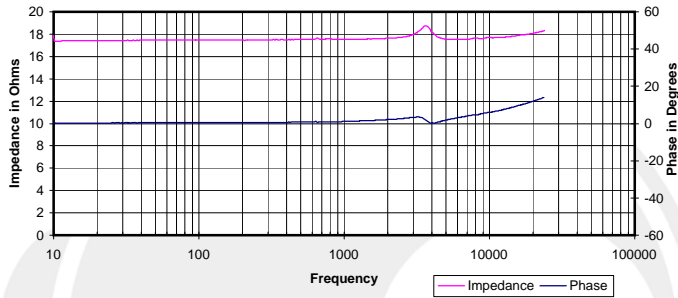
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



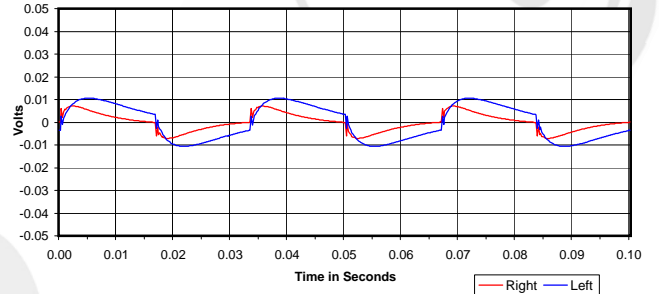
Isolation
Attenuation of External Sound vs. Frequency



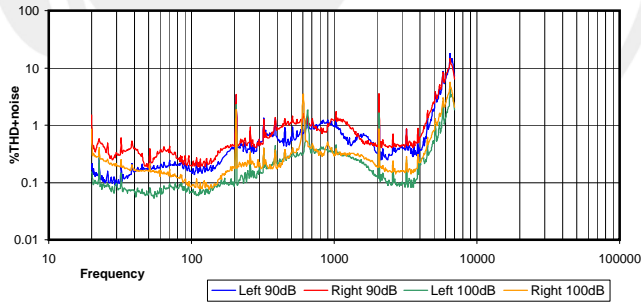
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



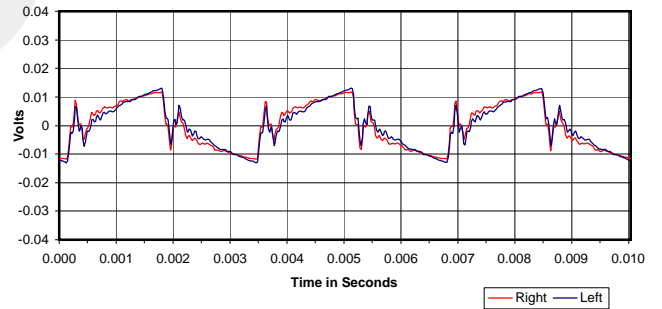
30 Hz Square Wave



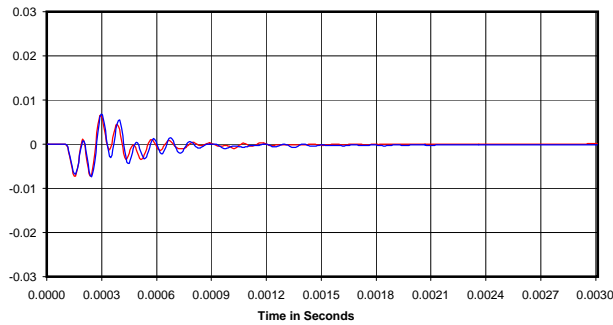
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

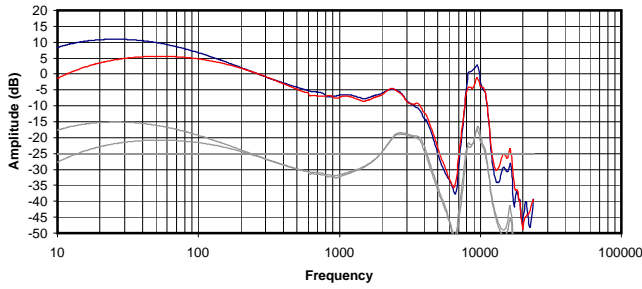


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

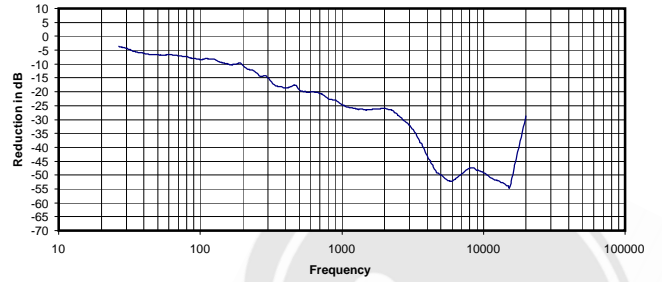
0.046 Vrms
18 Ohms
0.12 mW
-26 dB



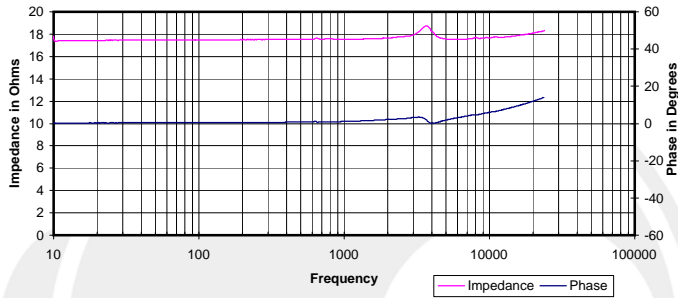
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



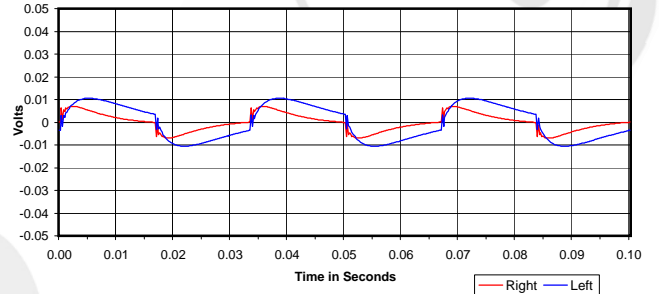
Isolation
Attenuation of External Sound vs. Frequency



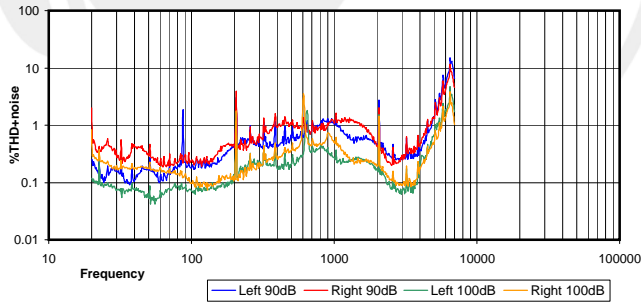
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



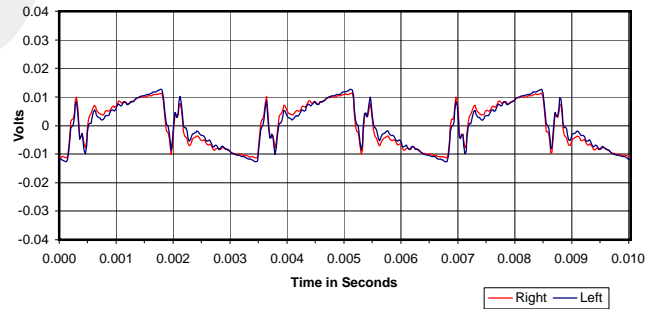
30 Hz Square Wave



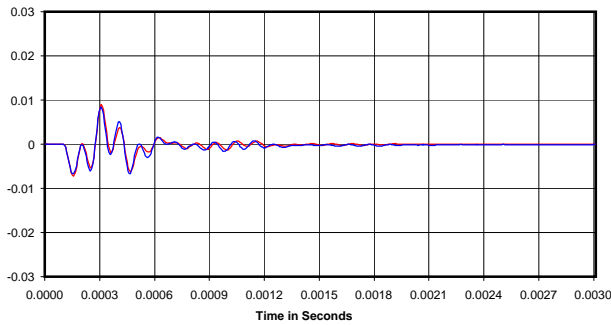
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

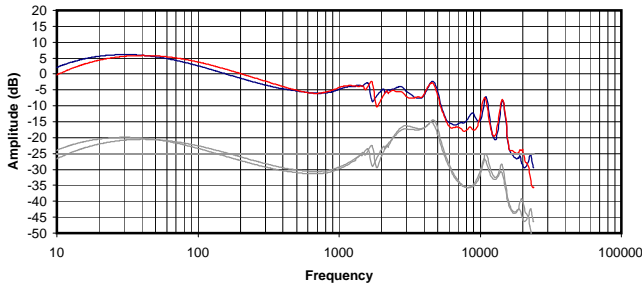


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

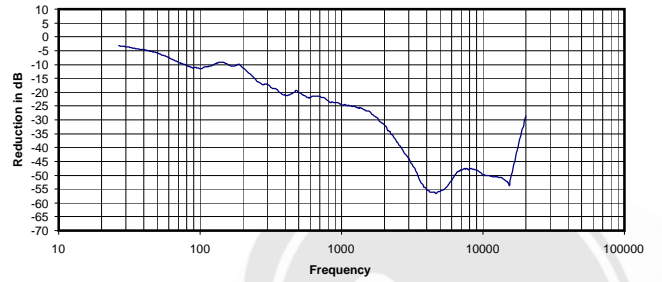
0.048 Vrms
18 Ohms
0.13 mW
-26 dB



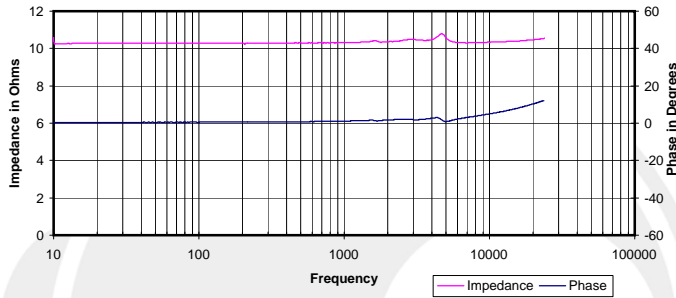
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



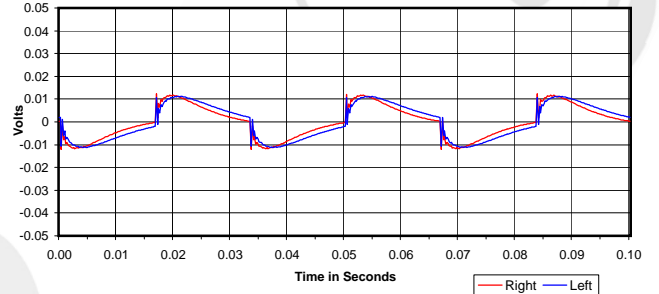
Isolation
Attenuation of External Sound vs. Frequency



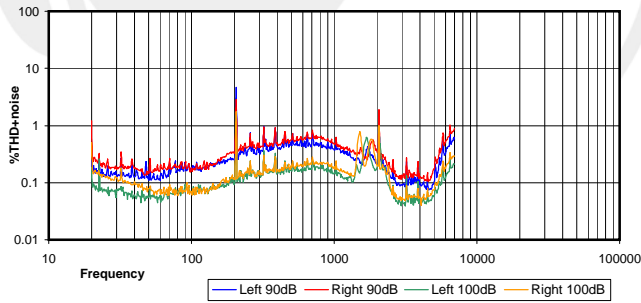
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



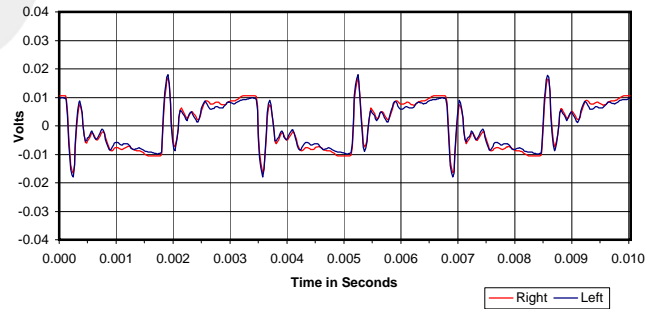
30 Hz Square Wave



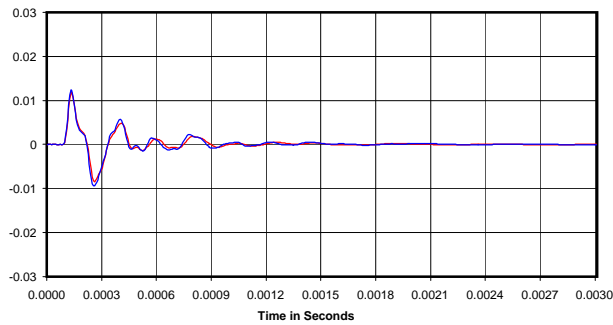
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

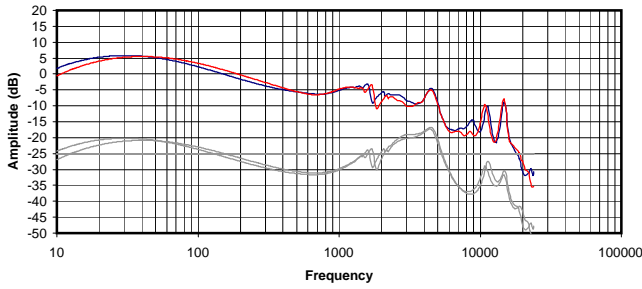


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

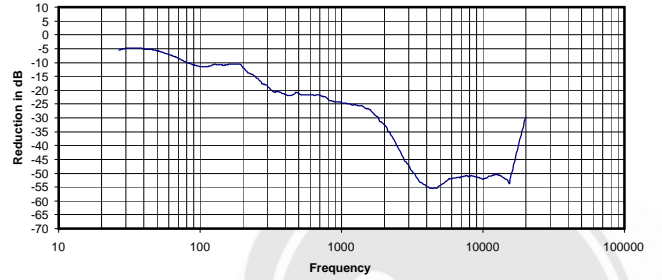
0.031 Vrms
10 Ohms
0.10 mW
-29 dB



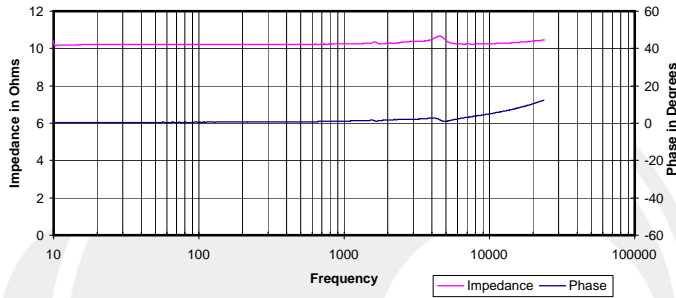
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



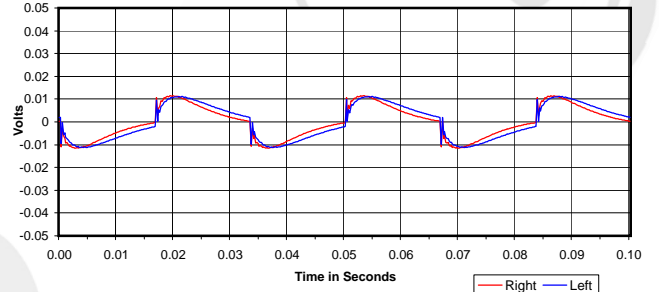
Isolation
Attenuation of External Sound vs. Frequency



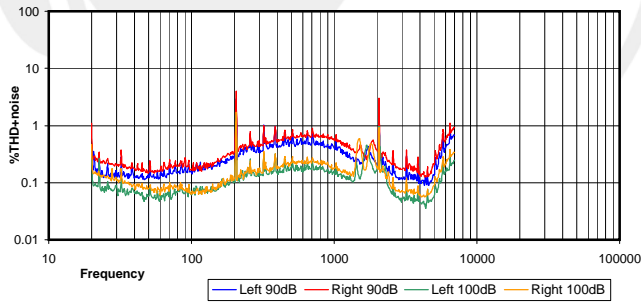
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



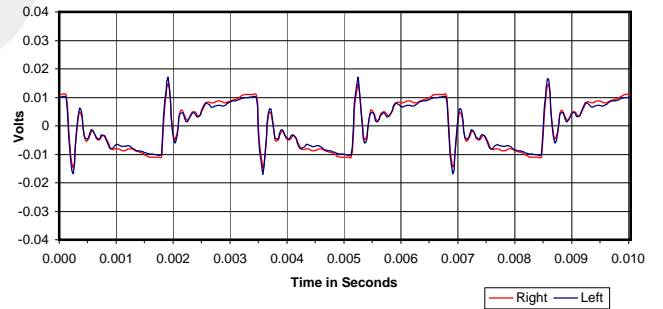
30 Hz Square Wave



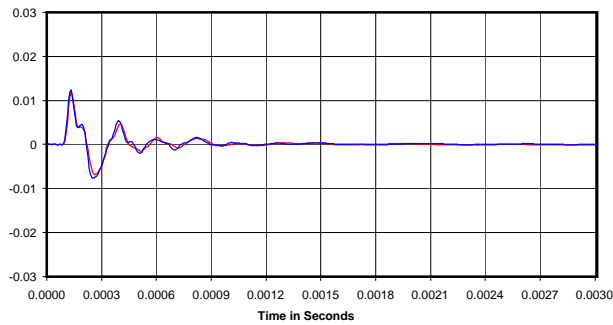
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

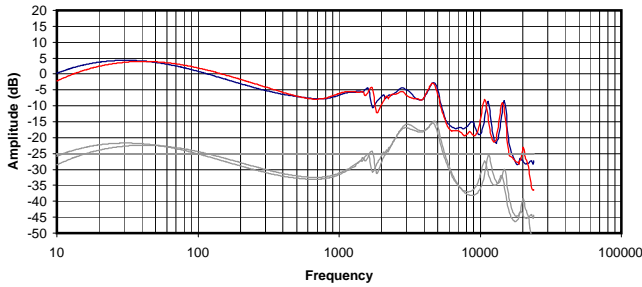


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

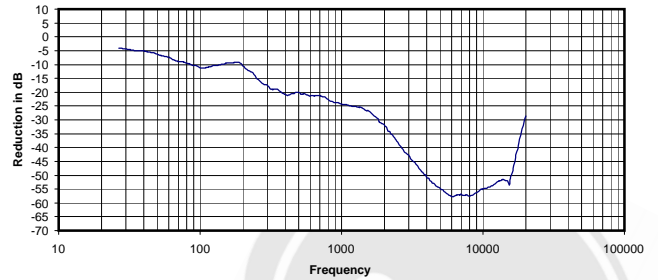
0.031 Vrms
10 Ohms
0.10 mW
-30 dB



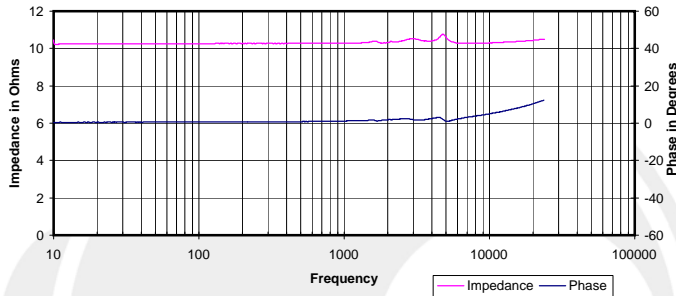
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



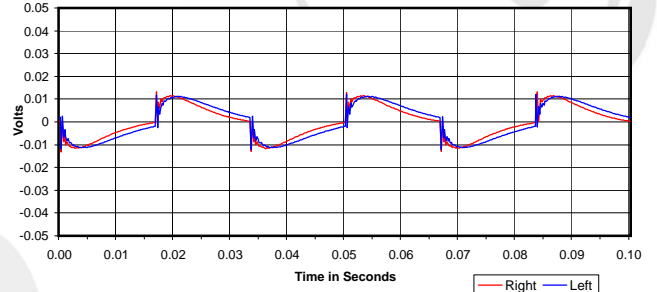
Isolation
Attenuation of External Sound vs. Frequency



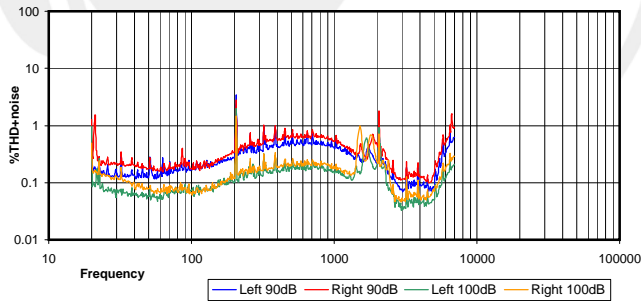
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



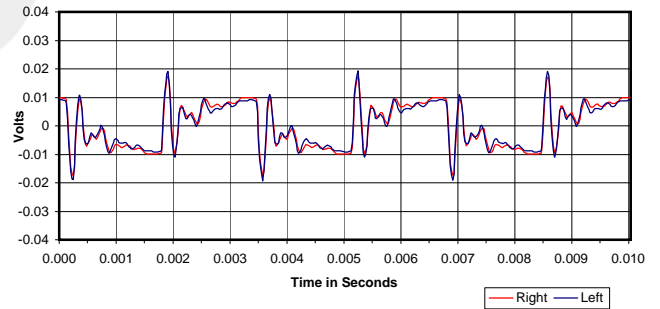
30 Hz Square Wave



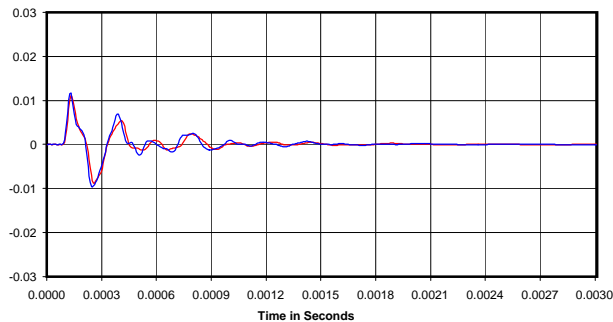
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

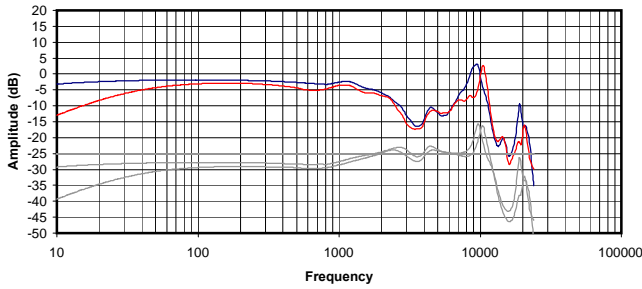


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

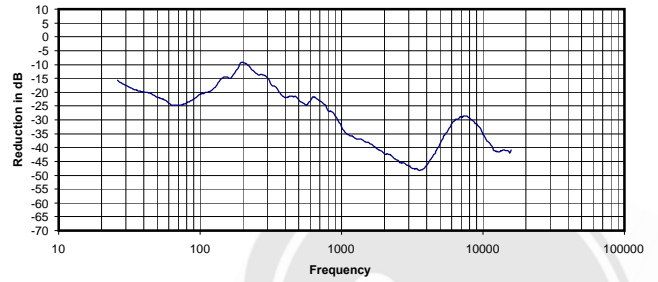
0.031 Vrms
10 Ohms
0.10 mW
-30 dB



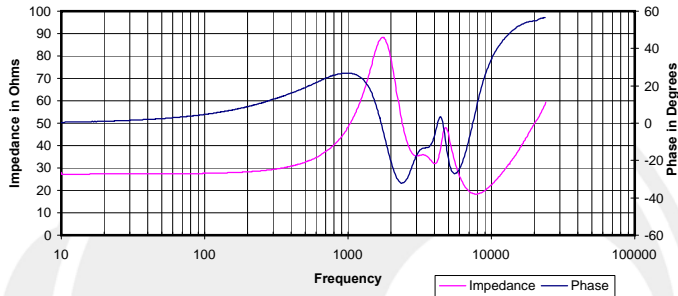
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



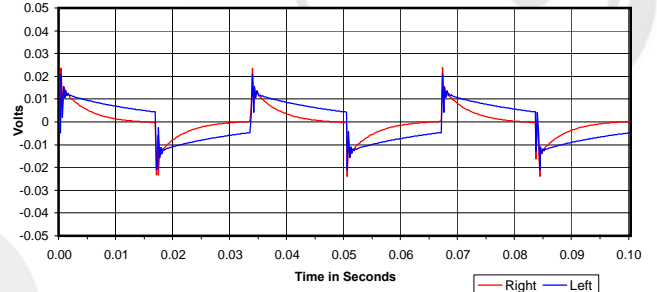
Isolation
Attenuation of External Sound vs. Frequency



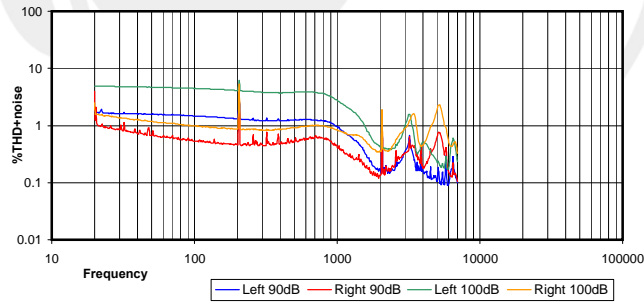
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



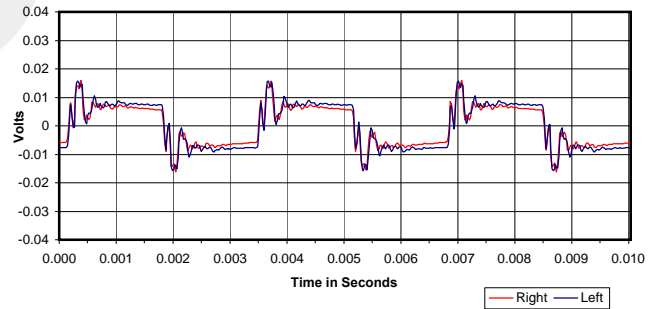
30 Hz Square Wave



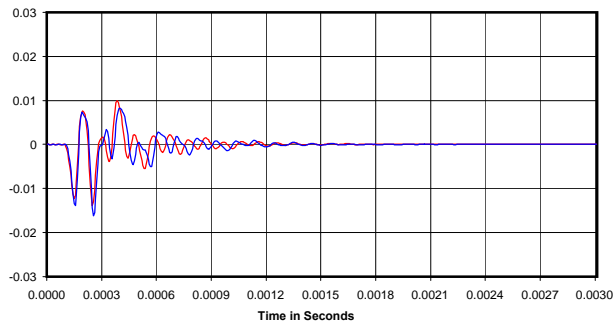
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



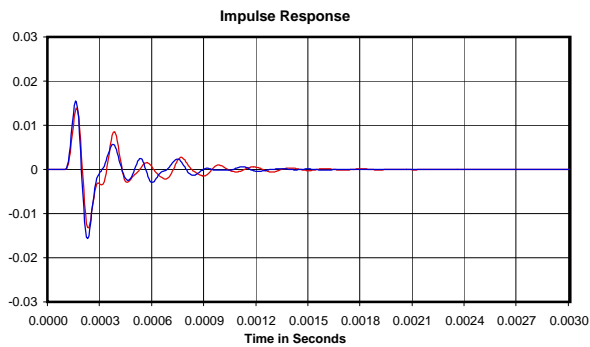
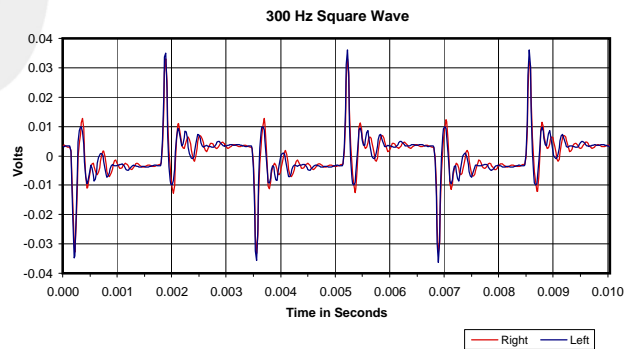
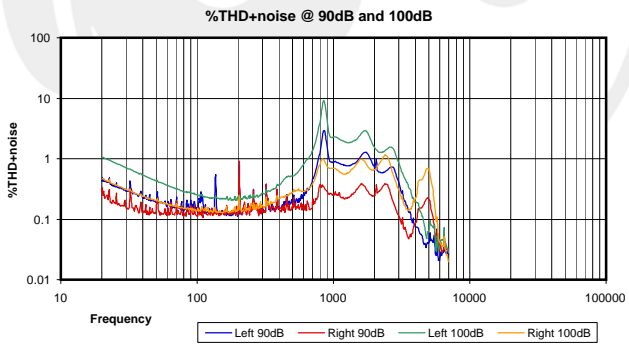
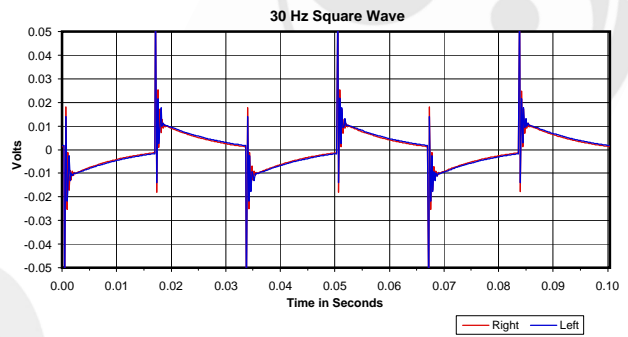
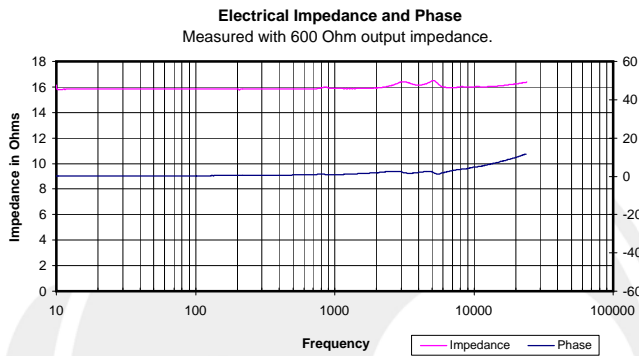
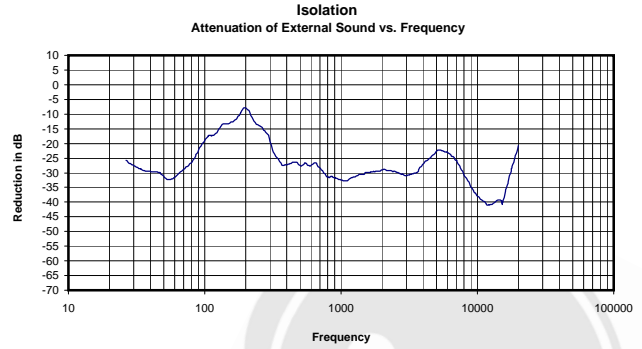
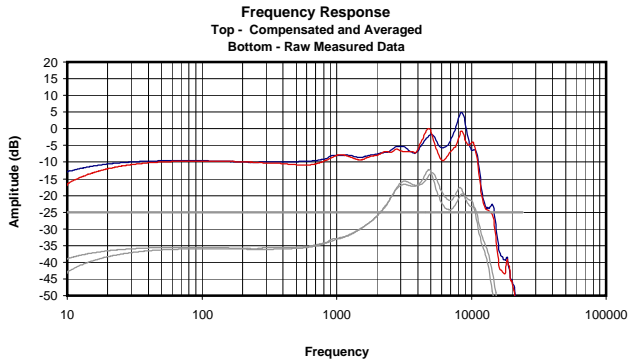
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
48 Ohms
0.02 mW
-29 dB

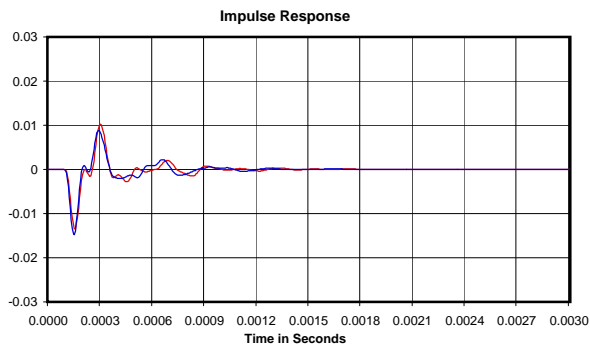
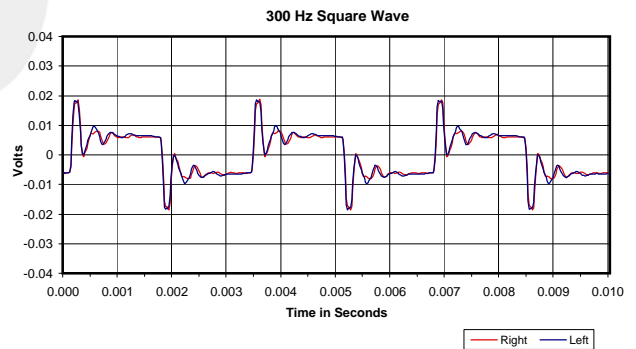
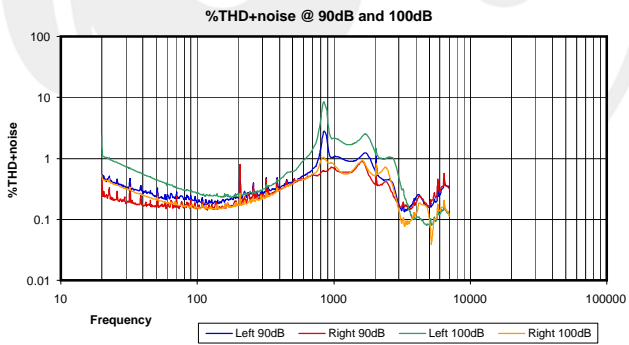
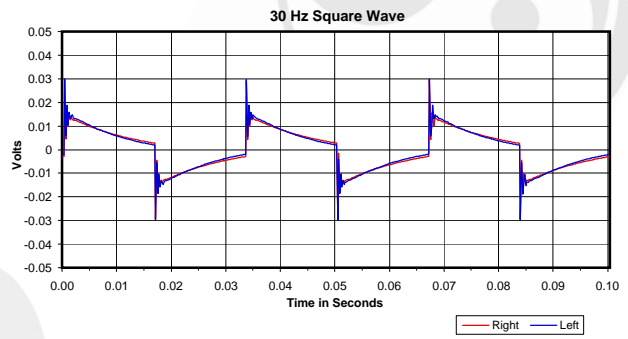
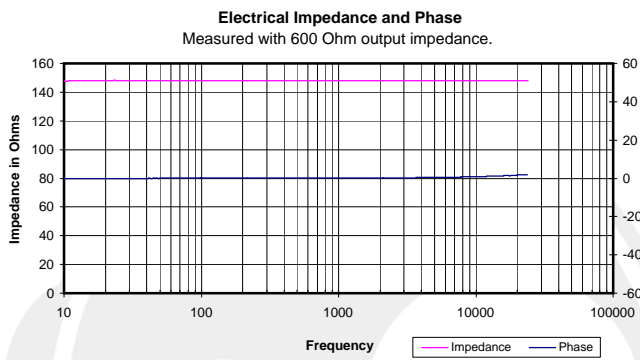
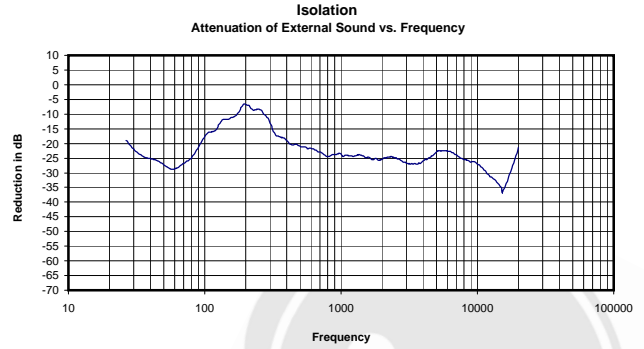
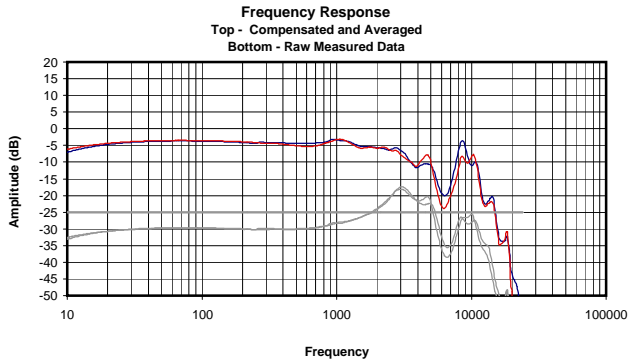




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
16 Ohms
0.21 mW
-25 dB

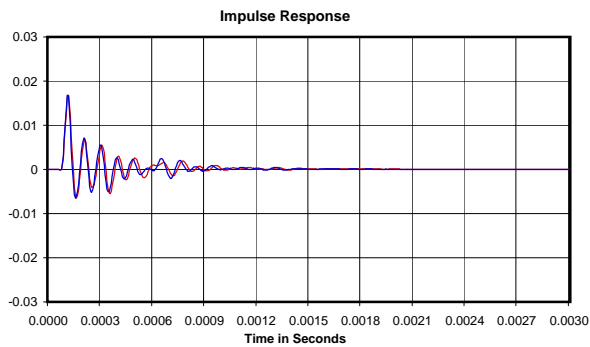
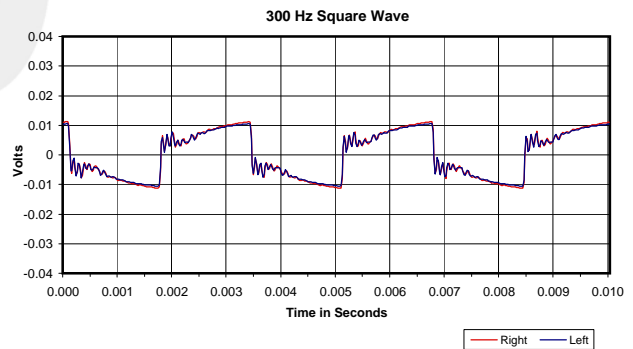
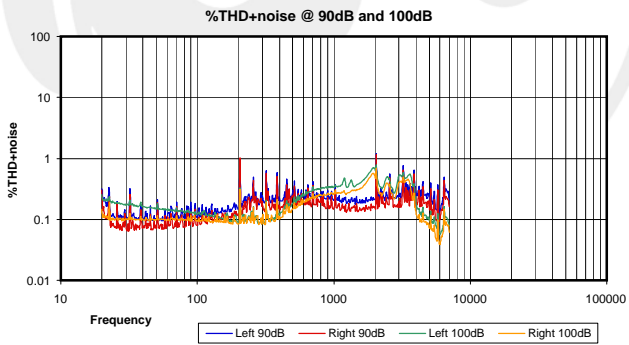
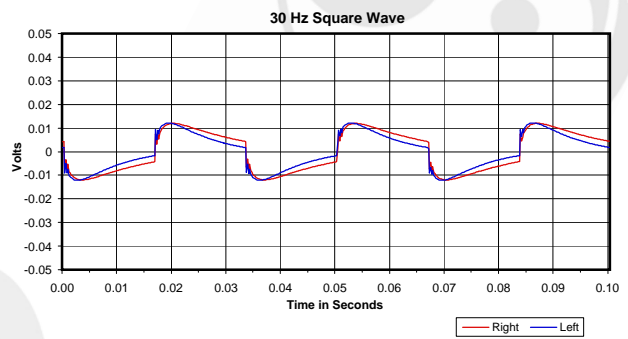
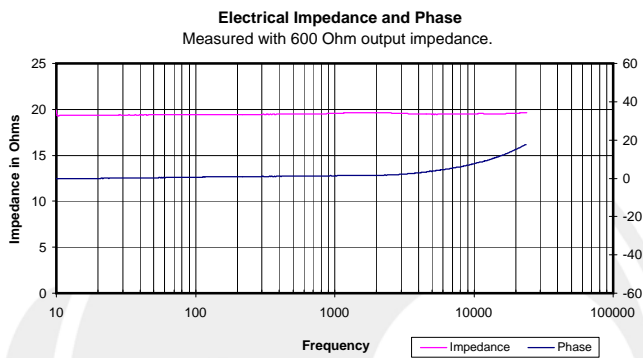
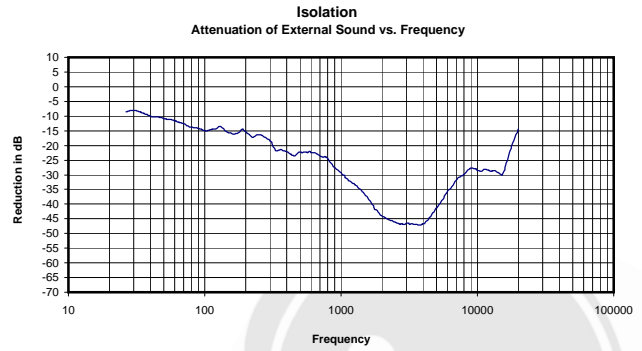
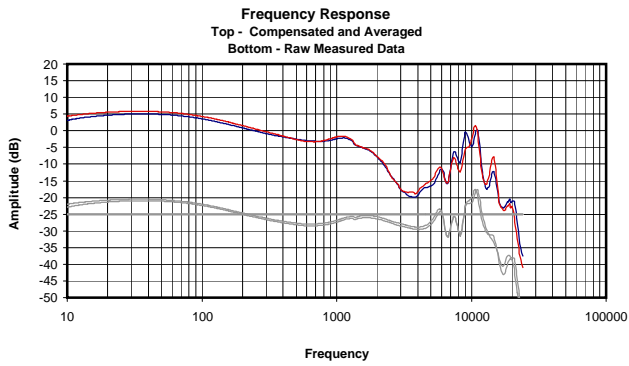




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.033 Vrms
148 Ohms
0.01 mW
-21 dB



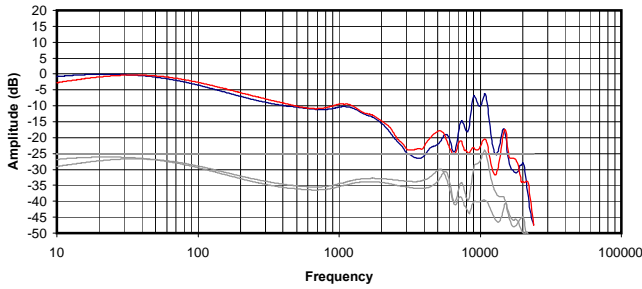


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

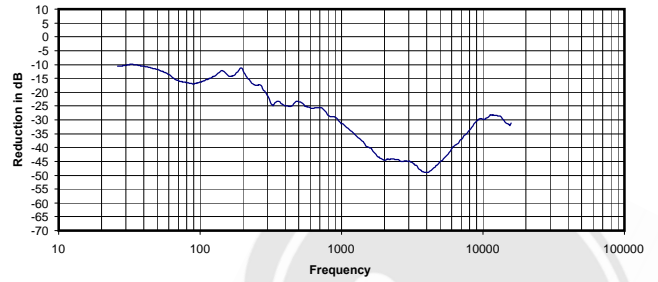
0.036 Vrms
20 Ohms
0.07 mW
-29 dBr



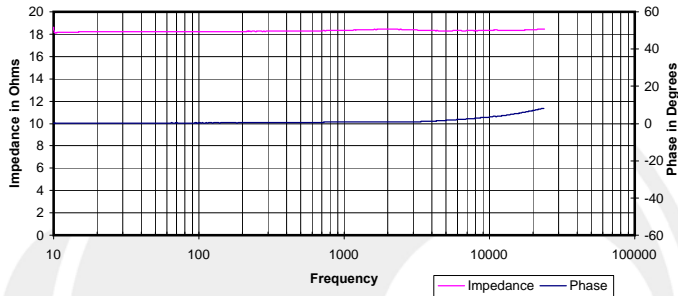
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



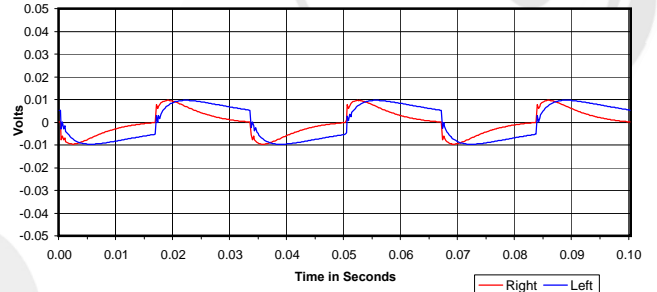
Isolation
Attenuation of External Sound vs. Frequency



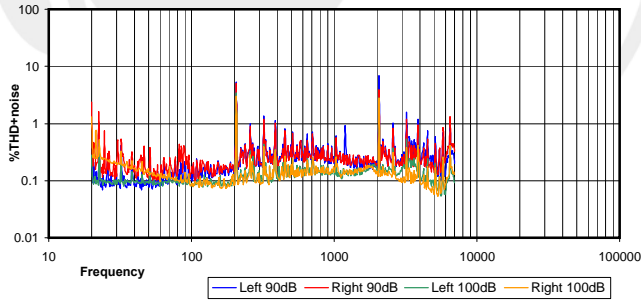
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



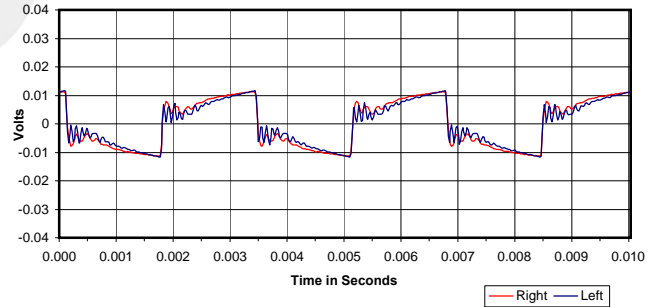
30 Hz Square Wave



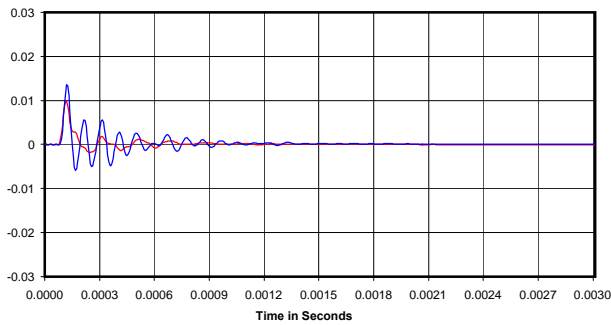
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

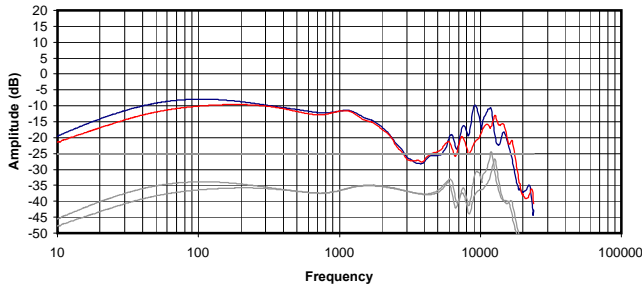


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

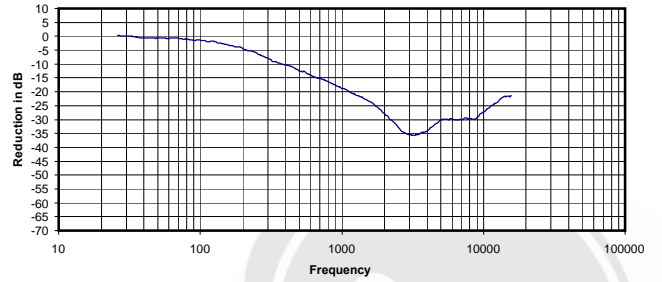
0.036 Vrms
18 Ohms
0.07 mW
-30 dB



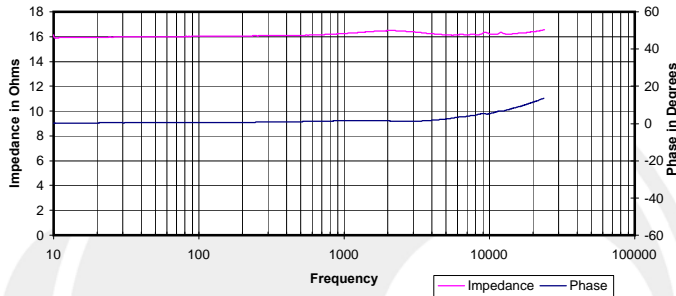
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



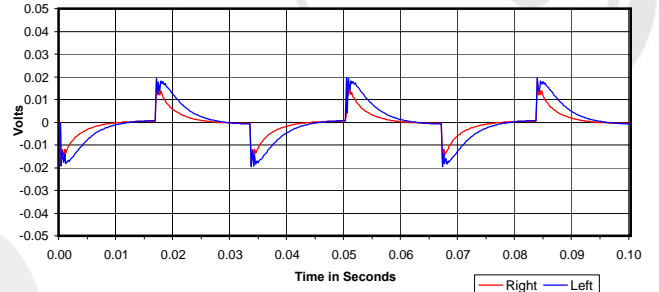
Isolation
Attenuation of External Sound vs. Frequency



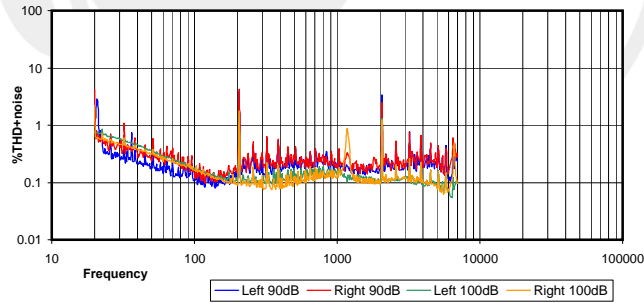
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



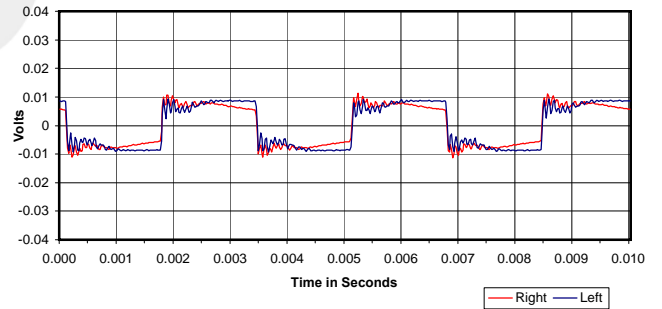
30 Hz Square Wave



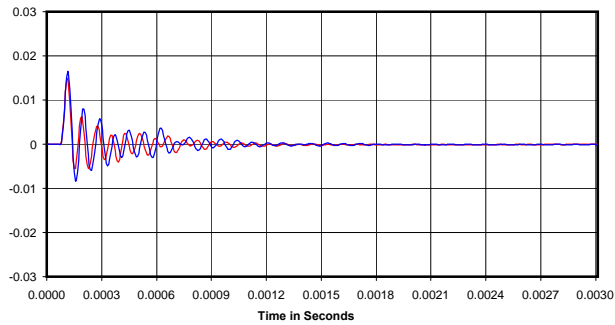
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

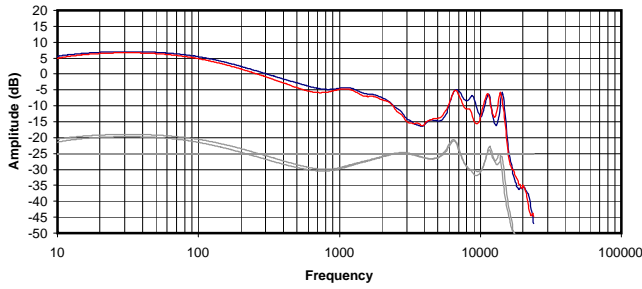


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

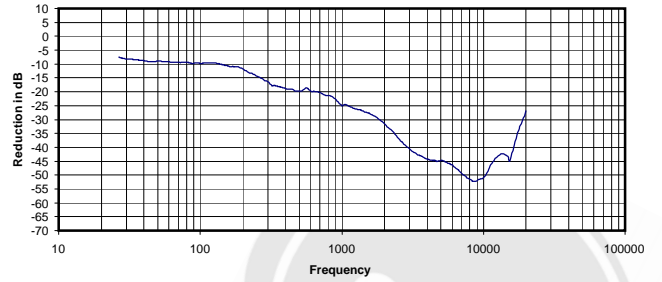
0.020 Vrms
16 Ohms
0.03 mW
-17 dB



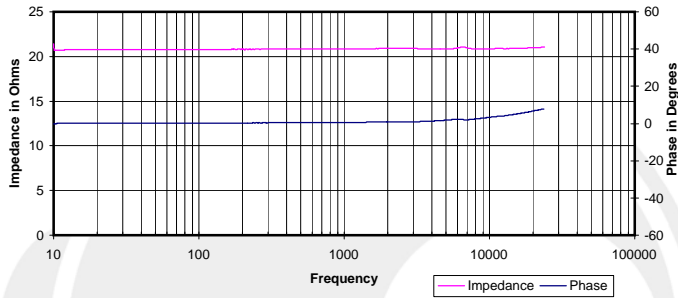
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



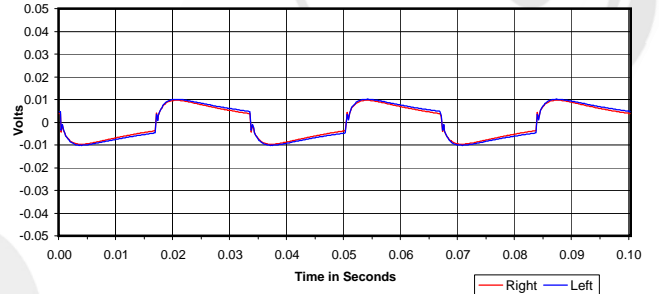
Isolation
Attenuation of External Sound vs. Frequency



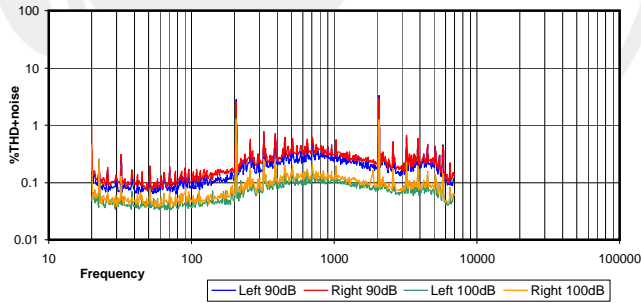
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



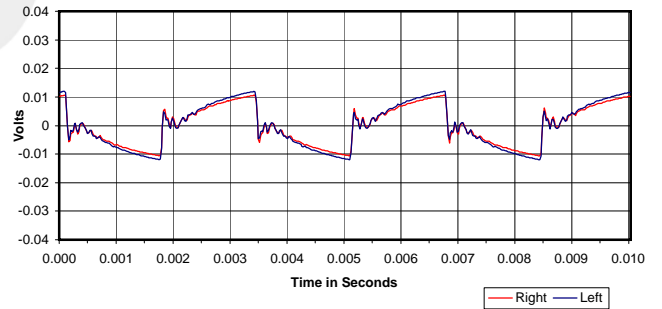
30 Hz Square Wave



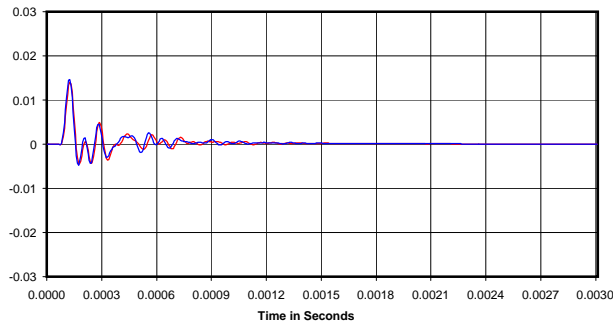
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

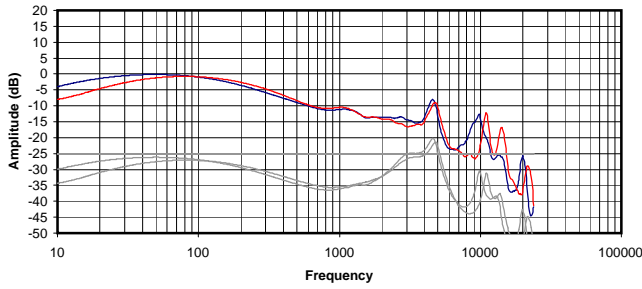


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

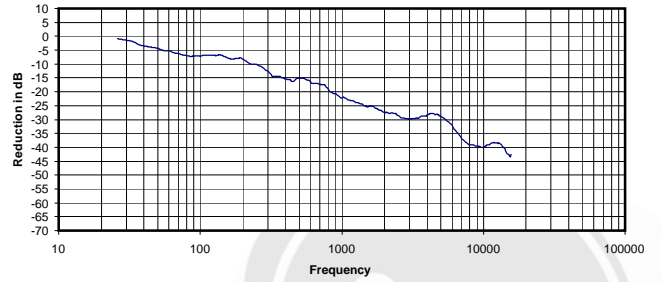
0.043 Vrms
21 Ohms
0.09 mW
-28 dB



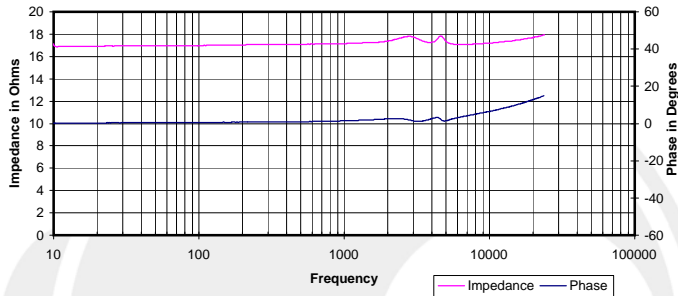
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



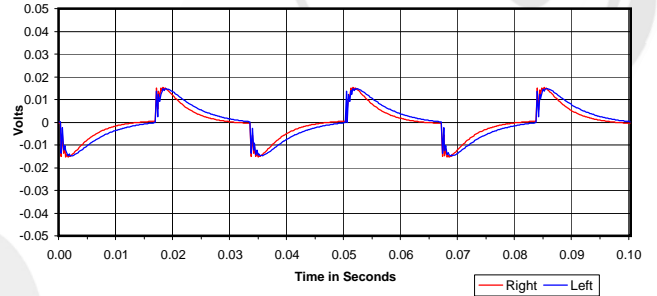
Isolation
Attenuation of External Sound vs. Frequency



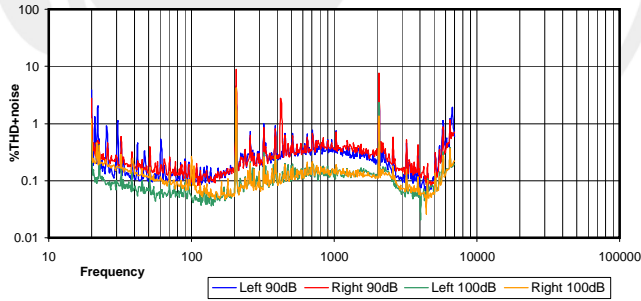
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



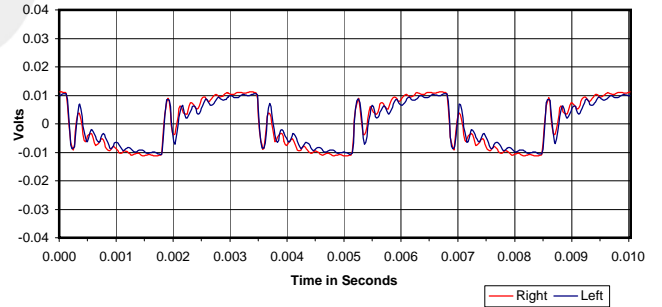
30 Hz Square Wave



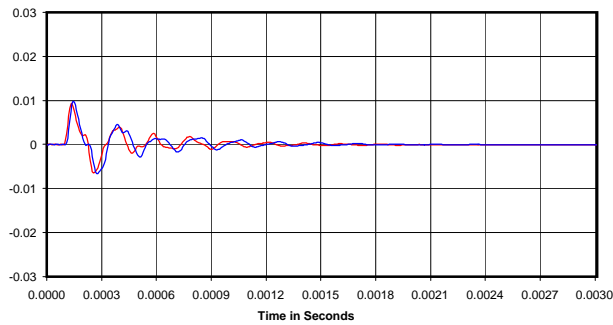
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

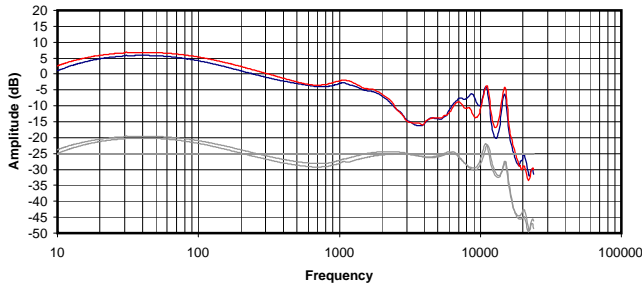


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

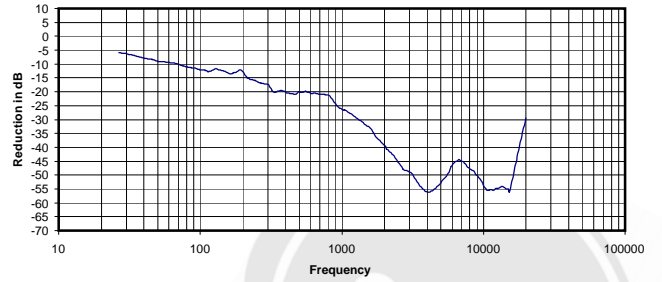
0.027 Vrms
17 Ohms
0.04 mW
-19 dB



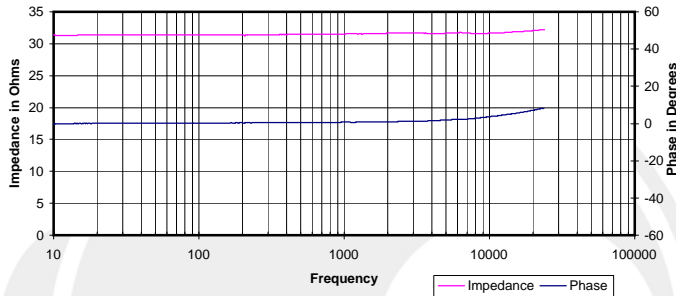
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



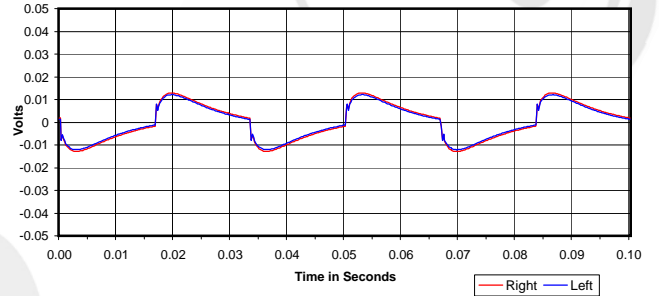
Isolation
Attenuation of External Sound vs. Frequency



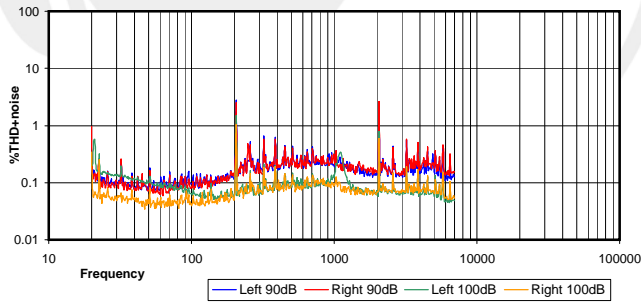
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



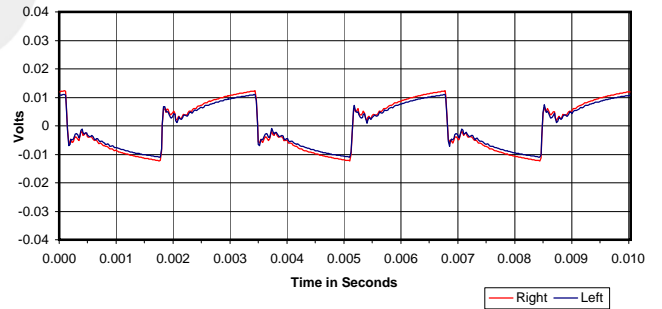
30 Hz Square Wave



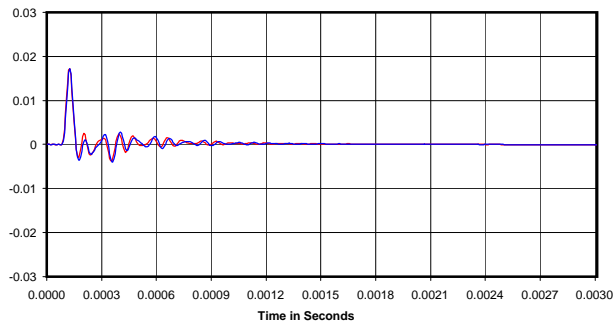
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

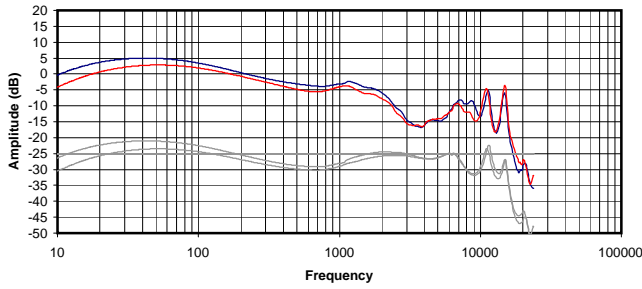


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

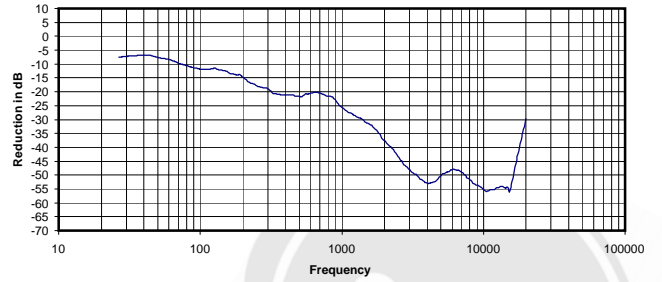
0.047 Vrms
32 Ohms
0.07 mW
-31 dB



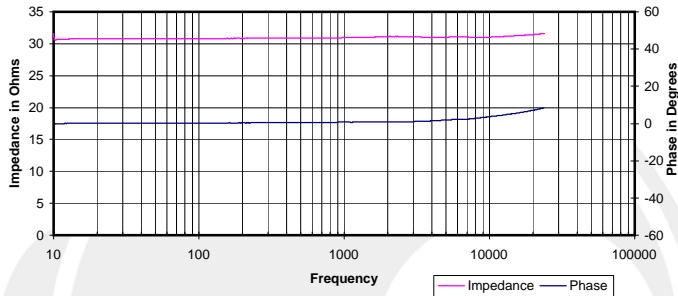
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



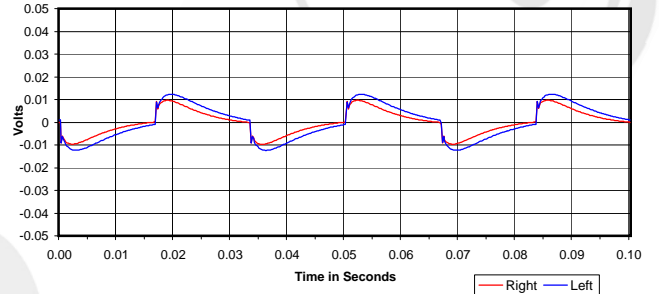
Isolation
Attenuation of External Sound vs. Frequency



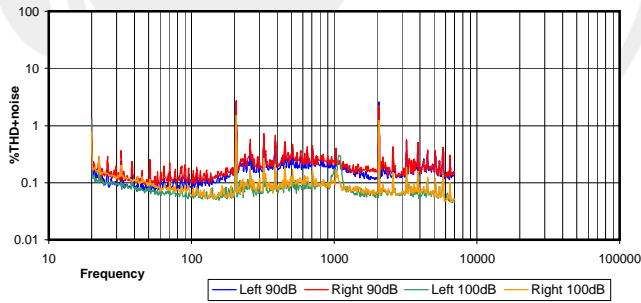
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



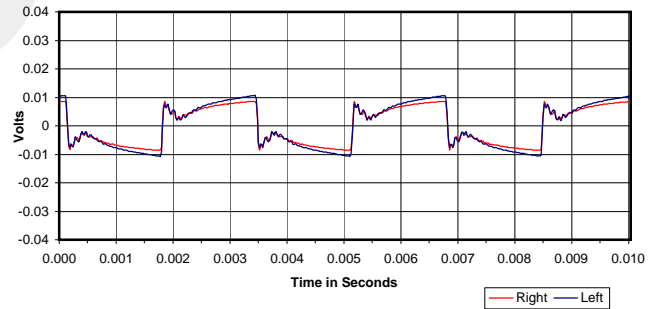
30 Hz Square Wave



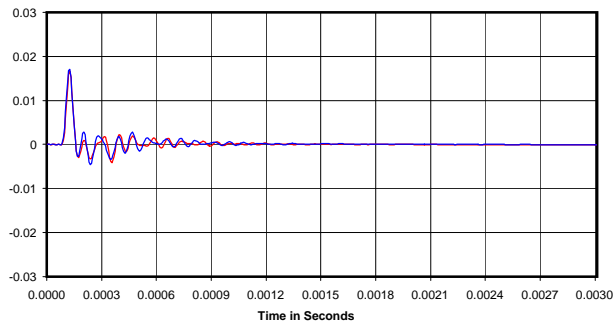
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



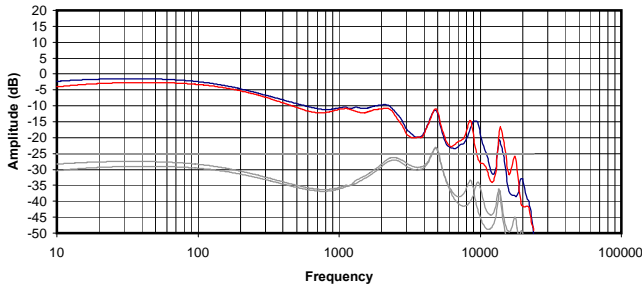
Impulse Response



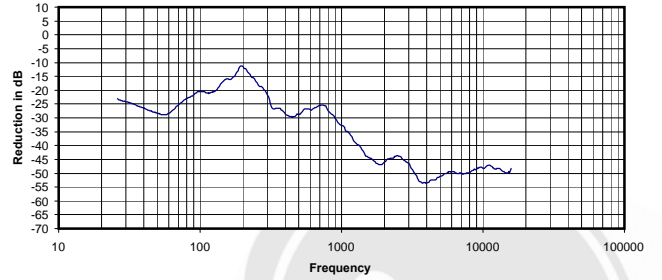
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
31 Ohms
0.06 mW
-31 dB

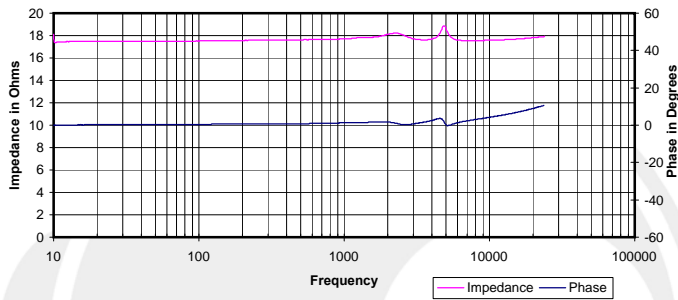
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



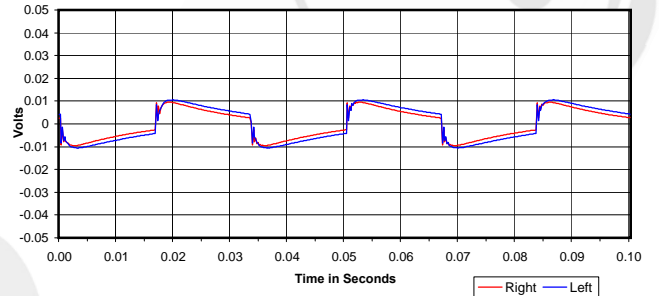
Isolation
Attenuation of External Sound vs. Frequency



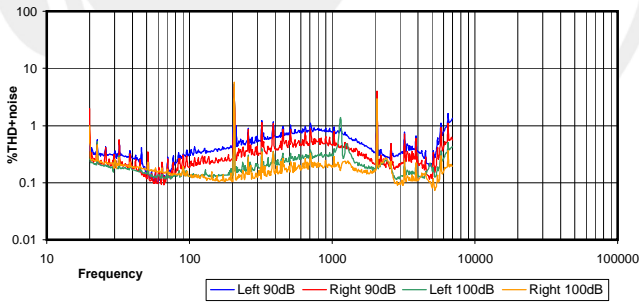
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



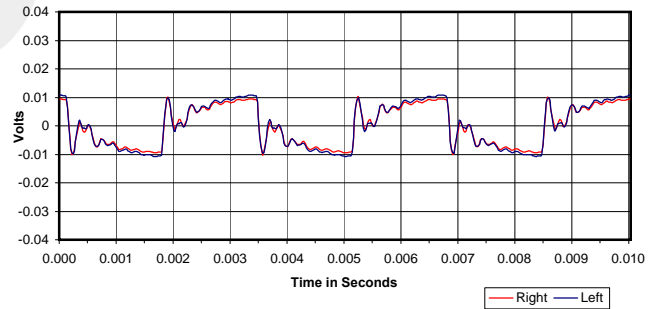
30 Hz Square Wave



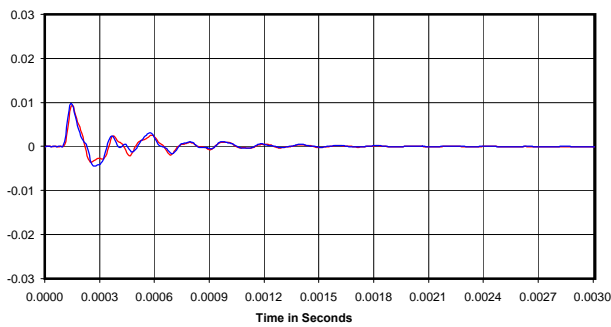
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

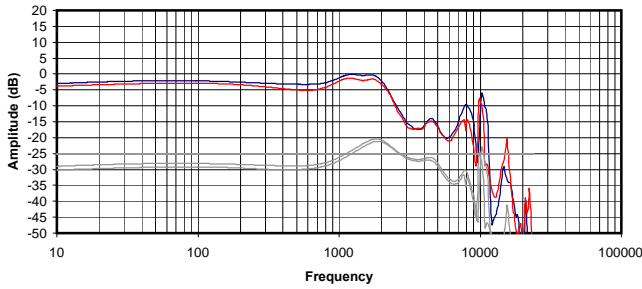


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

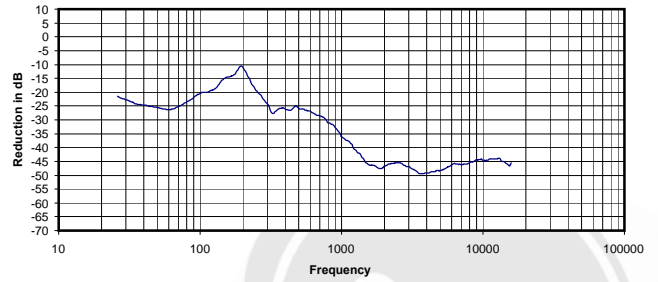
0.032 Vrms
18 Ohms
0.06 mW
-33 dB



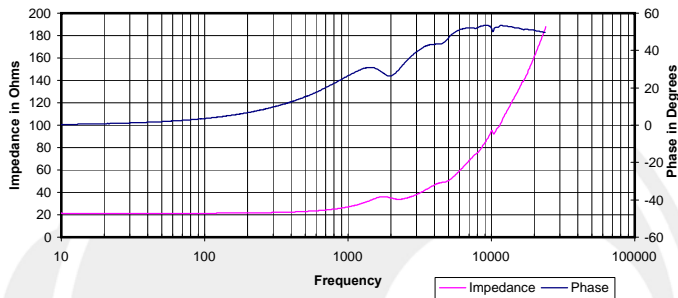
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



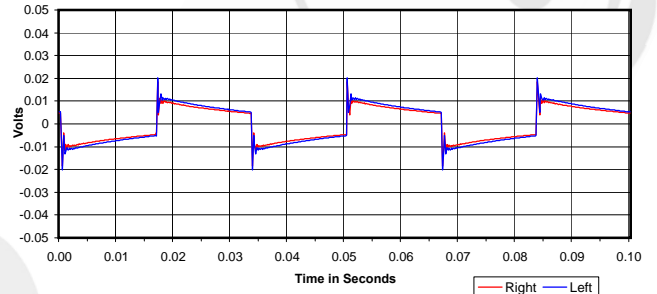
Isolation
Attenuation of External Sound vs. Frequency



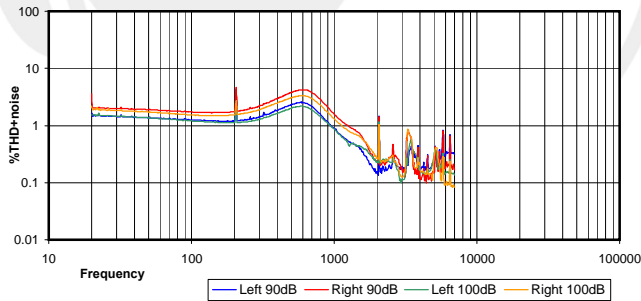
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



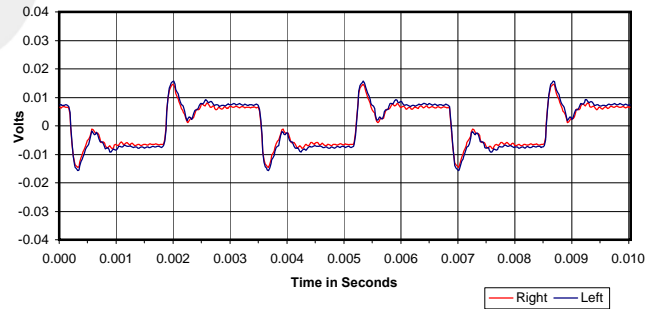
30 Hz Square Wave



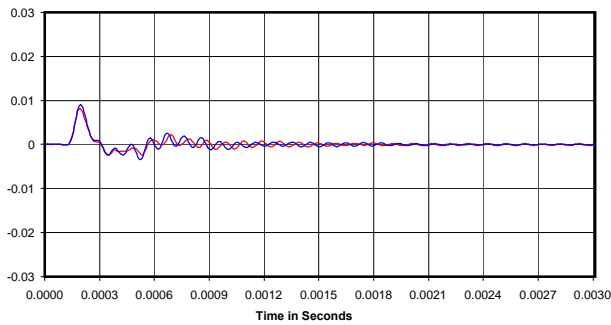
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

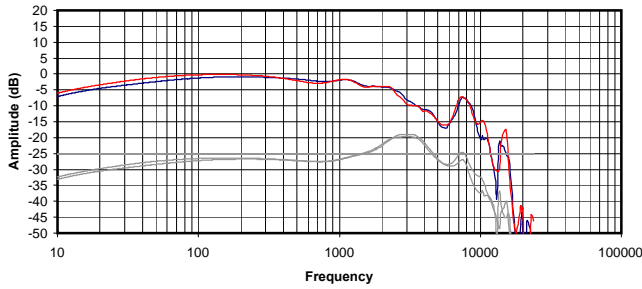


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

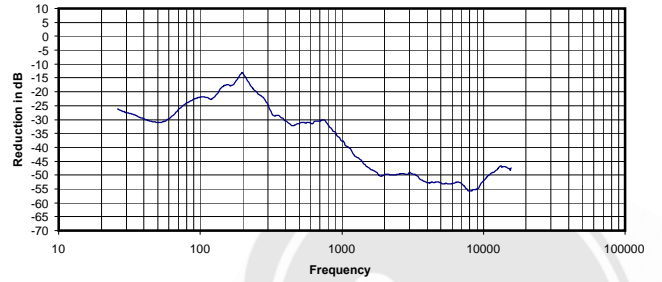
0.013 Vrms
27 Ohms
0.01 mW
-33 dB



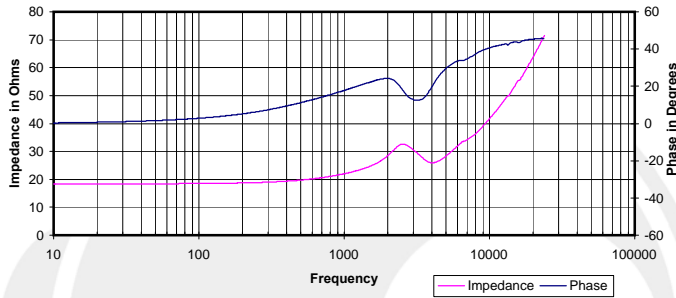
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



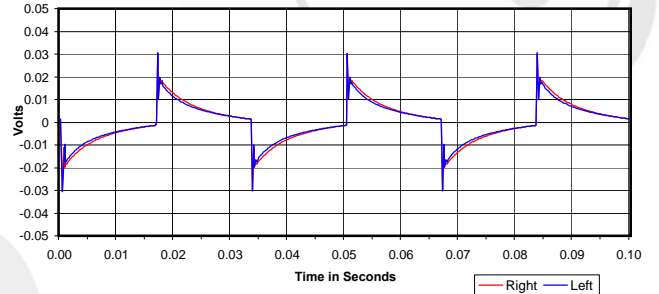
Isolation
Attenuation of External Sound vs. Frequency



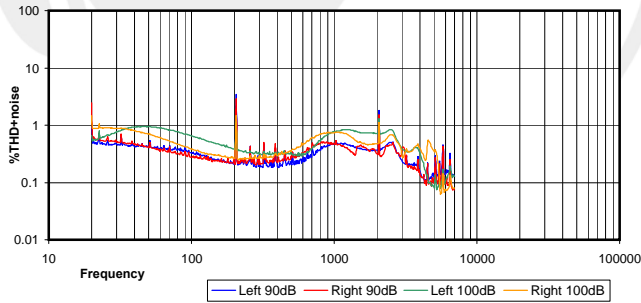
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



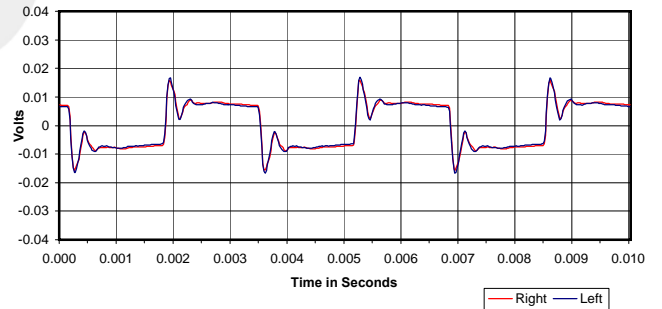
30 Hz Square Wave



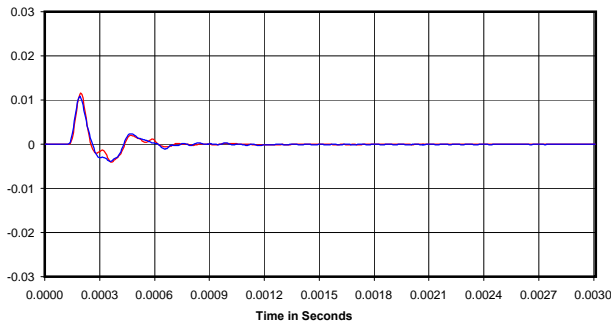
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

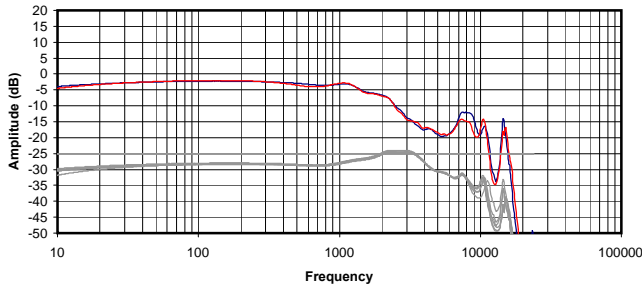


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

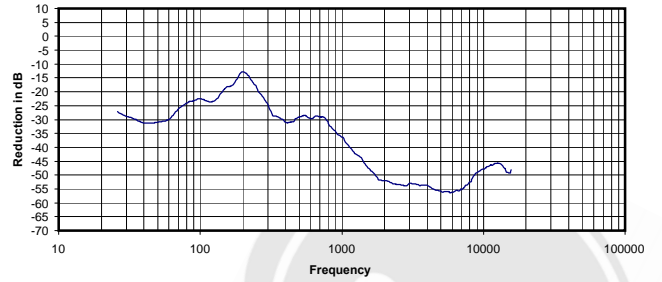
0.020 Vrms
22 Ohms
0.02 mW
-36 dB



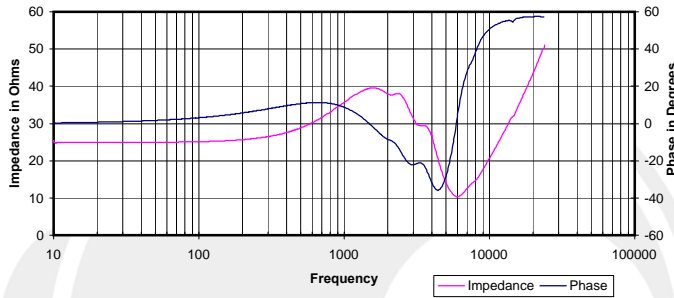
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



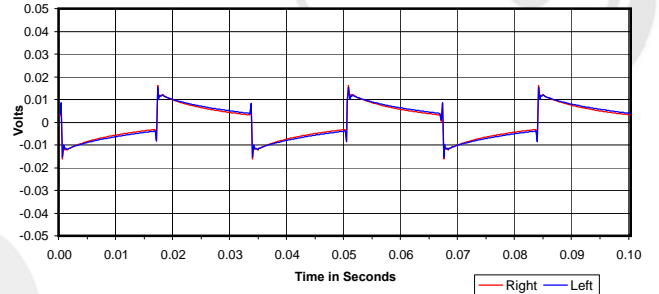
Isolation
 Attenuation of External Sound vs. Frequency



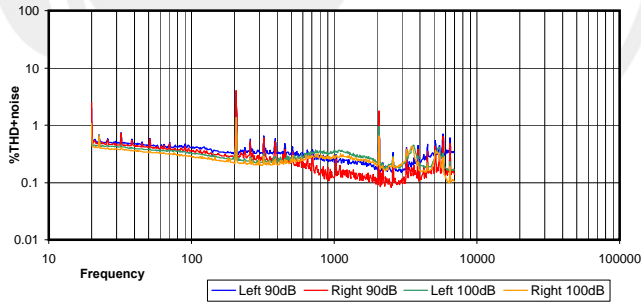
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



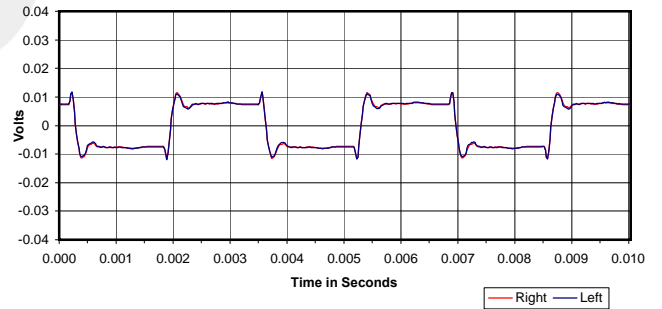
30 Hz Square Wave



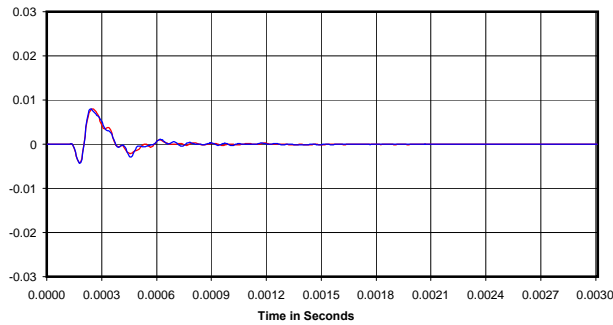
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

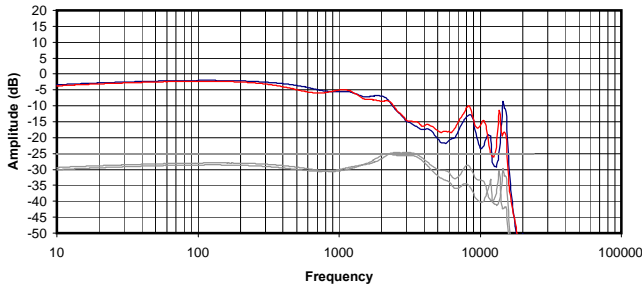


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

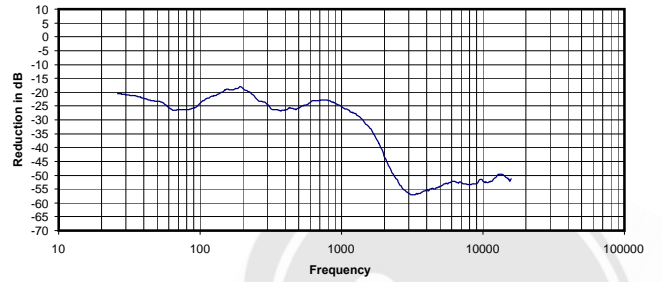
0.012 Vrms
 36 Ohms
 0.00 mW
 -36 dB



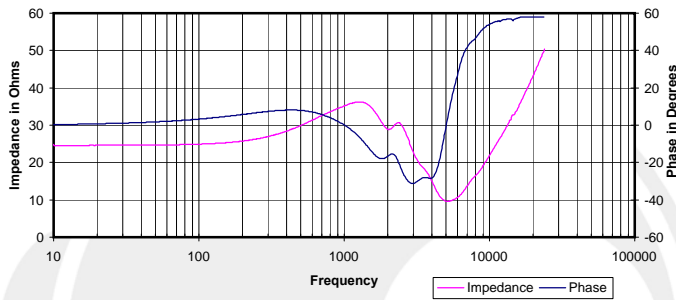
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



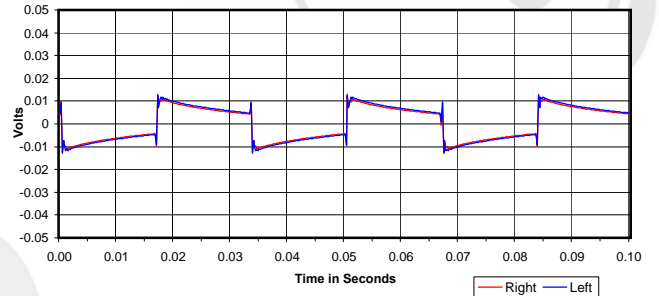
Isolation
Attenuation of External Sound vs. Frequency



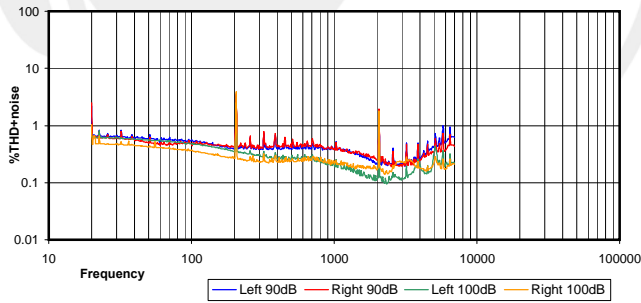
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



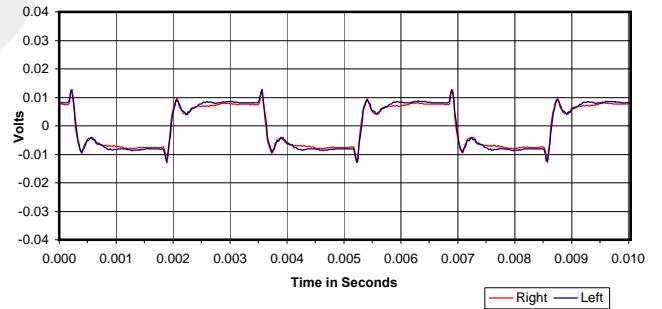
30 Hz Square Wave



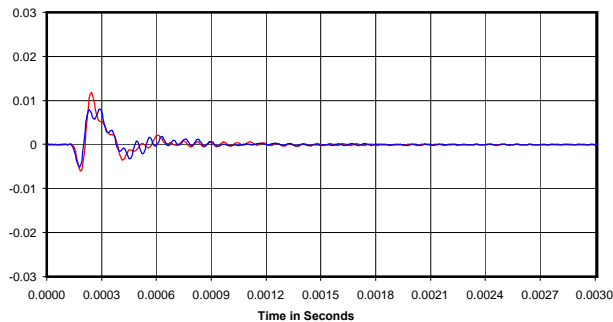
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

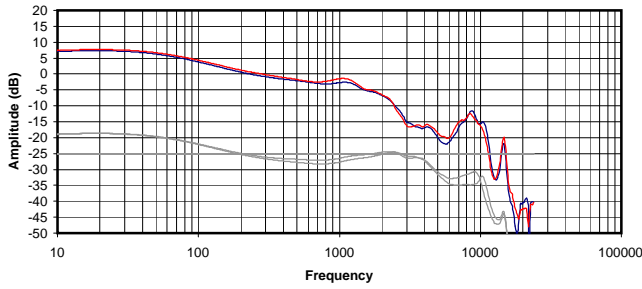


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

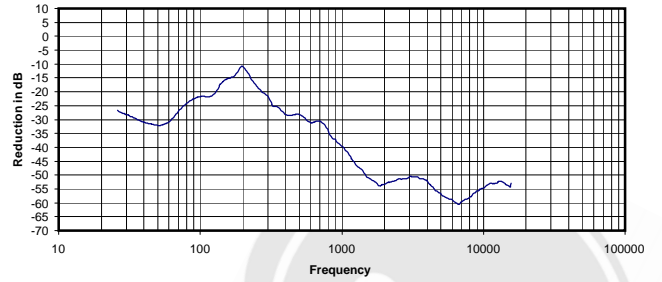
0.011 Vrms
35 Ohms
0.00 mW
-33 dB



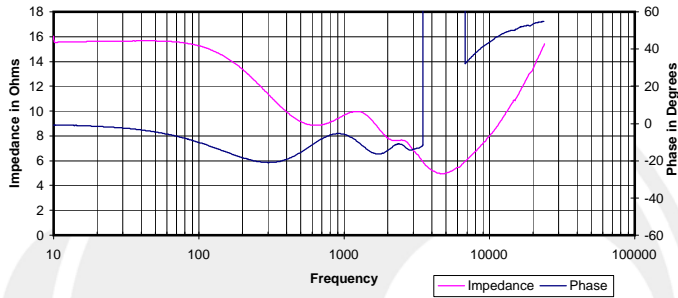
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



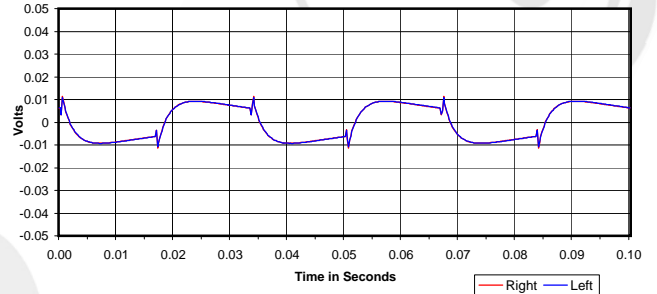
Isolation
Attenuation of External Sound vs. Frequency



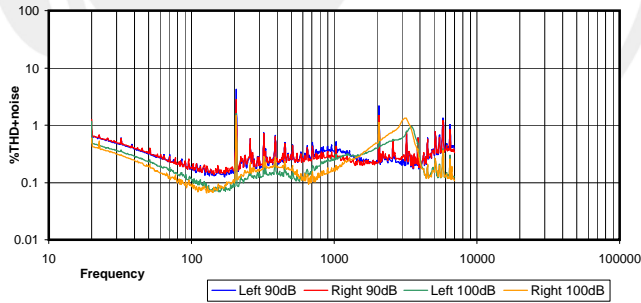
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



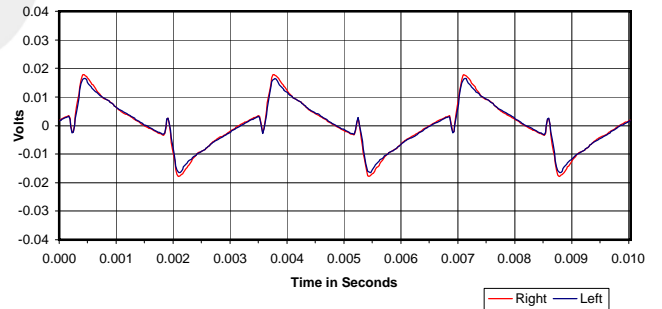
30 Hz Square Wave



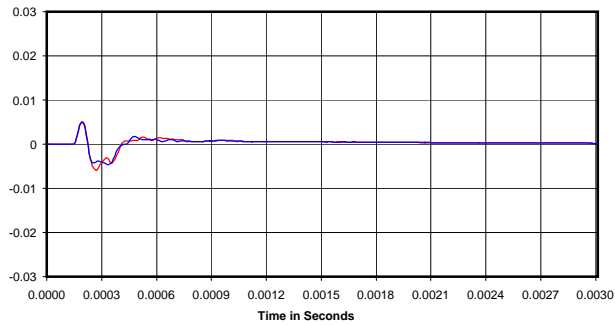
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

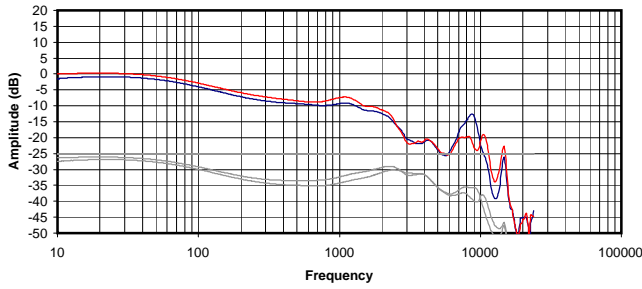


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

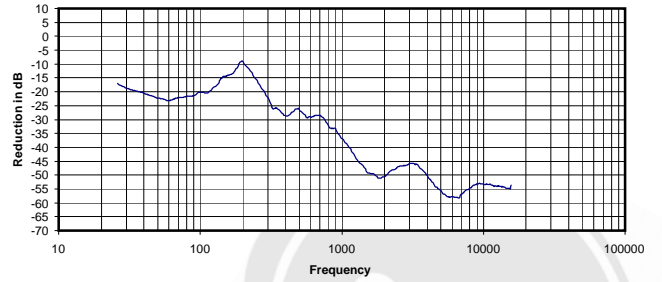
0.015 Vrms
10 Ohms
0.02 mW
-36 dB



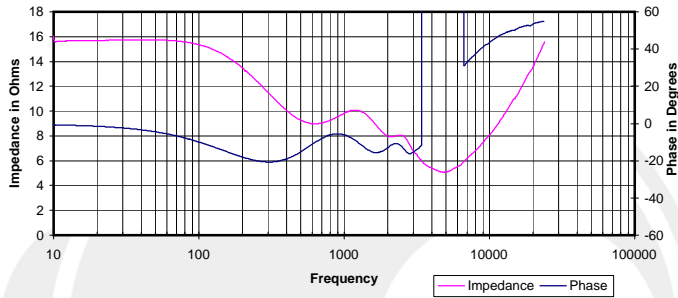
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



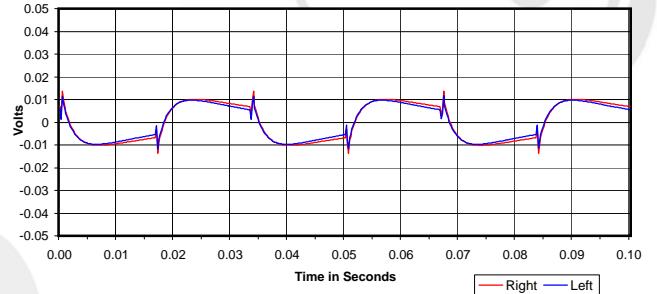
Isolation
Attenuation of External Sound vs. Frequency



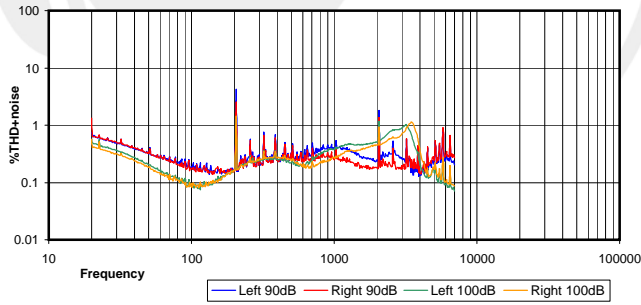
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



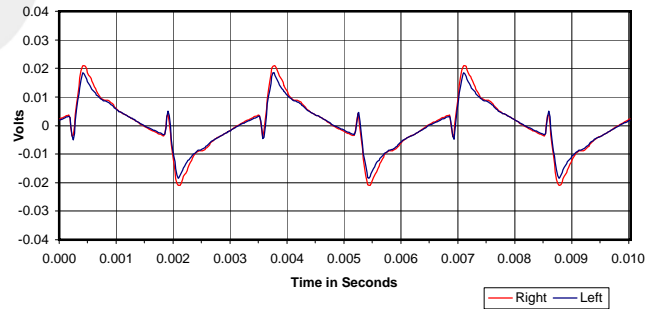
30 Hz Square Wave



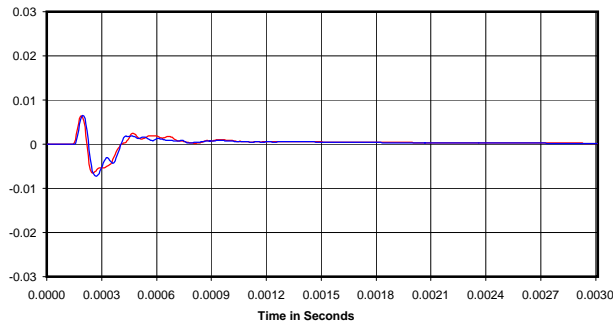
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

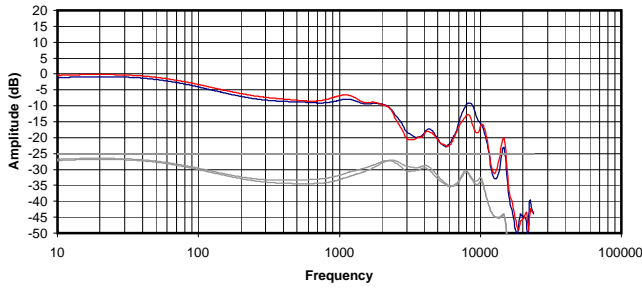


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

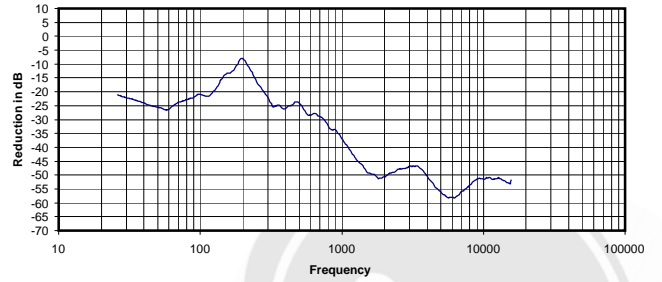
0.014 Vrms
10 Ohms
0.02 mW
-34 dB



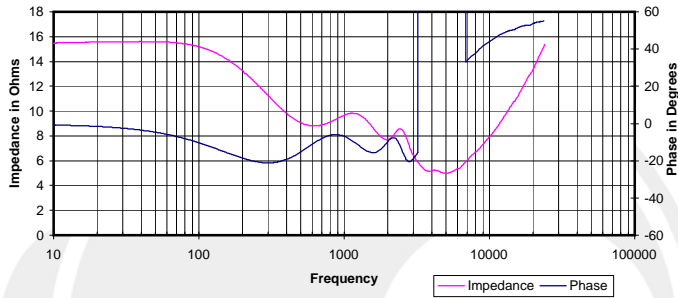
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



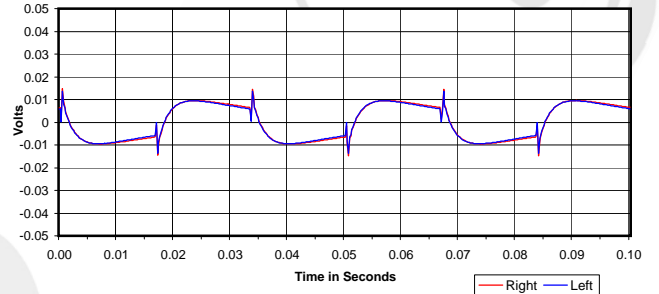
Isolation
Attenuation of External Sound vs. Frequency



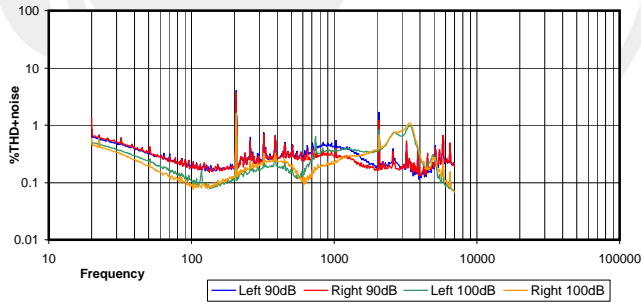
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



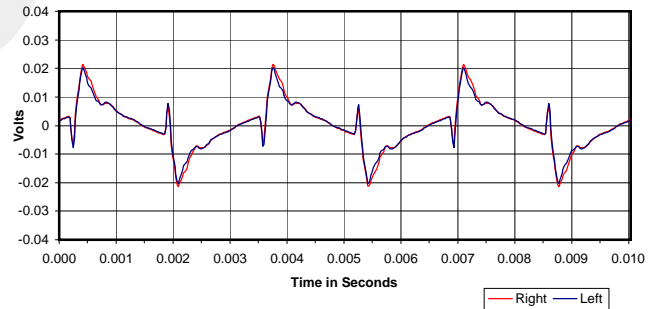
30 Hz Square Wave



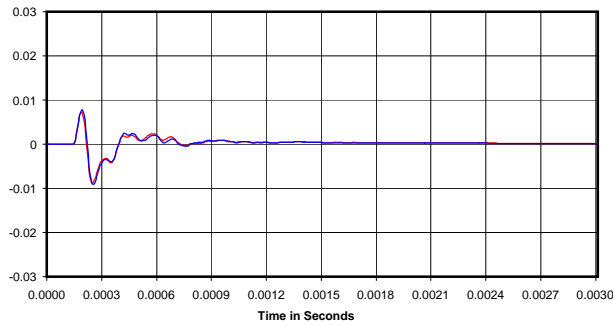
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

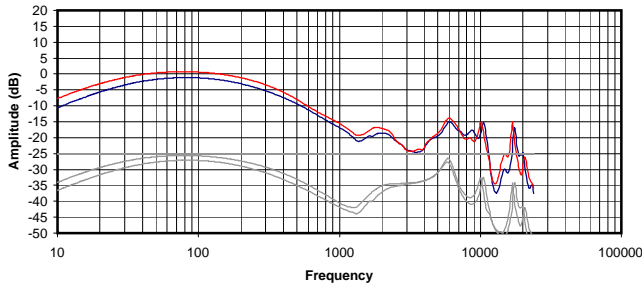


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

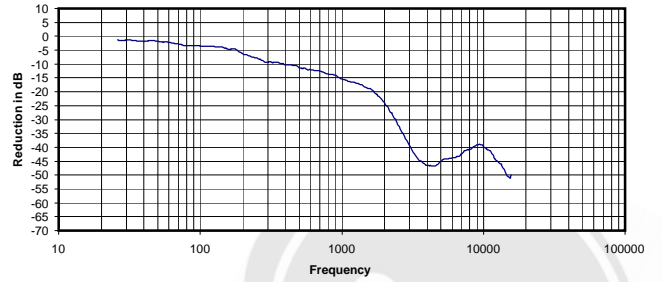
0.012 Vrms
10 Ohms
0.01 mW
-34 dB



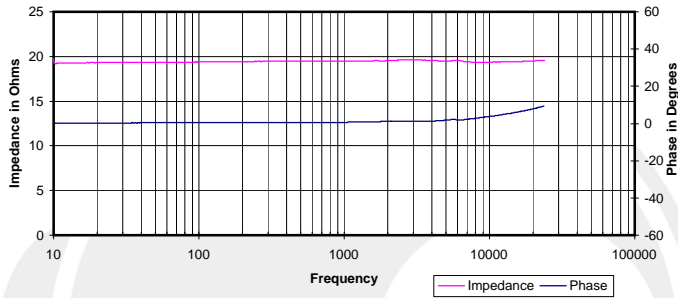
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



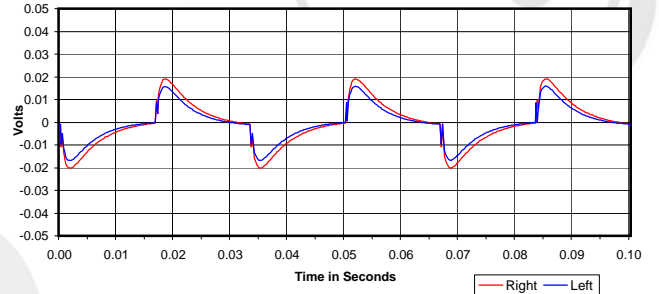
Isolation
Attenuation of External Sound vs. Frequency



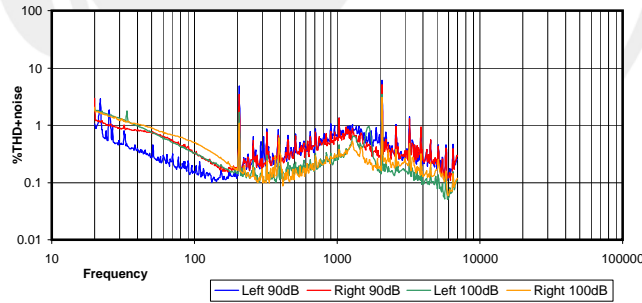
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



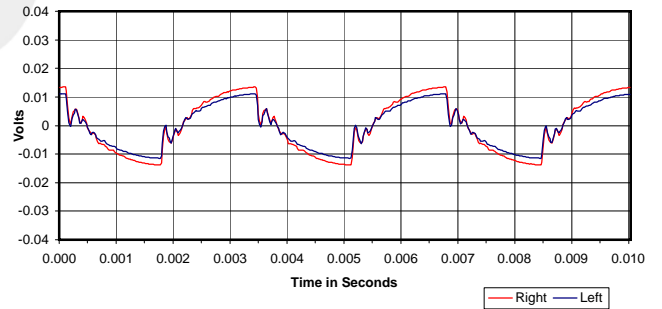
30 Hz Square Wave



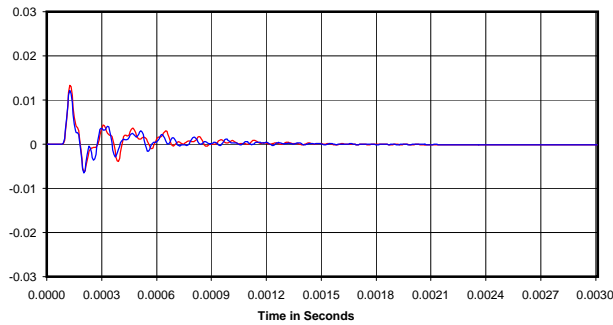
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



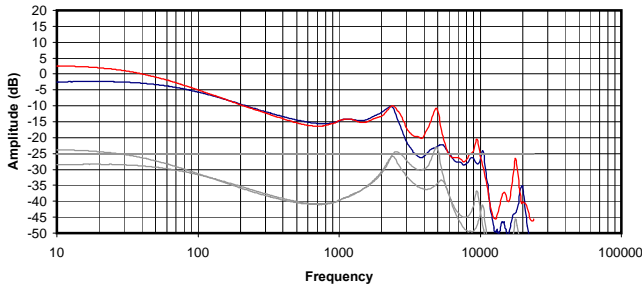
Impulse Response



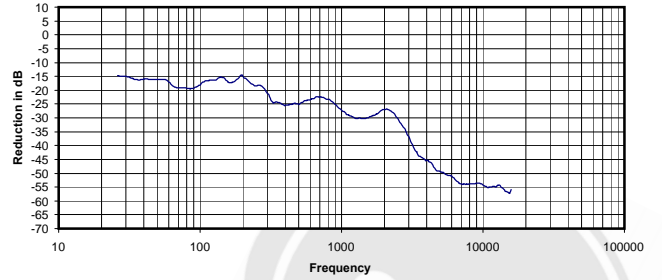
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
19 Ohms
0.17 mW
-19 dB

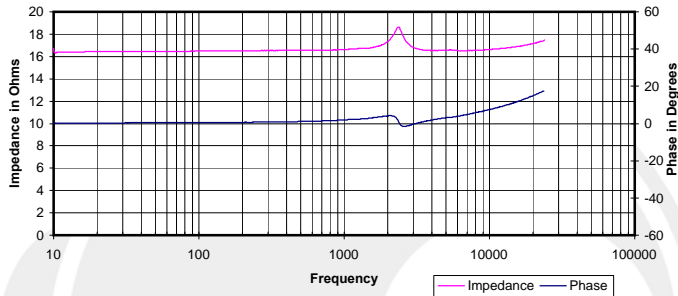
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



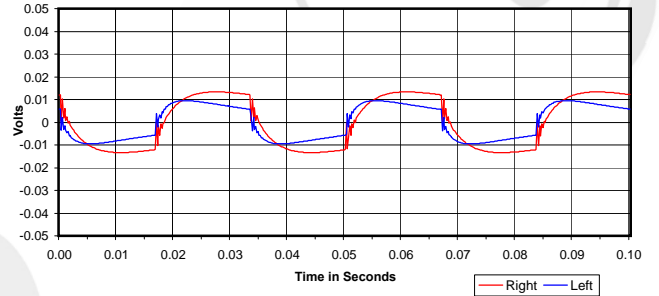
Isolation
Attenuation of External Sound vs. Frequency



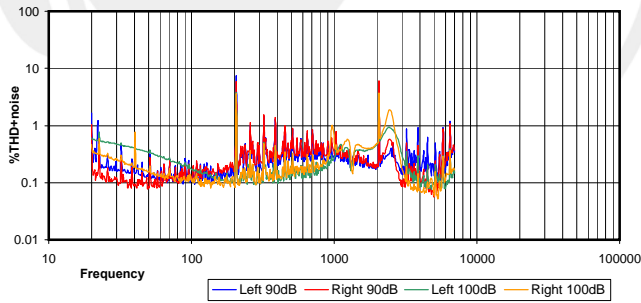
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



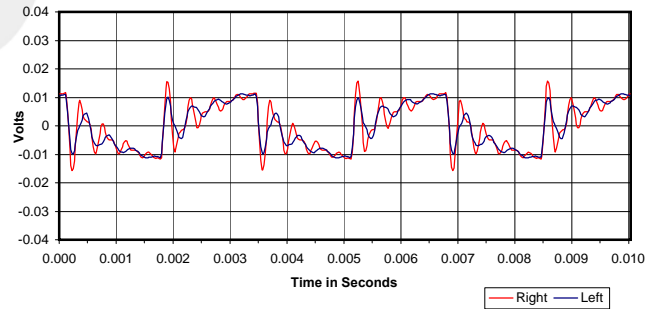
30 Hz Square Wave



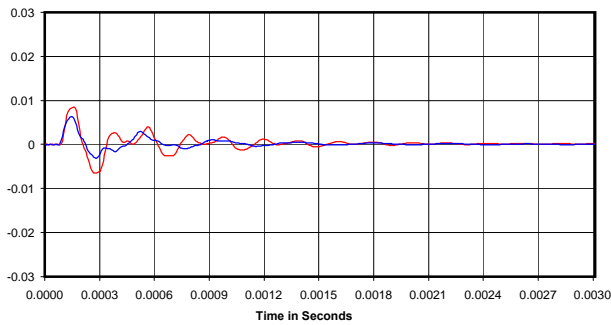
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

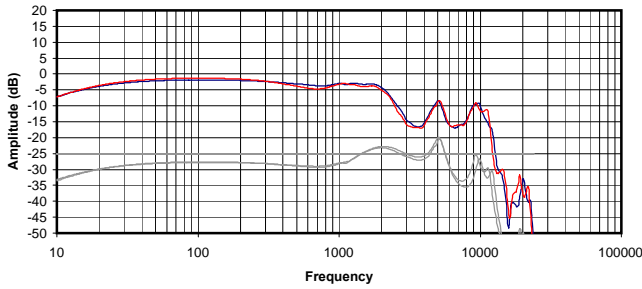


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

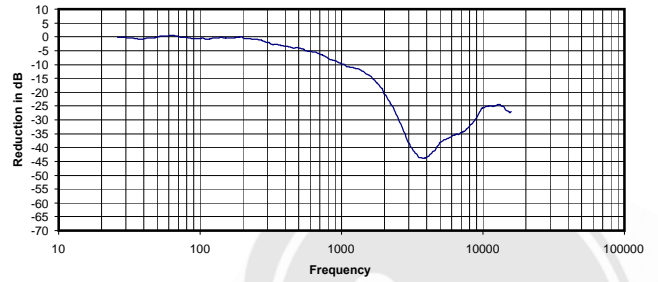
0.035 Vrms
17 Ohms
0.08 mW
-28 dB



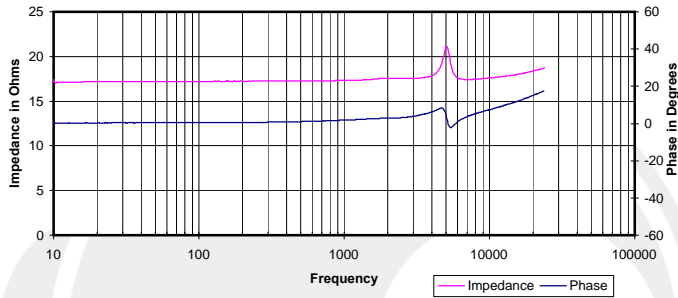
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



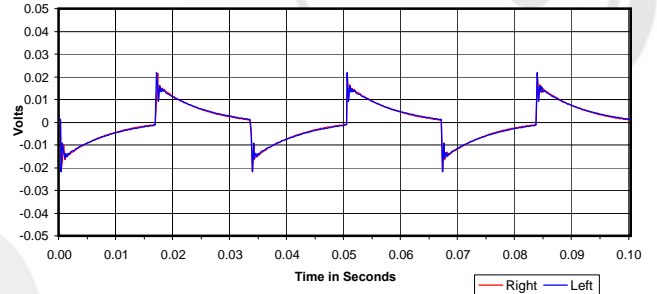
Isolation
Attenuation of External Sound vs. Frequency



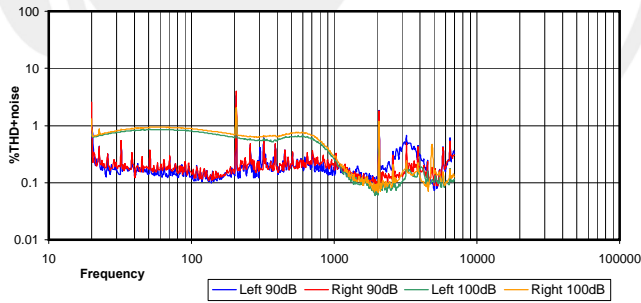
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



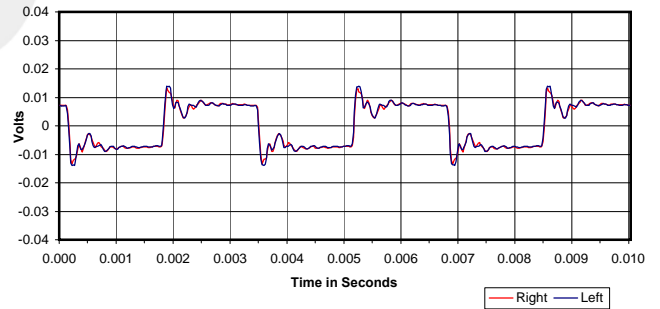
30 Hz Square Wave



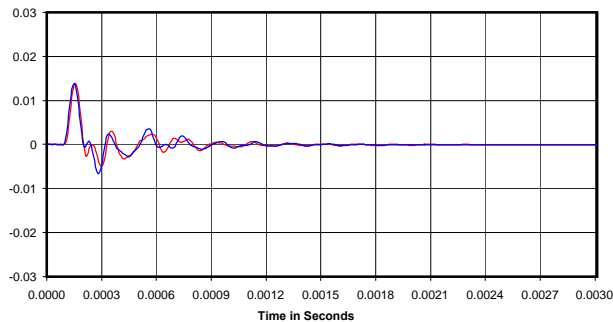
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



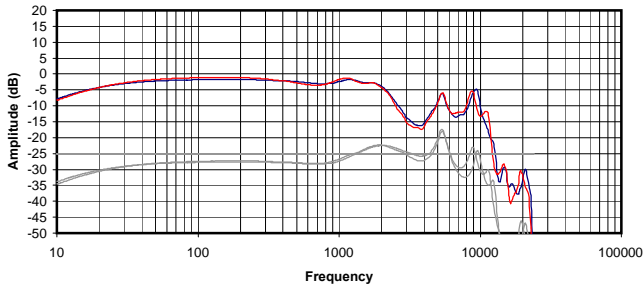
Impulse Response



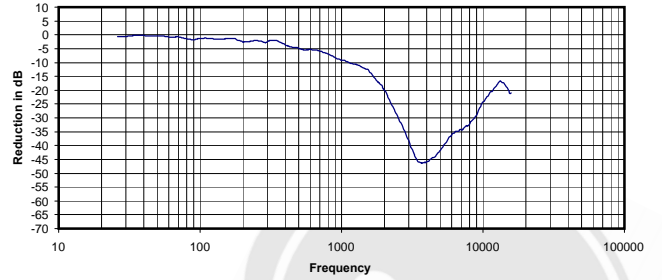
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.018 Vrms
17 Ohms
0.02 mW
-14 dB

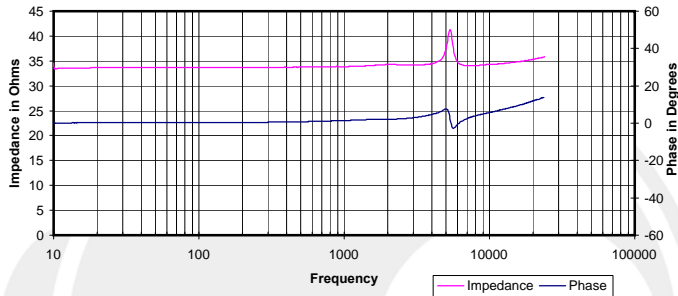
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



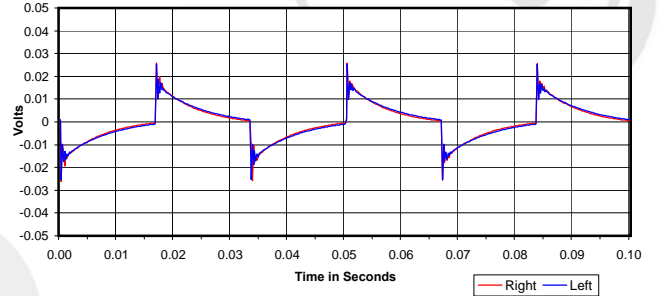
Isolation
Attenuation of External Sound vs. Frequency



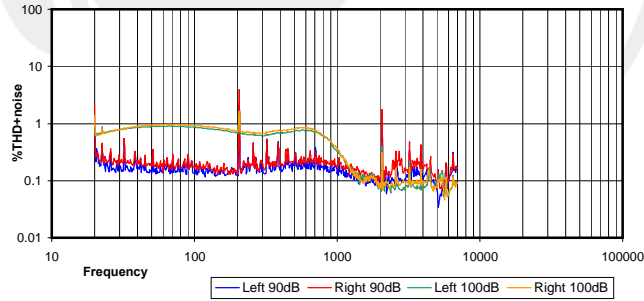
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



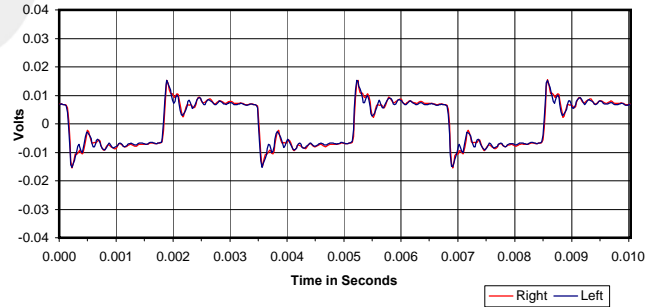
30 Hz Square Wave



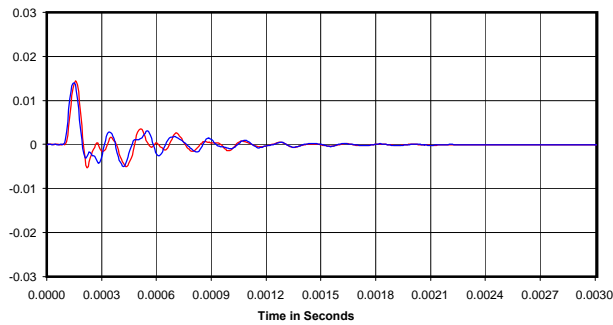
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

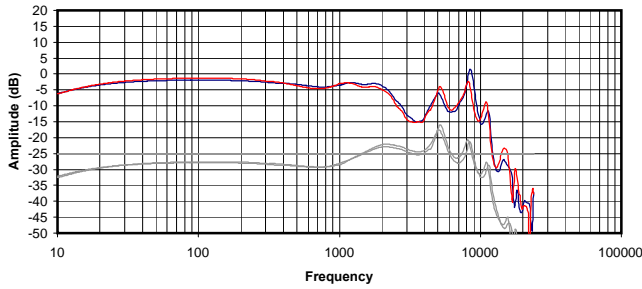


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

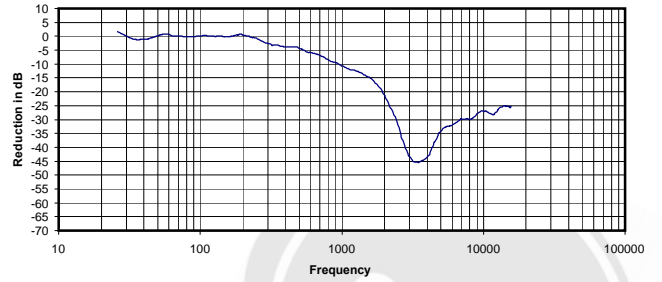
0.027 Vrms
34 Ohms
0.02 mW
-14 dB



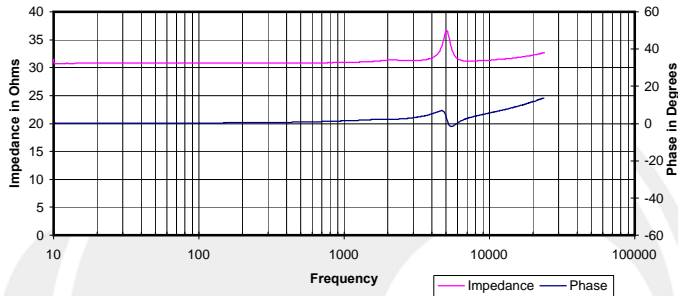
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



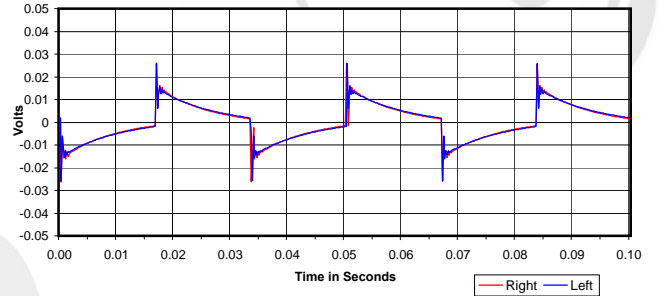
Isolation
Attenuation of External Sound vs. Frequency



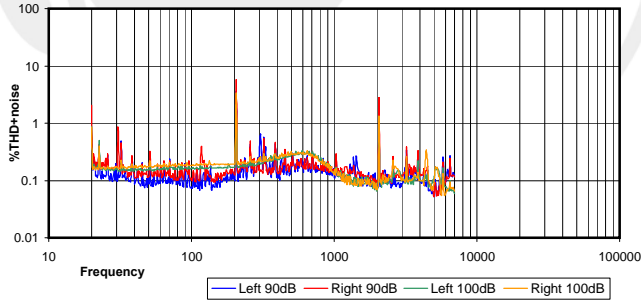
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



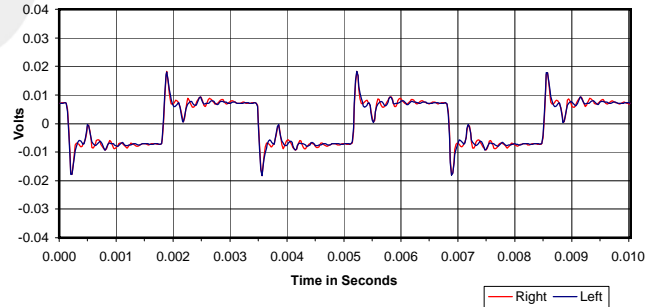
30 Hz Square Wave



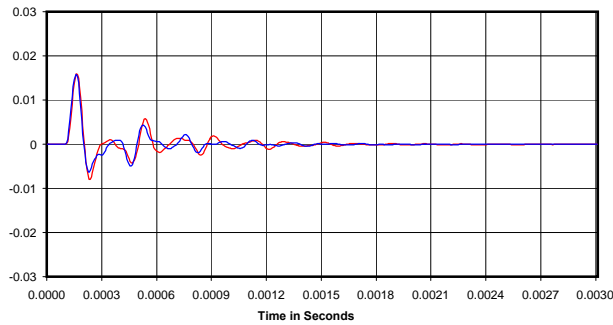
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

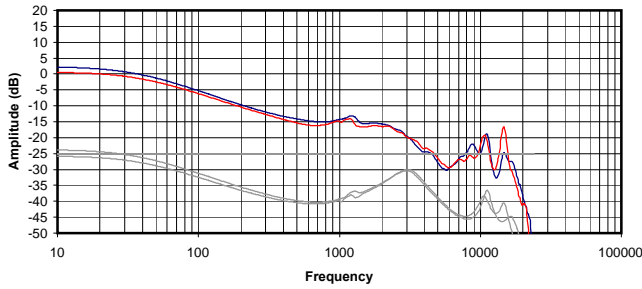


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

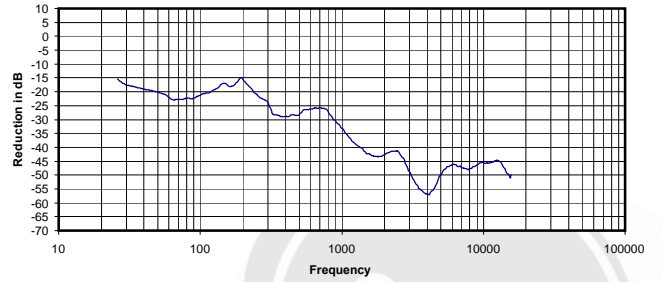
0.032 Vrms
31 Ohms
0.03 mW
-14 dB



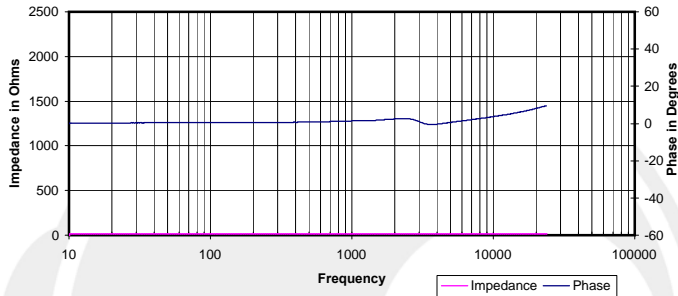
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



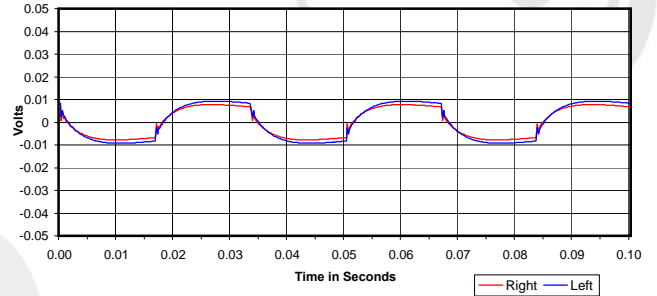
Isolation
Attenuation of External Sound vs. Frequency



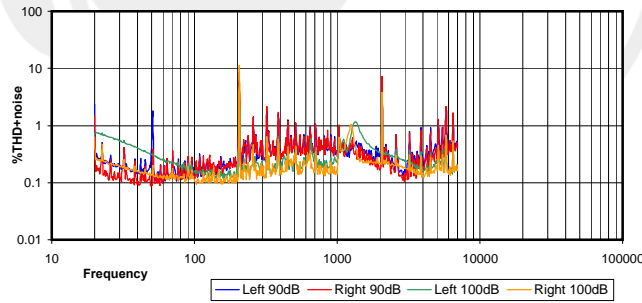
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



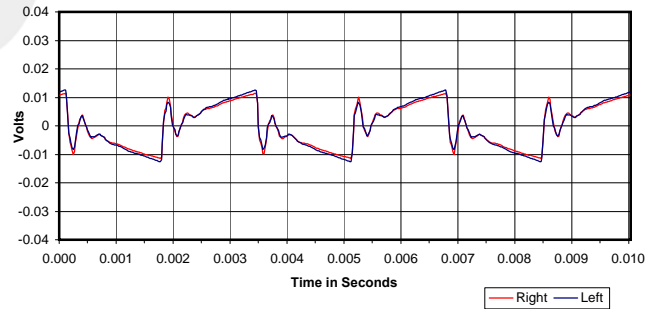
30 Hz Square Wave



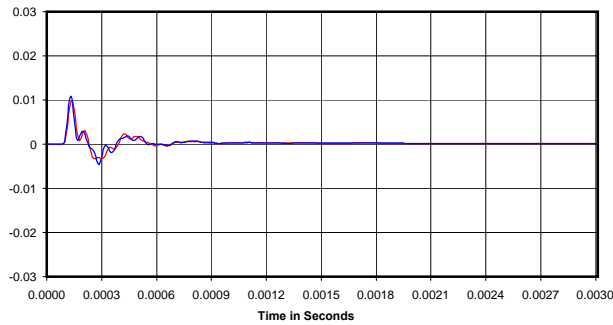
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

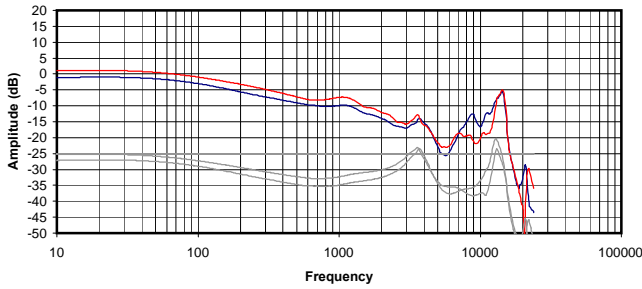


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

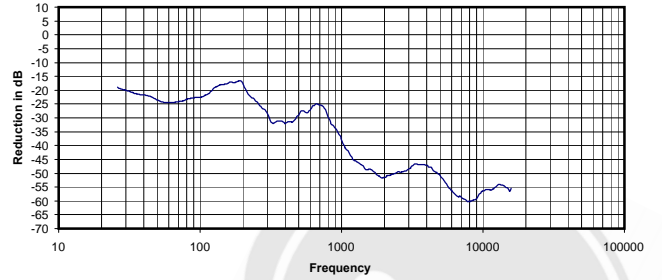
0.047 Vrms
16 Ohms
0.14 mW
-33 dB



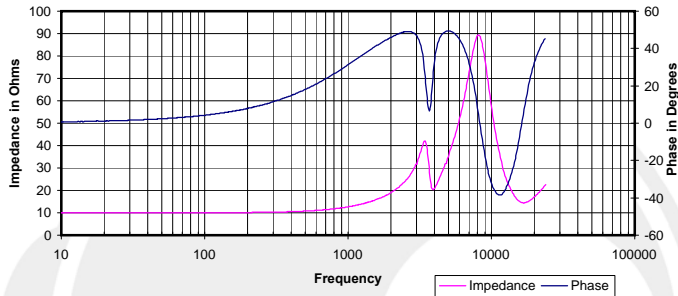
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



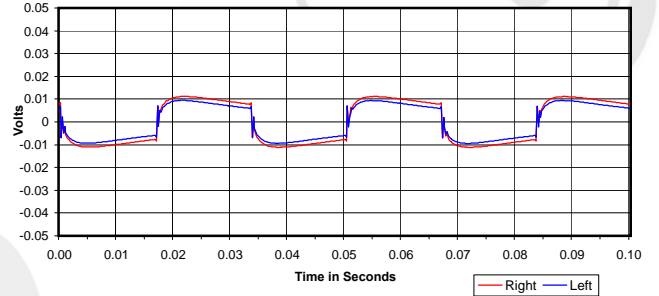
Isolation
Attenuation of External Sound vs. Frequency



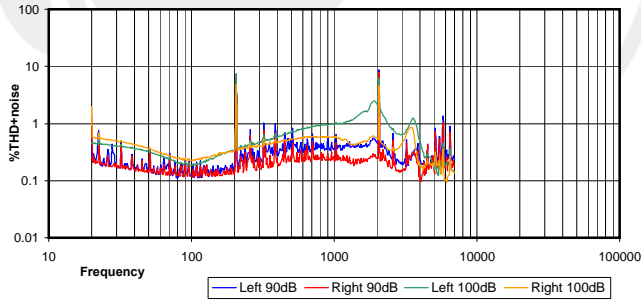
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



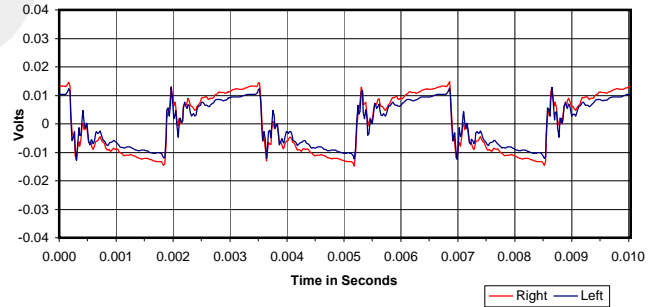
30 Hz Square Wave



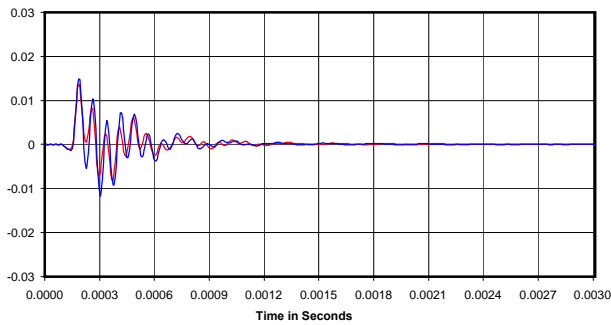
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



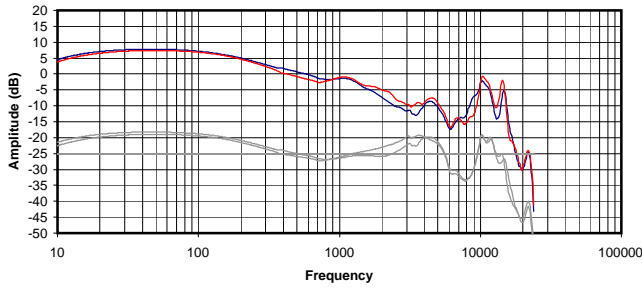
Impulse Response



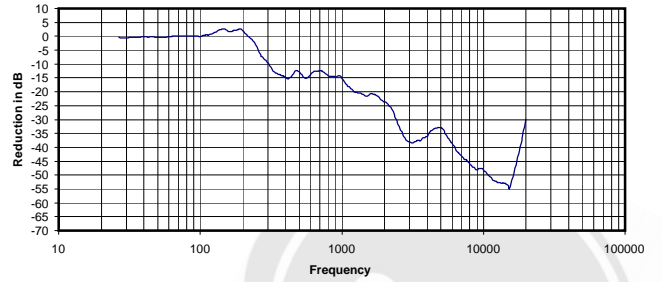
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
13 Ohms
0.27 mW
-36 dB

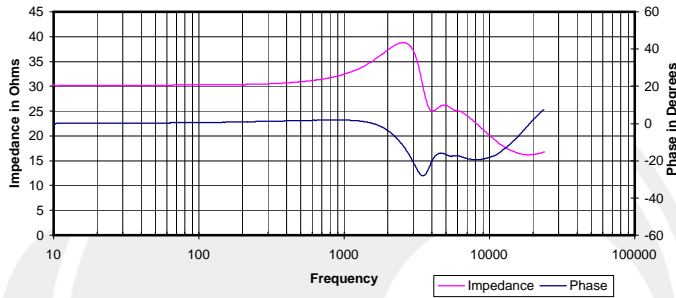
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



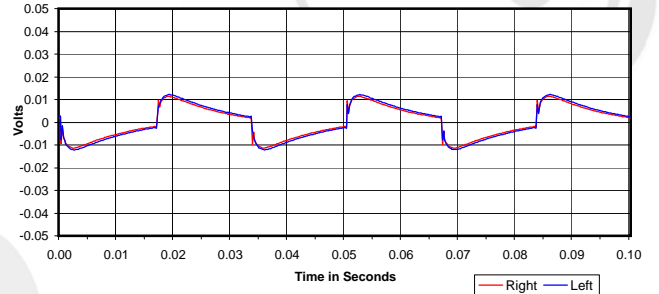
Isolation
Attenuation of External Sound vs. Frequency



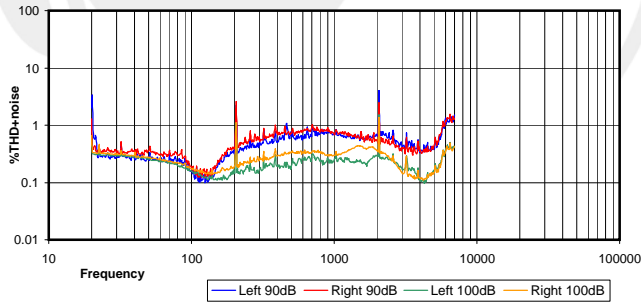
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



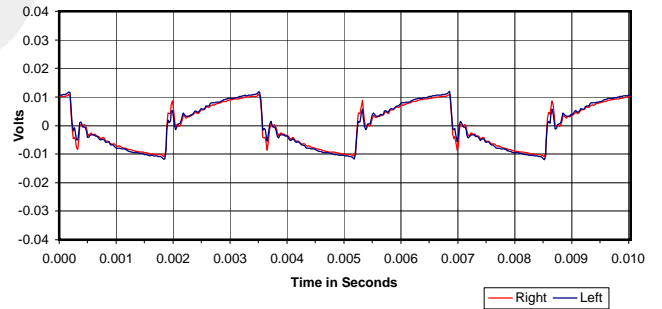
30 Hz Square Wave



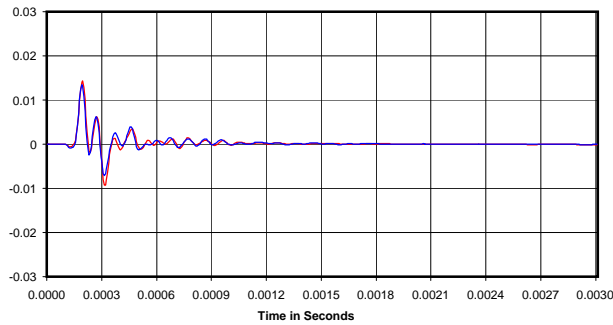
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

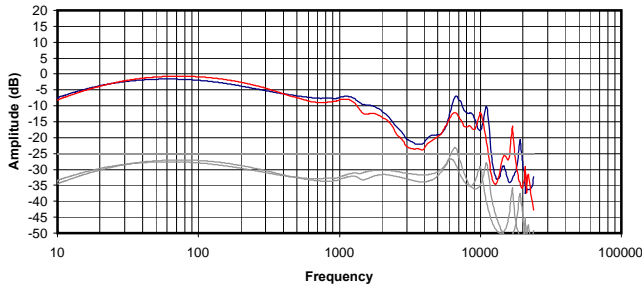


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

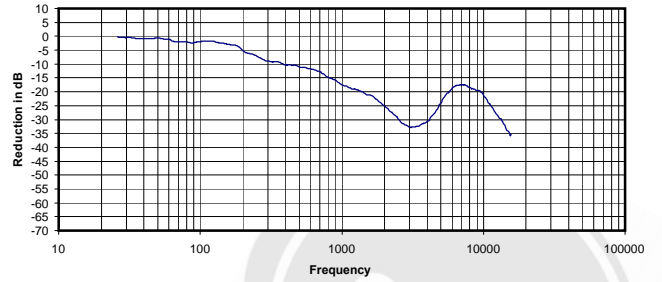
0.044 Vrms
32 Ohms
0.06 mW
-20 dB



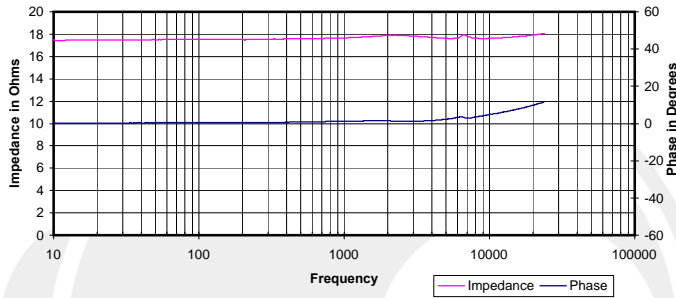
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



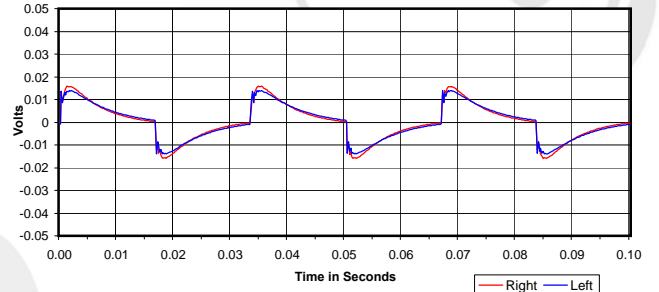
Isolation
Attenuation of External Sound vs. Frequency



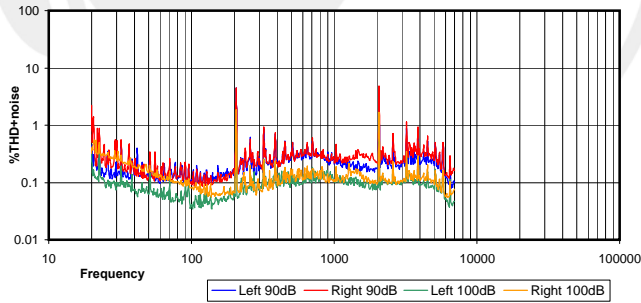
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



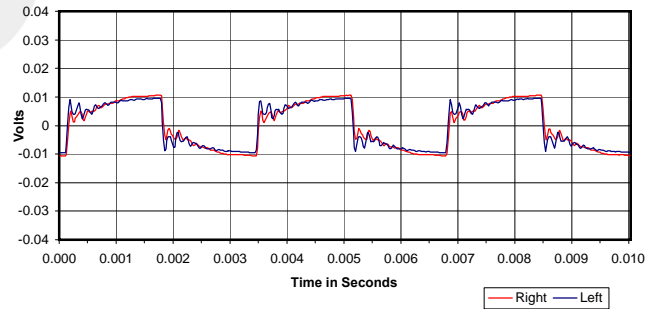
30 Hz Square Wave



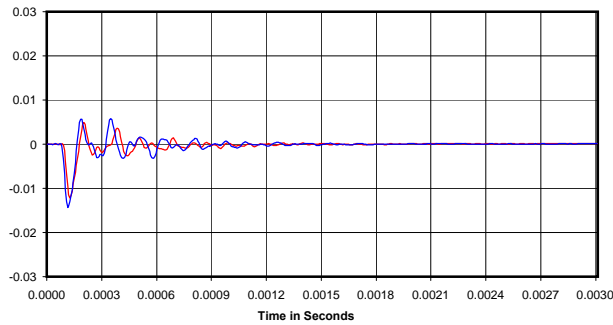
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



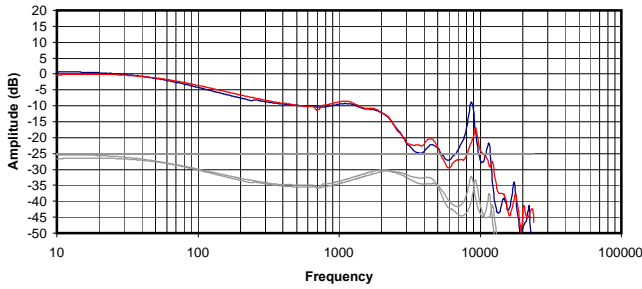
Impulse Response



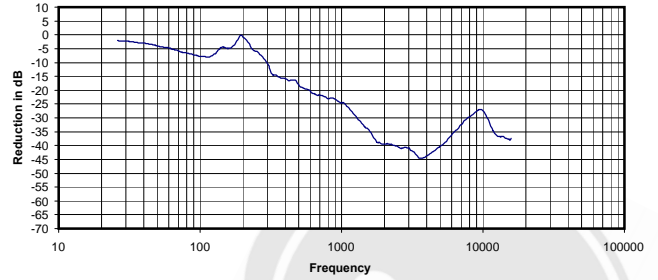
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.019 Vrms
18 Ohms
0.02 mW
-15 dB

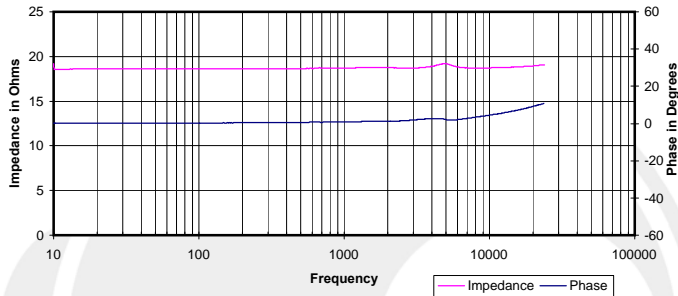
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



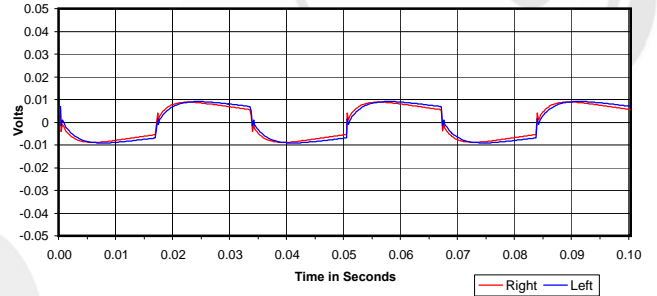
Isolation
Attenuation of External Sound vs. Frequency



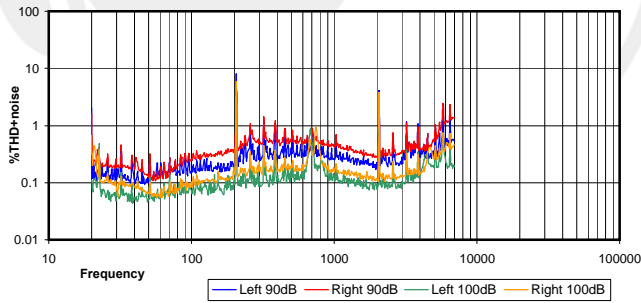
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



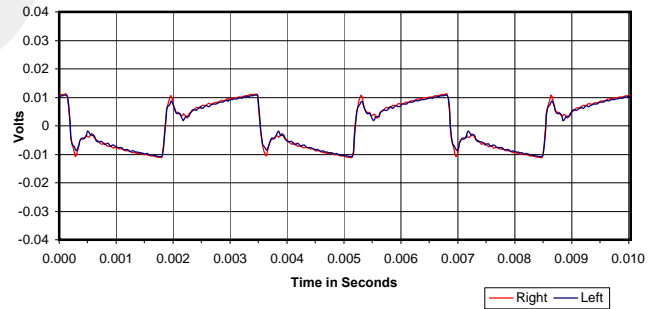
30 Hz Square Wave



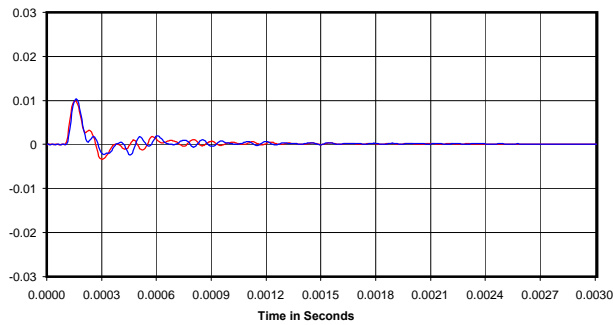
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

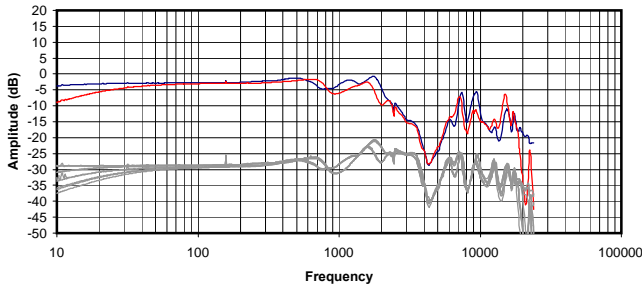


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

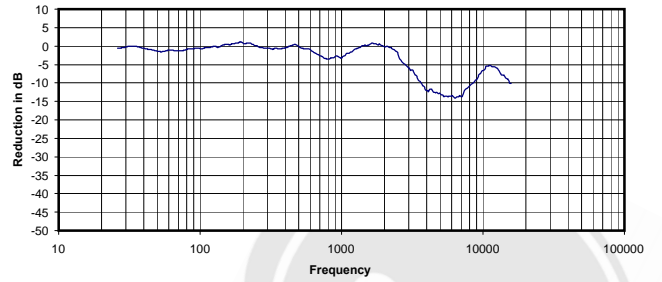
0.024 Vrms
19 Ohms
0.03 mW
-23 dB



Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

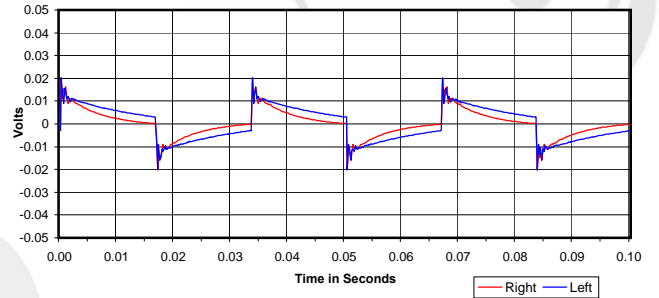


Isolation
 Attenuation of External Sound vs. Frequency

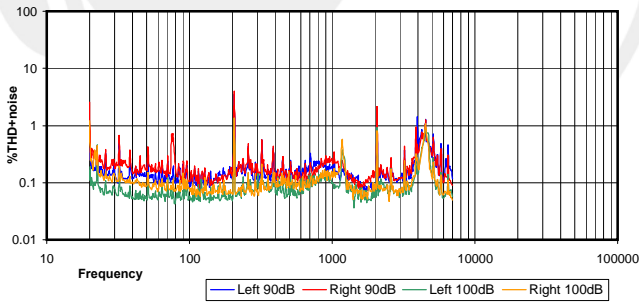


Electrical Impedance and phase measurements unavailable for Electrostatic headphones.

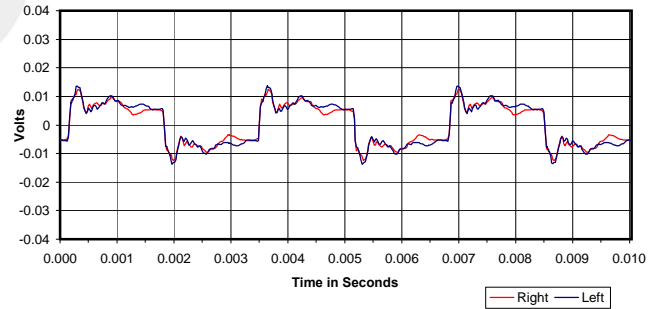
30 Hz Square Wave



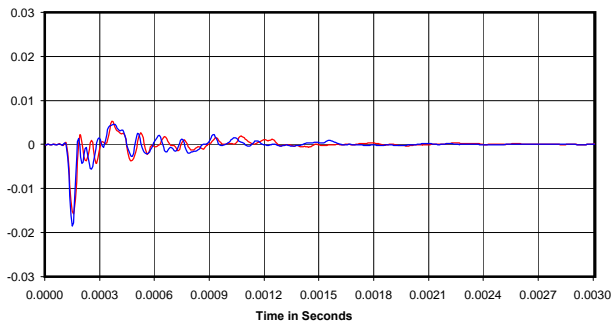
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



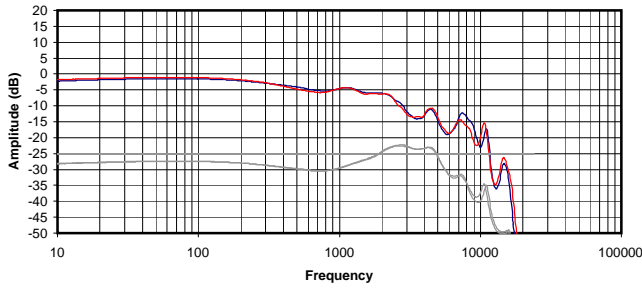
Impulse Response



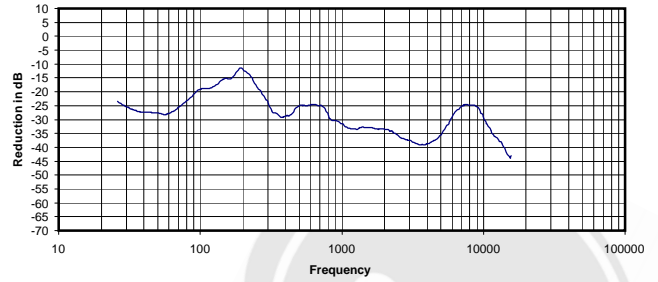
Broadband Isolation in dB (100Hz to 10kHz):

-3 dB

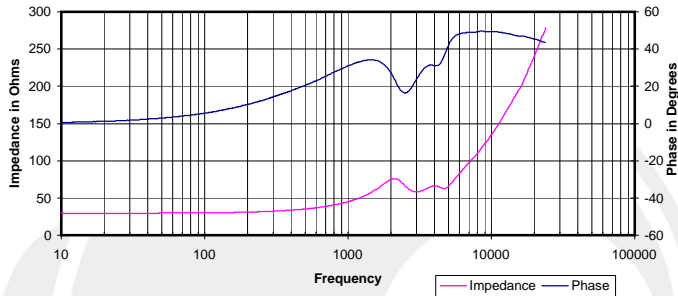
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



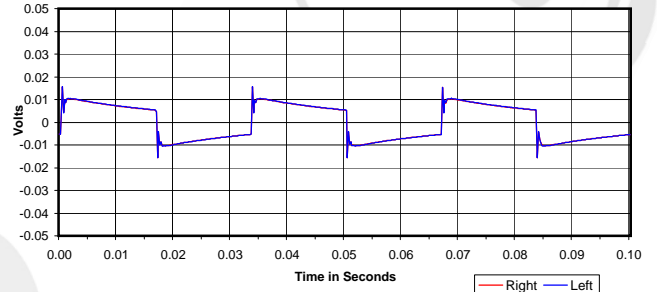
Isolation
Attenuation of External Sound vs. Frequency



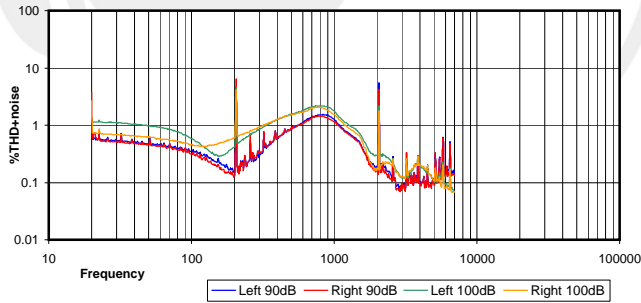
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



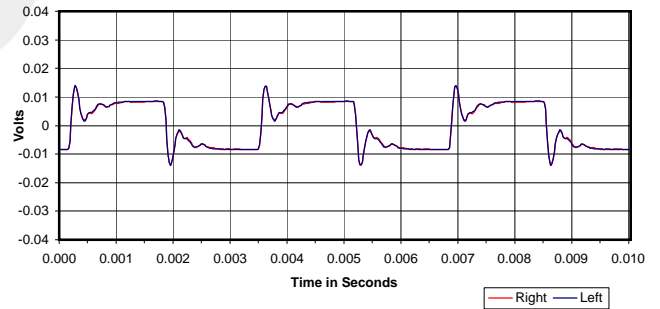
30 Hz Square Wave



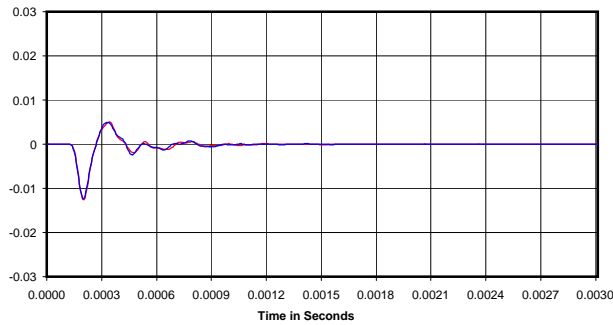
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

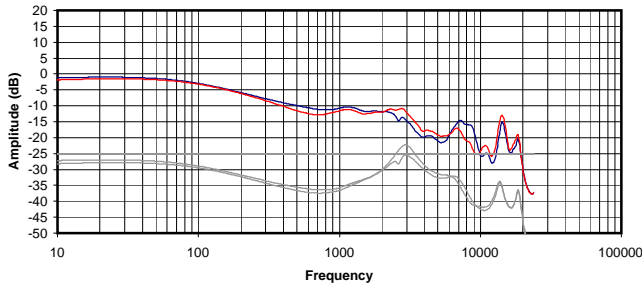


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

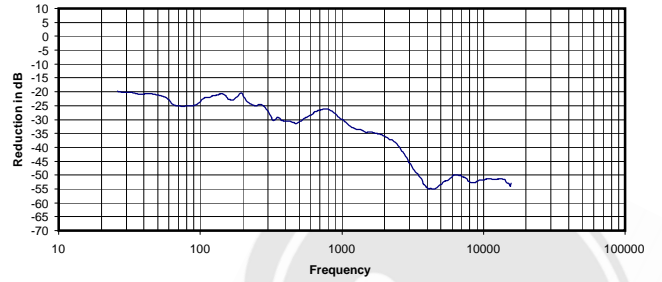
0.023 Vrms
45 Ohms
0.01 mW
-28 dB



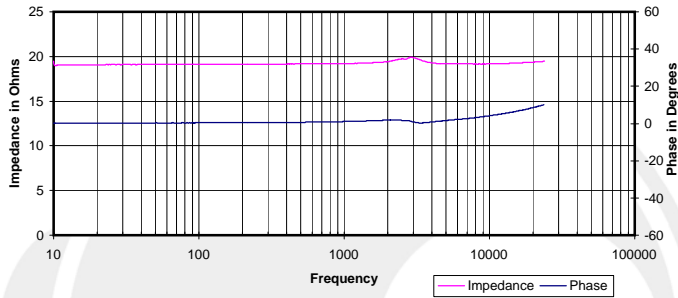
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



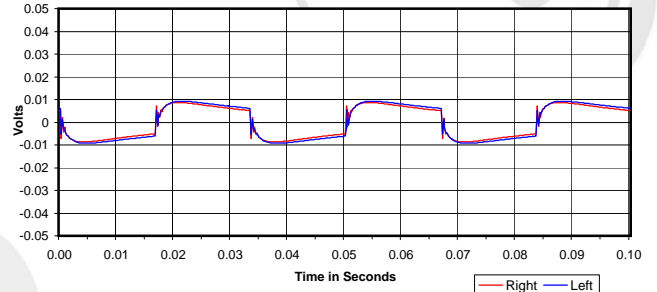
Isolation
Attenuation of External Sound vs. Frequency



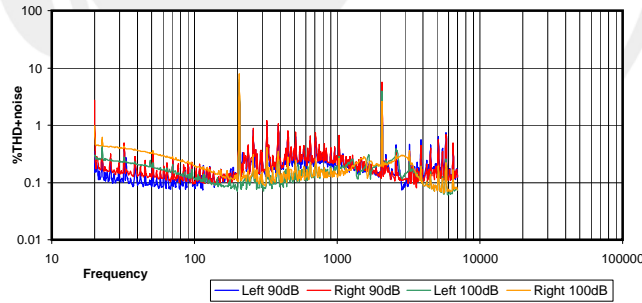
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



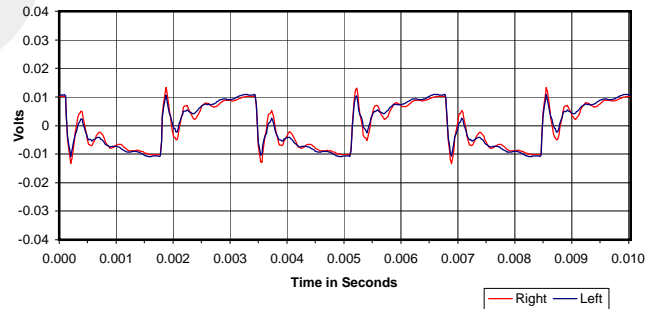
30 Hz Square Wave



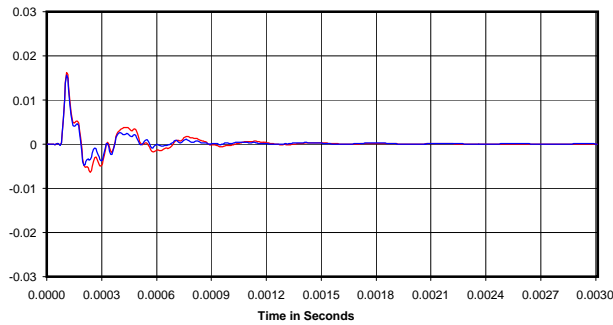
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

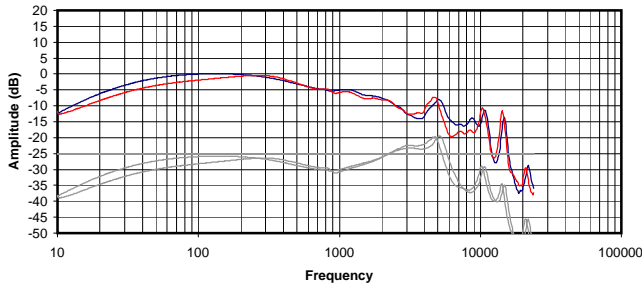


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

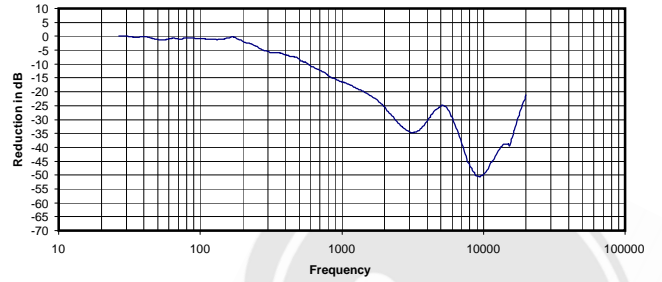
0.052 Vrms
19 Ohms
0.14 mW
-33 dB



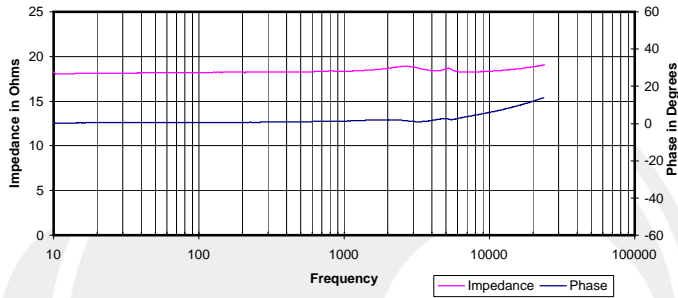
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



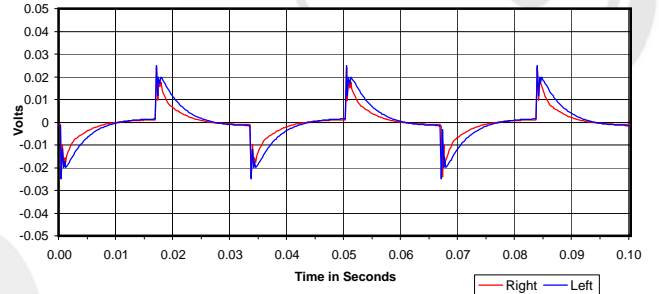
Isolation
Attenuation of External Sound vs. Frequency



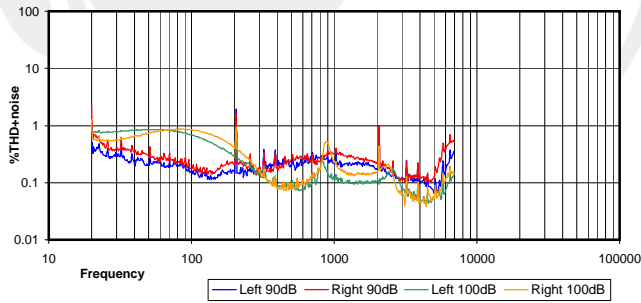
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



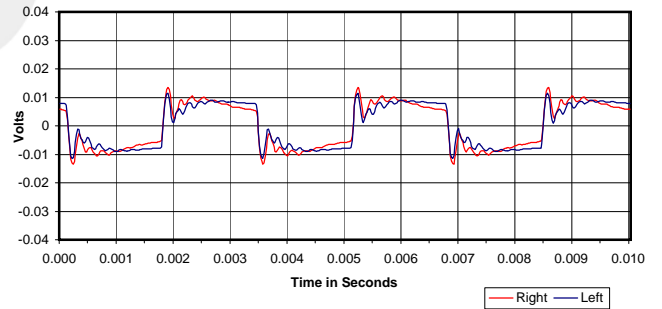
30 Hz Square Wave



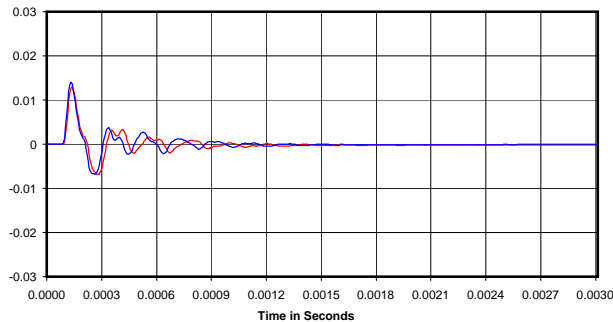
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



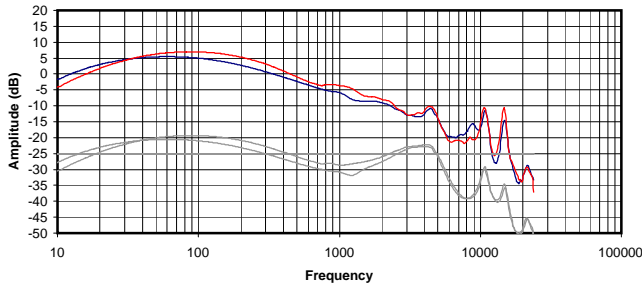
Impulse Response



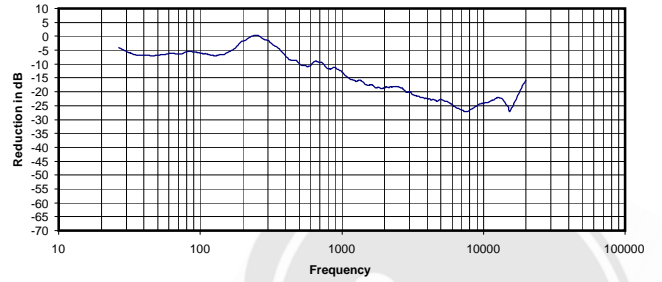
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
18 Ohms
0.03 mW
-18 dB

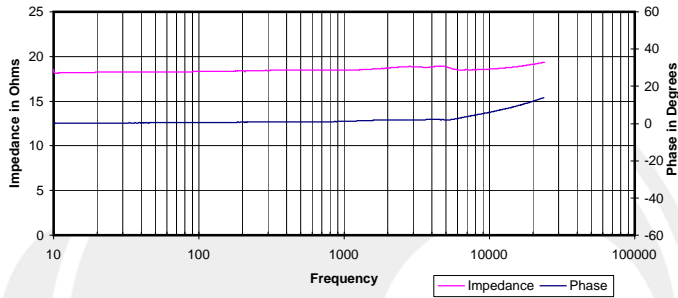
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



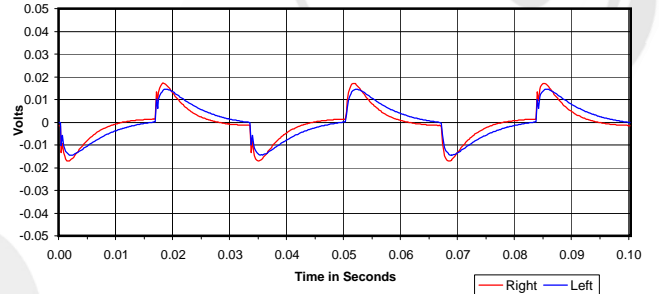
Isolation
Attenuation of External Sound vs. Frequency



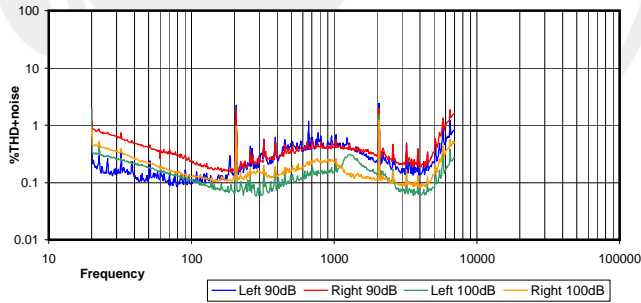
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



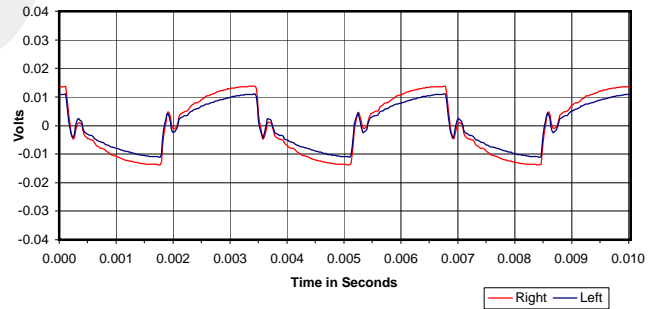
30 Hz Square Wave



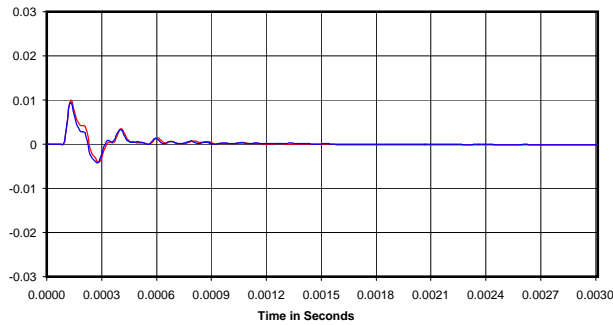
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



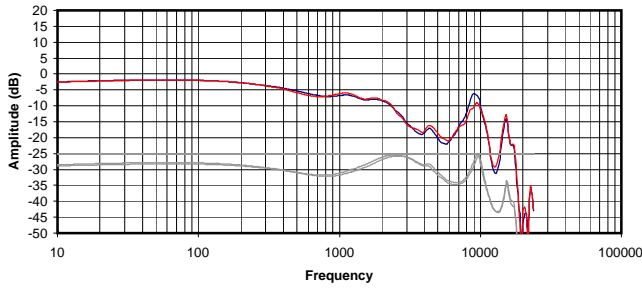
Impulse Response



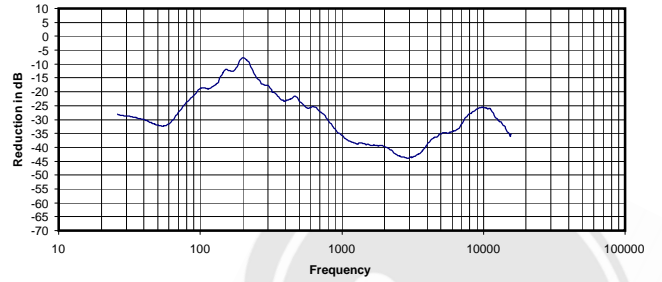
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.028 Vrms
19 Ohms
0.04 mW
-14 dB

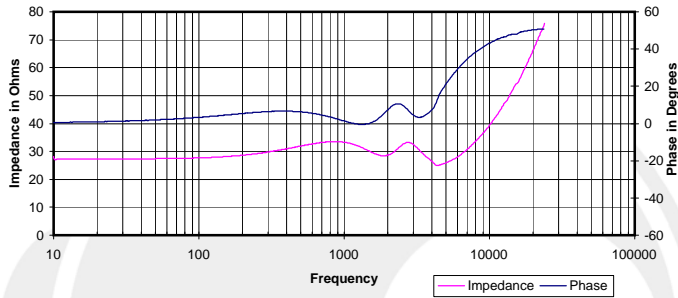
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



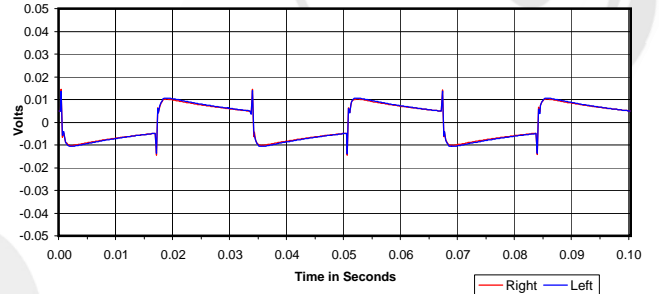
Isolation
Attenuation of External Sound vs. Frequency



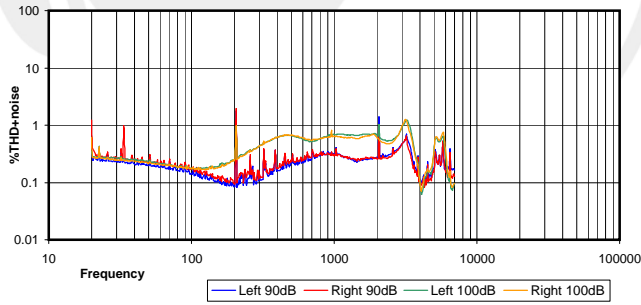
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



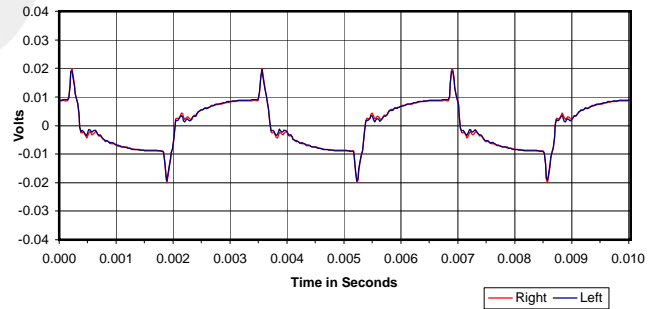
30 Hz Square Wave



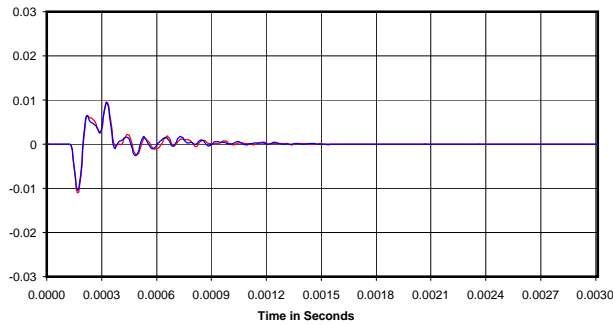
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



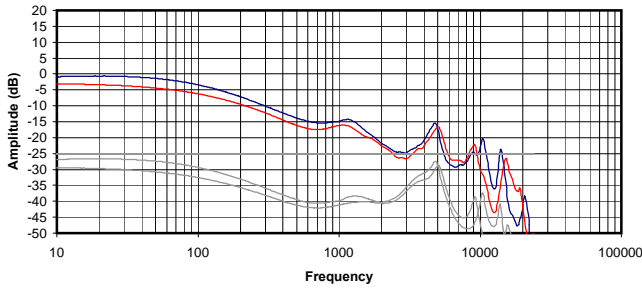
Impulse Response



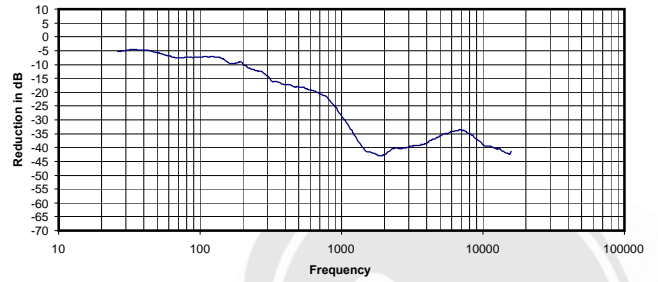
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
33 Ohms
0.04 mW
-28 dB

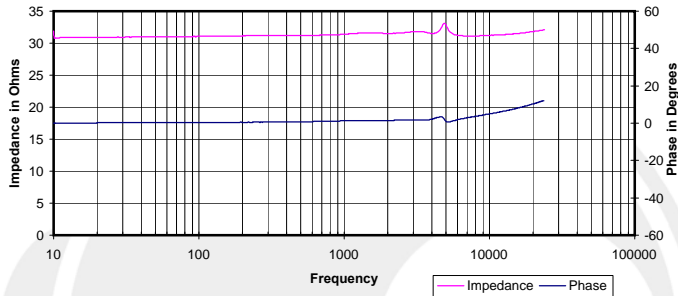
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



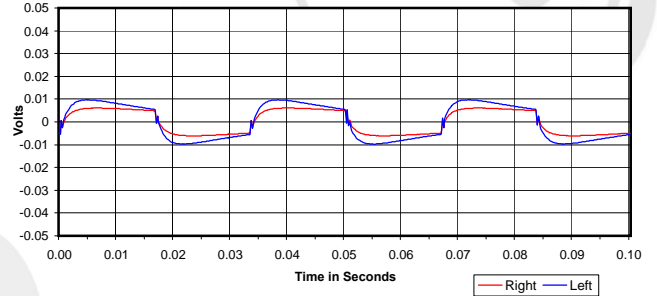
Isolation
Attenuation of External Sound vs. Frequency



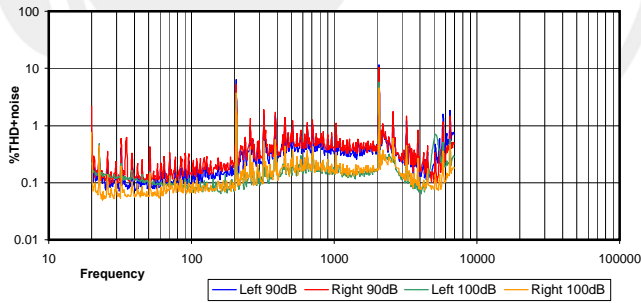
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



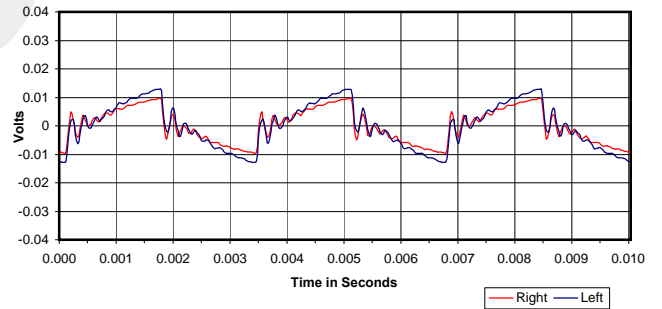
30 Hz Square Wave



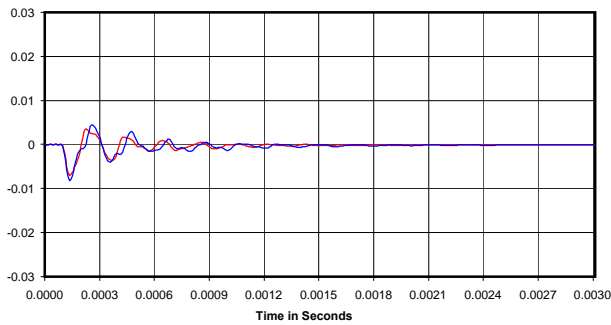
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

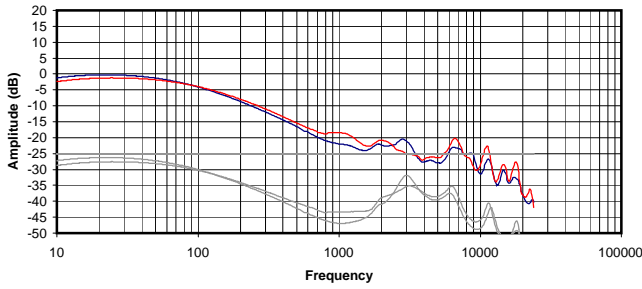


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

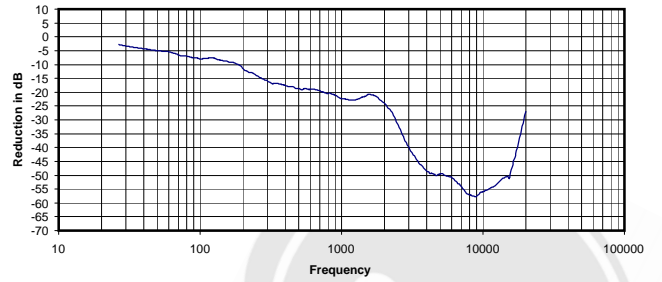
0.031 Vrms
31 Ohms
0.03 mW
-25 dB



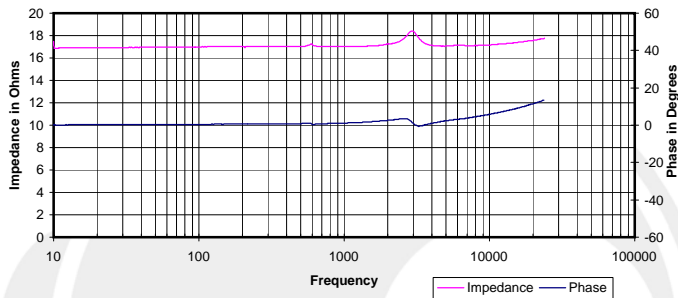
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



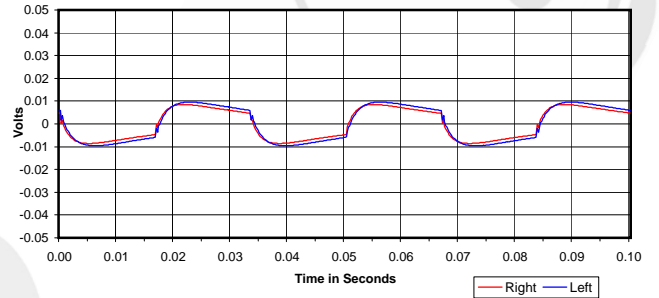
Isolation
Attenuation of External Sound vs. Frequency



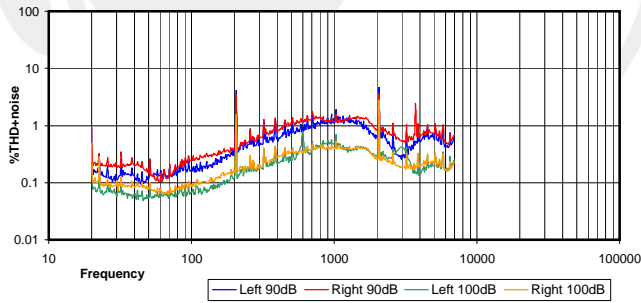
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



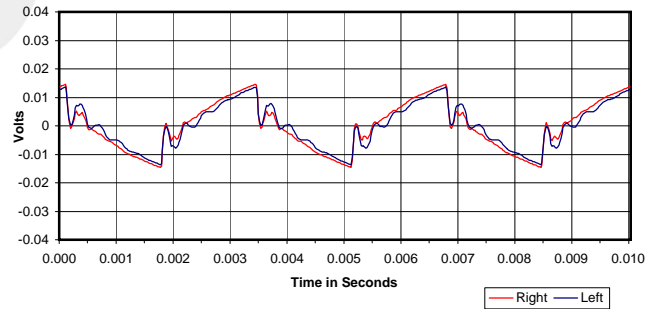
30 Hz Square Wave



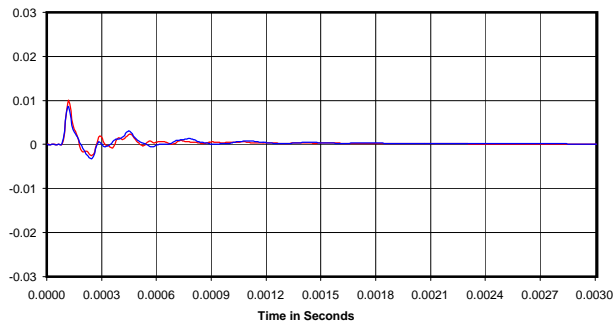
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

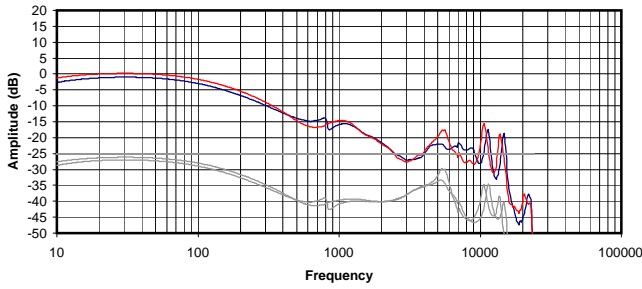


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

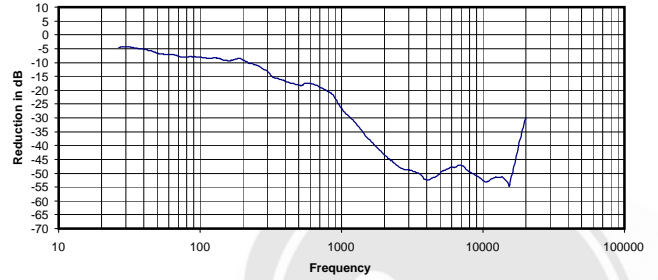
0.044 Vrms
17 Ohms
0.12 mW
-27 dB



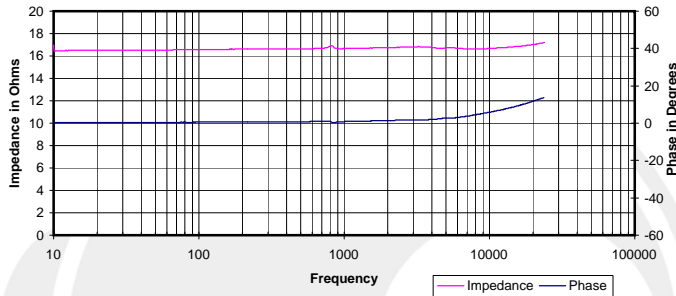
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



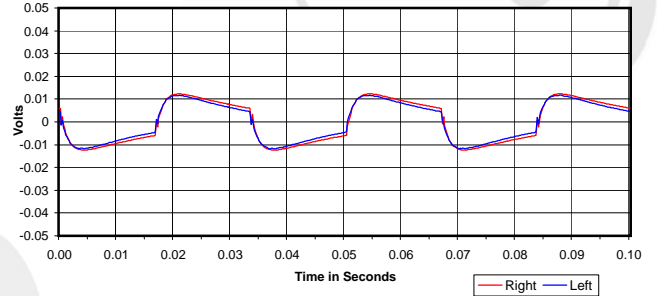
Isolation
Attenuation of External Sound vs. Frequency



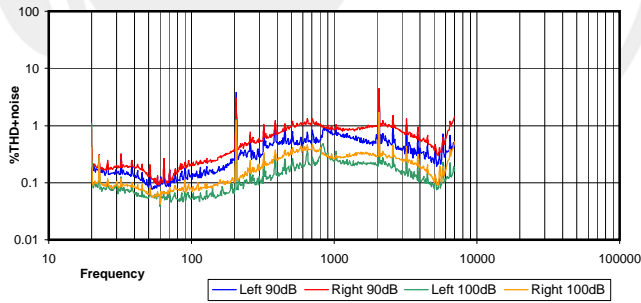
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



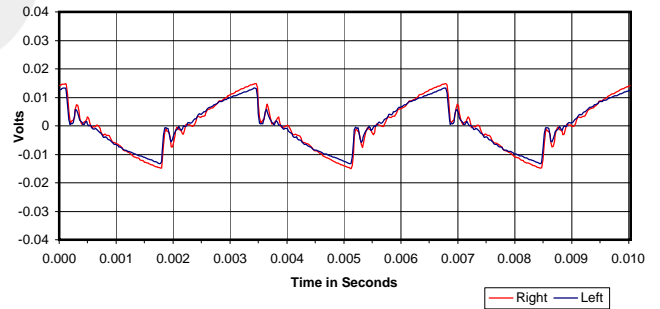
30 Hz Square Wave



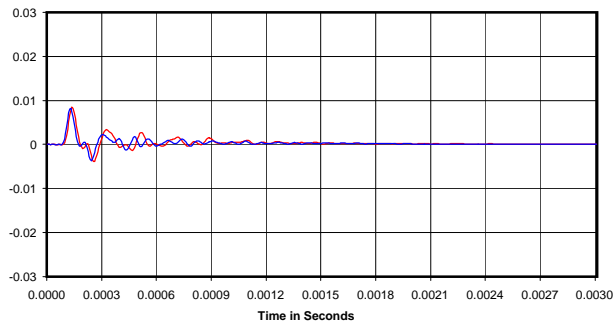
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

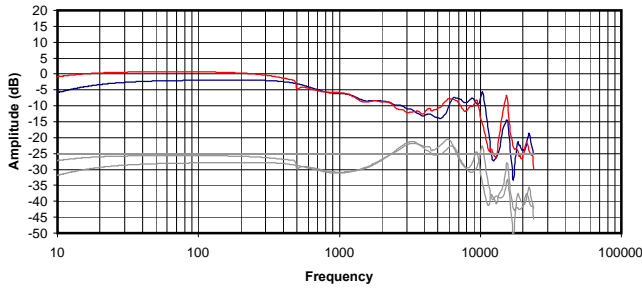


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

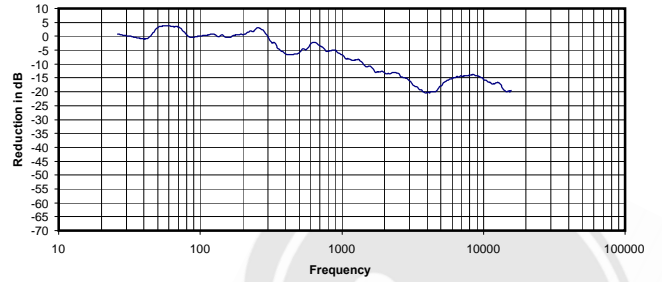
0.026 Vrms
17 Ohms
0.04 mW
-30 dB



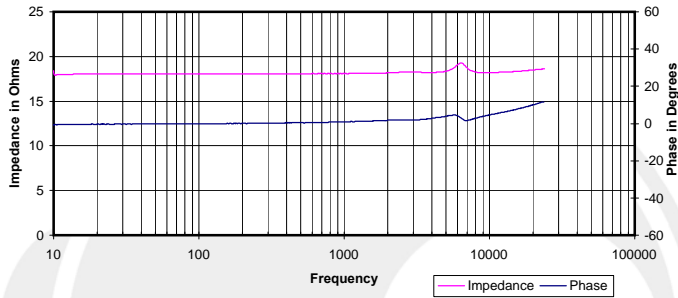
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



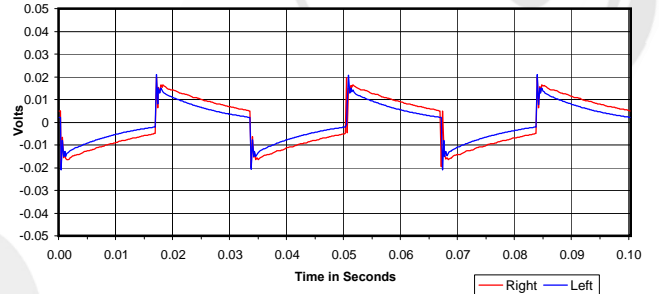
Isolation
Attenuation of External Sound vs. Frequency



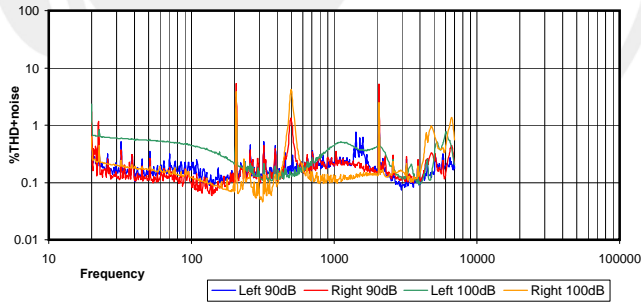
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



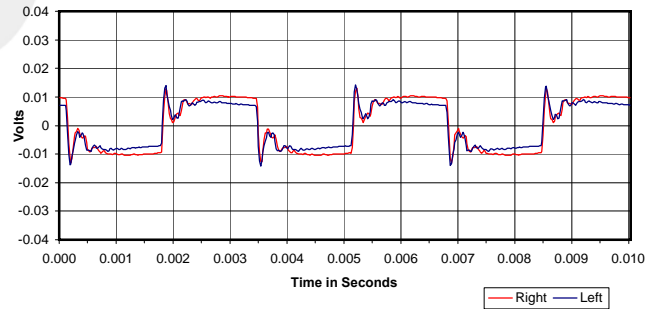
30 Hz Square Wave



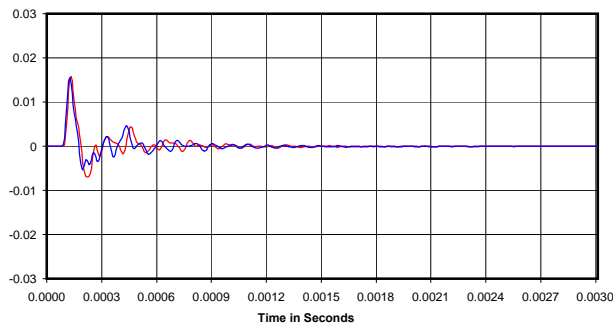
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



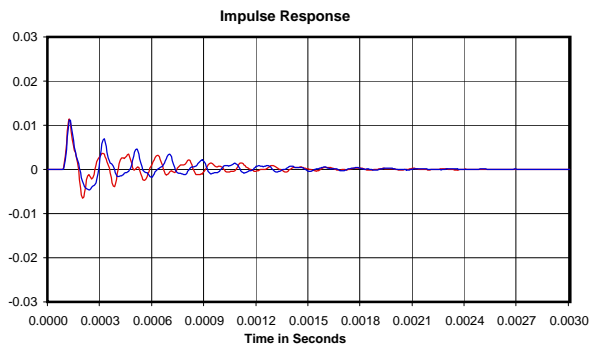
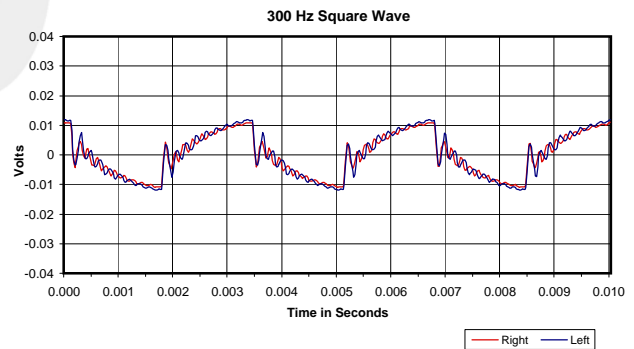
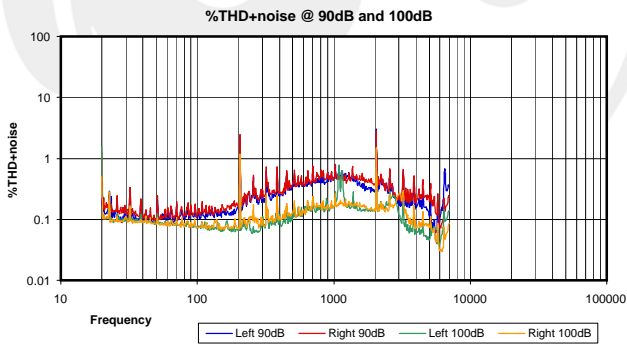
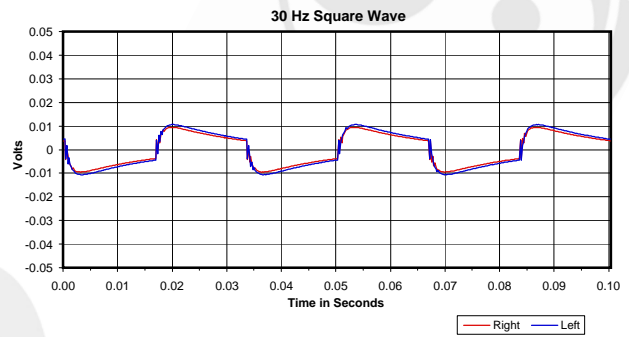
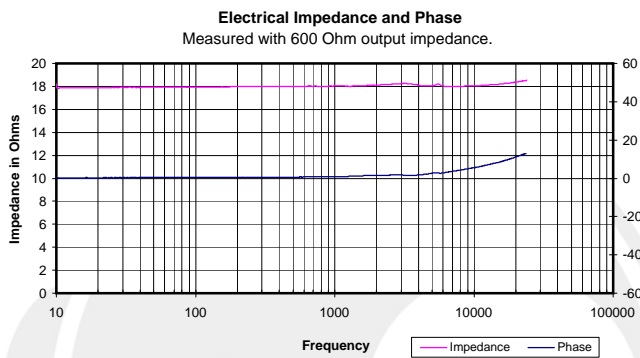
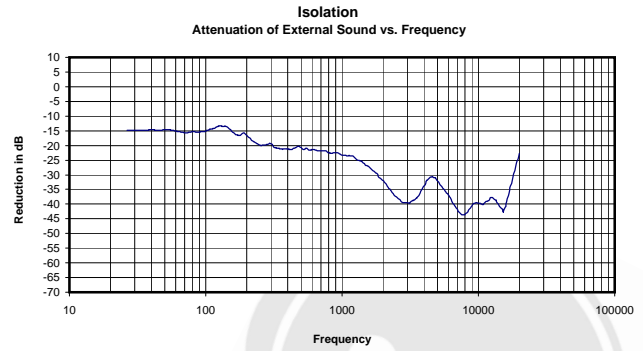
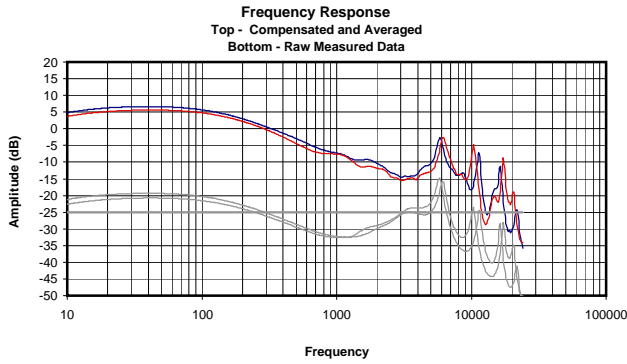
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.034 Vrms
18 Ohms
0.06 mW
-7 dB



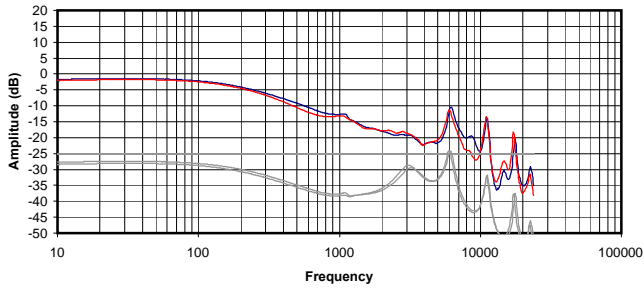


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

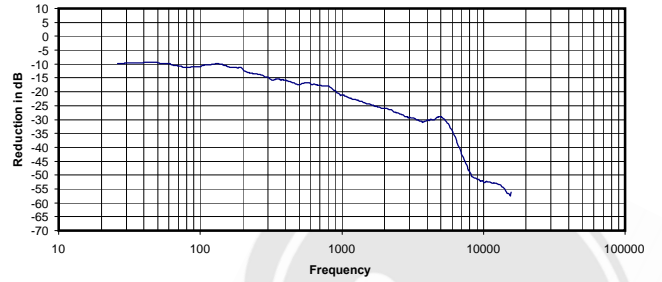
0.055 Vrms
18 Ohms
0.17 mW
-27 dB



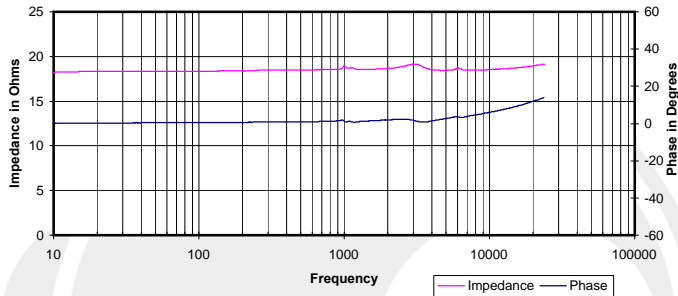
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



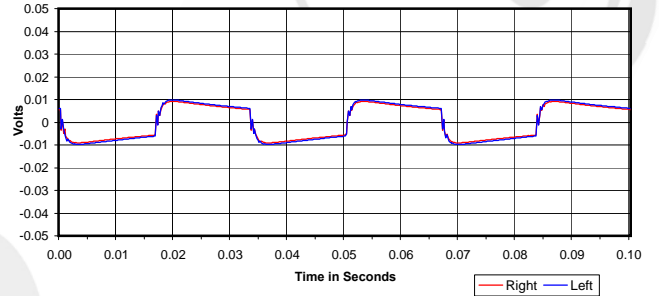
Isolation
Attenuation of External Sound vs. Frequency



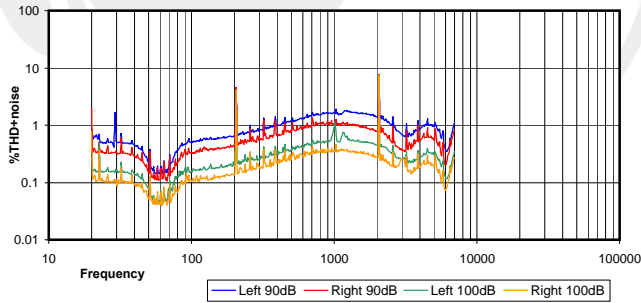
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



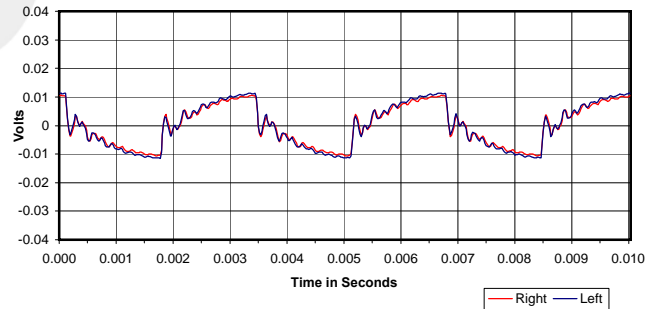
30 Hz Square Wave



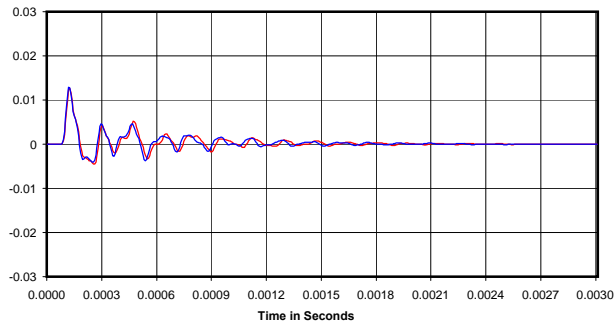
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



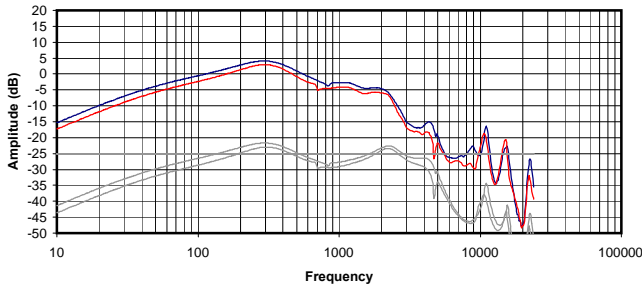
Impulse Response



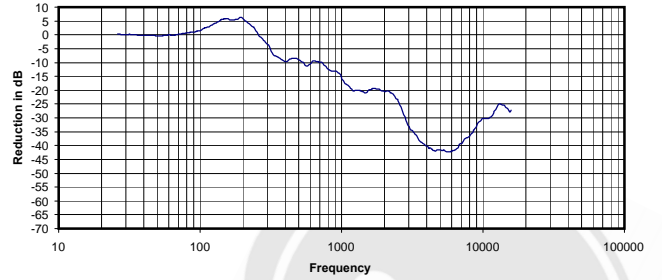
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.026 Vrms
19 Ohms
0.04 mW
-20 dB

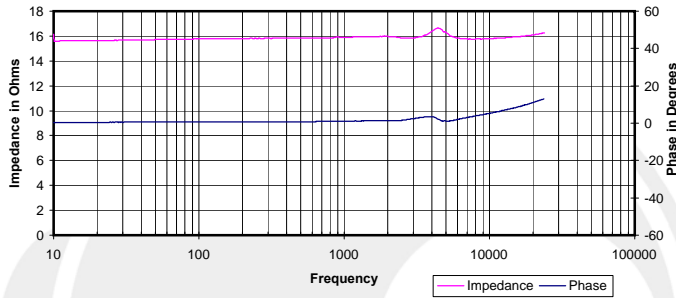
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



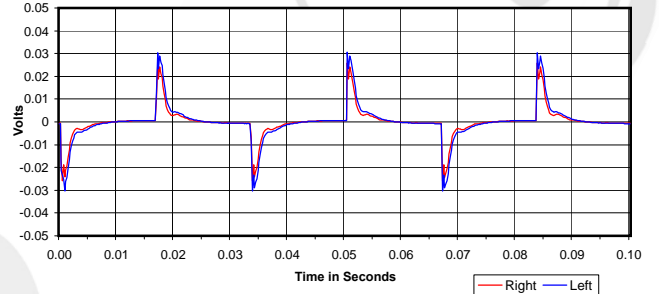
Isolation
Attenuation of External Sound vs. Frequency



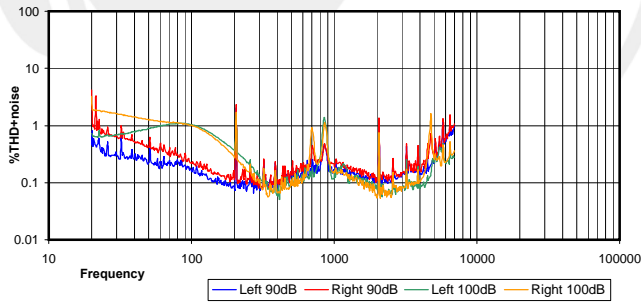
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



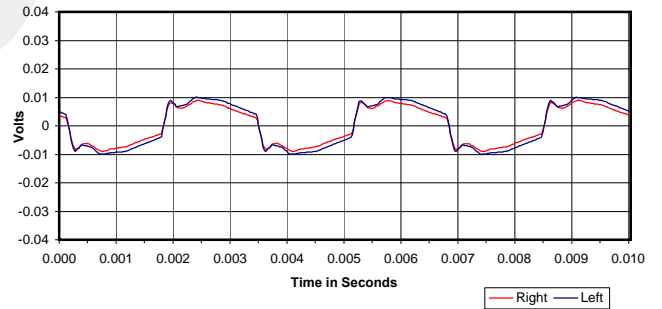
30 Hz Square Wave



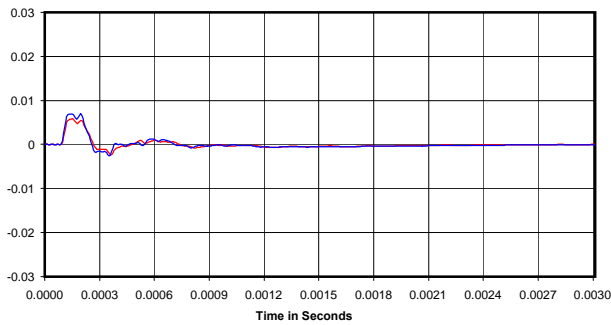
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

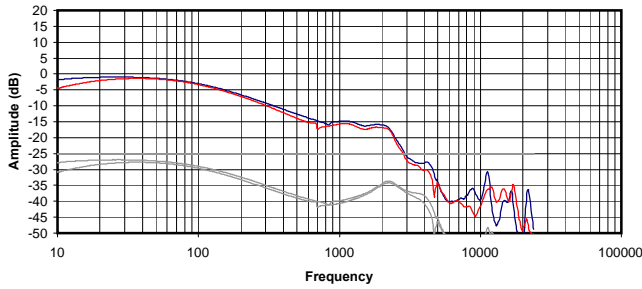


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

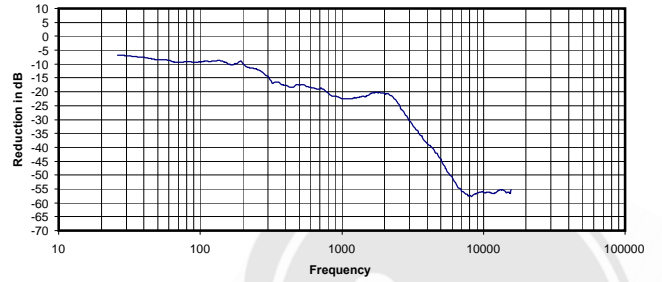
0.022 Vrms
16 Ohms
0.03 mW
-15 dB



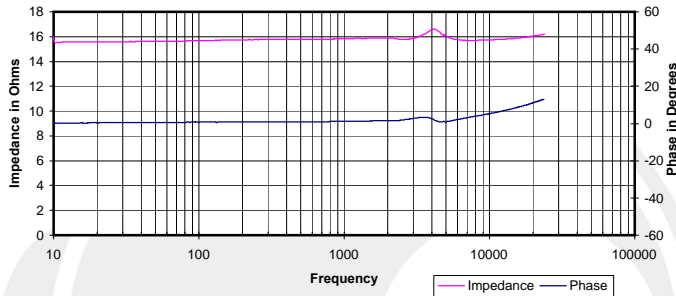
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



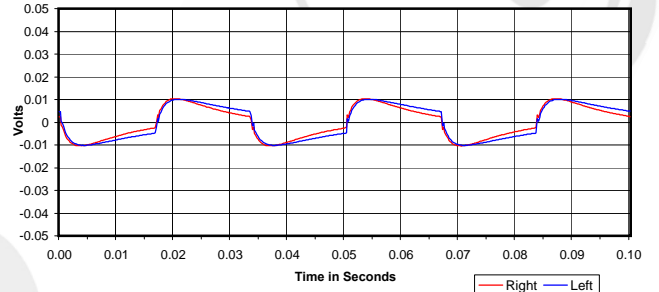
Isolation
Attenuation of External Sound vs. Frequency



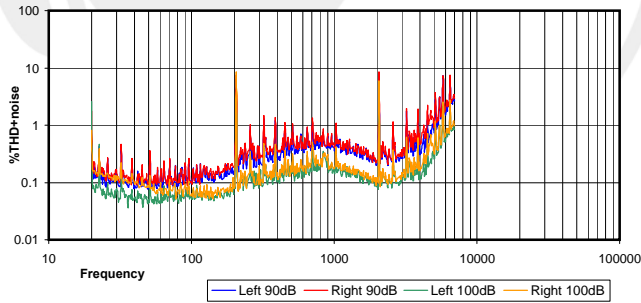
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



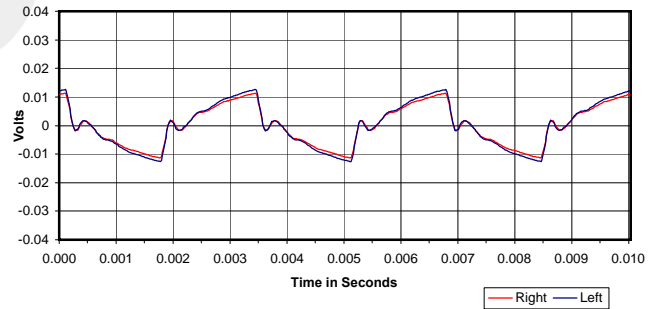
30 Hz Square Wave



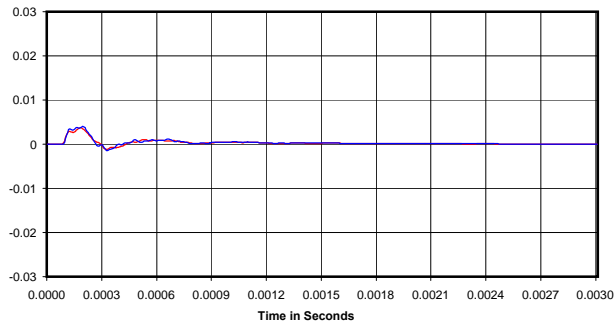
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

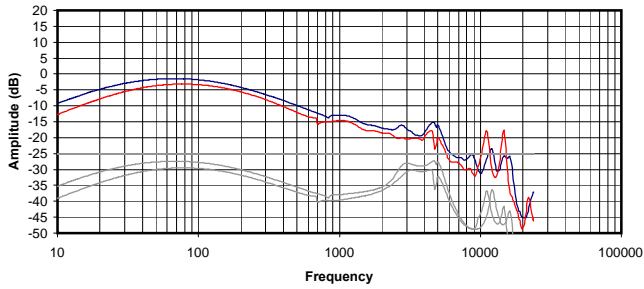


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

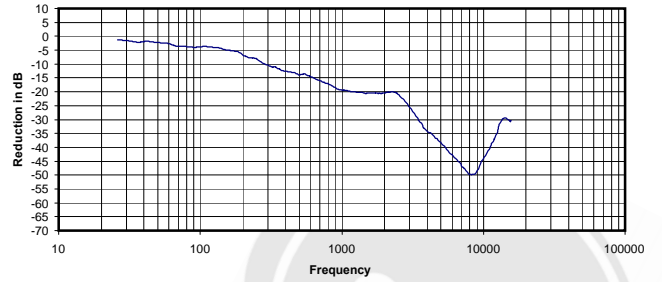
0.021 Vrms
16 Ohms
0.03 mW
-21 dB



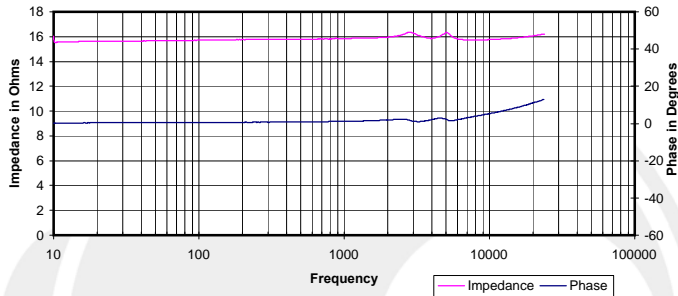
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



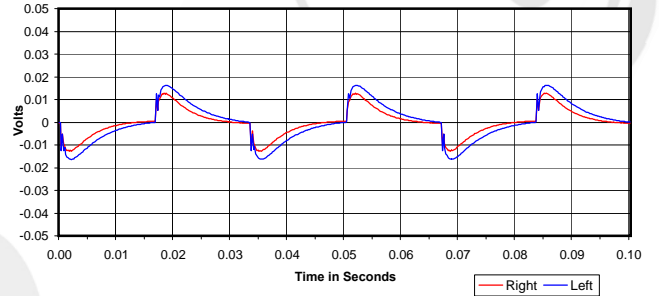
Isolation
Attenuation of External Sound vs. Frequency



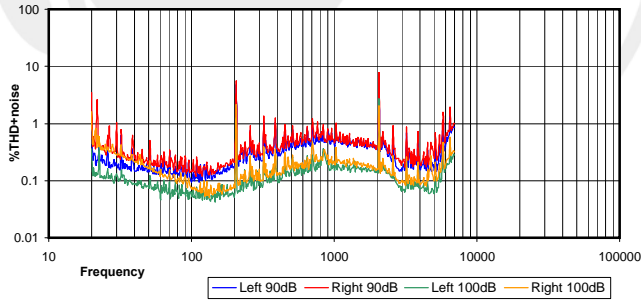
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



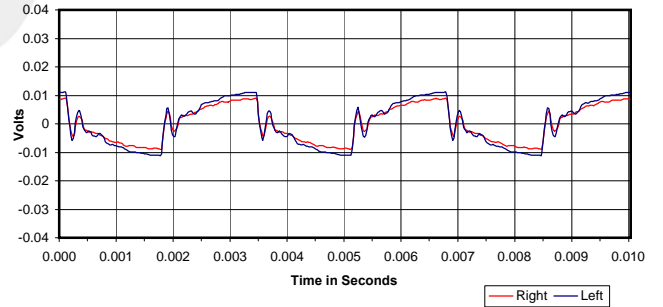
30 Hz Square Wave



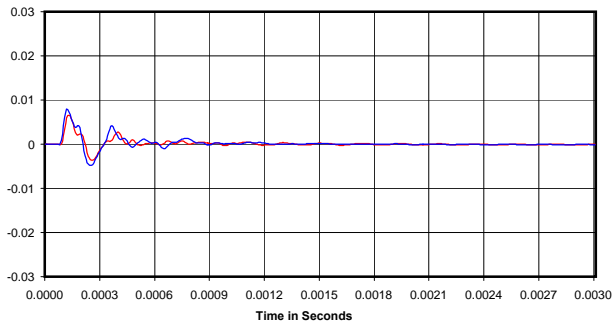
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

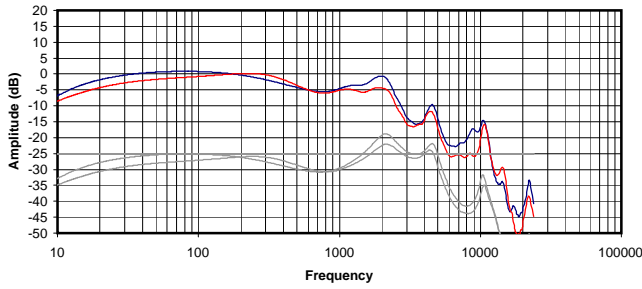


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

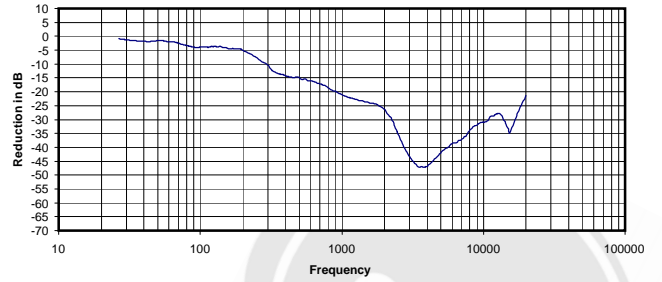
0.023 Vrms
16 Ohms
0.03 mW
-17 dB



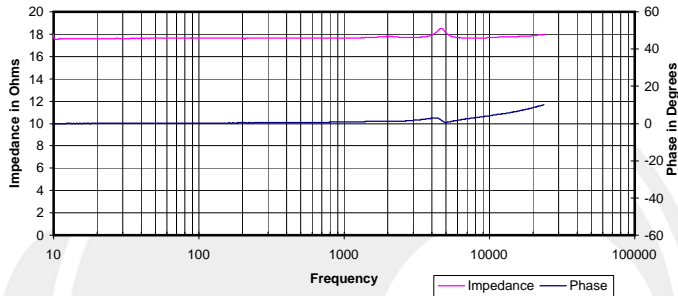
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



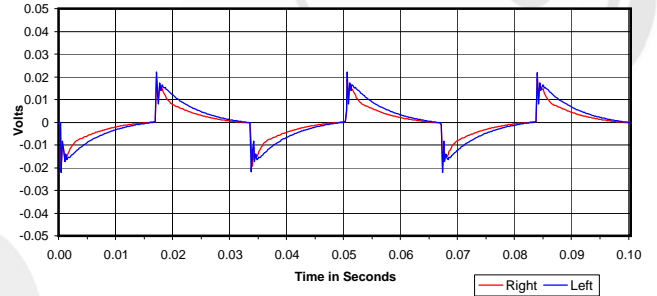
Isolation
Attenuation of External Sound vs. Frequency



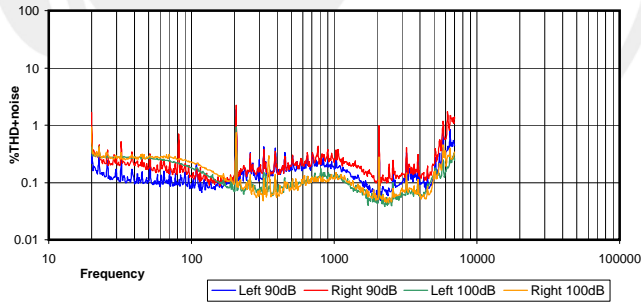
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



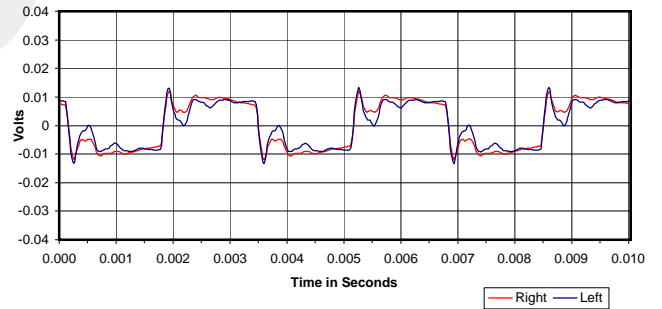
30 Hz Square Wave



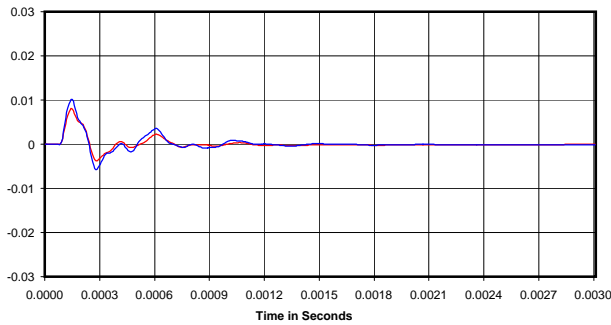
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



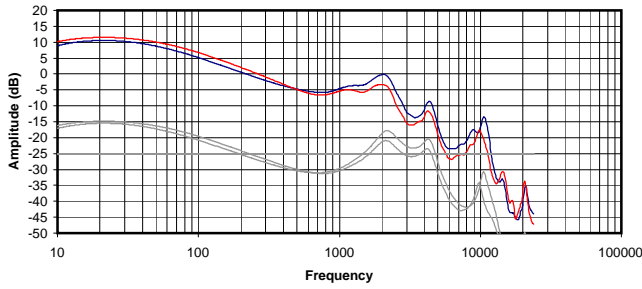
Impulse Response



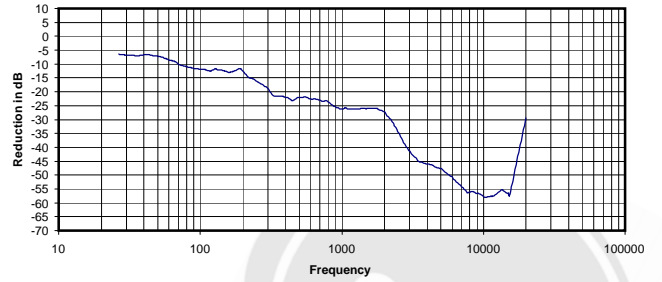
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.051 Vrms
18 Ohms
0.14 mW
-23 dB

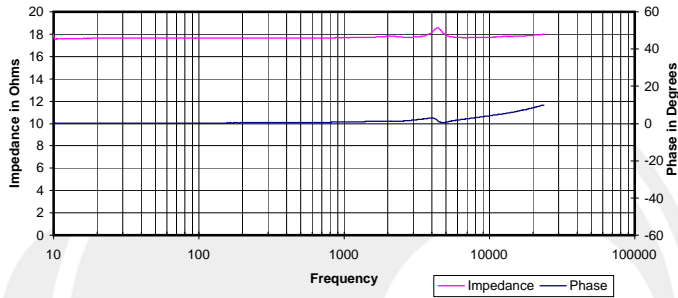
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



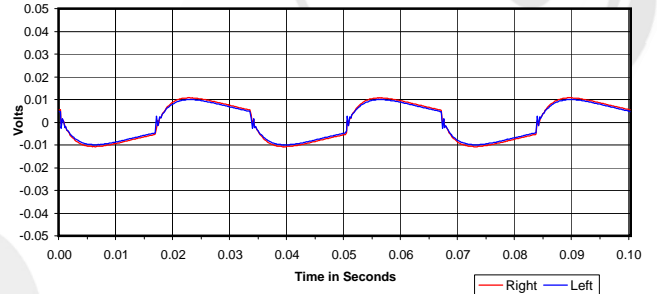
Isolation
Attenuation of External Sound vs. Frequency



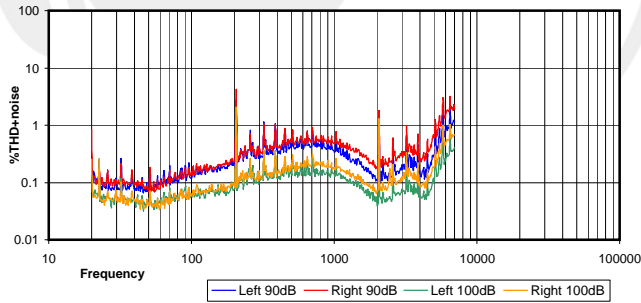
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



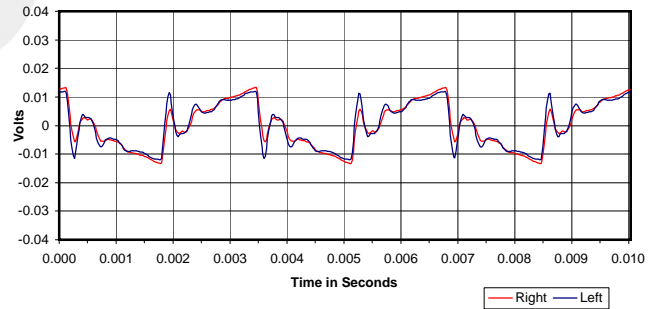
30 Hz Square Wave



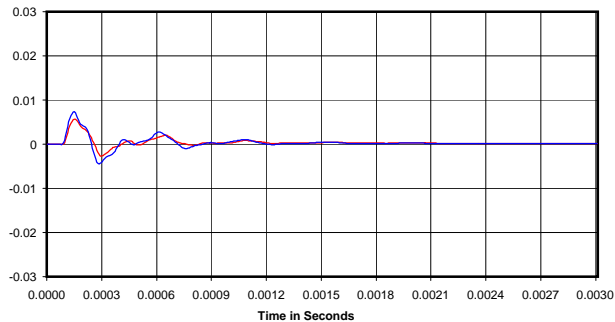
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

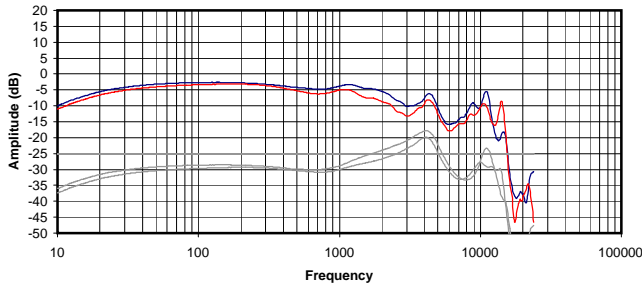


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

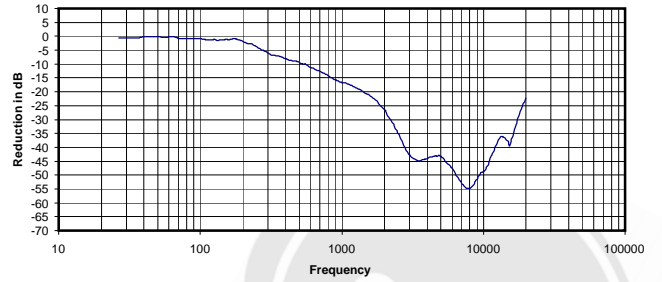
0.049 Vrms
18 Ohms
0.14 mW
-29 dB



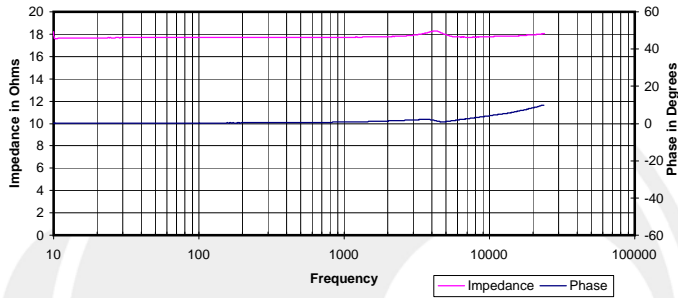
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



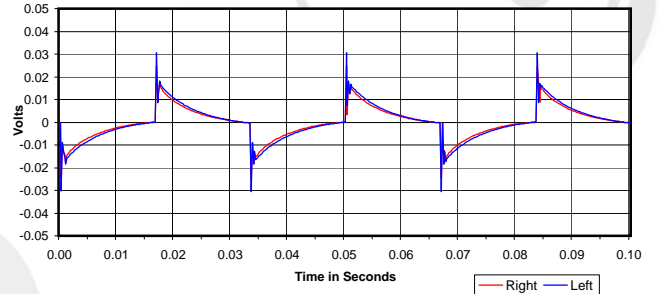
Isolation
Attenuation of External Sound vs. Frequency



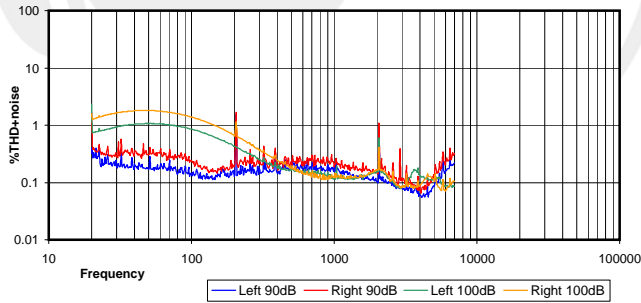
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



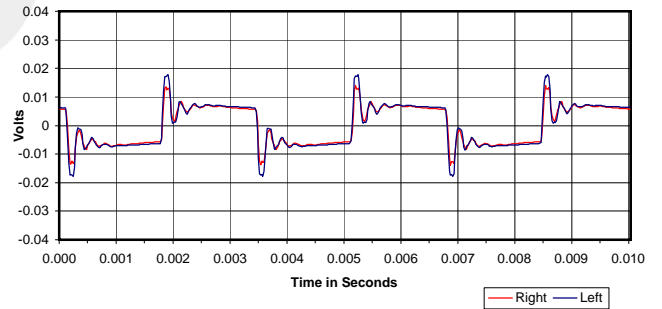
30 Hz Square Wave



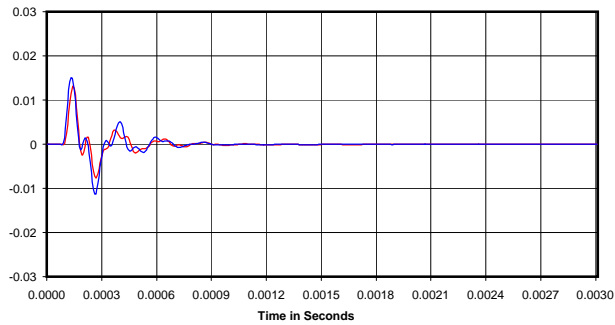
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



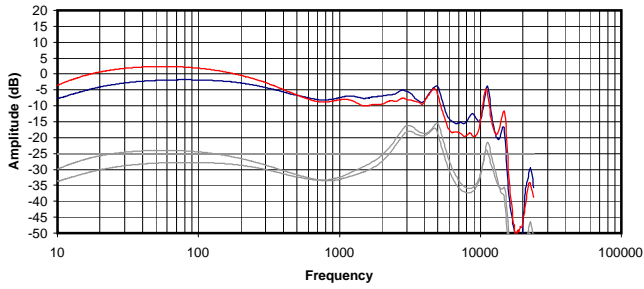
Impulse Response



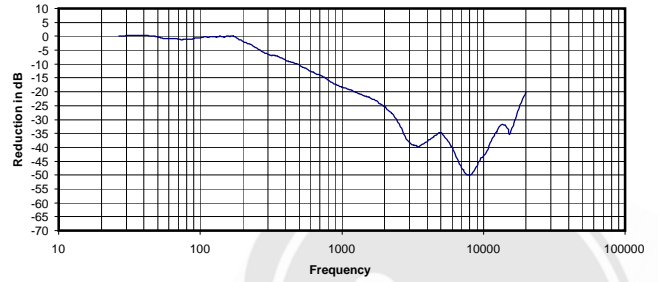
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.071 Vrms
18 Ohms
0.29 mW
-22 dB

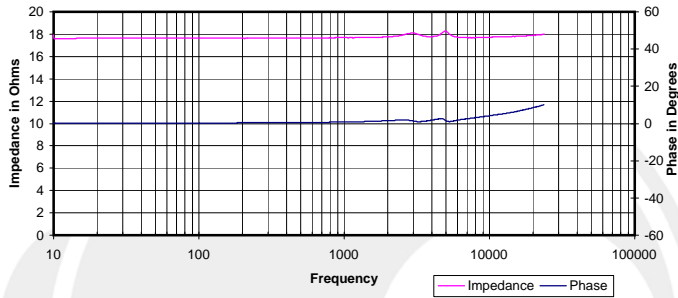
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



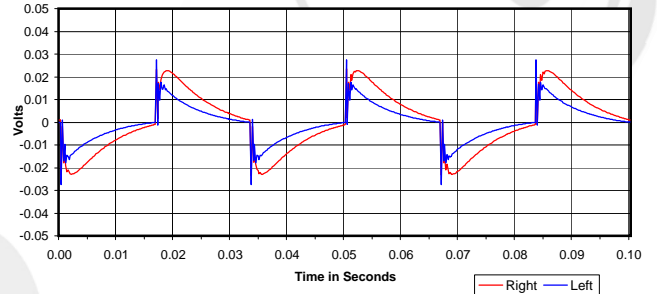
Isolation
Attenuation of External Sound vs. Frequency



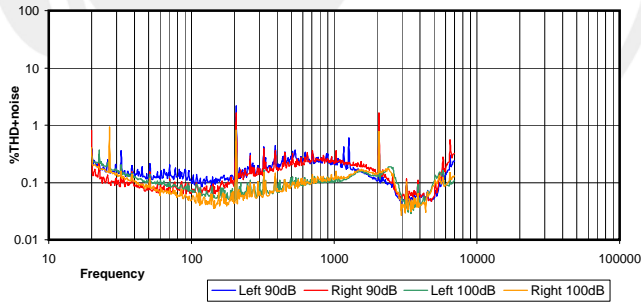
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



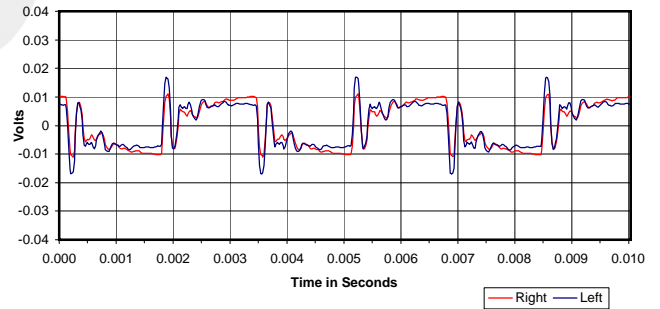
30 Hz Square Wave



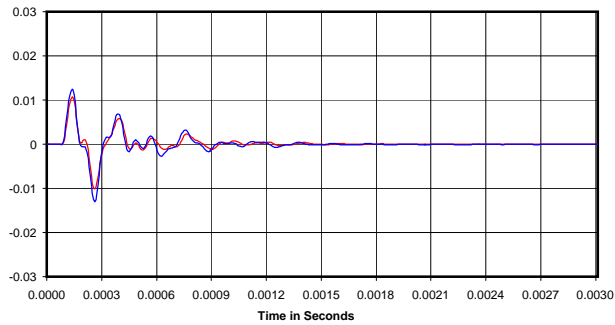
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

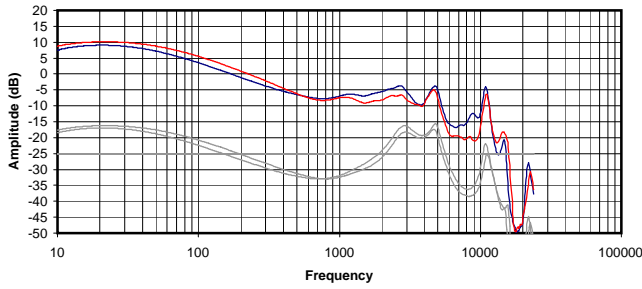


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

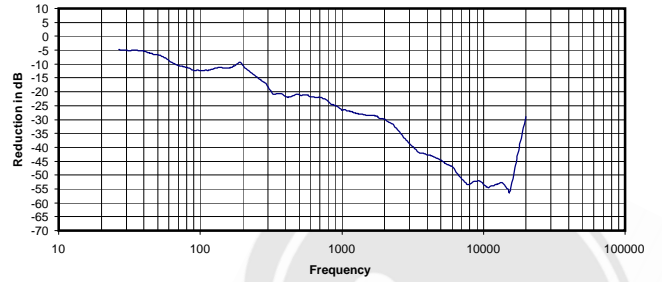
0.053 Vrms
18 Ohms
0.16 mW
-21 dB



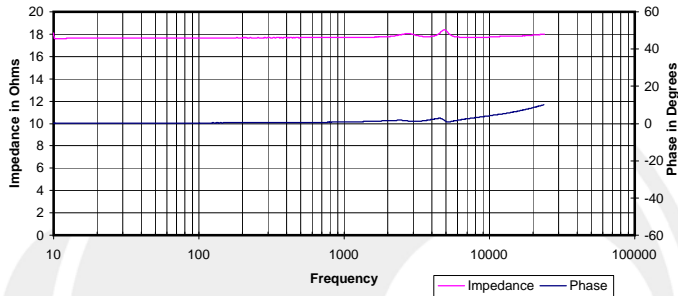
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



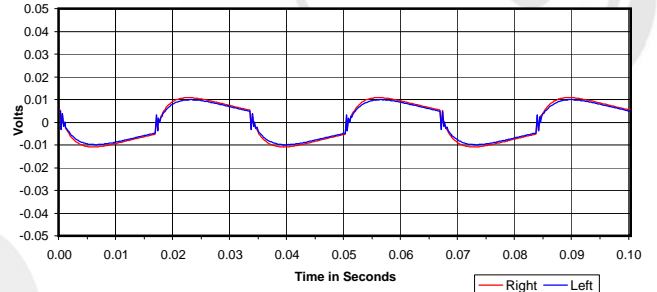
Isolation
Attenuation of External Sound vs. Frequency



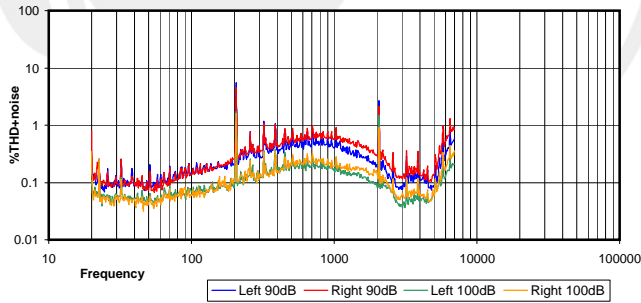
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



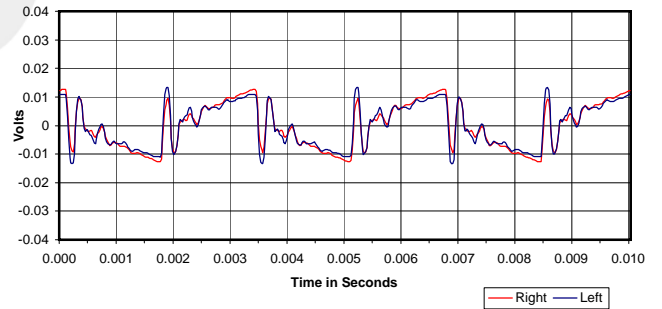
30 Hz Square Wave



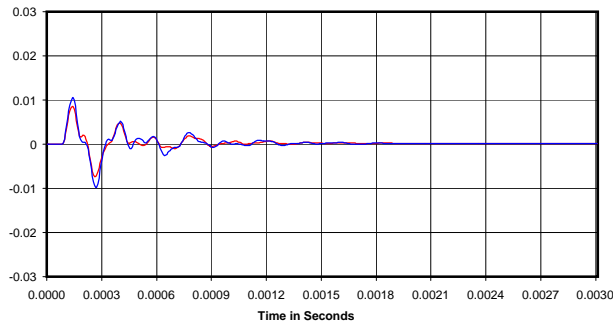
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



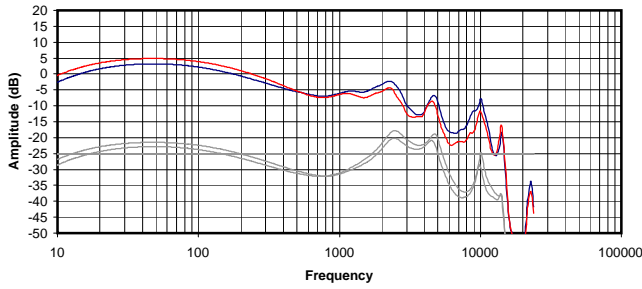
Impulse Response



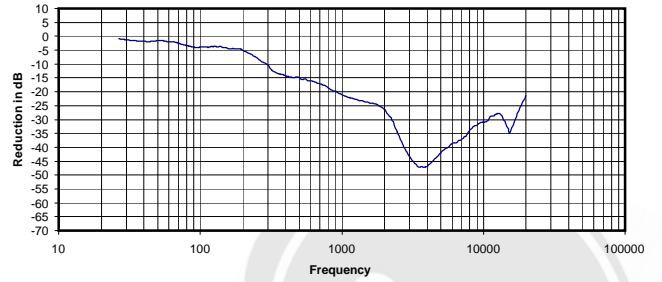
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.053 Vrms
18 Ohms
0.16 mW
-28 dB

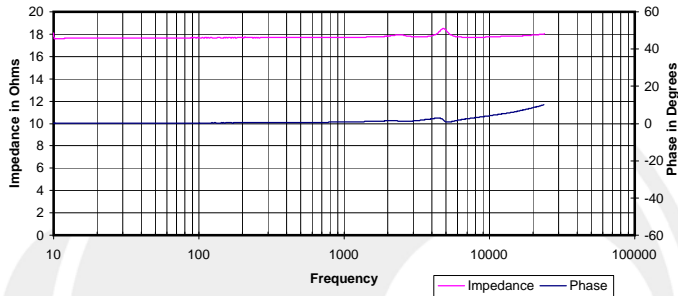
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



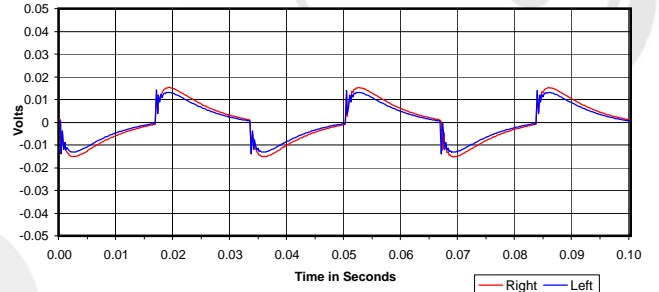
Isolation
Attenuation of External Sound vs. Frequency



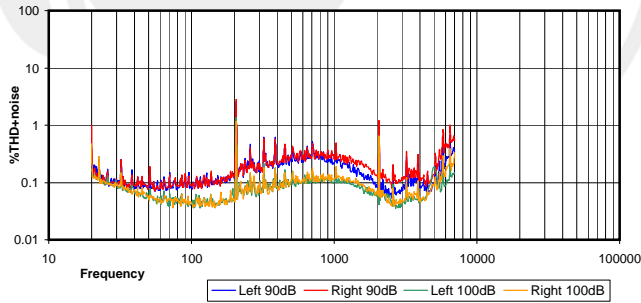
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



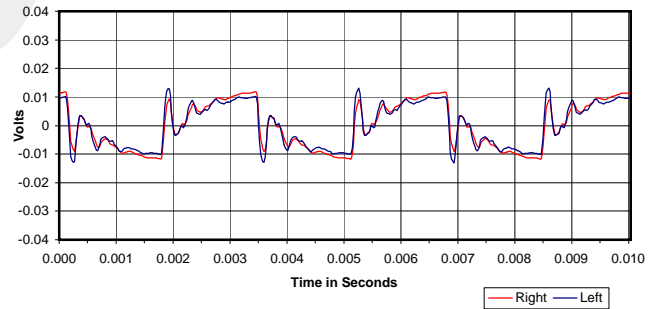
30 Hz Square Wave



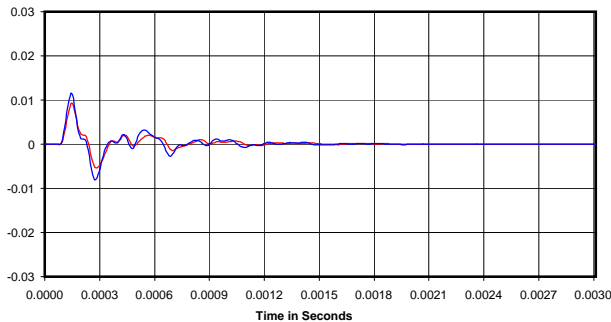
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

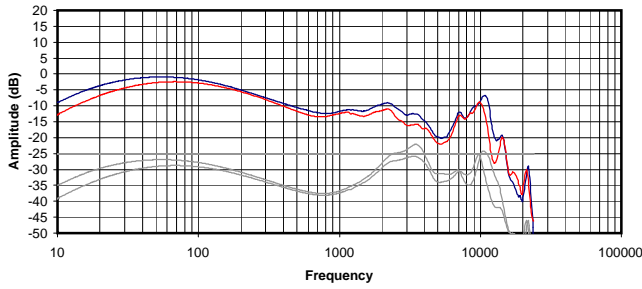


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

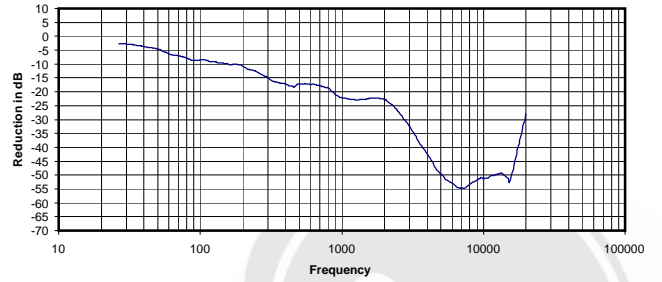
0.007 Vrms
18 Ohms
0.00 mW
-23 dB



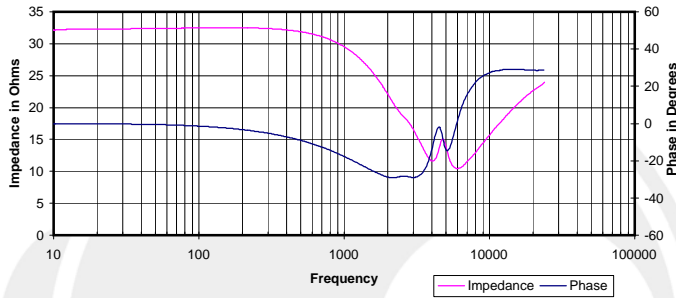
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



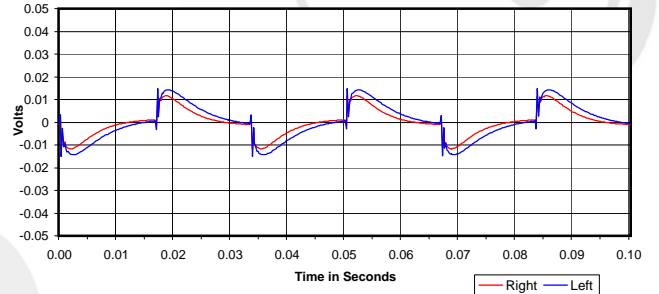
Isolation
Attenuation of External Sound vs. Frequency



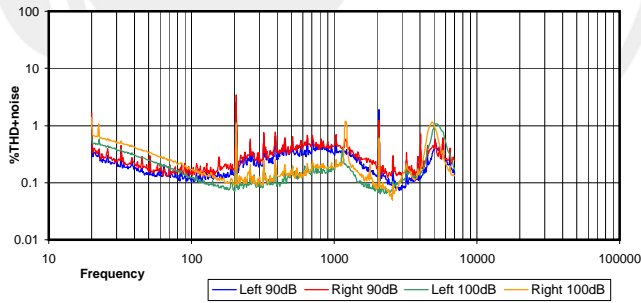
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



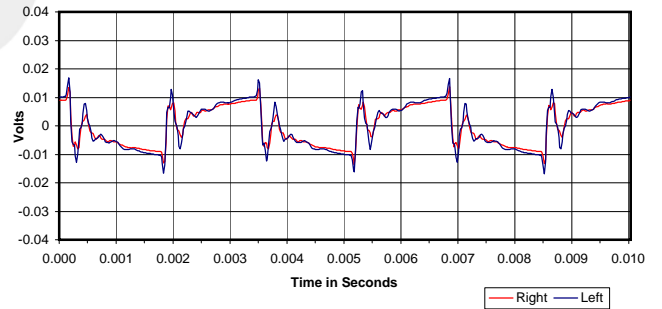
30 Hz Square Wave



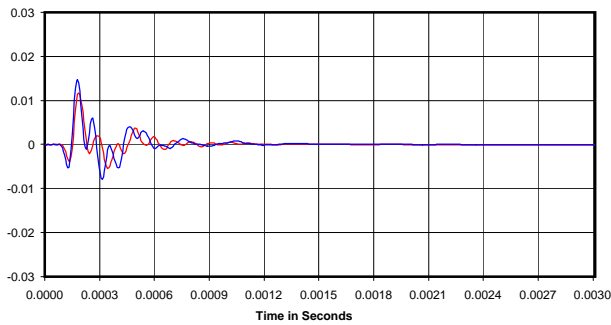
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

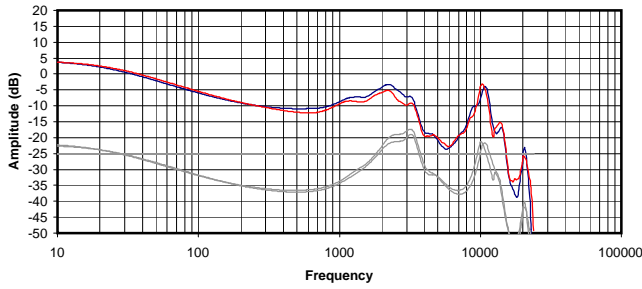


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

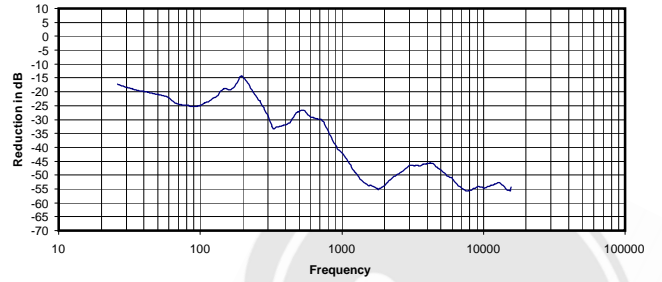
0.034 Vrms
30 Ohms
0.04 mW
-26 dB



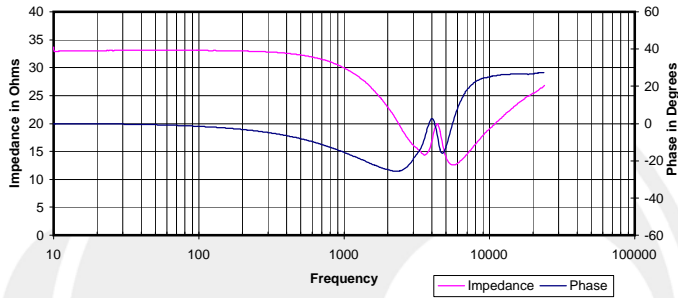
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



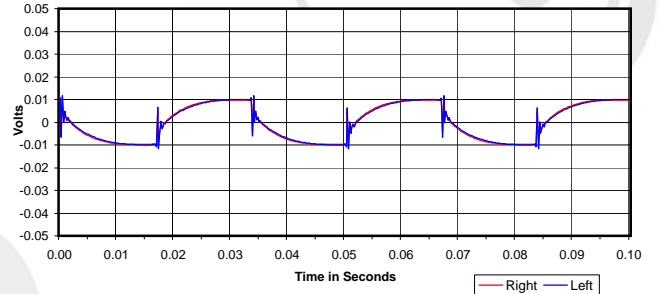
Isolation
Attenuation of External Sound vs. Frequency



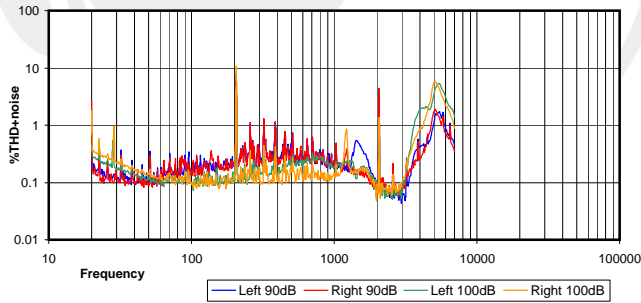
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



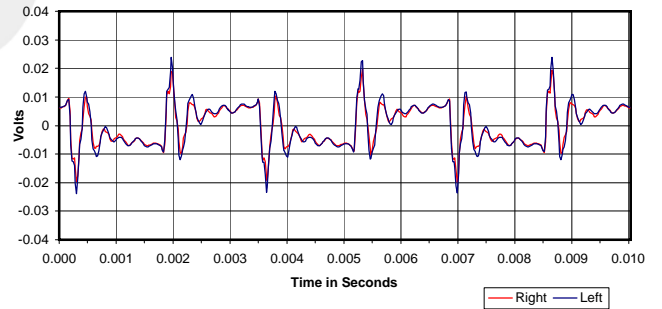
30 Hz Square Wave



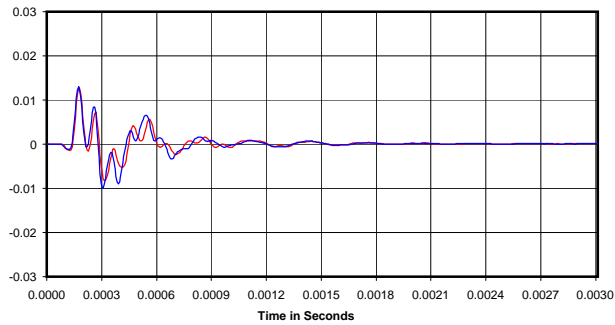
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

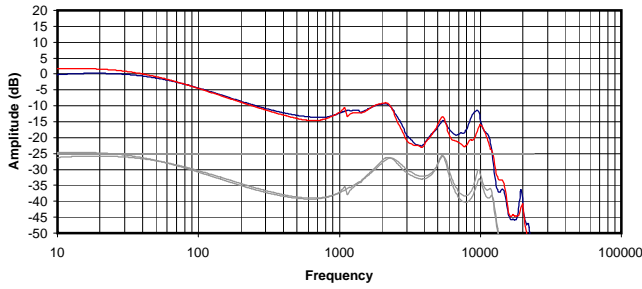


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

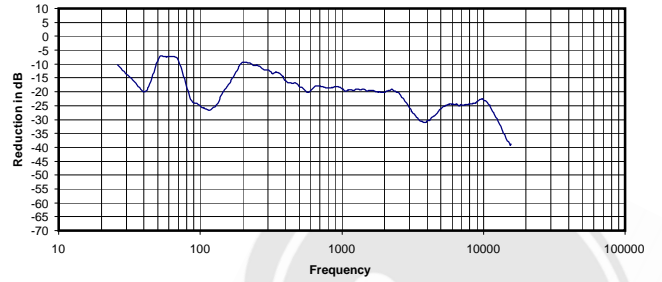
0.037 Vrms
30 Ohms
0.05 mW
-36 dB



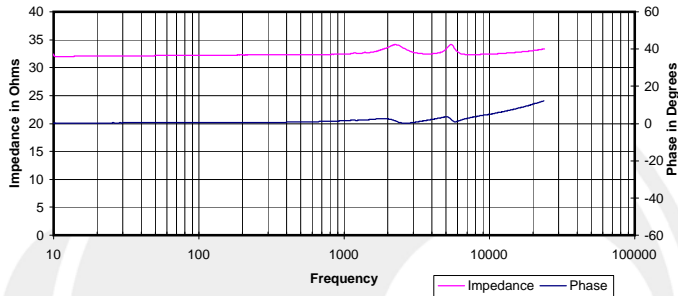
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



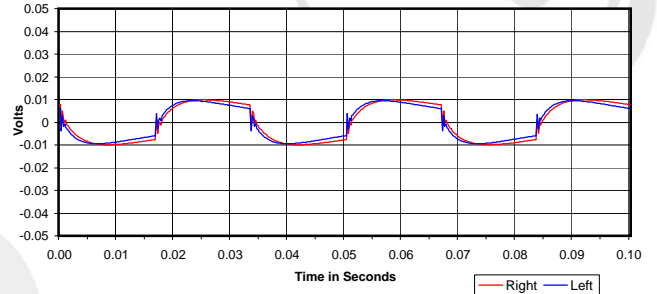
Isolation
Attenuation of External Sound vs. Frequency



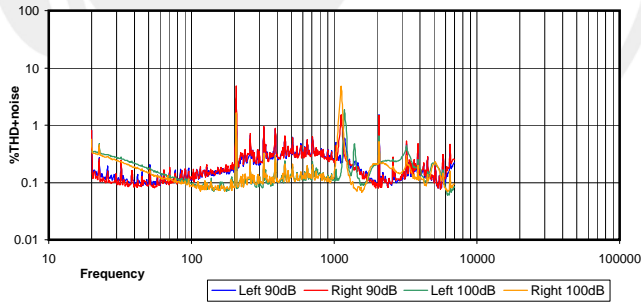
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



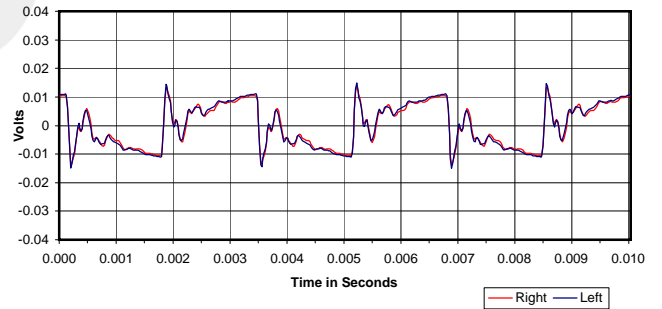
30 Hz Square Wave



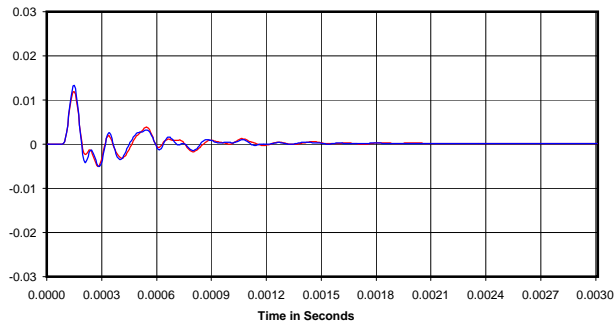
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



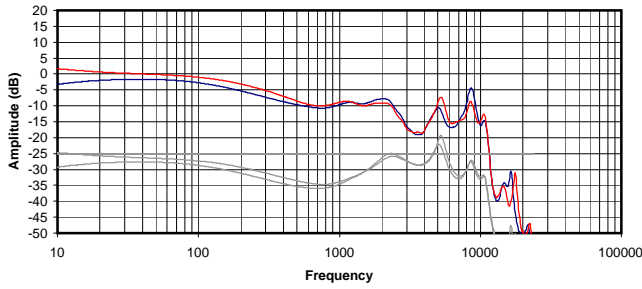
Impulse Response



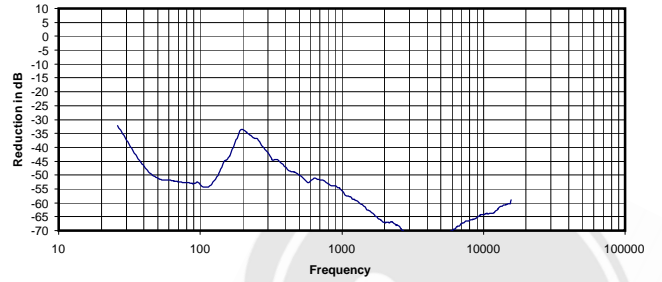
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.042 Vrms
32 Ohms
0.06 mW
-20 dB

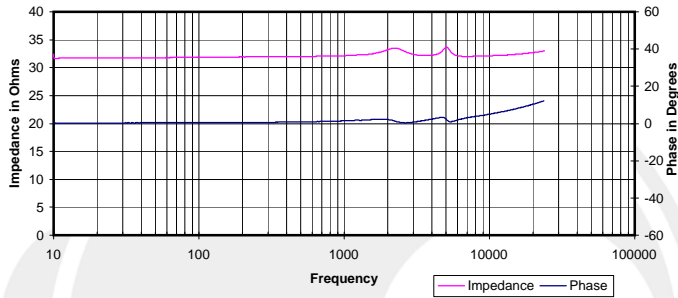
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



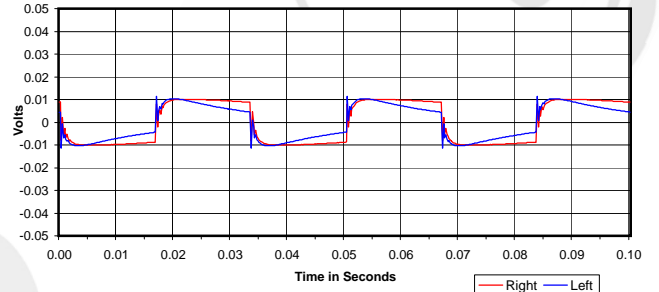
Isolation
Attenuation of External Sound vs. Frequency



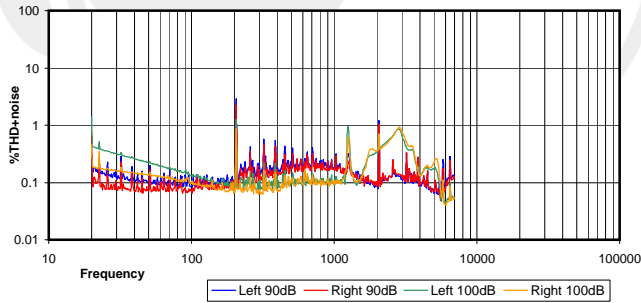
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



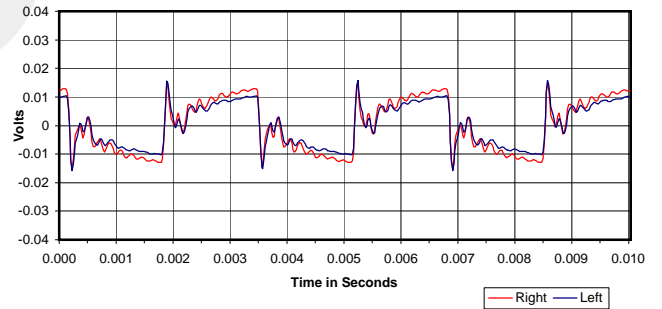
30 Hz Square Wave



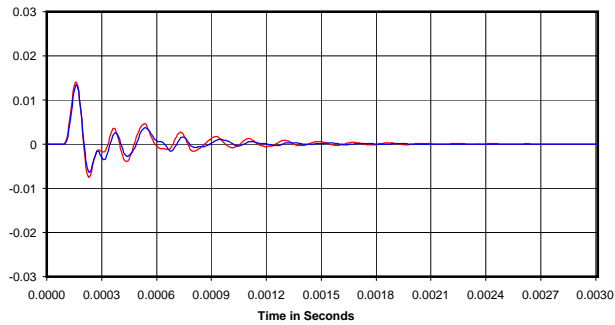
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



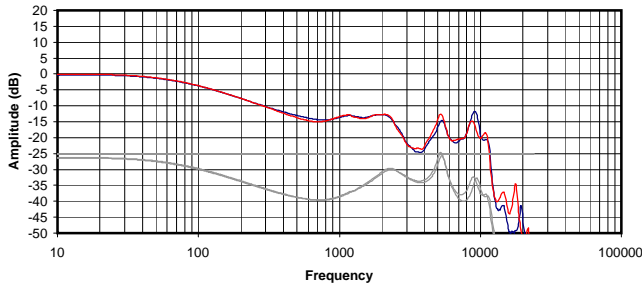
Impulse Response



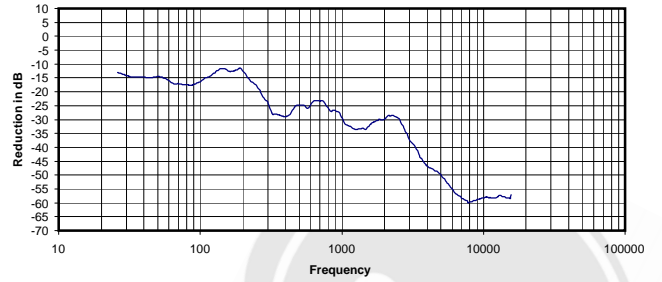
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.043 Vrms
32 Ohms
0.06 mW
-56 dB

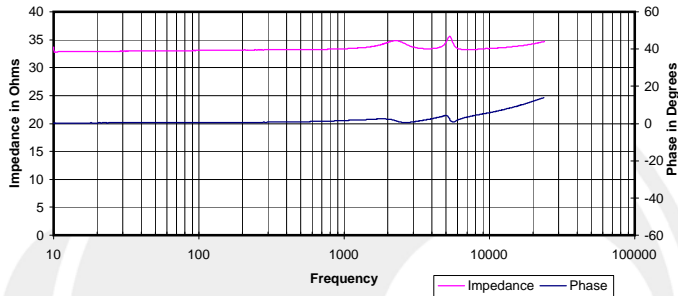
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



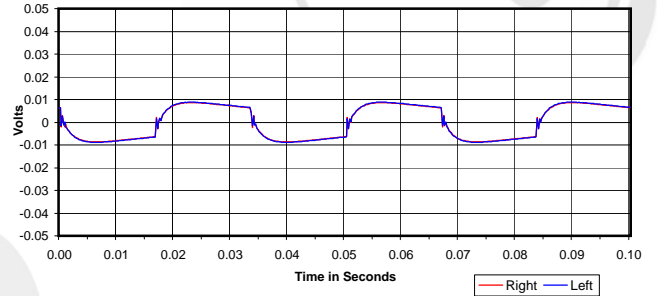
Isolation
Attenuation of External Sound vs. Frequency



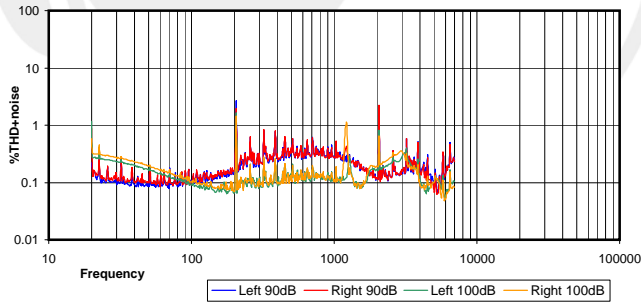
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



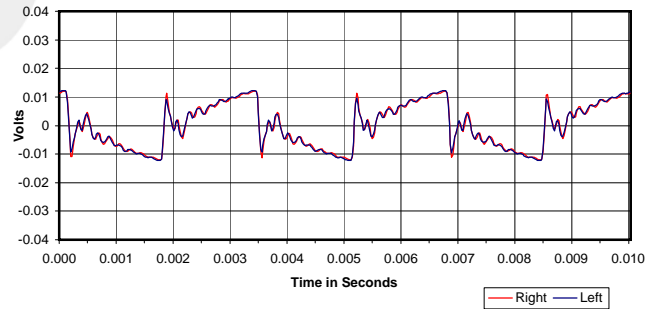
30 Hz Square Wave



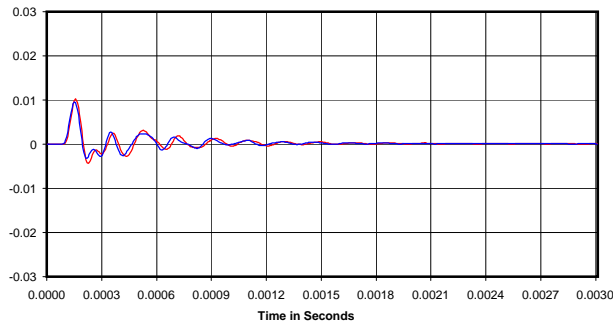
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

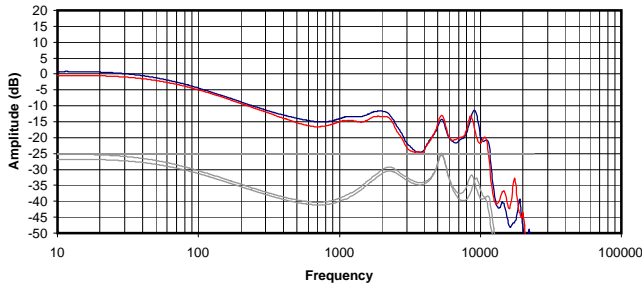


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

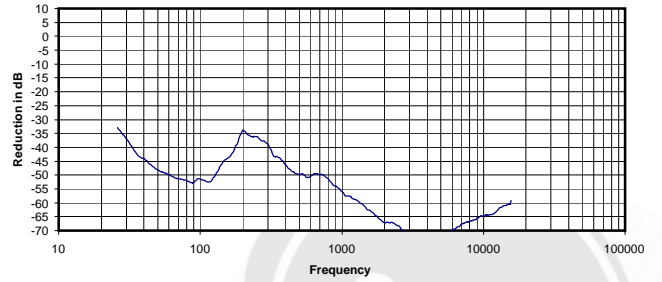
0.039 Vrms
33 Ohms
0.05 mW
-28 dB



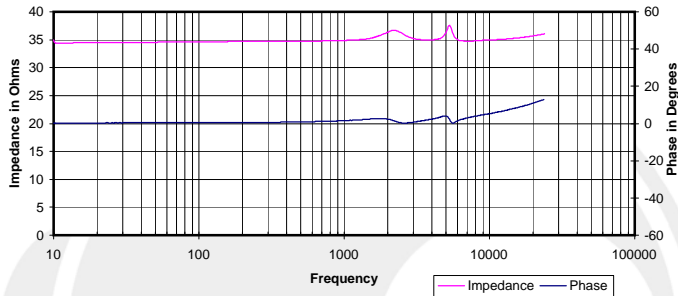
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



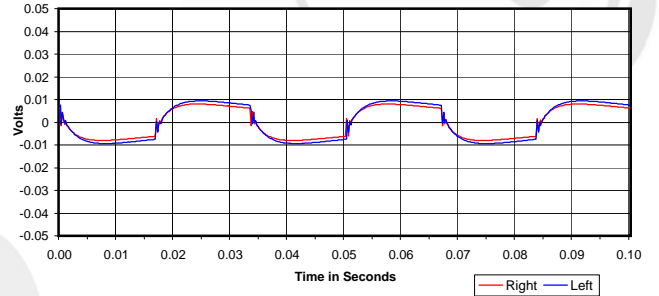
Isolation
Attenuation of External Sound vs. Frequency



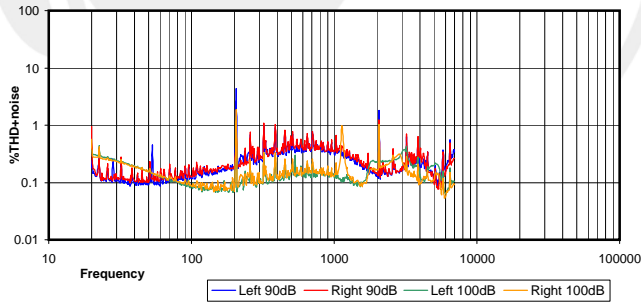
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



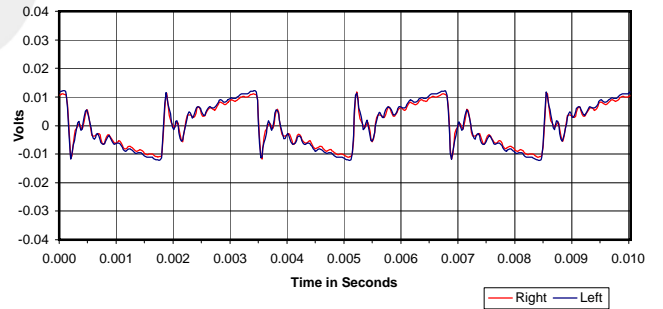
30 Hz Square Wave



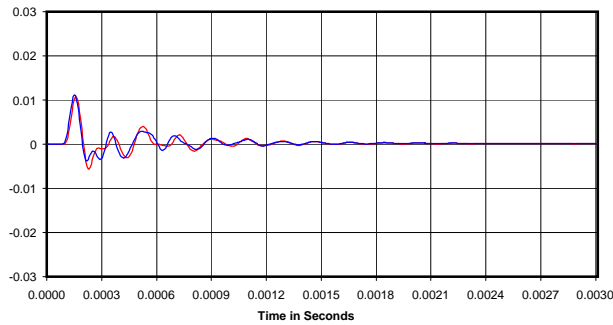
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

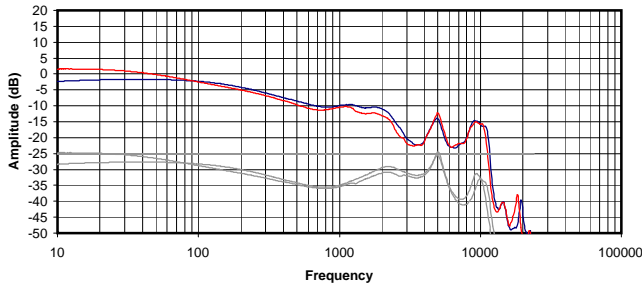


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

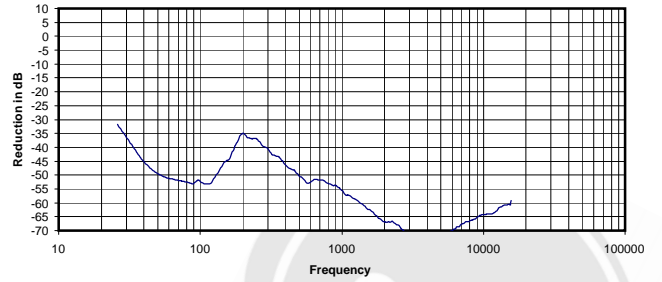
0.041 Vrms
35 Ohms
0.05 mW
-56 dB



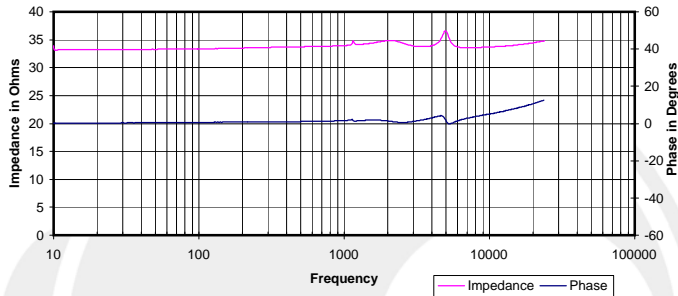
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



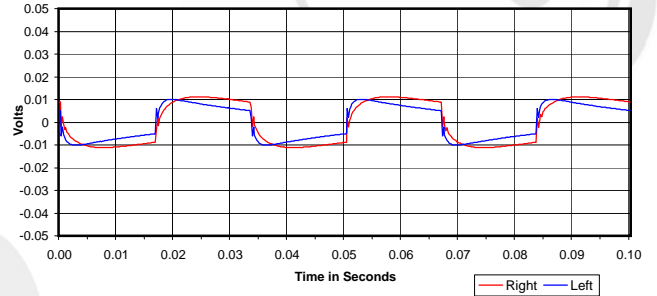
Isolation
Attenuation of External Sound vs. Frequency



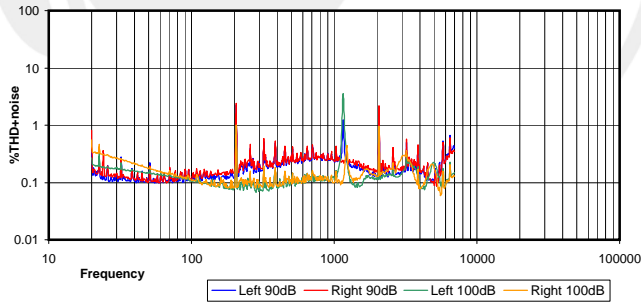
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



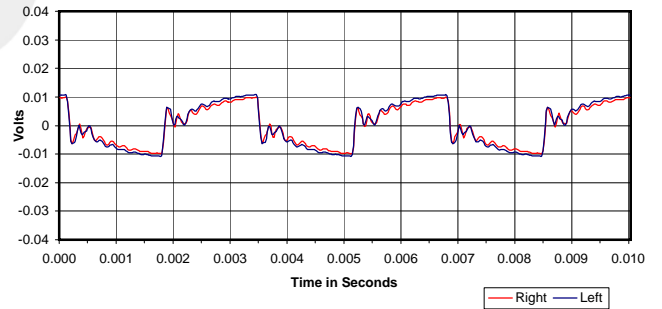
30 Hz Square Wave



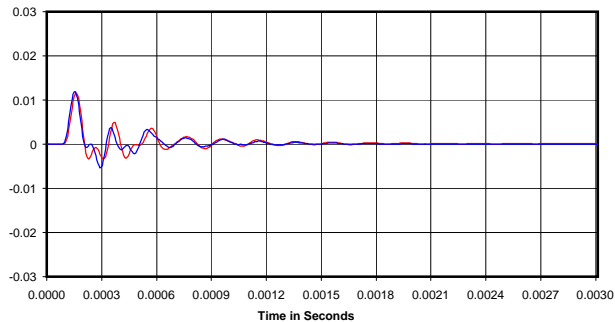
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

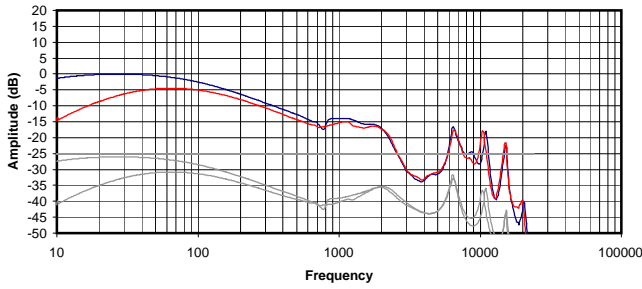


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

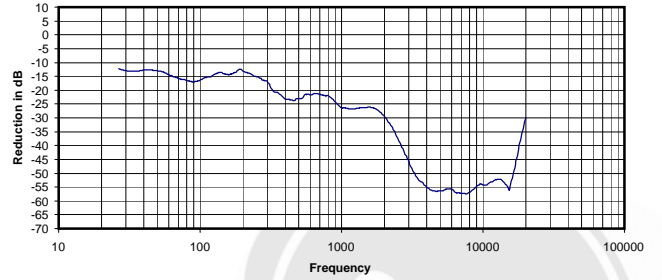
0.032 Vrms
34 Ohms
0.03 mW
-56 dB



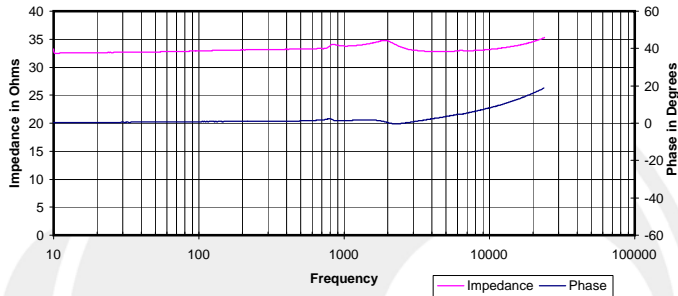
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



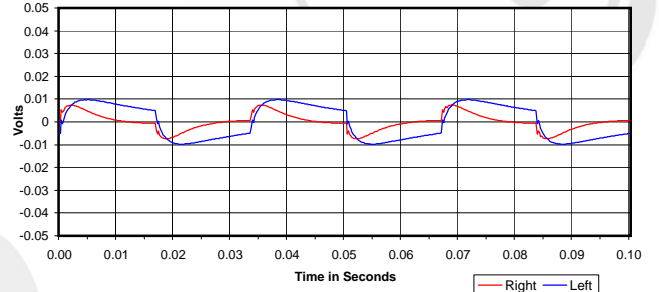
Isolation
Attenuation of External Sound vs. Frequency



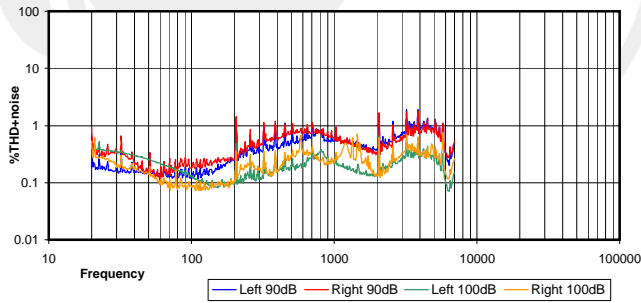
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



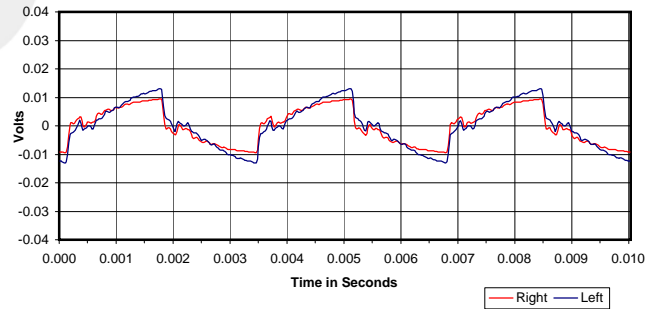
30 Hz Square Wave



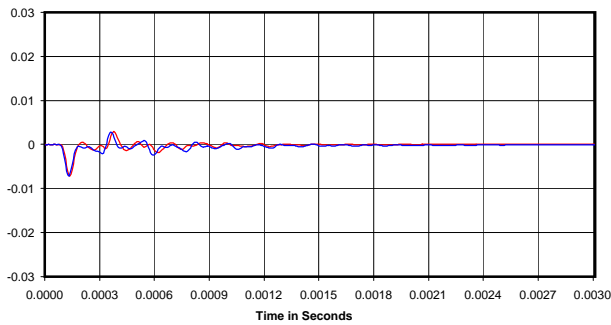
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

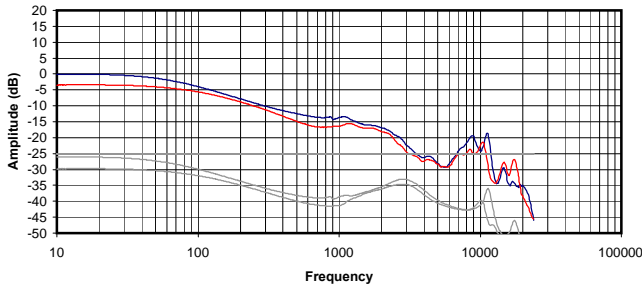


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

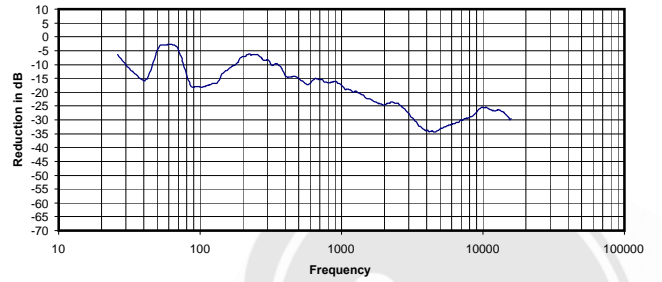
0.030 Vrms
34 Ohms
0.03 mW
-31 dB



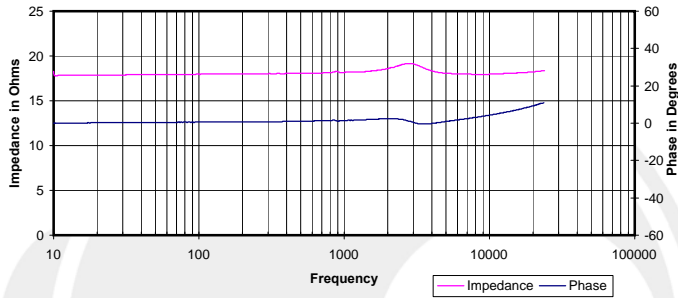
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



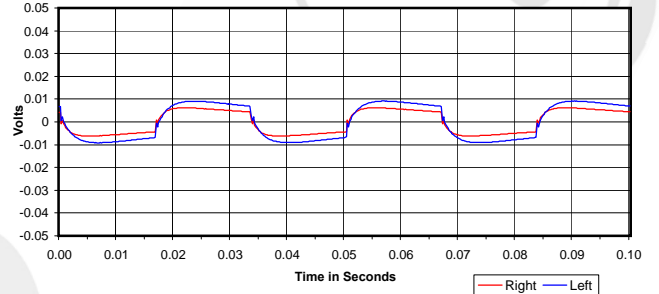
Isolation
Attenuation of External Sound vs. Frequency



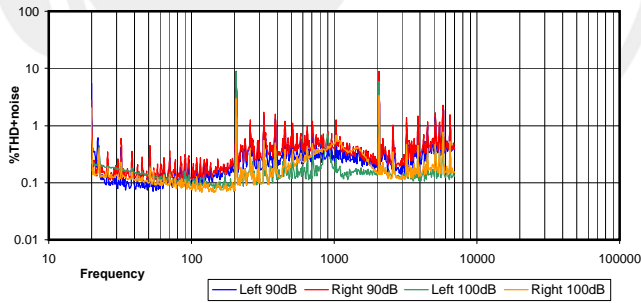
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



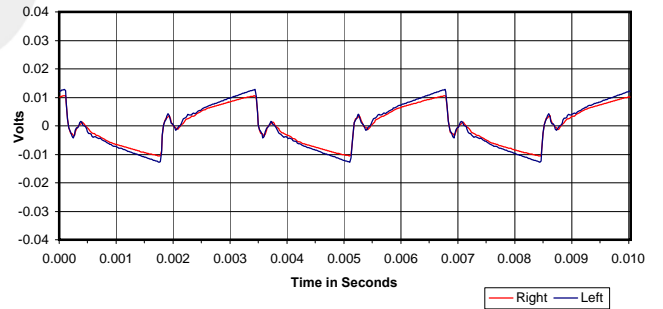
30 Hz Square Wave



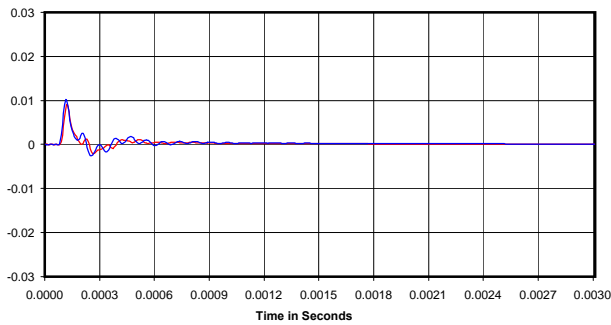
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



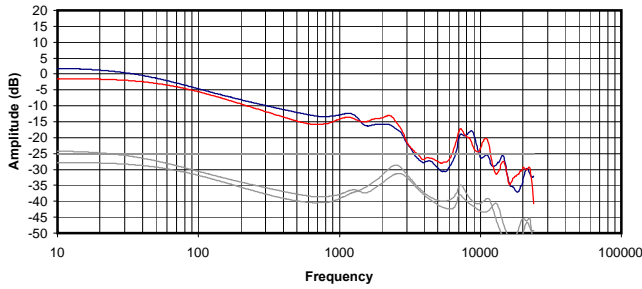
Impulse Response



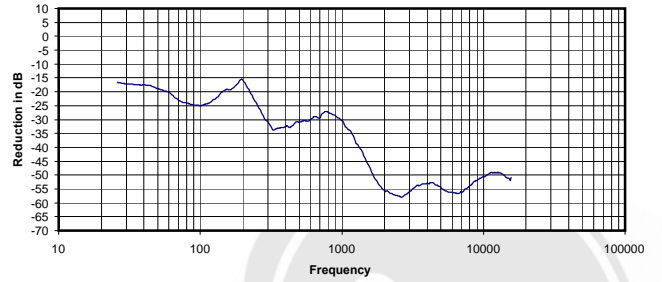
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
18 Ohms
0.04 mW
-19 dB

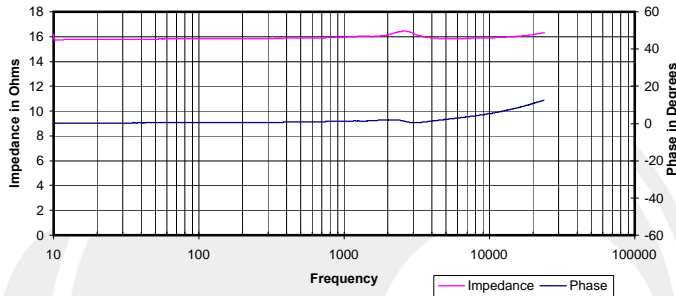
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



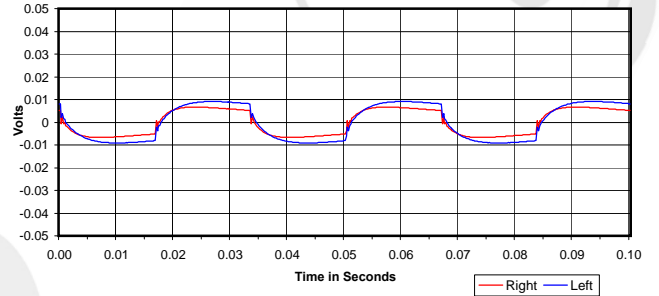
Isolation
Attenuation of External Sound vs. Frequency



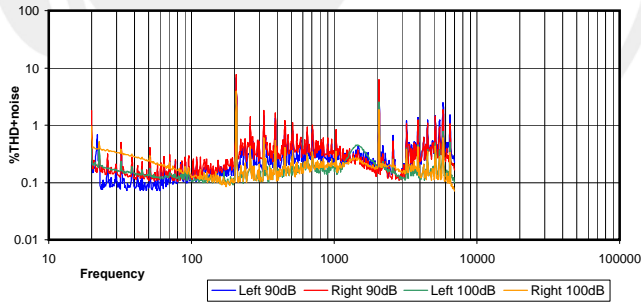
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



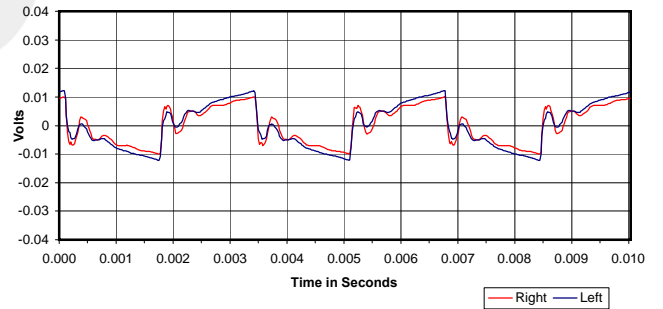
30 Hz Square Wave



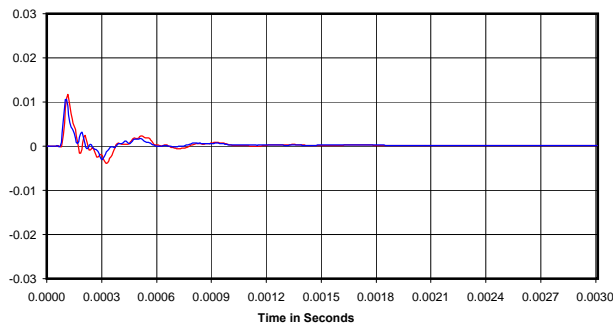
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

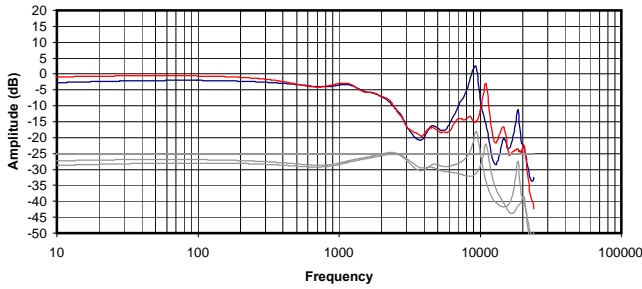


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

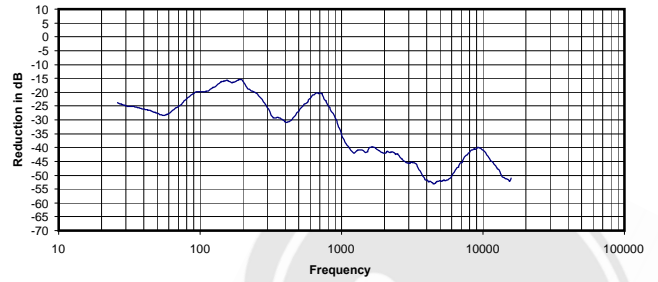
0.037 Vrms
16 Ohms
0.09 mW
-37 dB



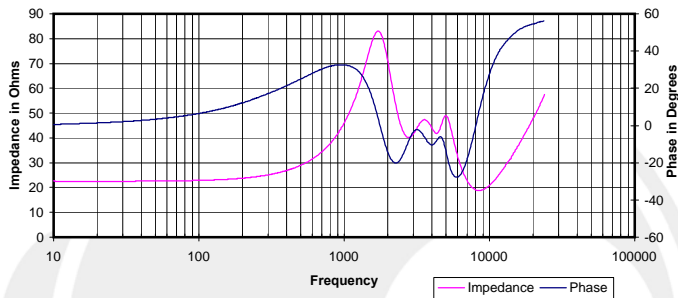
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



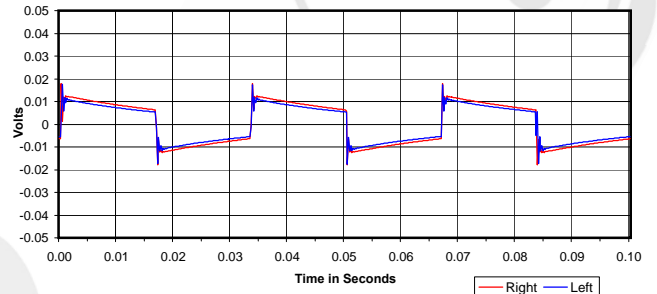
Isolation
Attenuation of External Sound vs. Frequency



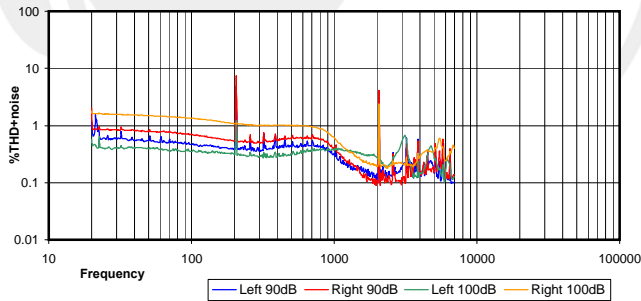
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



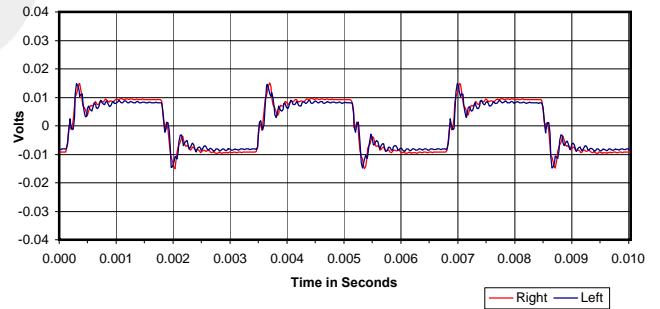
30 Hz Square Wave



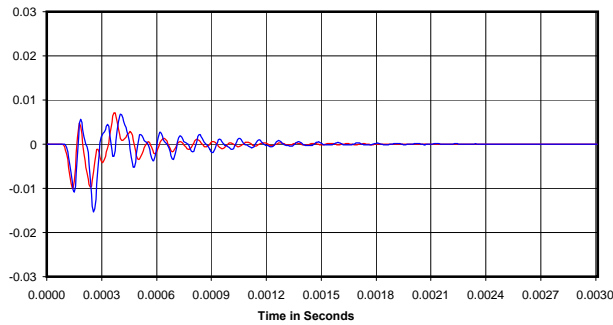
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

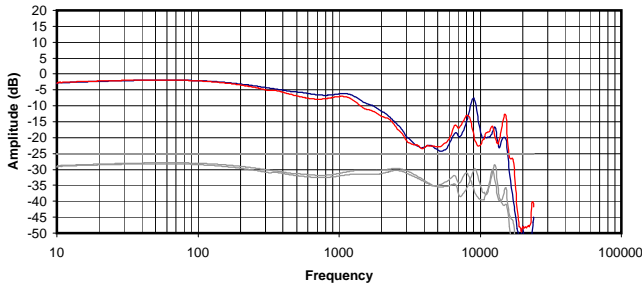


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

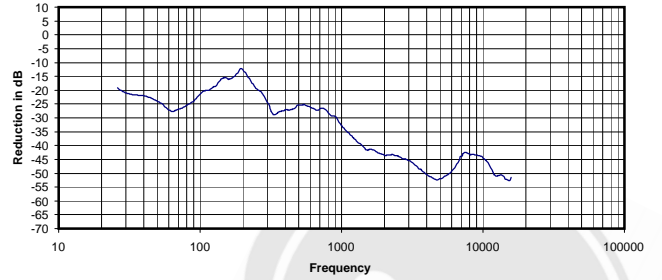
0.024 Vrms
46 Ohms
0.01 mW
-32 dB



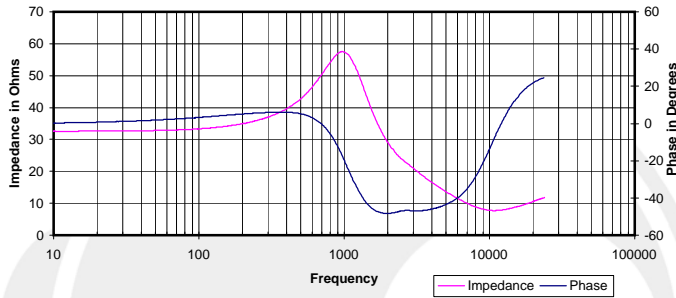
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



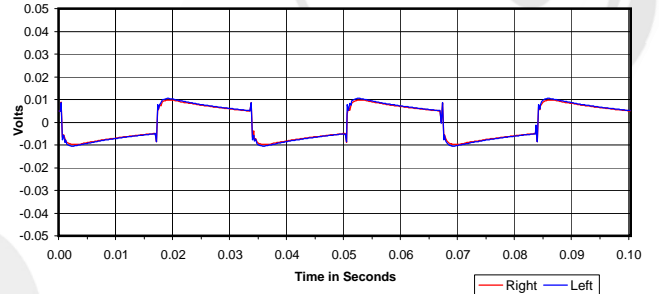
Isolation
Attenuation of External Sound vs. Frequency



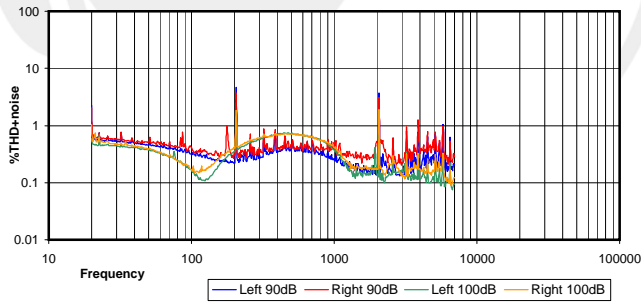
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



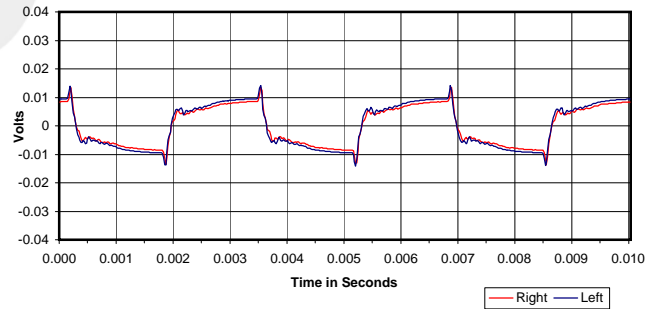
30 Hz Square Wave



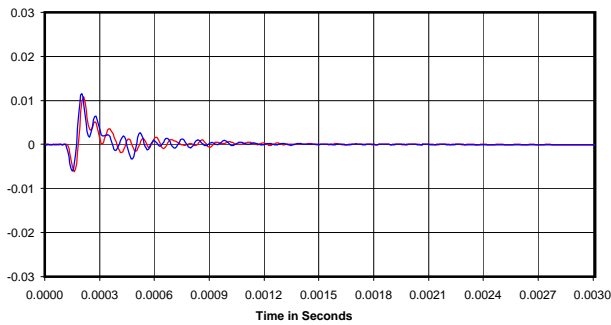
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

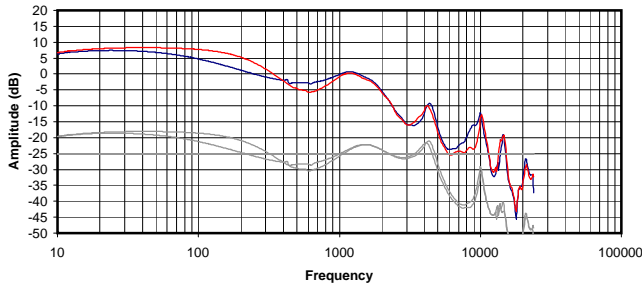


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

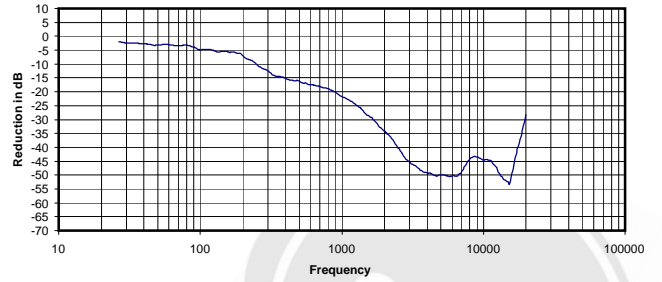
0.015 Vrms
57 Ohms
0.00 mW
-32 dB



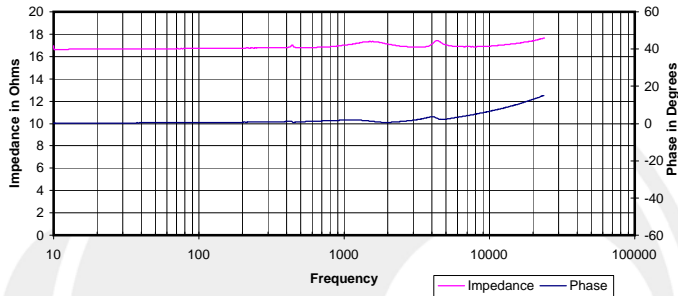
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



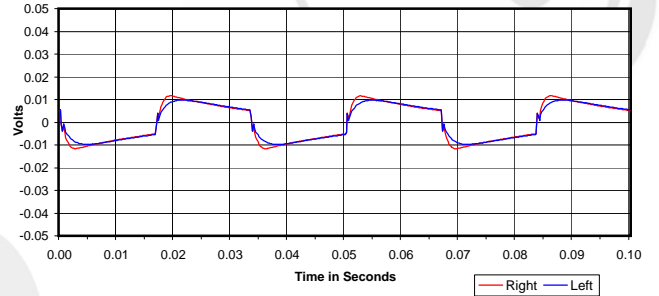
Isolation
Attenuation of External Sound vs. Frequency



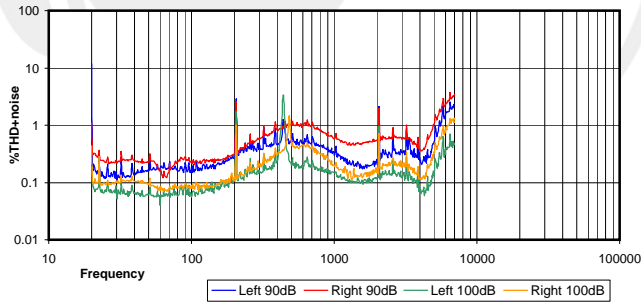
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



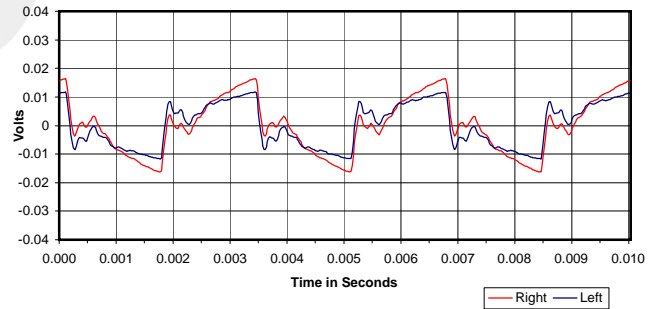
30 Hz Square Wave



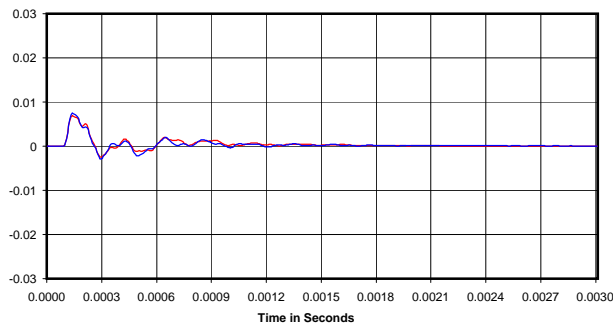
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



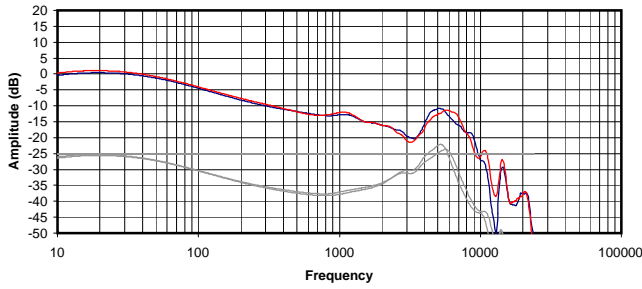
Impulse Response



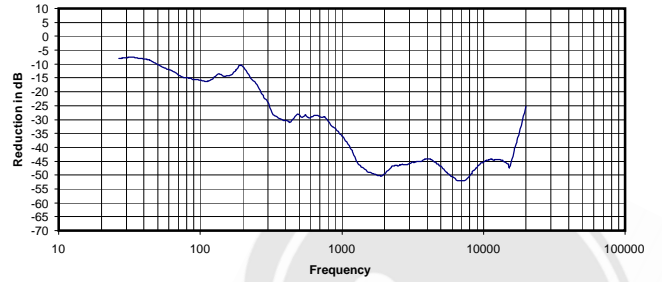
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.009 Vrms
17 Ohms
0.01 mW
-26 dB

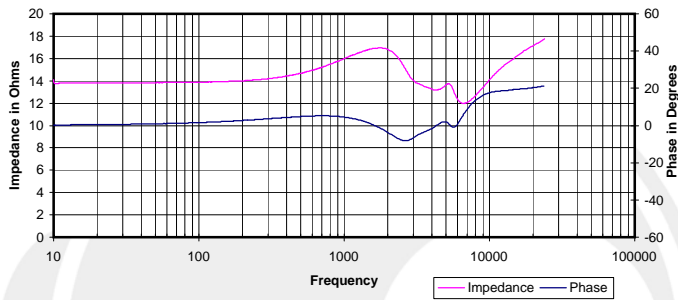
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



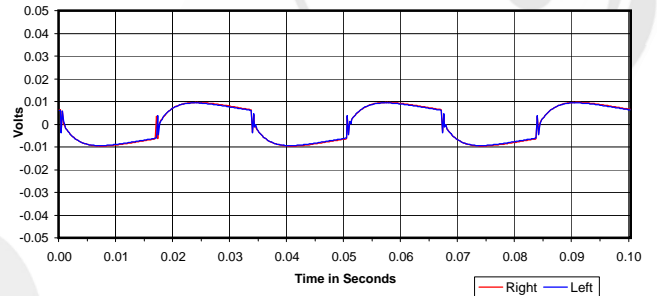
Isolation
Attenuation of External Sound vs. Frequency



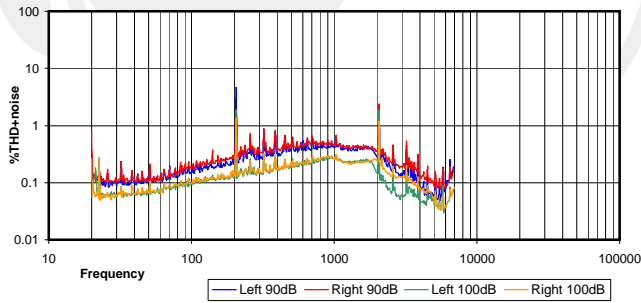
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



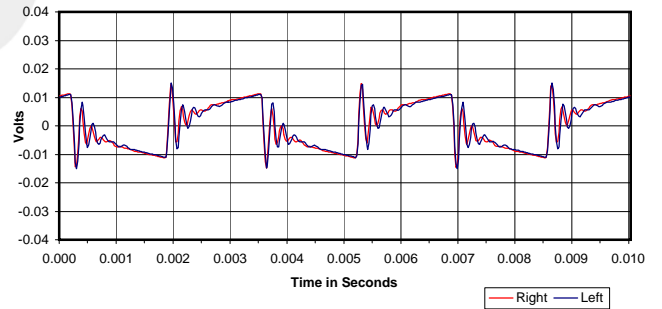
30 Hz Square Wave



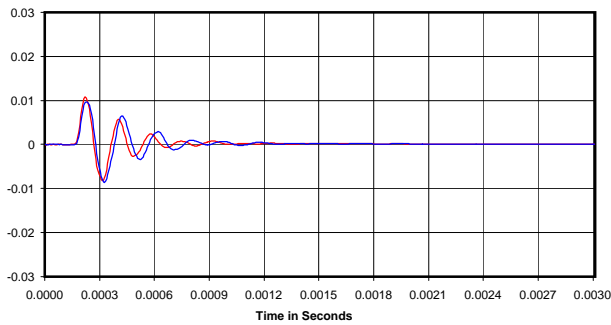
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

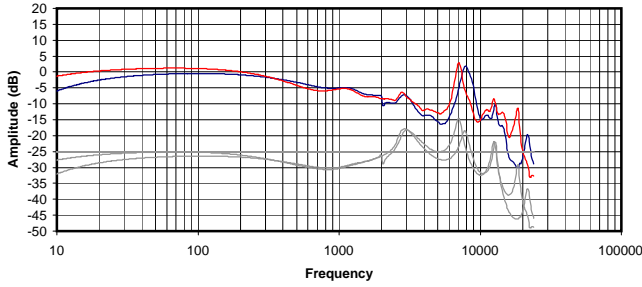


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

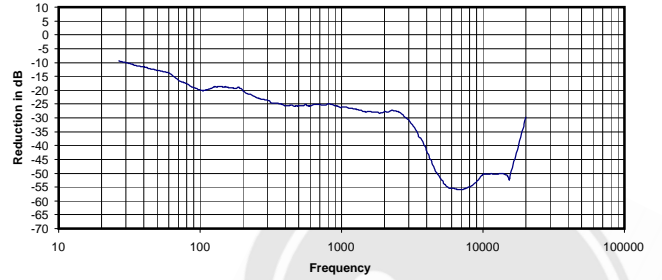
0.029 Vrms
16 Ohms
0.05 mW
-35 dB



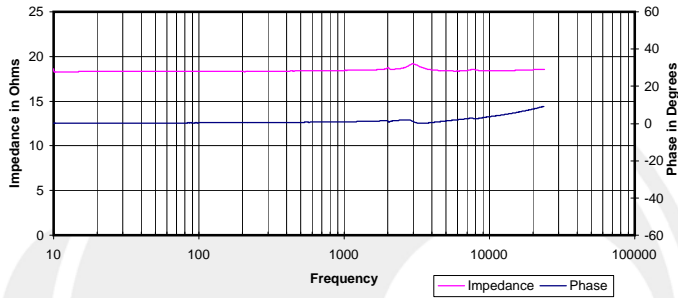
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



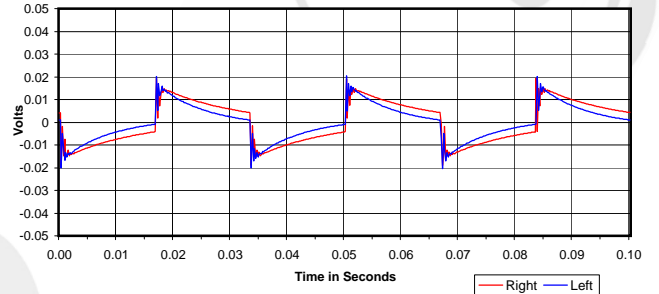
Isolation
Attenuation of External Sound vs. Frequency



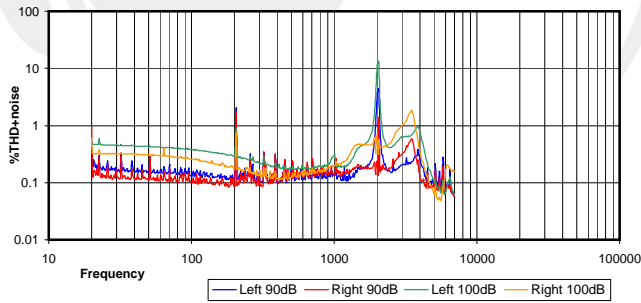
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



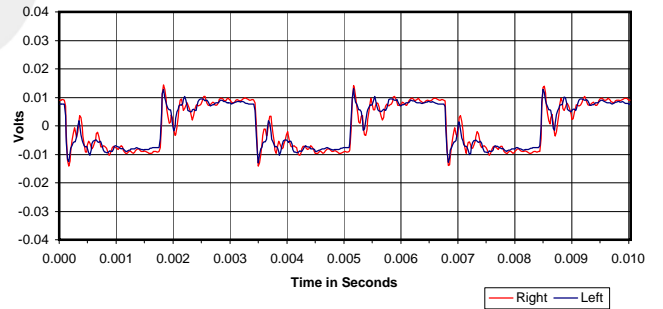
30 Hz Square Wave



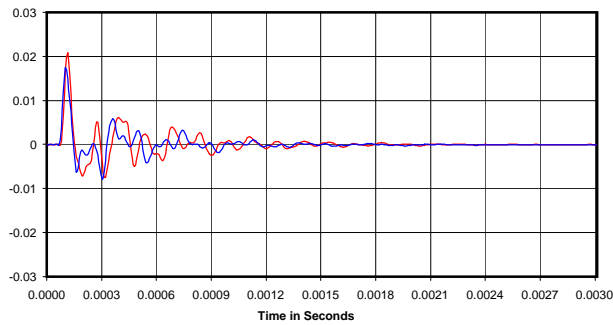
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

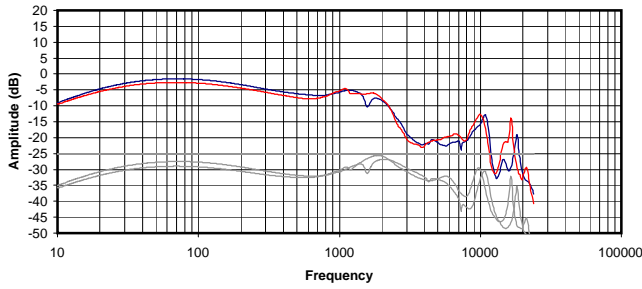


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

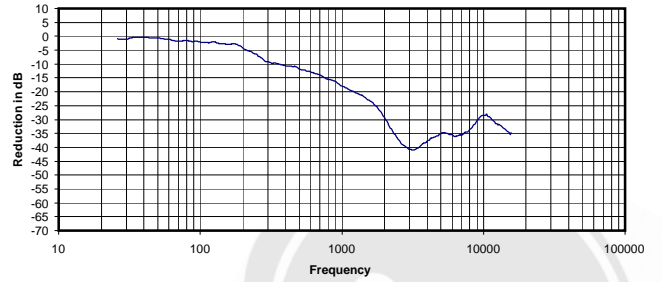
0.053 Vrms
18 Ohms
0.15 mW
-31 dB



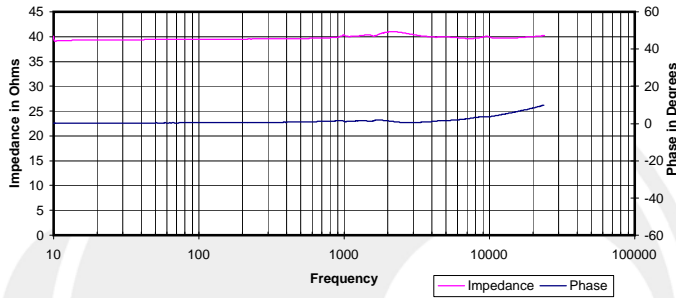
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



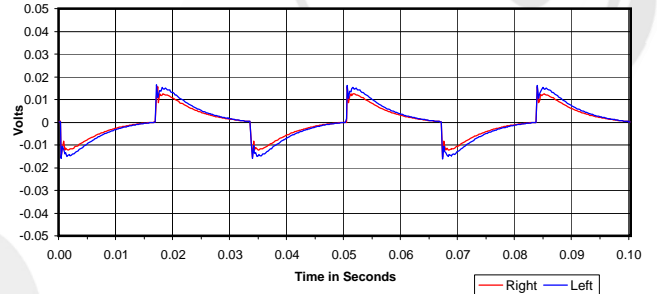
Isolation
Attenuation of External Sound vs. Frequency



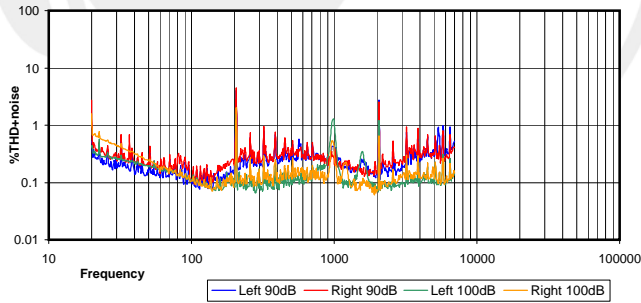
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



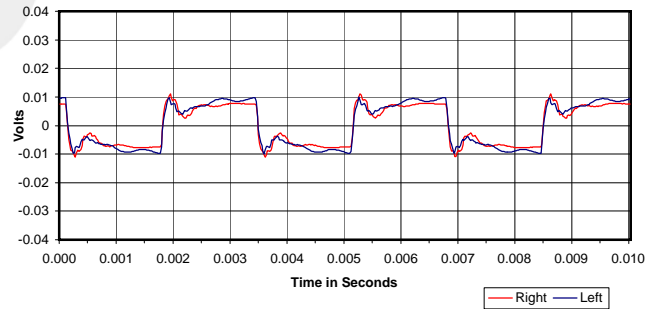
30 Hz Square Wave



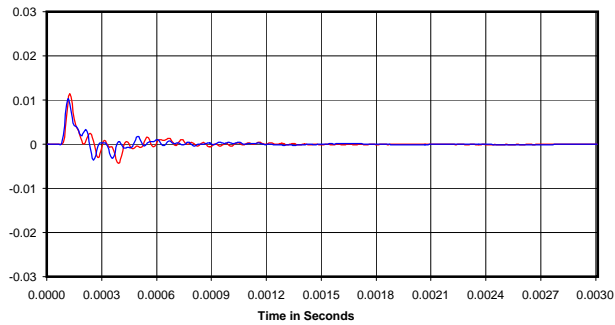
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



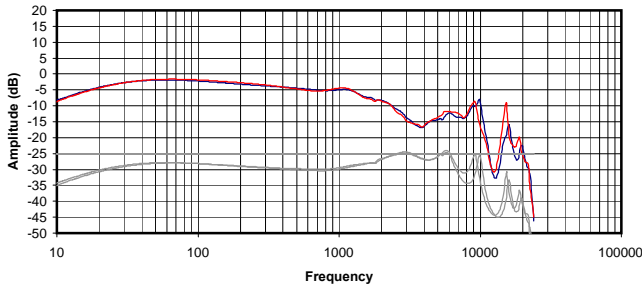
Impulse Response



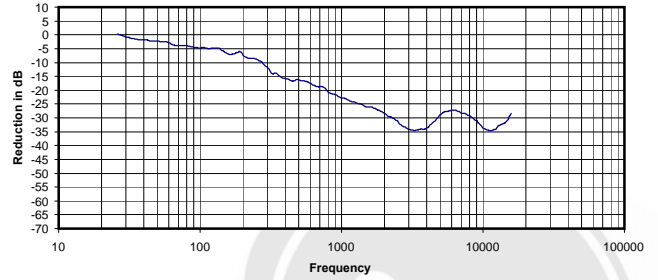
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.021 Vrms
40 Ohms
0.01 mW
-18 dB

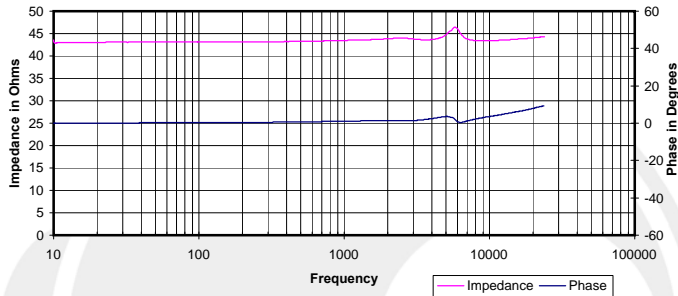
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



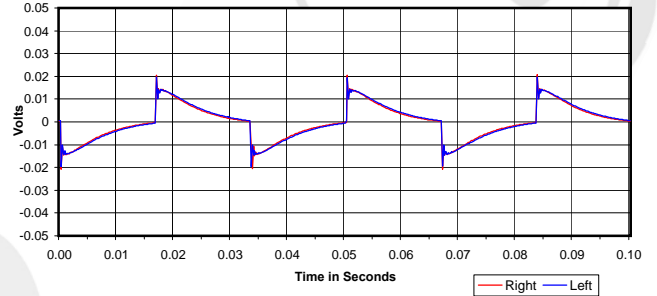
Isolation
Attenuation of External Sound vs. Frequency



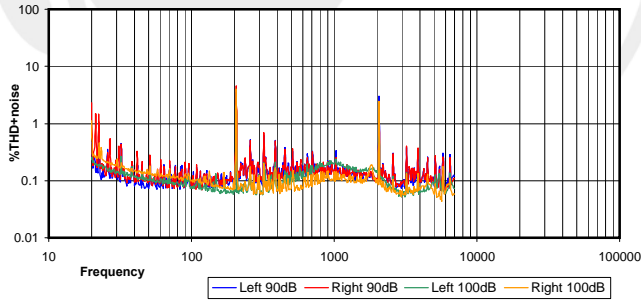
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



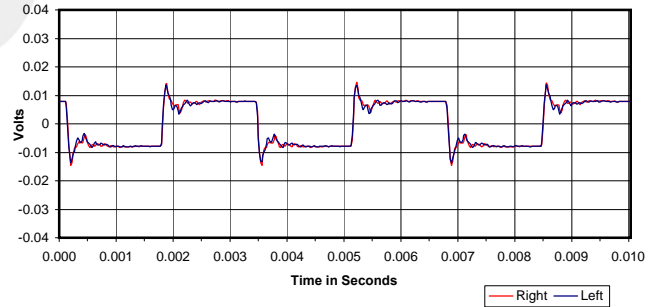
30 Hz Square Wave



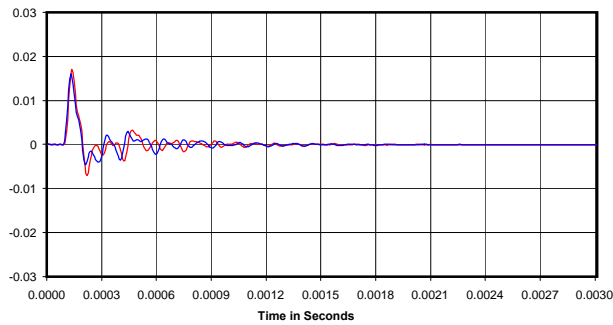
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

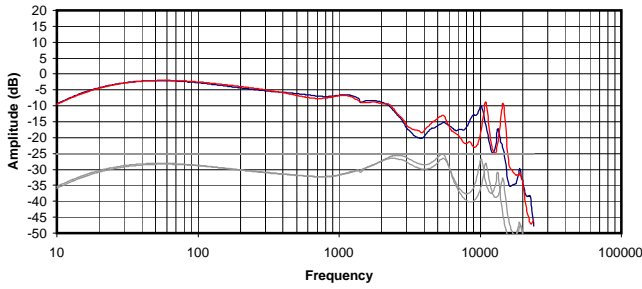


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

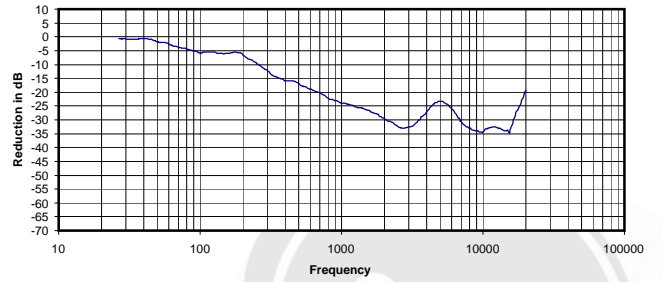
0.033 Vrms
43 Ohms
0.03 mW
-19 dB



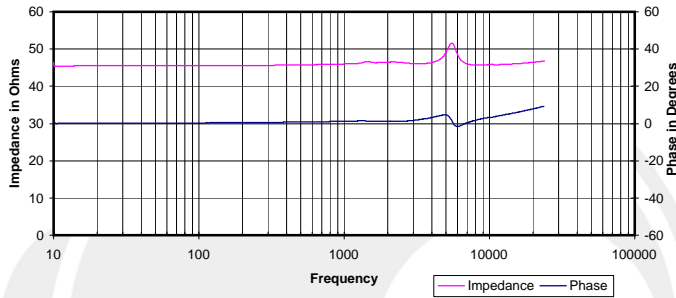
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



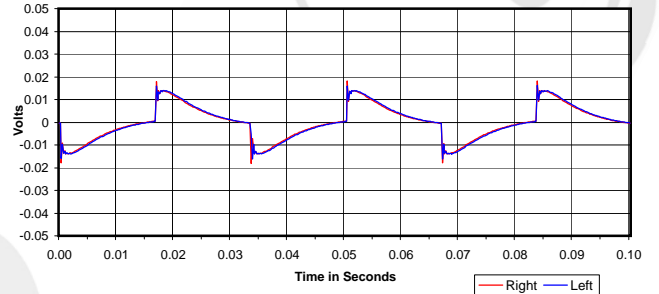
Isolation
Attenuation of External Sound vs. Frequency



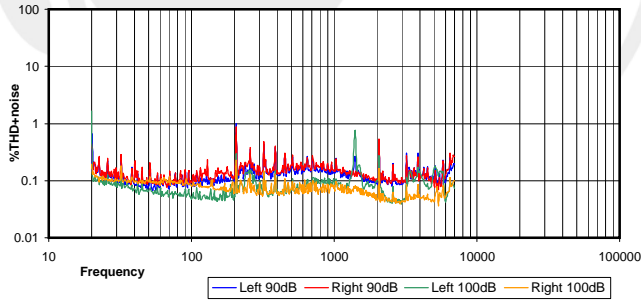
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



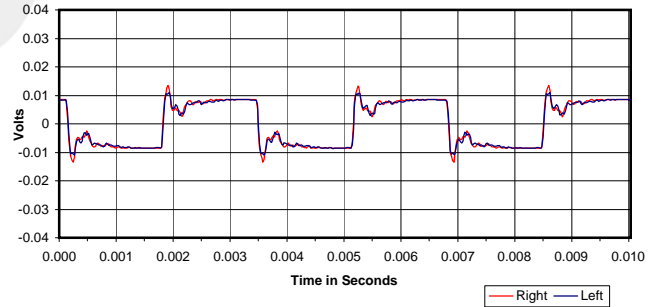
30 Hz Square Wave



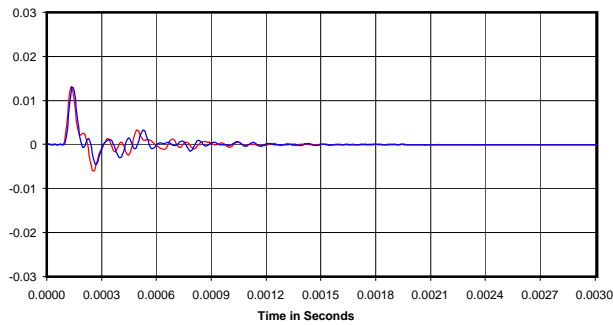
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

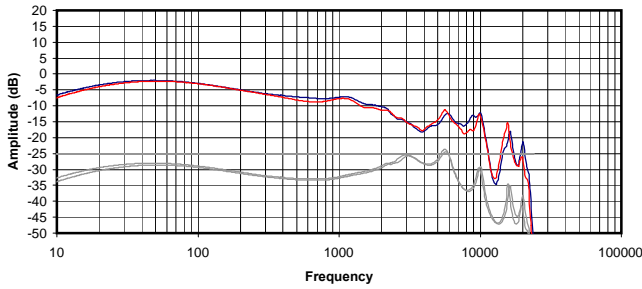


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

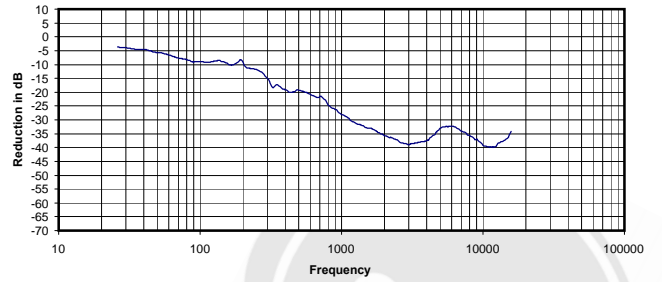
0.027 Vrms
46 Ohms
0.02 mW
-21 dB



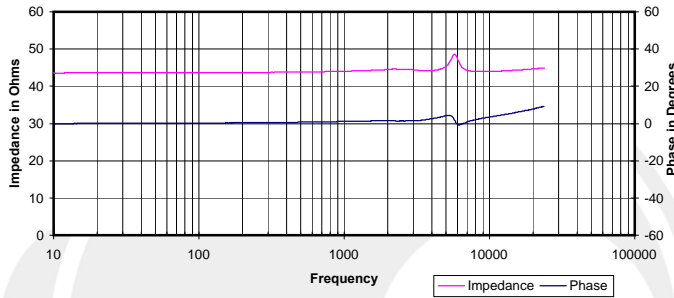
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



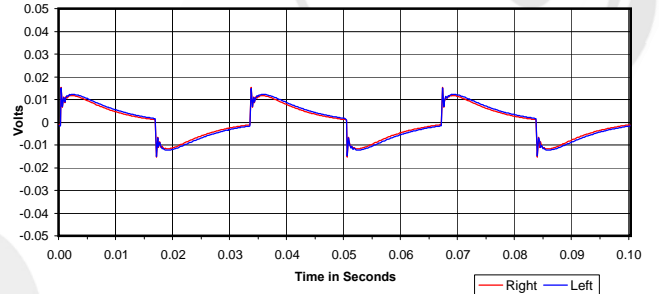
Isolation
Attenuation of External Sound vs. Frequency



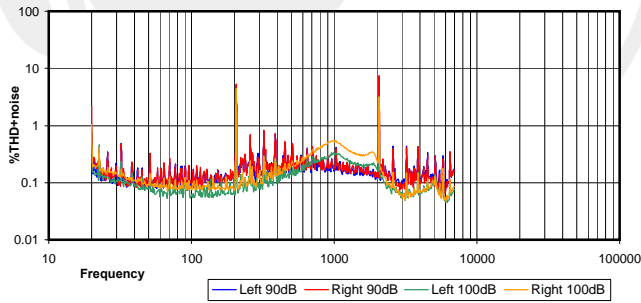
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



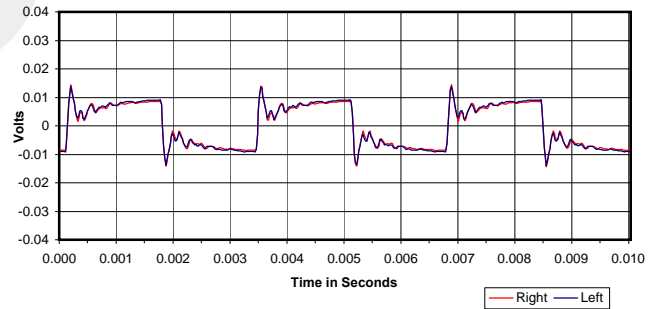
30 Hz Square Wave



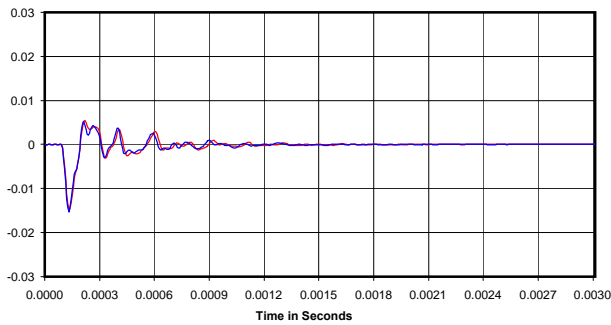
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

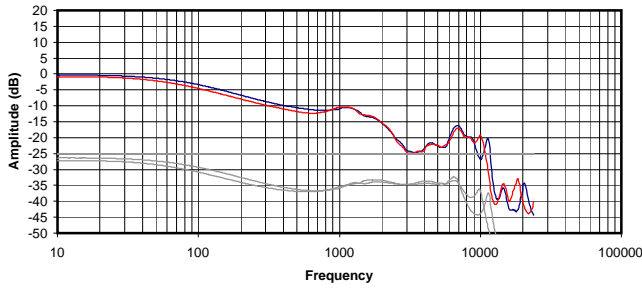


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

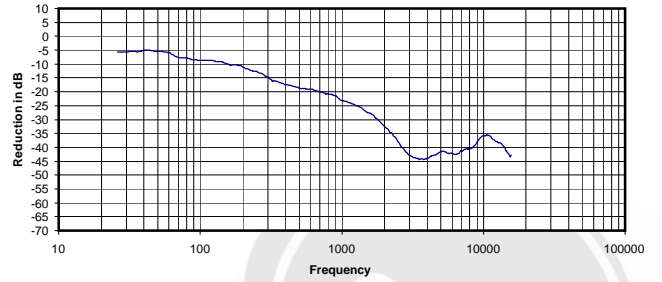
0.034 Vrms
44 Ohms
0.03 mW
-24 dB



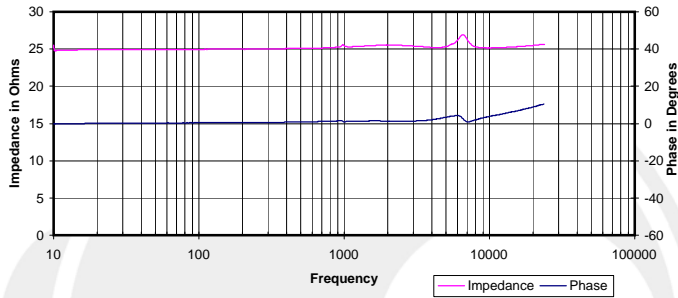
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



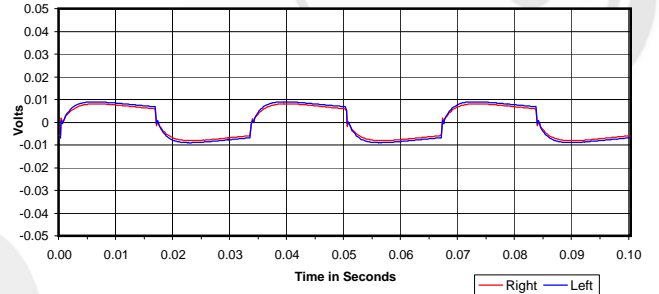
Isolation
Attenuation of External Sound vs. Frequency



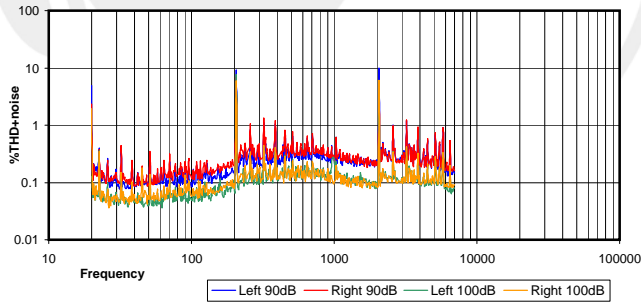
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



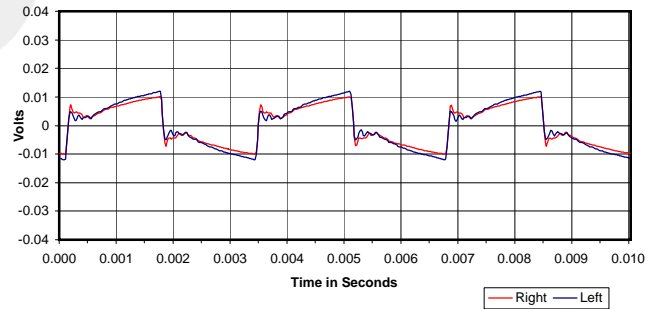
30 Hz Square Wave



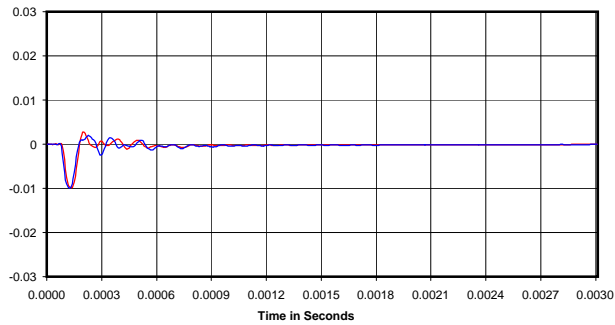
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



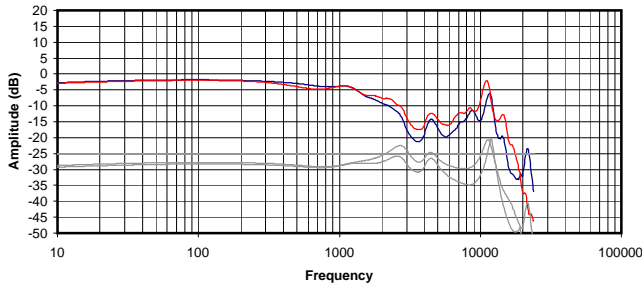
Impulse Response



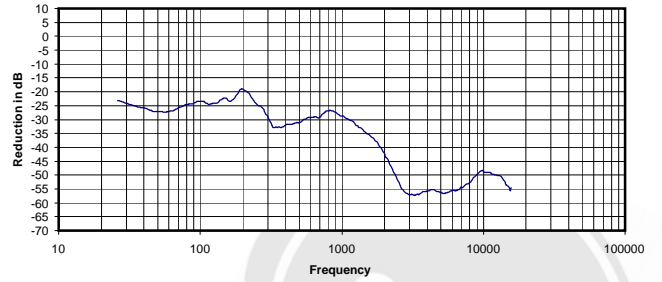
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.017 Vrms
25 Ohms
0.01 mW
-24 dB

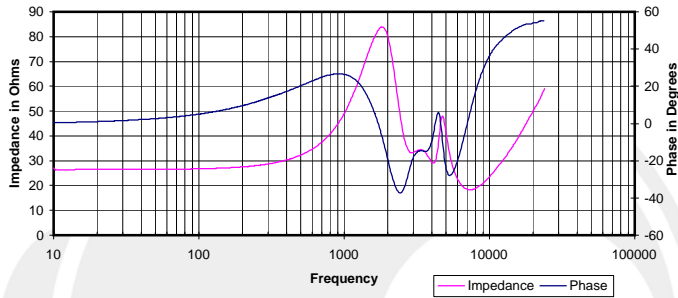
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



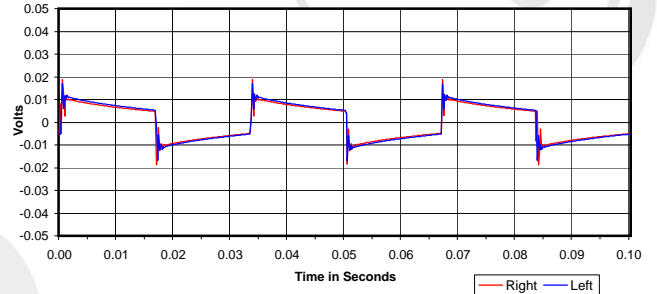
Isolation
Attenuation of External Sound vs. Frequency



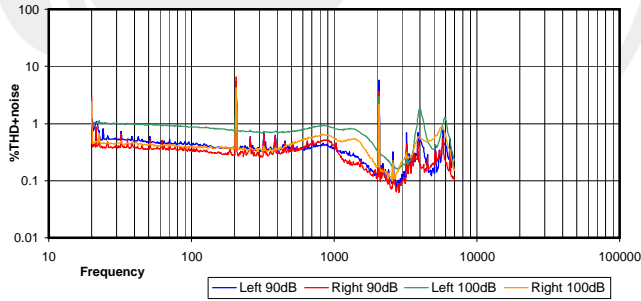
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



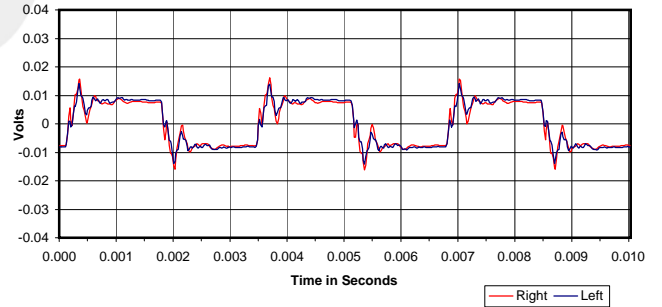
30 Hz Square Wave



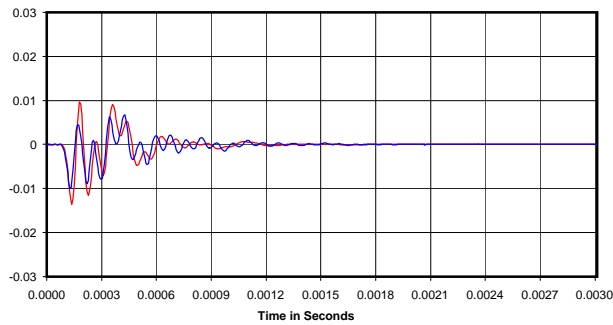
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

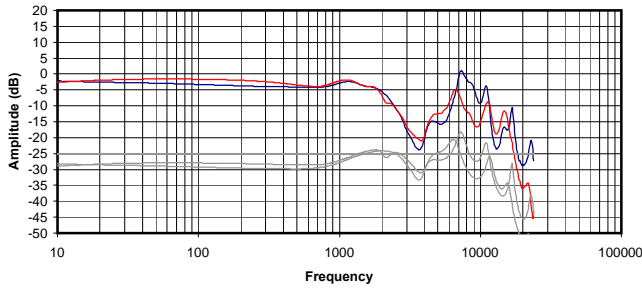


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

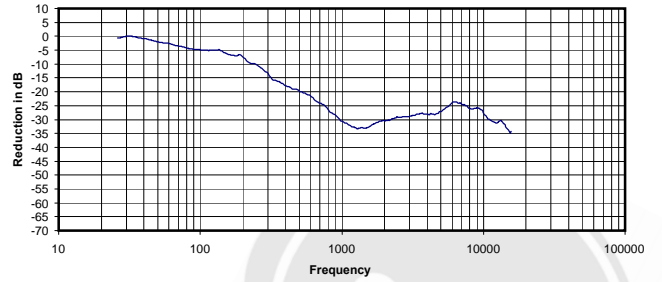
0.031 Vrms
49 Ohms
0.02 mW
-35 dB



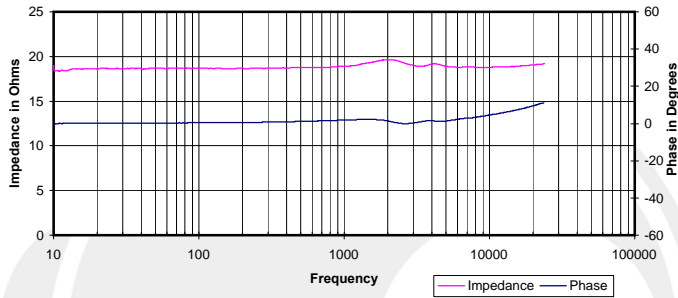
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



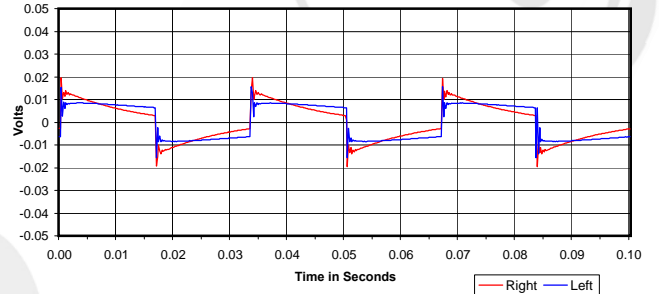
Isolation
Attenuation of External Sound vs. Frequency



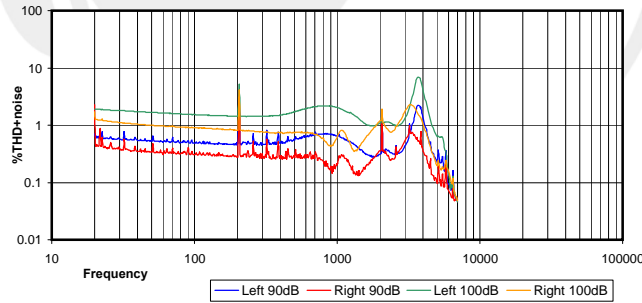
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



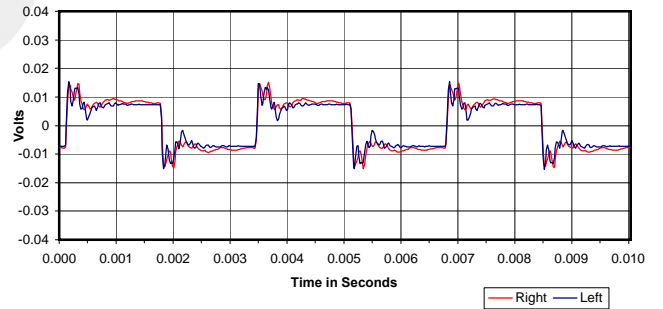
30 Hz Square Wave



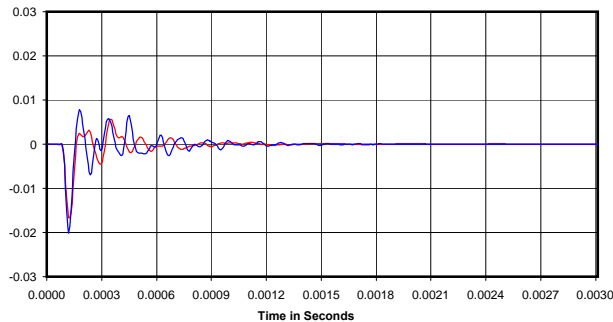
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

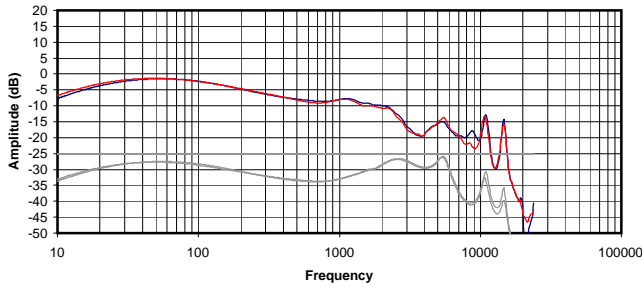


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

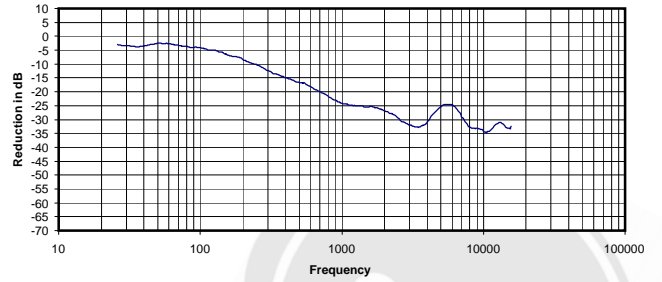
0.036 Vrms
19 Ohms
0.07 mW
-21 dB



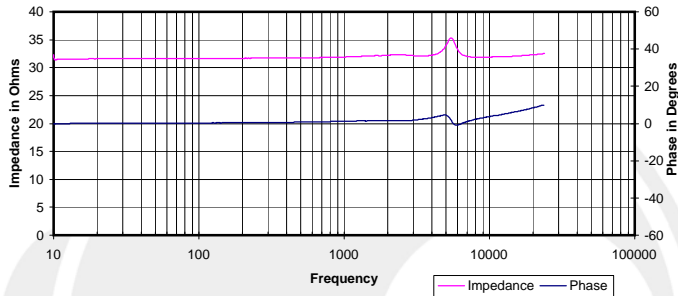
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



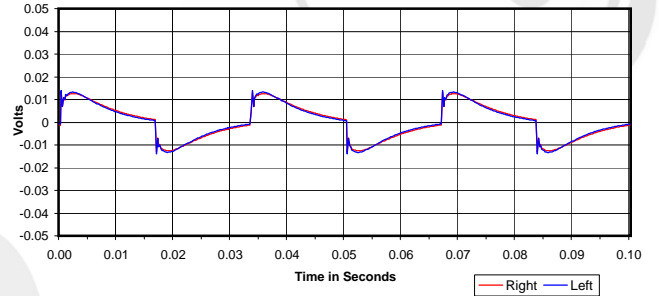
Isolation
Attenuation of External Sound vs. Frequency



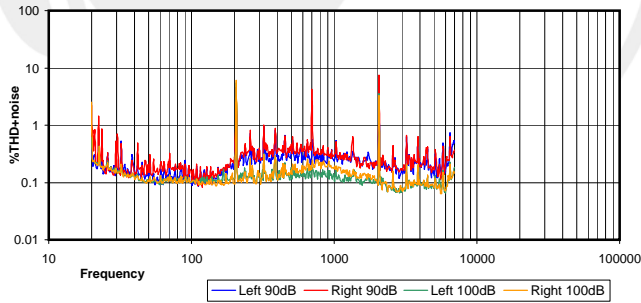
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



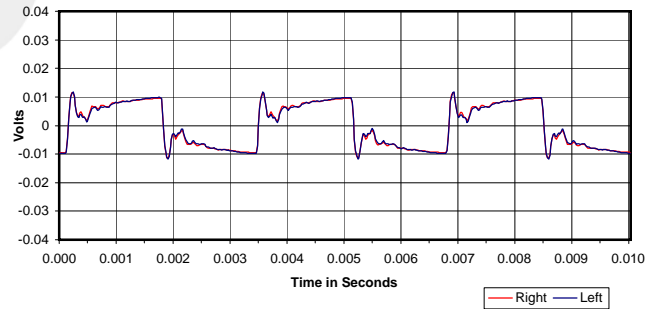
30 Hz Square Wave



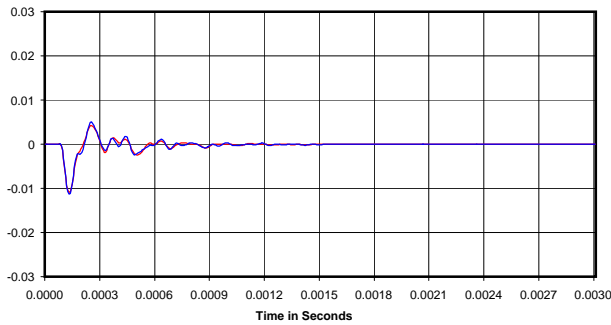
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

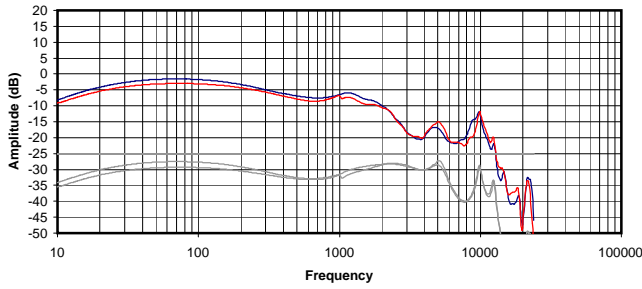


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

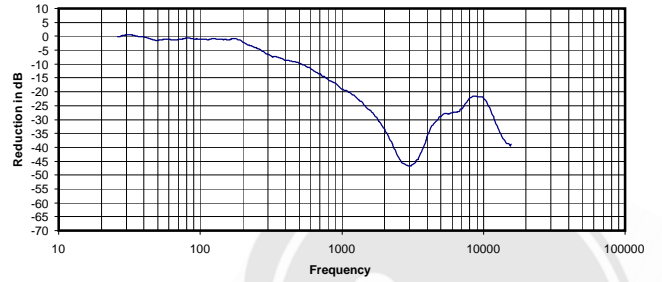
0.025 Vrms
32 Ohms
0.02 mW
-19 dB



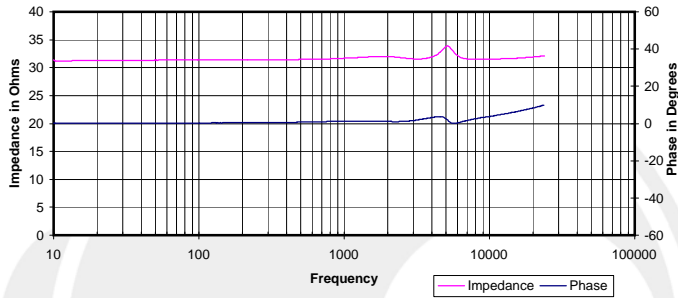
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



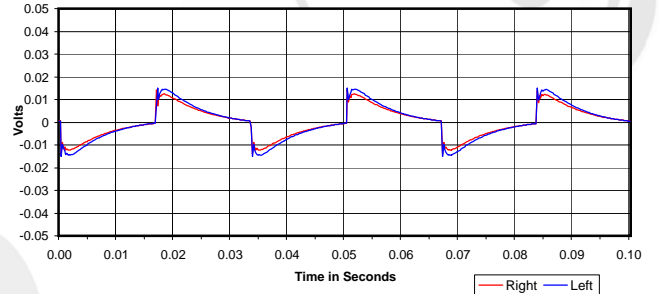
Isolation
Attenuation of External Sound vs. Frequency



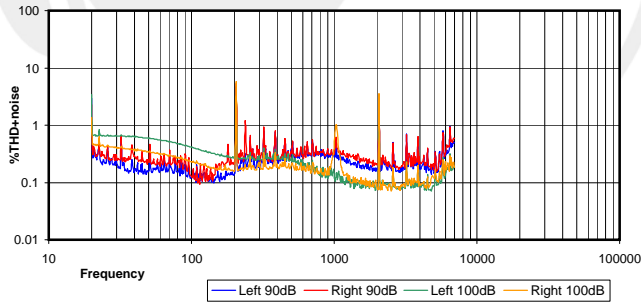
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



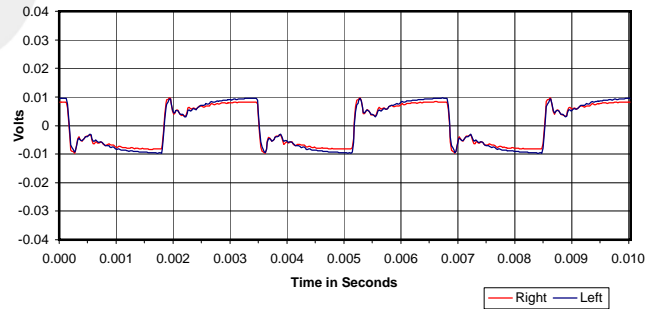
30 Hz Square Wave



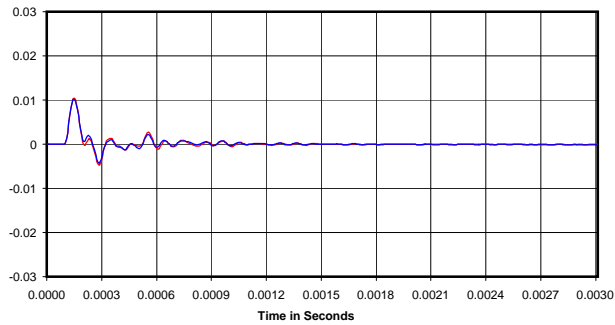
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



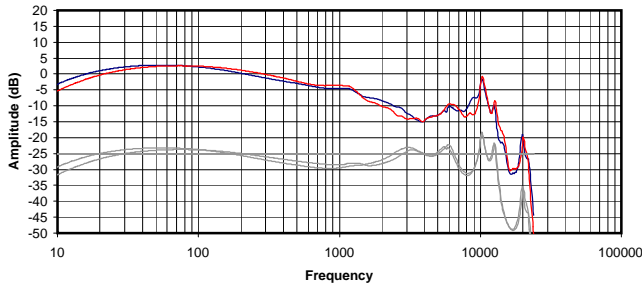
Impulse Response



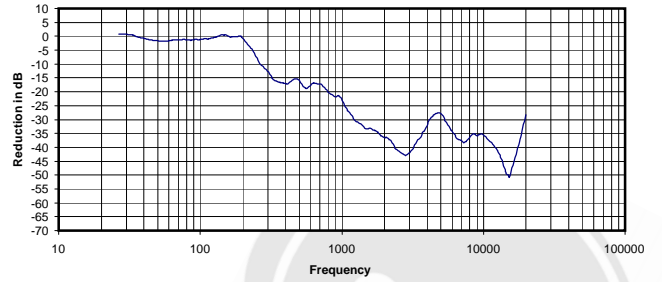
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.020 Vrms
32 Ohms
0.01 mW
-18 dB

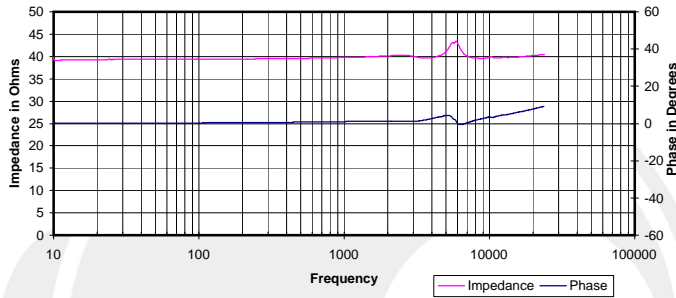
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



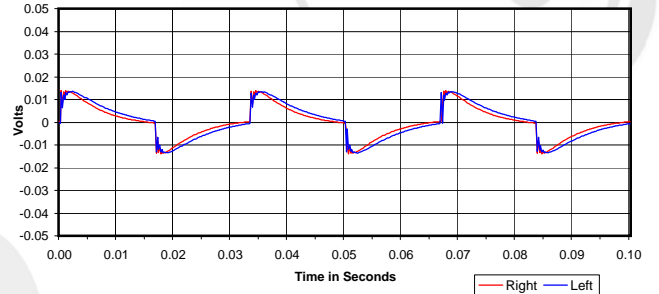
Isolation
Attenuation of External Sound vs. Frequency



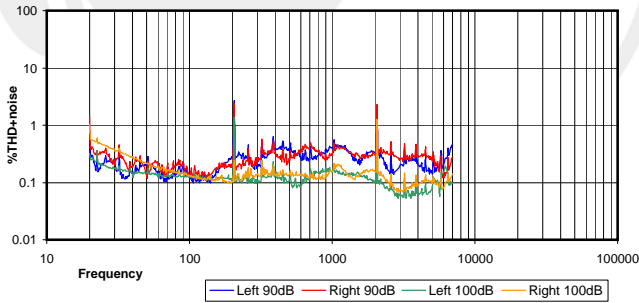
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



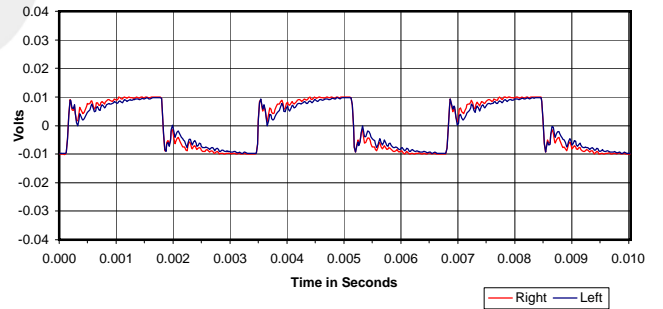
30 Hz Square Wave



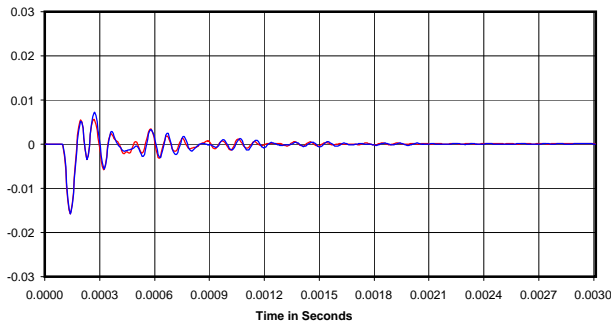
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

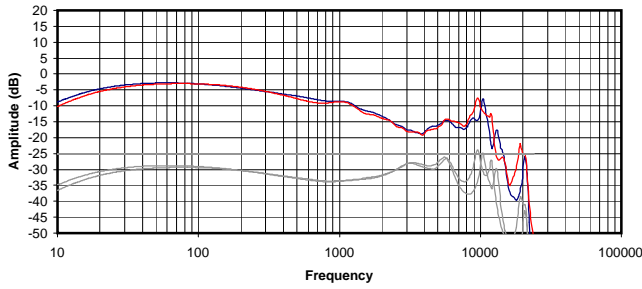


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

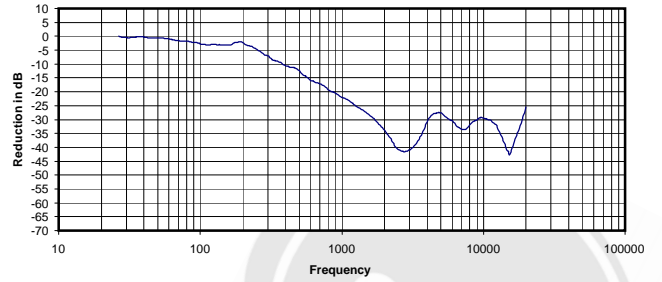
0.027 Vrms
40 Ohms
0.02 mW
-23 dB



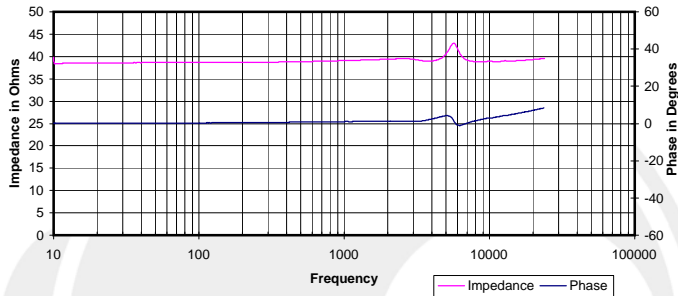
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



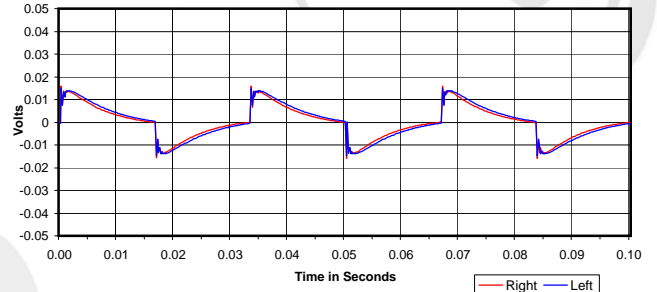
Isolation
Attenuation of External Sound vs. Frequency



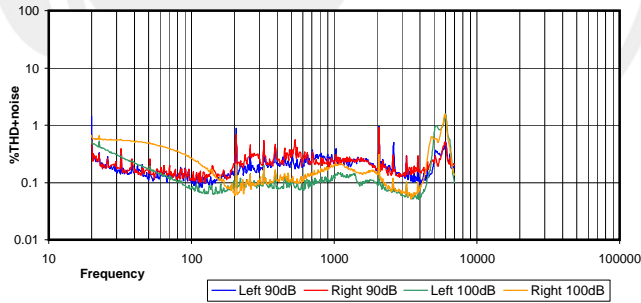
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



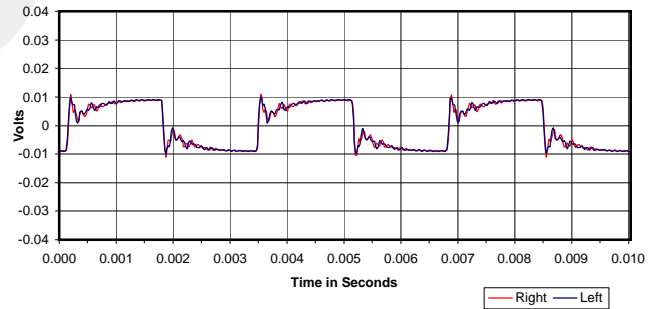
30 Hz Square Wave



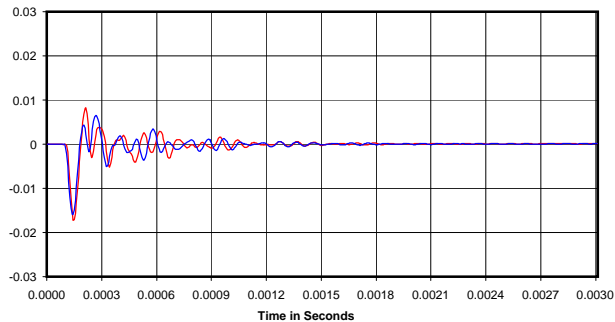
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

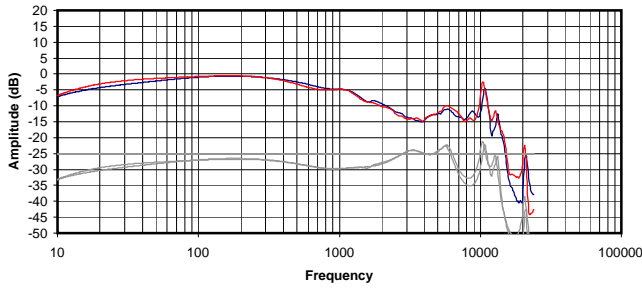


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

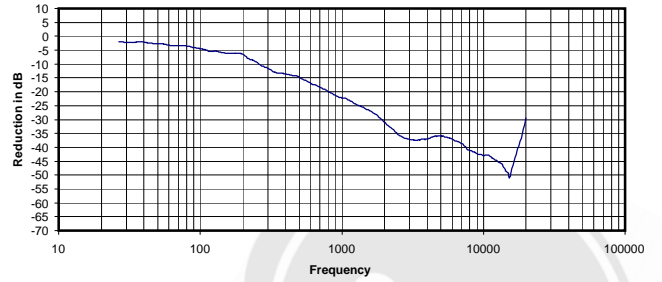
0.026 Vrms
39 Ohms
0.02 mW
-21 dB



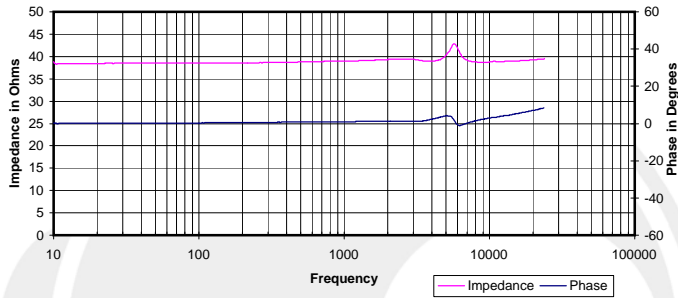
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



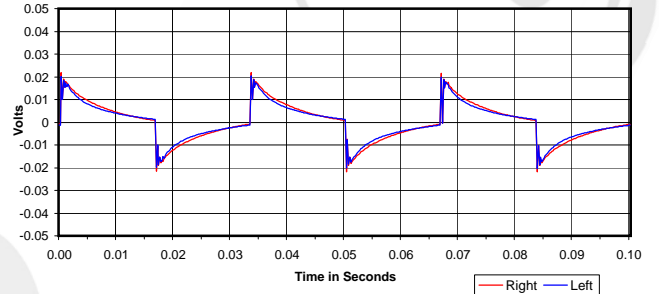
Isolation
Attenuation of External Sound vs. Frequency



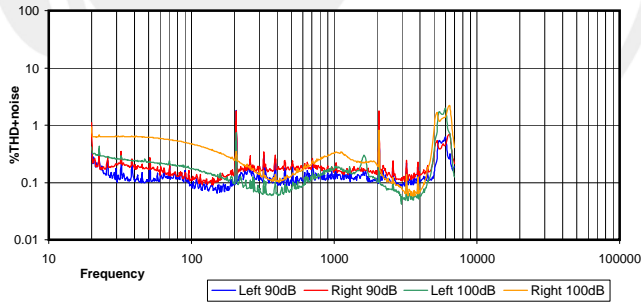
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



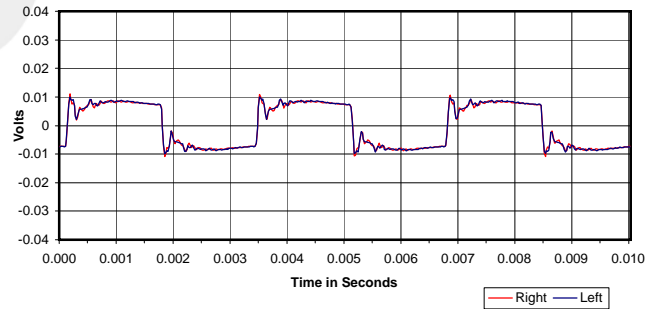
30 Hz Square Wave



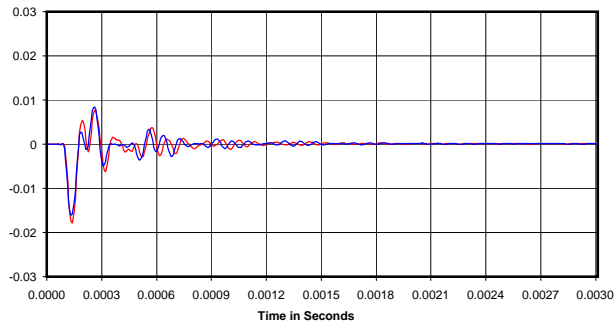
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

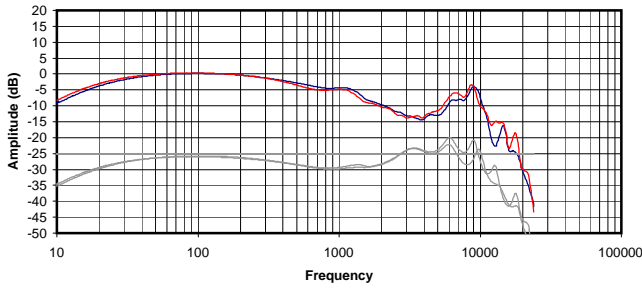


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

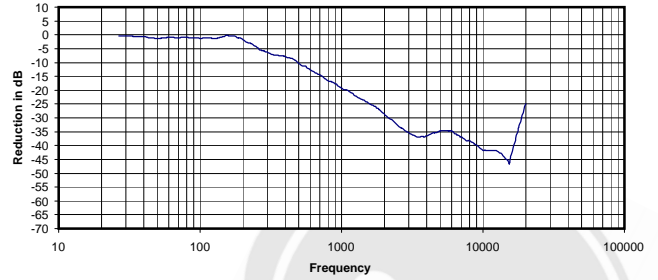
0.026 Vrms
39 Ohms
0.02 mW
-23 dB



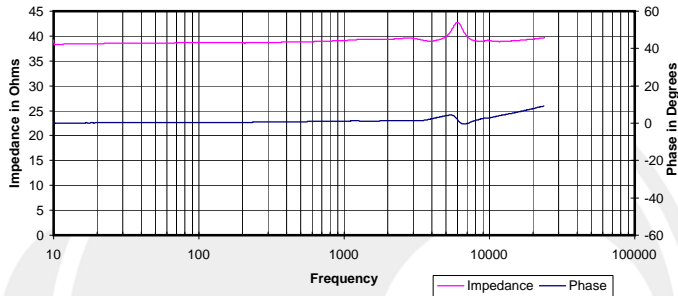
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



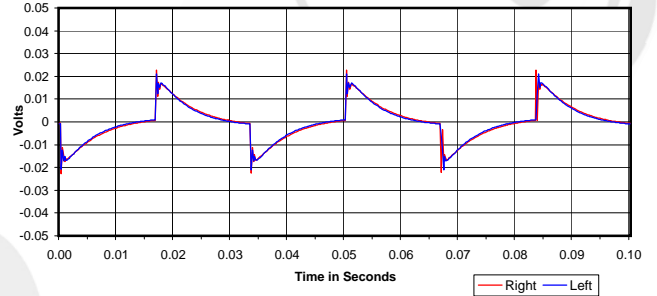
Isolation
Attenuation of External Sound vs. Frequency



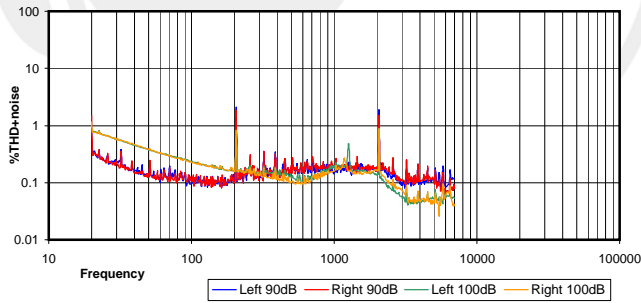
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



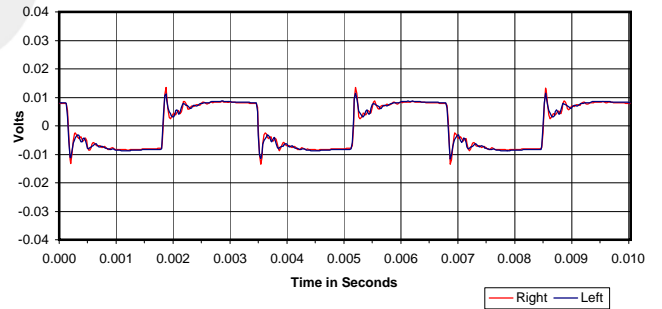
30 Hz Square Wave



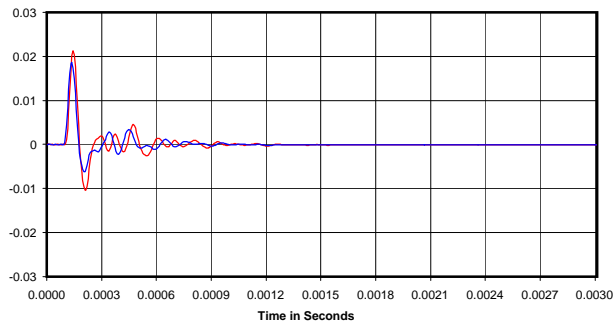
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

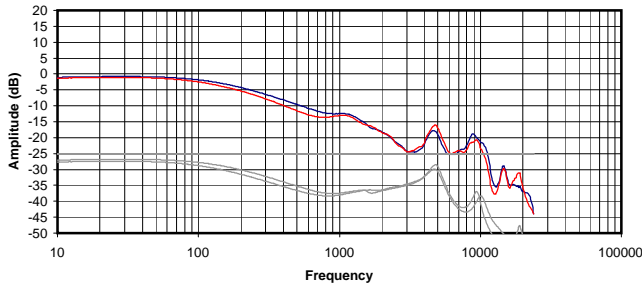


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

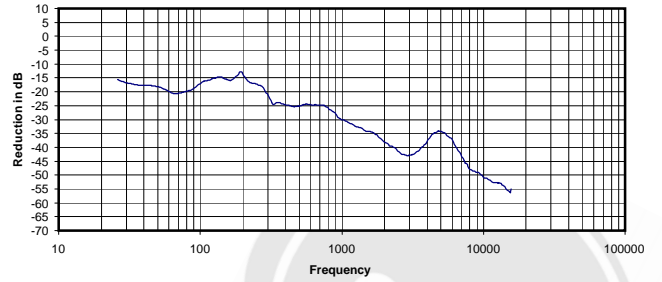
0.026 Vrms
39 Ohms
0.02 mW
-20 dB



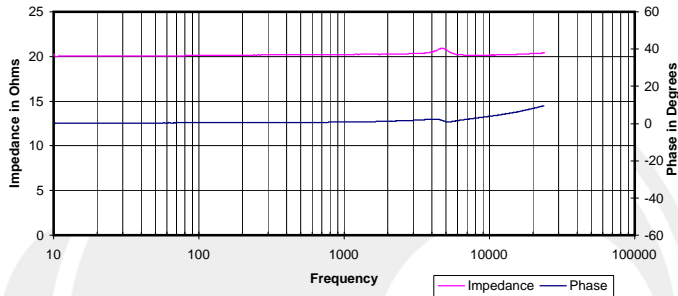
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



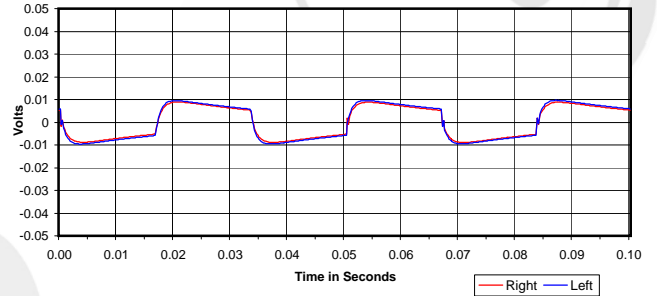
Isolation
Attenuation of External Sound vs. Frequency



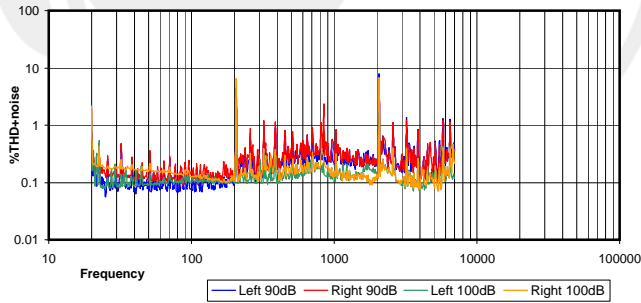
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



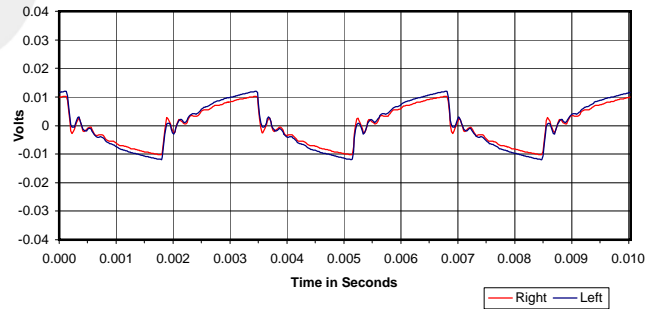
30 Hz Square Wave



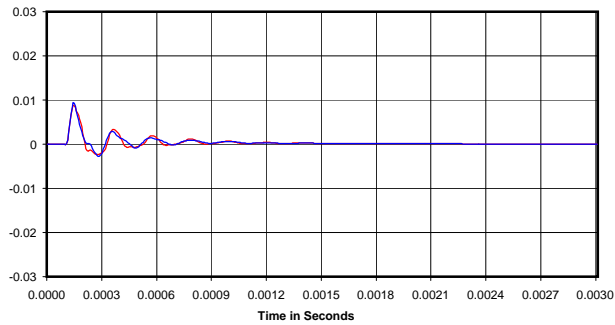
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

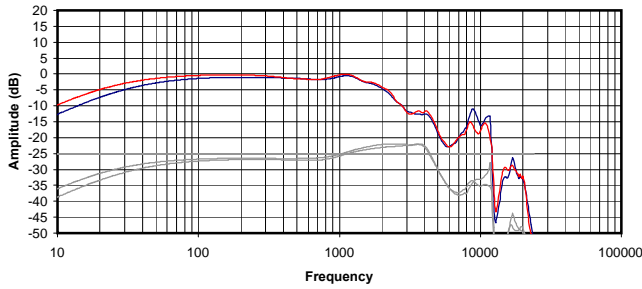


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

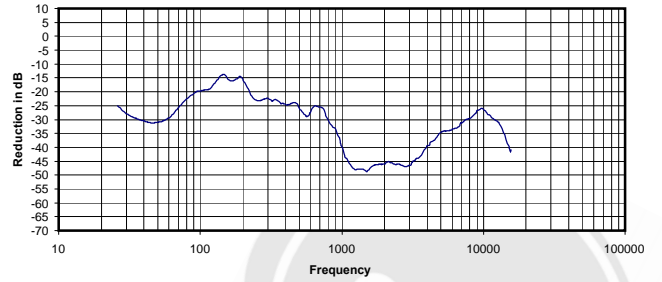
0.054 Vrms
20 Ohms
0.14 mW
-28 dB



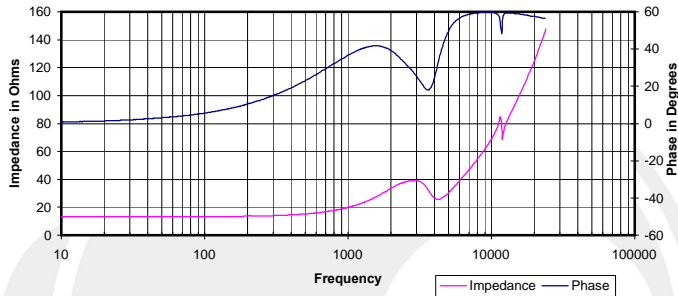
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



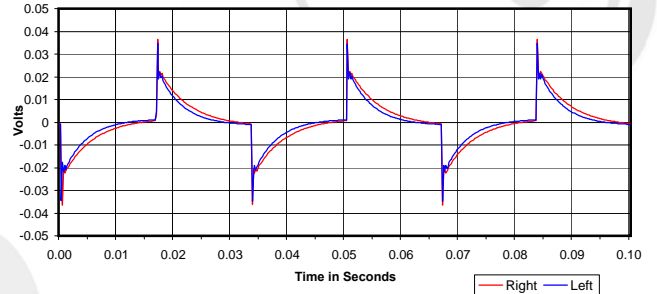
Isolation
Attenuation of External Sound vs. Frequency



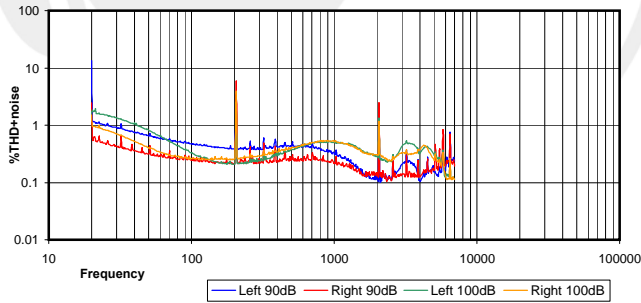
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



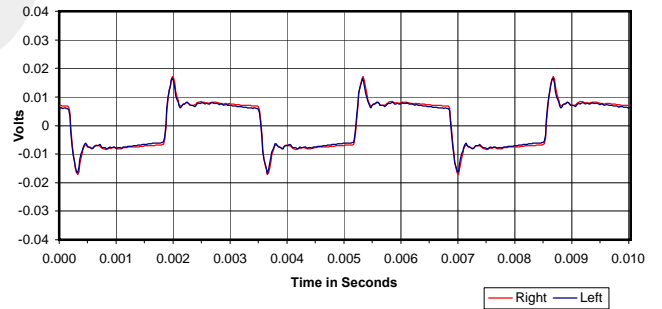
30 Hz Square Wave



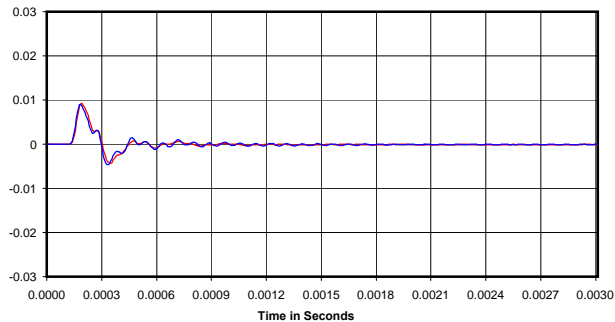
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

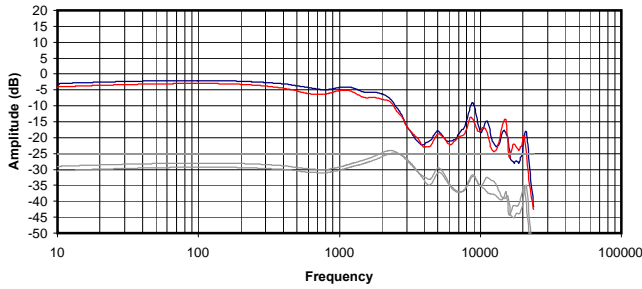


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

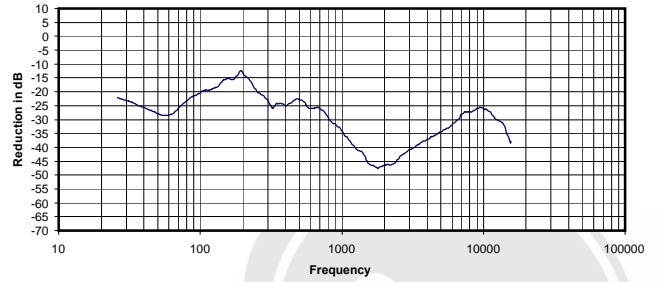
0.013 Vrms
20 Ohms
0.01 mW
-32 dB



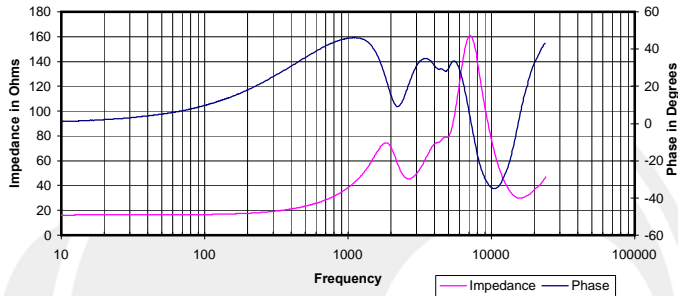
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



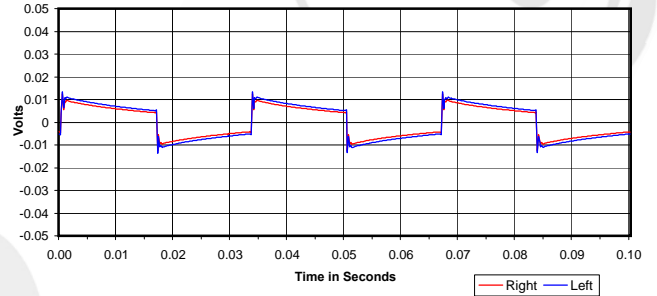
Isolation
Attenuation of External Sound vs. Frequency



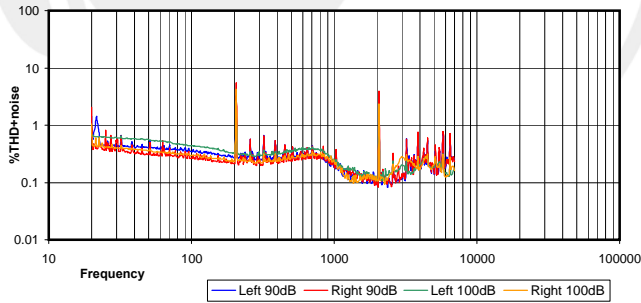
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



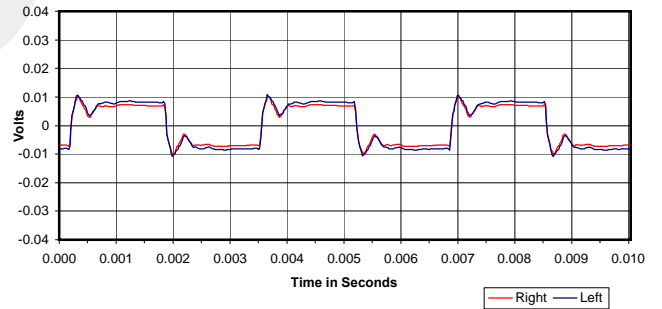
30 Hz Square Wave



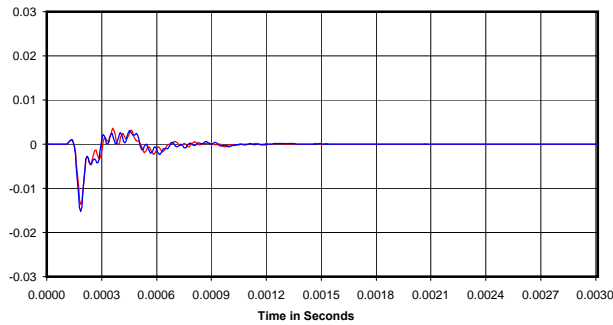
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

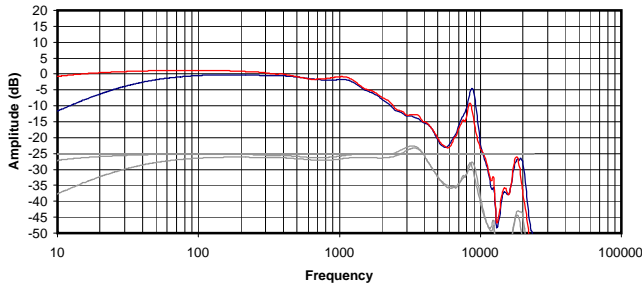


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

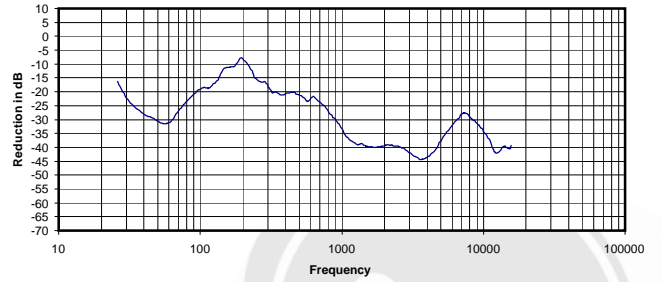
0.015 Vrms
38 Ohms
0.01 mW
-30 dB



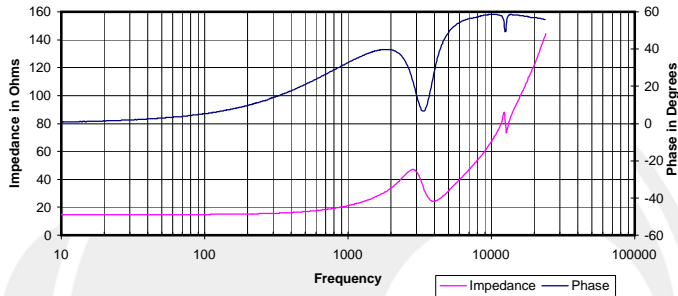
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



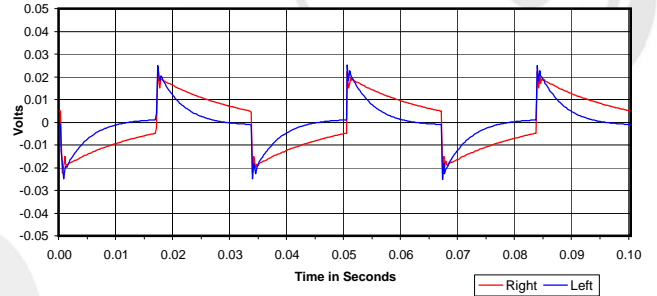
Isolation
Attenuation of External Sound vs. Frequency



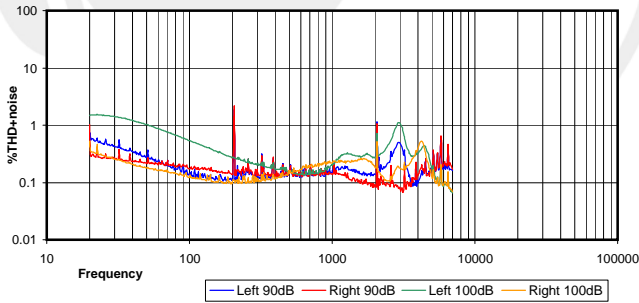
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



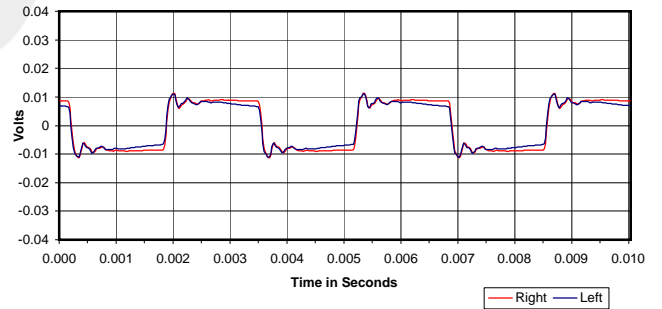
30 Hz Square Wave



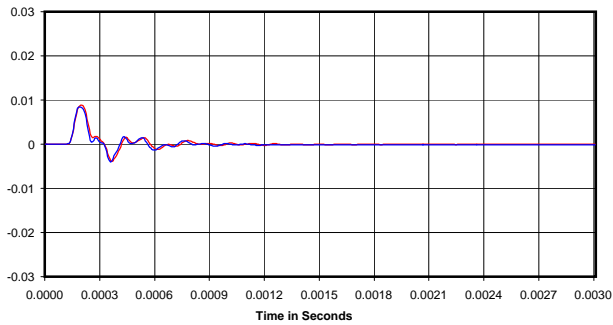
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

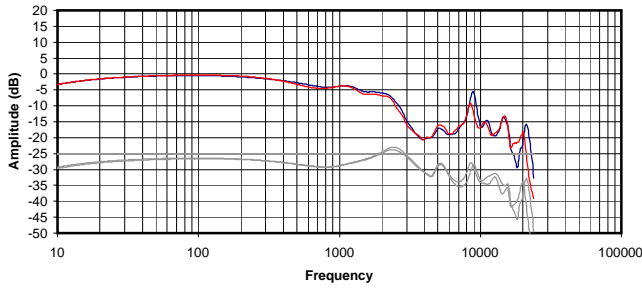


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

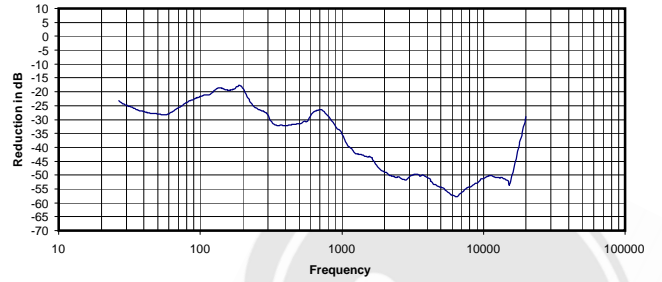
0.018 Vrms
21 Ohms
0.02 mW
-28 dB



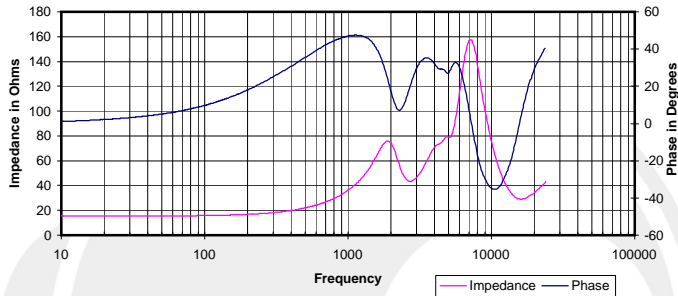
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



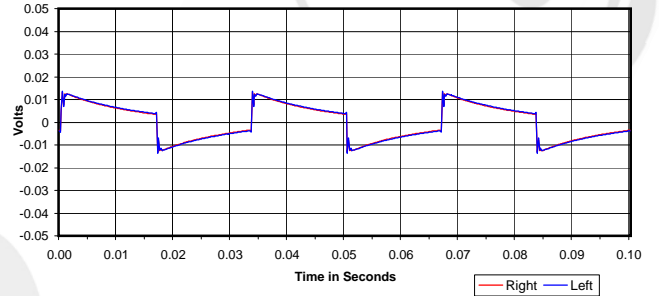
Isolation
Attenuation of External Sound vs. Frequency



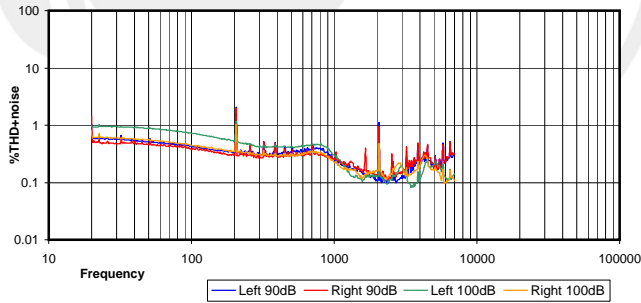
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



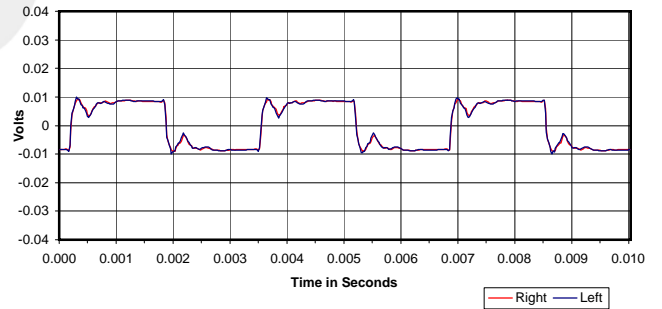
30 Hz Square Wave



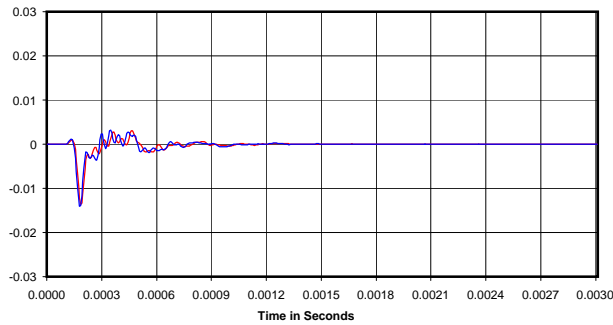
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

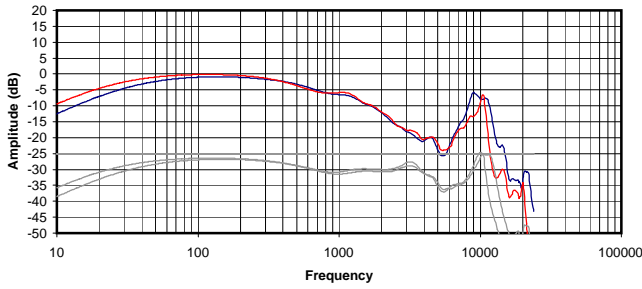


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

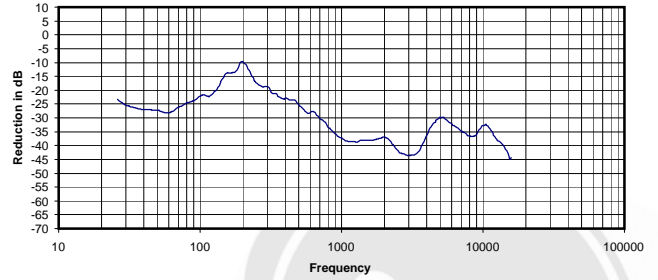
0.016 Vrms
36 Ohms
0.01 mW
-38 dB



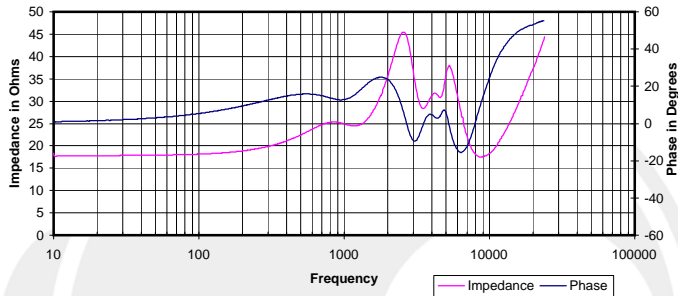
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



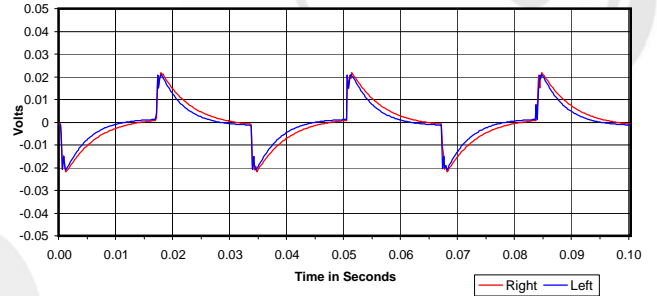
Isolation
Attenuation of External Sound vs. Frequency



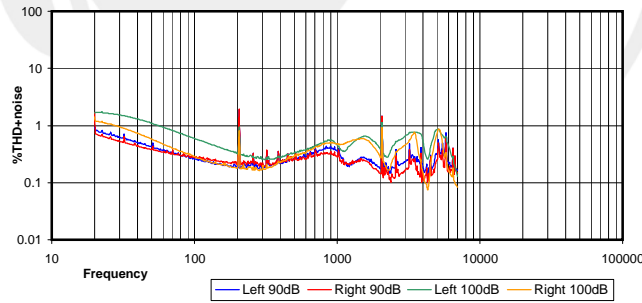
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



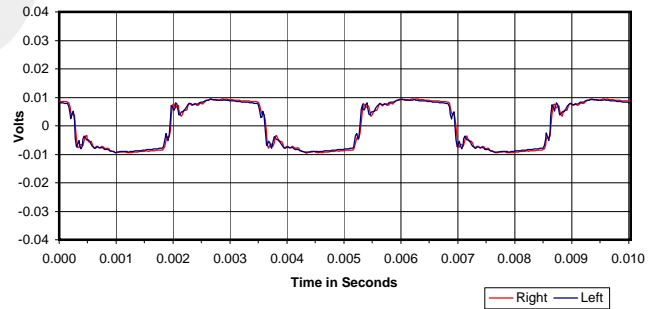
30 Hz Square Wave



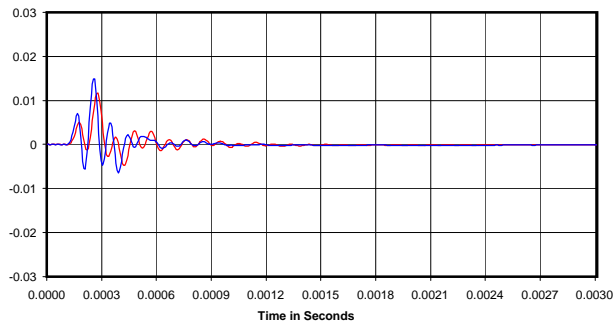
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

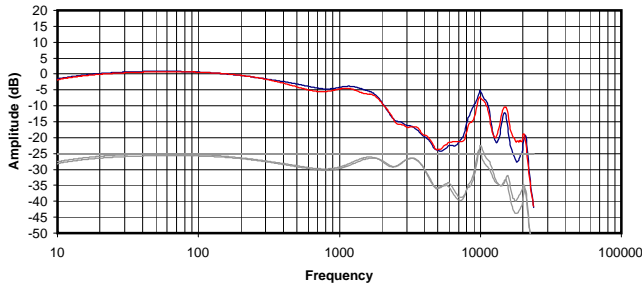


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

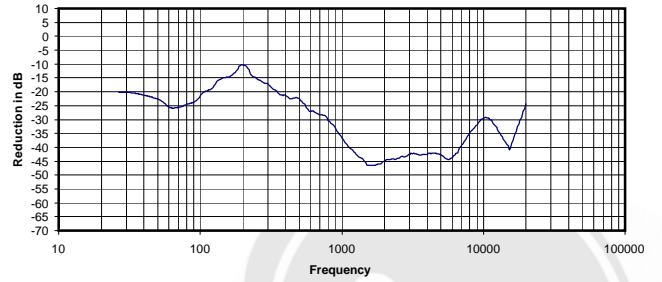
0.022 Vrms
25 Ohms
0.02 mW
-29 dB



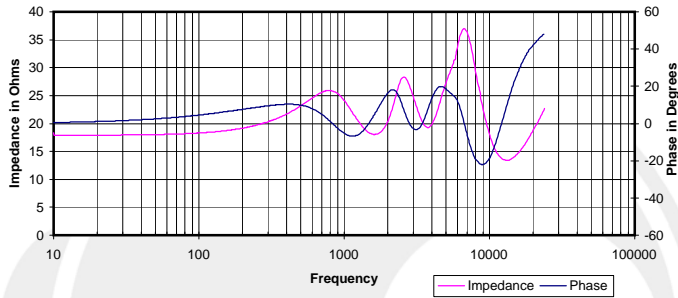
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



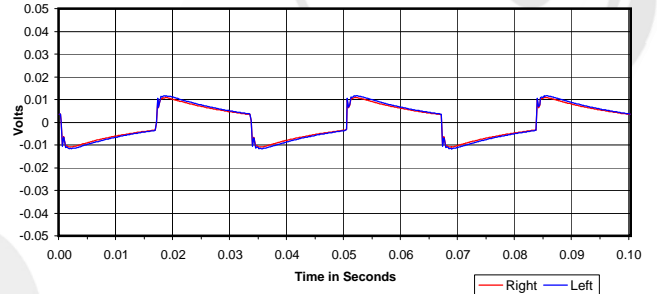
Isolation
Attenuation of External Sound vs. Frequency



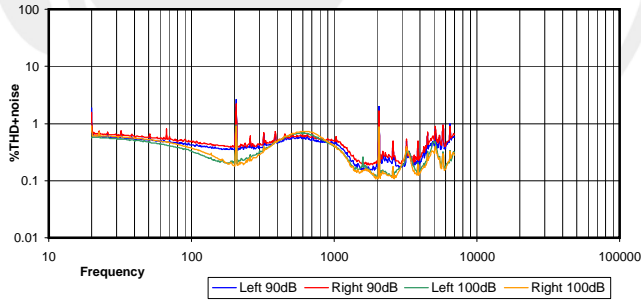
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



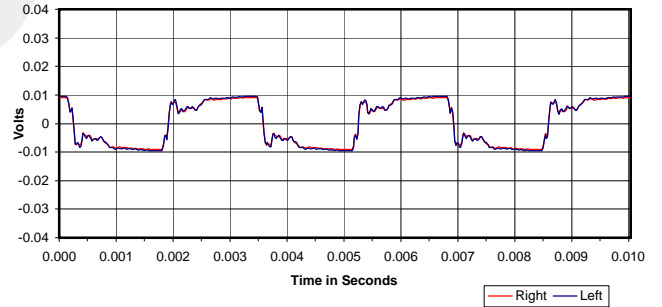
30 Hz Square Wave



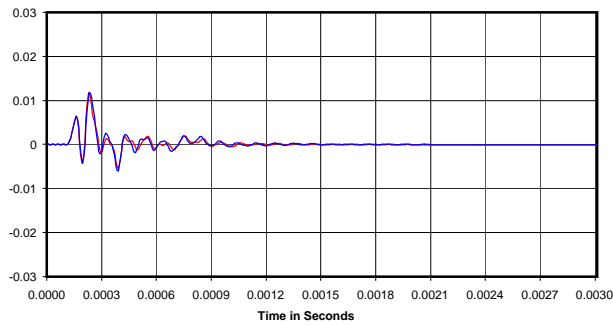
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

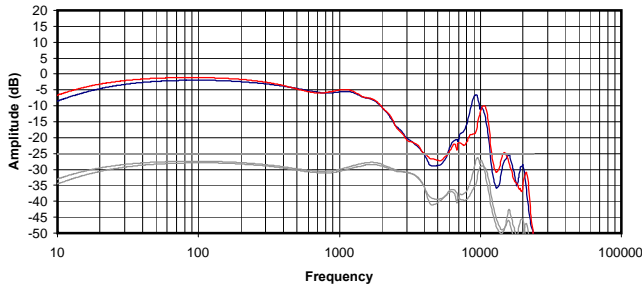


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

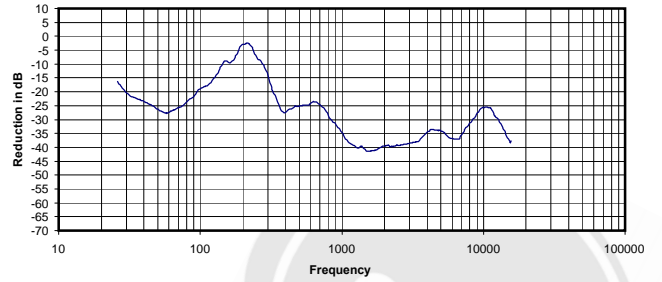
0.015 Vrms
24 Ohms
0.01 mW
-31 dB



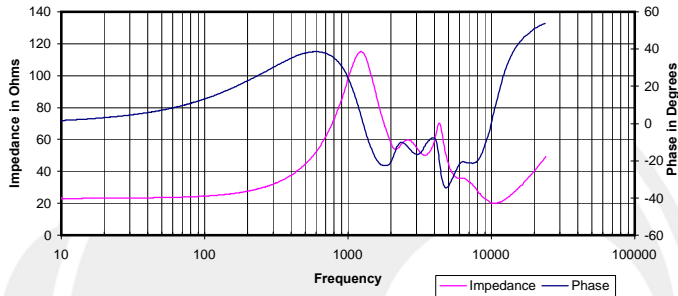
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



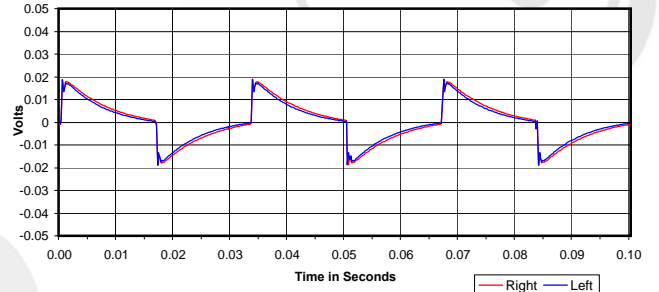
Isolation
Attenuation of External Sound vs. Frequency



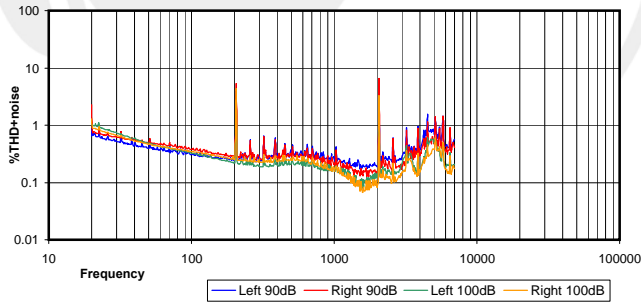
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



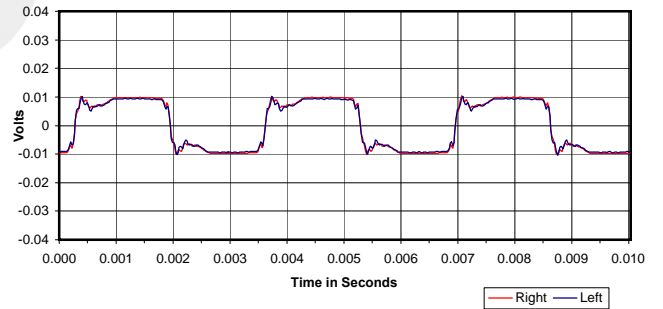
30 Hz Square Wave



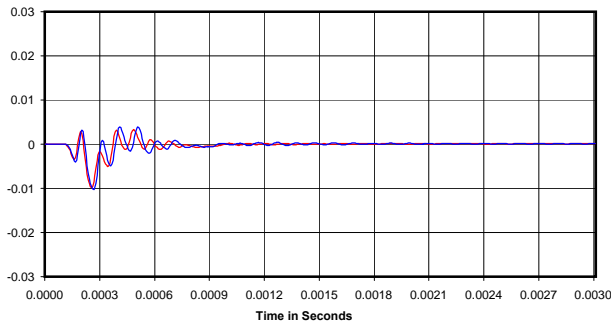
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

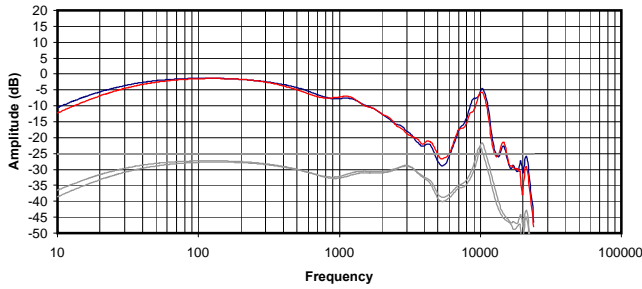


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

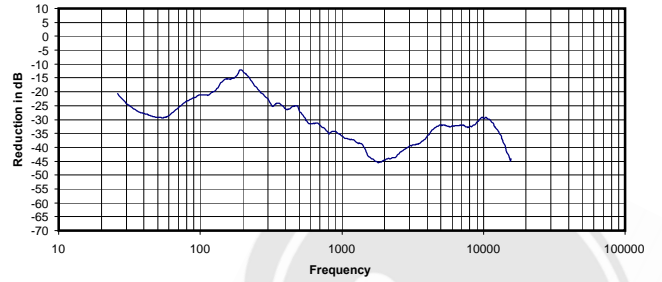
0.011 Vrms
98 Ohms
0.00 mW
-27 dB



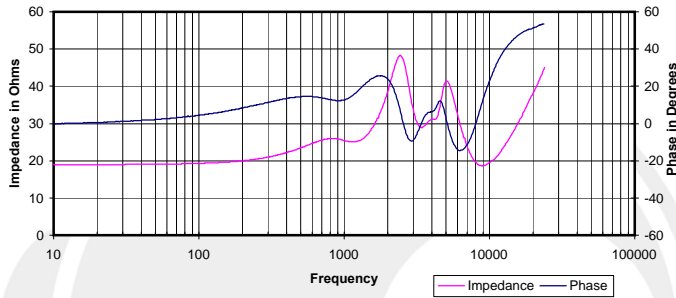
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



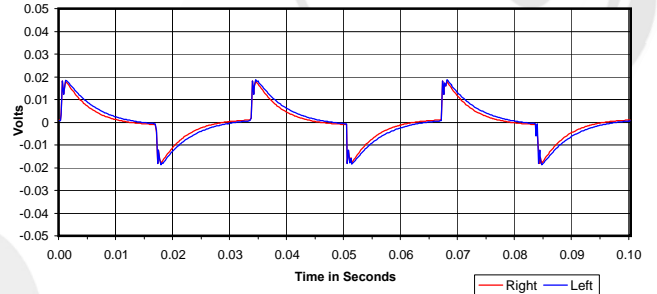
Isolation
Attenuation of External Sound vs. Frequency



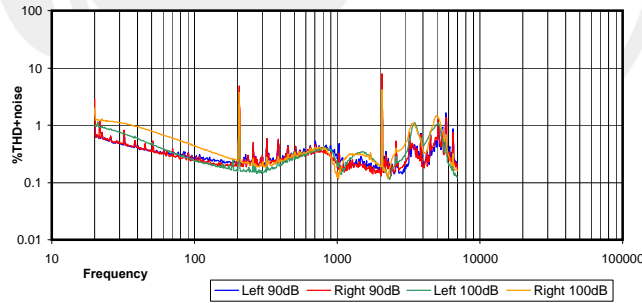
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



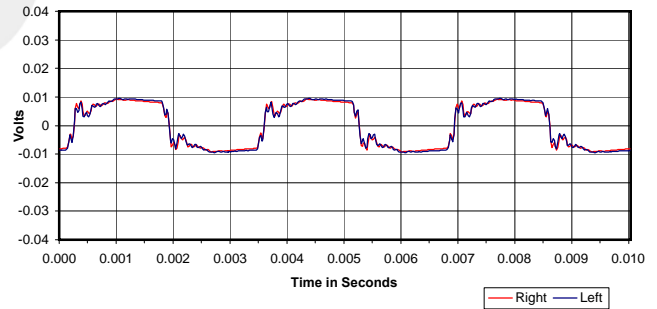
30 Hz Square Wave



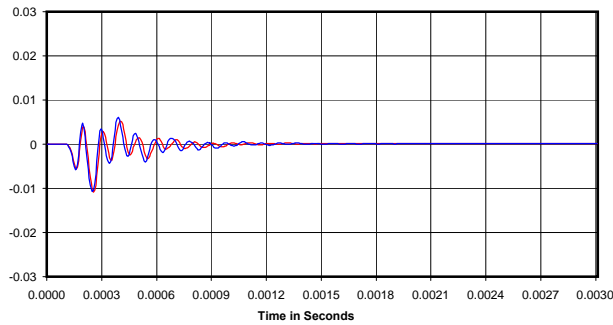
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

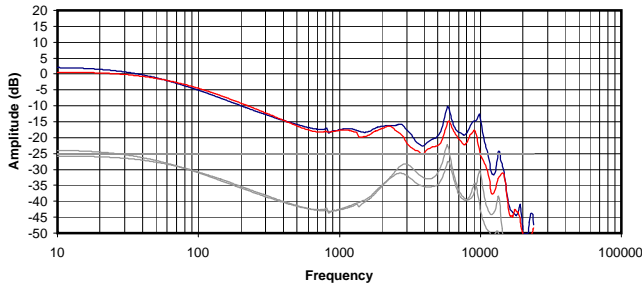


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

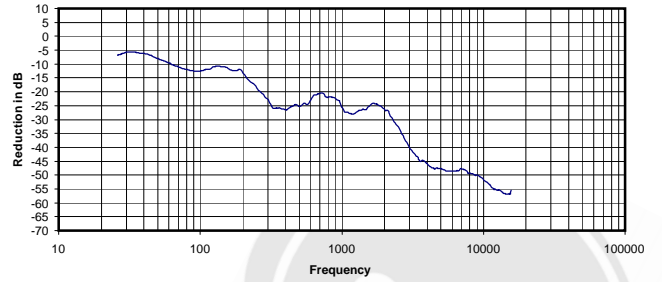
0.024 Vrms
25 Ohms
0.02 mW
-30 dB



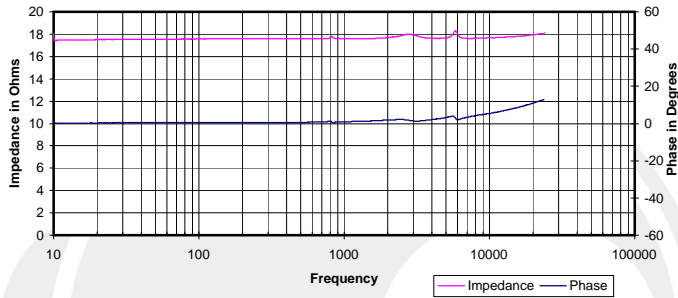
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



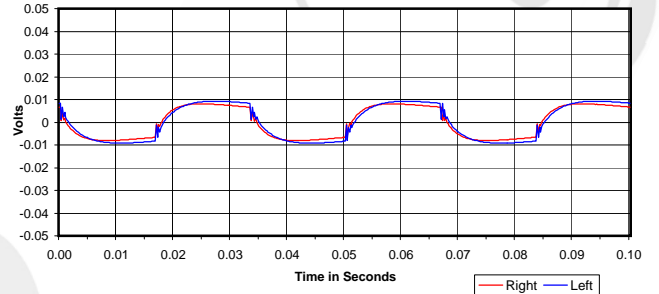
Isolation
Attenuation of External Sound vs. Frequency



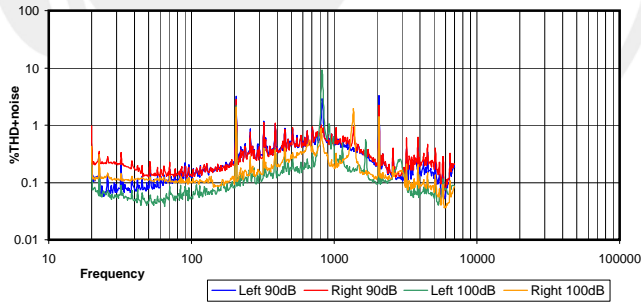
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



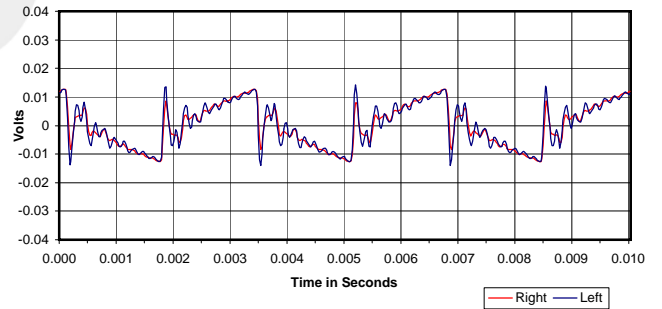
30 Hz Square Wave



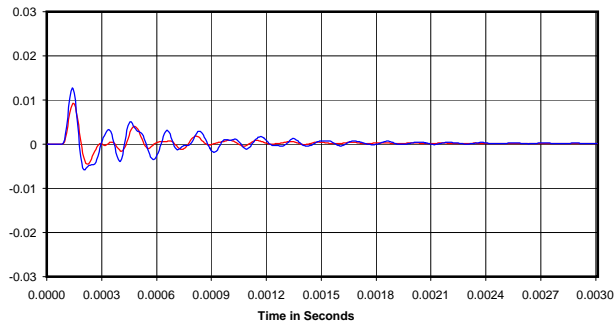
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

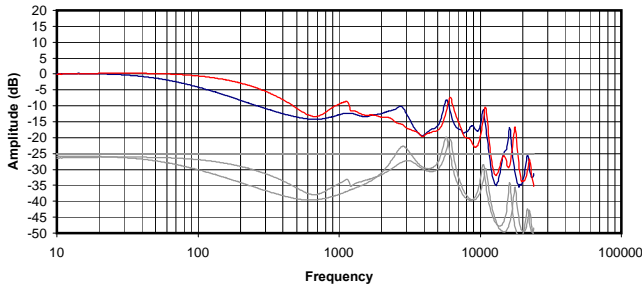


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

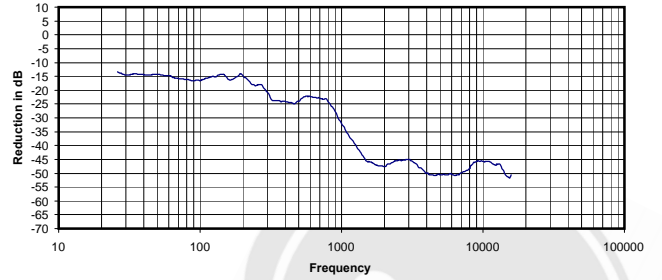
0.051 Vrms
18 Ohms
0.15 mW
-26 dB



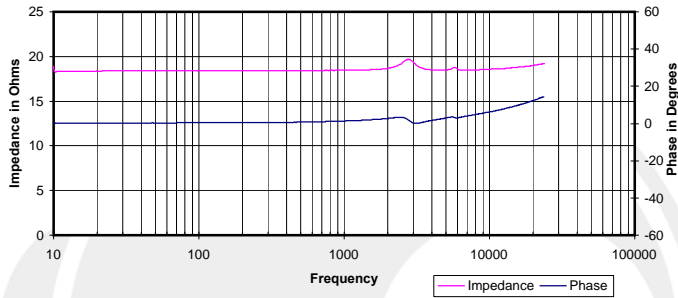
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



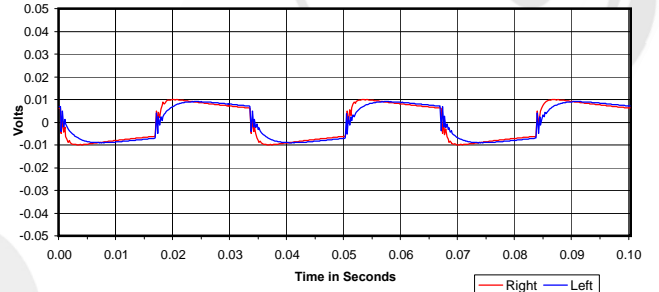
Isolation
Attenuation of External Sound vs. Frequency



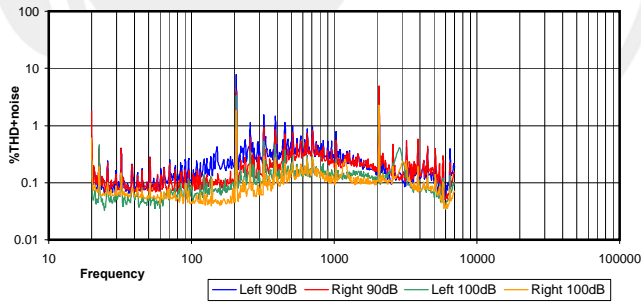
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



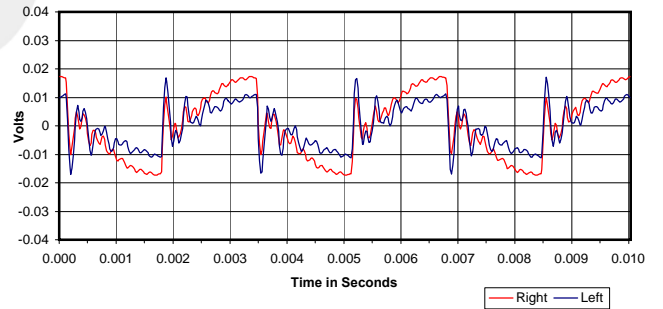
30 Hz Square Wave



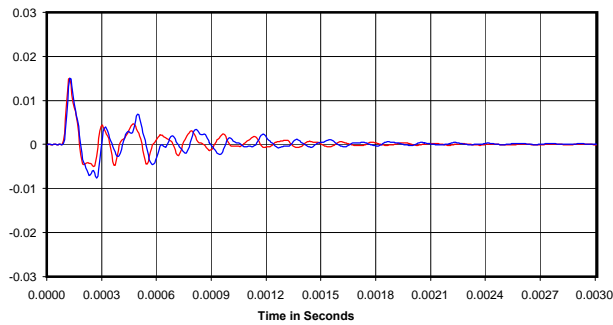
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

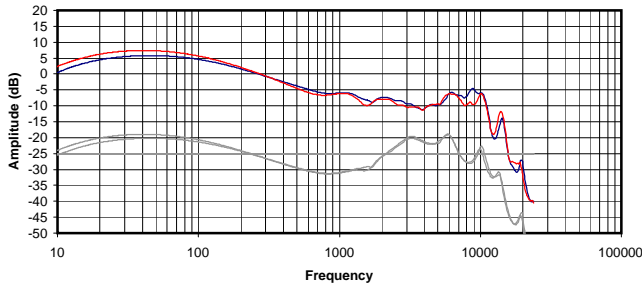


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

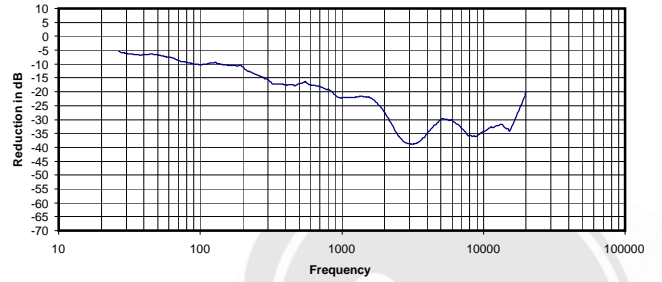
0.036 Vrms
18 Ohms
0.07 mW
-31 dB



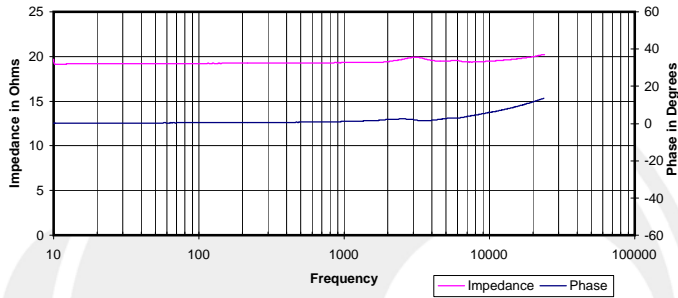
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



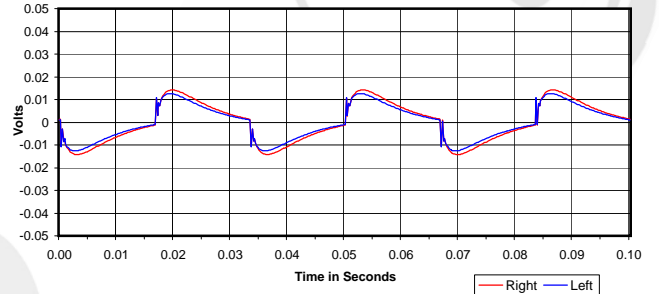
Isolation
Attenuation of External Sound vs. Frequency



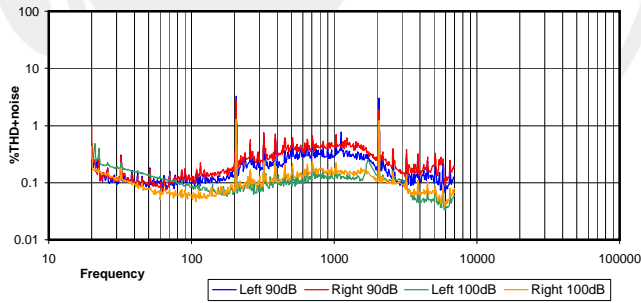
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



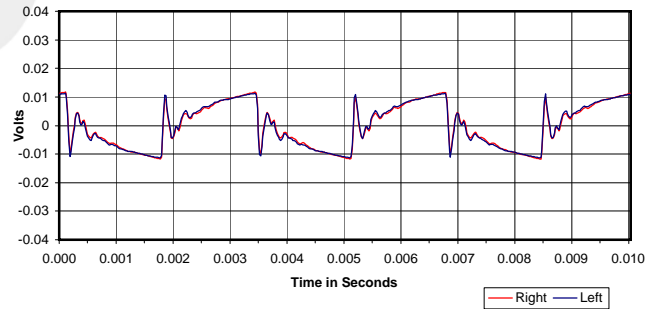
30 Hz Square Wave



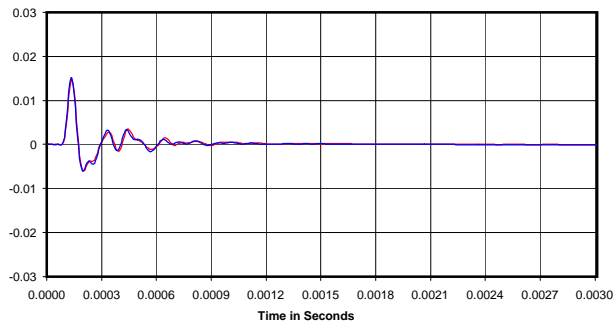
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



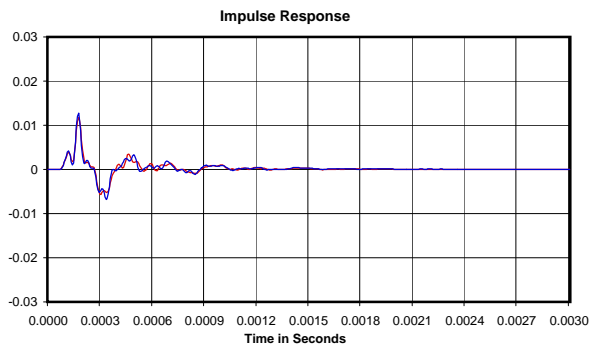
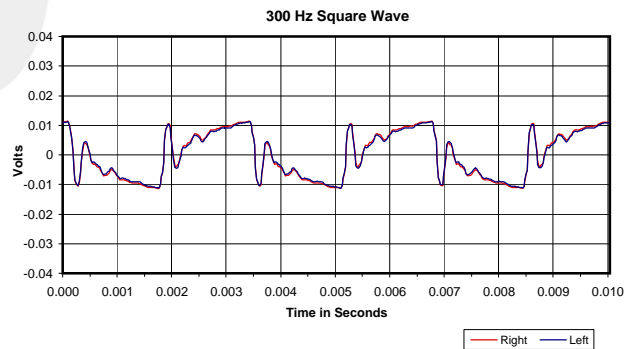
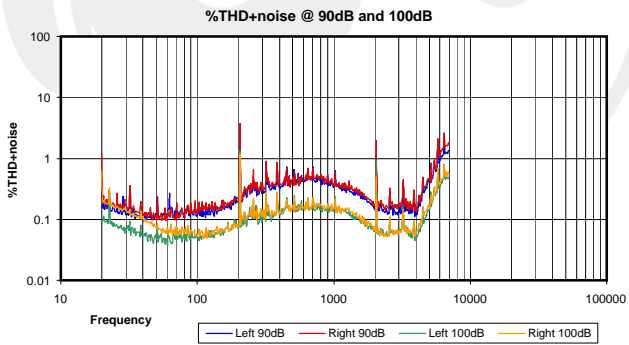
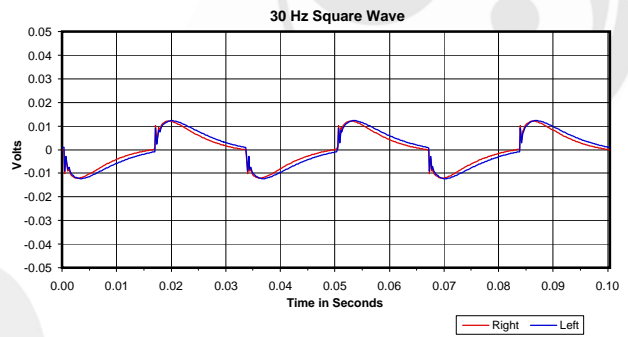
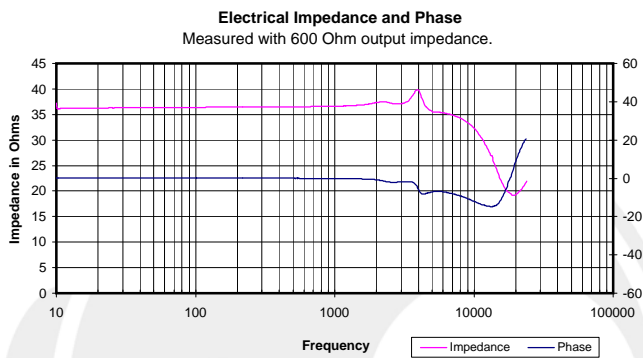
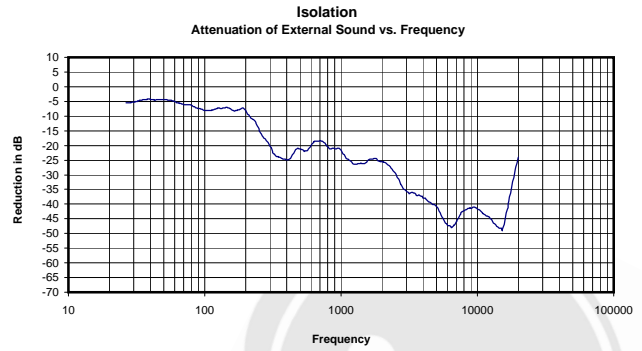
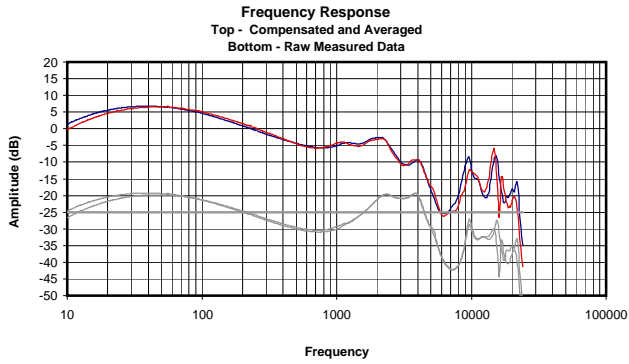
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.044 Vrms
19 Ohms
0.10 mW
-23 dB



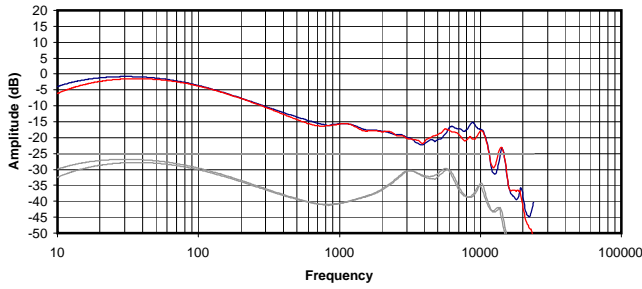


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

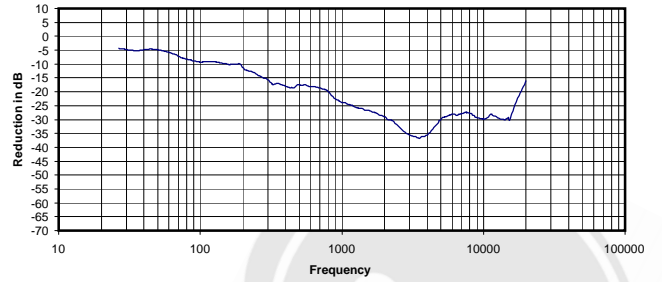
0.039 Vrms
37 Ohms
0.04 mW
-25 dB



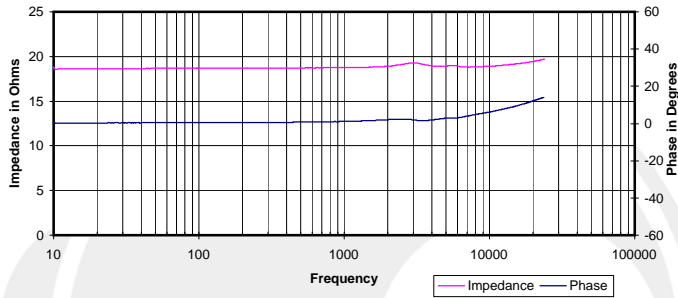
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



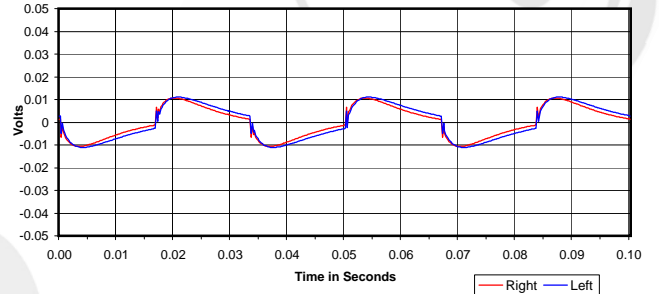
Isolation
Attenuation of External Sound vs. Frequency



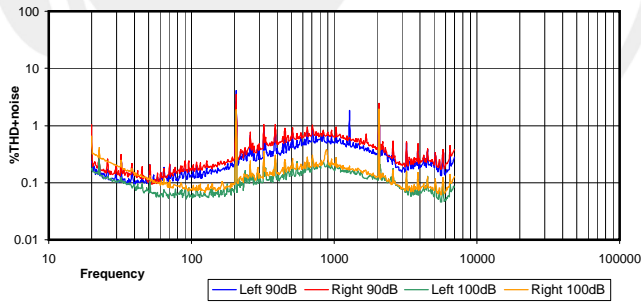
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



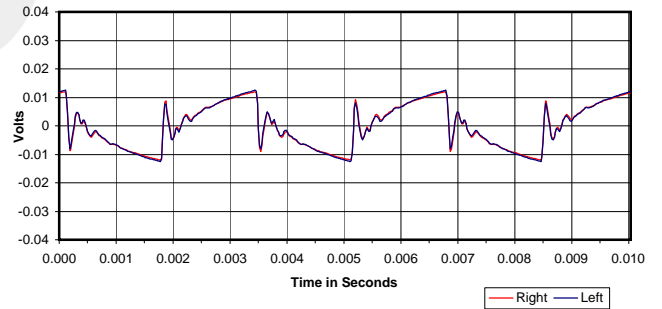
30 Hz Square Wave



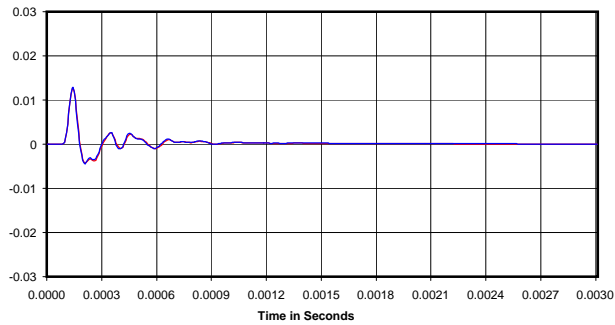
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

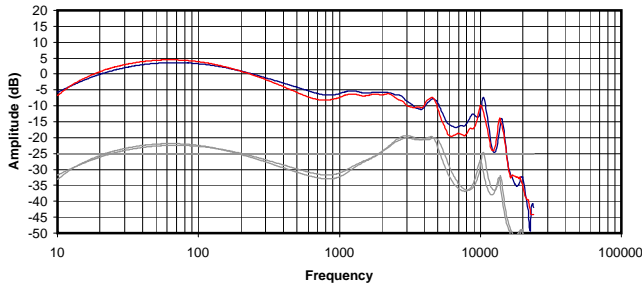


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

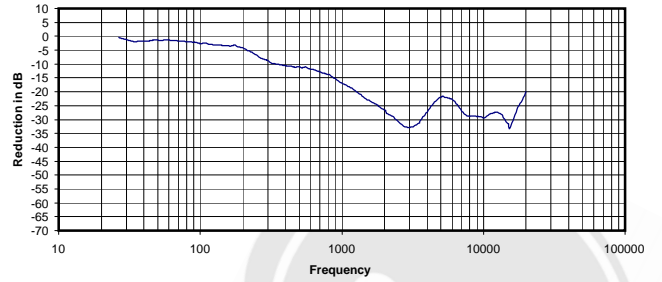
0.041 Vrms
19 Ohms
0.09 mW
-22 dB



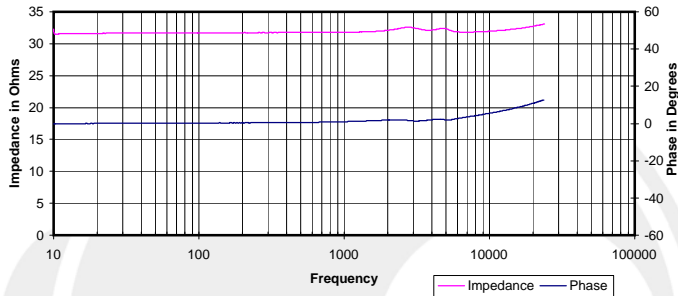
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



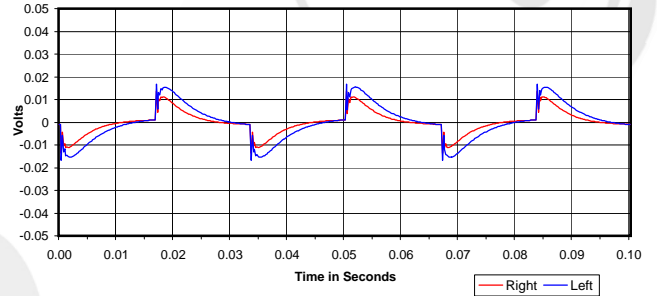
Isolation
Attenuation of External Sound vs. Frequency



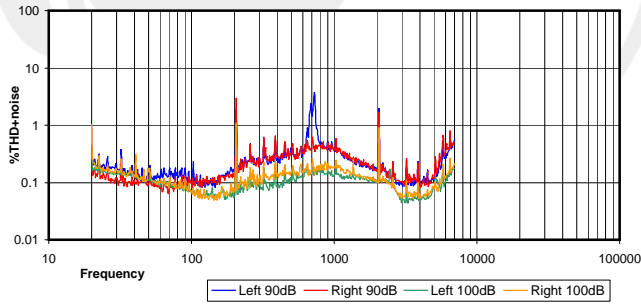
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



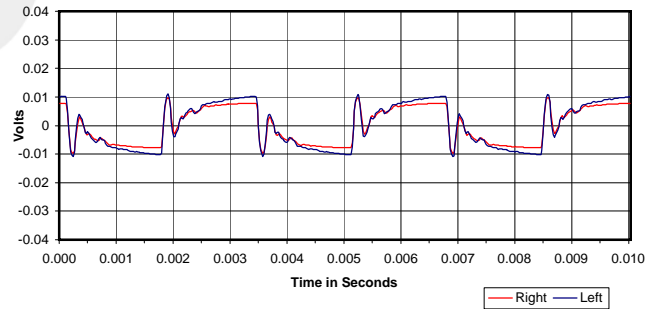
30 Hz Square Wave



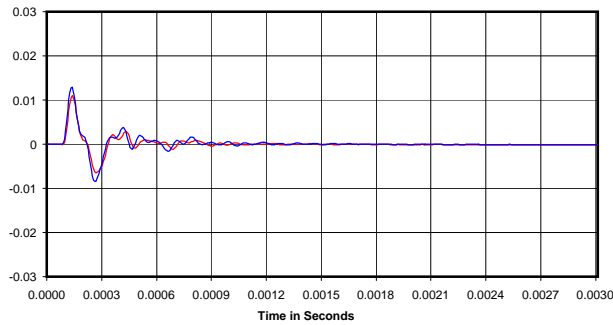
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

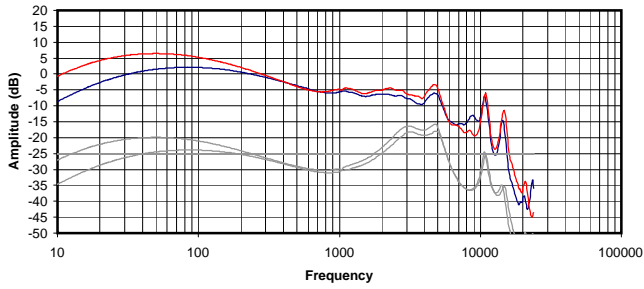


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

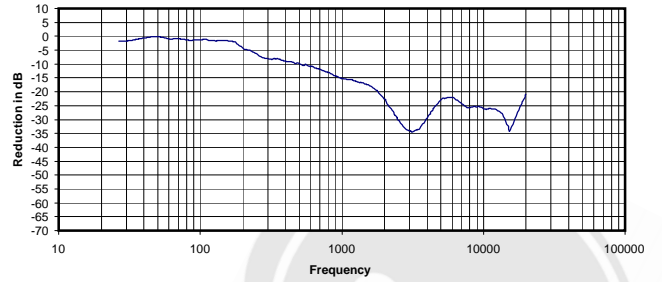
0.054 Vrms
32 Ohms
0.09 mW
-17 dB



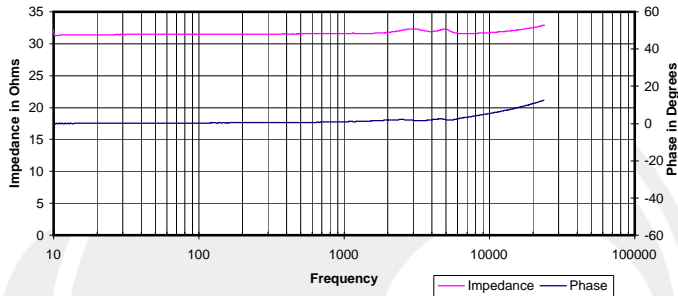
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



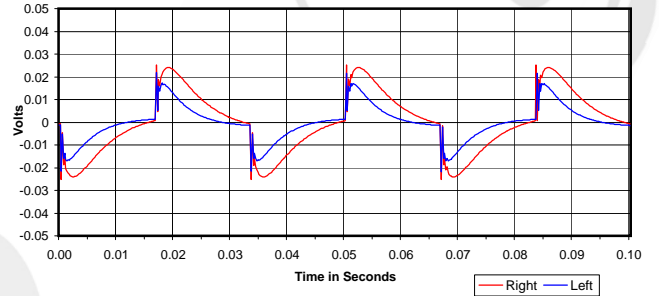
Isolation
Attenuation of External Sound vs. Frequency



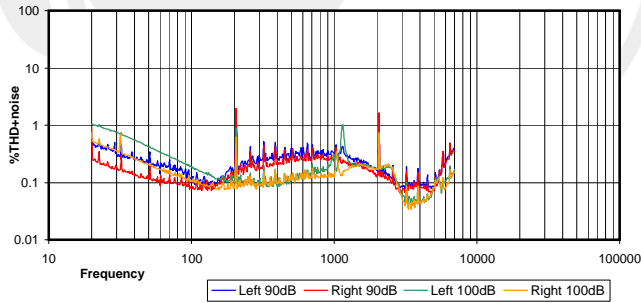
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



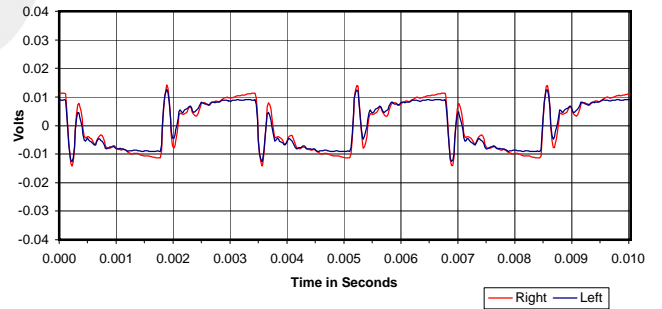
30 Hz Square Wave



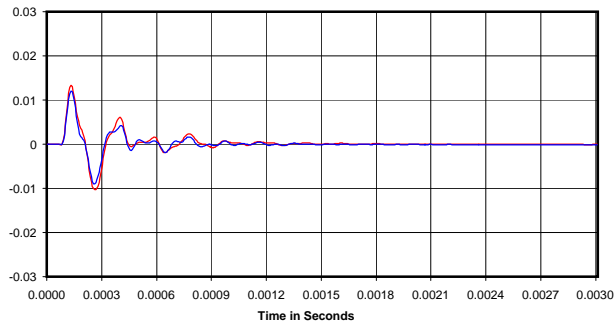
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

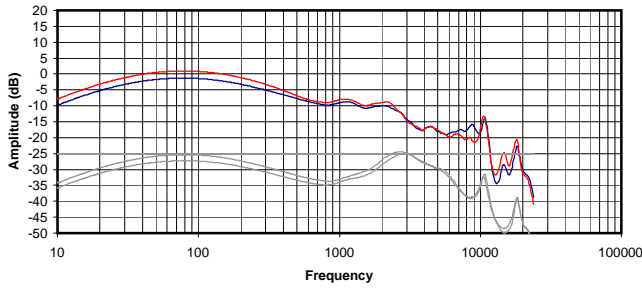


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

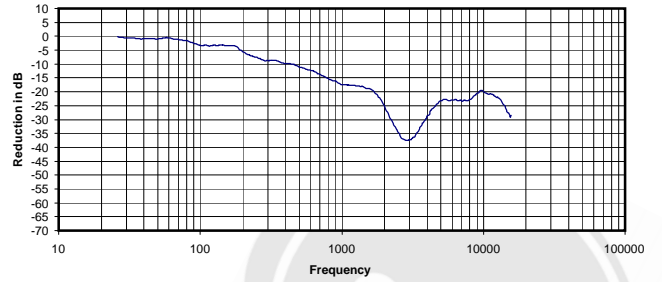
0.057 Vrms
32 Ohms
0.10 mW
-16 dB



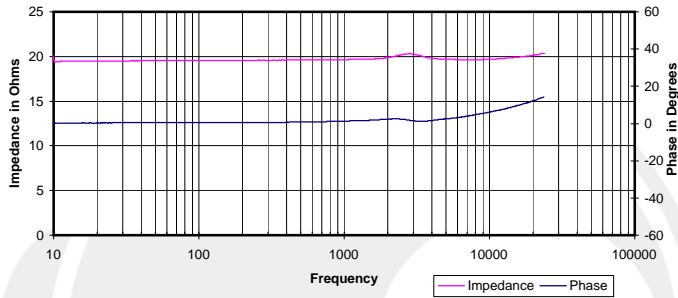
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



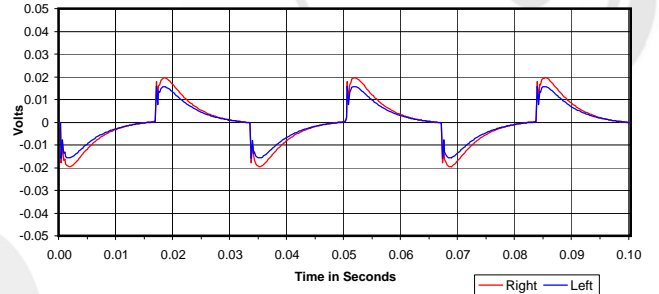
Isolation
Attenuation of External Sound vs. Frequency



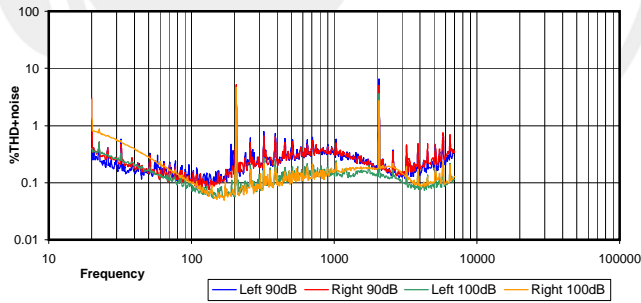
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



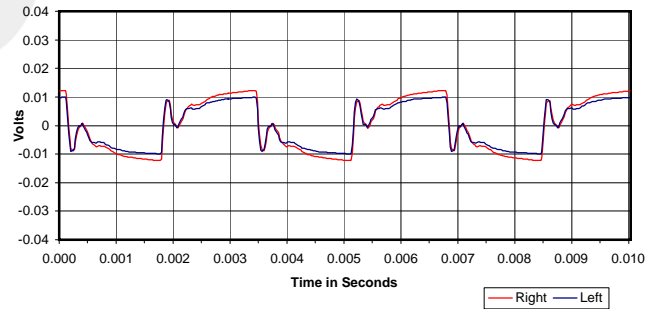
30 Hz Square Wave



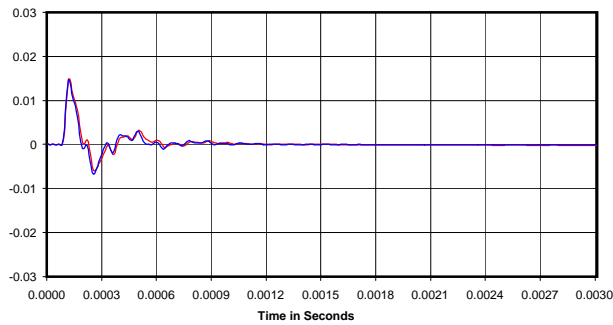
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



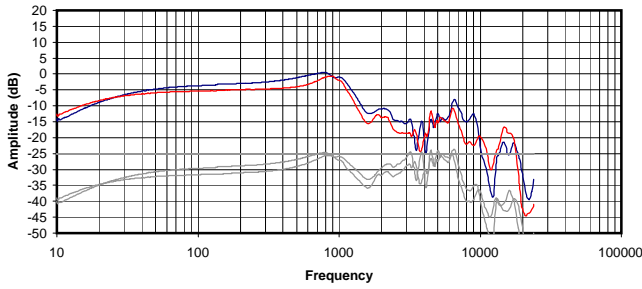
Impulse Response



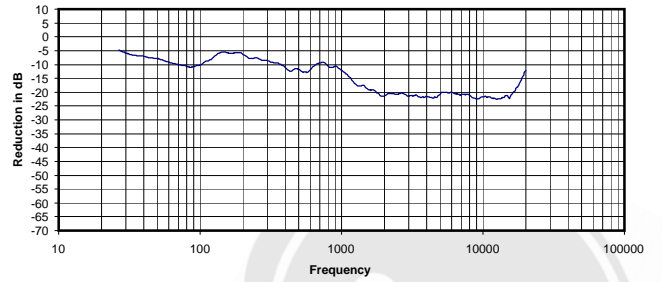
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
20 Ohms
0.10 mW
-16 dB

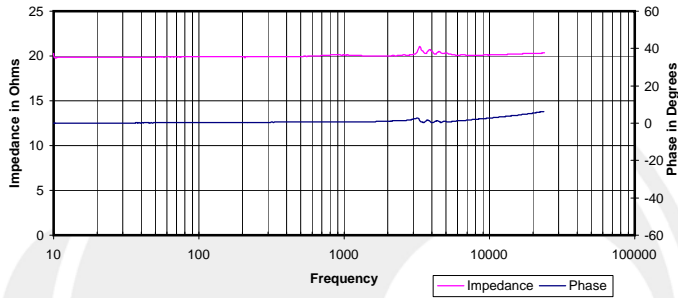
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



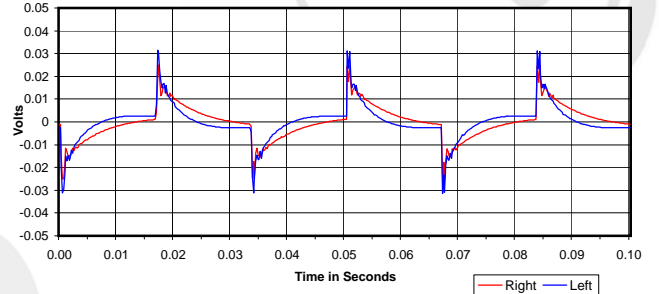
Isolation
Attenuation of External Sound vs. Frequency



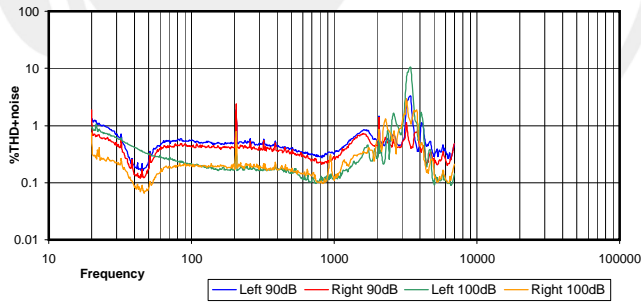
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



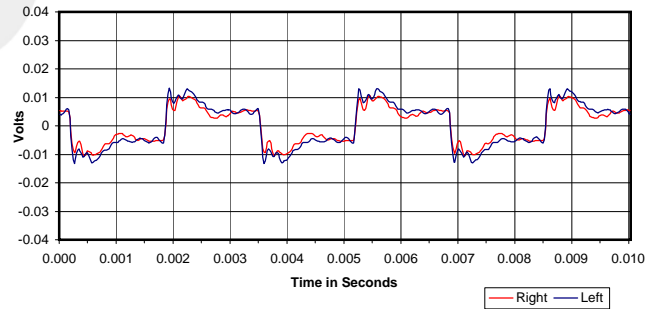
30 Hz Square Wave



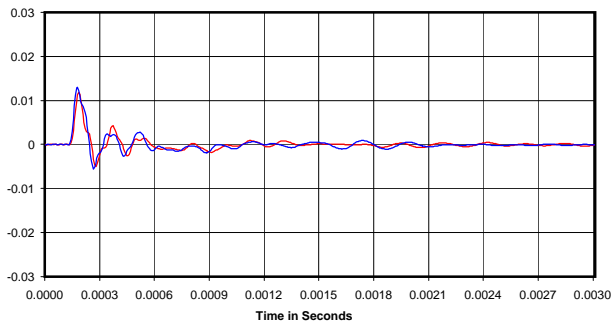
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



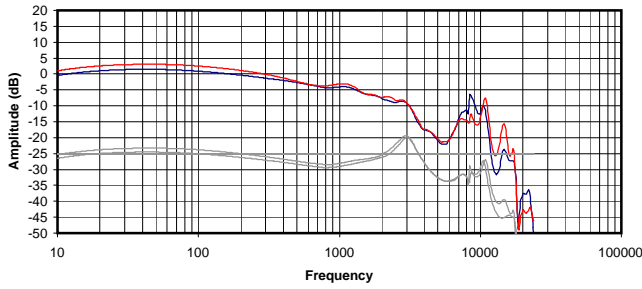
Impulse Response



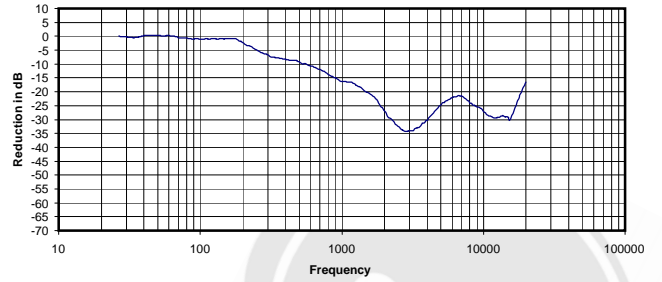
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.013 Vrms
20 Ohms
0.01 mW
-15 dB

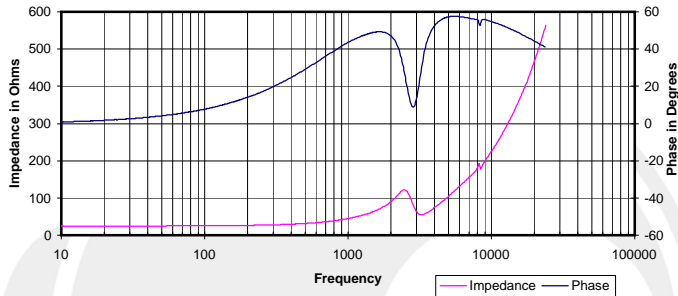
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



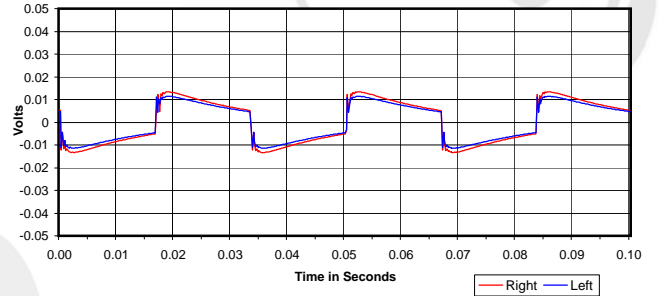
Isolation
Attenuation of External Sound vs. Frequency



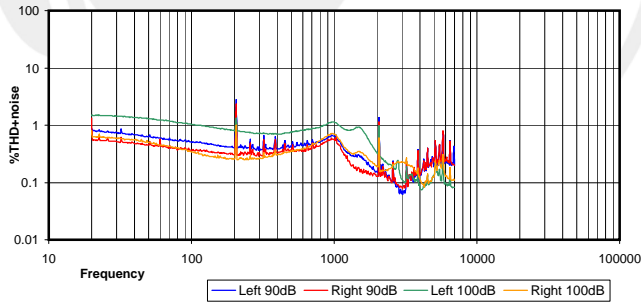
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



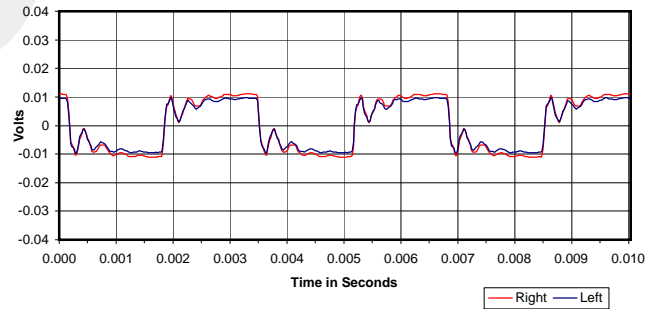
30 Hz Square Wave



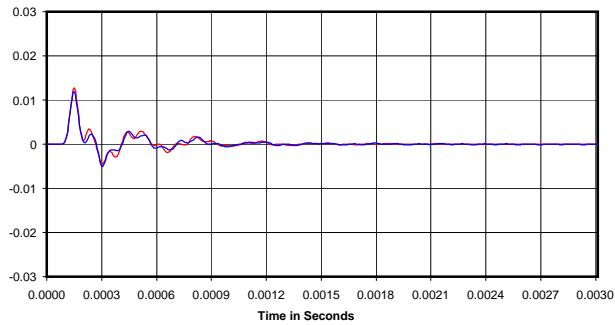
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

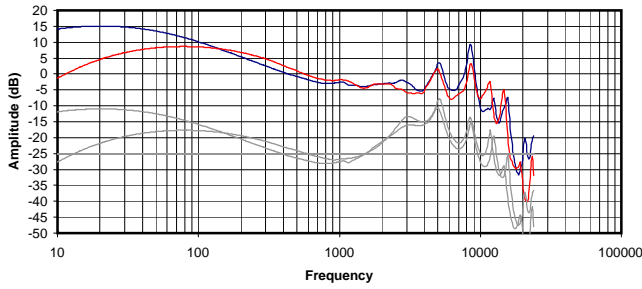


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

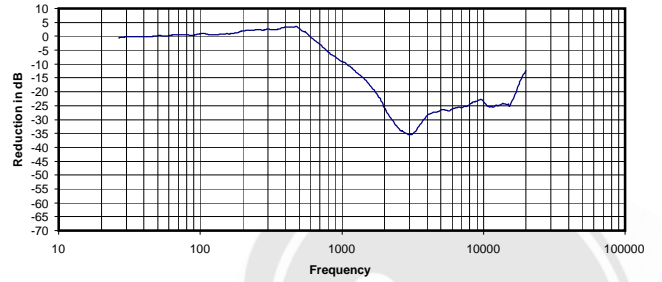
3.319 Vrms
45 Ohms
246.38 mW
-16 dB



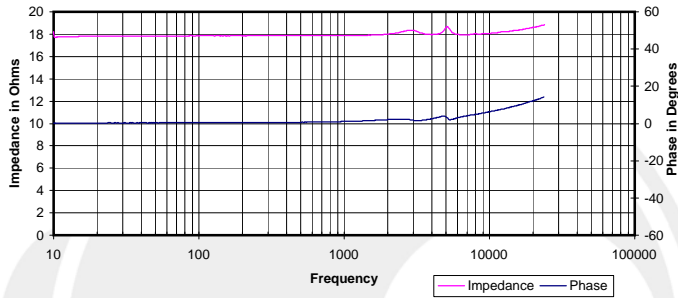
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



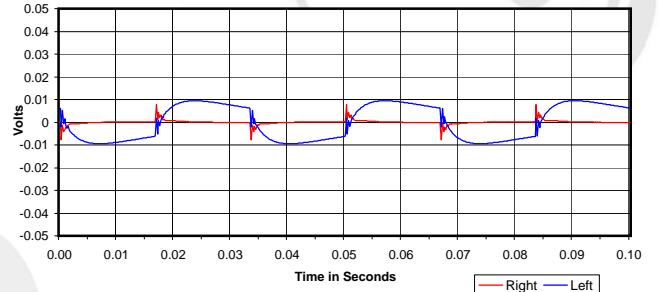
Isolation
Attenuation of External Sound vs. Frequency



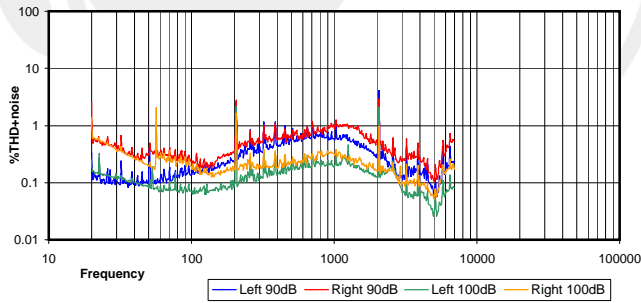
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



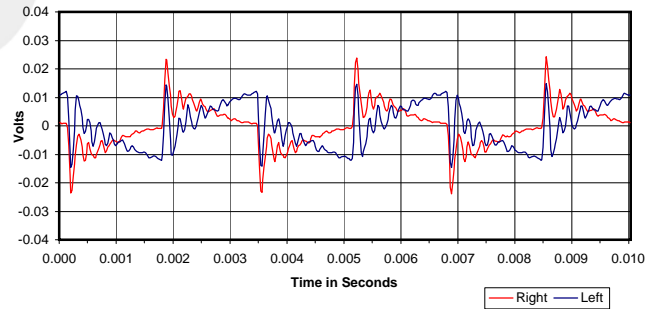
30 Hz Square Wave



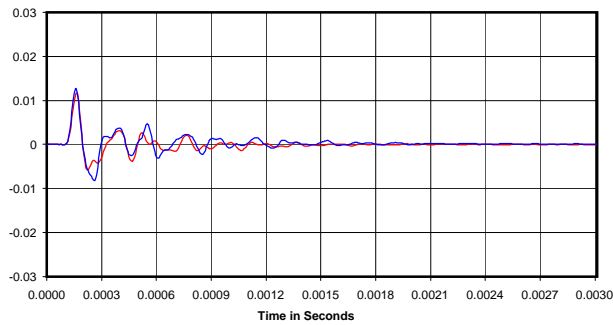
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

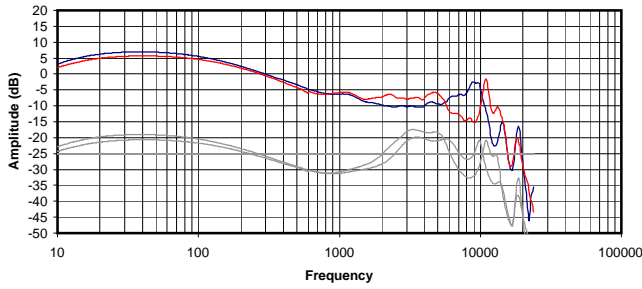


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

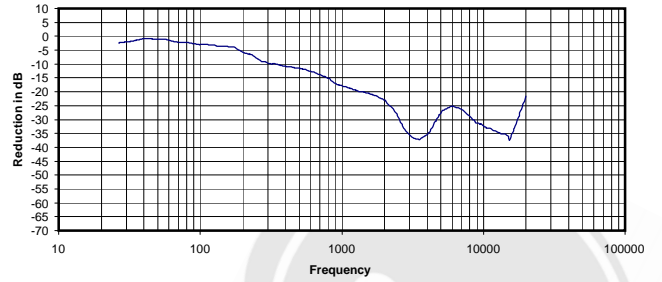
0.034 Vrms
18 Ohms
0.07 mW
-12 dB



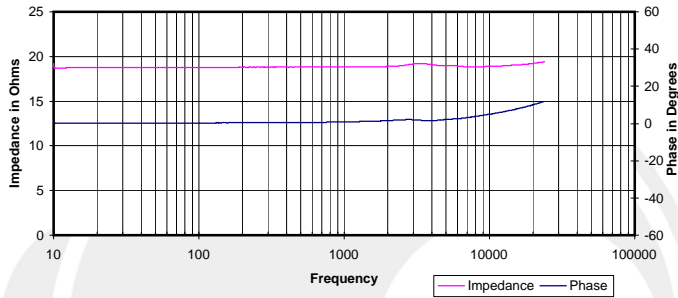
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



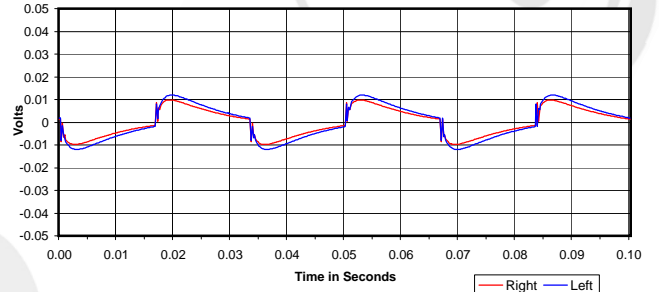
Isolation
Attenuation of External Sound vs. Frequency



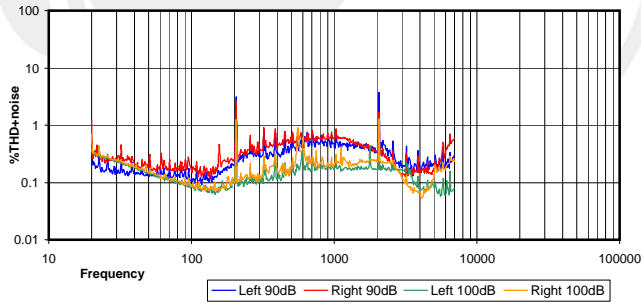
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



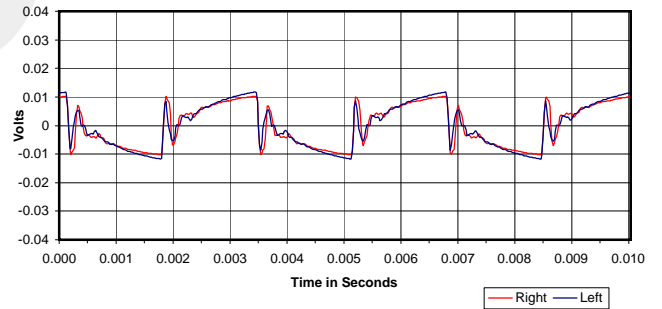
30 Hz Square Wave



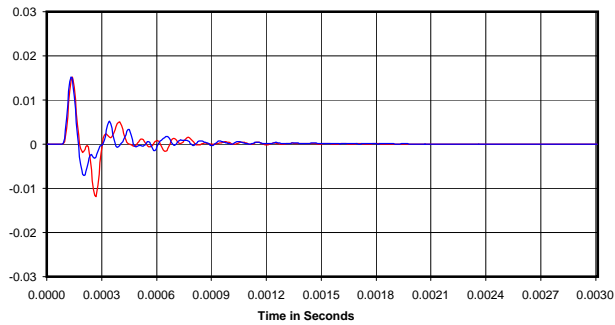
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



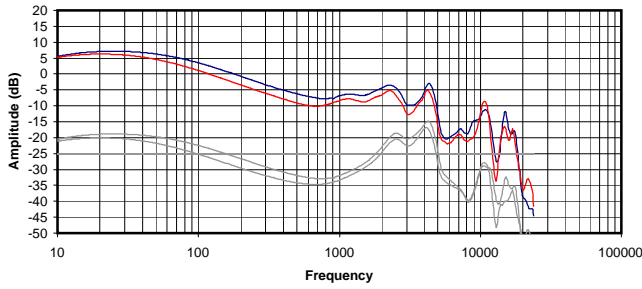
Impulse Response



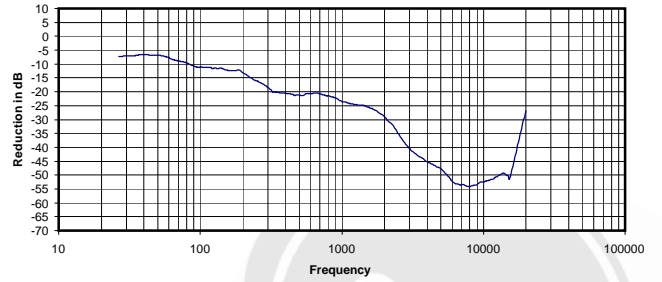
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.058 Vrms
19 Ohms
0.18 mW
-18 dB

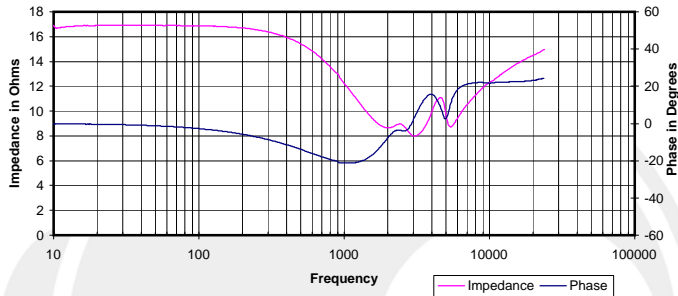
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



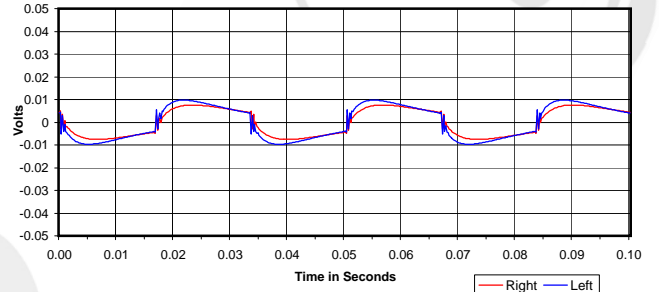
Isolation
Attenuation of External Sound vs. Frequency



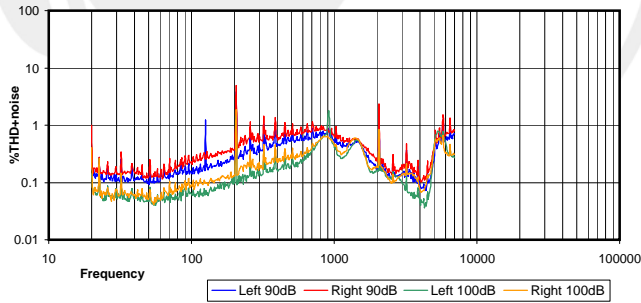
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



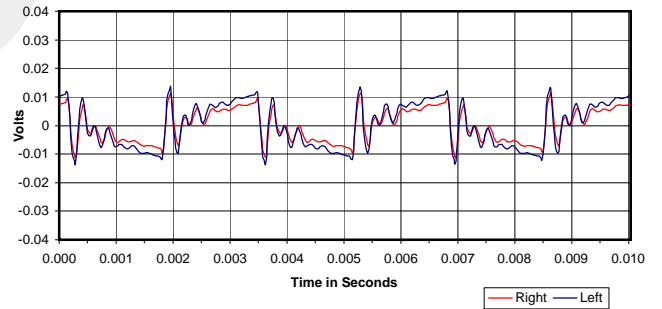
30 Hz Square Wave



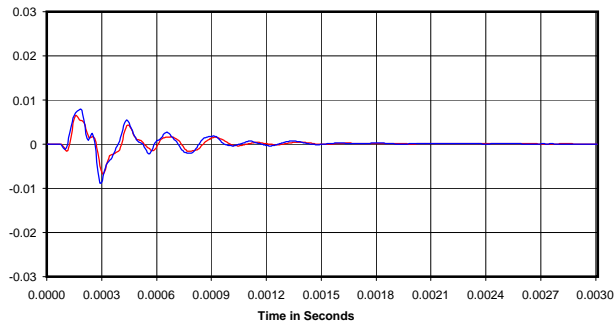
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



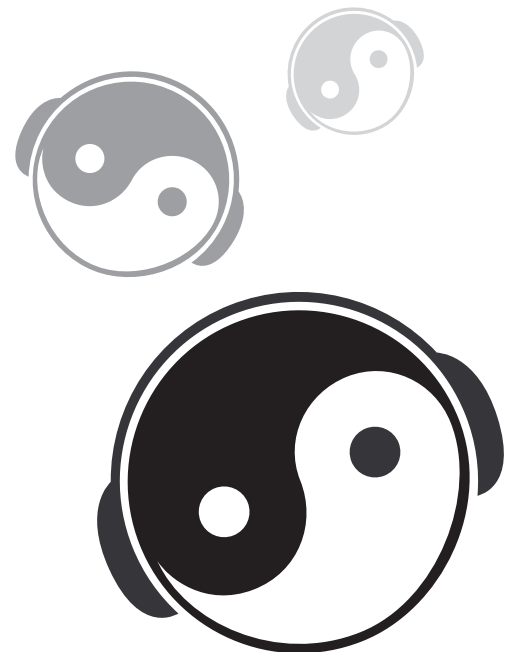
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
12 Ohms
0.06 mW
-28 dB

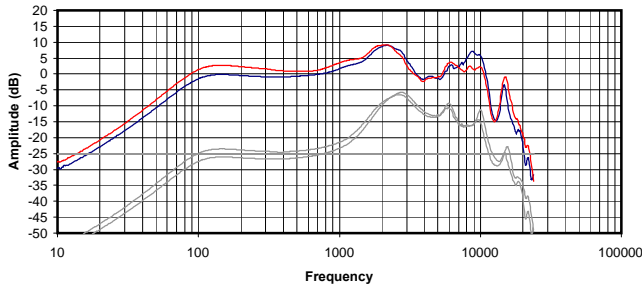


Headphone Measurement Datasheets

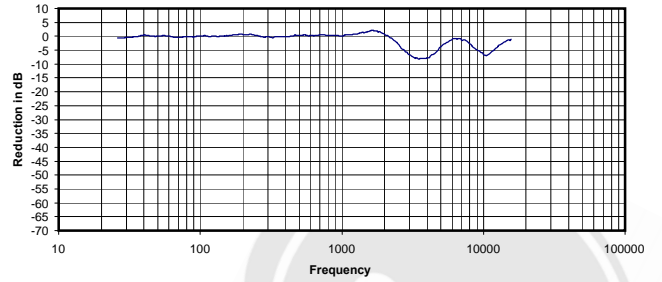
Ear-buds



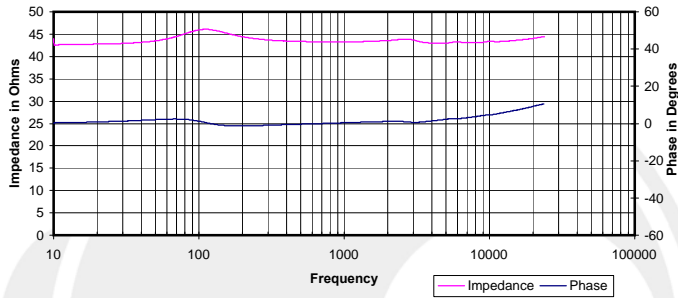
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



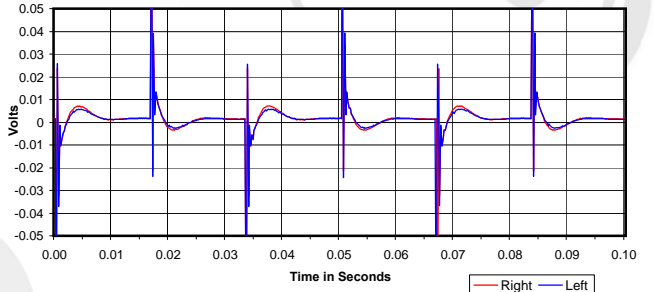
Isolation
Attenuation of External Sound vs. Frequency



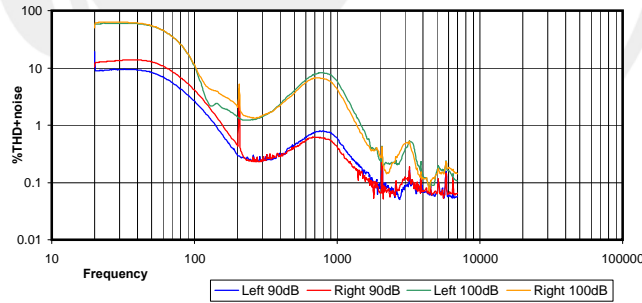
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



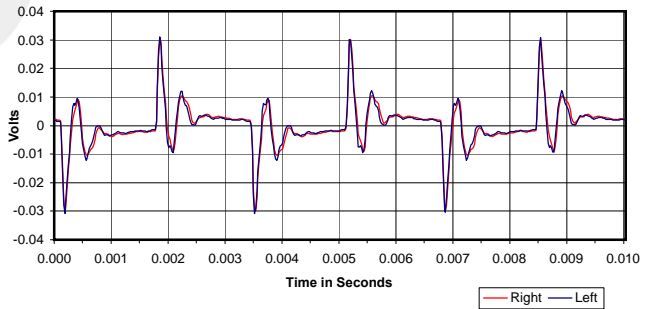
30 Hz Square Wave



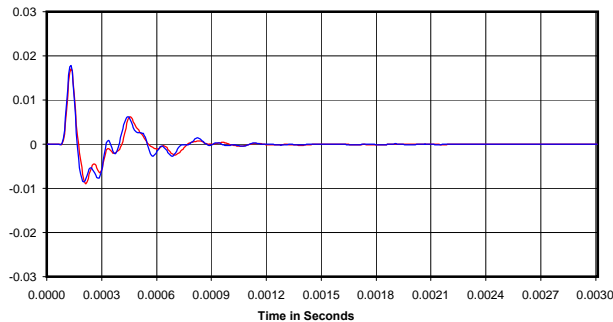
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

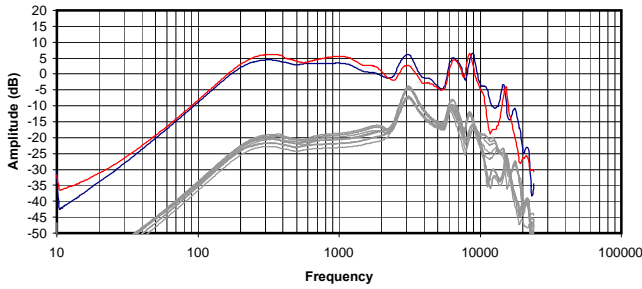


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

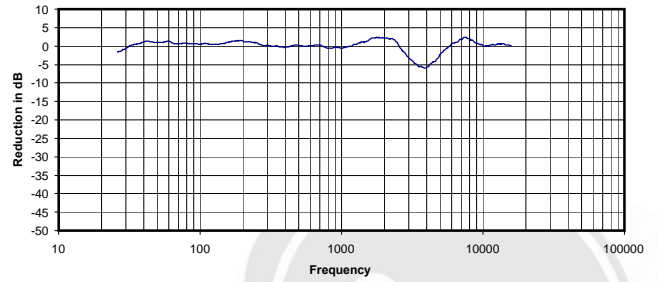
0.091 Vrms
43 Ohms
0.19 mW
-1 dB



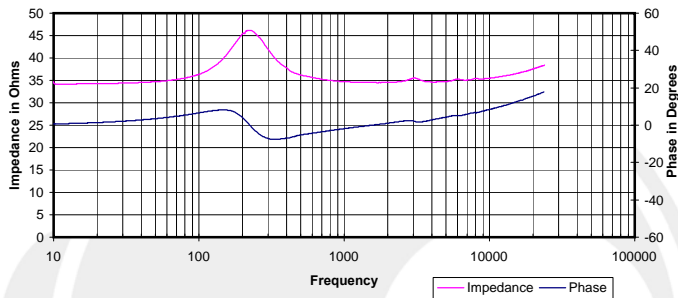
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



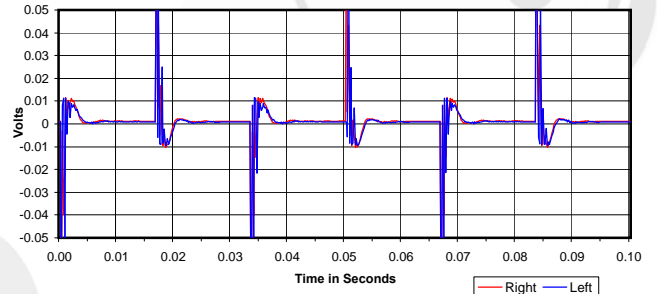
Isolation
 Attenuation of External Sound vs. Frequency



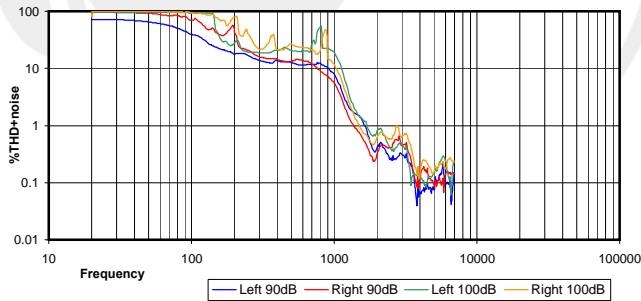
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



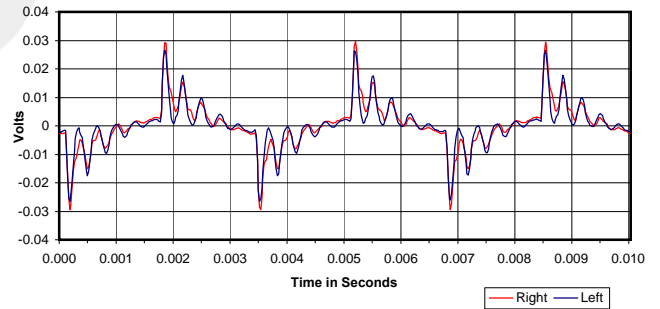
30 Hz Square Wave



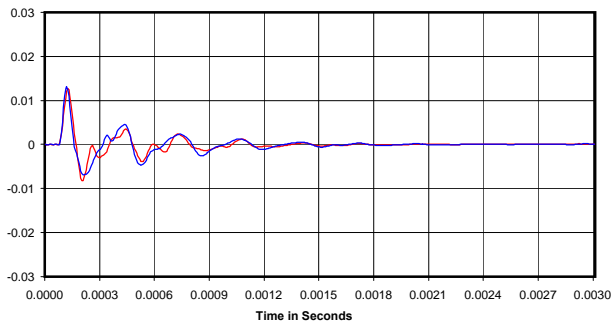
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



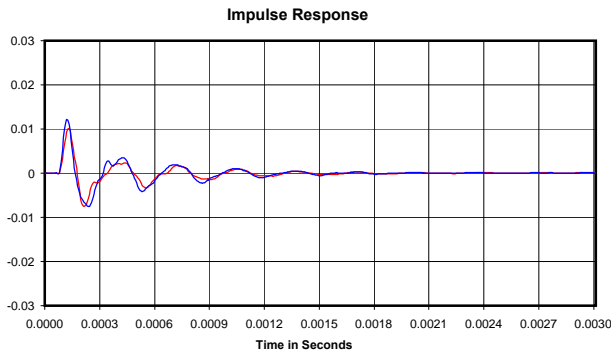
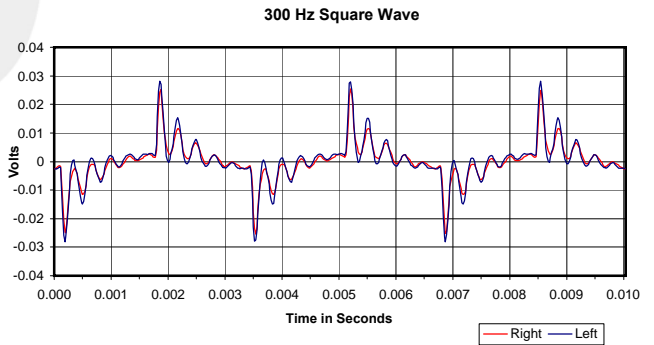
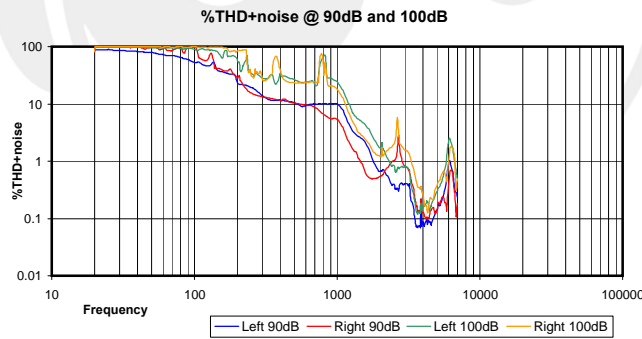
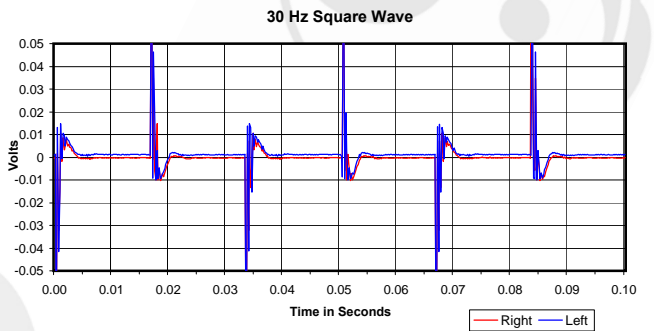
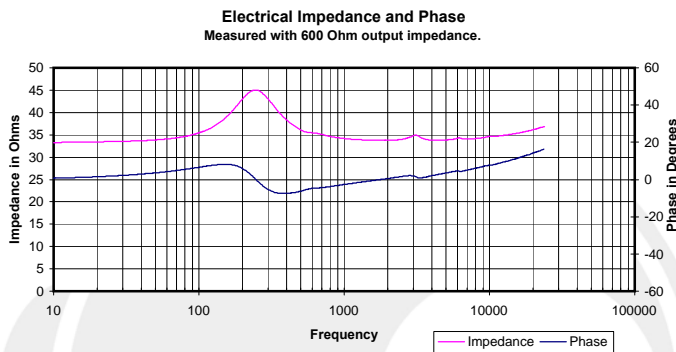
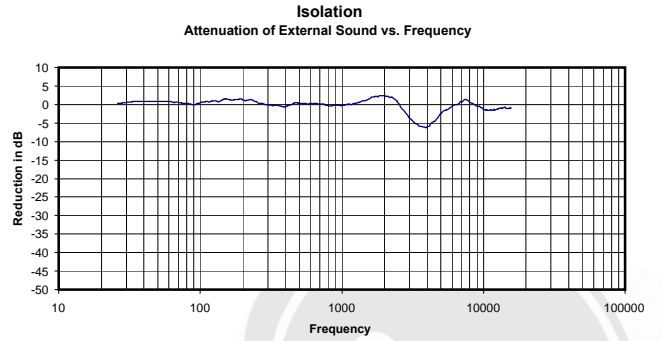
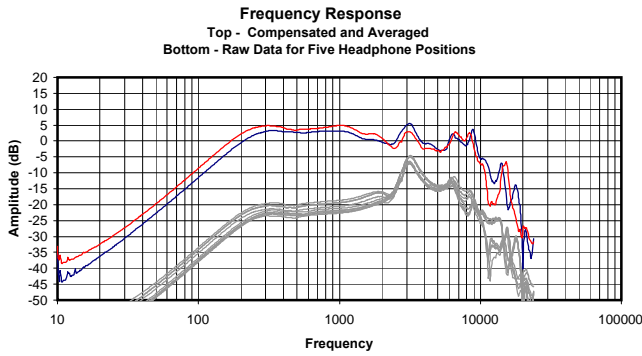
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.086 Vrms
 35 Ohms
 0.21 mW
 0 dB



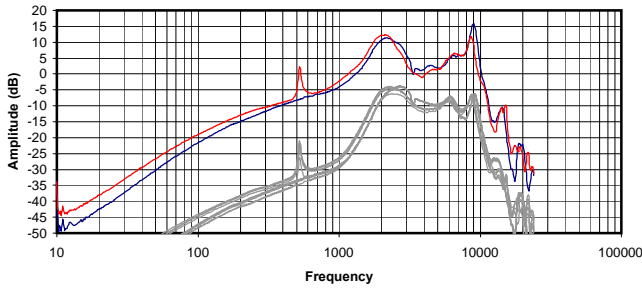


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

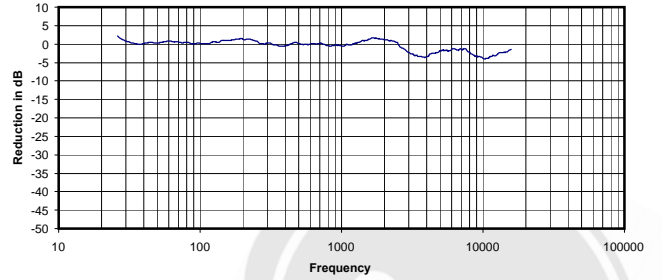
0.077 Vrms
34 Ohms
0.17 mW
0 dBr



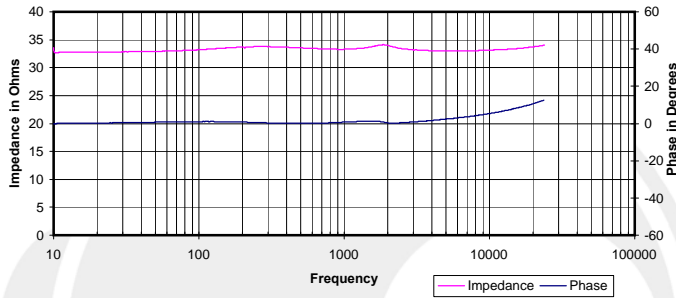
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



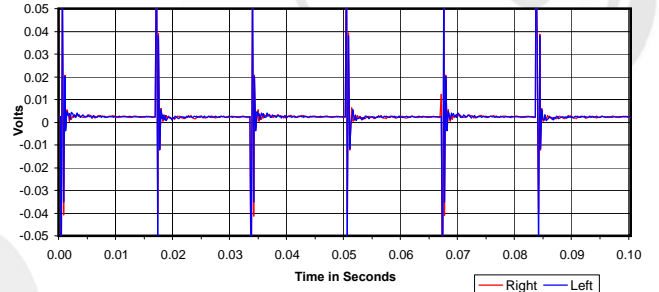
Isolation
 Attenuation of External Sound vs. Frequency



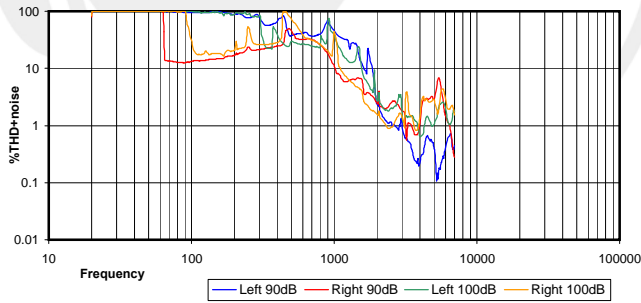
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



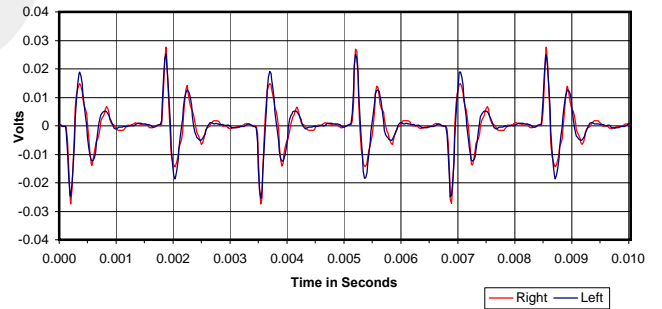
30 Hz Square Wave



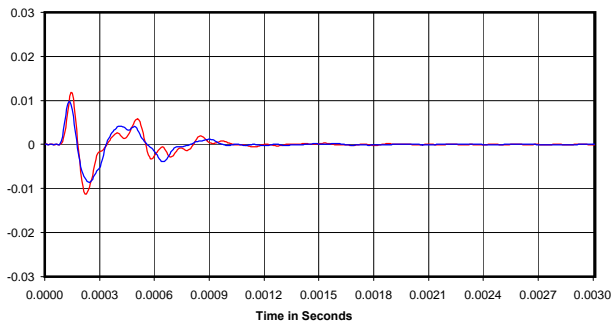
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

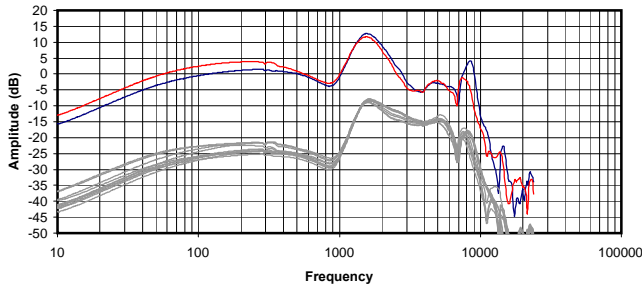


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

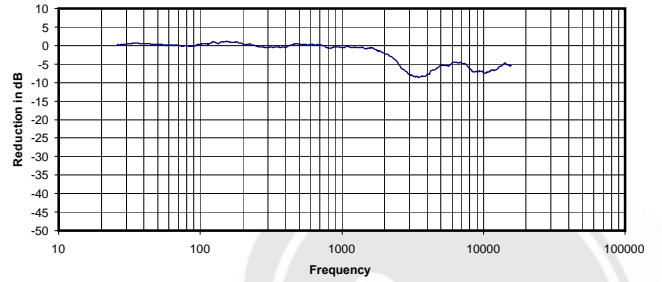
0.298 Vrms
 33 Ohms
 2.66 mW
 0 dB



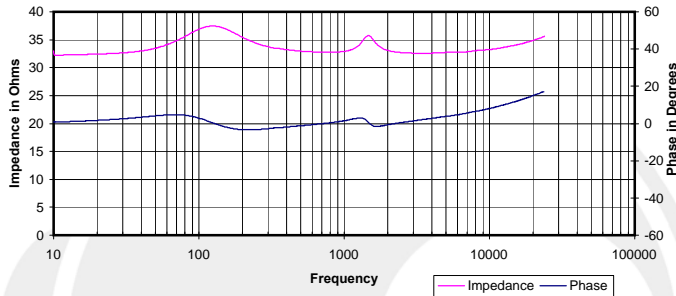
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



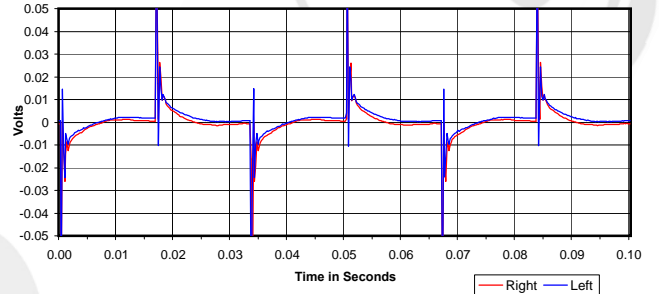
Isolation
 Attenuation of External Sound vs. Frequency



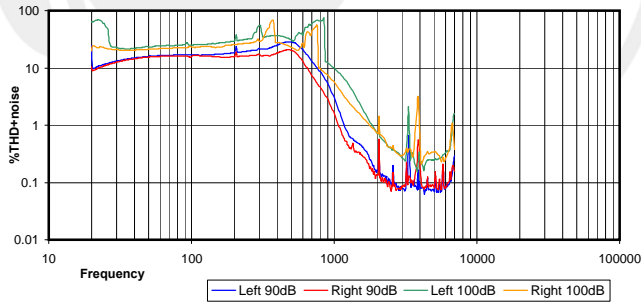
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



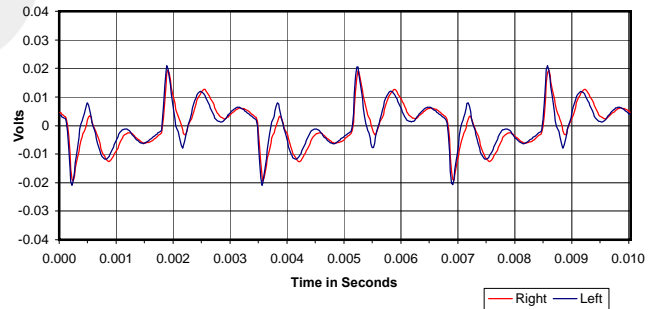
30 Hz Square Wave



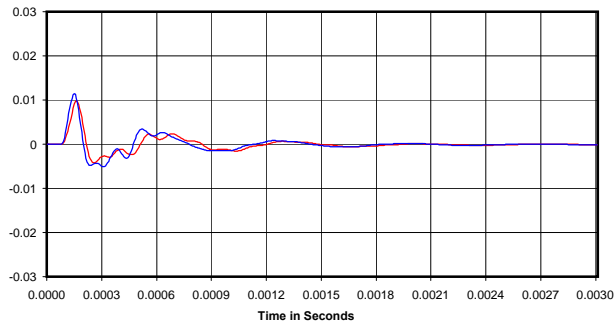
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



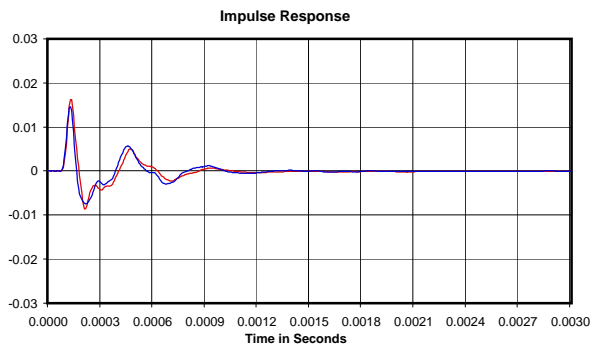
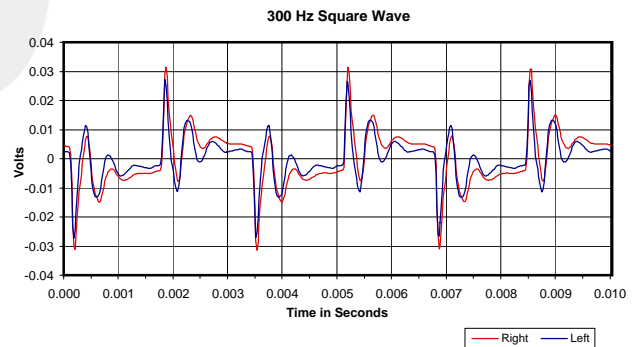
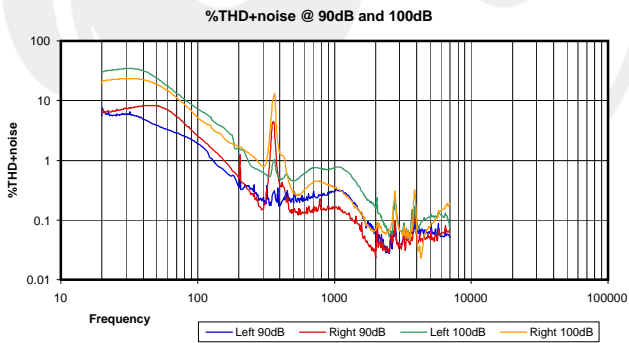
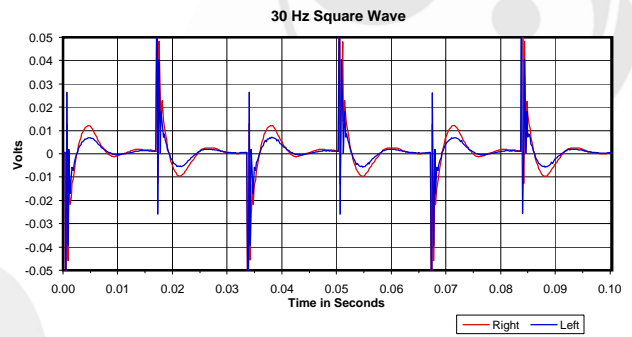
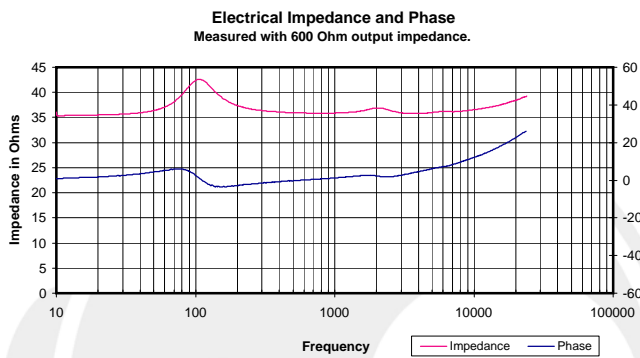
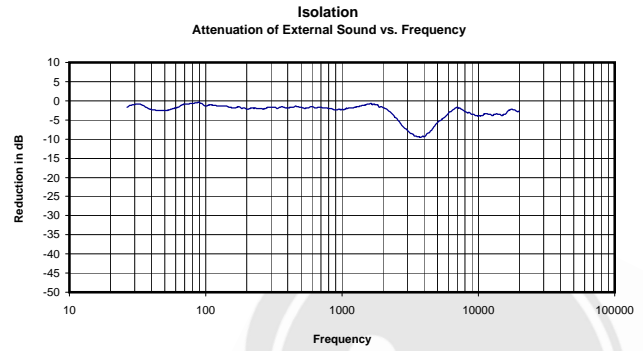
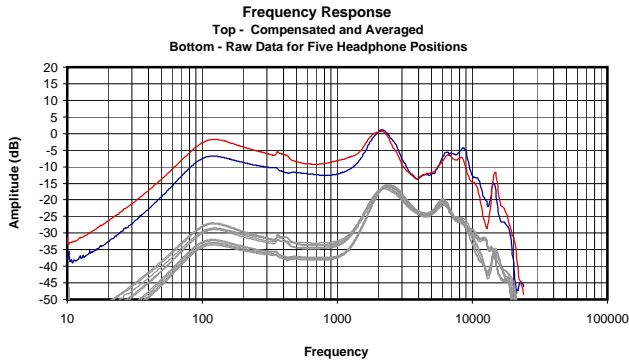
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.121 Vrms
 33 Ohms
 0.44 mW
 -2 dB

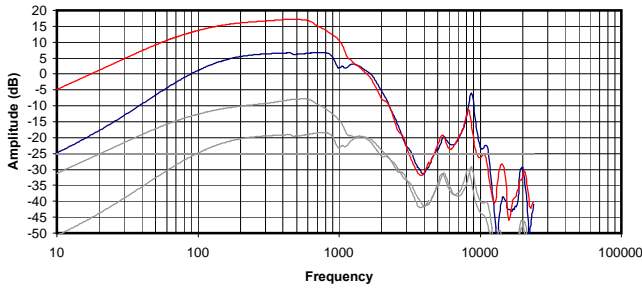




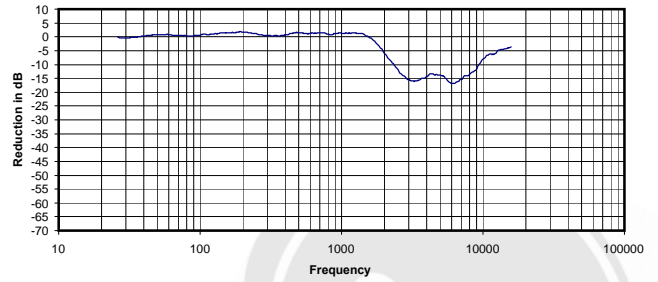
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.188 Vrms
36 Ohms
0.99 mW
-3 dBr

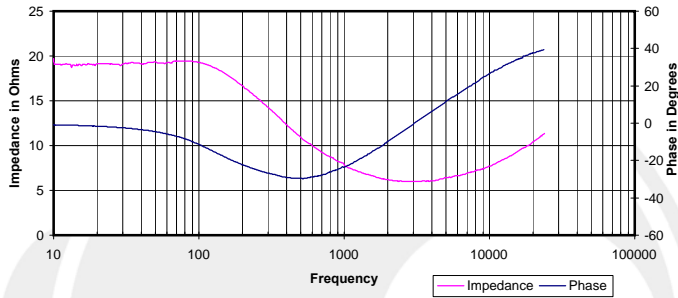
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



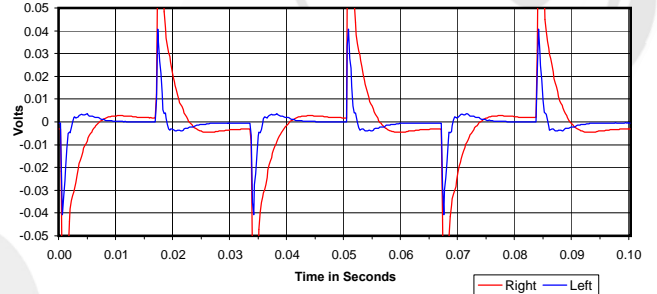
Isolation
Attenuation of External Sound vs. Frequency



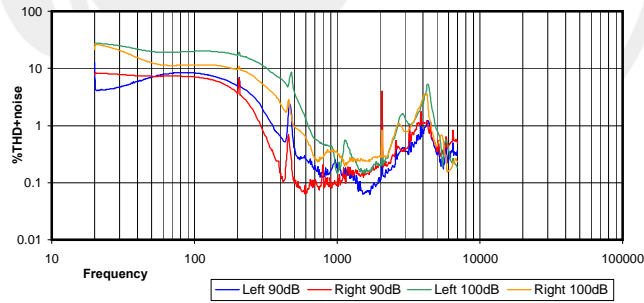
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



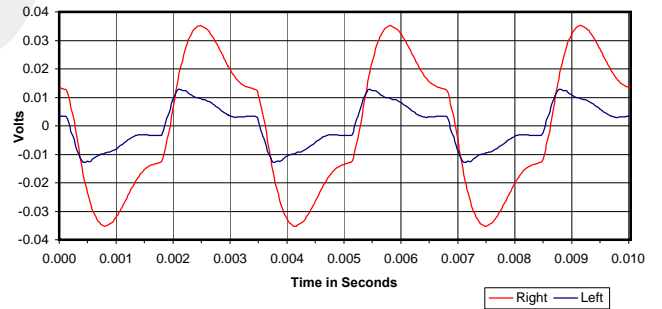
30 Hz Square Wave



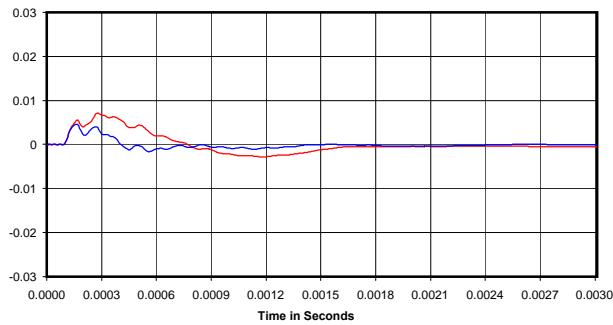
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

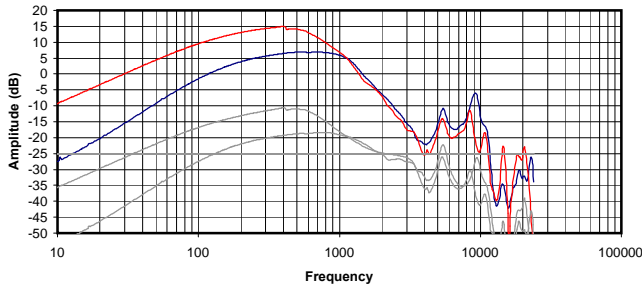


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

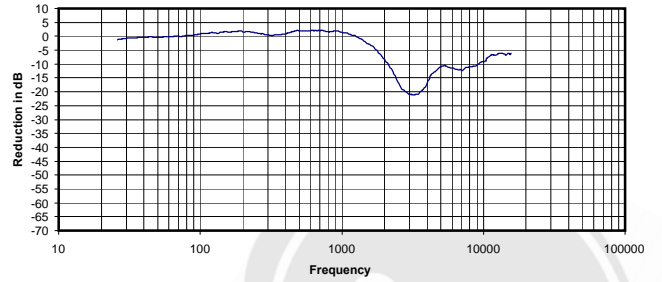
0.033 Vrms
8 Ohms
0.14 mW
-3 dBr



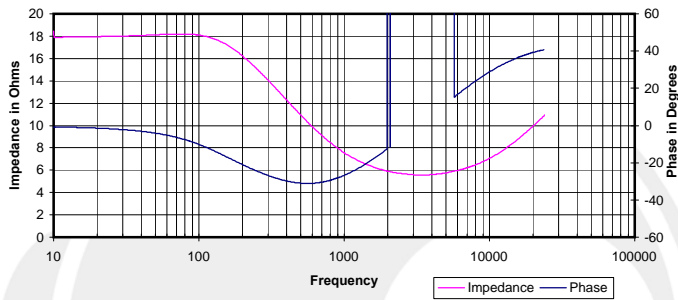
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



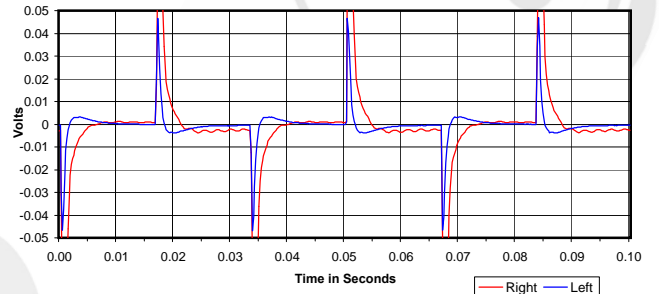
Isolation
Attenuation of External Sound vs. Frequency



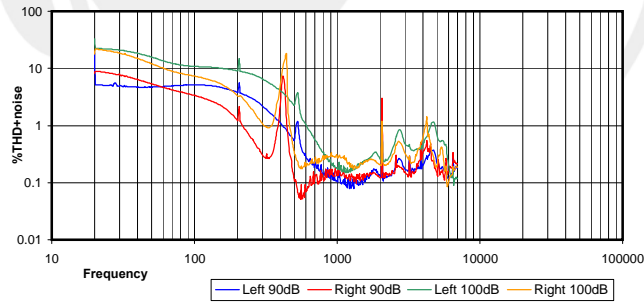
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



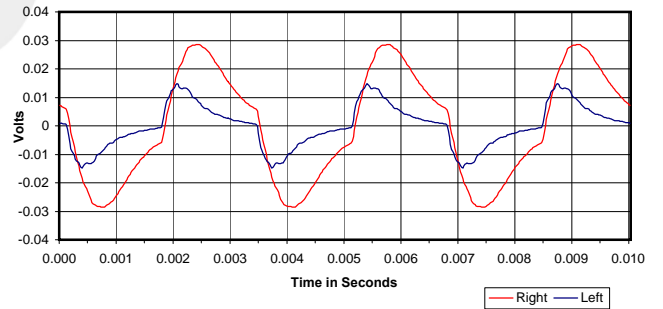
30 Hz Square Wave



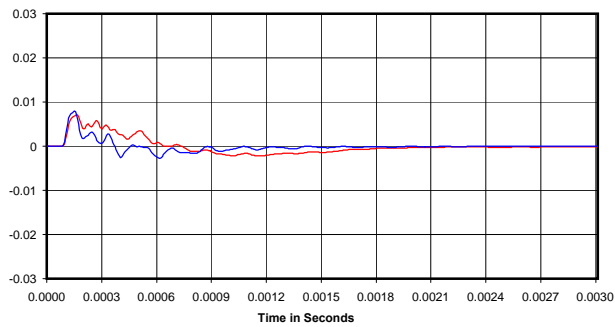
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

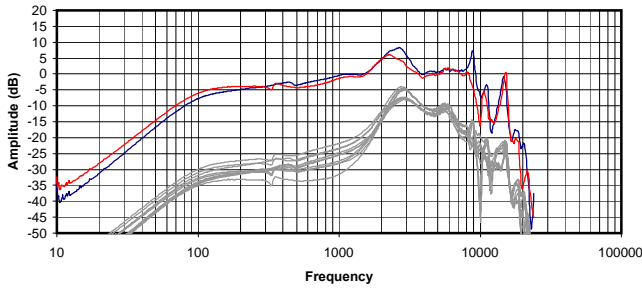


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

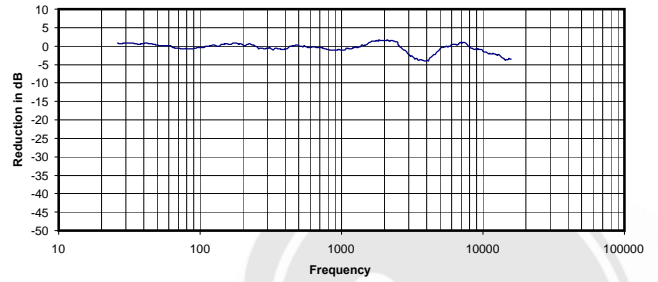
0.013 Vrms
8 Ohms
0.02 mW
-4 dB



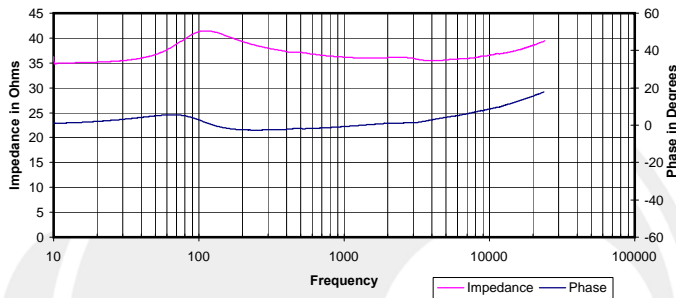
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



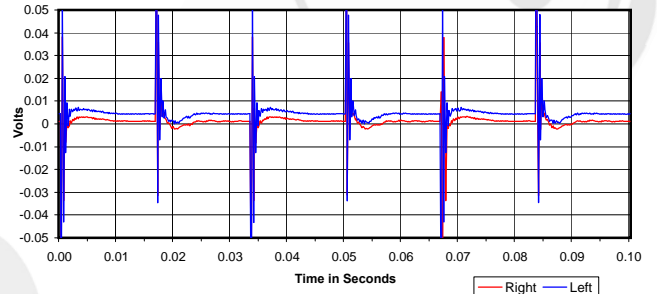
Isolation
 Attenuation of External Sound vs. Frequency



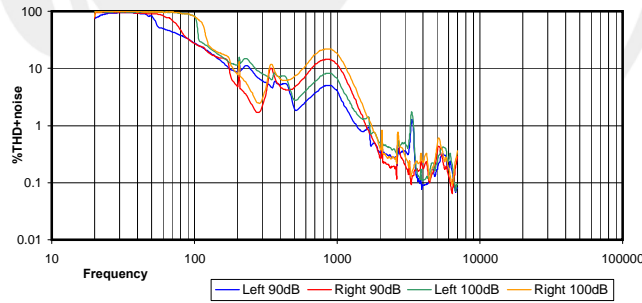
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



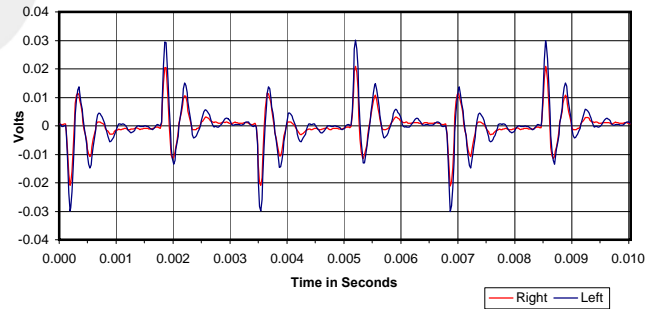
30 Hz Square Wave



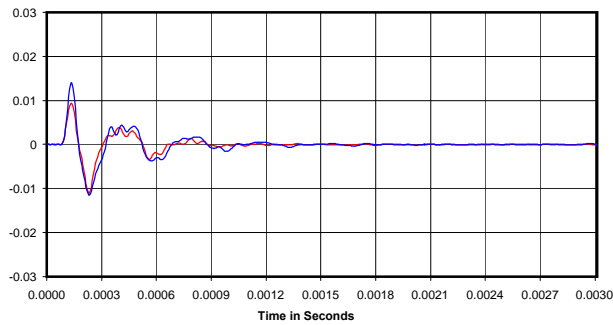
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



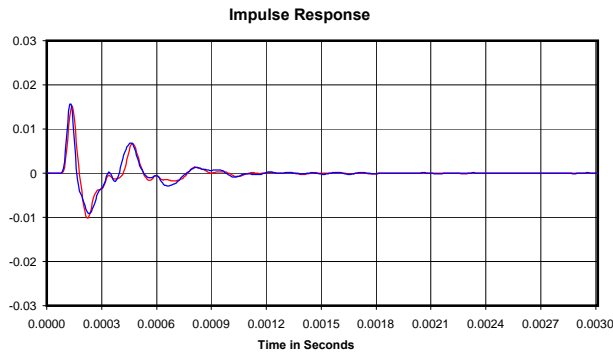
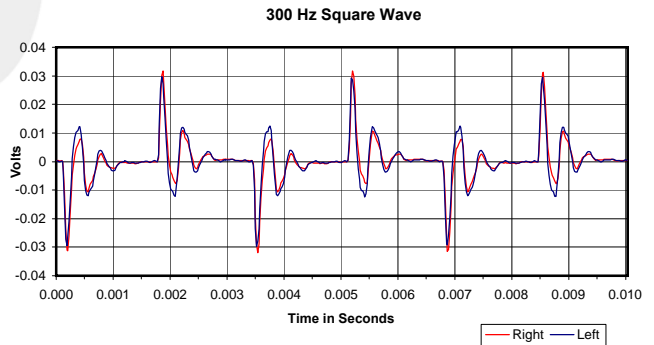
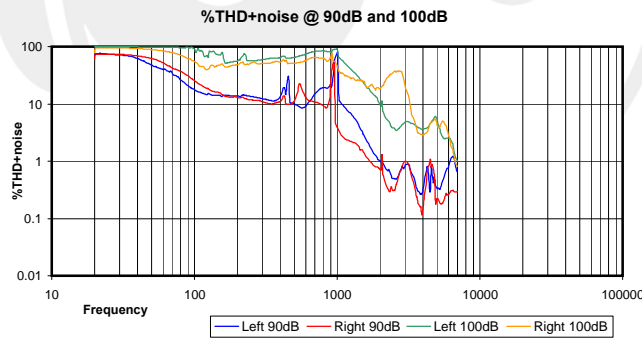
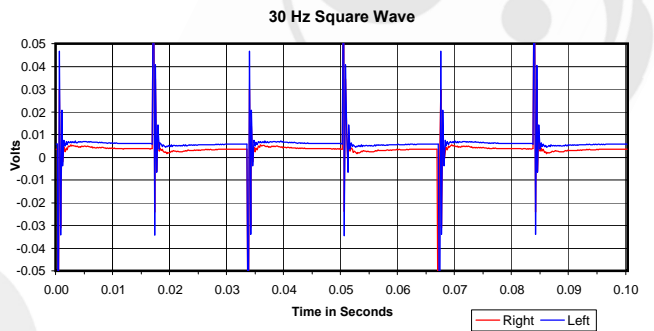
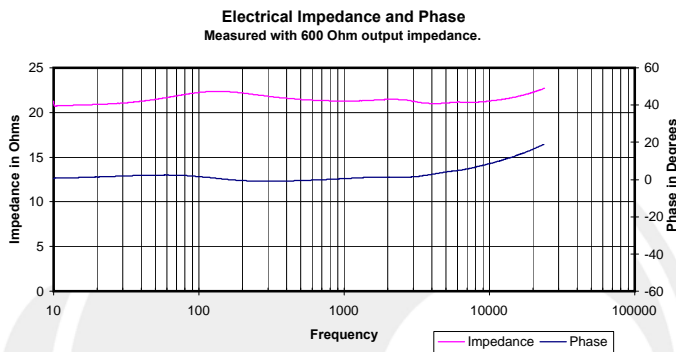
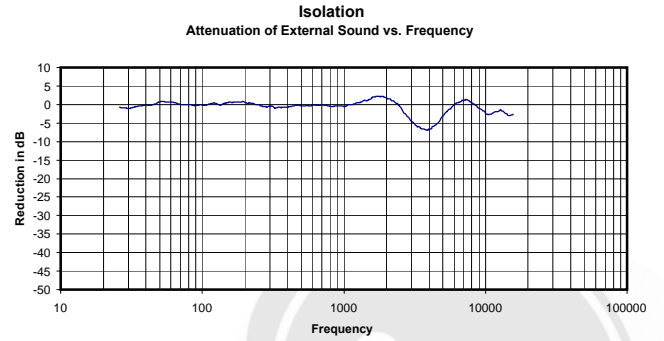
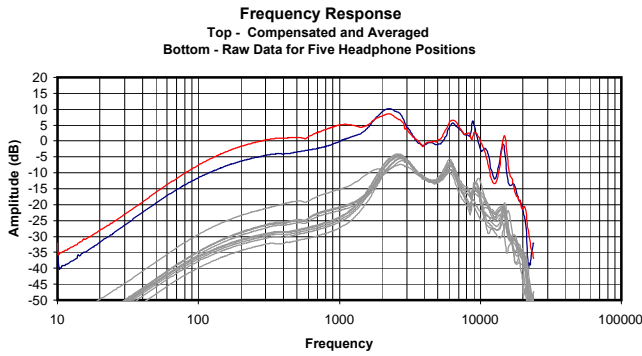
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.140 Vrms
 36 Ohms
 0.54 mW
 0 dB

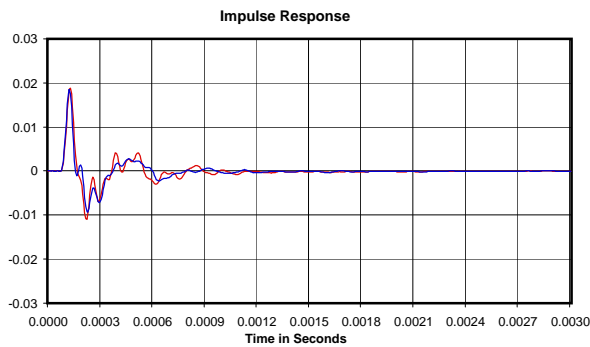
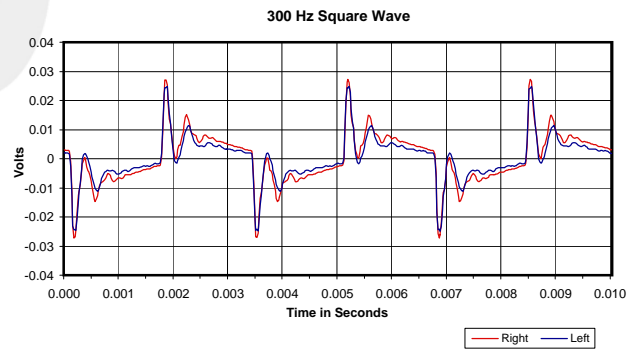
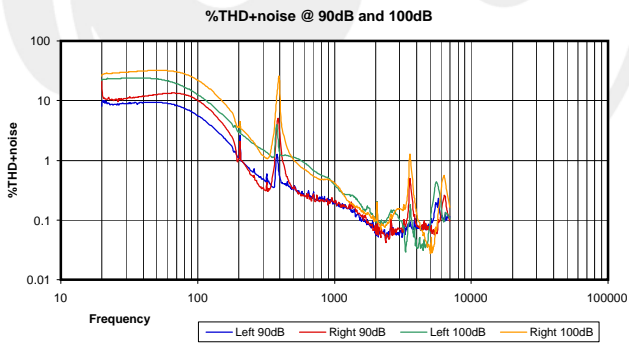
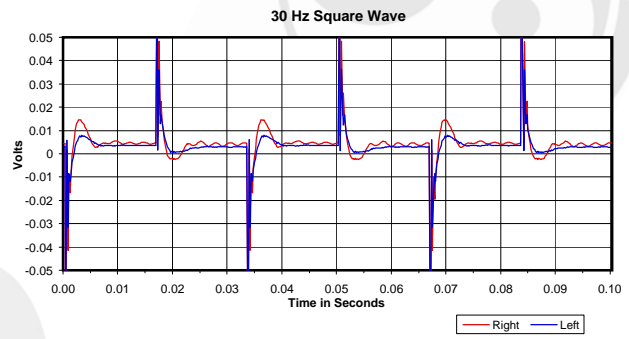
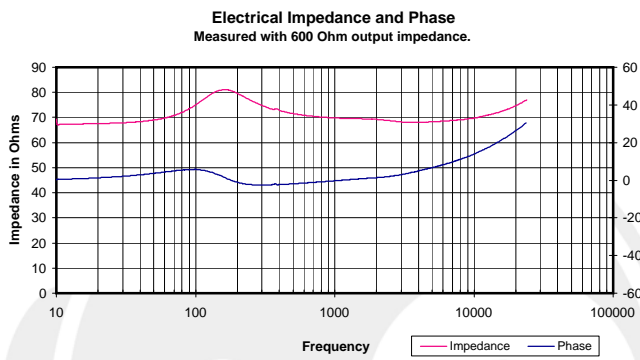
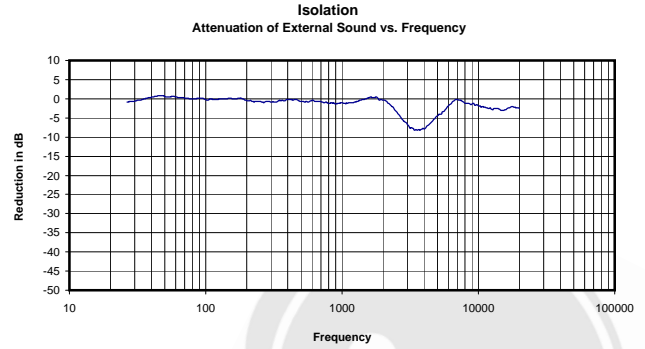
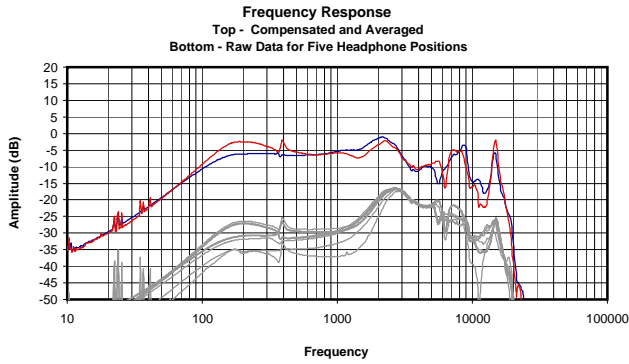




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.105 Vrms
21 Ohms
0.52 mW
-1 dB



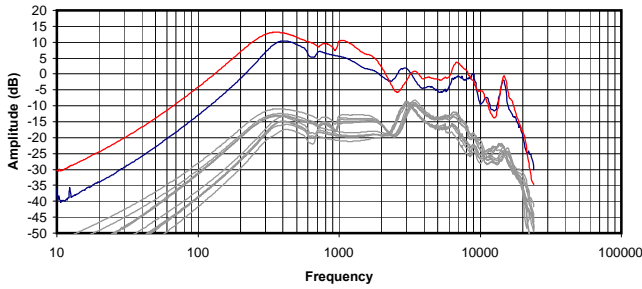


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

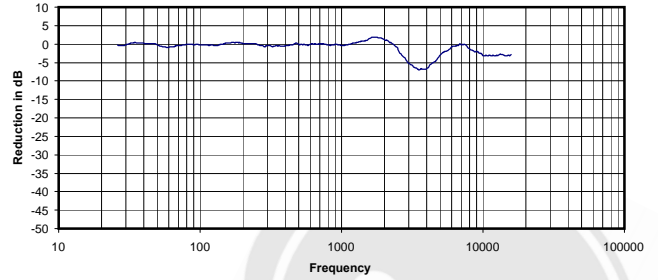
7.588 Vrms
70 Ohms
824.63 mW
-2 dB



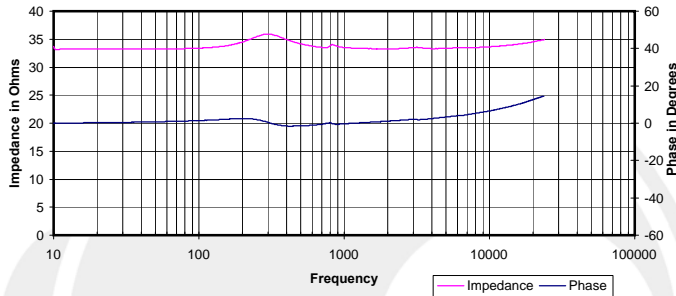
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



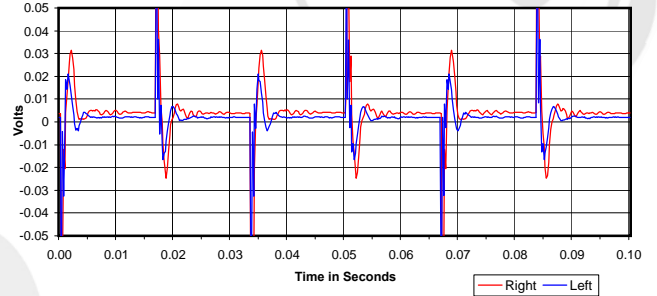
Isolation
Attenuation of External Sound vs. Frequency



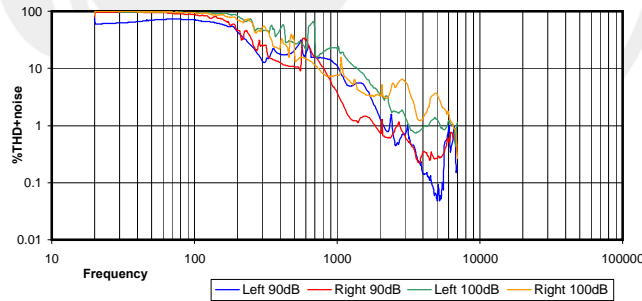
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



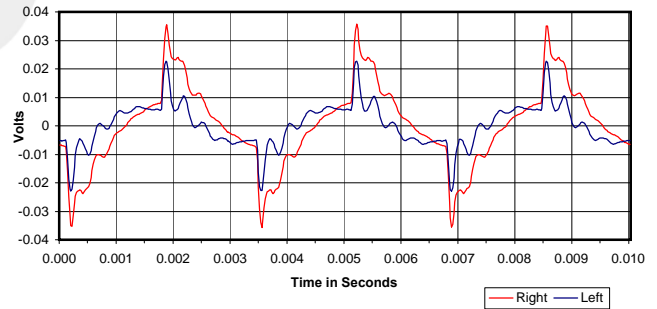
30 Hz Square Wave



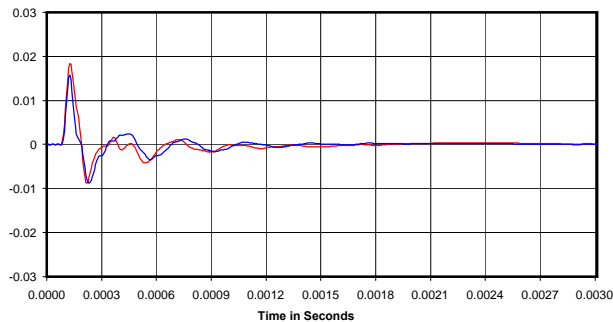
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

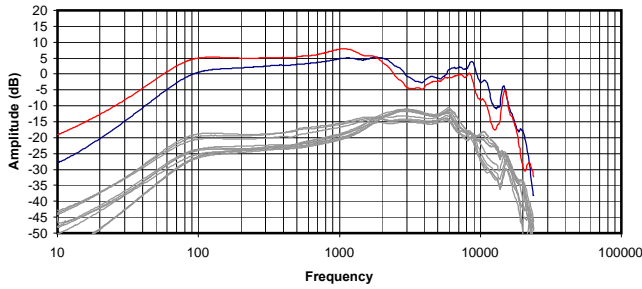


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

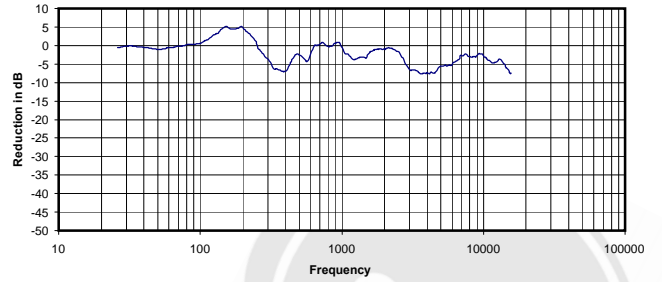
0.130 Vrms
34 Ohms
0.50 mW
-1 dB



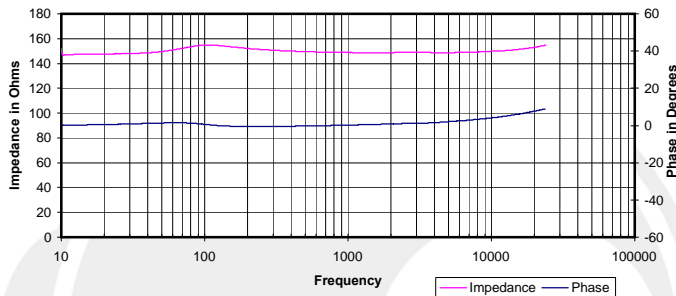
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



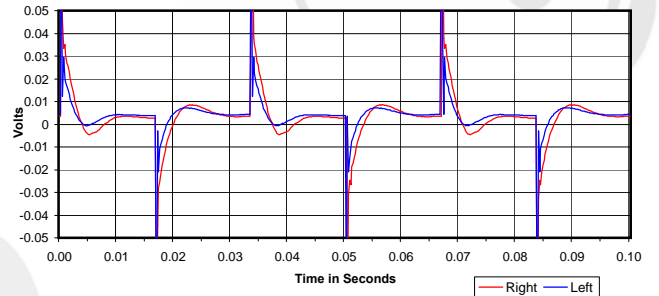
Isolation
 Attenuation of External Sound vs. Frequency



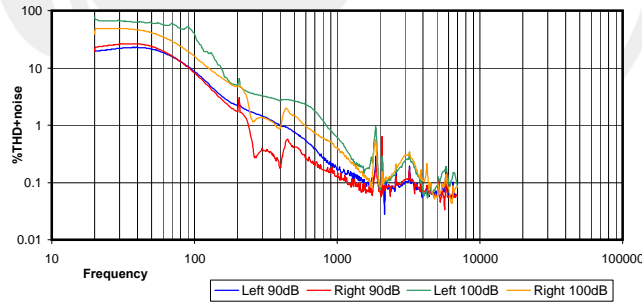
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



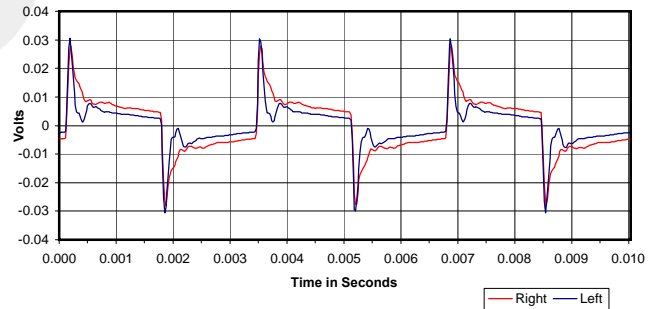
30 Hz Square Wave



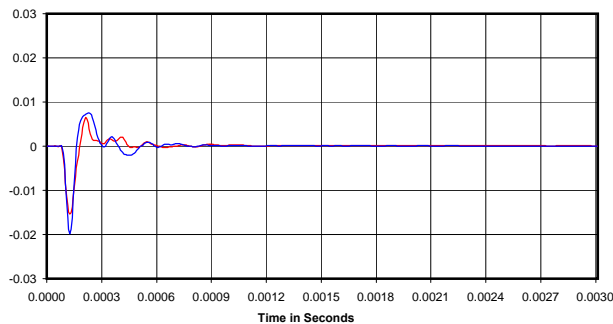
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

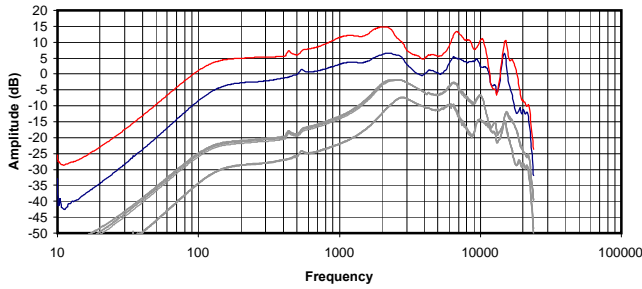


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

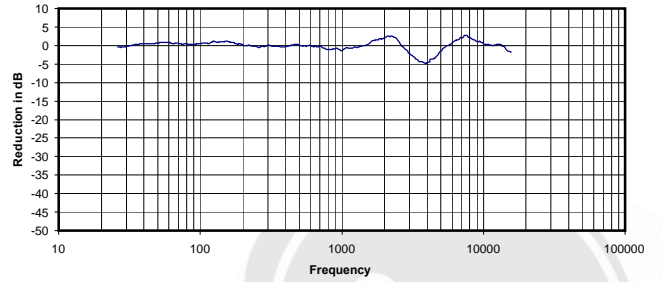
0.167 Vrms
 149 Ohms
 0.19 mW
 -2 dB



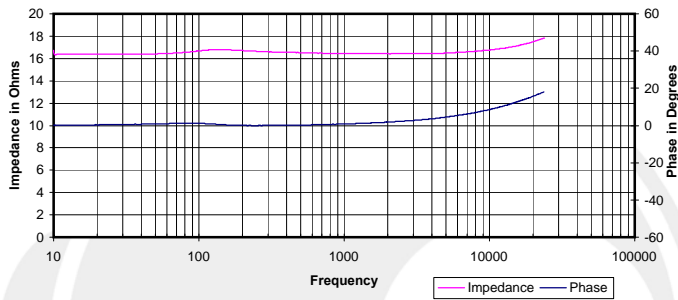
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



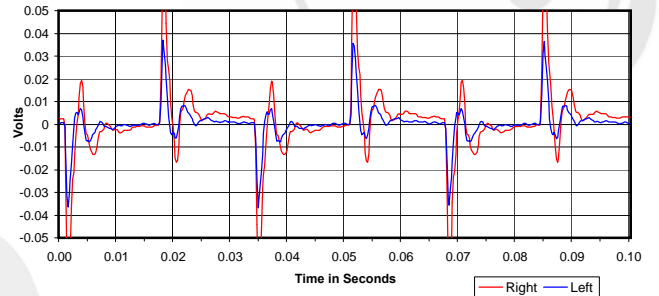
Isolation
 Attenuation of External Sound vs. Frequency



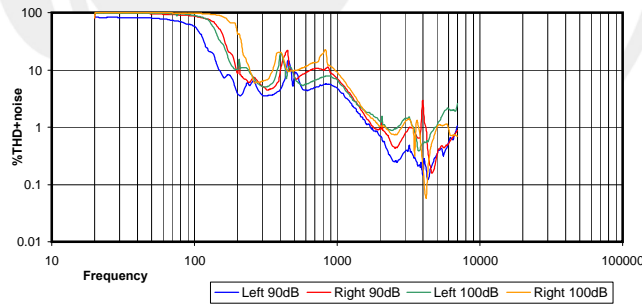
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



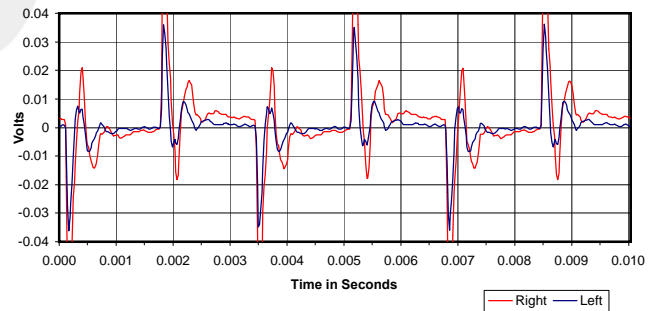
30 Hz Square Wave



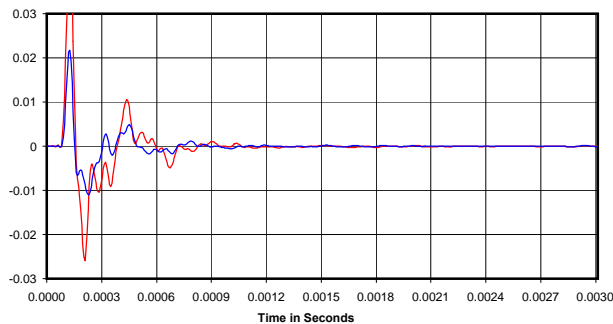
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.144 Vrms
 16 Ohms
 1.25 mW
 0 dBr

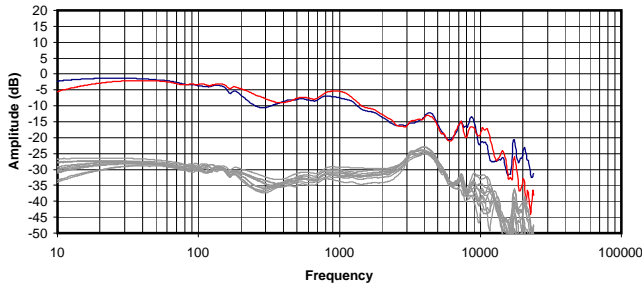


Headphone Measurement Datasheets

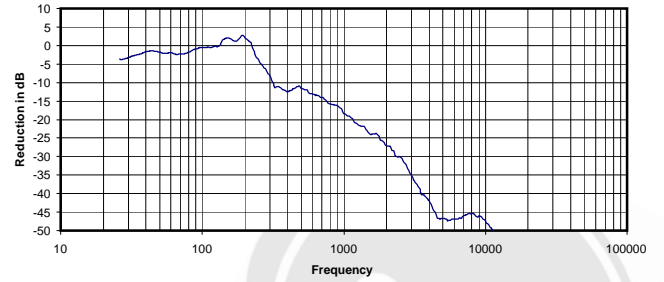
Noise-Cancelling



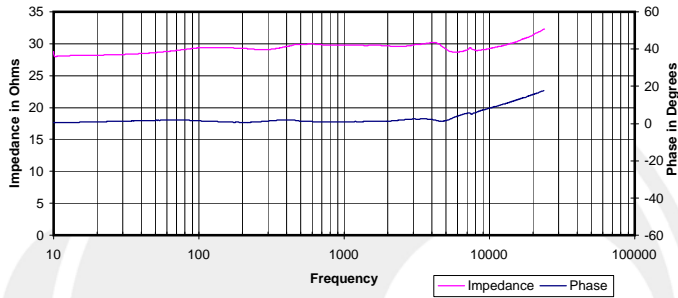
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



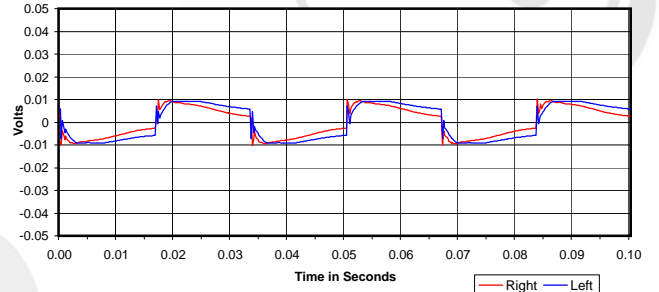
Isolation
Attenuation of External Sound vs. Frequency



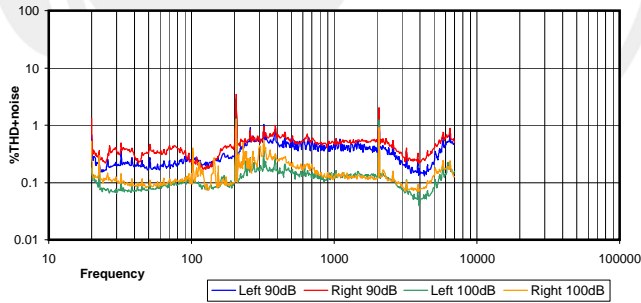
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



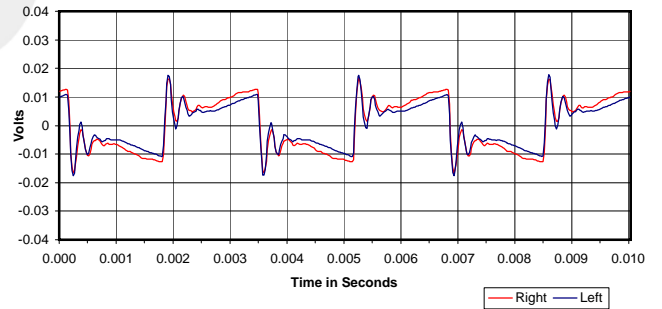
30 Hz Square Wave



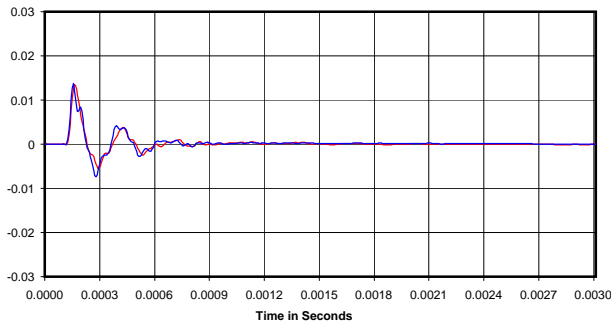
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



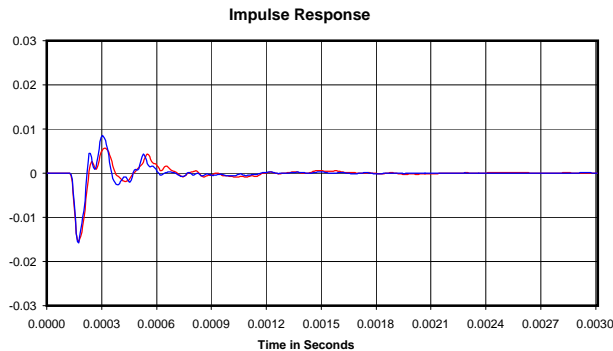
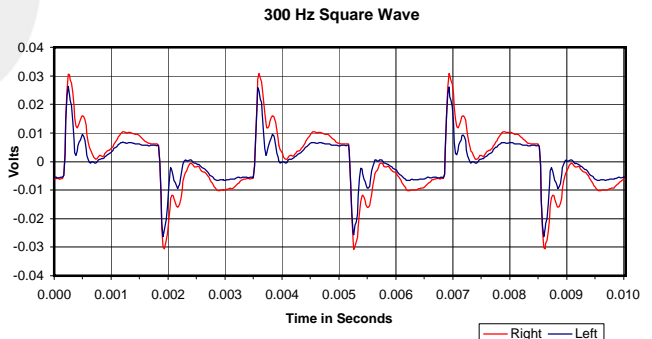
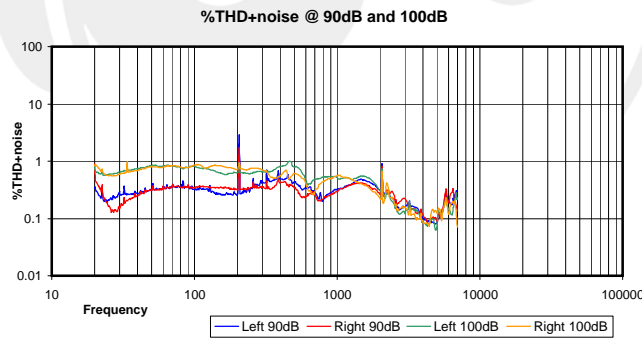
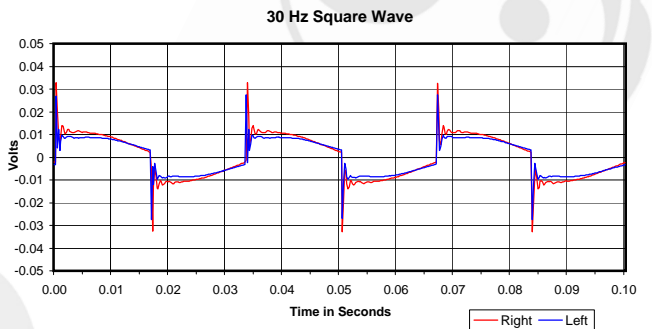
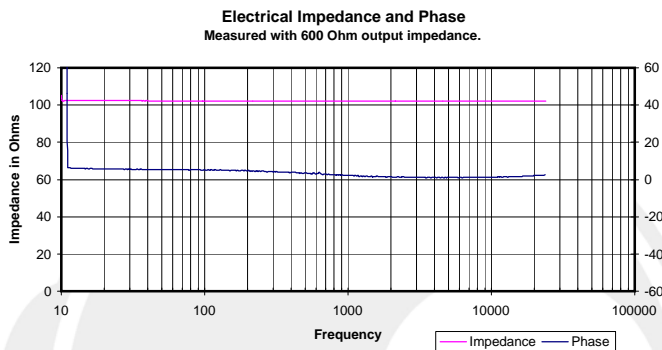
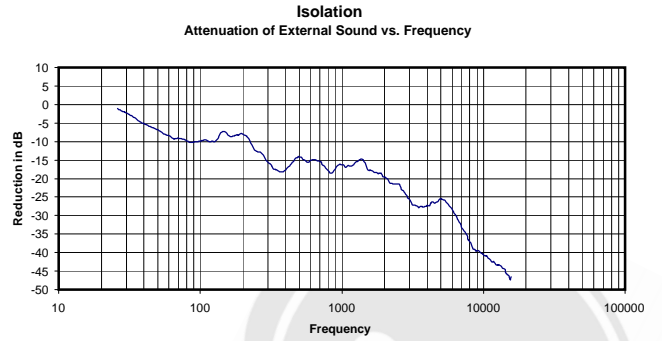
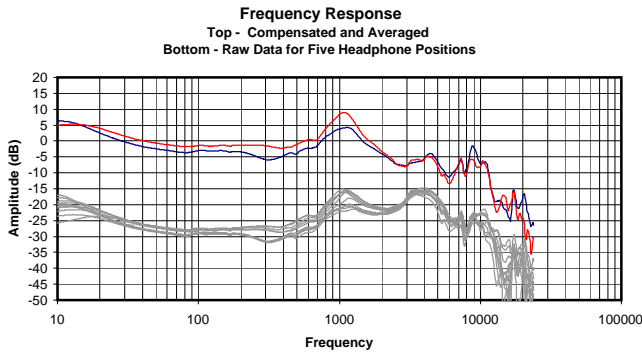
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.035 Vrms
30 Ohms
0.04 mW
-18 dB



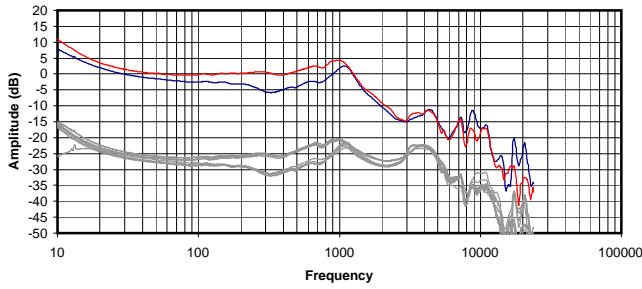


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

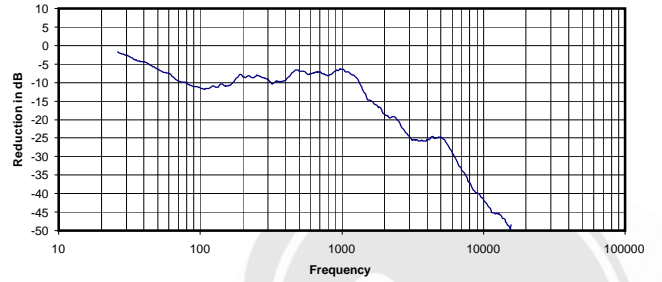
0.019 Vrms
102 Ohms
0.00 mW
-17 dB



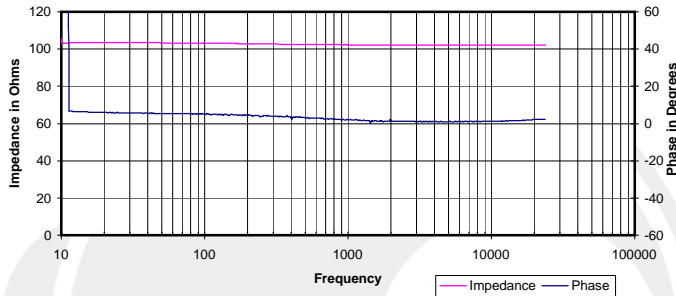
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



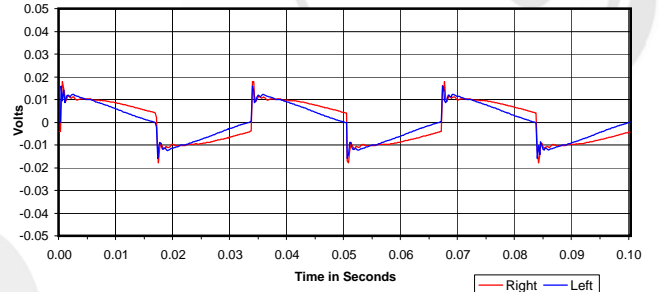
Isolation
 Attenuation of External Sound vs. Frequency



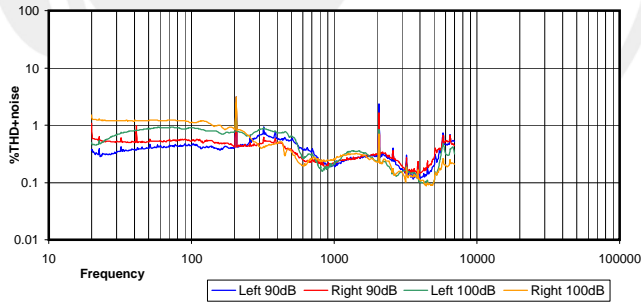
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



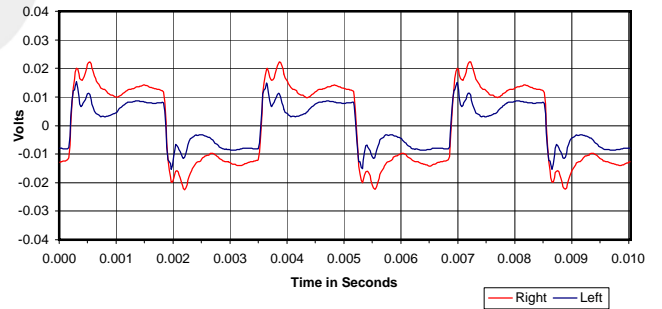
30 Hz Square Wave



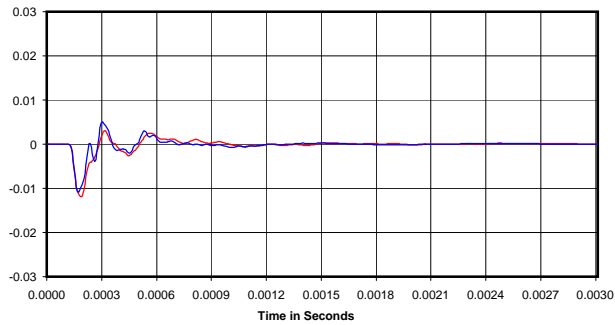
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



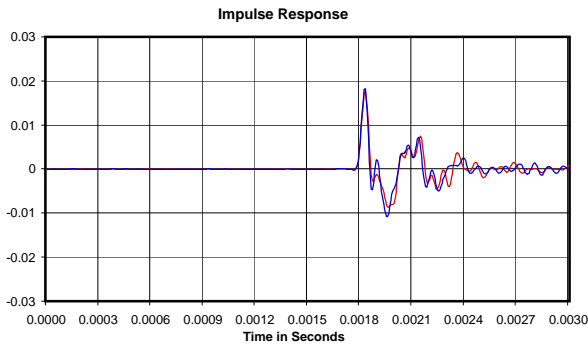
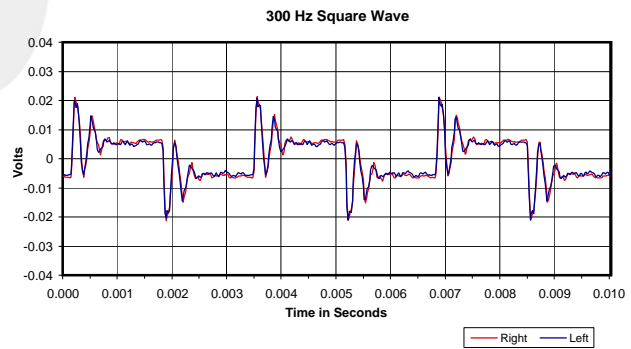
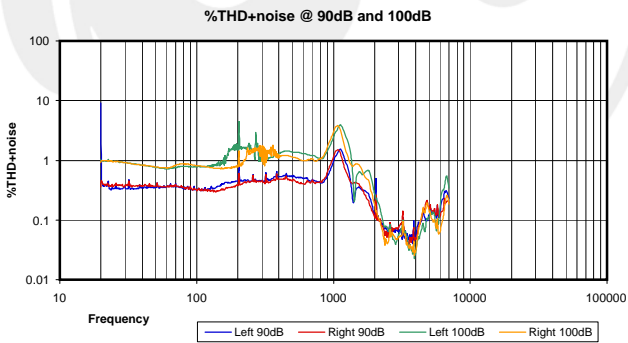
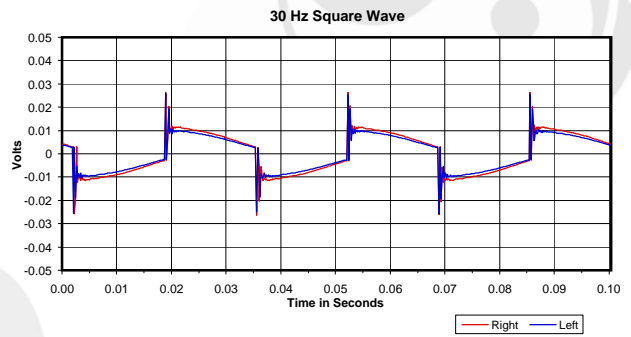
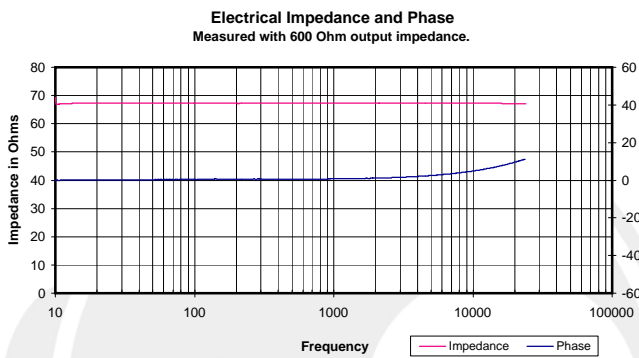
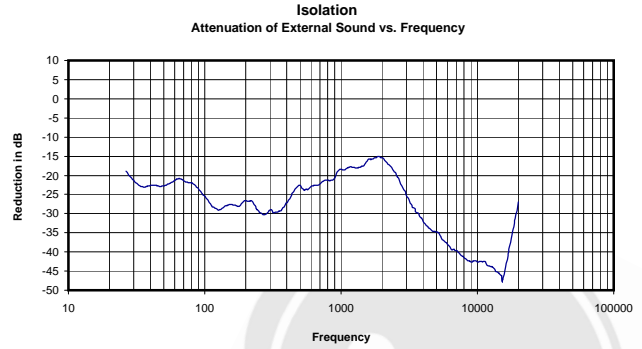
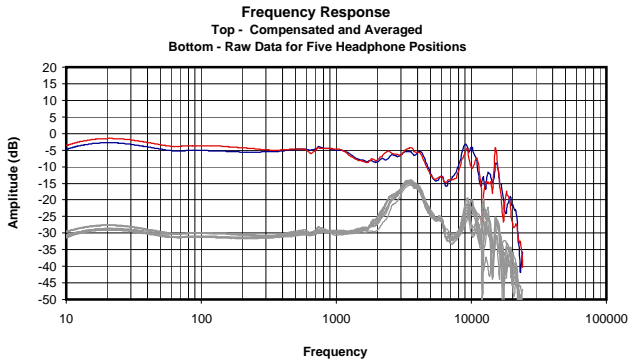
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
 102 Ohms
 0.00 mW
 -13 dB

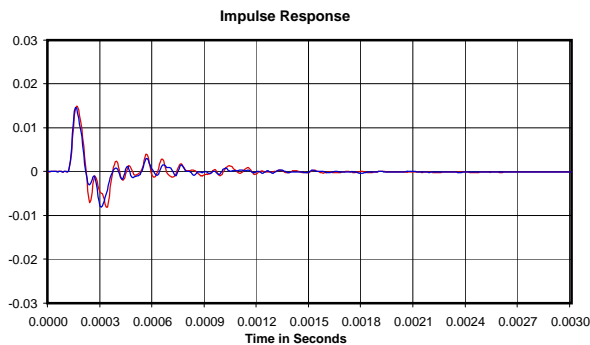
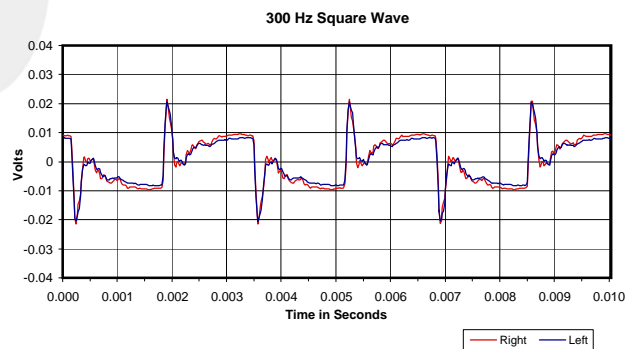
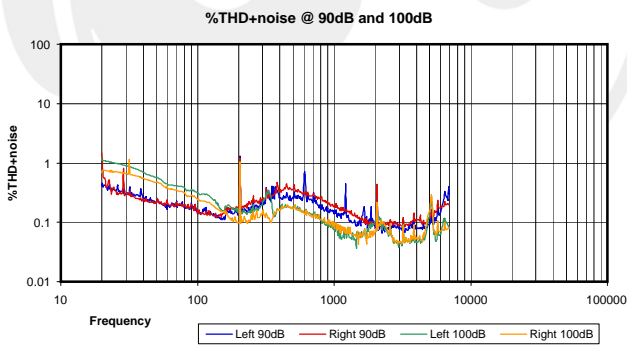
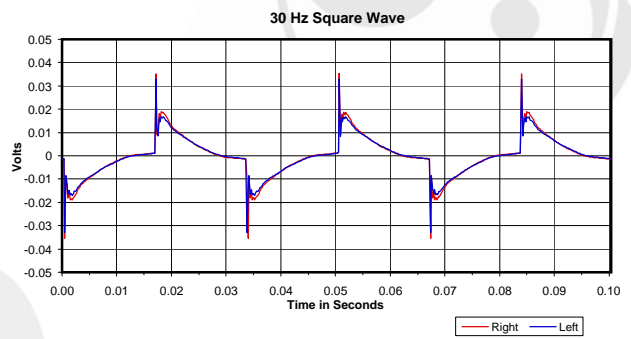
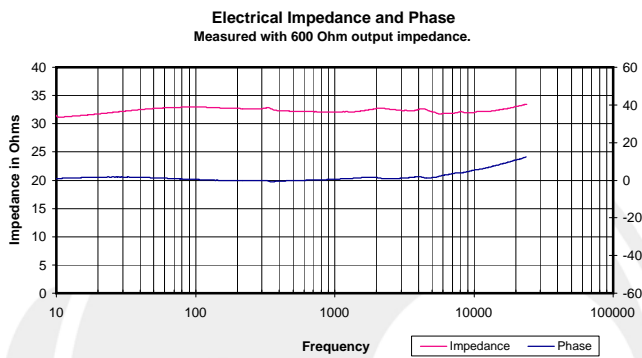
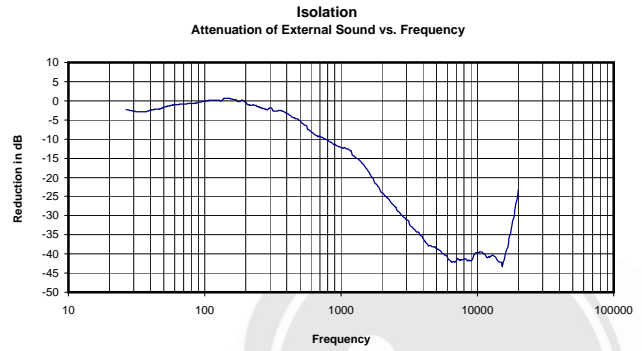
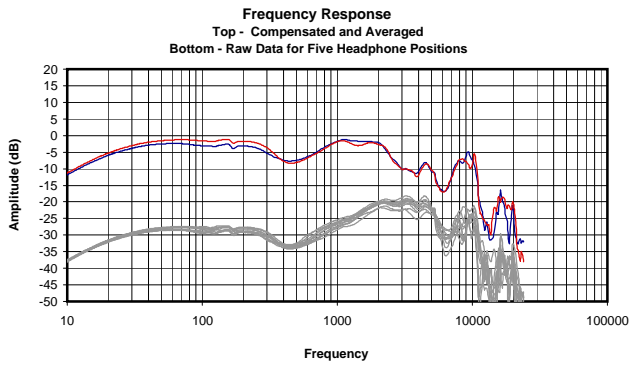




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.171 Vrms
67 Ohms
0.44 mW
-27 dB





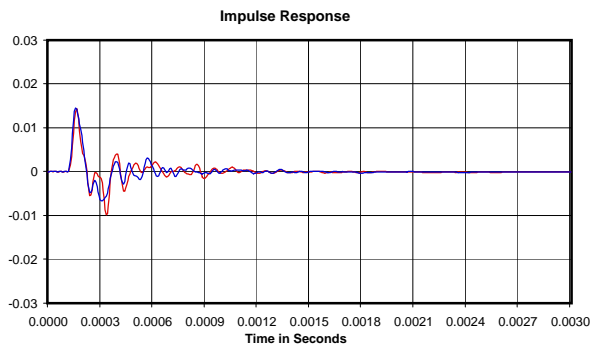
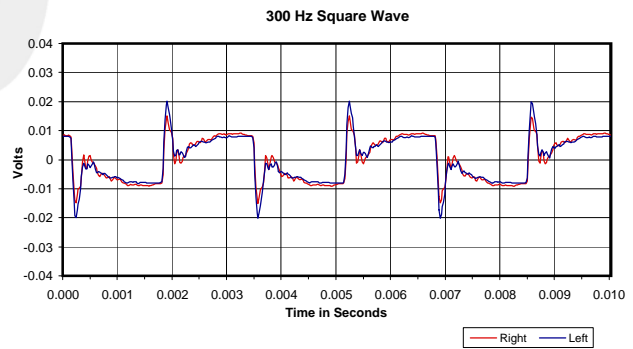
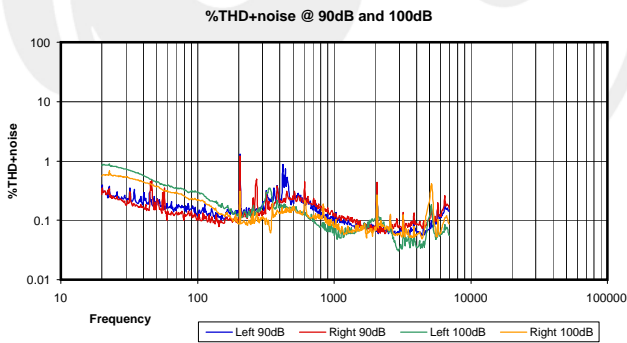
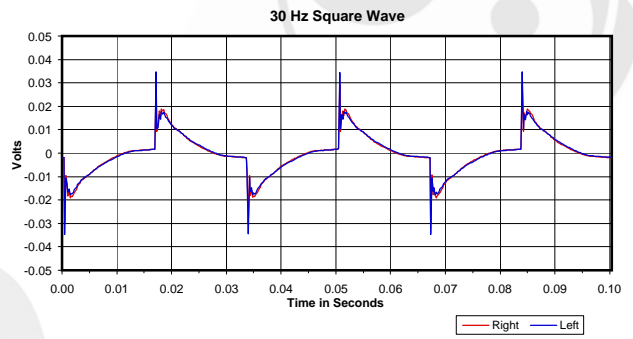
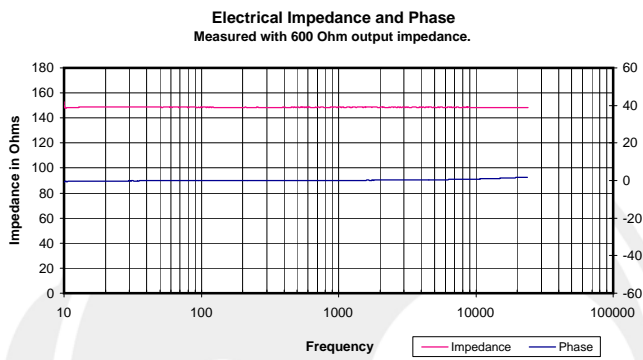
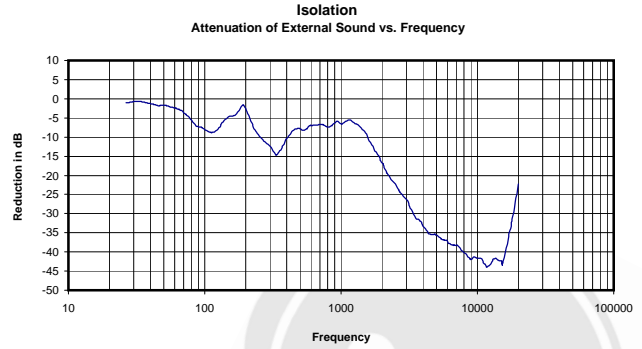
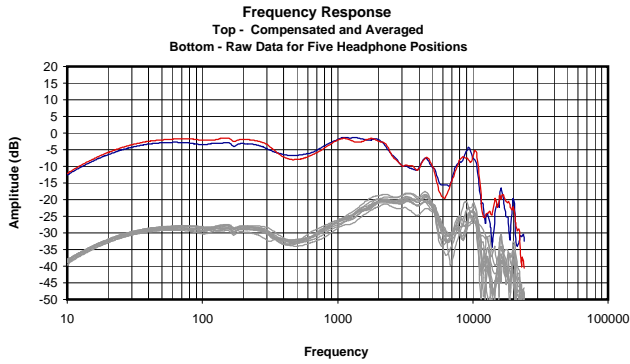
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
32 Ohms
0.04 mW
-17 dB





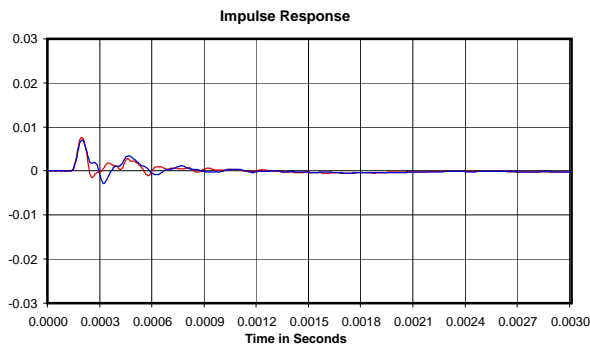
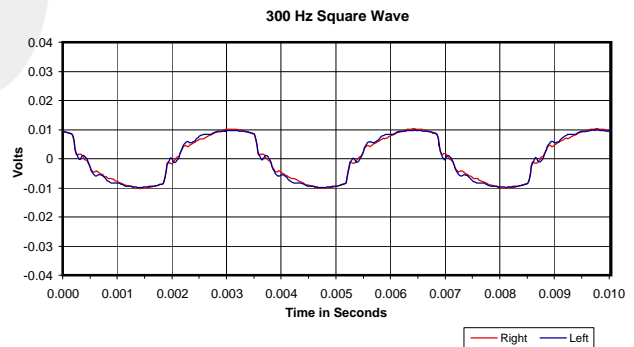
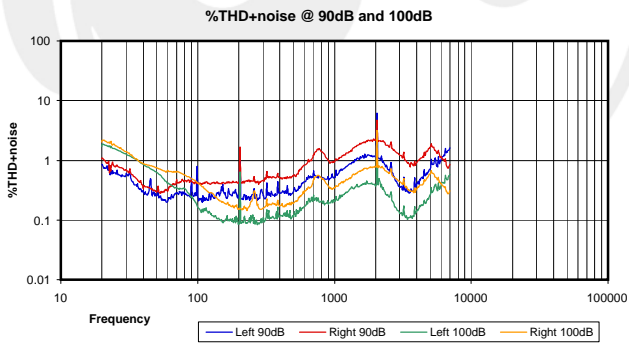
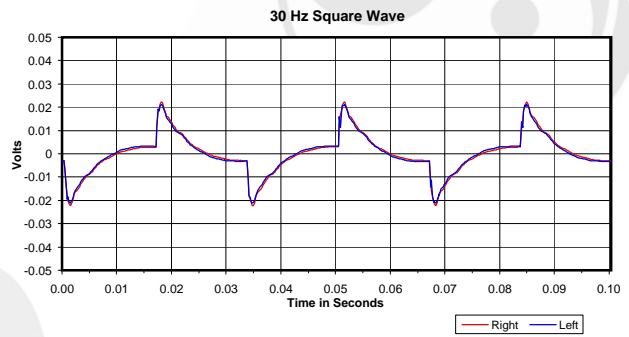
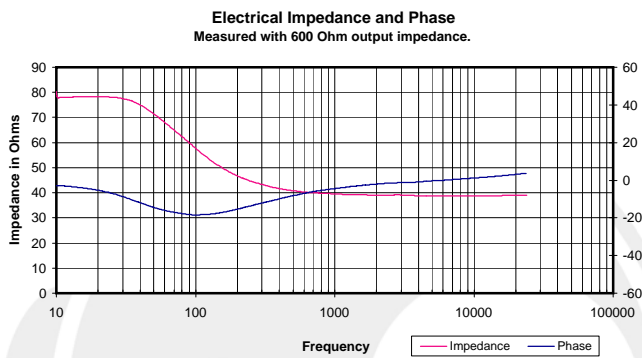
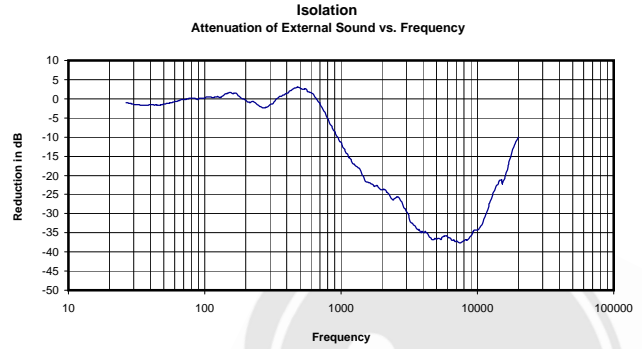
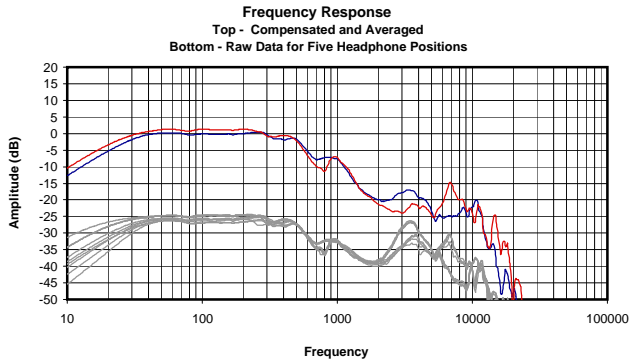
**Headphone Measurements: Audio Technica ATH-MSR7NC
ANC Active**



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

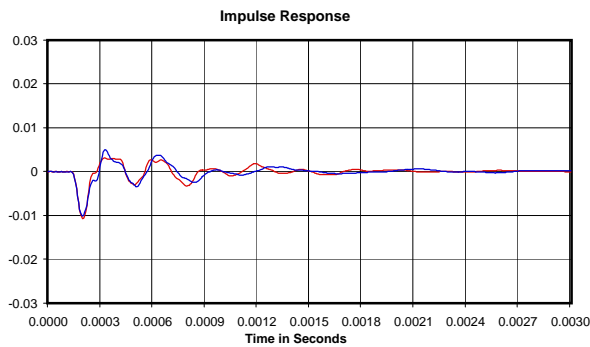
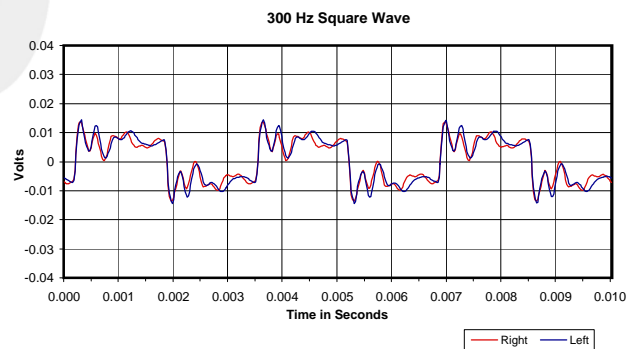
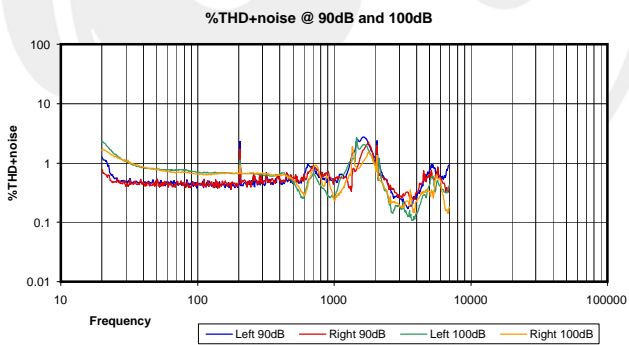
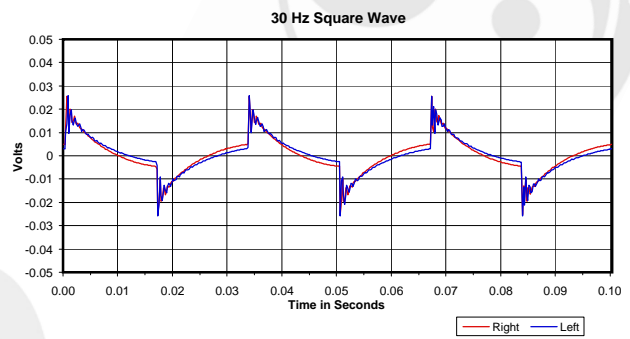
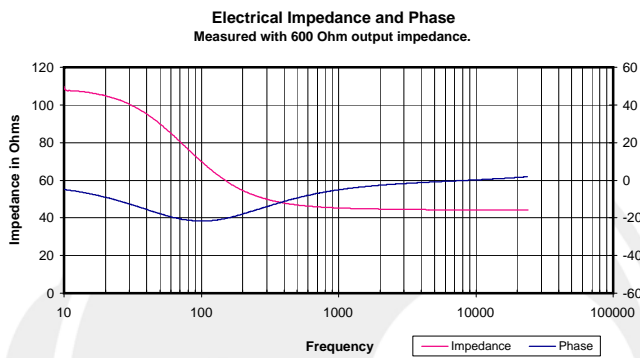
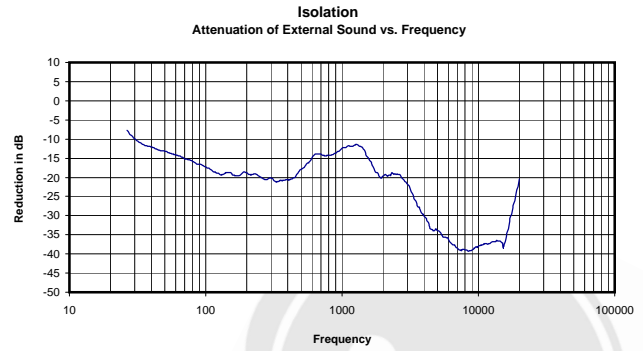
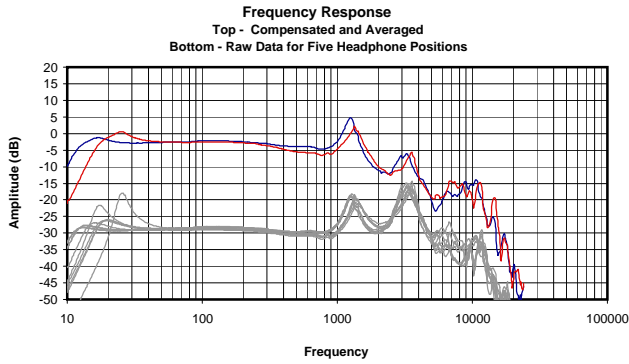
0.031 Vrms
149 Ohms
0.01 mW
-17 dB





Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.095 Vrms
40 Ohms
0.23 mW
-15 dBr

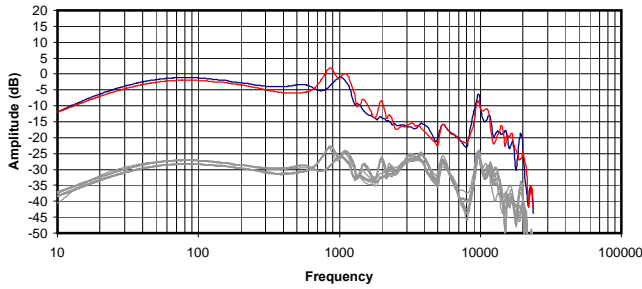


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

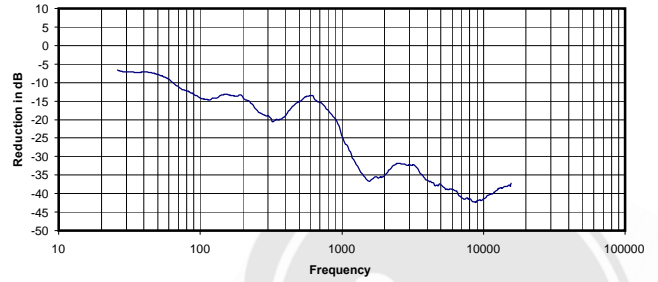
0.033 Vrms
45 Ohms
0.02 mW
-22 dB



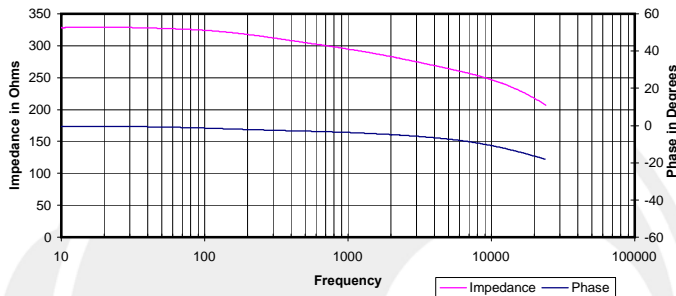
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



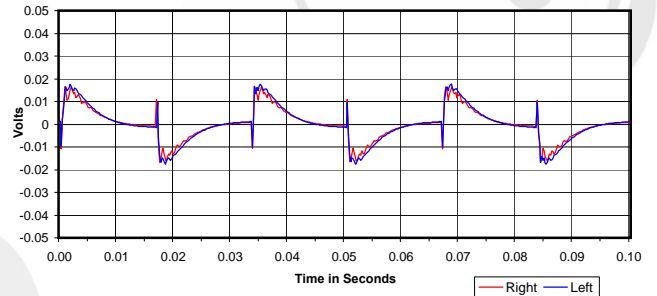
Isolation
 Attenuation of External Sound vs. Frequency



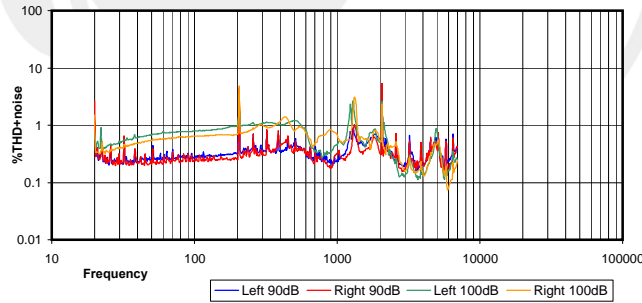
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



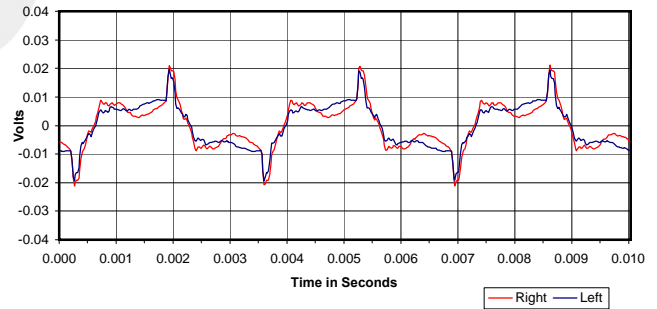
30 Hz Square Wave



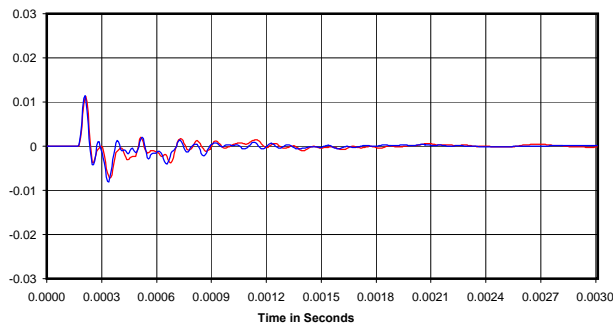
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

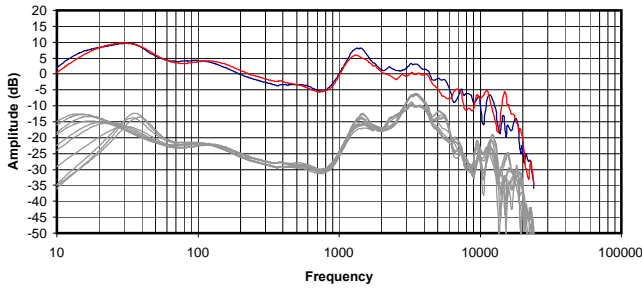


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

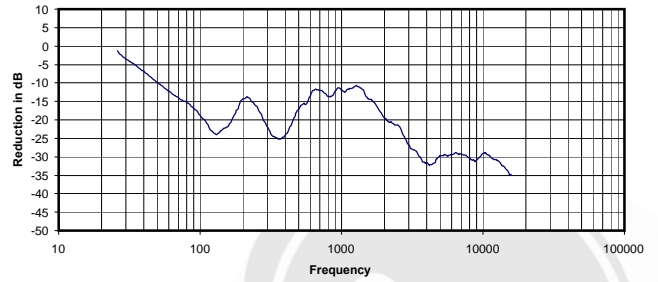
0.025 Vrms
 295 Ohms
 0.00 mW
 -24 dB



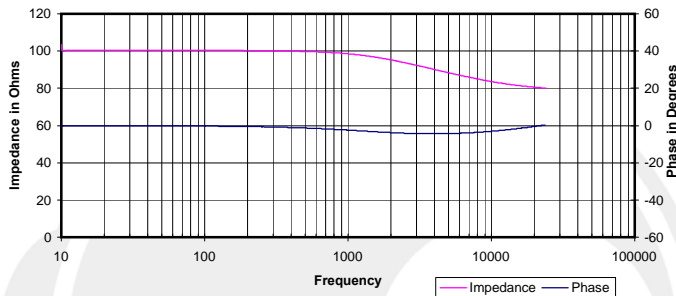
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



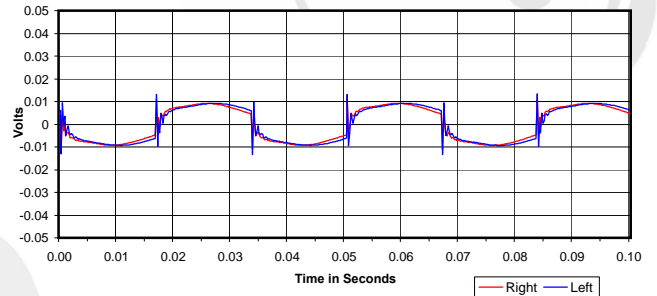
Isolation
 Attenuation of External Sound vs. Frequency



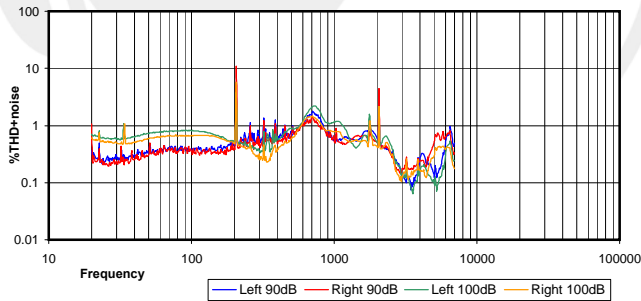
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



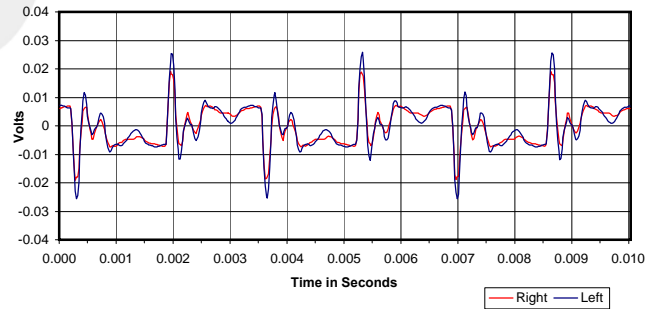
30 Hz Square Wave



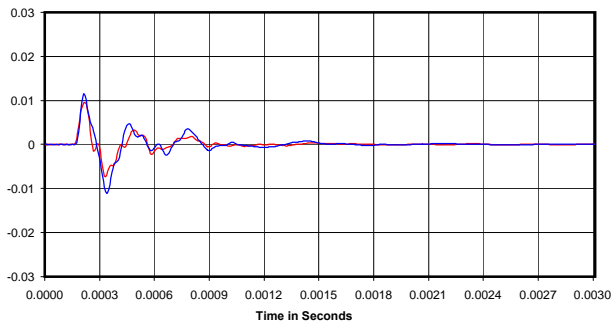
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

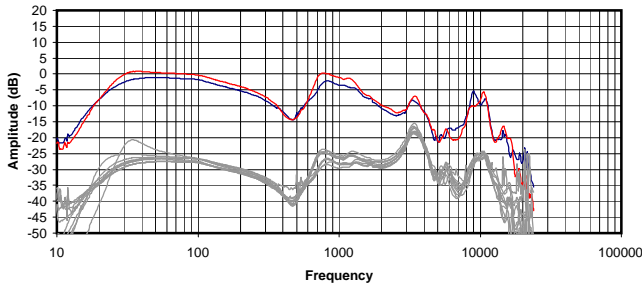


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

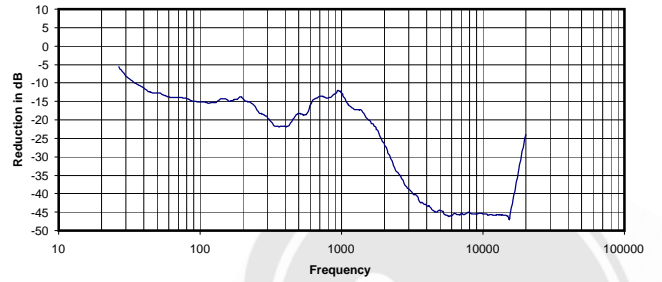
0.072 Vrms
 99 Ohms
 0.05 mW
 -20 dB



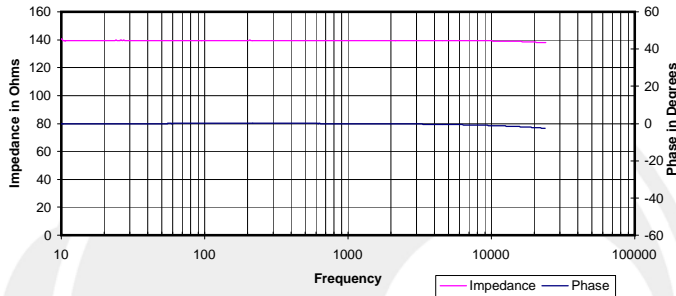
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



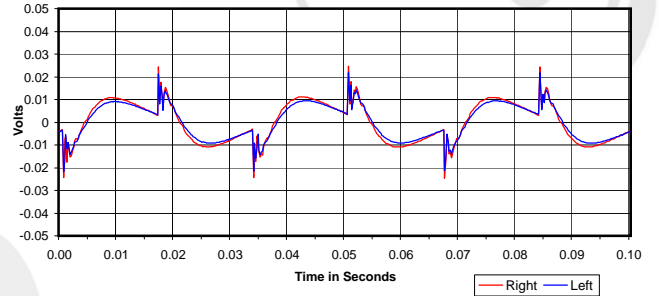
Isolation
 Attenuation of External Sound vs. Frequency



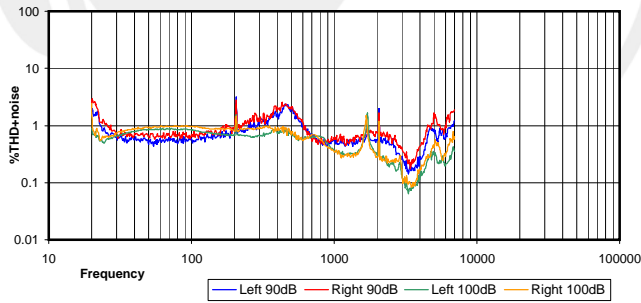
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



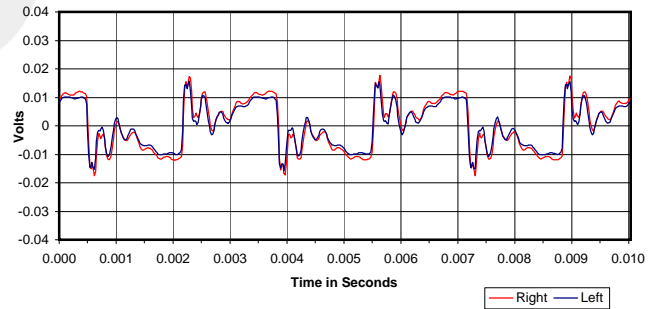
30 Hz Square Wave



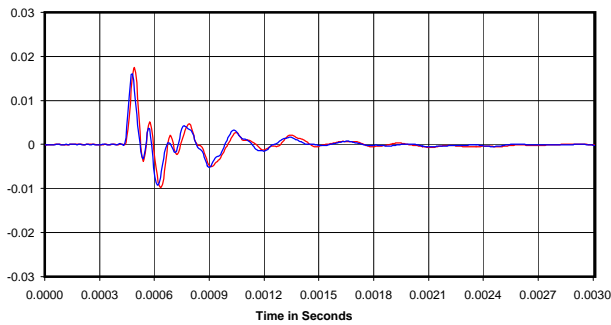
%THD+noise @ 90dB and 100dB



300 Hz Square Wave

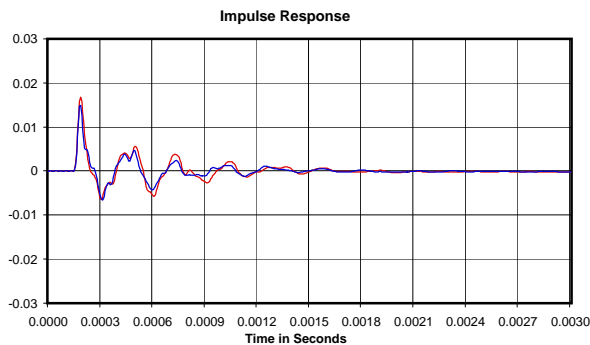
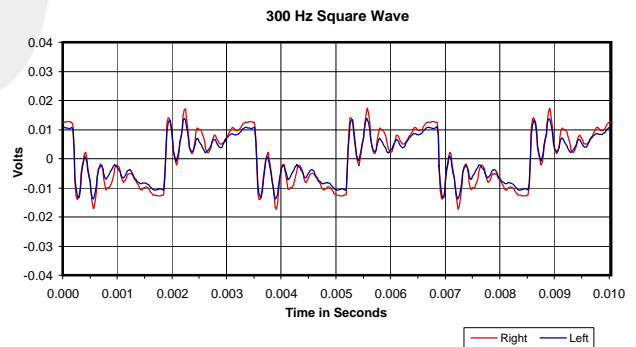
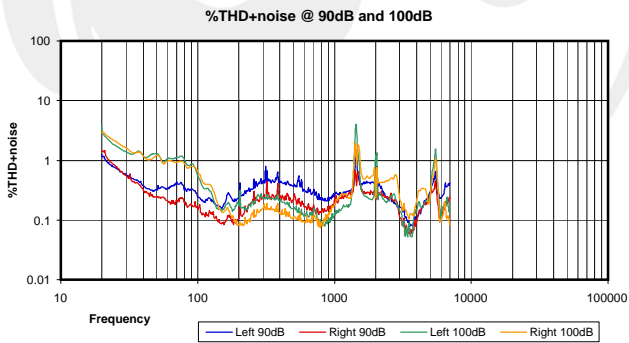
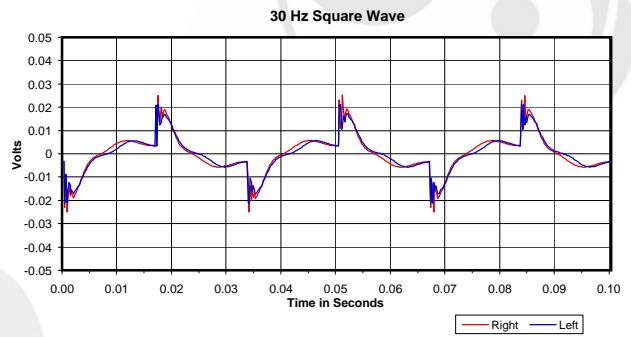
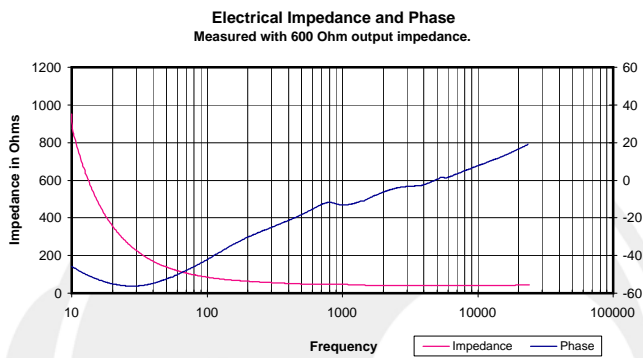
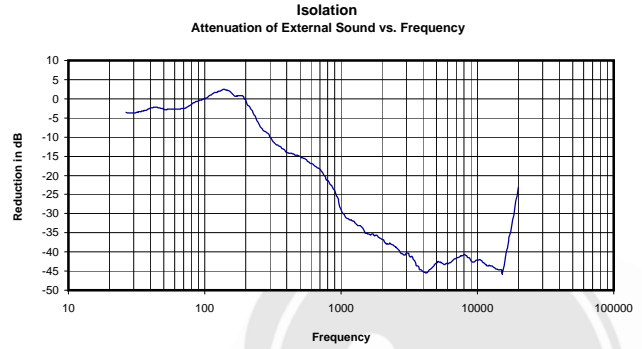
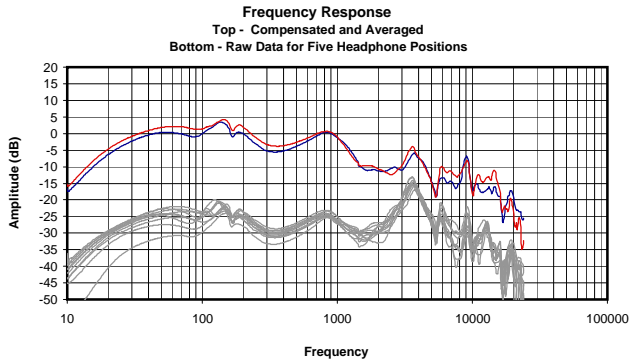


Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

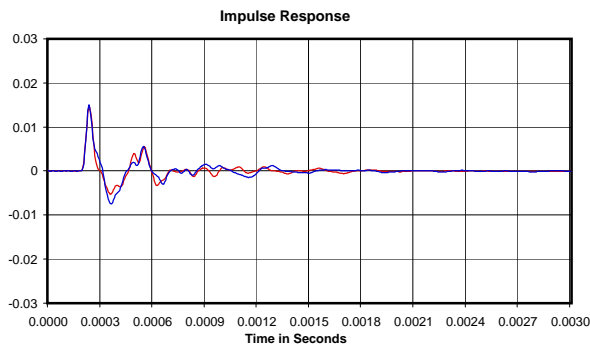
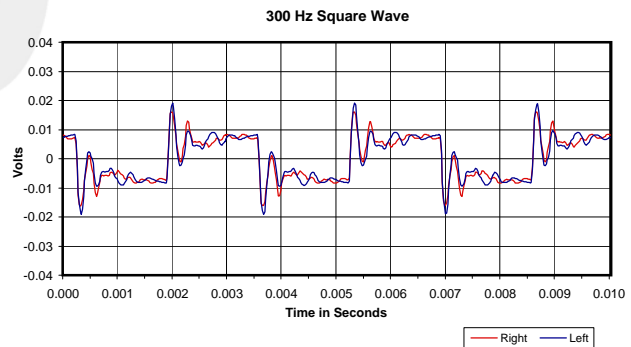
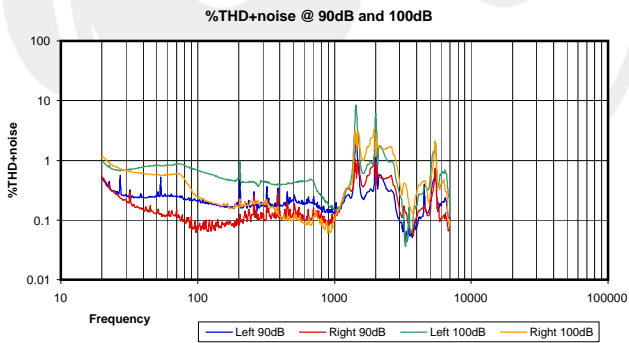
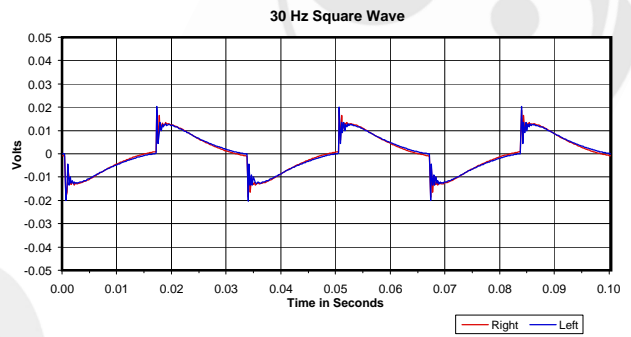
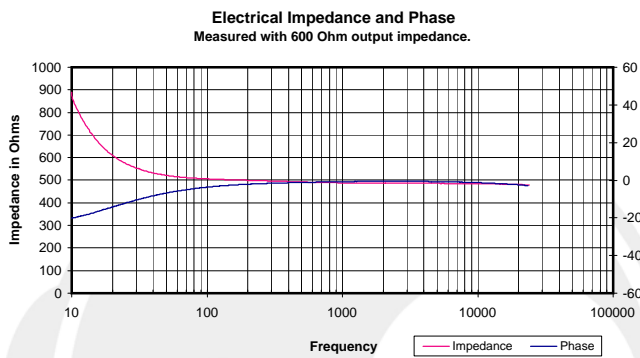
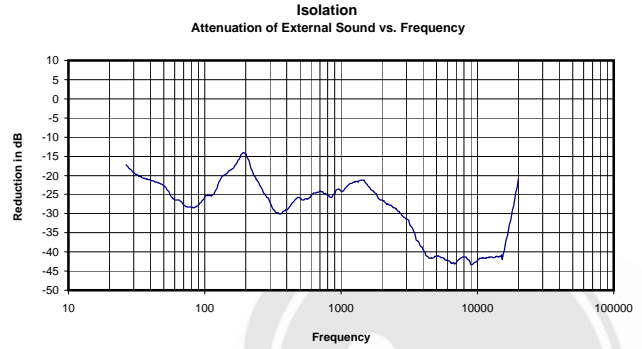
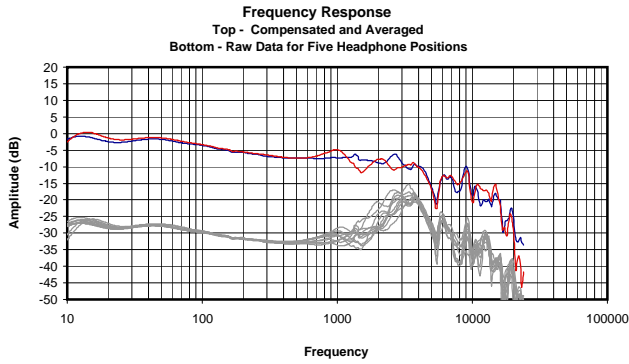
0.024 Vrms
 139 Ohms
 0.00 mW
 -26 dB



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.064 Vrms
47 Ohms
0.09 mW
-24 dBr

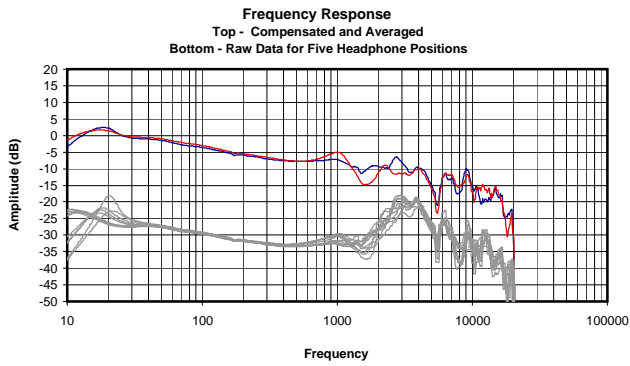




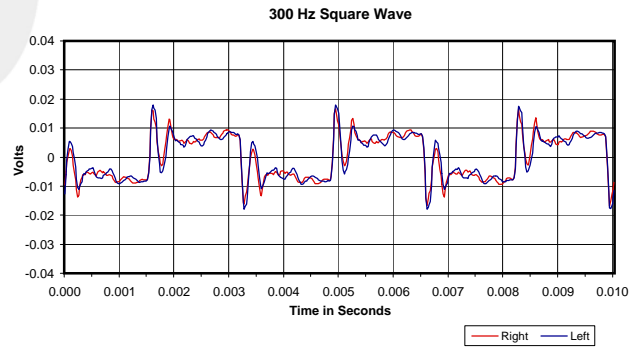
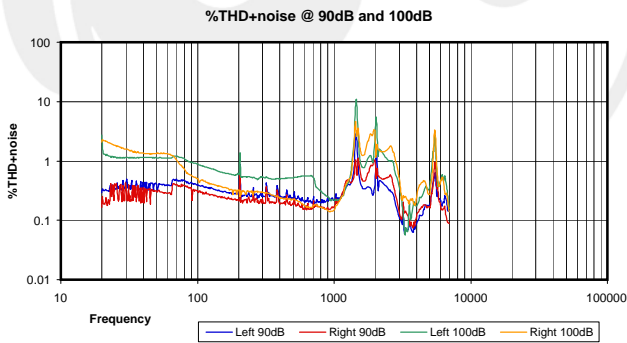
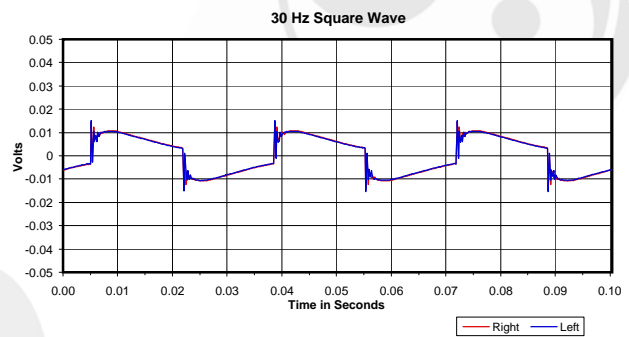
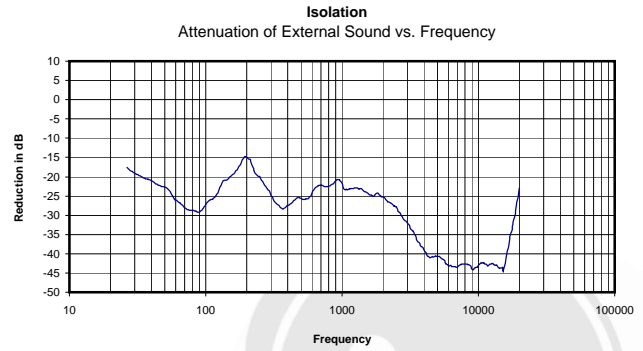
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.121 Vrms
488 Ohms
0.03 mW
-28 dBr





Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones

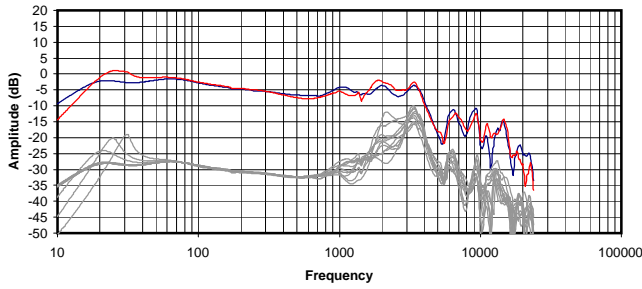


Broadband Isolation in dB (100Hz to 10kHz):

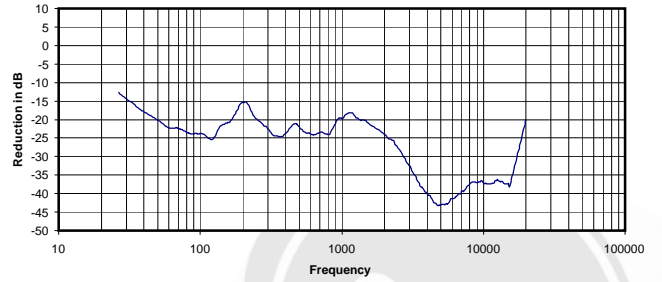
-28 dB

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

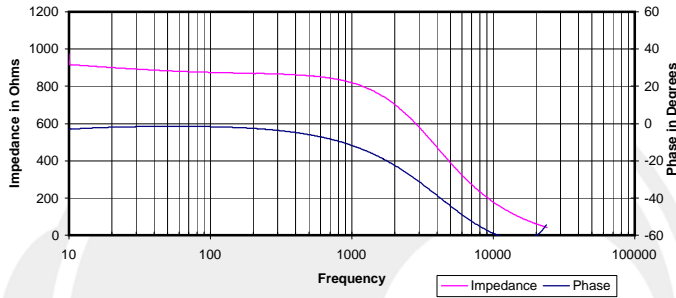
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



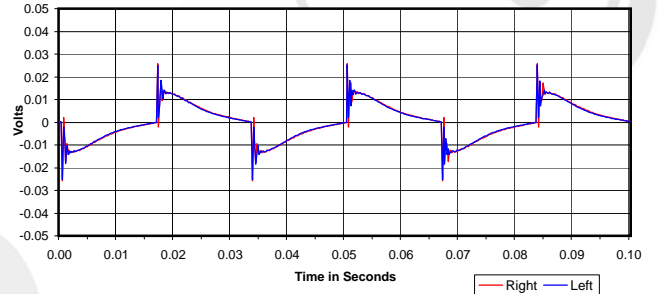
Isolation
 Attenuation of External Sound vs. Frequency



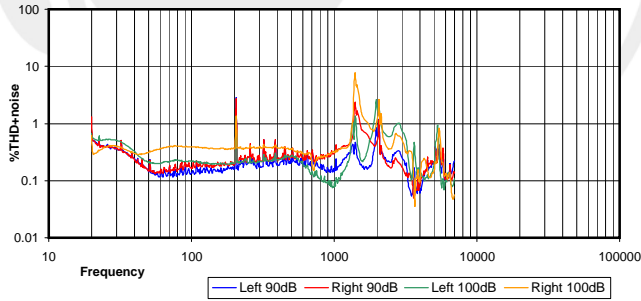
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



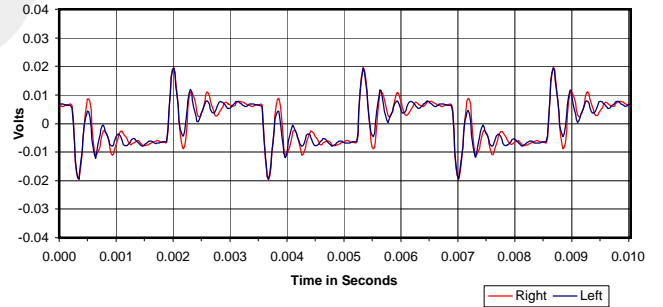
30 Hz Square Wave



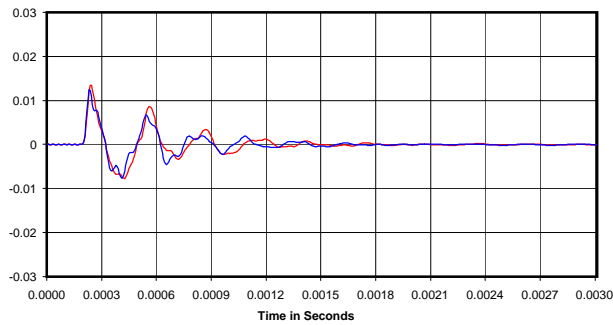
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

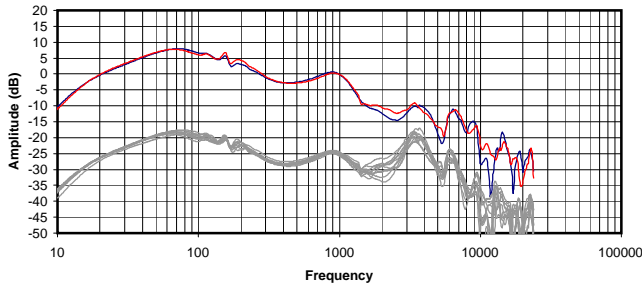


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

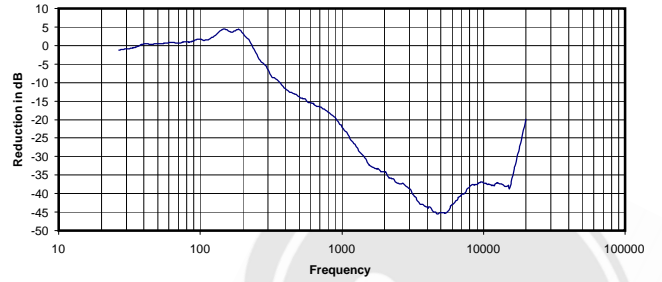
0.063 Vrms
 818 Ohms
 0.00 mW
 -27 dB



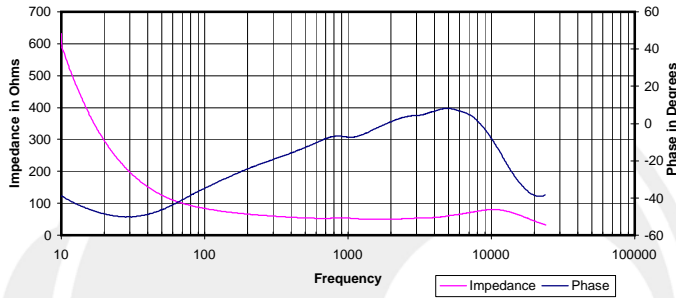
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



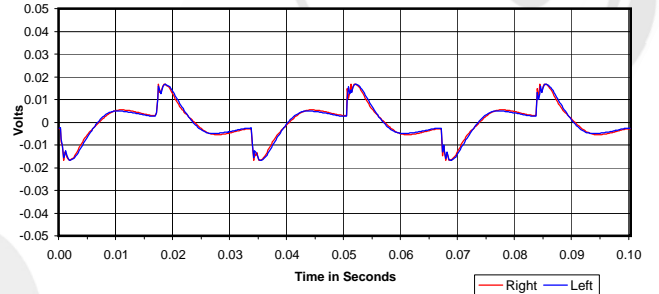
Isolation
 Attenuation of External Sound vs. Frequency



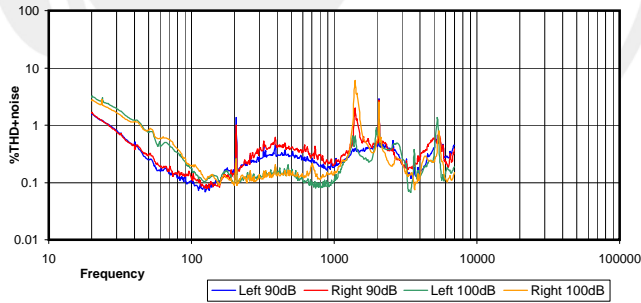
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



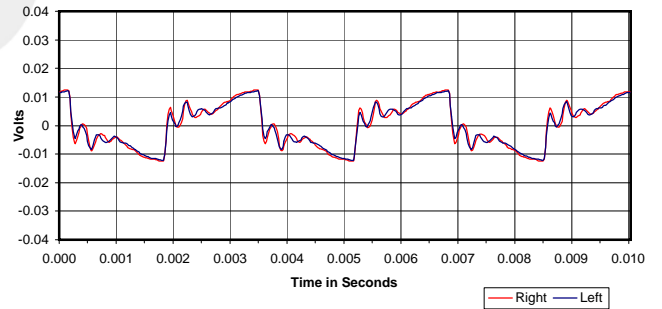
30 Hz Square Wave



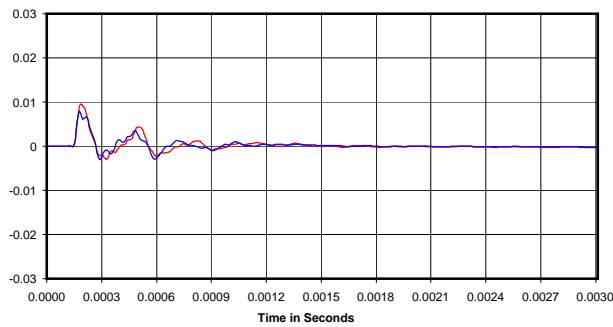
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

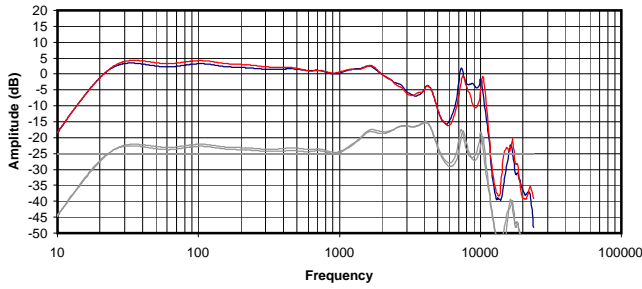


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

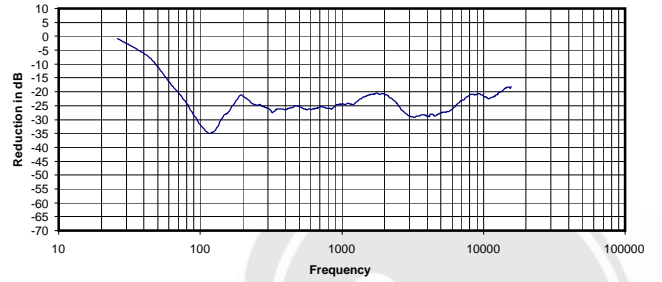
0.065 Vrms
 53 Ohms
 0.08 mW
 -22 dB



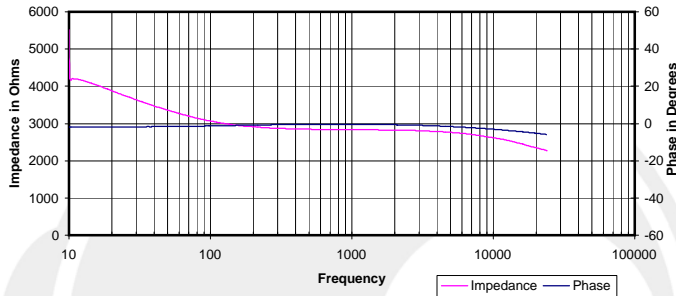
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



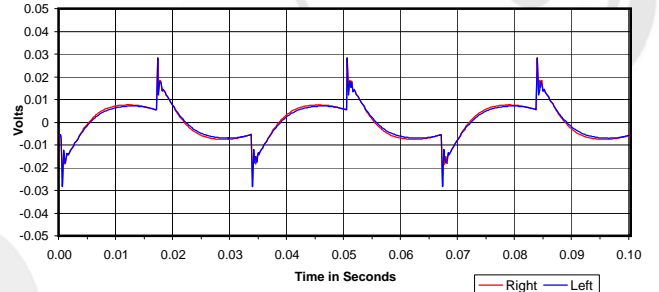
Isolation
Attenuation of External Sound vs. Frequency



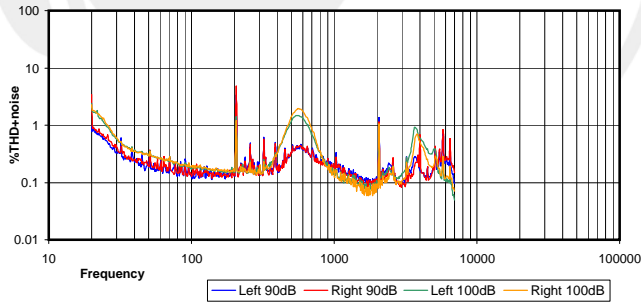
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



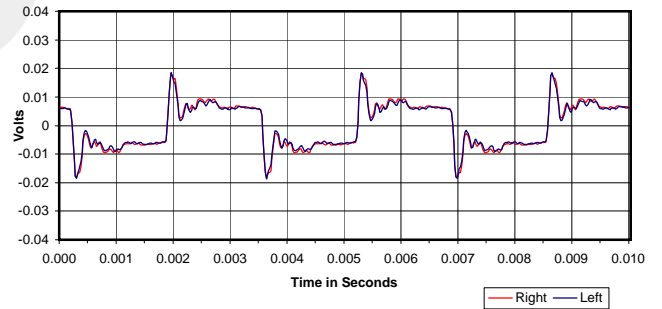
30 Hz Square Wave



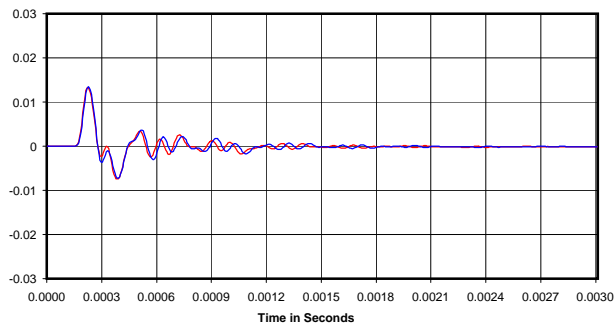
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



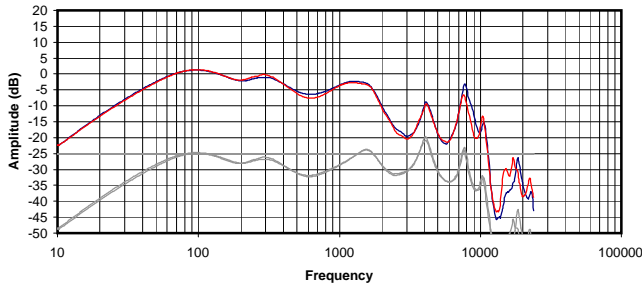
Impulse Response



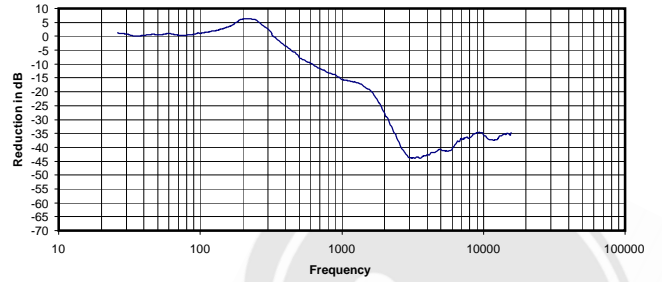
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.093 Vrms
2834 Ohms
0.00 mW
-26 dB

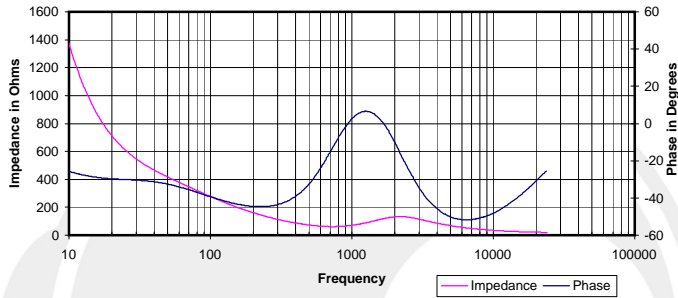
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



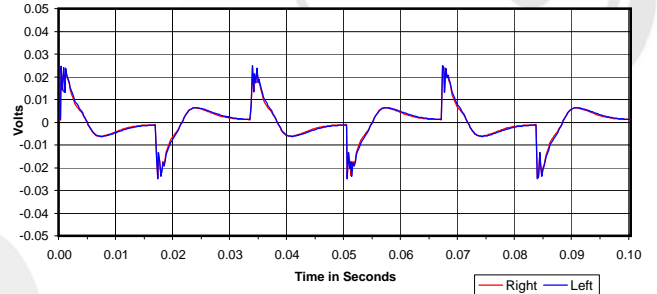
Isolation
Attenuation of External Sound vs. Frequency



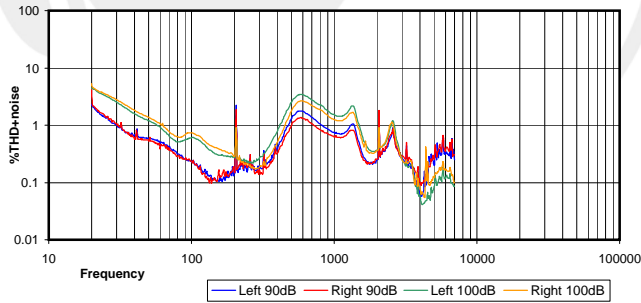
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



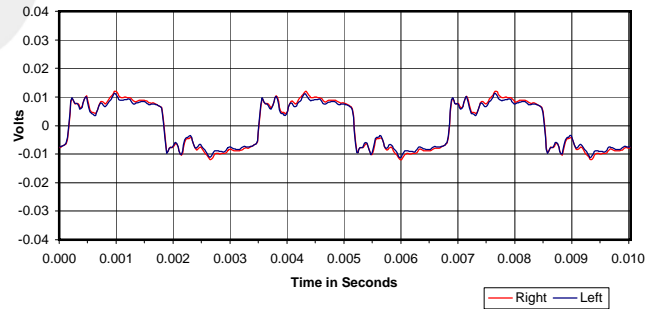
30 Hz Square Wave



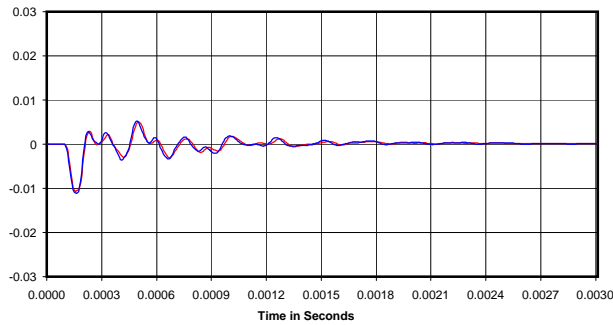
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

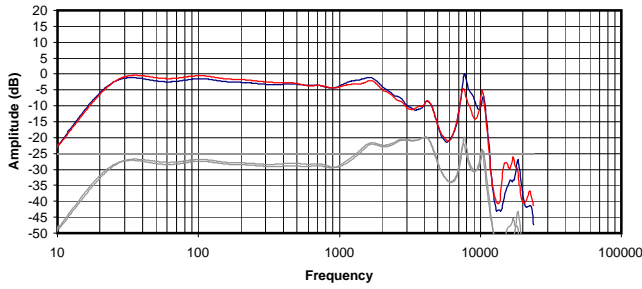


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

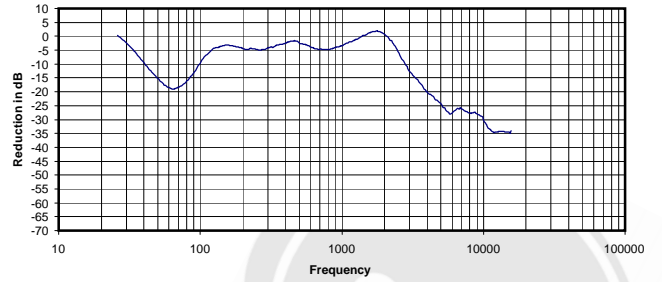
0.090 Vrms
71 Ohms
0.11 mW
-15 dB



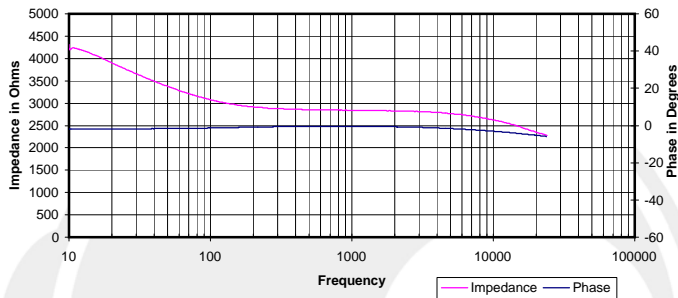
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Measured Data



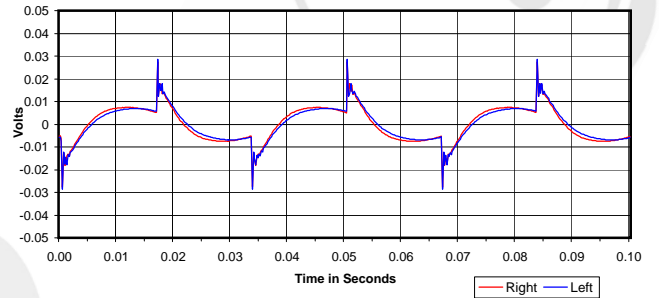
Isolation
Attenuation of External Sound vs. Frequency



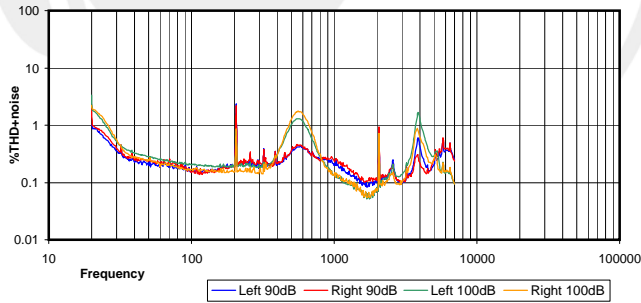
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



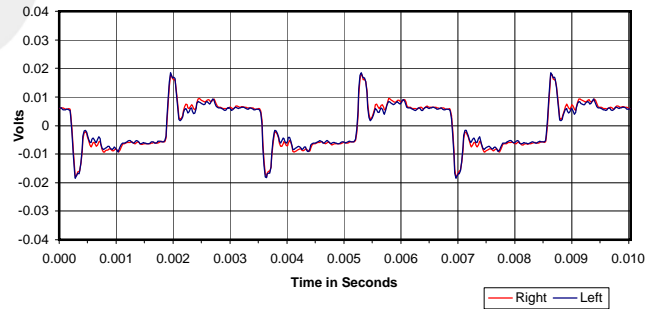
30 Hz Square Wave



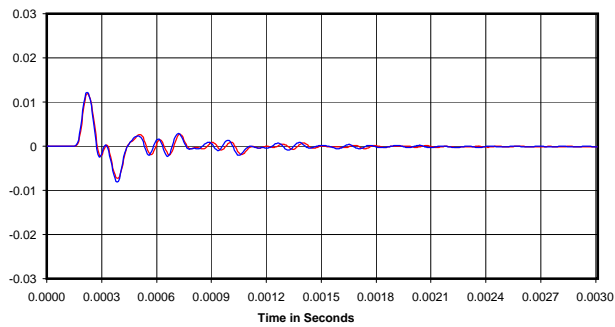
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

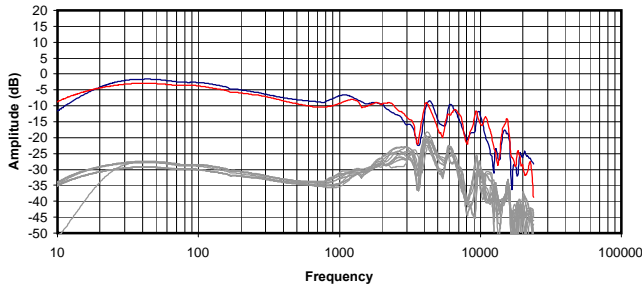


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

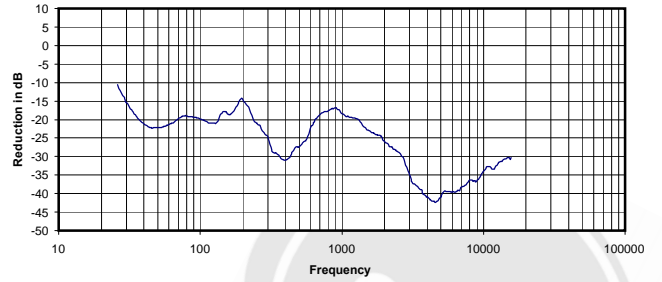
0.078 Vrms
2841 Ohms
0.00 mW
-7 dB



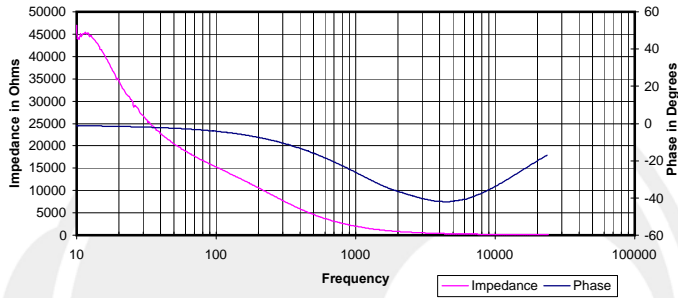
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



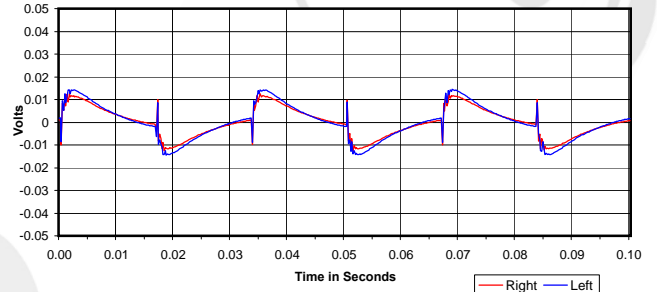
Isolation
 Attenuation of External Sound vs. Frequency



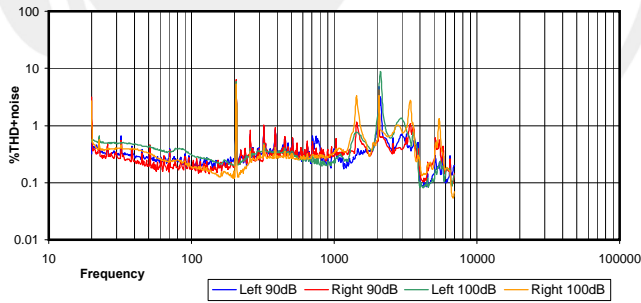
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



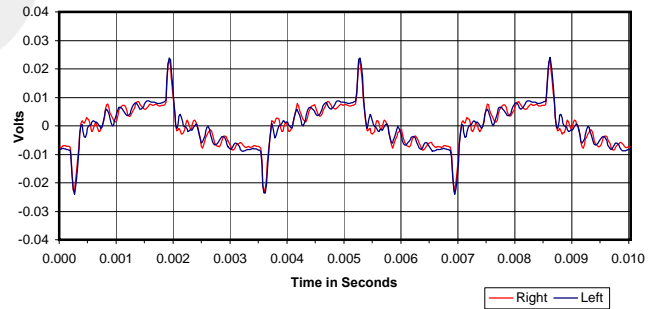
30 Hz Square Wave



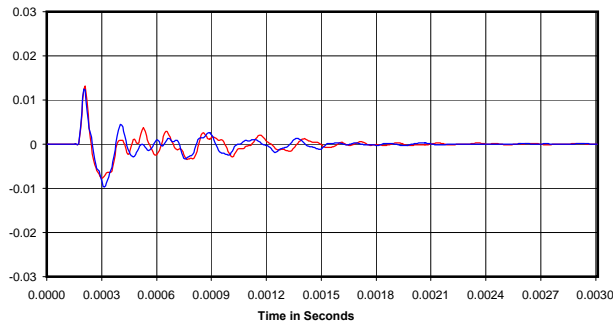
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

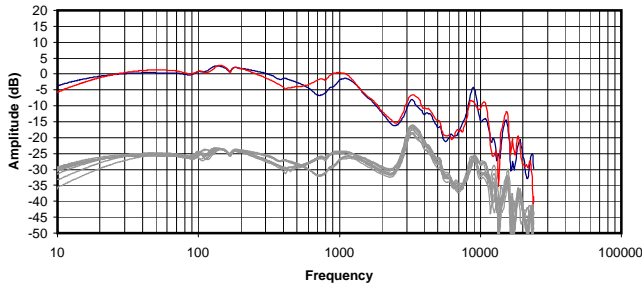


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

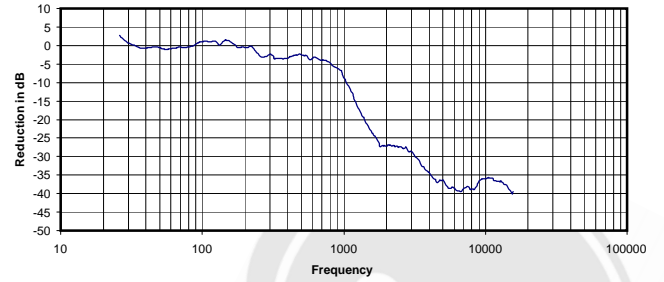
0.074 Vrms
 2001 Ohms
 0.00 mW
 -26 dB



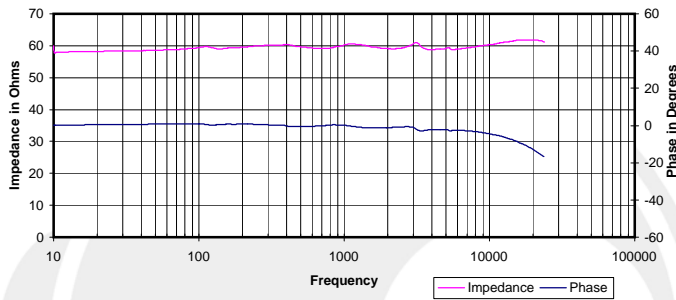
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



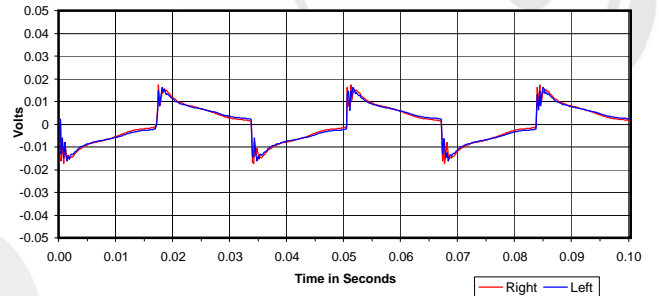
Isolation
 Attenuation of External Sound vs. Frequency



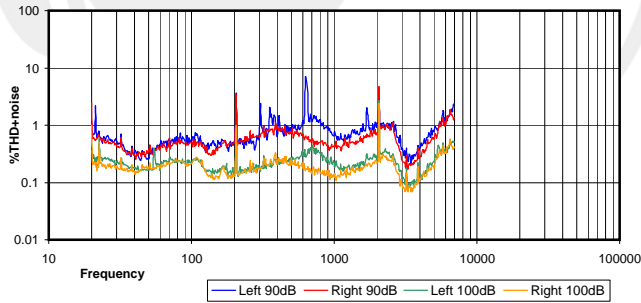
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



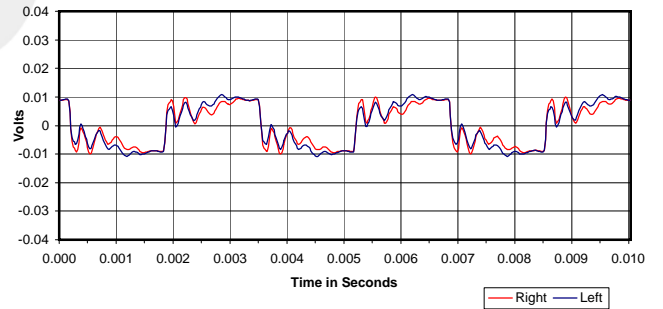
30 Hz Square Wave



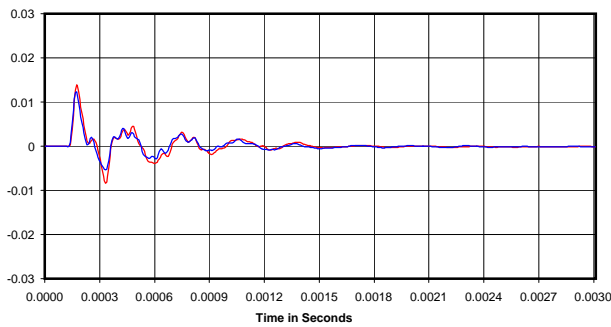
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

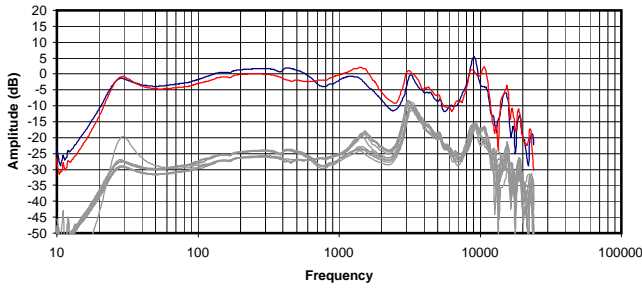


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

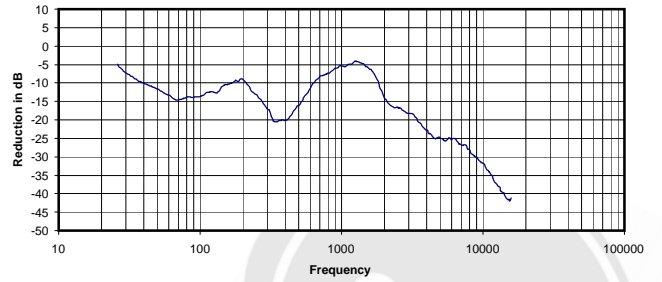
0.057 Vrms
 60 Ohms
 0.05 mW
 -13 dB



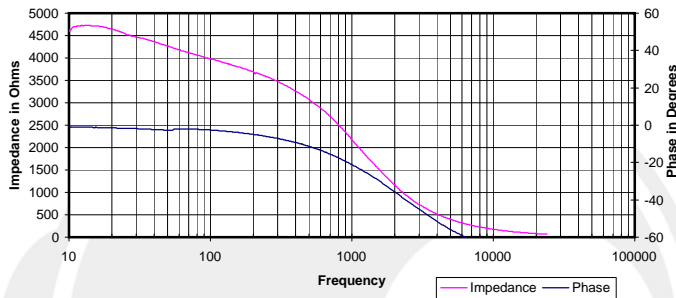
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



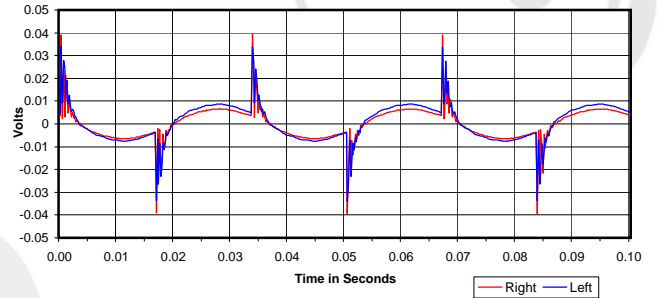
Isolation
Attenuation of External Sound vs. Frequency



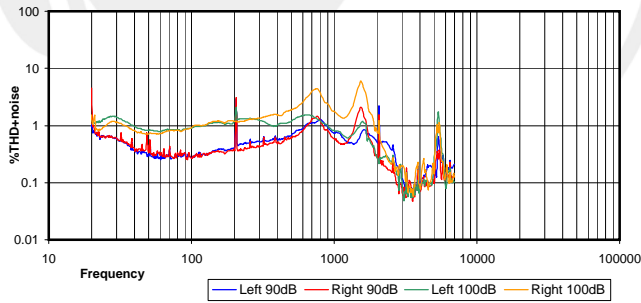
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



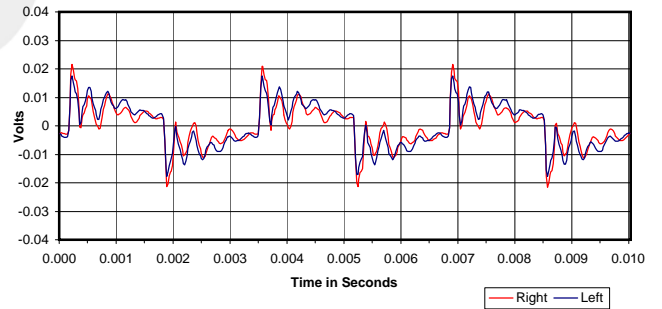
30 Hz Square Wave



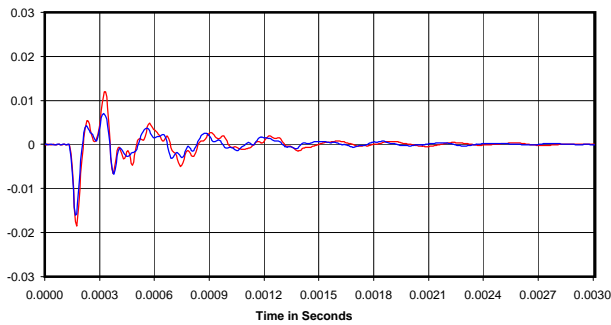
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

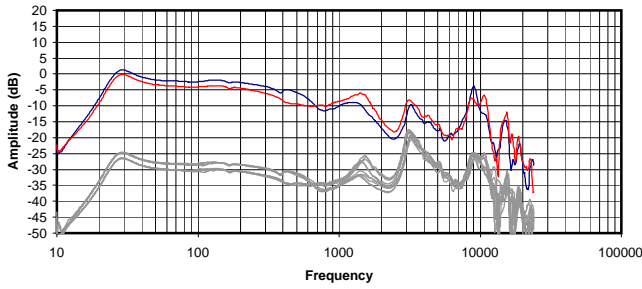


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

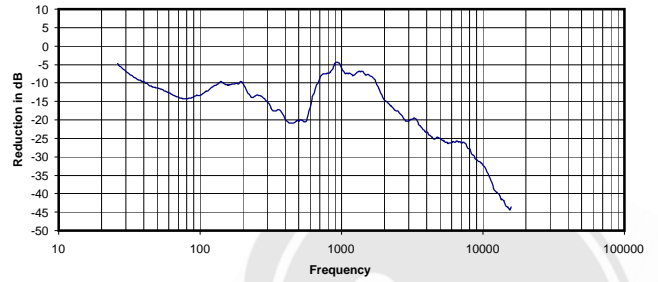
0.049 Vrms
2175 Ohms
0.00 mW
-14 dB



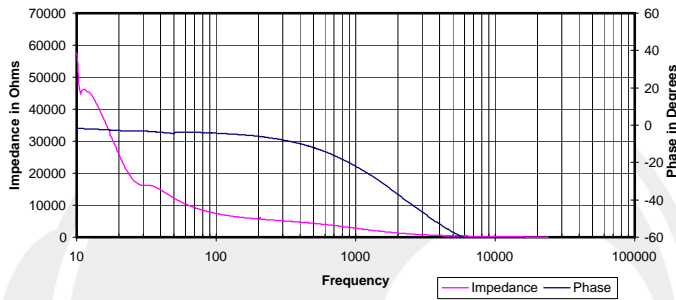
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



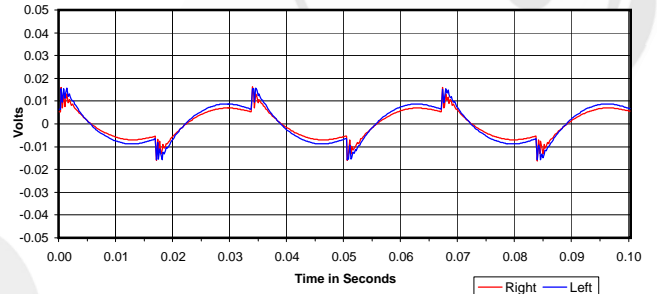
Isolation
Attenuation of External Sound vs. Frequency



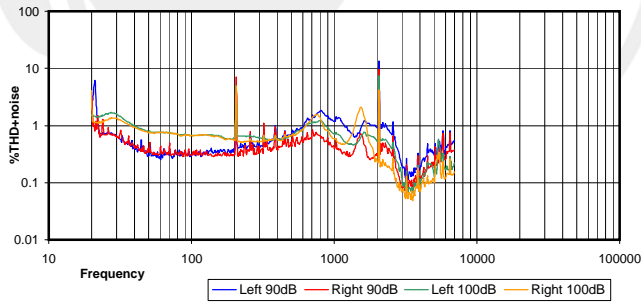
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



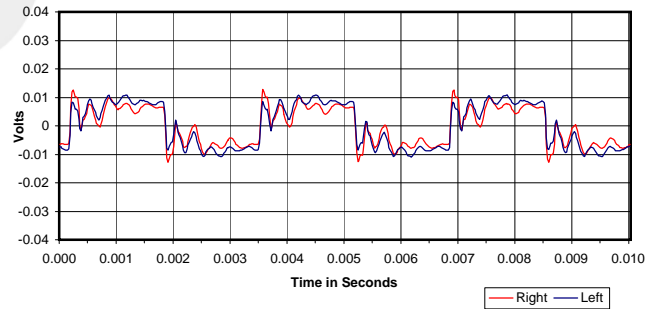
30 Hz Square Wave



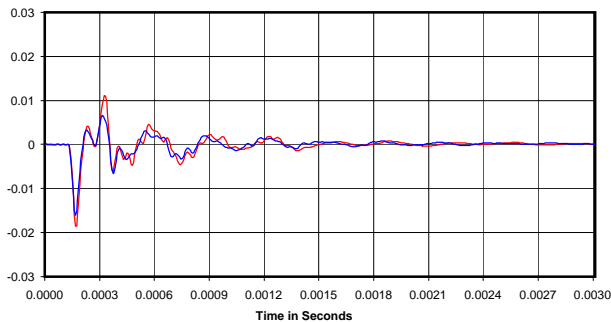
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



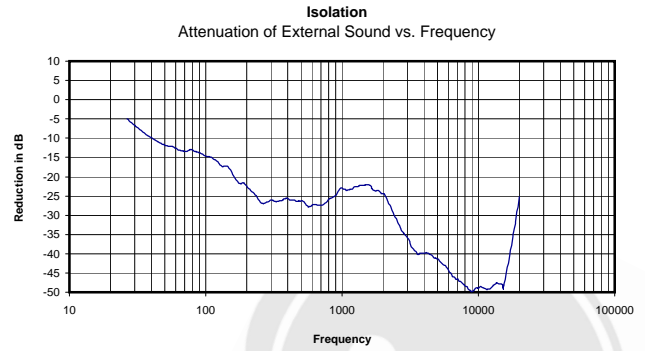
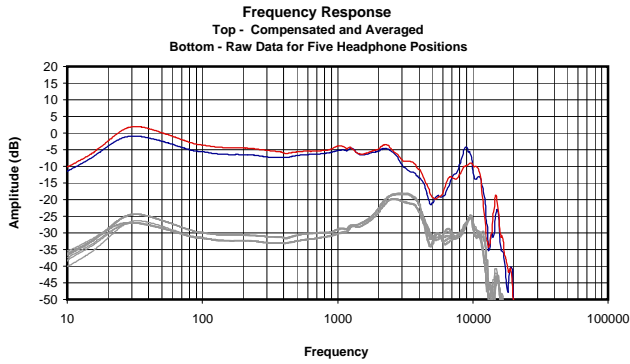
Impulse Response



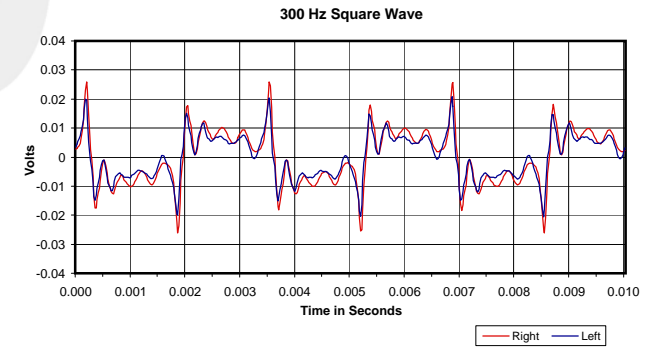
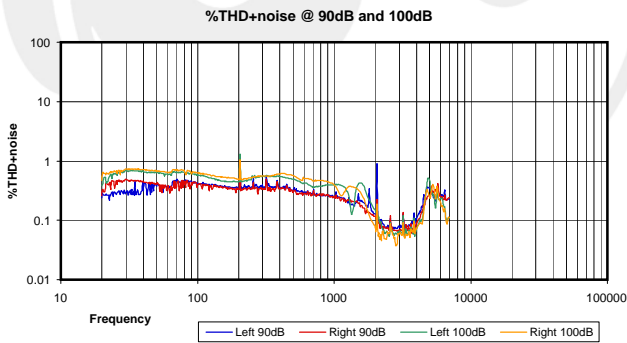
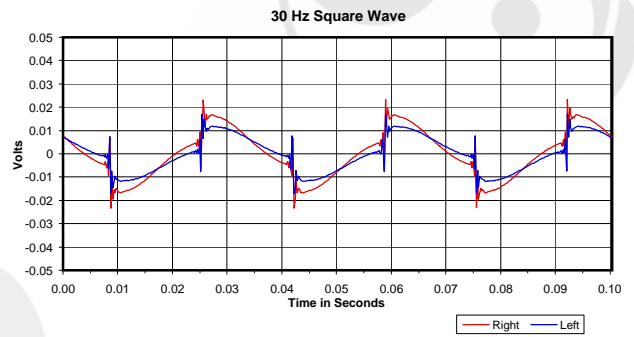
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.045 Vrms
2772 Ohms
0.00 mW
-15 dB



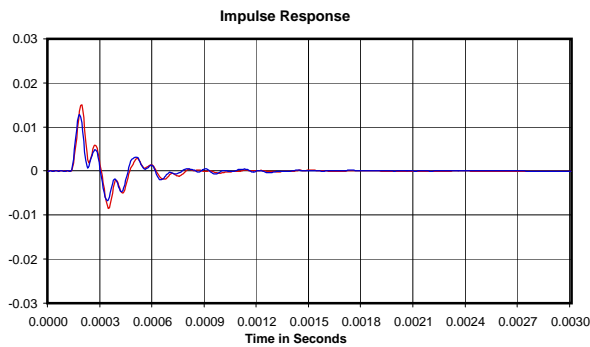
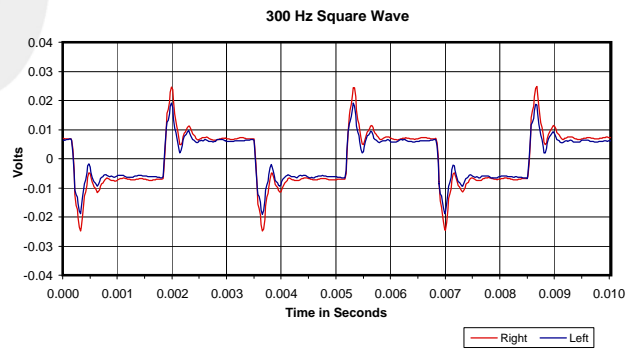
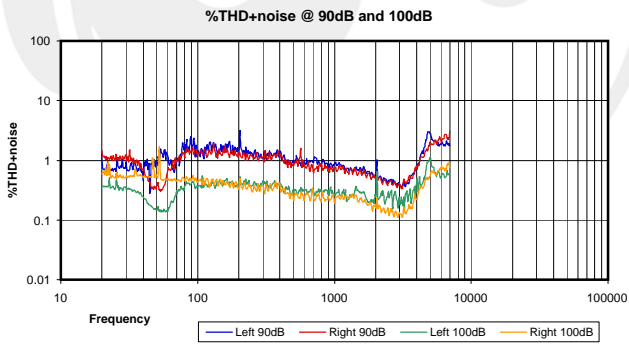
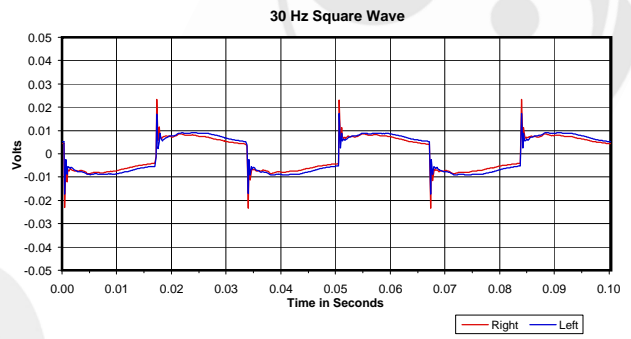
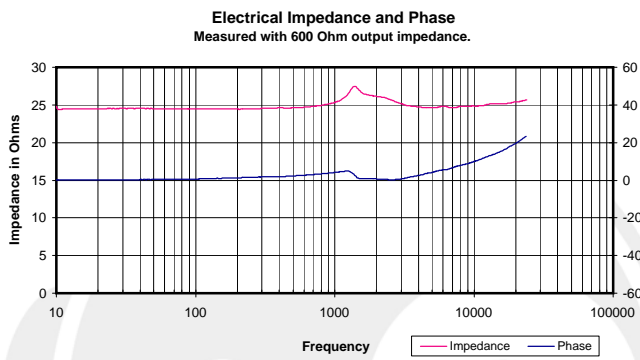
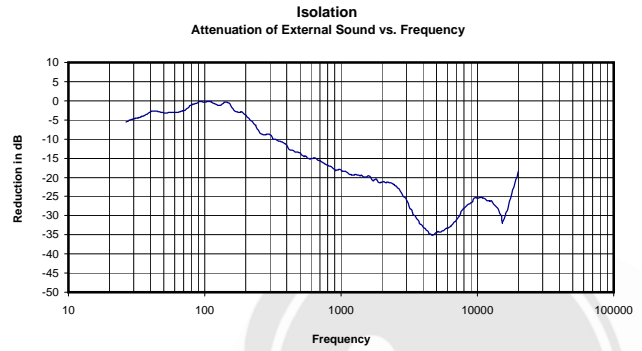
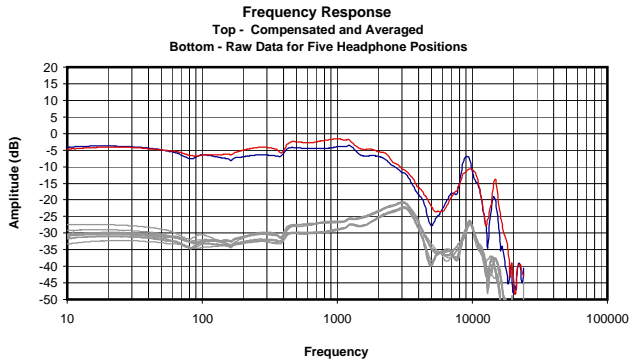


Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



Broadband Isolation in dB (100Hz to 10kHz): -29 dBr

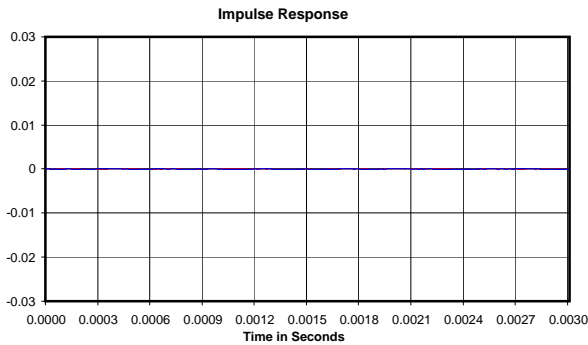
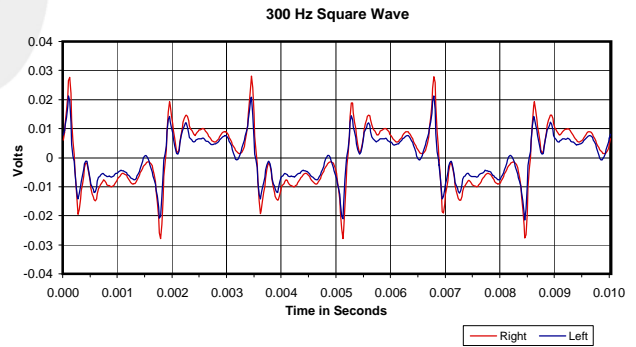
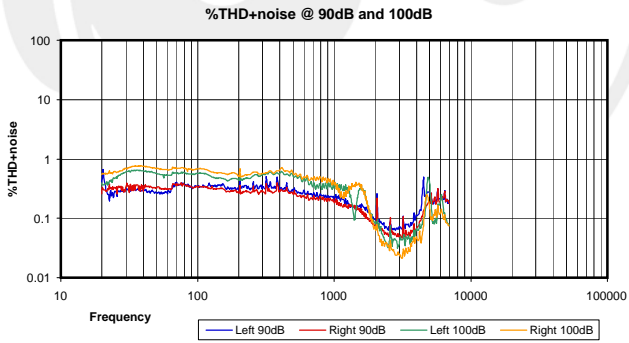
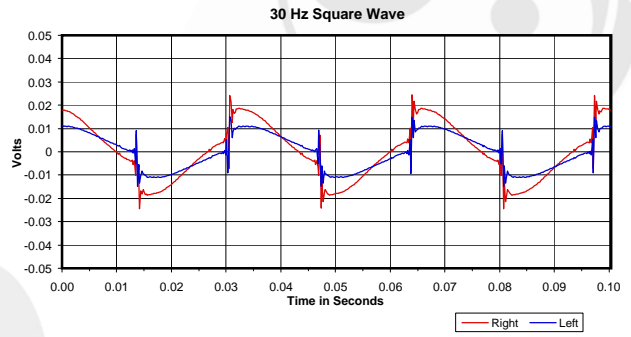
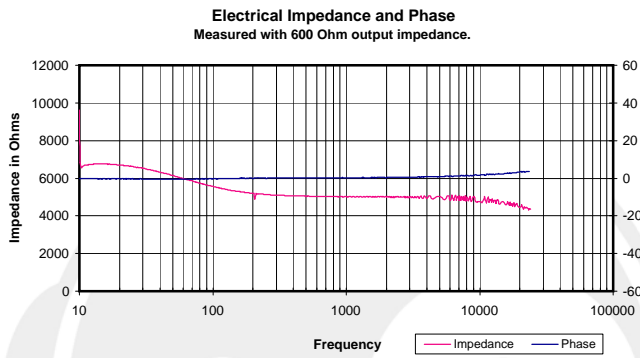
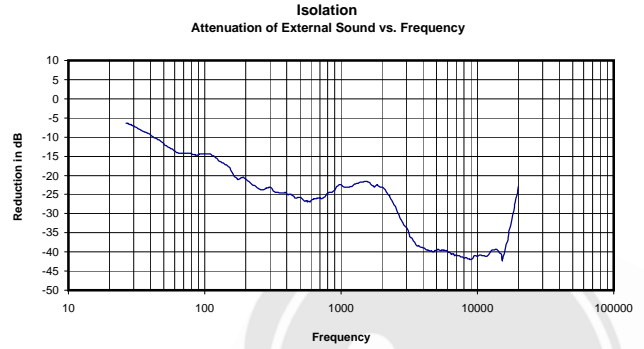
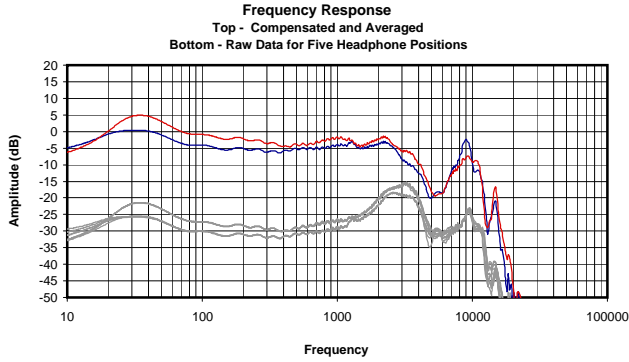
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.010 Vrms
25 Ohms
0.00 mW
-18 dBr

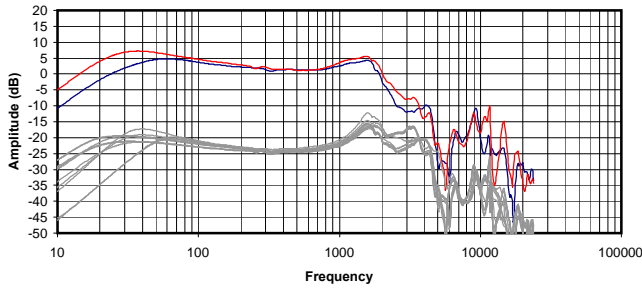




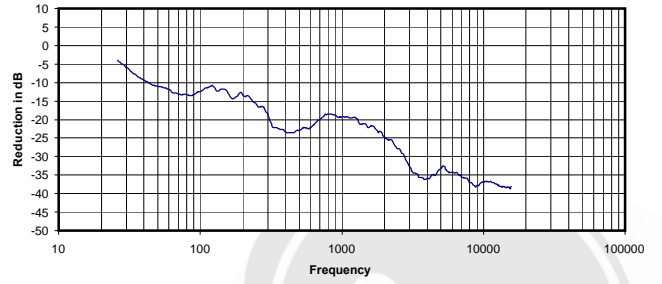
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.078 Vrms
5017 Ohms
0.00 mW
-28 dBr

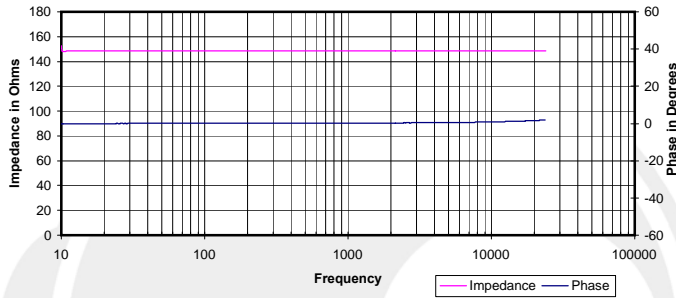
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



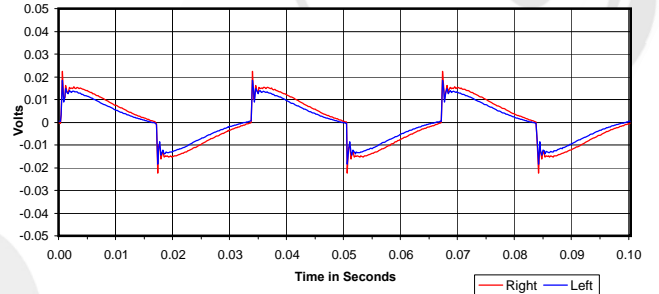
Isolation
 Attenuation of External Sound vs. Frequency



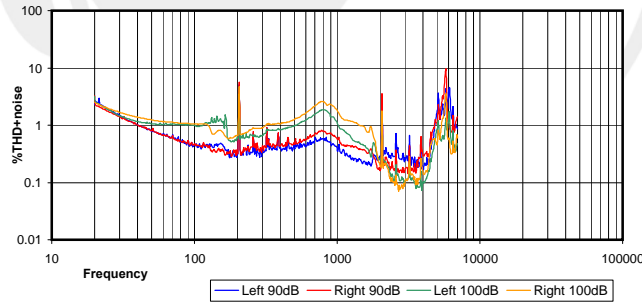
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



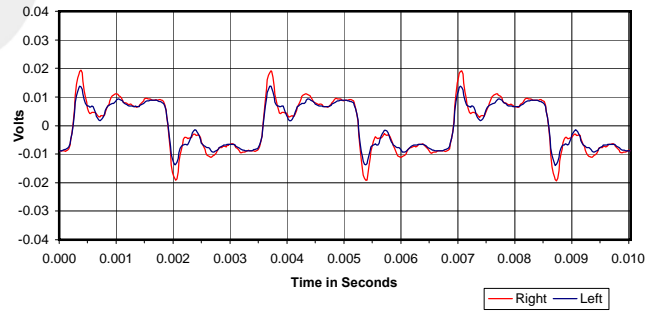
30 Hz Square Wave



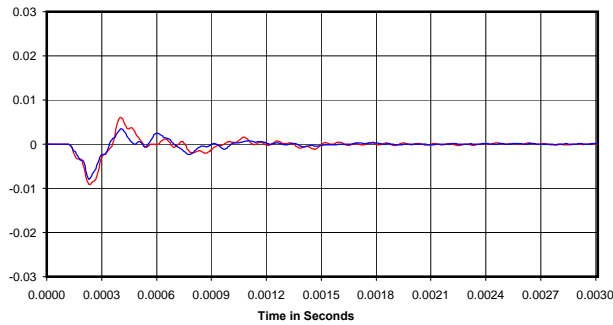
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

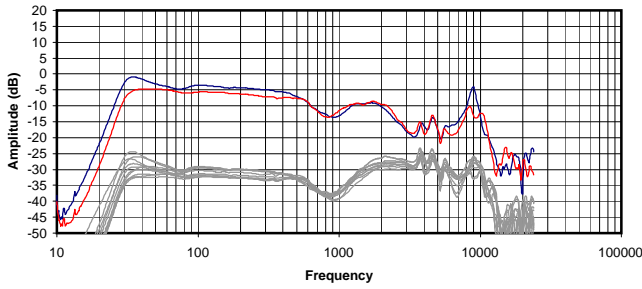


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

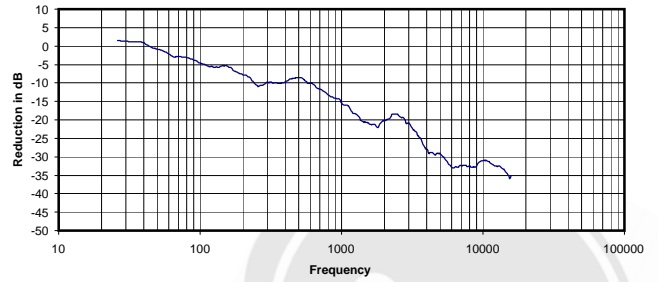
0.018 Vrms
 149 Ohms
 0.00 mW
 -22 dB



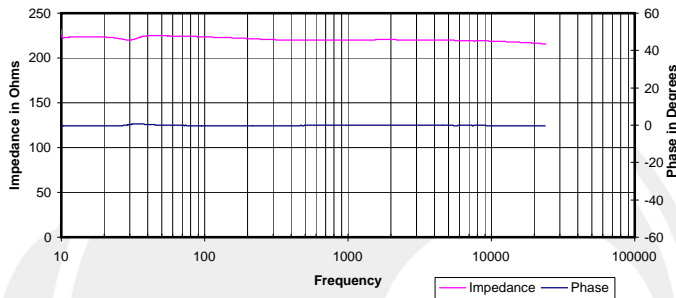
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



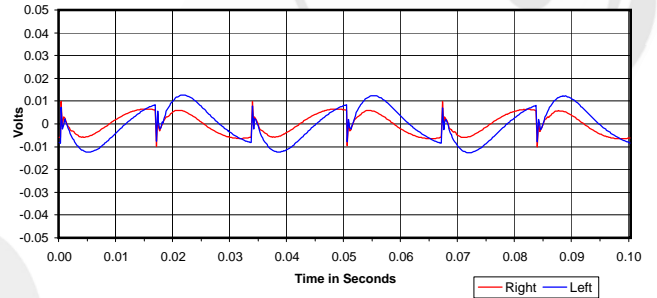
Isolation
 Attenuation of External Sound vs. Frequency



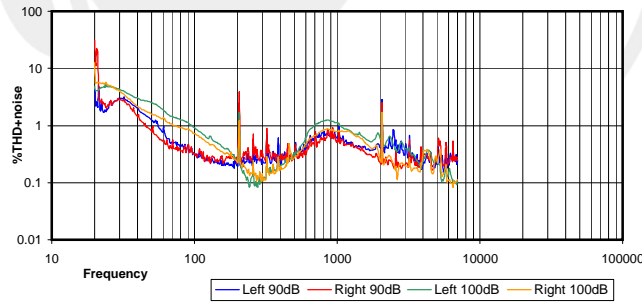
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



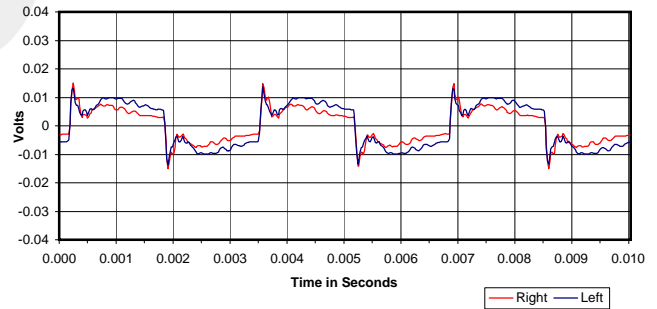
30 Hz Square Wave



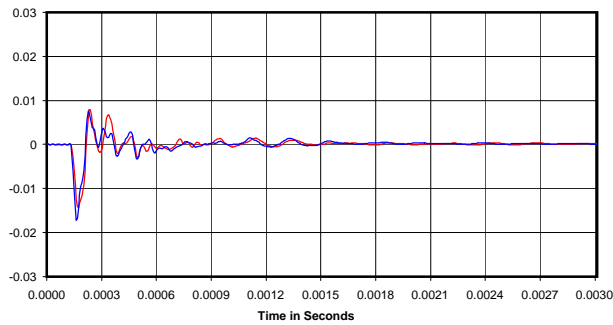
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

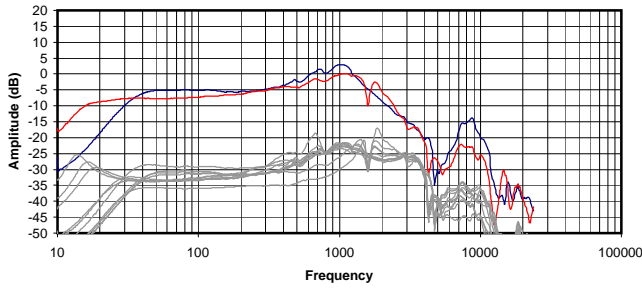


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

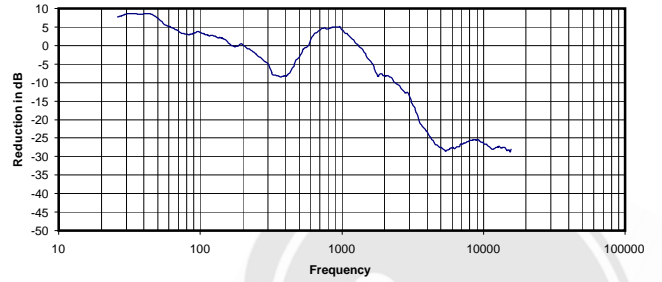
0.047 Vrms
 220 Ohms
 0.01 mW
 -15 dB



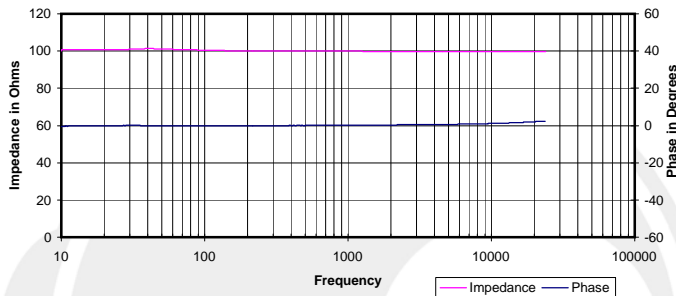
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



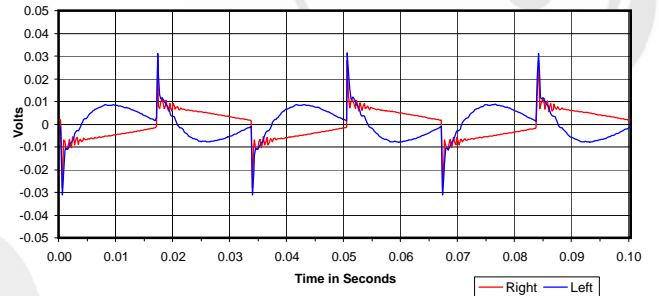
Isolation
 Attenuation of External Sound vs. Frequency



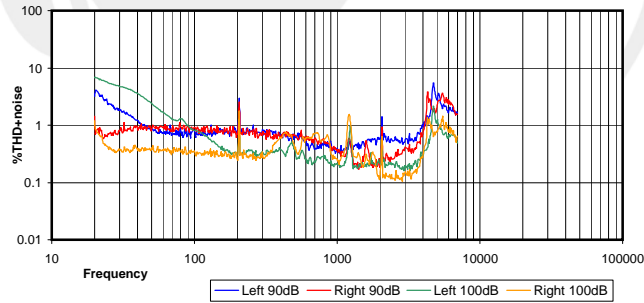
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



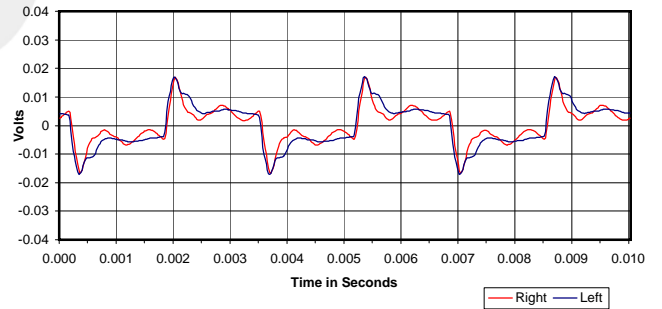
30 Hz Square Wave



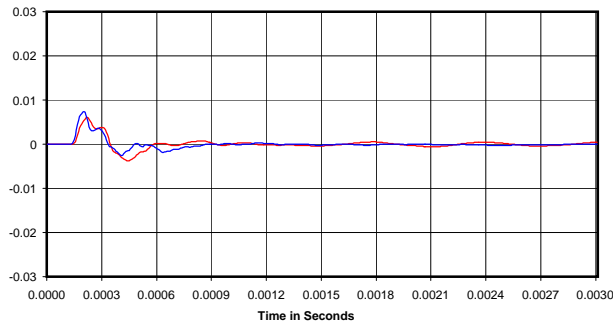
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

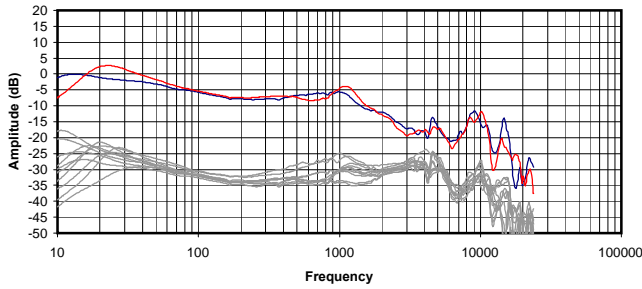


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

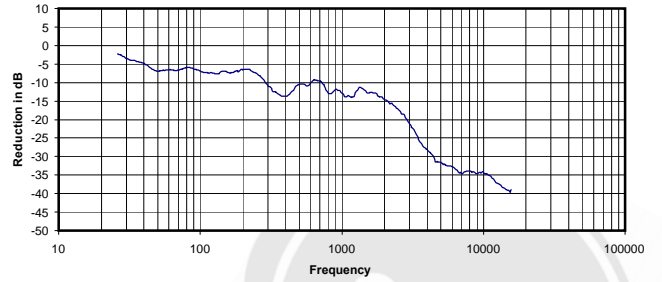
0.011 Vrms
 100 Ohms
 0.00 mW
 -6 dBr



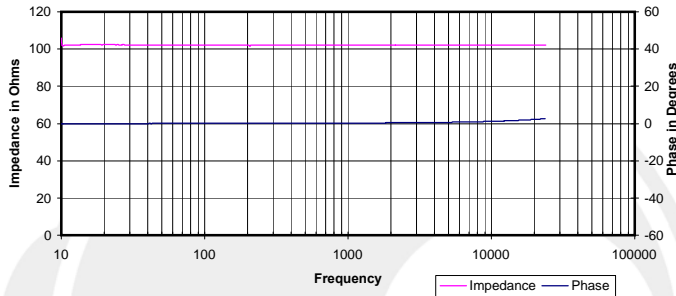
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



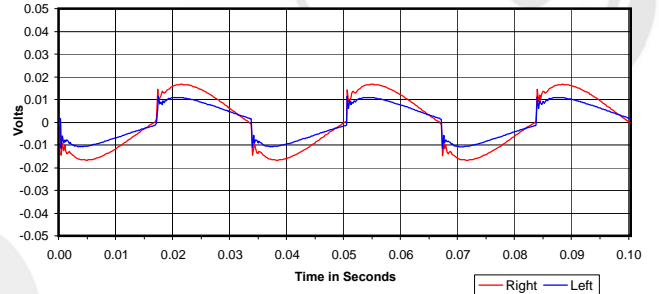
Isolation
 Attenuation of External Sound vs. Frequency



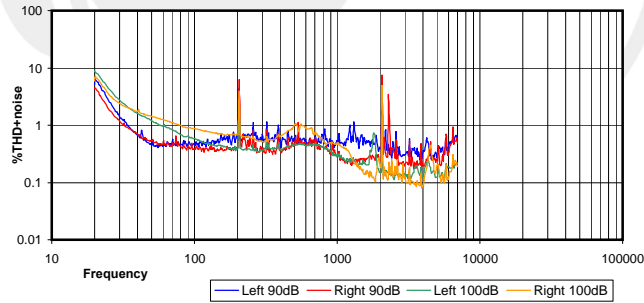
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



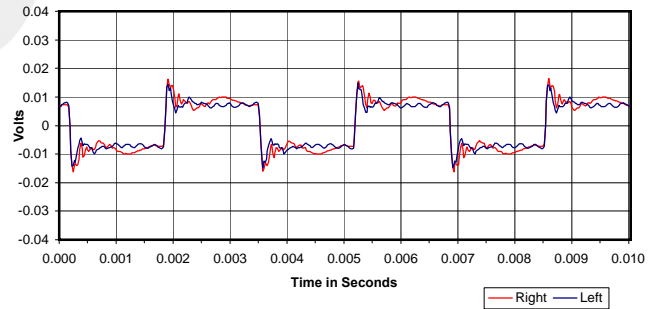
30 Hz Square Wave



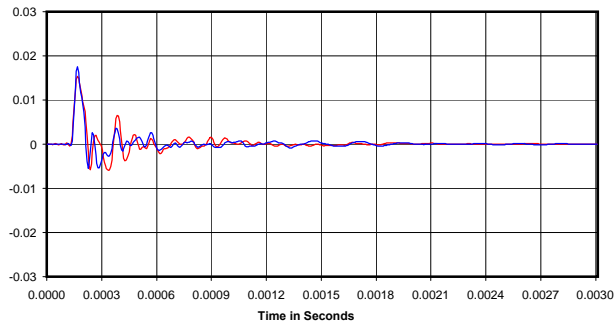
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



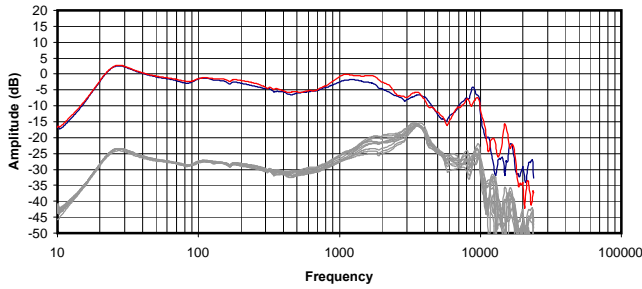
Impulse Response



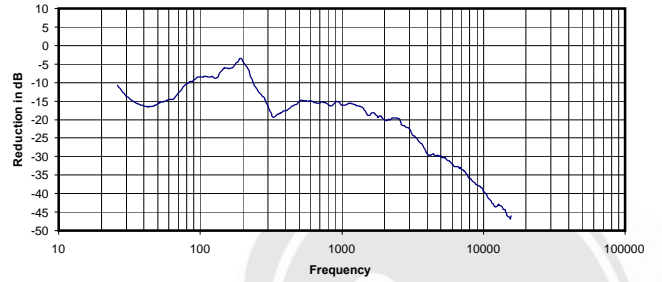
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.041 Vrms
 102 Ohms
 0.02 mW
 -14 dB

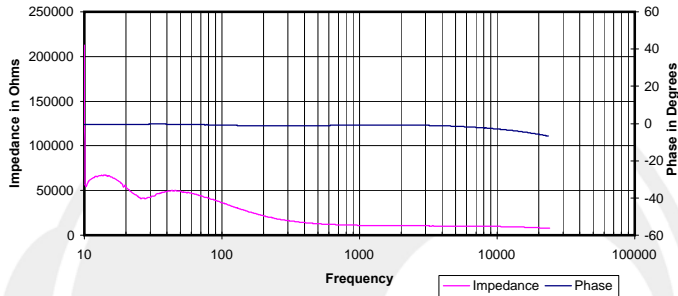
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



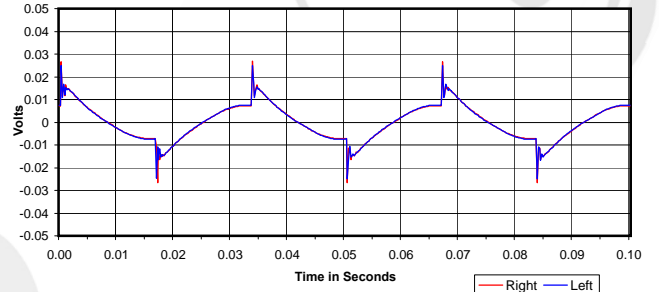
Isolation
 Attenuation of External Sound vs. Frequency



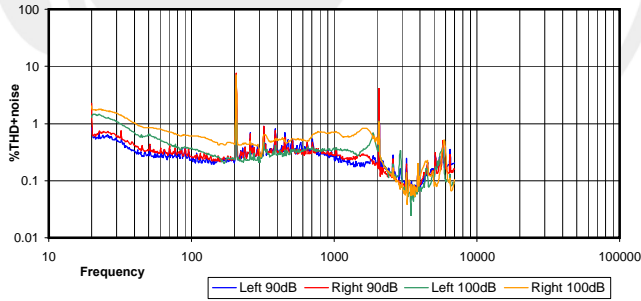
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



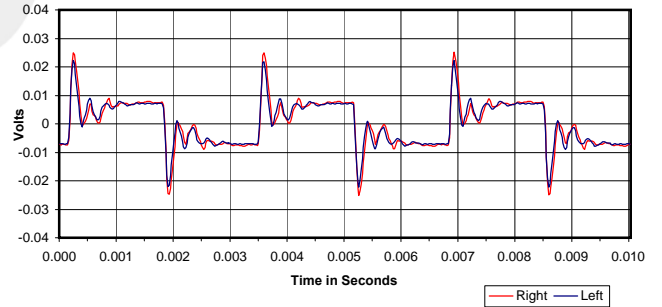
30 Hz Square Wave



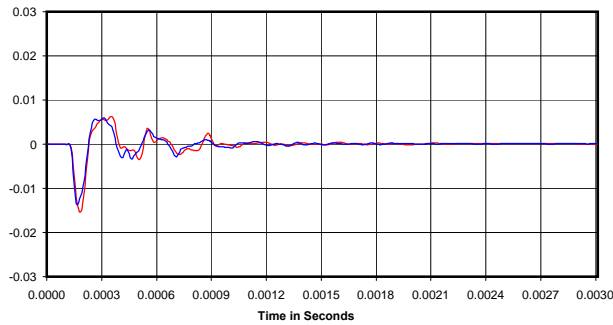
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

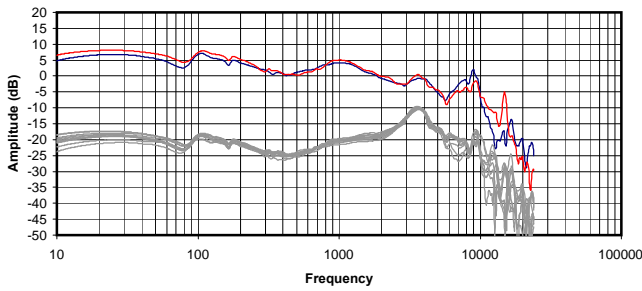


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

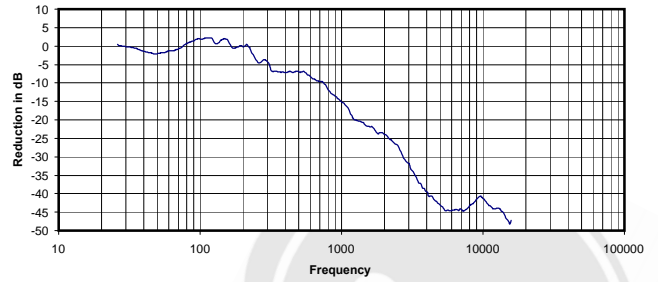
0.021 Vrms
 11061 Ohms
 0.00 mW
 -17 dB



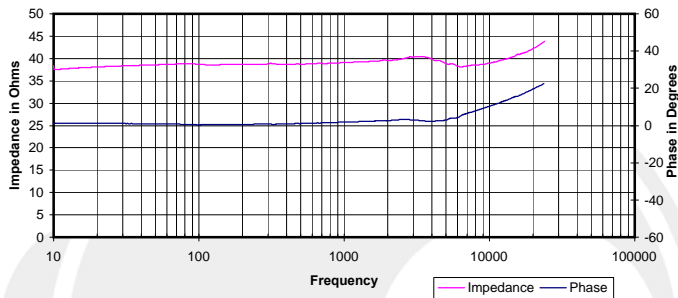
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



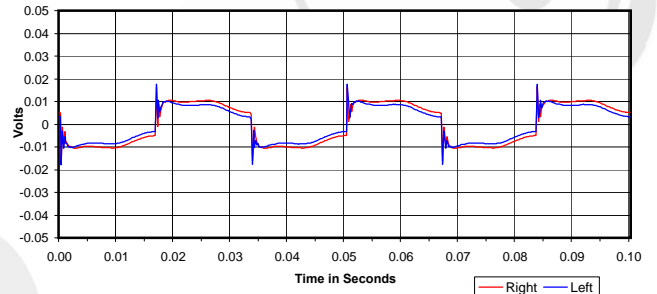
Isolation
 Attenuation of External Sound vs. Frequency



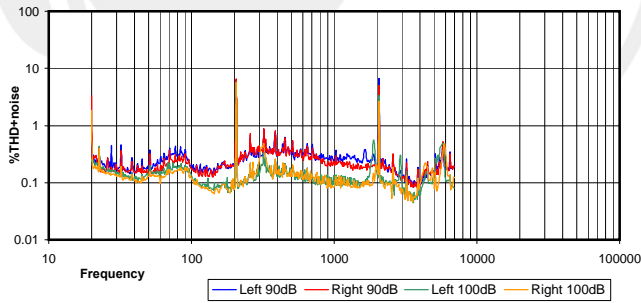
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



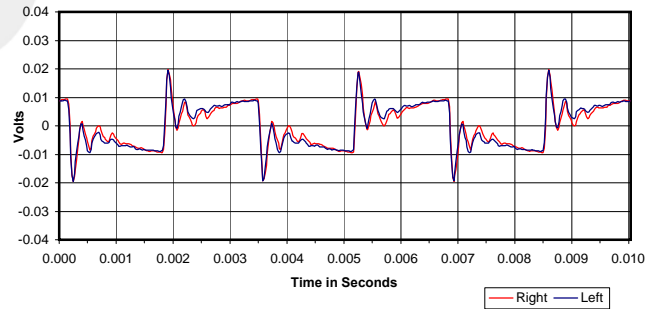
30 Hz Square Wave



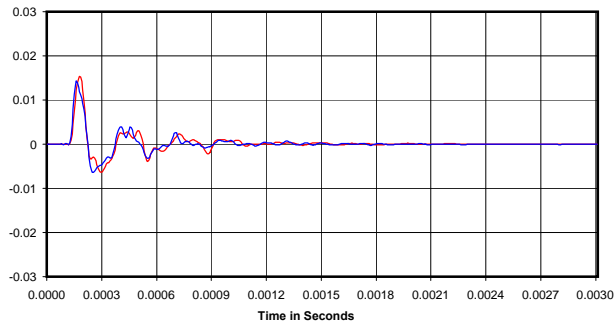
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



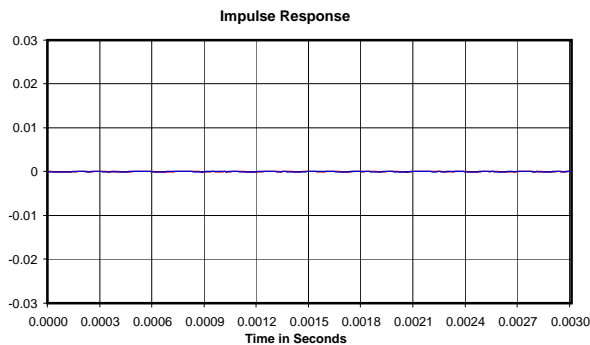
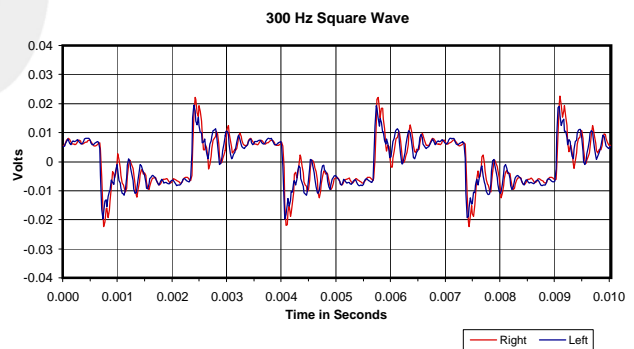
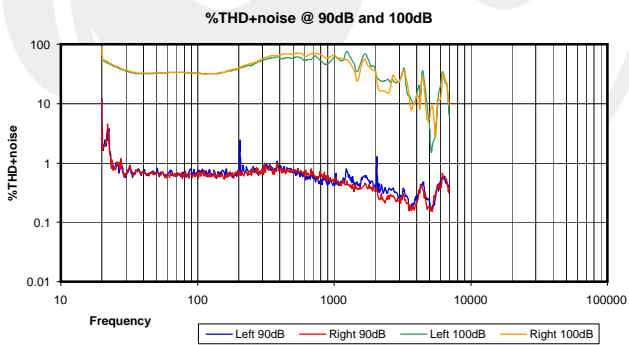
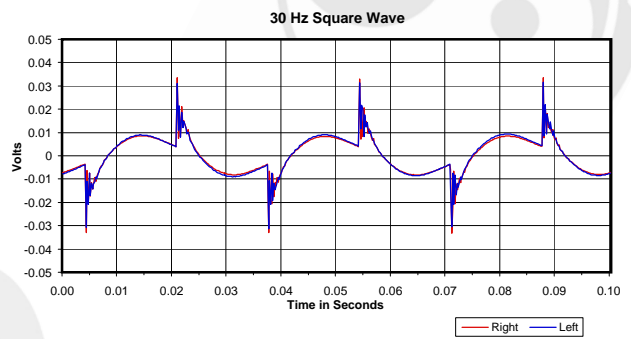
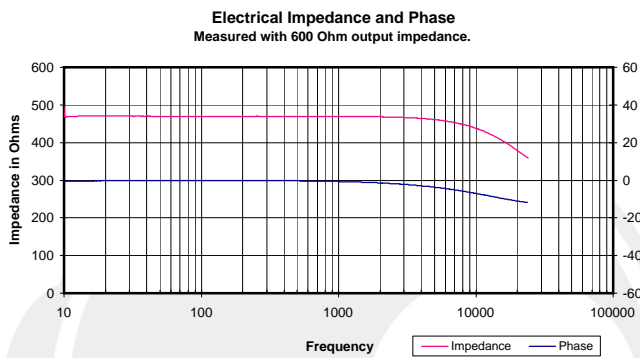
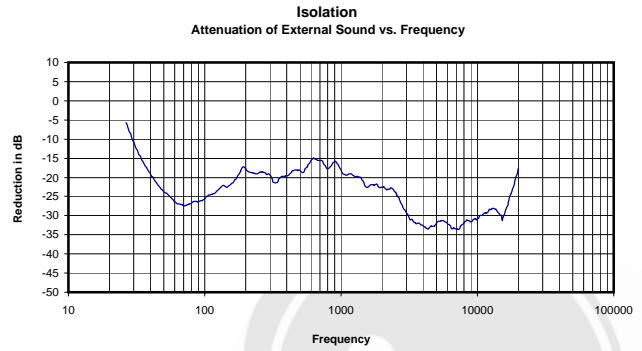
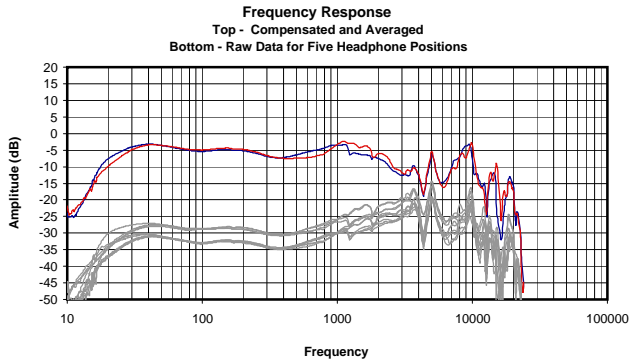
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.040 Vrms
 39 Ohms
 0.04 mW
 -16 dB



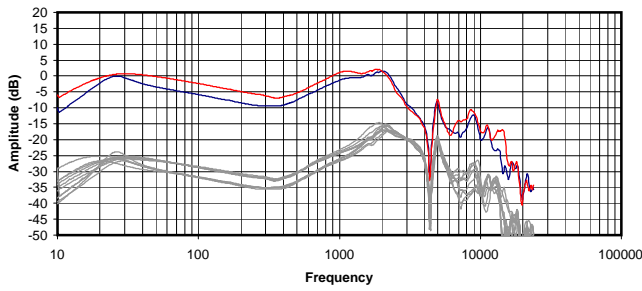


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

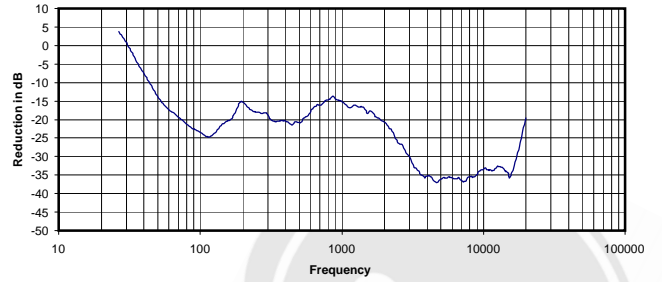
0.468 Vrms
469 Ohms
0.47 mW
-23 dBr



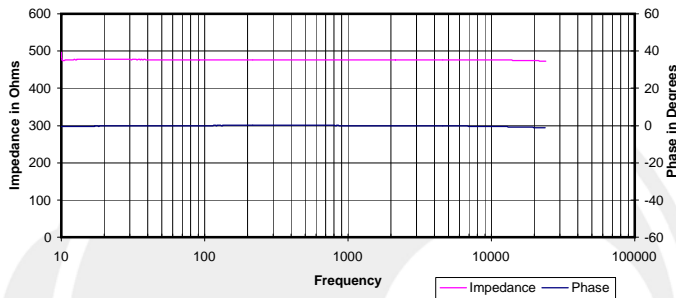
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



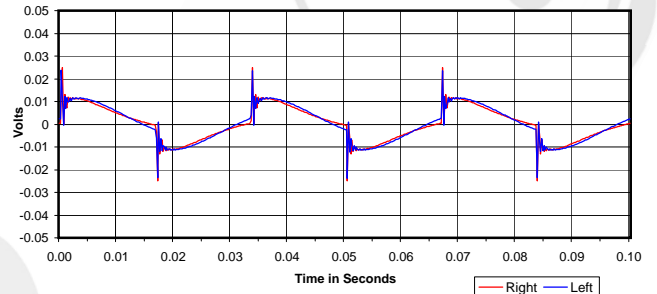
Isolation
 Attenuation of External Sound vs. Frequency



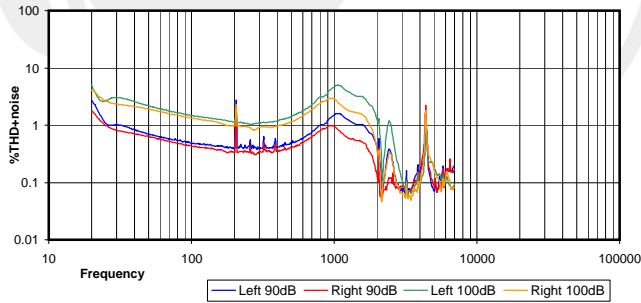
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



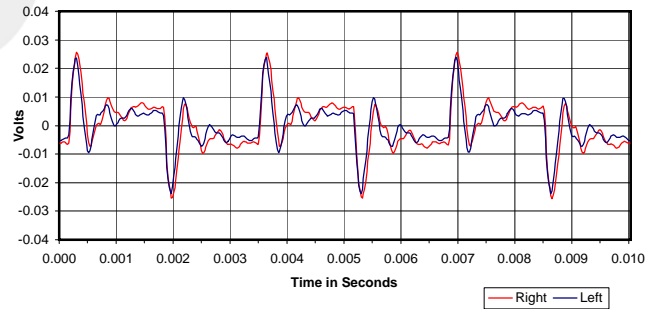
30 Hz Square Wave



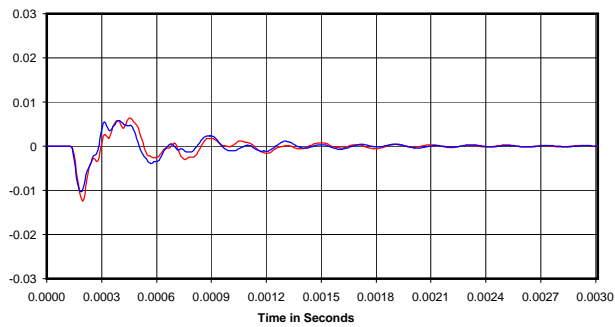
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



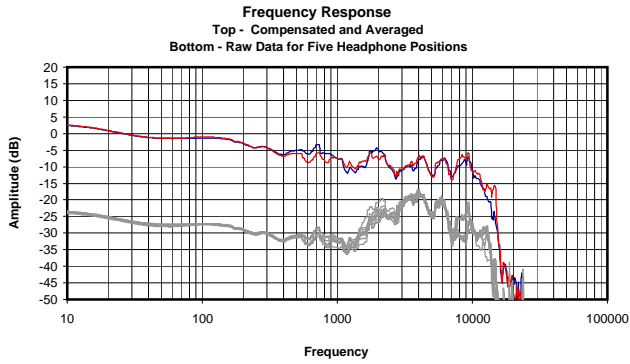
Impulse Response



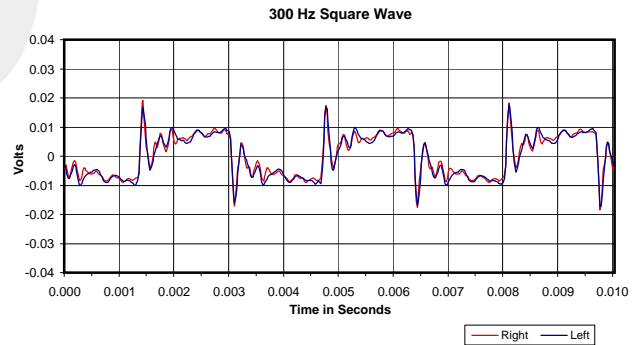
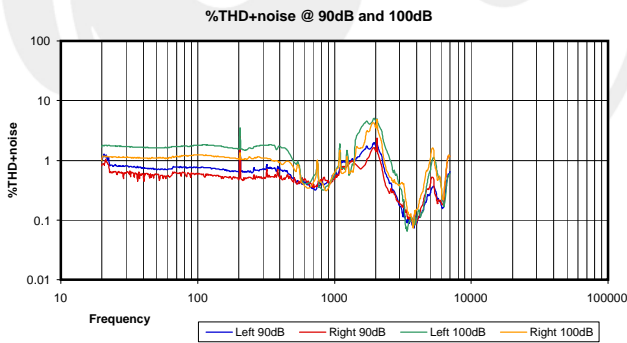
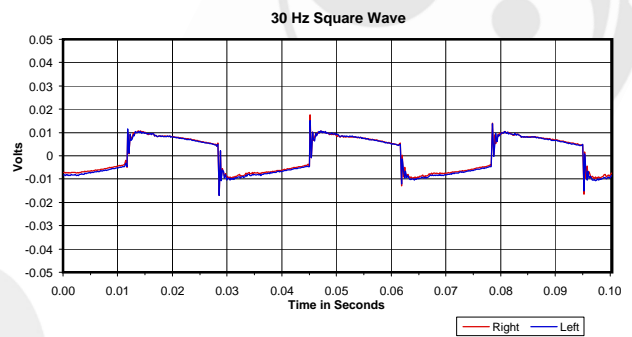
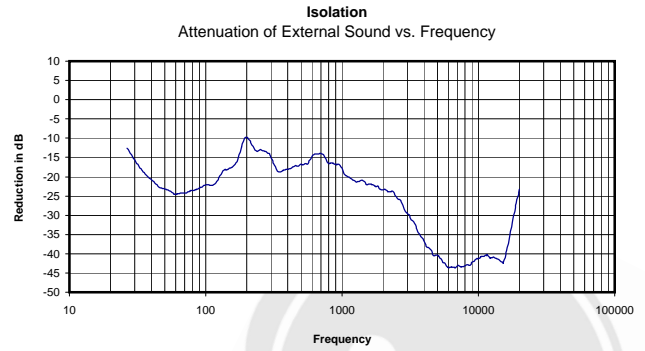
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.036 Vrms
 477 Ohms
 0.00 mW
 -24 dB





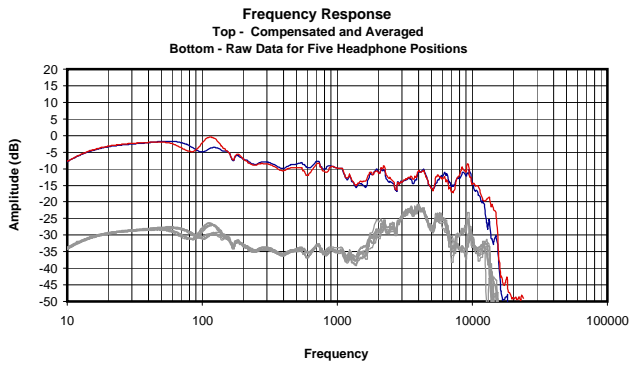
Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



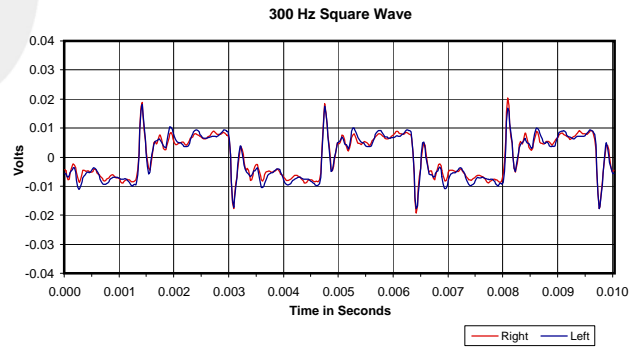
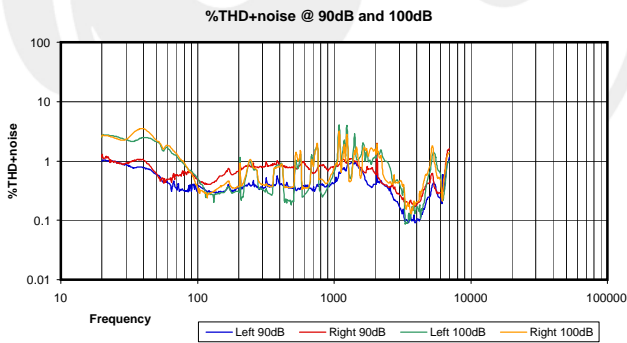
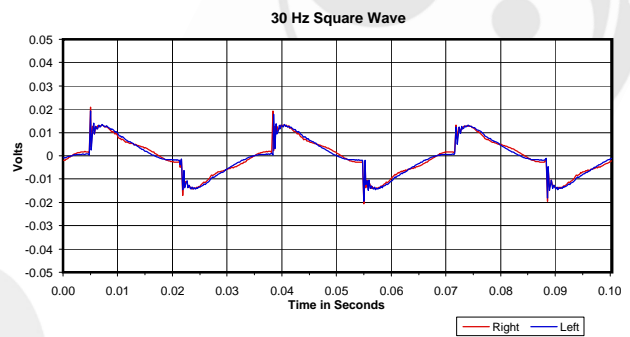
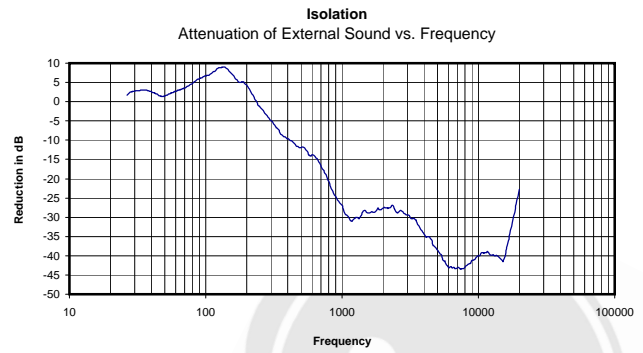
Broadband Isolation in dB (100Hz to 10kHz):

-24 dBr

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



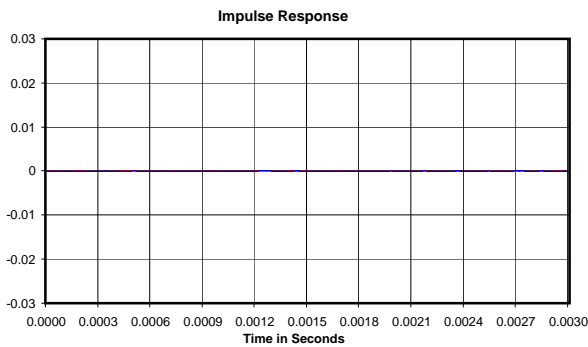
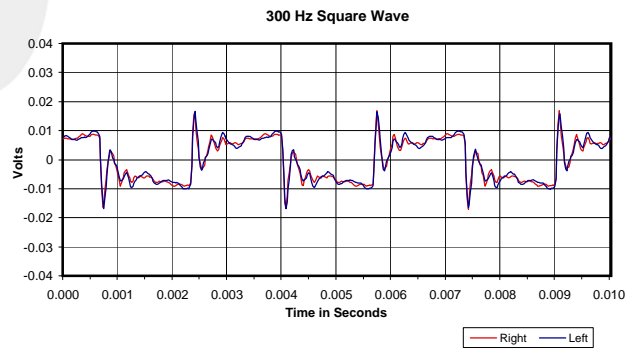
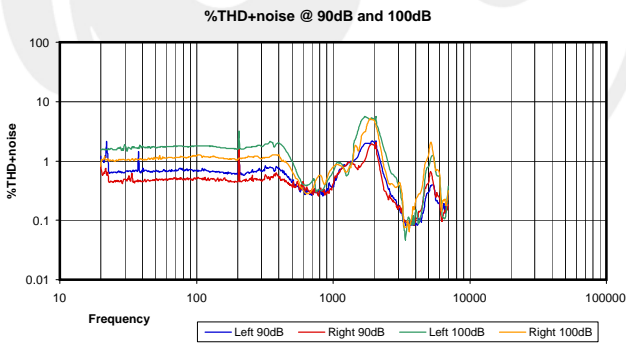
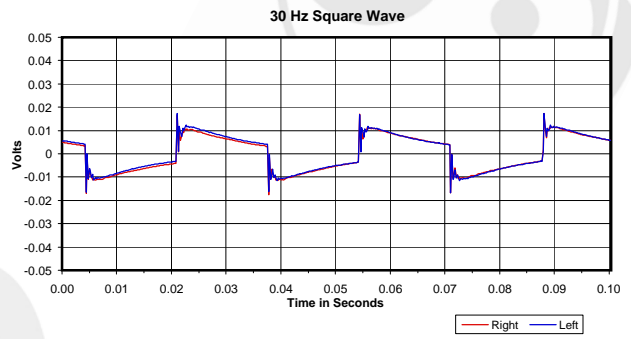
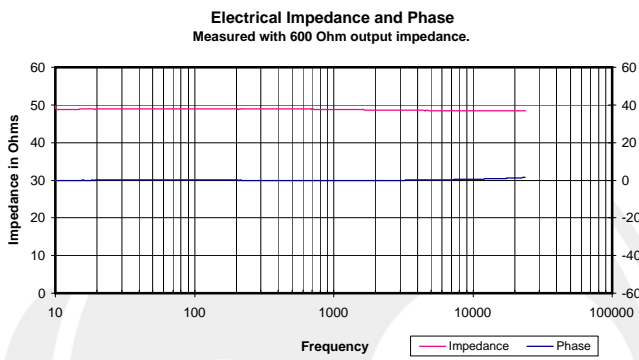
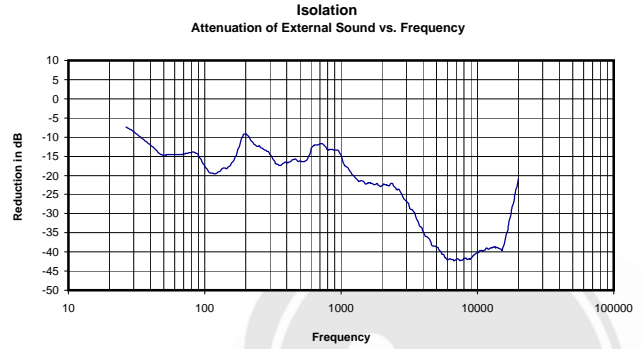
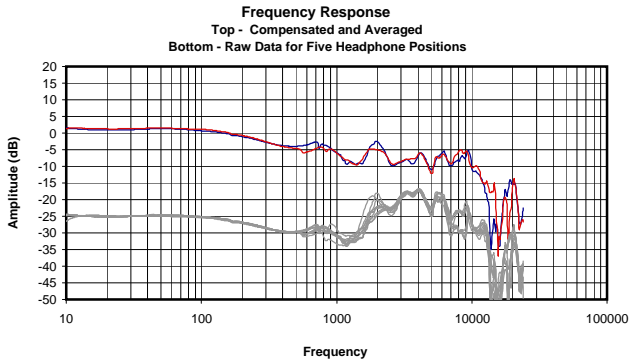
Broadband Isolation in dB (100Hz to 10kHz):

-20 dBr

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



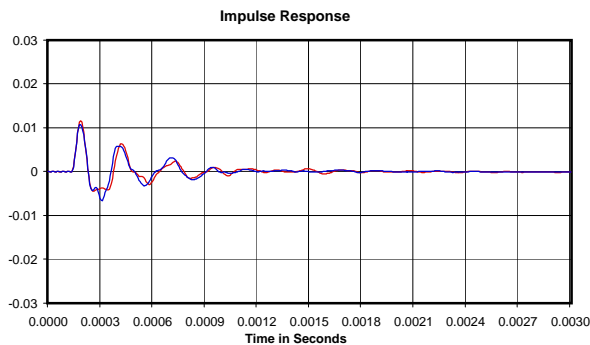
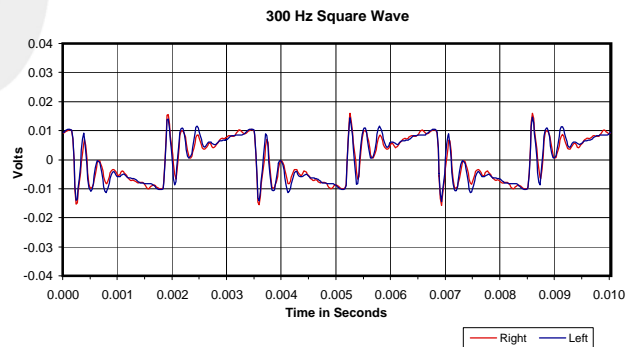
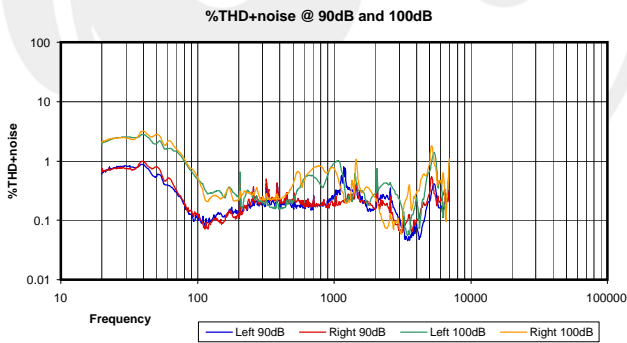
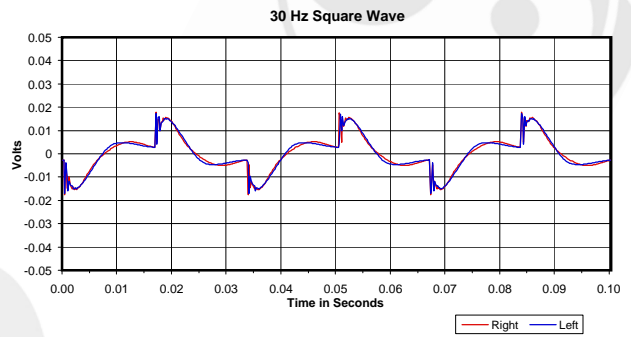
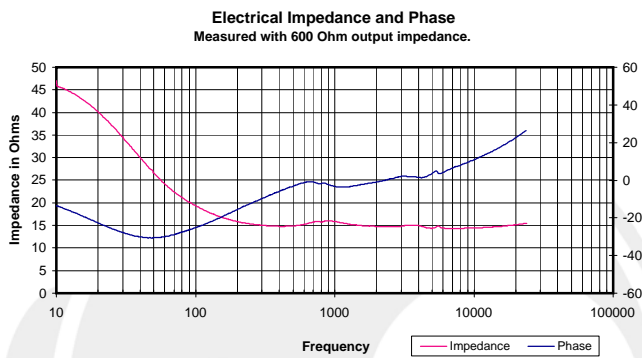
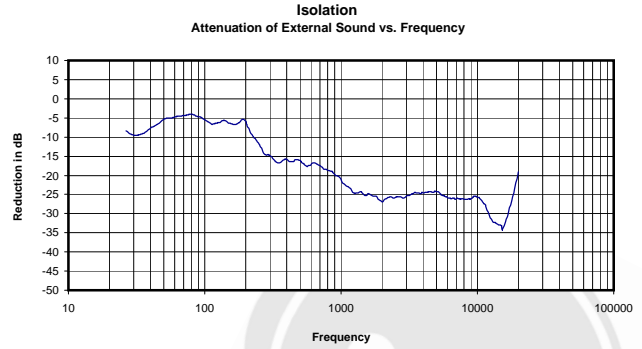
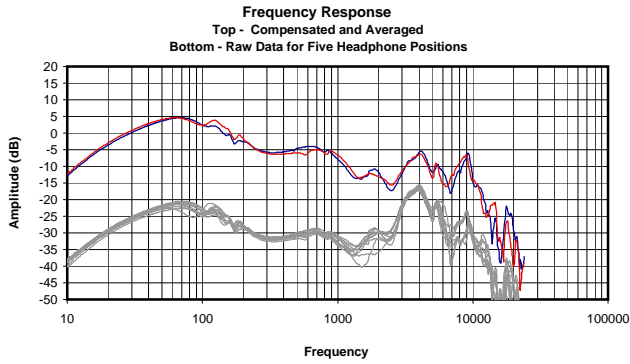
Headphone Measurements: Sony MDR 1000X Wired NC Active



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.008 Vrms
49 Ohms
0.00 mW
-23 dBr



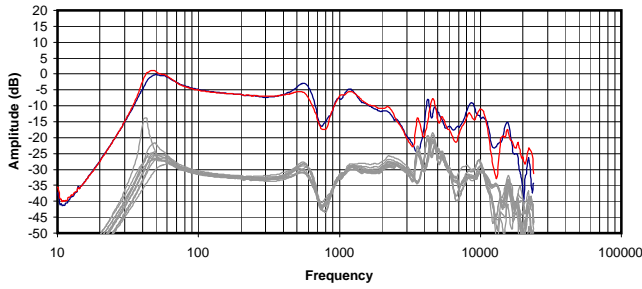


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

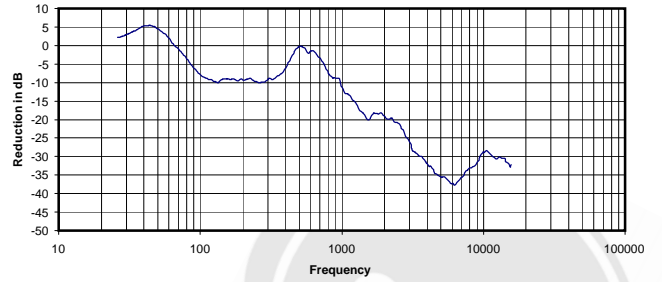
0.110 Vrms
16 Ohms
0.77 mW
-19 dBr



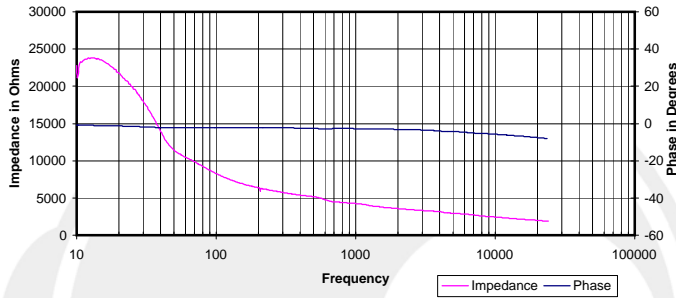
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



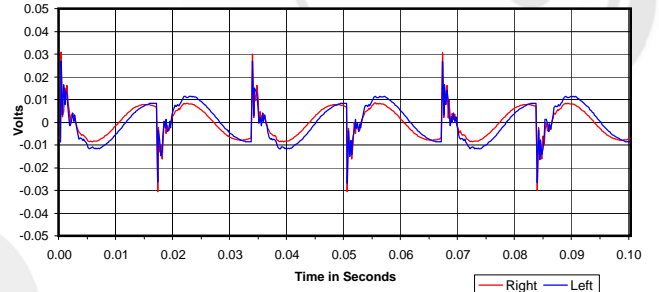
Isolation
 Attenuation of External Sound vs. Frequency



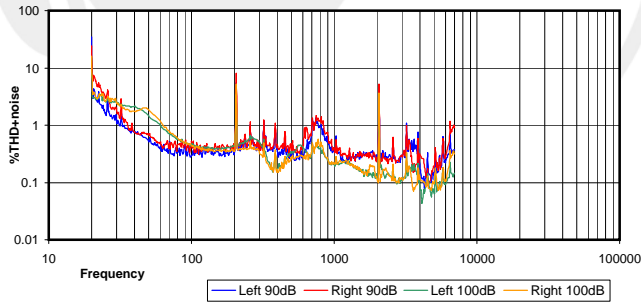
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



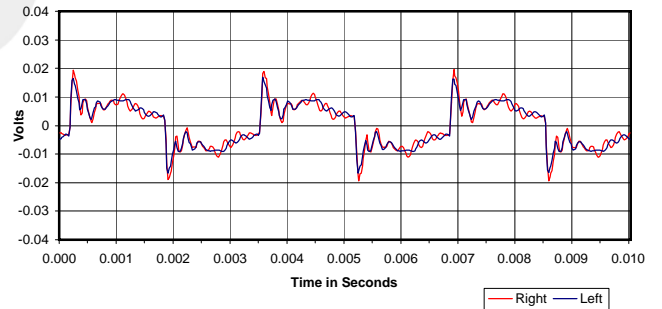
30 Hz Square Wave



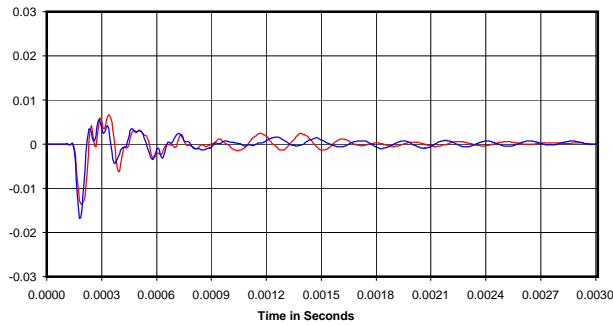
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

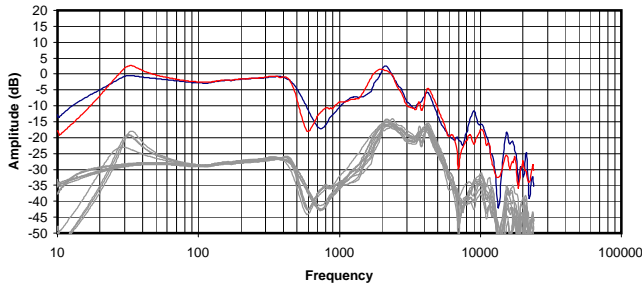


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

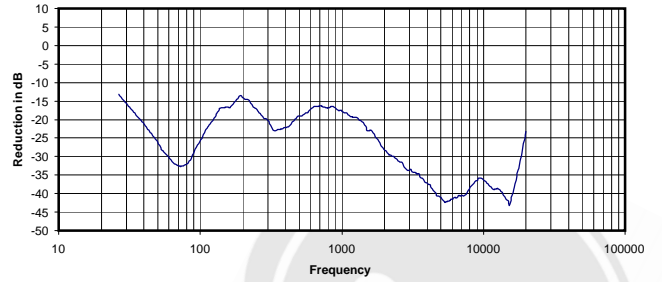
0.032 Vrms
 4230 Ohms
 0.00 mW
 -15 dB



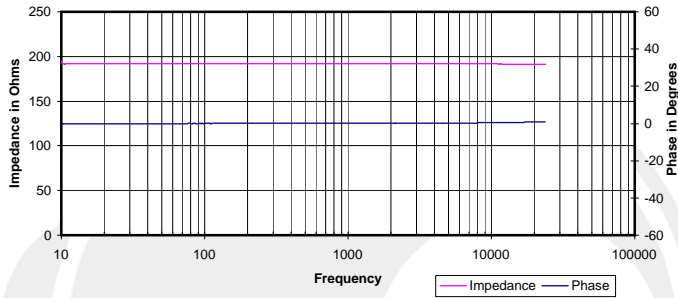
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



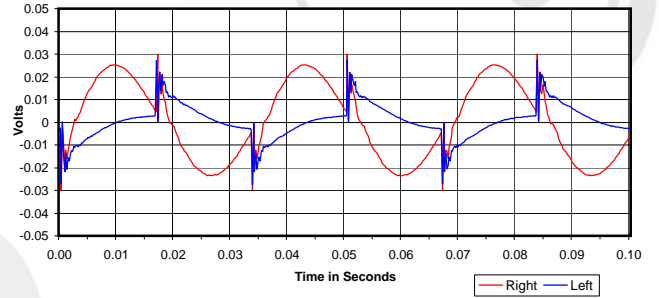
Isolation
Attenuation of External Sound vs. Frequency



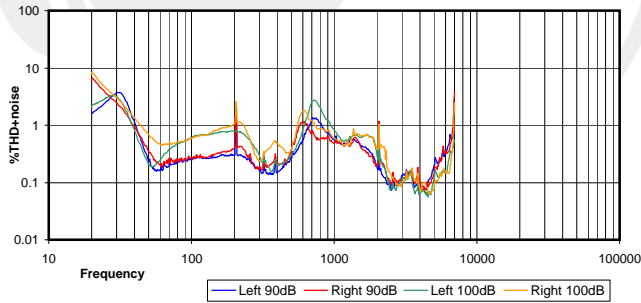
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



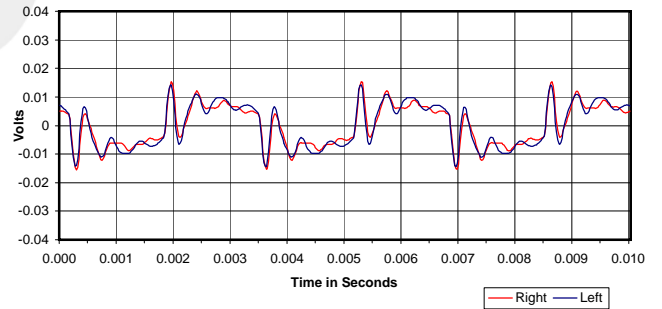
30 Hz Square Wave



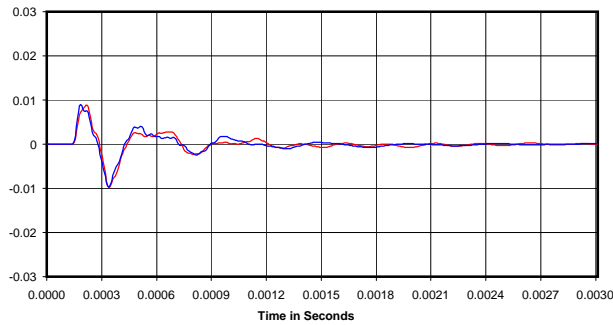
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

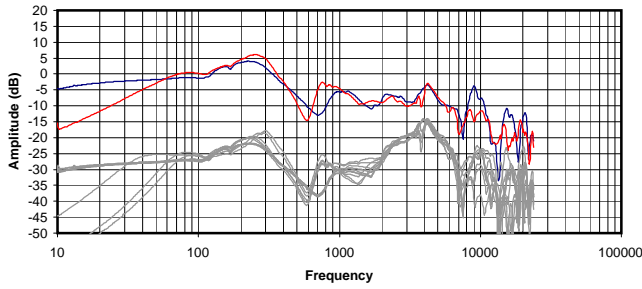


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

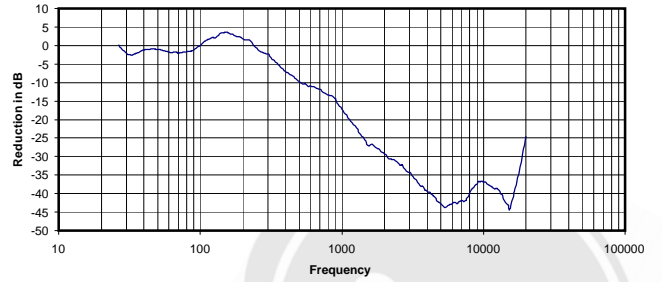
0.121 Vrms
192 Ohms
0.08 mW
-25 dB



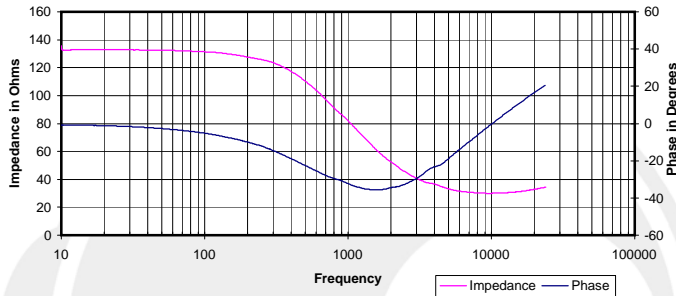
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



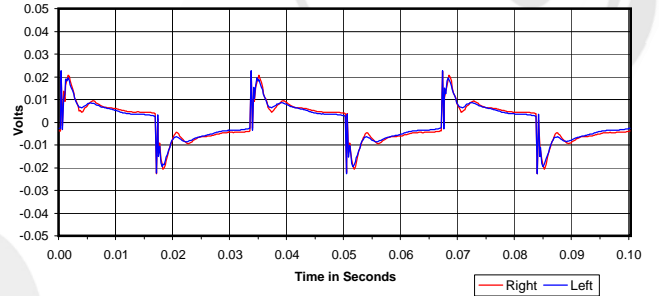
Isolation
Attenuation of External Sound vs. Frequency



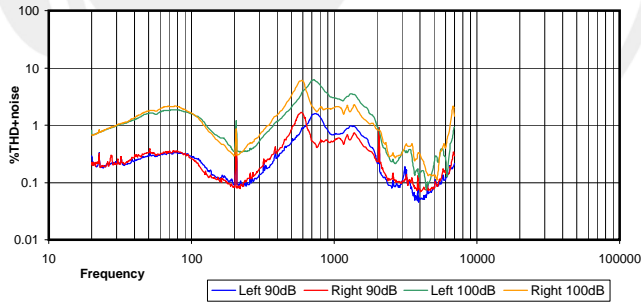
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



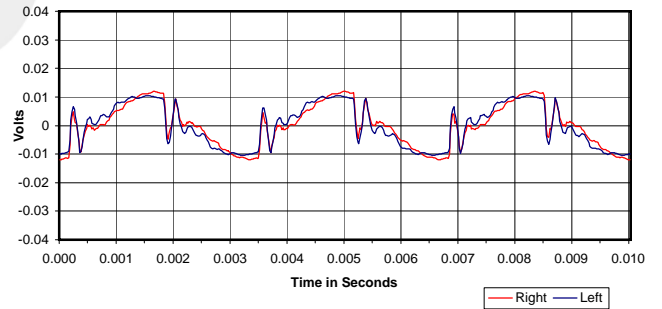
30 Hz Square Wave



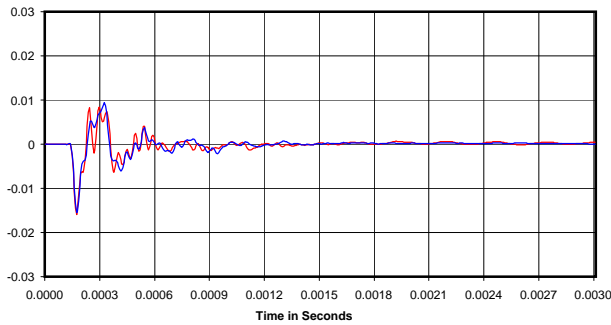
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

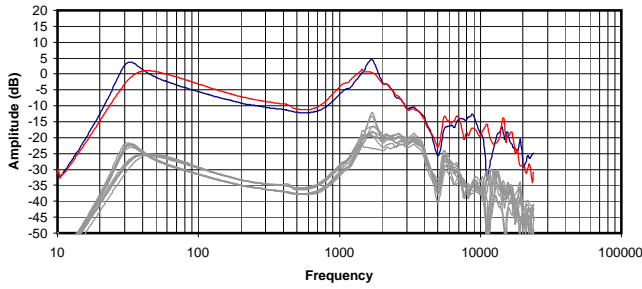


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

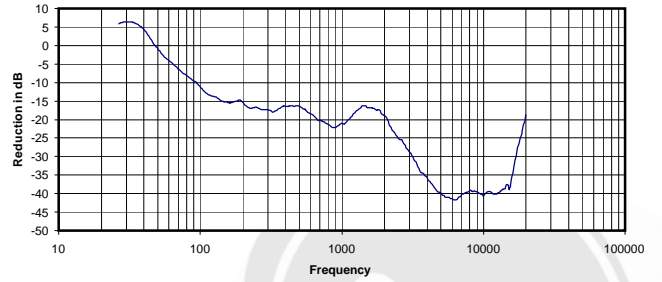
0.206 Vrms
82 Ohms
0.52 mW
-19 dB



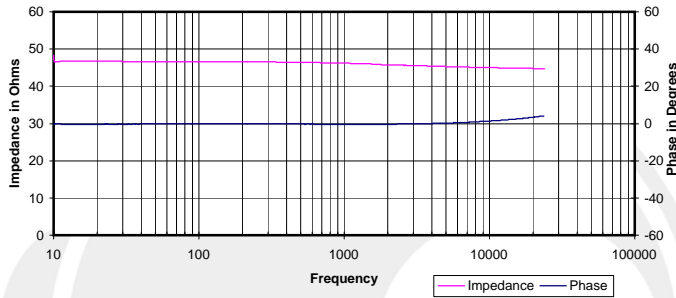
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



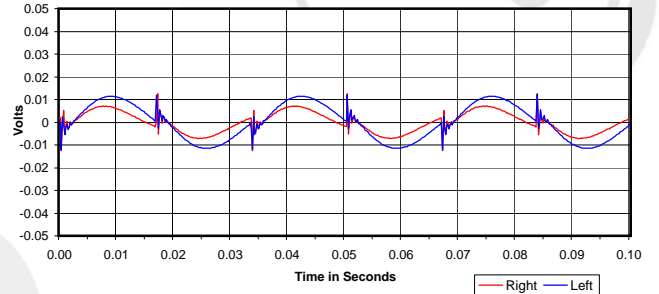
Isolation
Attenuation of External Sound vs. Frequency



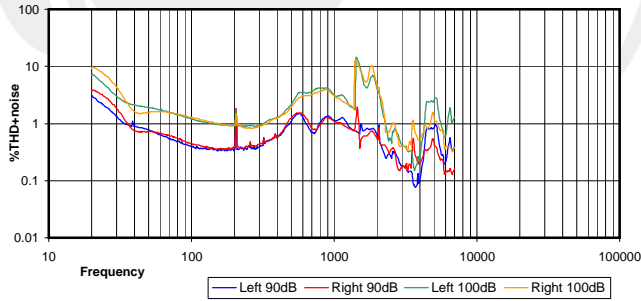
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



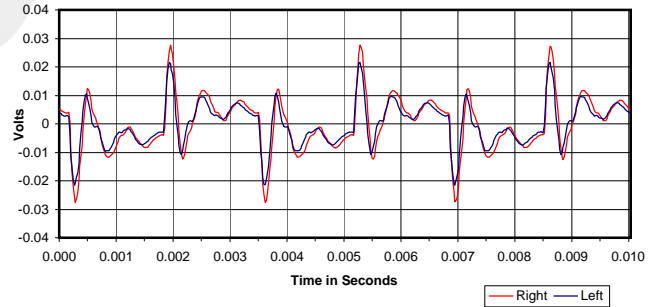
30 Hz Square Wave



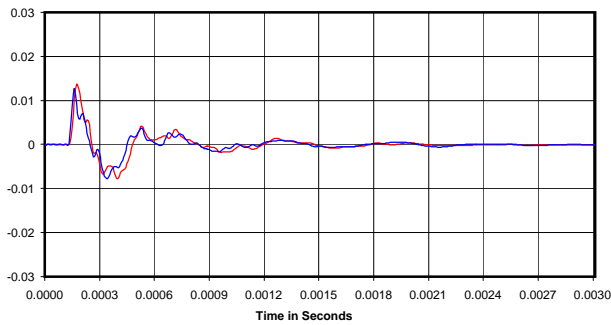
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



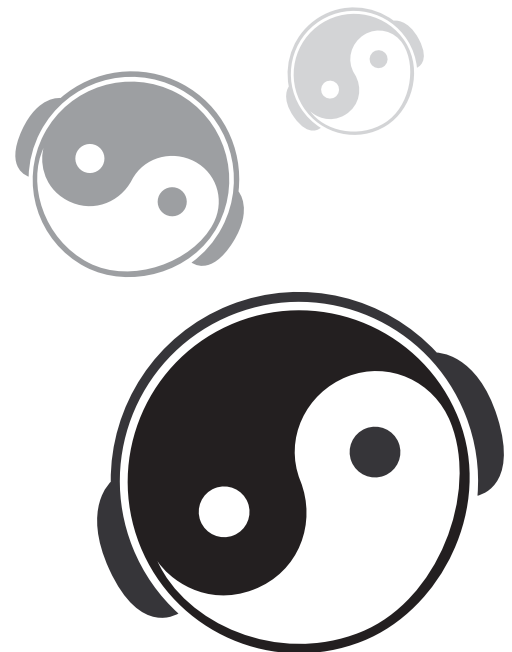
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.057 Vrms
46 Ohms
0.07 mW
-23 dB

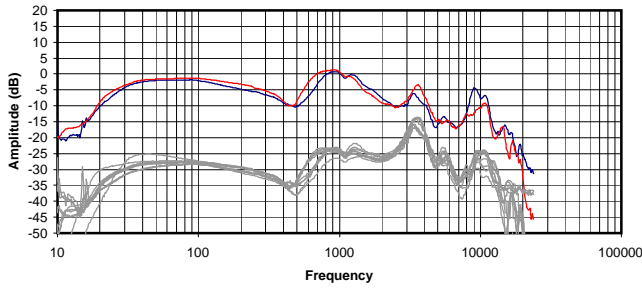


Headphone Measurement Datasheets

Wireless

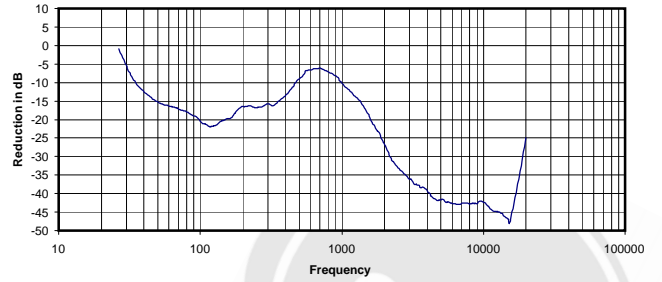


Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

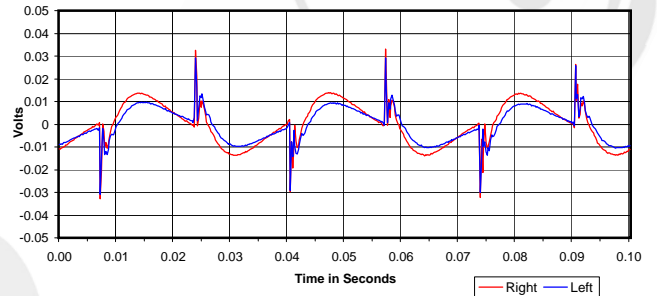


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

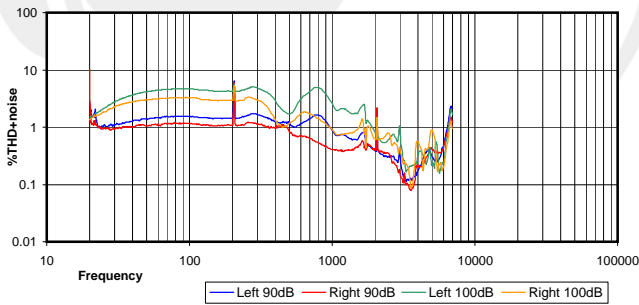
Isolation
 Attenuation of External Sound vs. Frequency



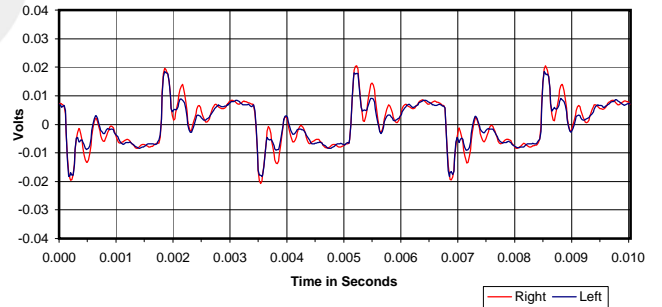
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

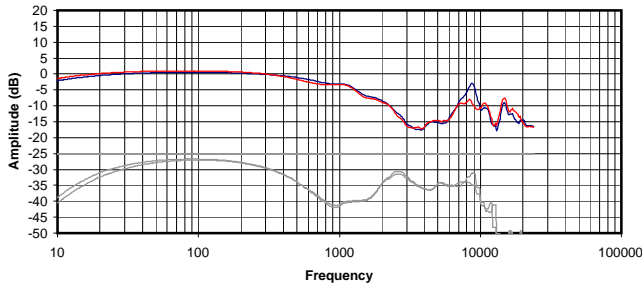


Broadband Isolation in dB (100Hz to 10kHz):

-23 dB

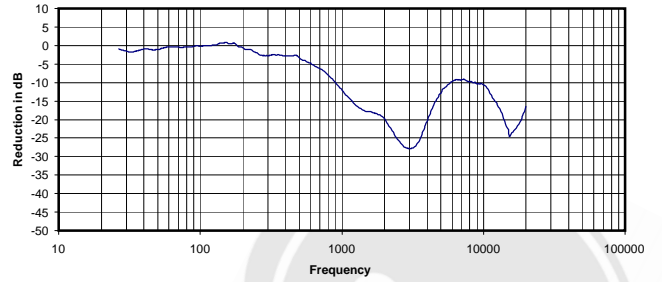
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

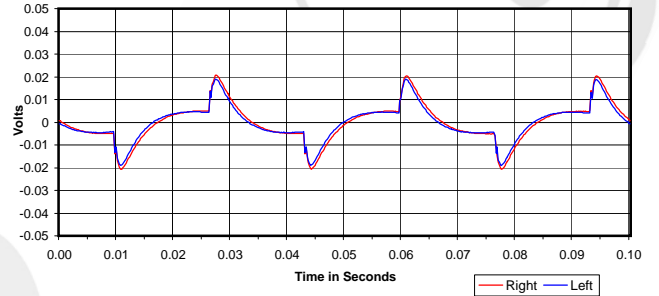


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

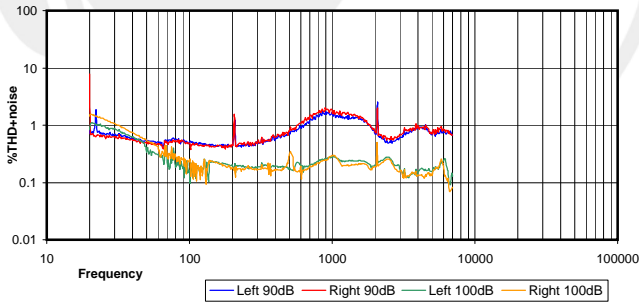
Isolation
 Attenuation of External Sound vs. Frequency



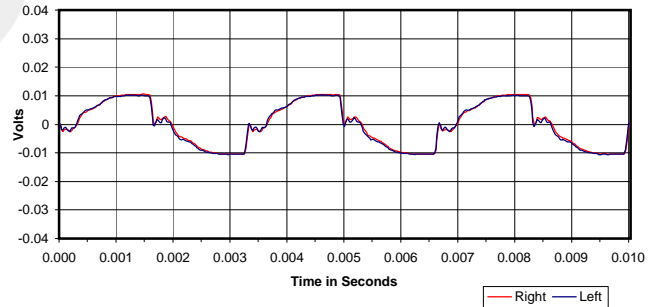
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



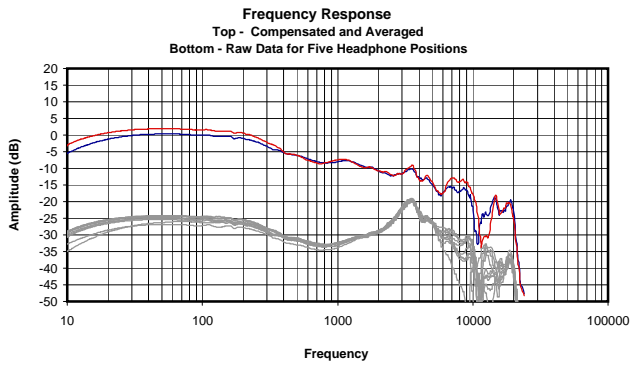
300 Hz Square Wave



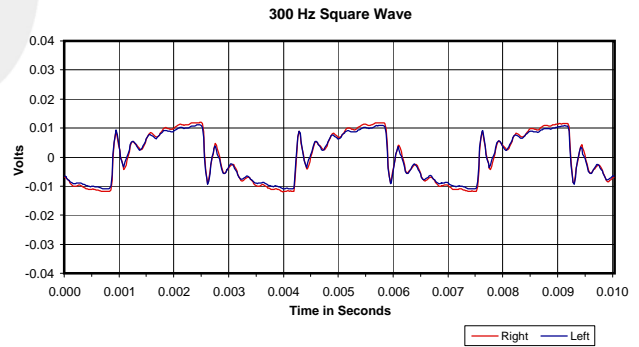
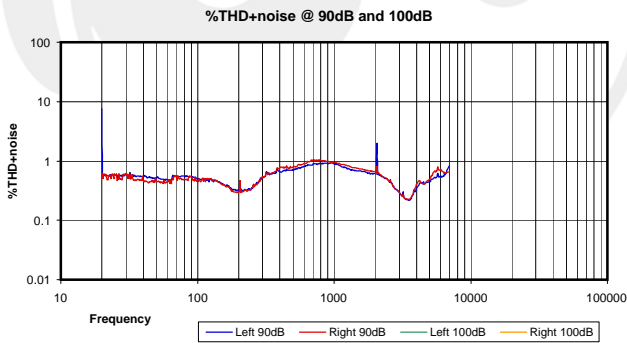
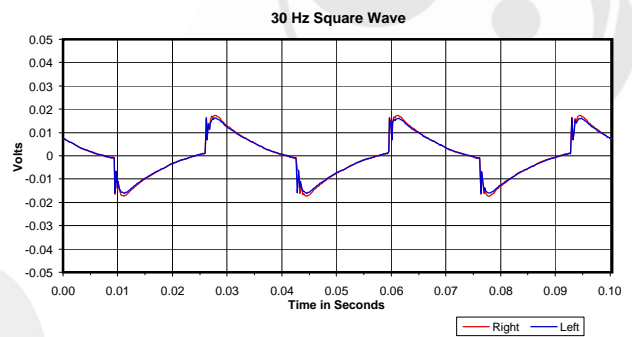
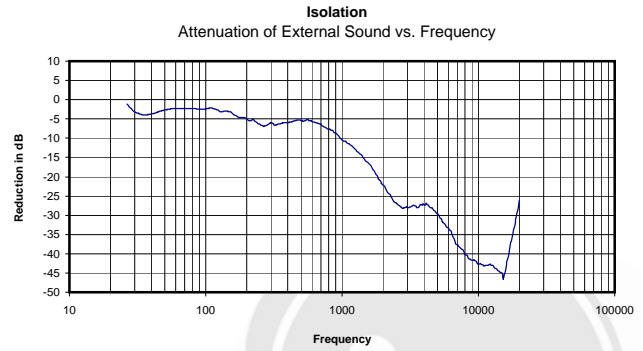
Broadband Isolation in dB (100Hz to 10kHz):

-10 dB

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



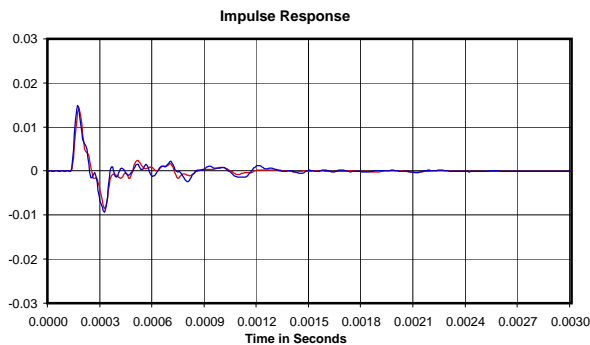
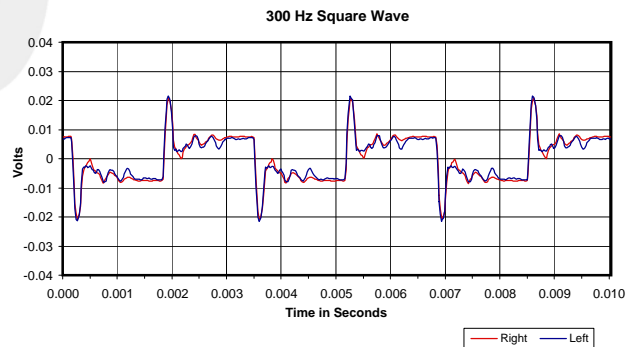
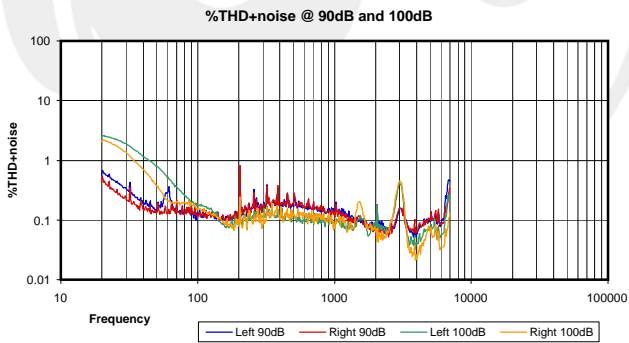
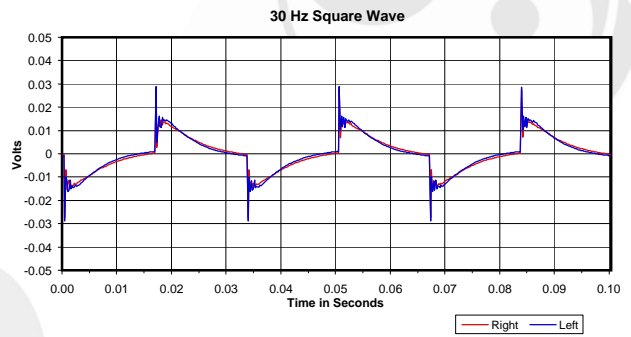
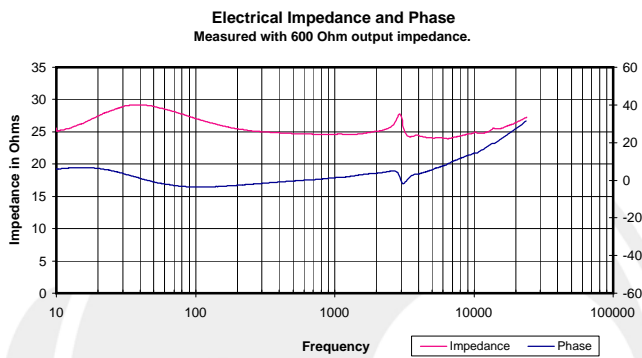
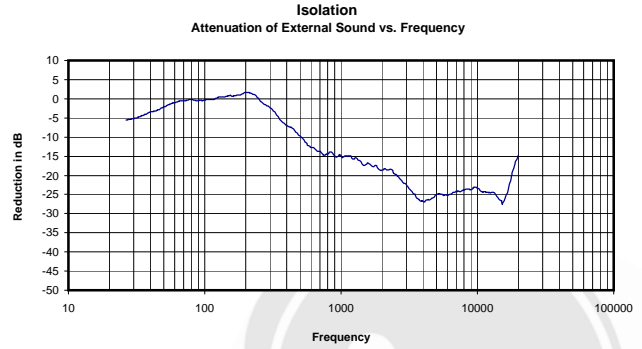
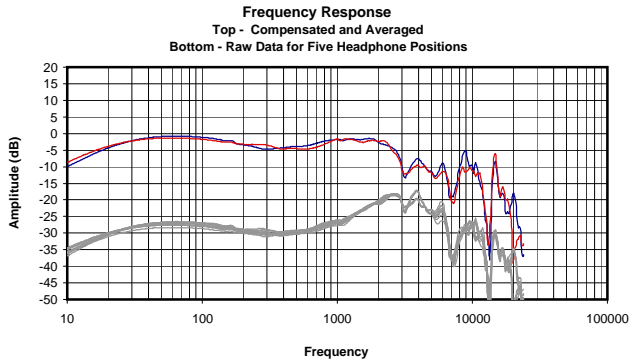
Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



Broadband Isolation in dB (100Hz to 10kHz):

-16 dB

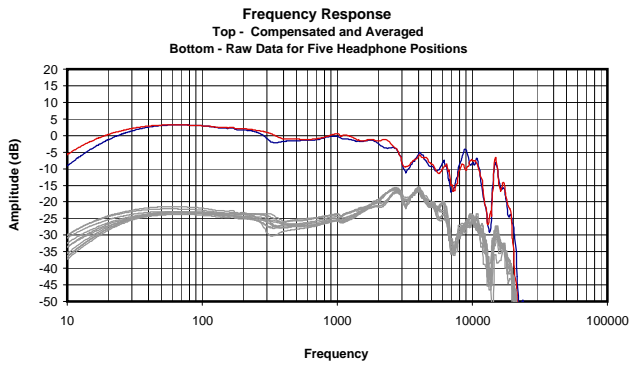
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



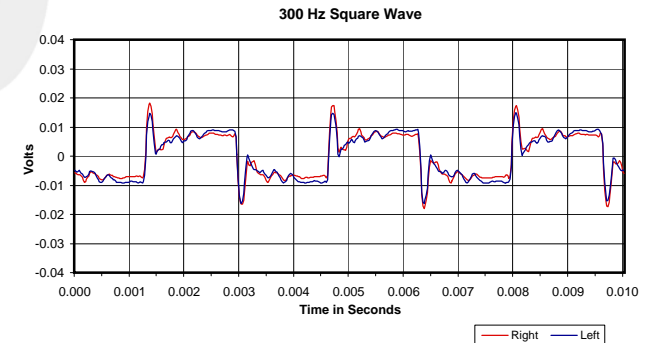
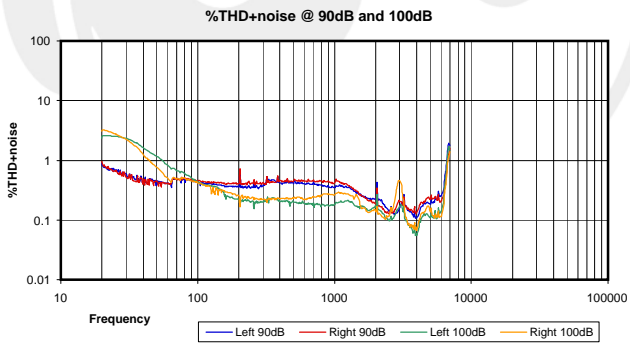
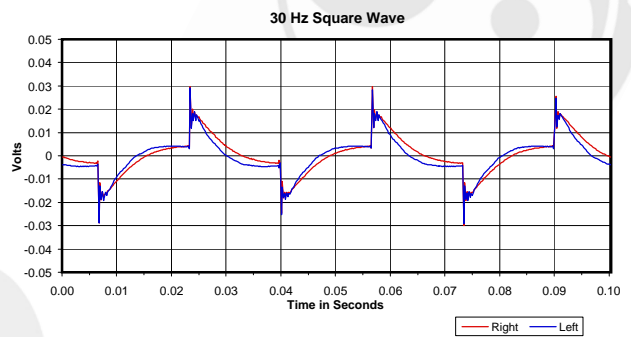
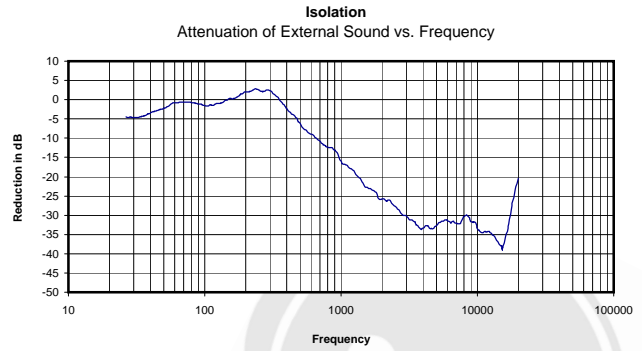
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.037 Vrms
25 Ohms
0.06 mW
-13 dBr





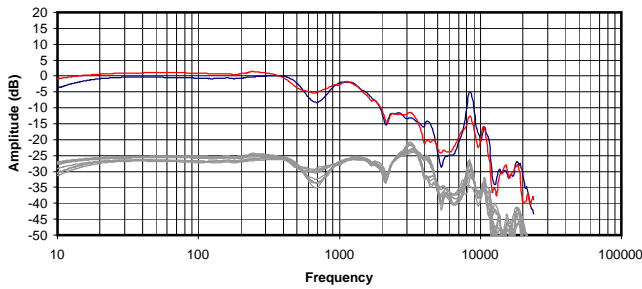
Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



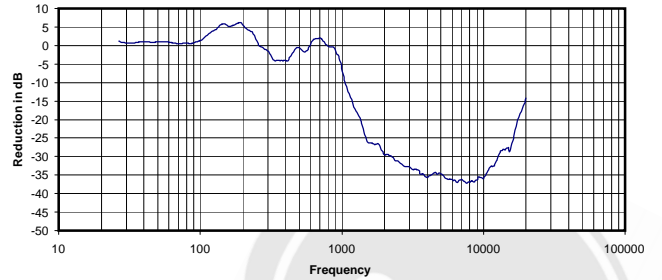
Broadband Isolation in dB (100Hz to 10kHz): -16 dBr

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

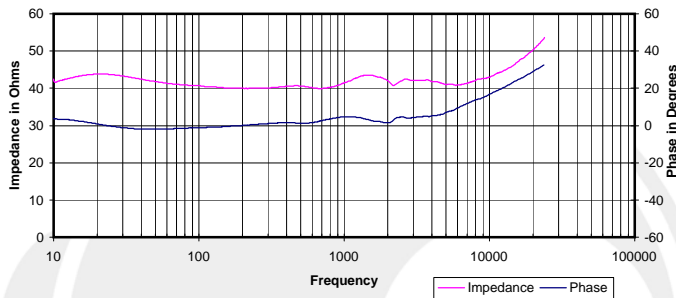
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



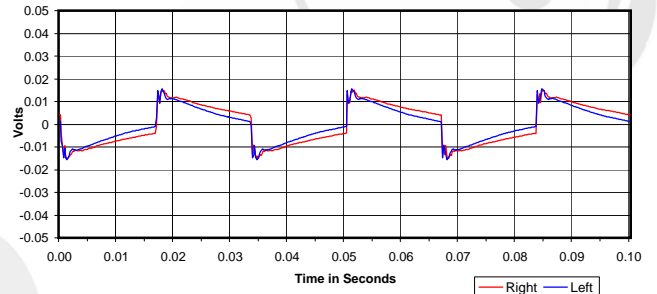
Isolation
 Attenuation of External Sound vs. Frequency



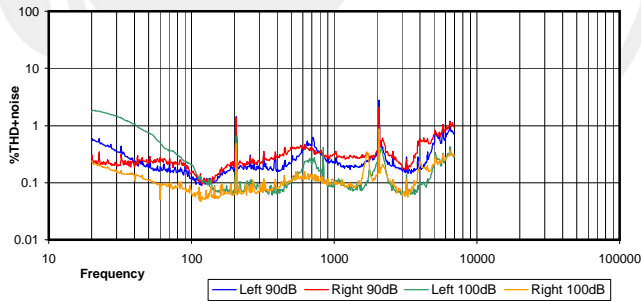
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



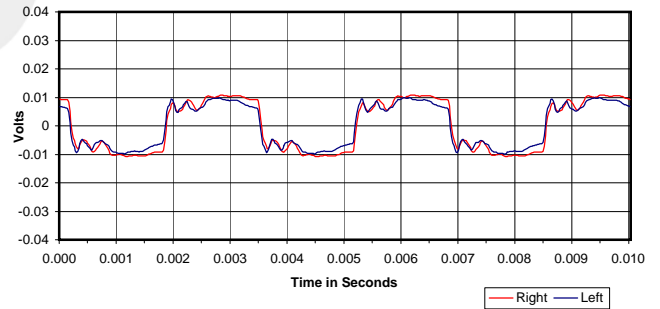
30 Hz Square Wave



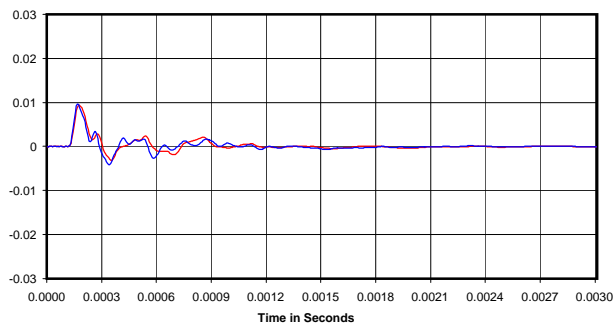
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

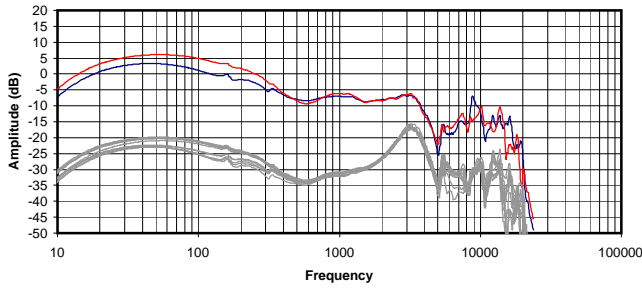


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.016 Vrms
 41 Ohms
 0.01 mW
 -15 dB

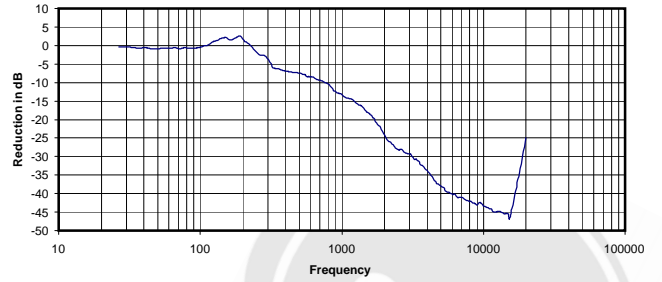


Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

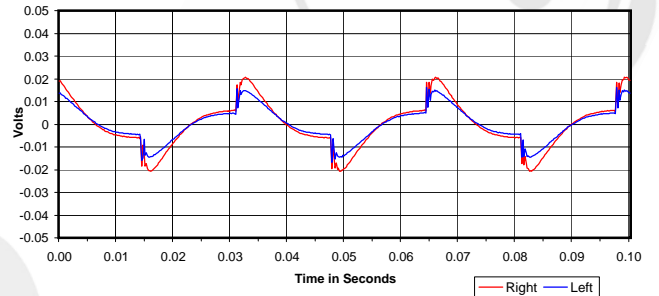


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

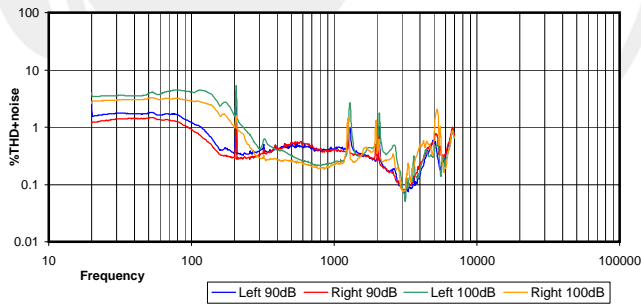
Isolation
 Attenuation of External Sound vs. Frequency



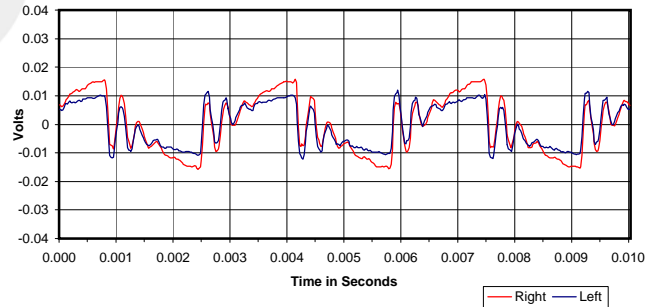
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

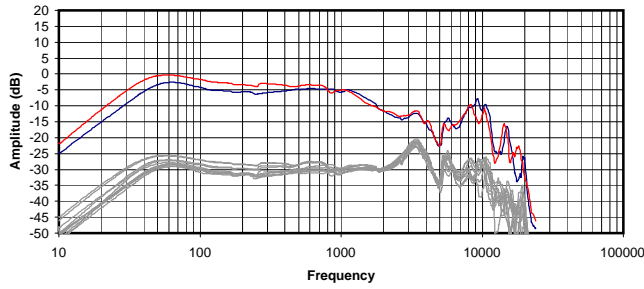


Broadband Isolation in dB (100Hz to 10kHz):

-17 dB

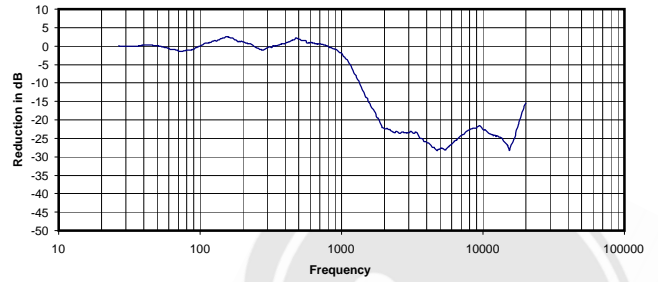
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

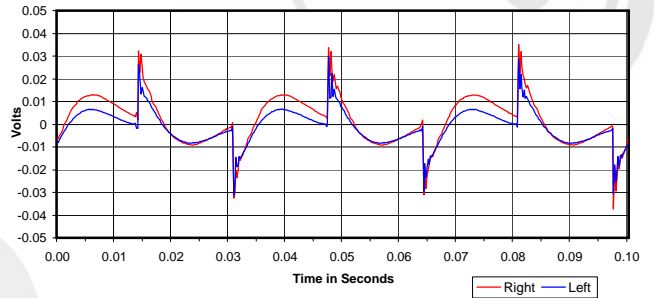


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

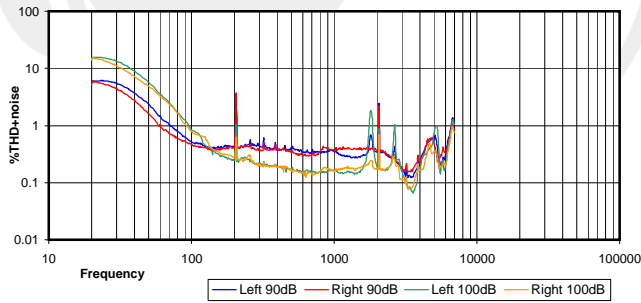
Isolation
Attenuation of External Sound vs. Frequency



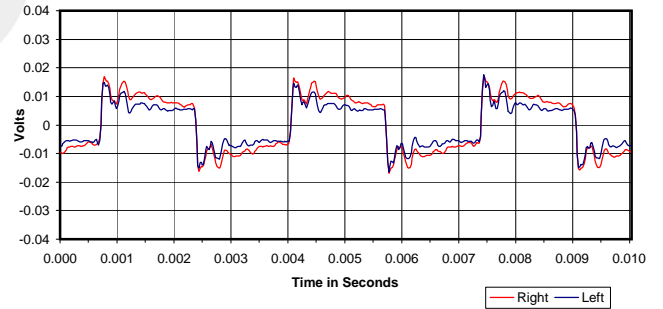
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

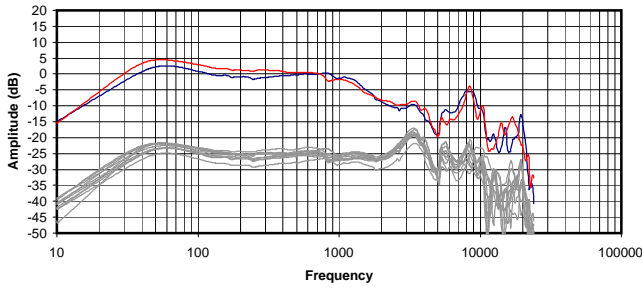


Broadband Isolation in dB (100Hz to 10kHz):

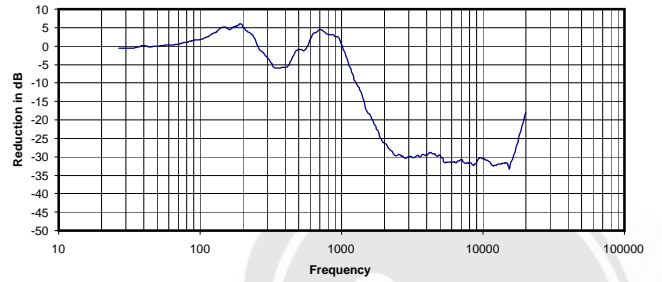
-10 dB

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

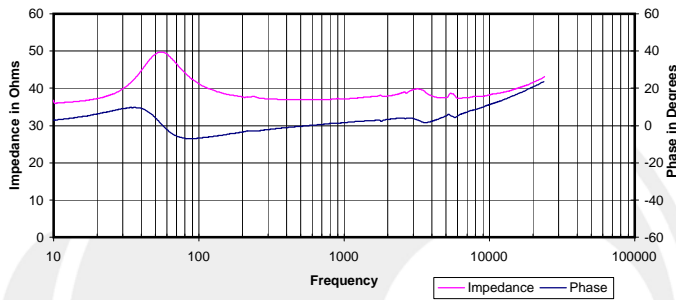
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



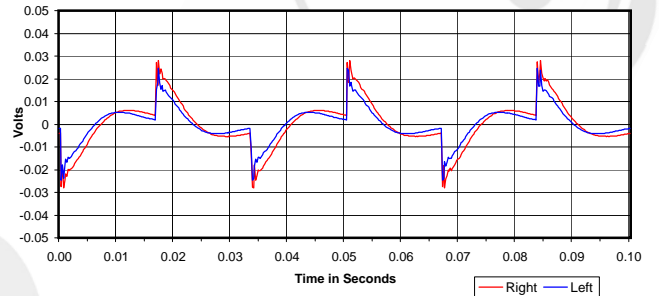
Isolation
Attenuation of External Sound vs. Frequency



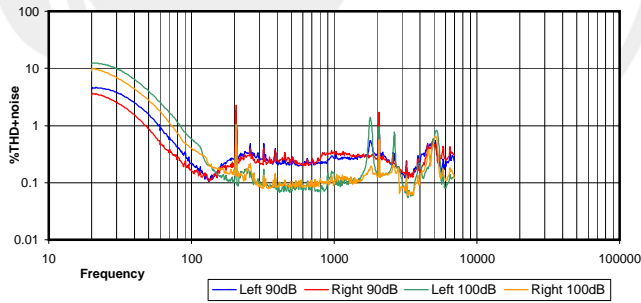
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



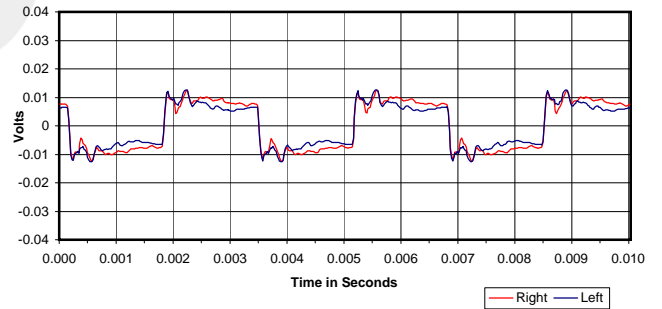
30 Hz Square Wave



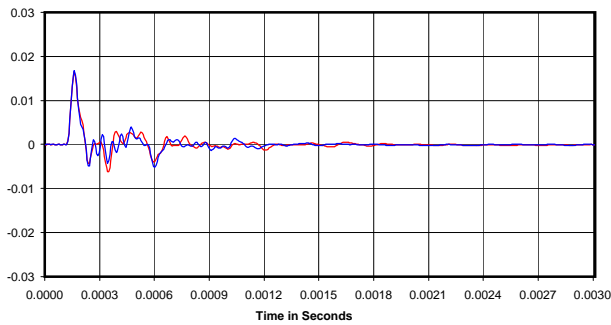
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



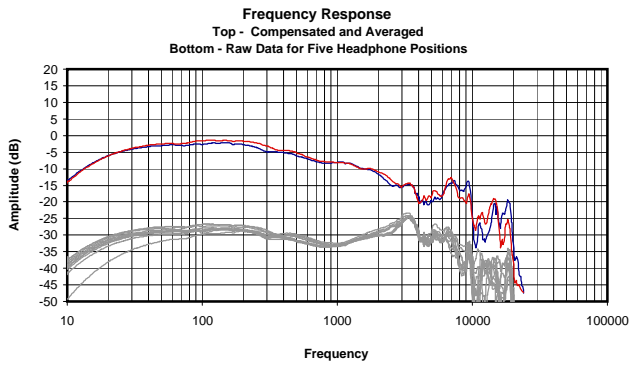
Impulse Response



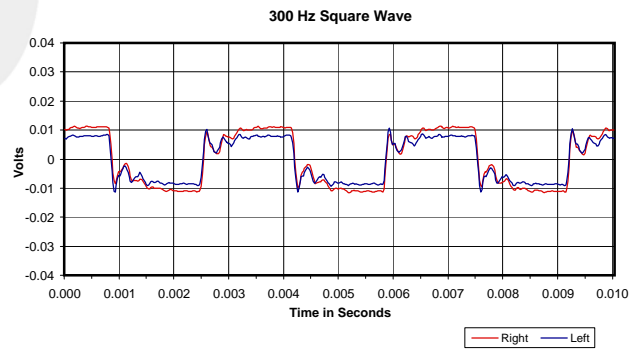
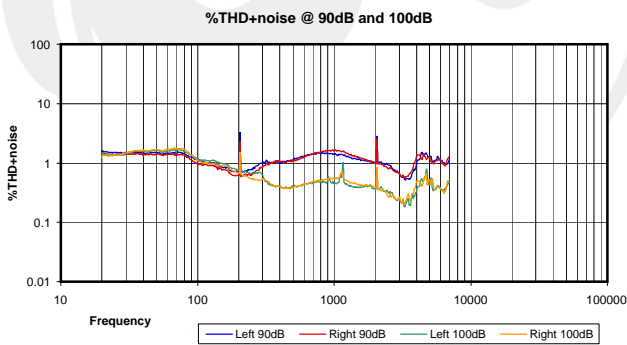
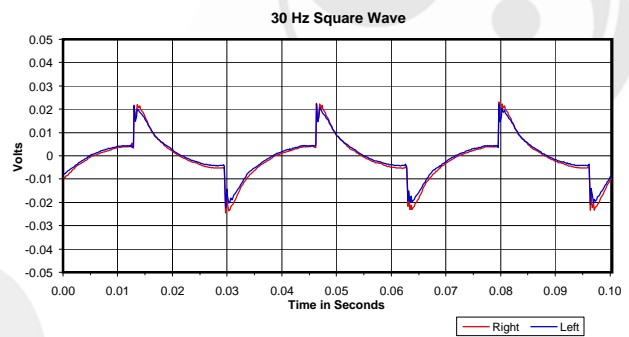
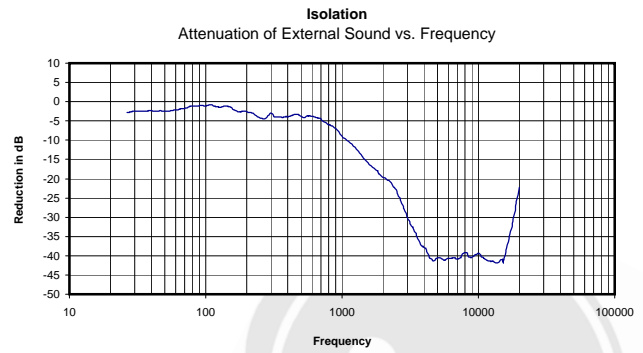
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.031 Vrms
37 Ohms
0.03 mW
-12 dB





Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

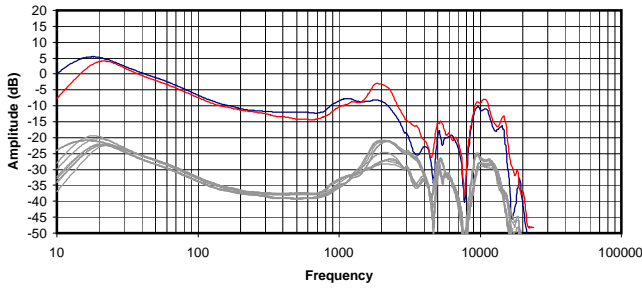


Broadband Isolation in dB (100Hz to 10kHz):

-16 dB

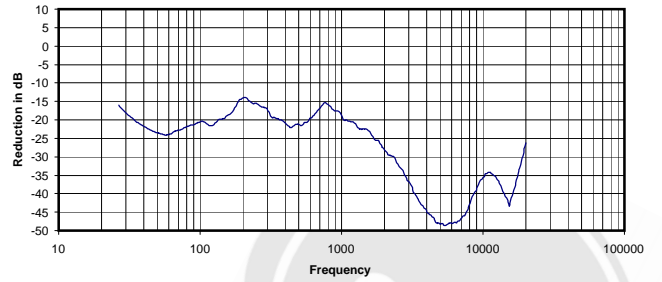
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

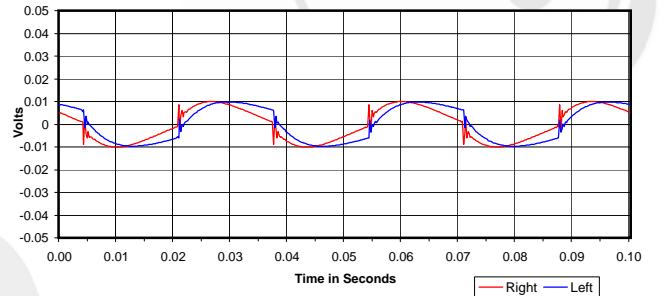


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

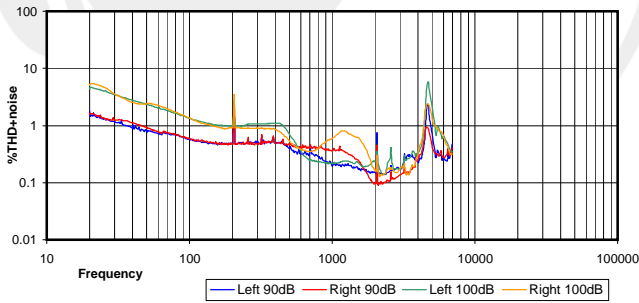
Isolation
 Attenuation of External Sound vs. Frequency



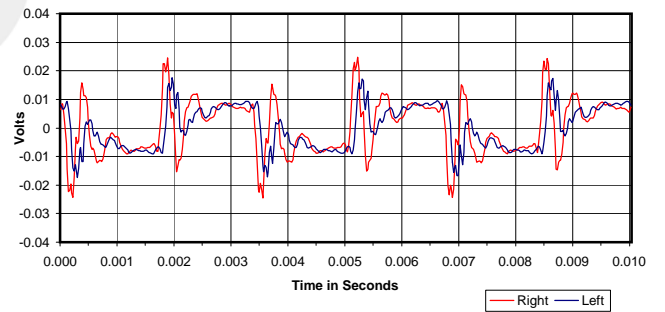
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

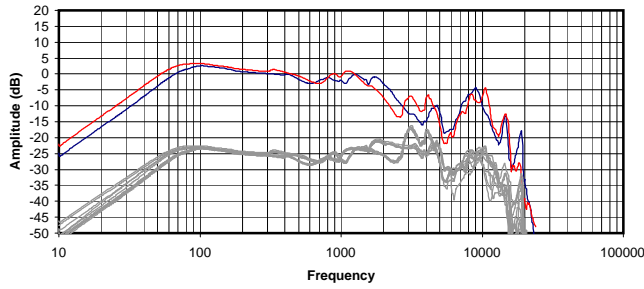


Broadband Isolation in dB (100Hz to 10kHz):

-27 dB

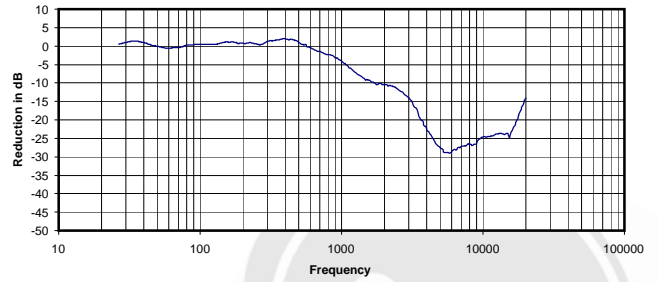
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions

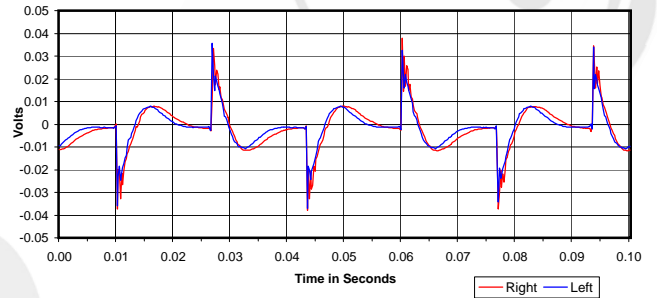


Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

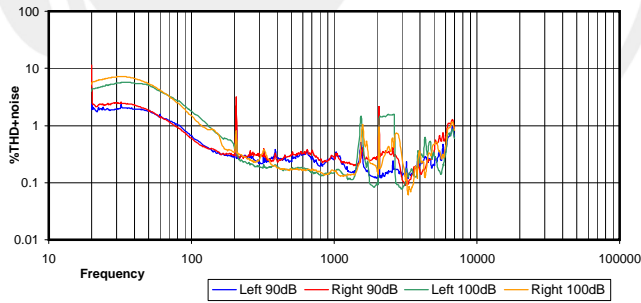
Isolation
Attenuation of External Sound vs. Frequency



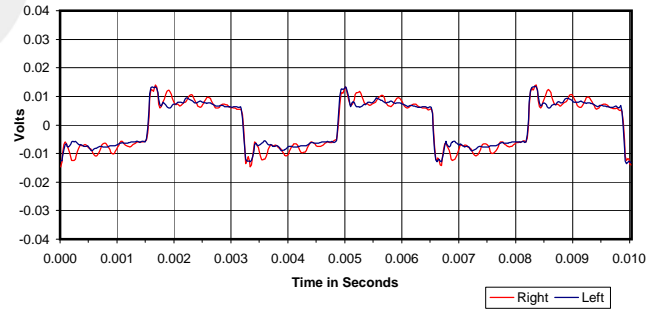
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

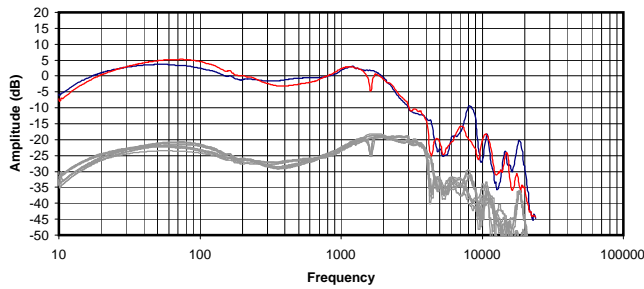


Broadband Isolation in dB (100Hz to 10kHz):

-9 dB

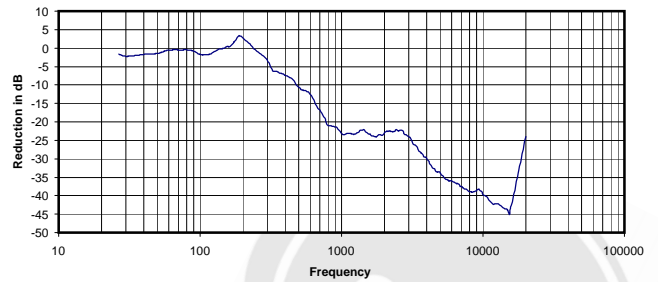
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

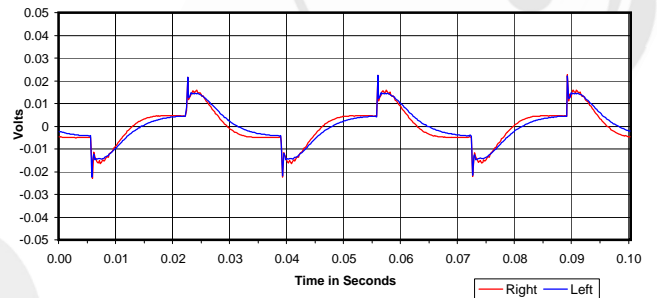


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

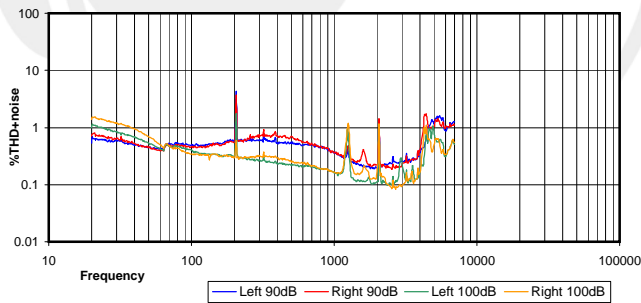
Isolation
 Attenuation of External Sound vs. Frequency



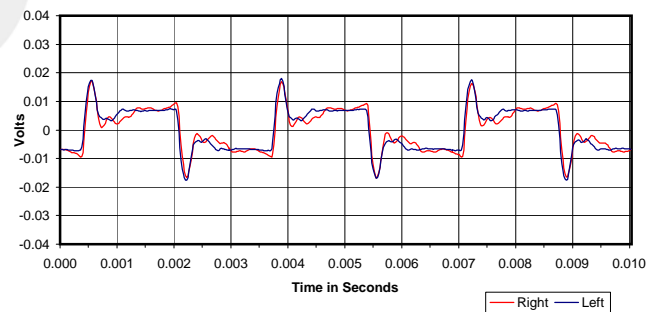
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

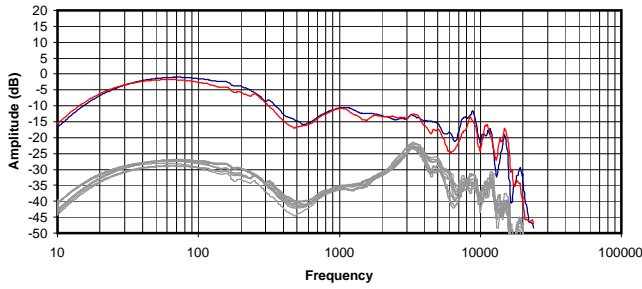


Broadband Isolation in dB (100Hz to 10kHz):

-18 dB

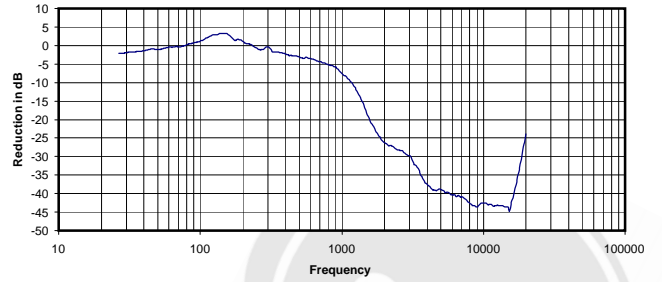
Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

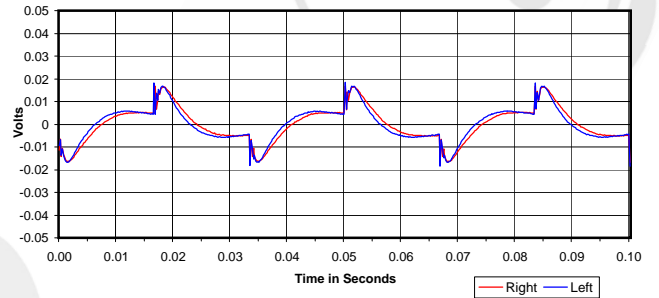


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

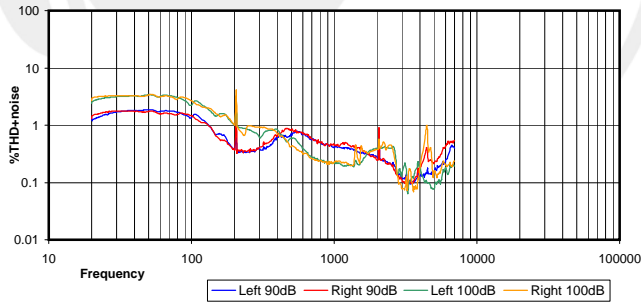
Isolation
 Attenuation of External Sound vs. Frequency



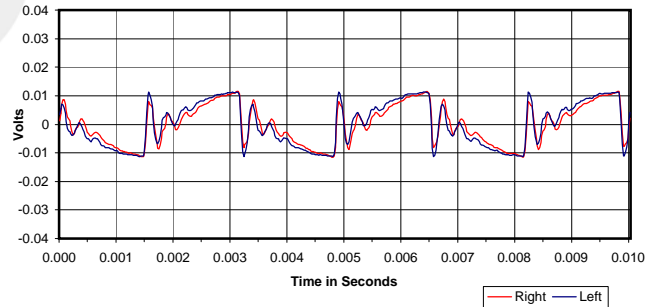
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



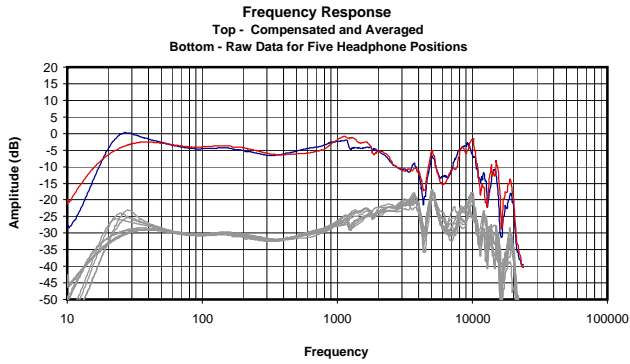
300 Hz Square Wave



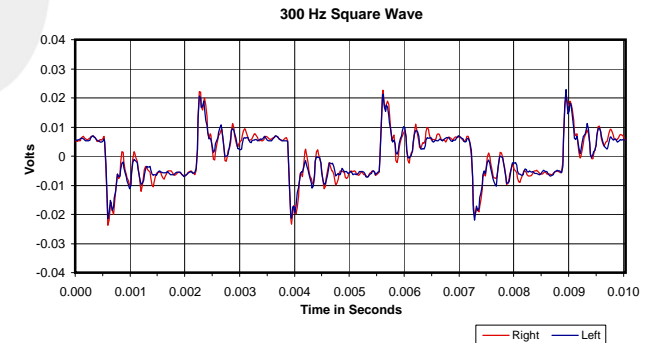
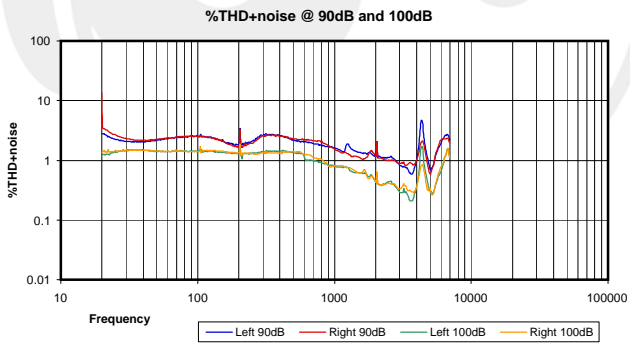
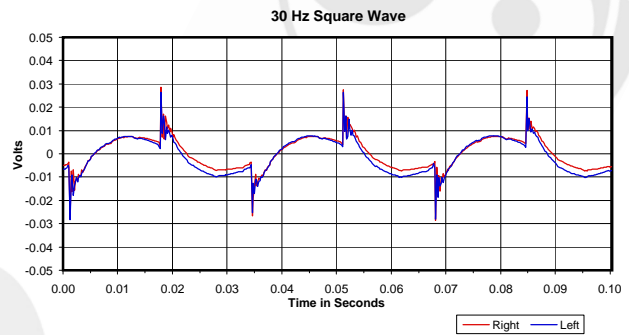
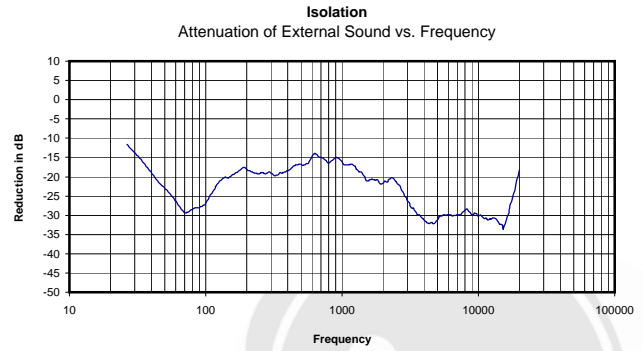
Broadband Isolation in dB (100Hz to 10kHz):

-16 dB

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



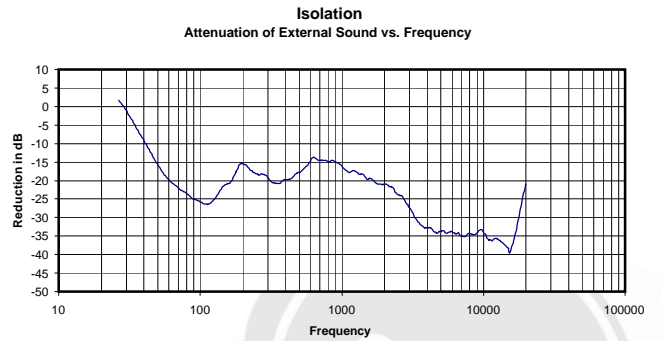
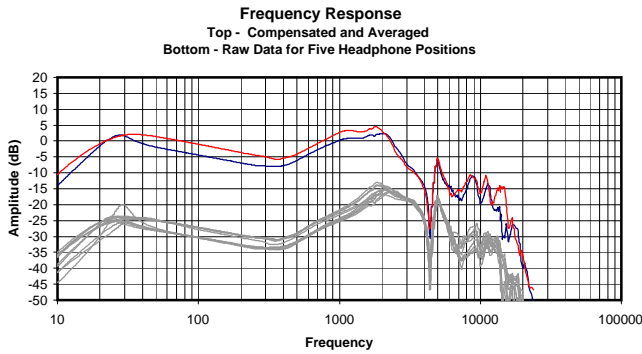
Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



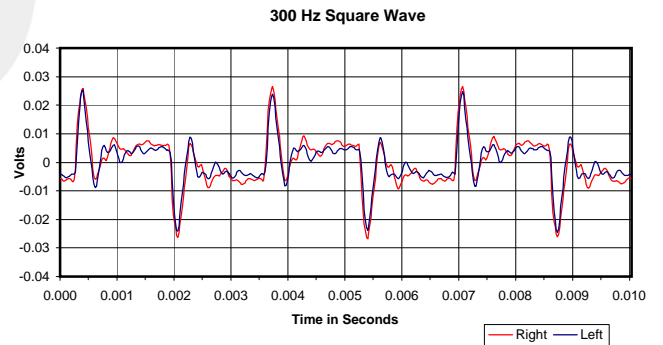
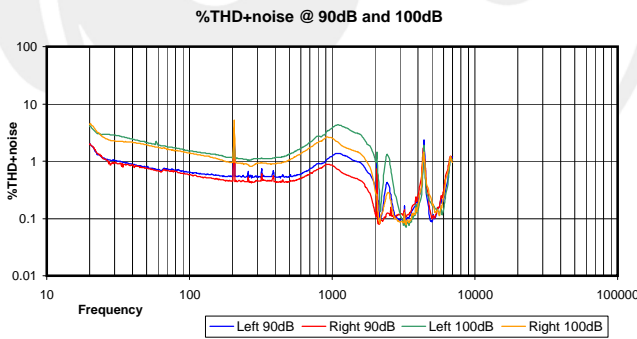
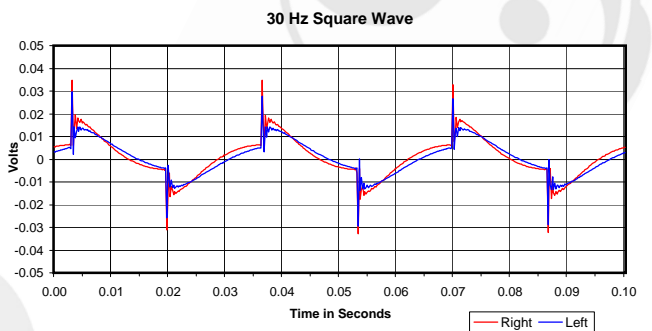
Broadband Isolation in dB (100Hz to 10kHz):

-22 dB

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.



Electrical Impedance and phase measurements
unavailable for electrostatic and wireless headphones

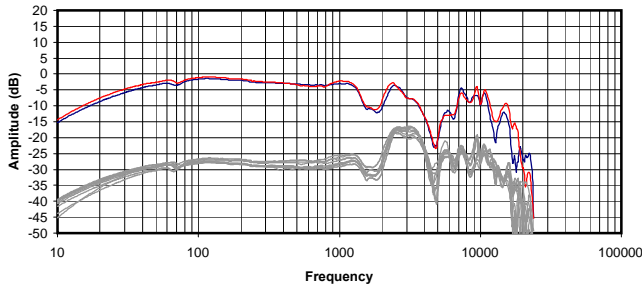


Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

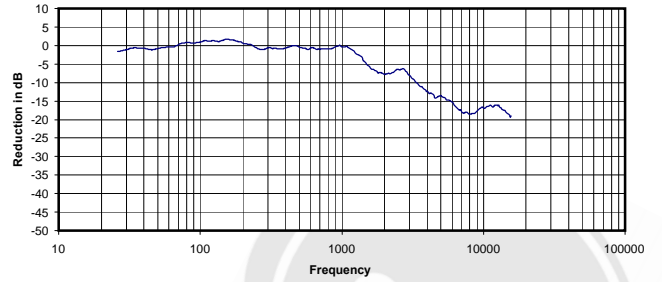
Broadband Isolation in dB (100Hz to 10kHz):

-23 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

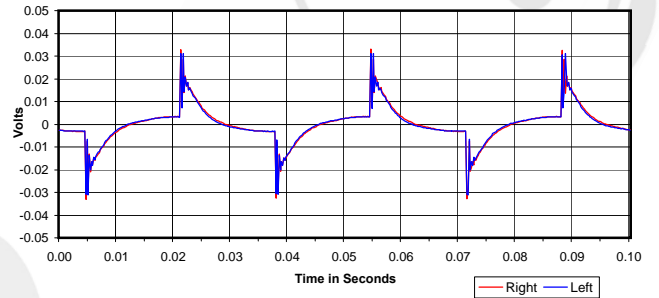


Isolation
 Attenuation of External Sound vs. Frequency

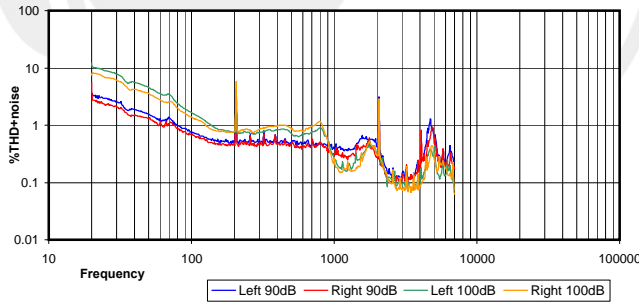


Electrical Impedance and phase measurements unavailable for Electrostatic and Wireless headphones.

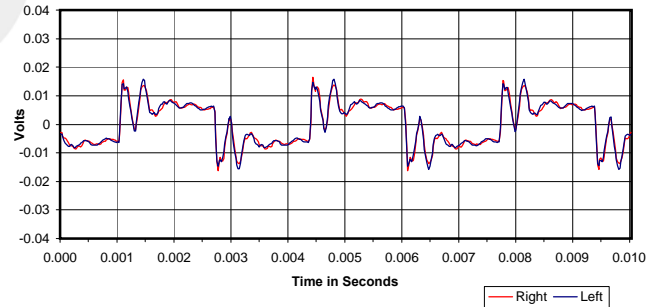
30 Hz Square Wave



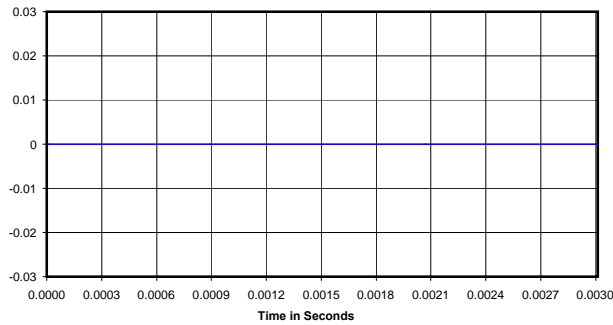
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



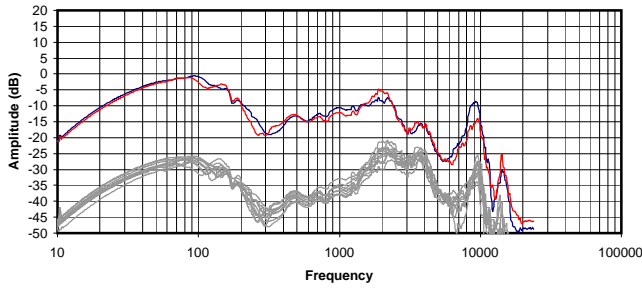
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

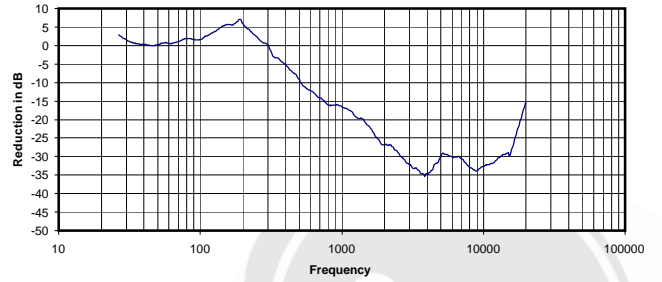
-3 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

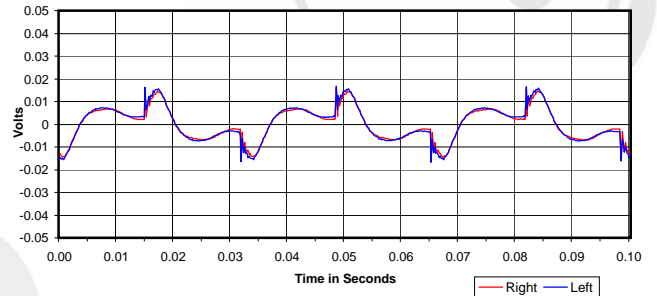


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

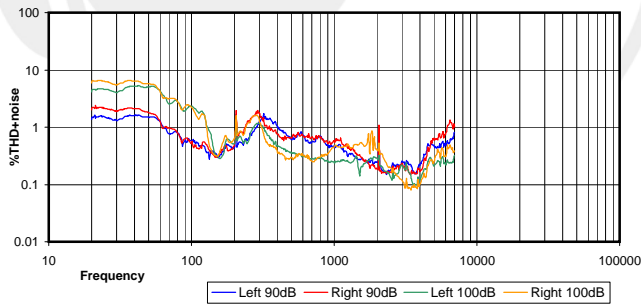
Isolation
 Attenuation of External Sound vs. Frequency



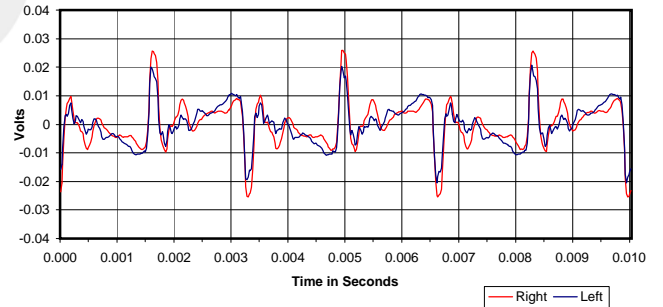
30 Hz Square Wave



%THD+noise @ 90dB and 100dB



300 Hz Square Wave

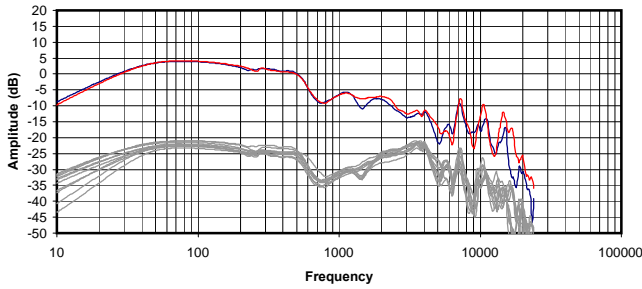


Broadband Isolation in dB (100Hz to 10kHz):

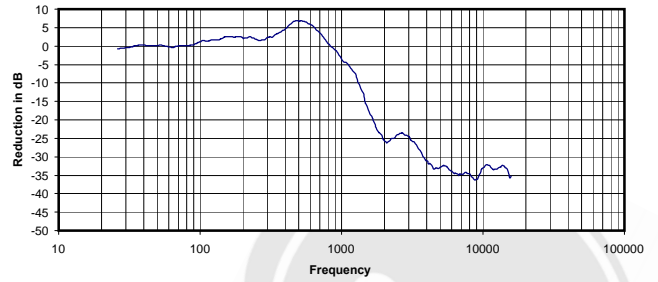
-16 dB

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

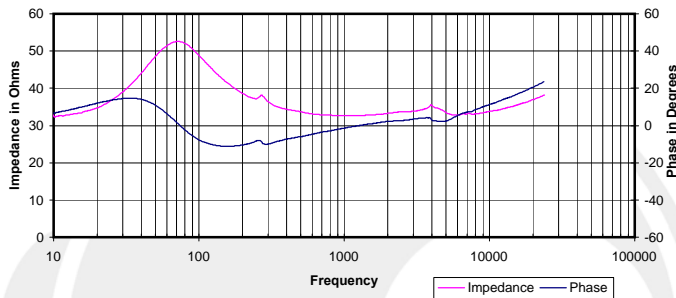
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



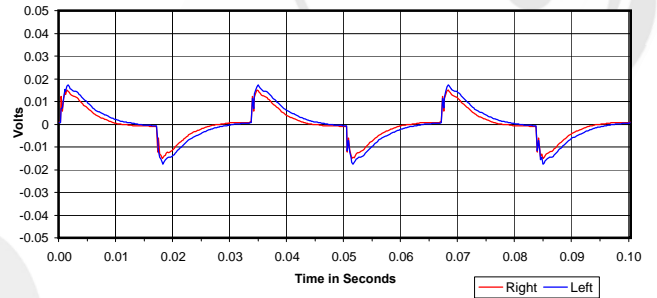
Isolation
 Attenuation of External Sound vs. Frequency



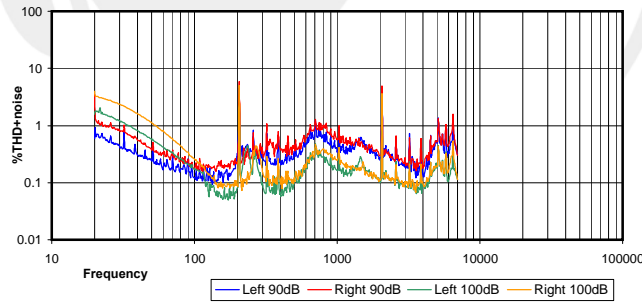
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



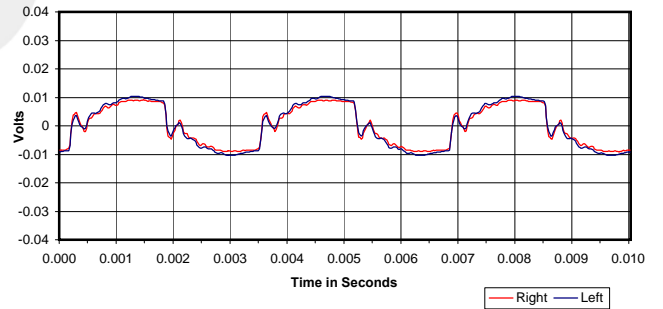
30 Hz Square Wave



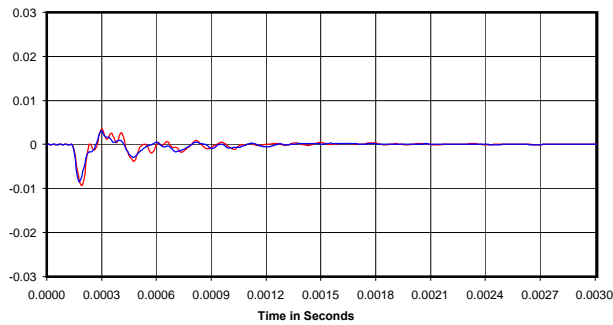
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



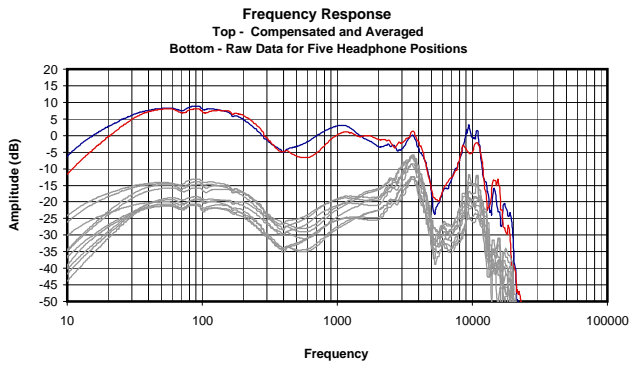
Impulse Response



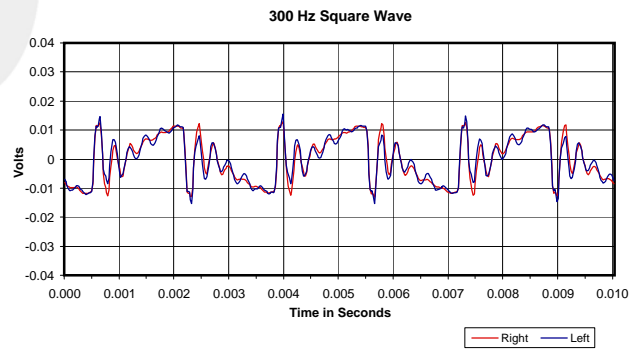
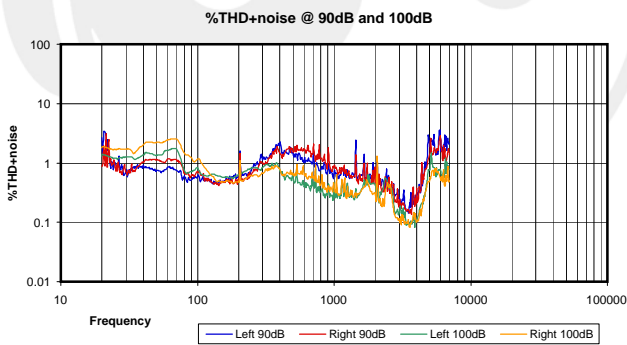
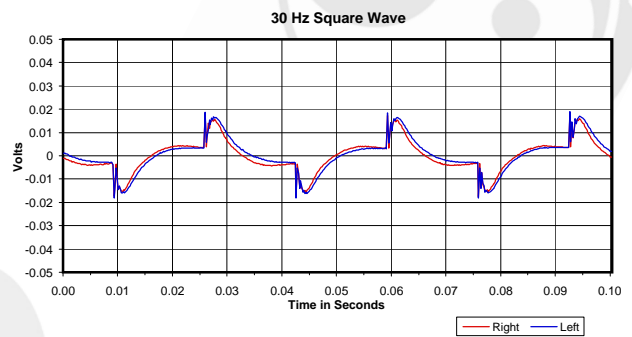
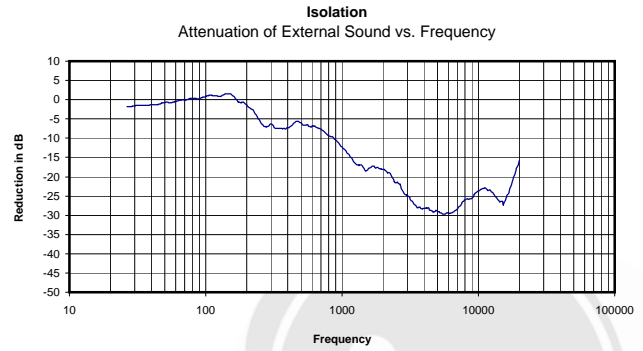
Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.047 Vrms
 33 Ohms
 0.07 mW
 -9 dB





Electrical Impedance and phase measurements unavailable for electrostatic and wireless headphones



Broadband Isolation in dB (100Hz to 10kHz):

-14 dBr

Impulse response unavailable for Bluetooth headphones due to latency synchronization problems.

inner | fidelity

Headphone Measurement Datasheets

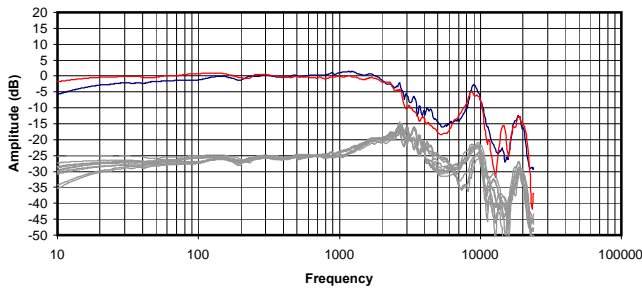
DIY Headphones



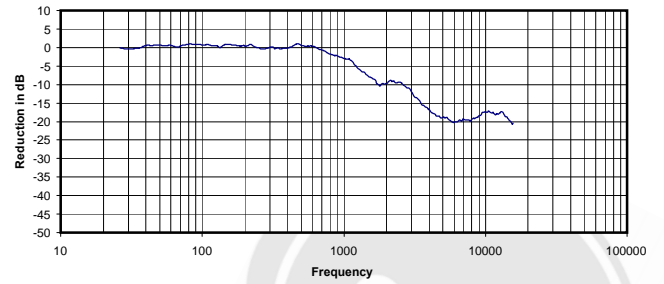
<http://www.innerfidelity.com>

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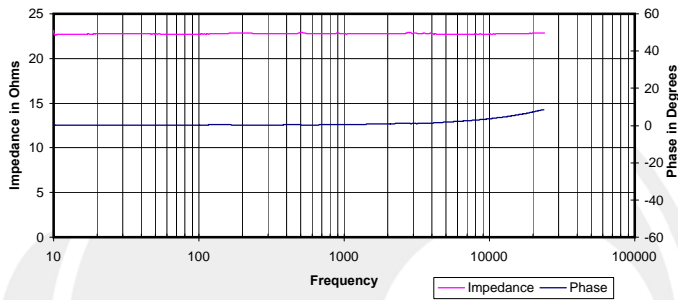
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



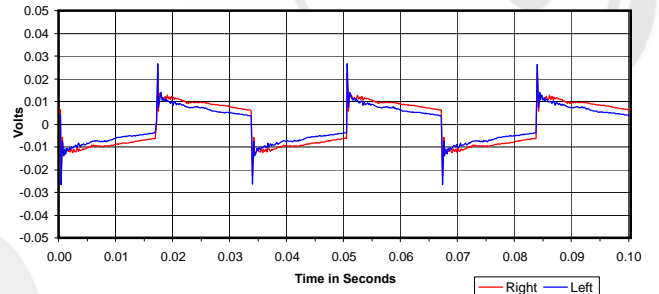
Isolation
Attenuation of External Sound vs. Frequency



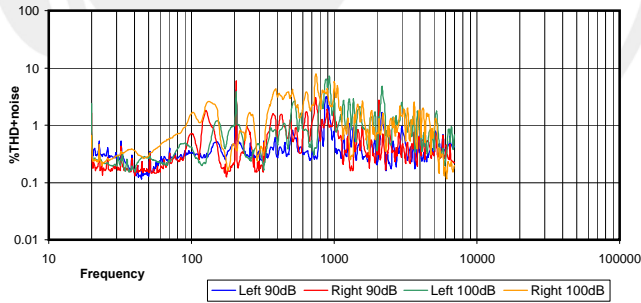
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



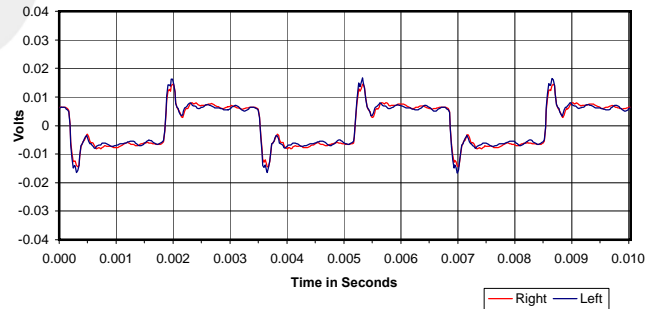
30 Hz Square Wave



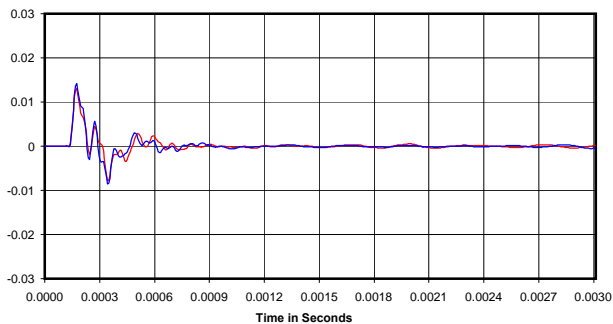
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

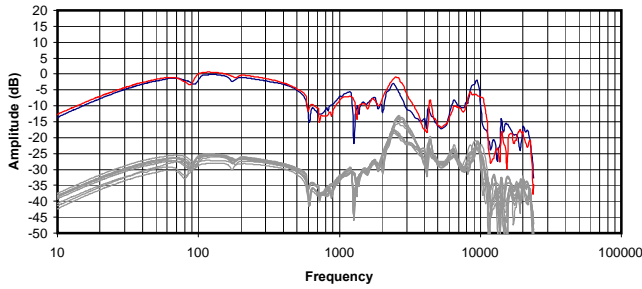


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

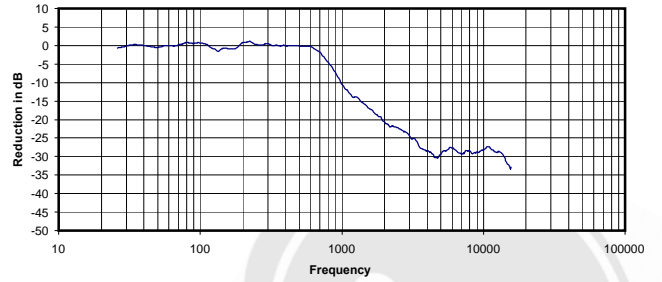
0.154 Vrms
23 Ohms
1.04 mW
-5 dB



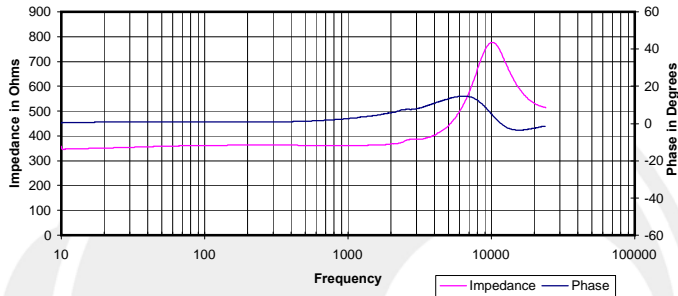
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



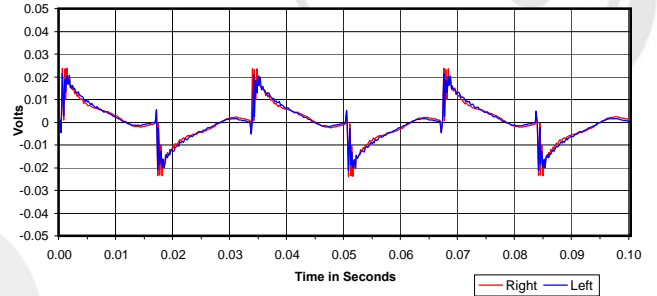
Isolation
Attenuation of External Sound vs. Frequency



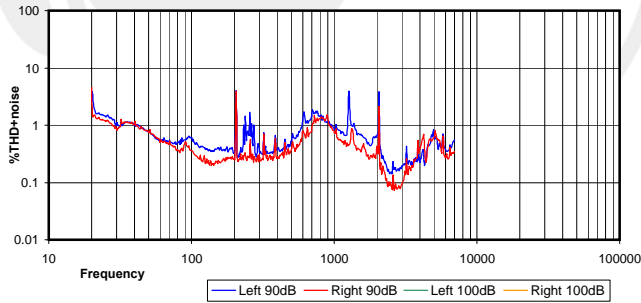
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



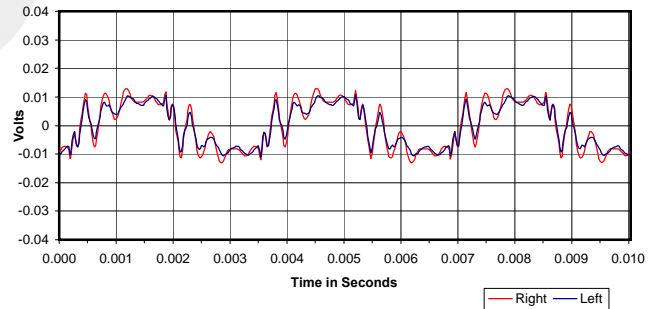
30 Hz Square Wave



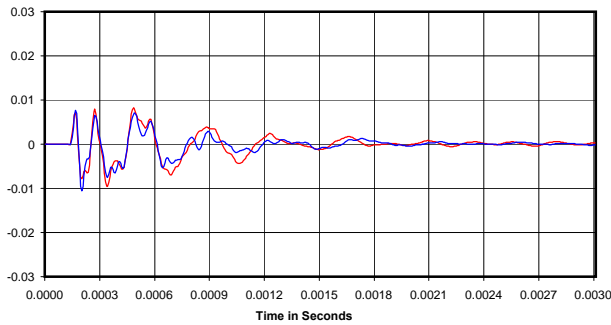
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

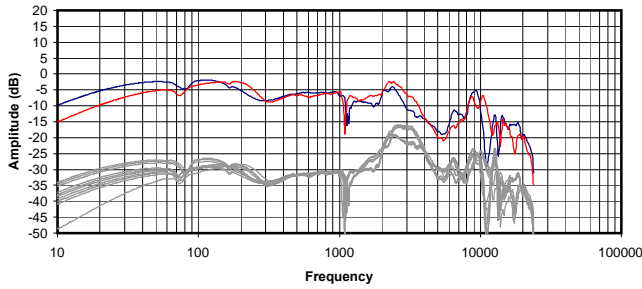


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

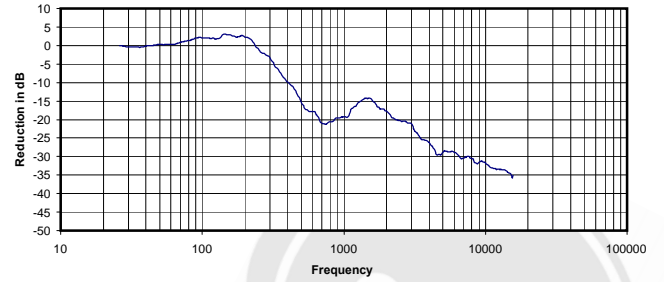
0.850 Vrms
361 Ohms
2.00 mW
-10 dB



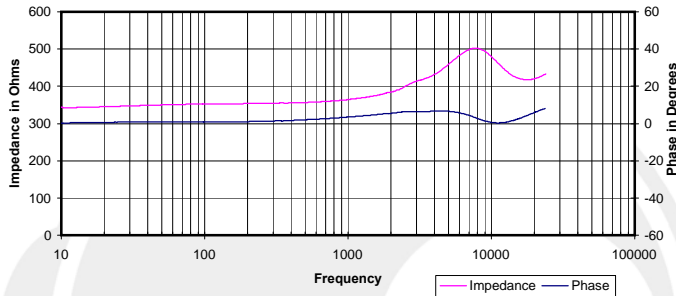
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



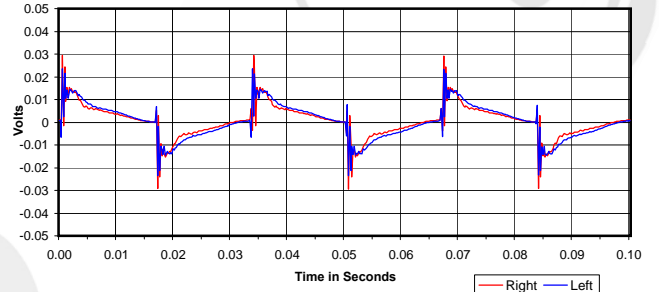
Isolation
 Attenuation of External Sound vs. Frequency



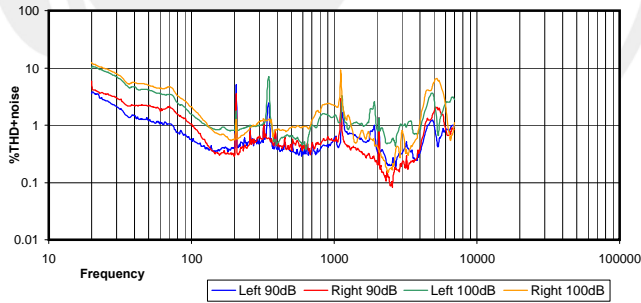
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



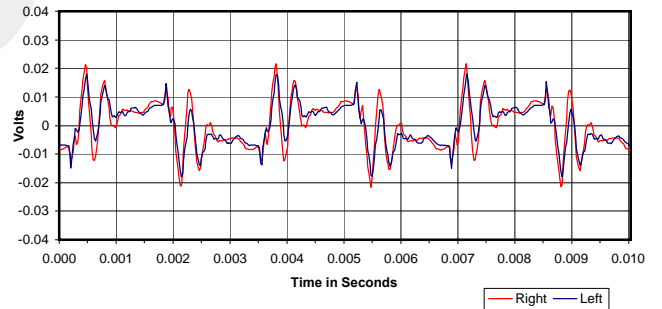
30 Hz Square Wave



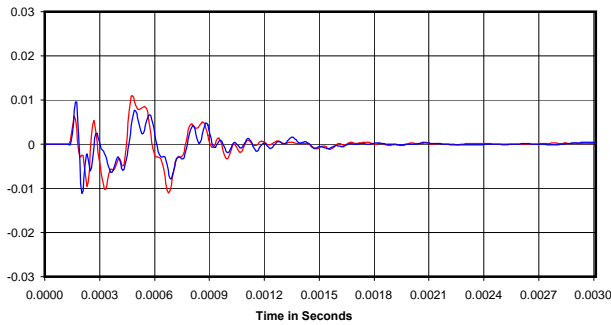
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

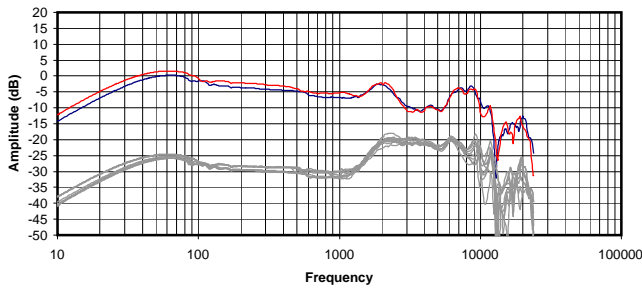


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

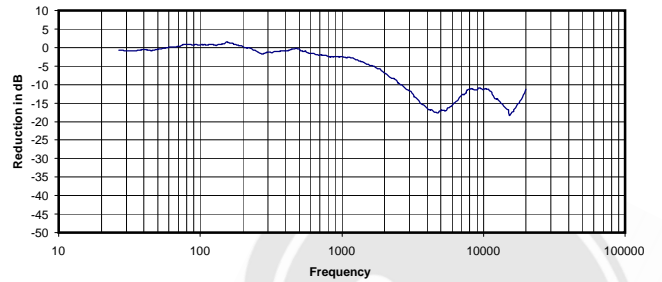
1.072 Vrms
 364 Ohms
 3.16 mW
 -13 dB



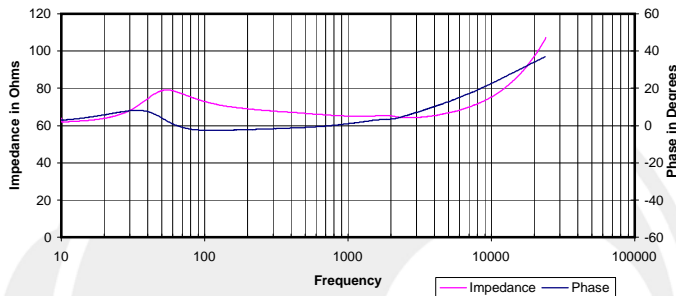
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



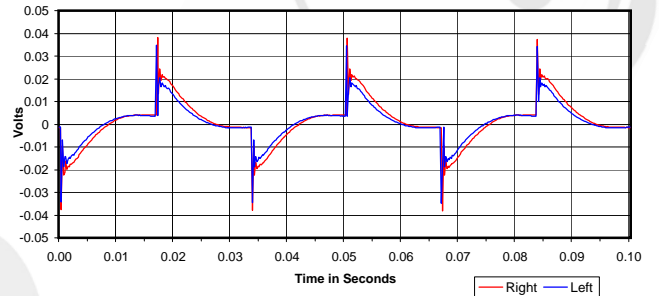
Isolation
 Attenuation of External Sound vs. Frequency



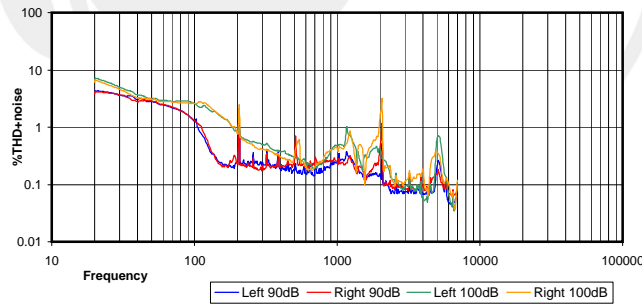
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



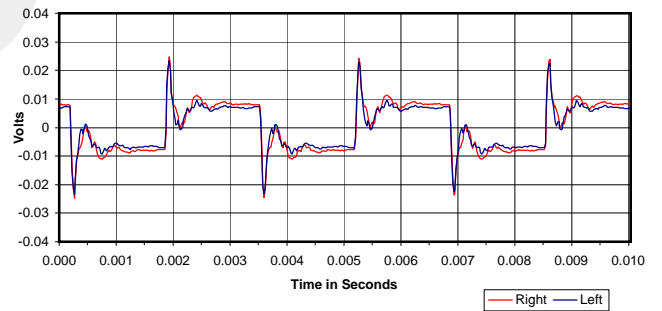
30 Hz Square Wave



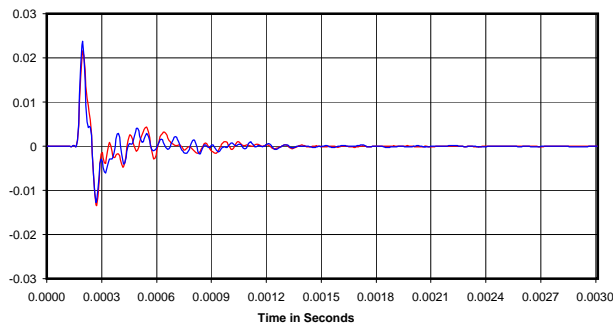
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

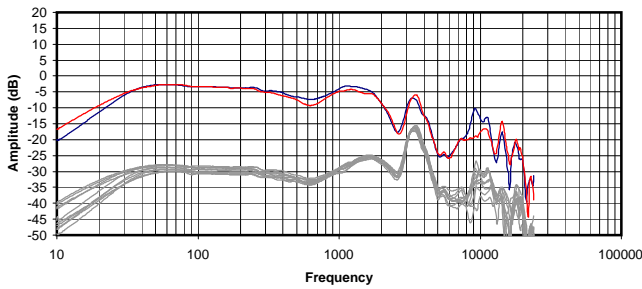


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

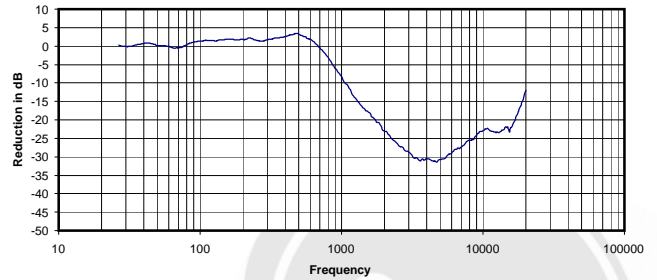
0.393 Vrms
 65 Ohms
 2.37 mW
 -6 dBr



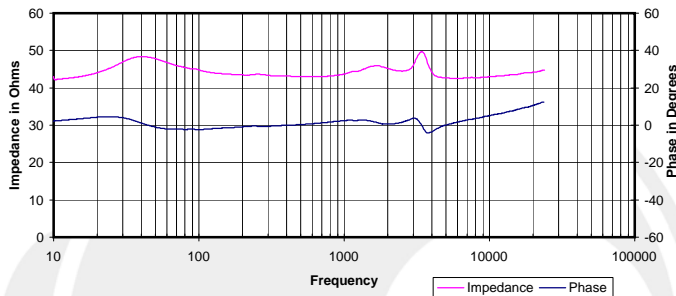
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



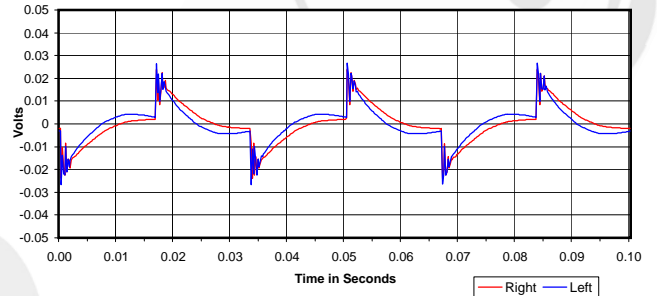
Isolation
 Attenuation of External Sound vs. Frequency



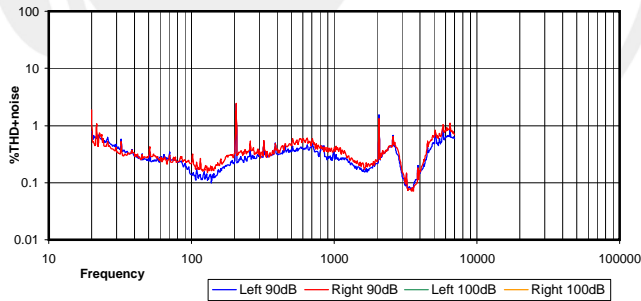
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



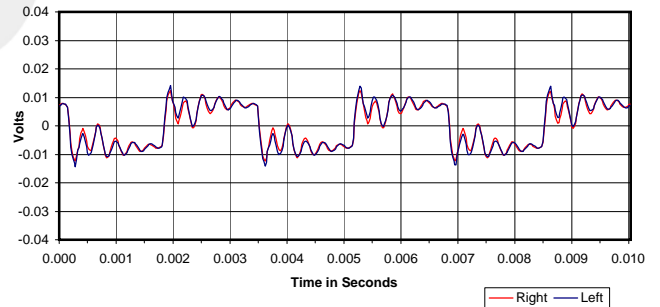
30 Hz Square Wave



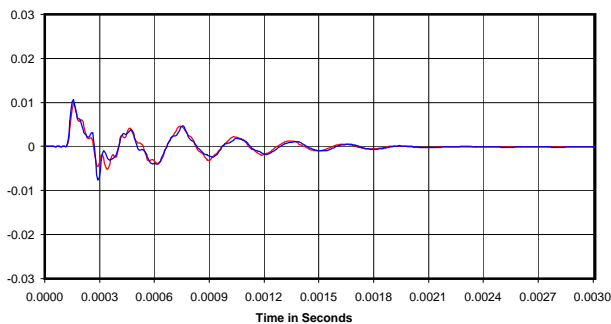
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

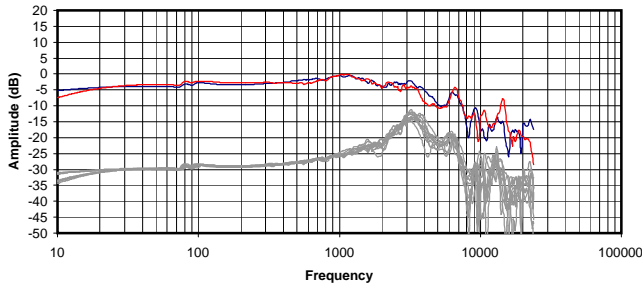


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.027 Vrms
 44 Ohms
 0.02 mW
 -12 dB

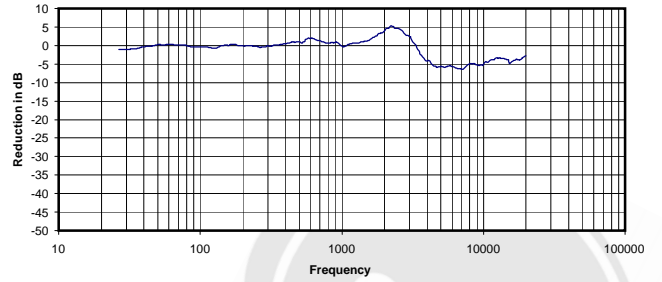


Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

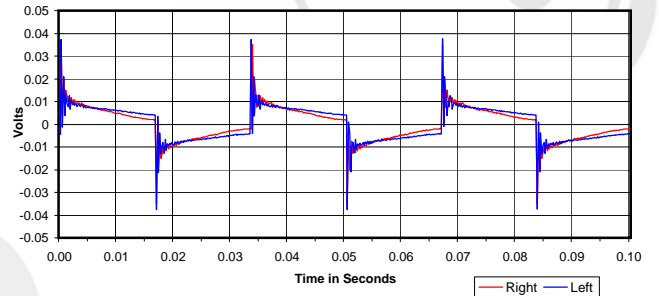


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

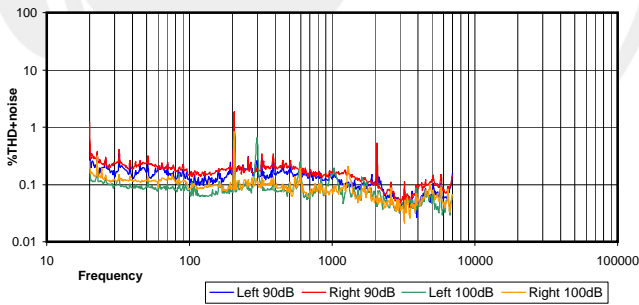
Isolation
 Attenuation of External Sound vs. Frequency



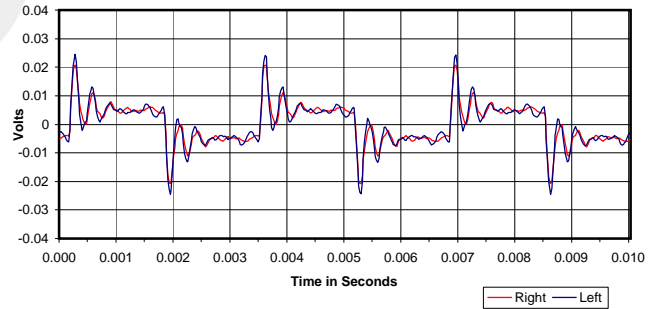
30 Hz Square Wave



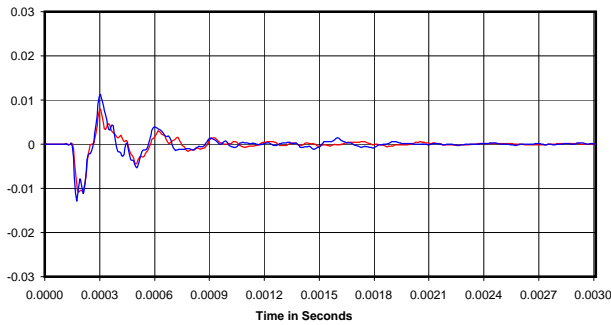
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



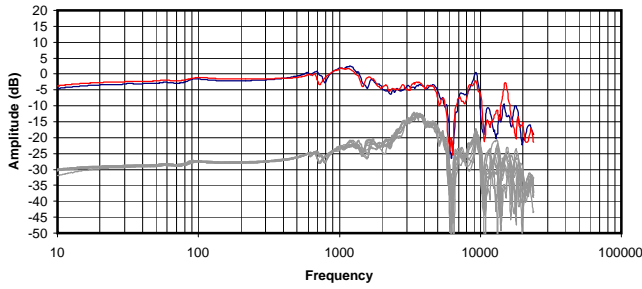
Impulse Response



Broadband Isolation in dB (100Hz to 10kHz):

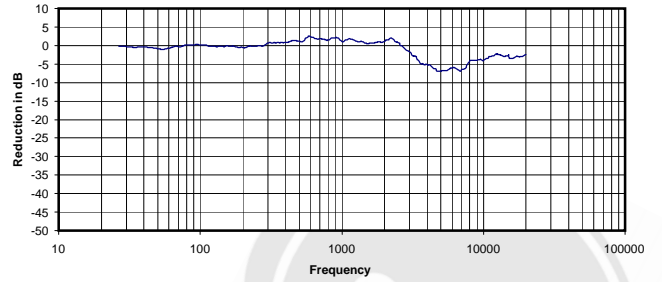
-1 dB

Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions

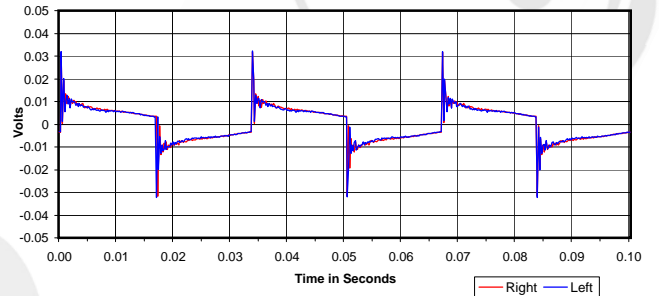


Electrical Impedance and phase measurements
 unavailable for electrostatic and wireless headphones

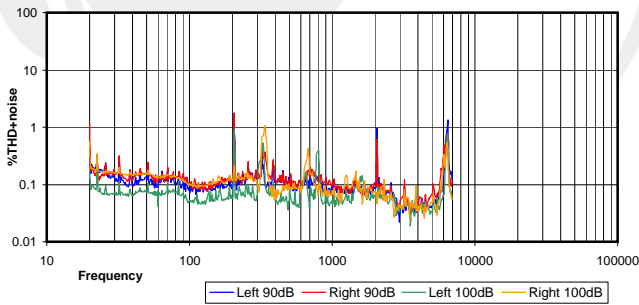
Isolation
 Attenuation of External Sound vs. Frequency



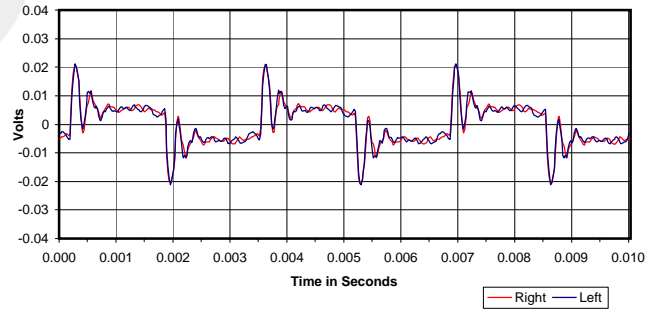
30 Hz Square Wave



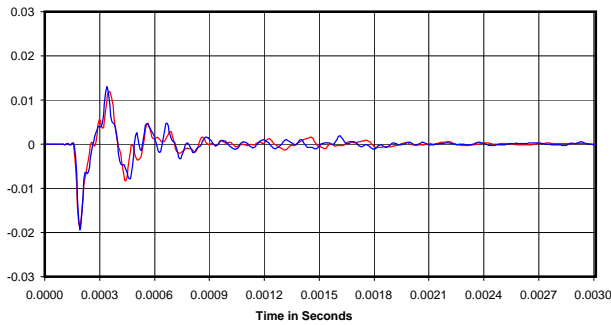
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



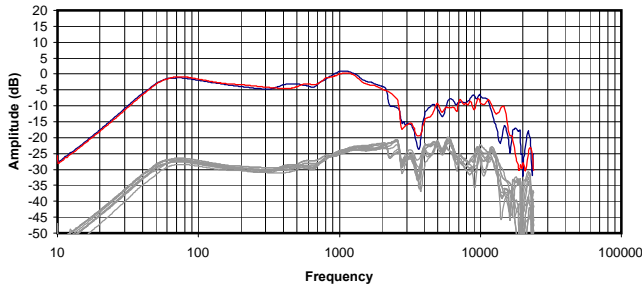
Impulse Response



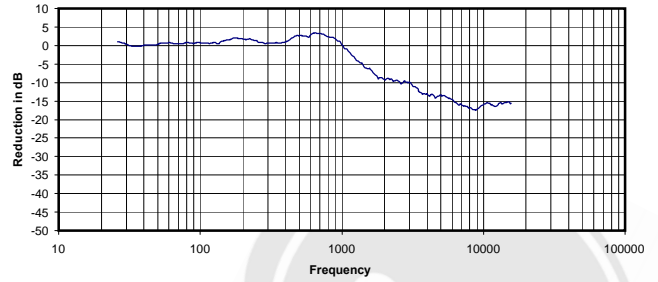
Broadband Isolation in dB (100Hz to 10kHz):

-1 dB

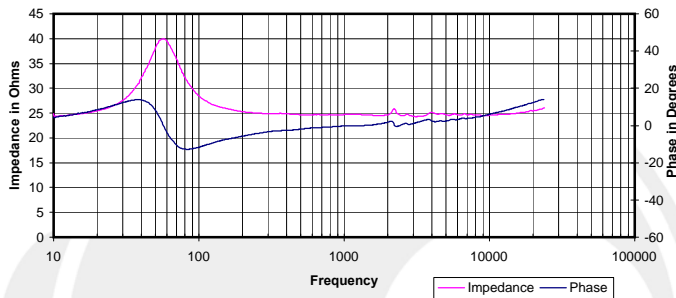
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



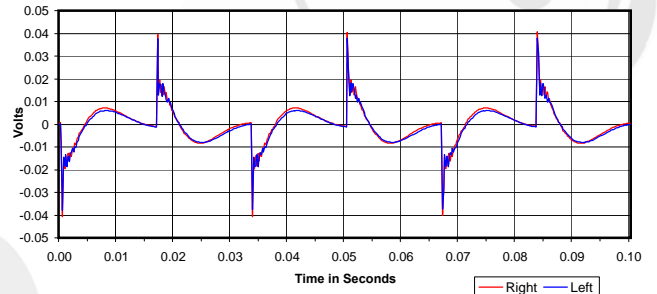
Isolation
 Attenuation of External Sound vs. Frequency



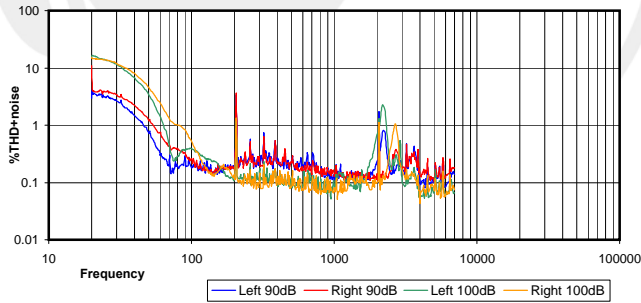
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



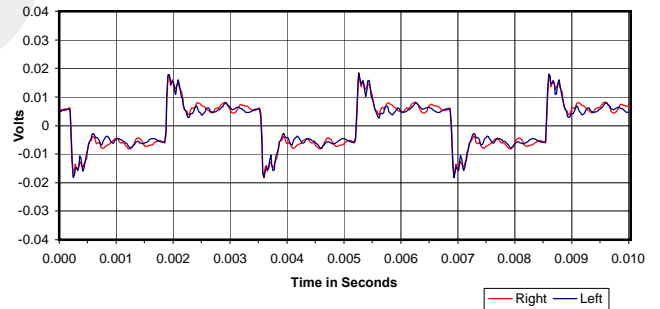
30 Hz Square Wave



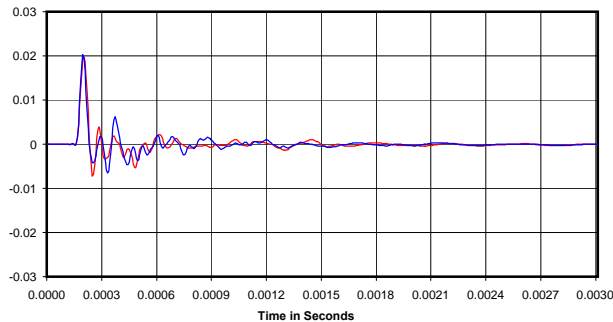
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

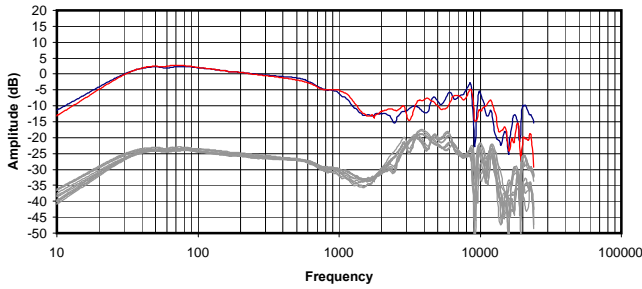


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

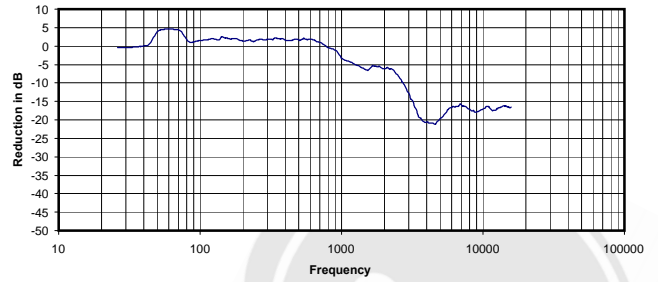
0.048 Vrms
 25 Ohms
 0.09 mW
 -3 dB



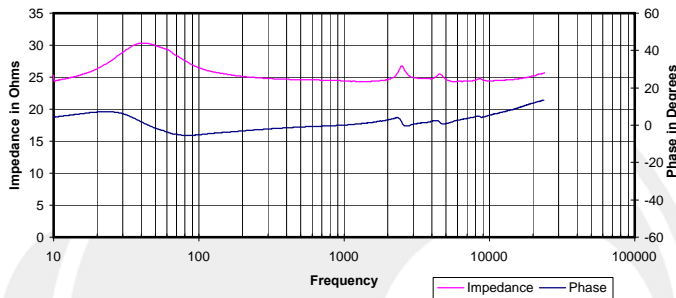
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



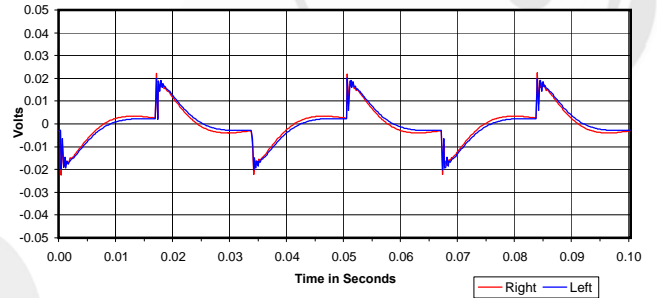
Isolation
 Attenuation of External Sound vs. Frequency



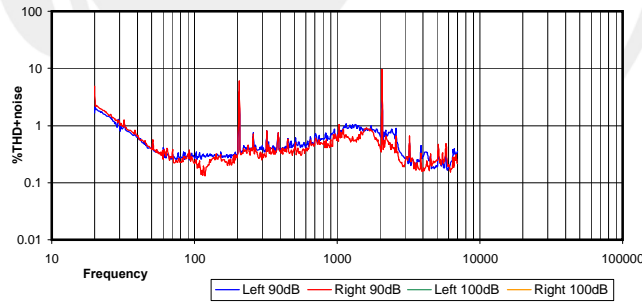
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



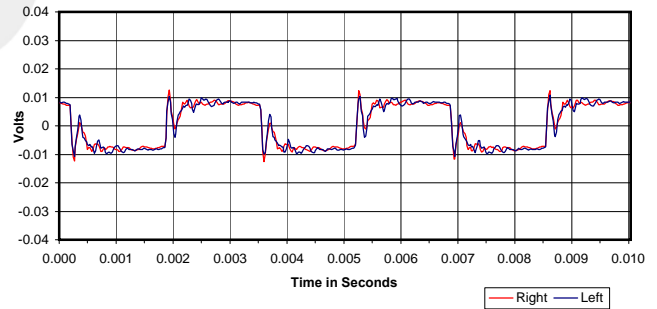
30 Hz Square Wave



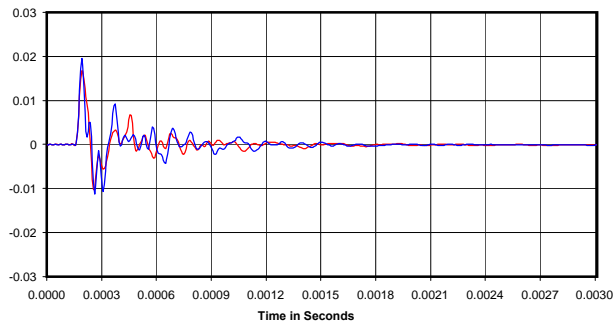
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

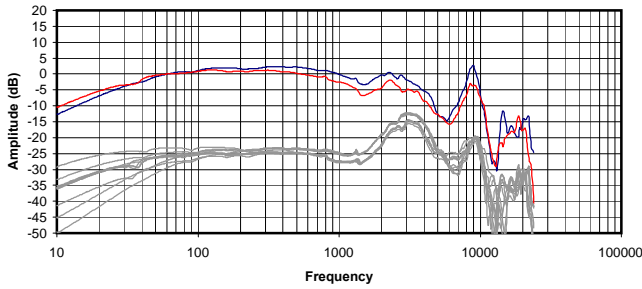


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

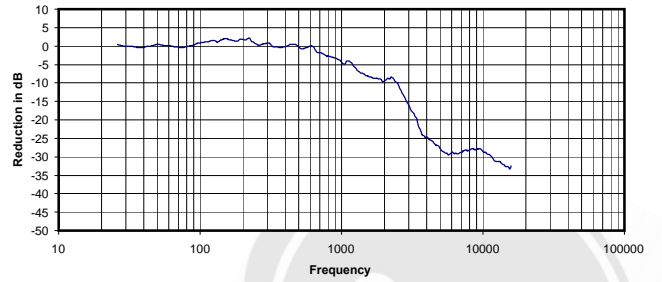
0.082 Vrms
 24 Ohms
 0.27 mW
 -4 dB



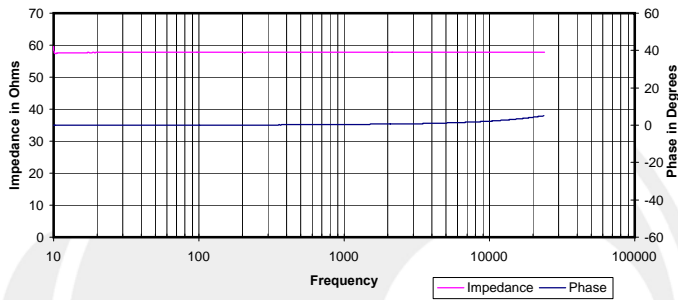
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



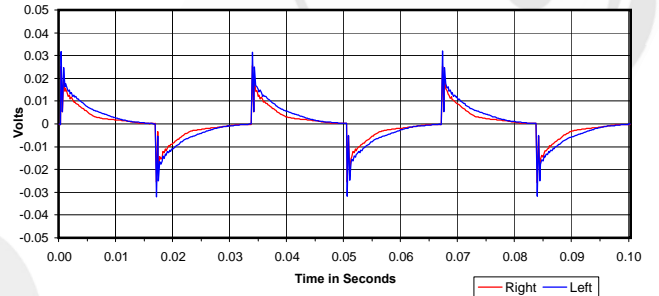
Isolation
 Attenuation of External Sound vs. Frequency



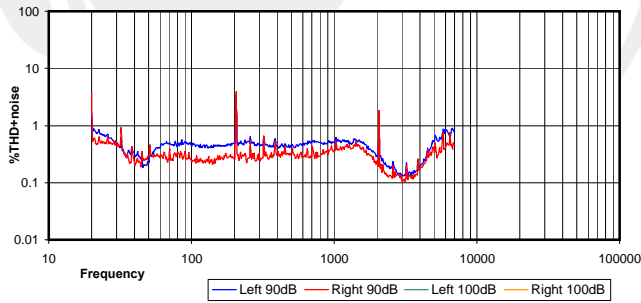
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



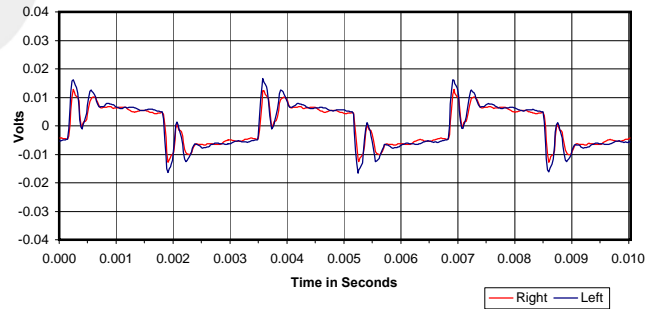
30 Hz Square Wave



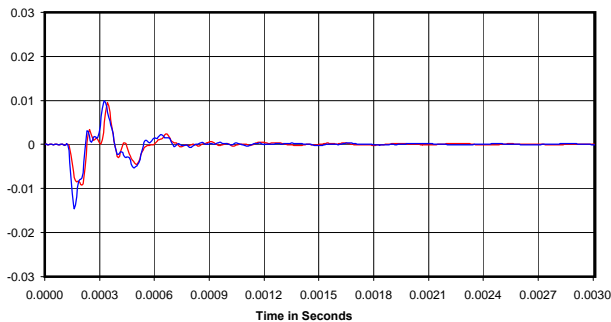
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

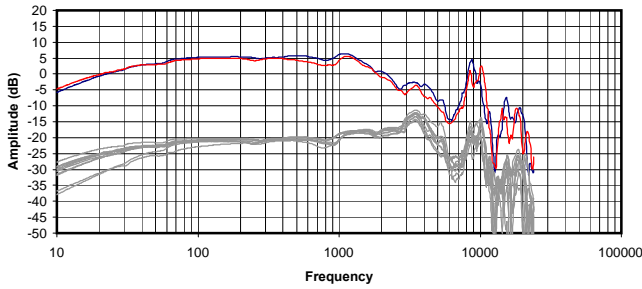


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

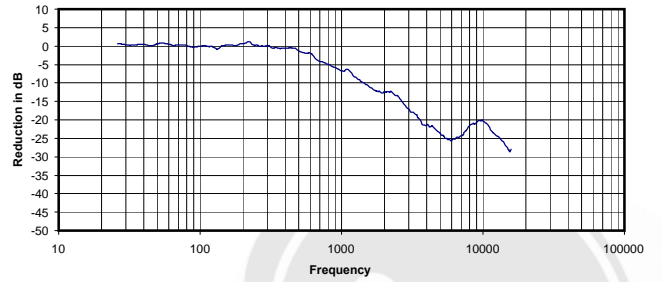
0.271 Vrms
 58 Ohms
 1.27 mW
 -7 dB



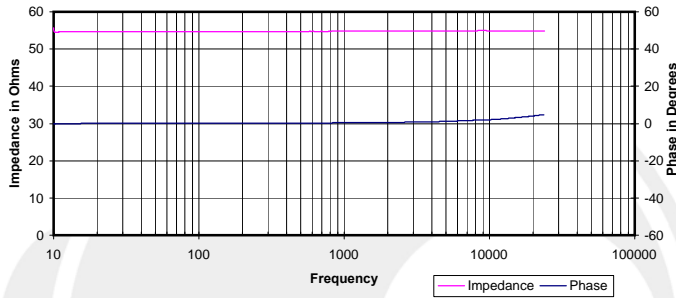
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



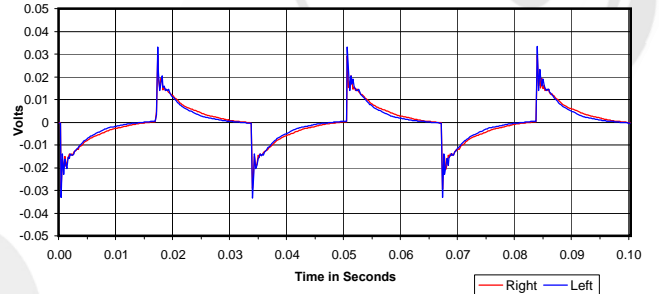
Isolation
Attenuation of External Sound vs. Frequency



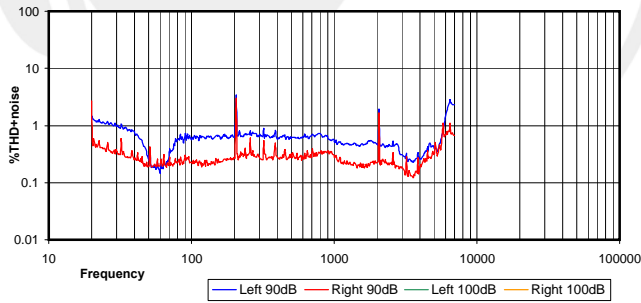
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



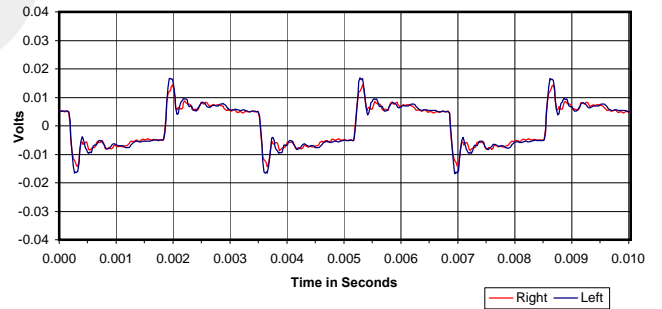
30 Hz Square Wave



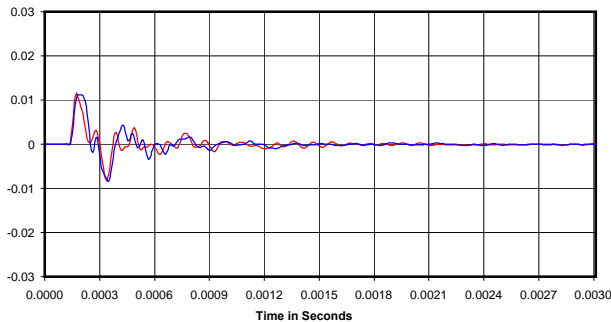
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

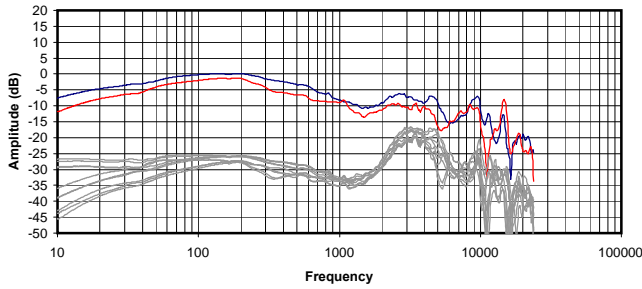


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

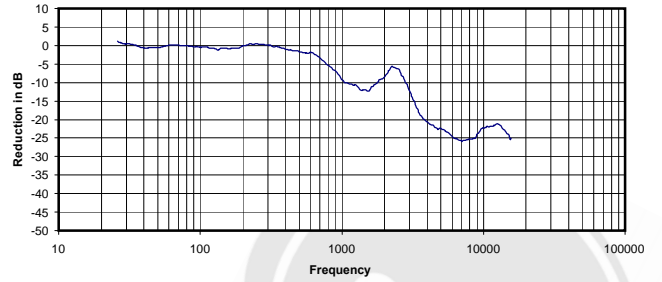
0.130 Vrms
55 Ohms
0.31 mW
-8 dB



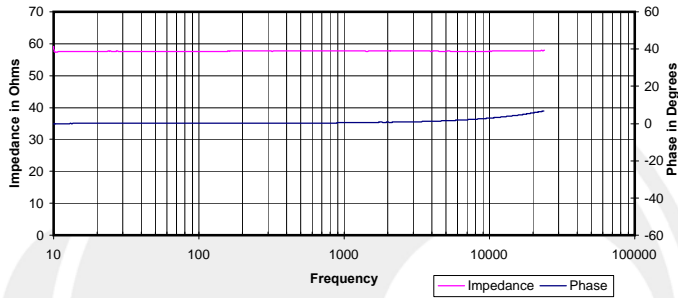
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



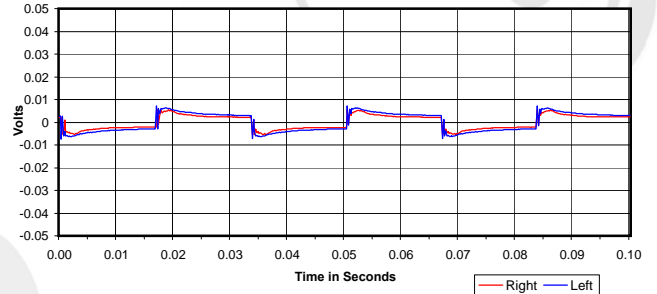
Isolation
 Attenuation of External Sound vs. Frequency



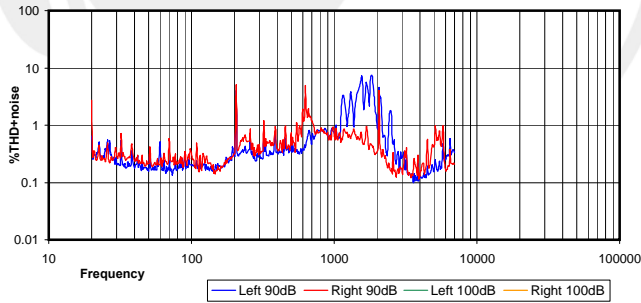
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



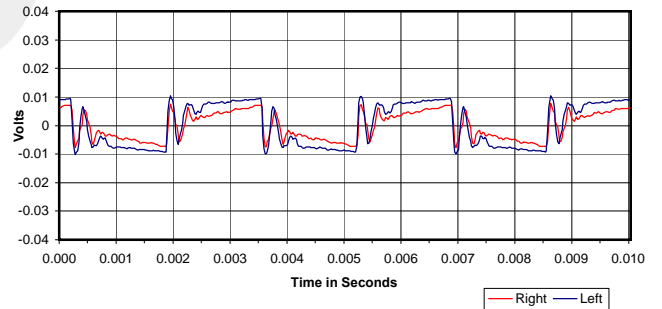
30 Hz Square Wave



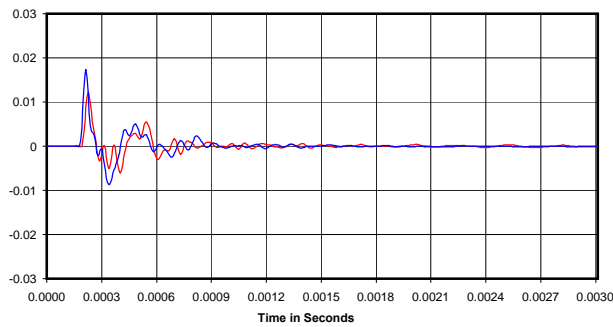
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

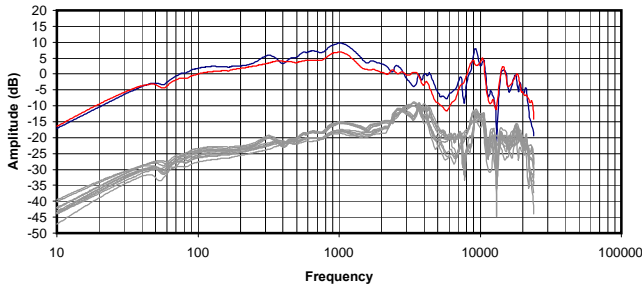


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

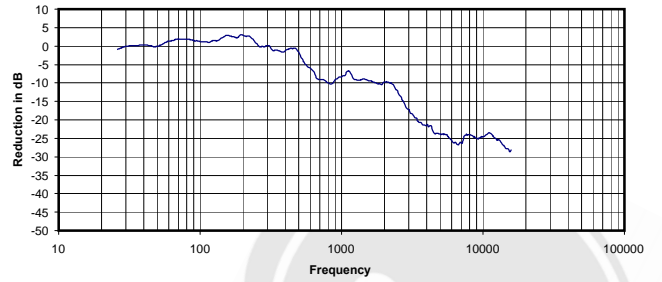
0.572 Vrms
 58 Ohms
 5.67 mW
 -7 dB



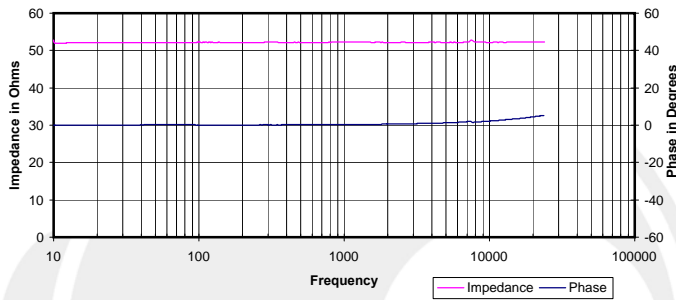
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



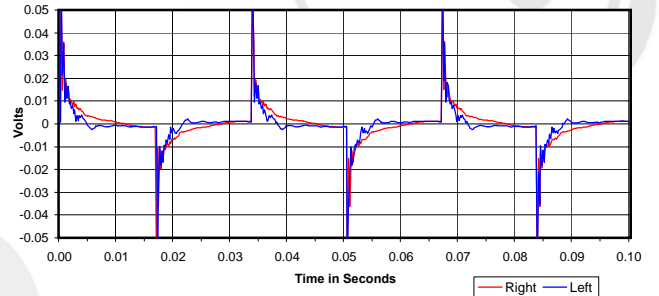
Isolation
 Attenuation of External Sound vs. Frequency



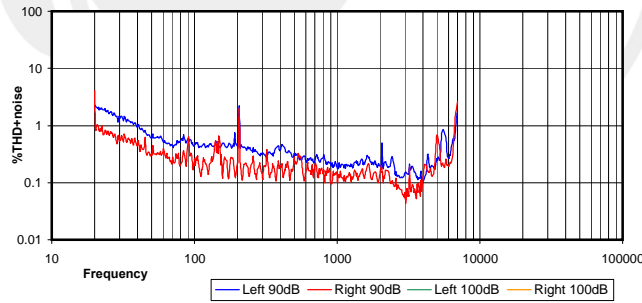
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



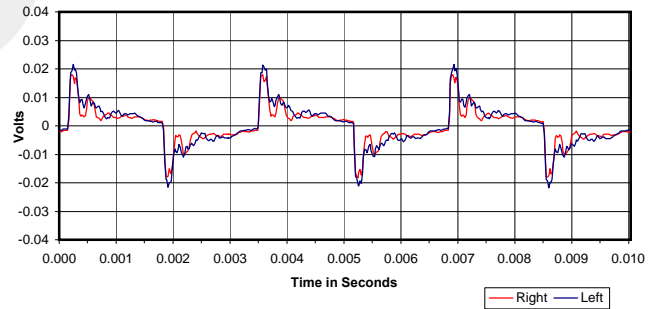
30 Hz Square Wave



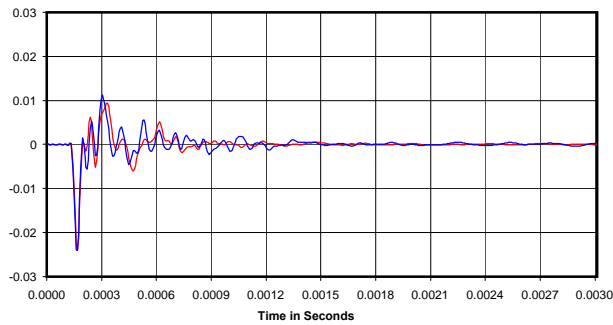
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

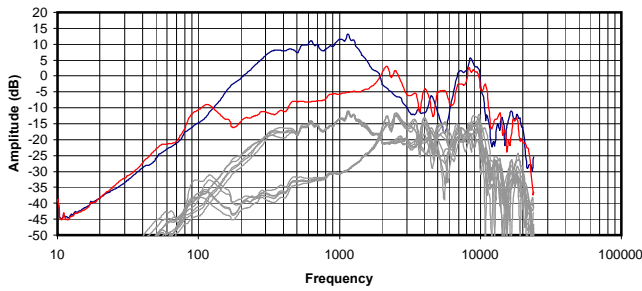


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

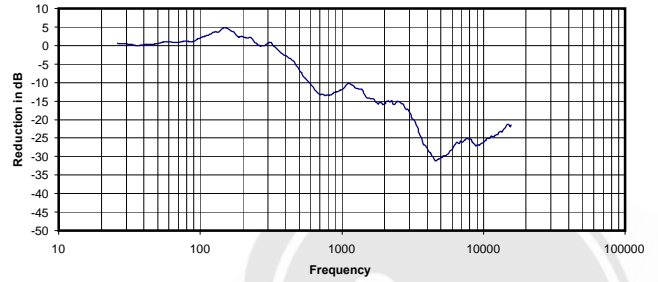
0.172 Vrms
 52 Ohms
 0.57 mW
 -8 dB



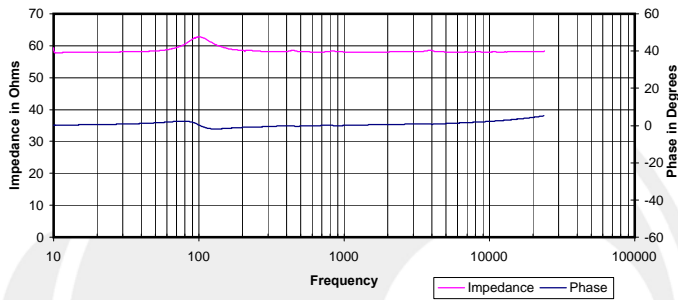
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



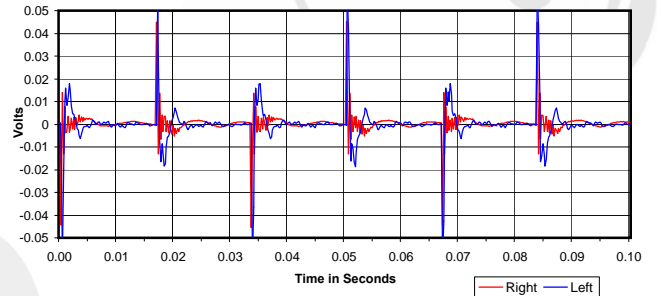
Isolation
 Attenuation of External Sound vs. Frequency



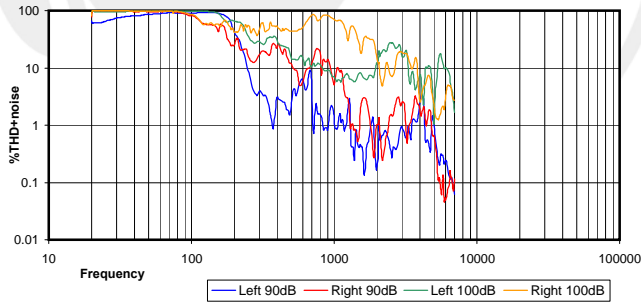
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



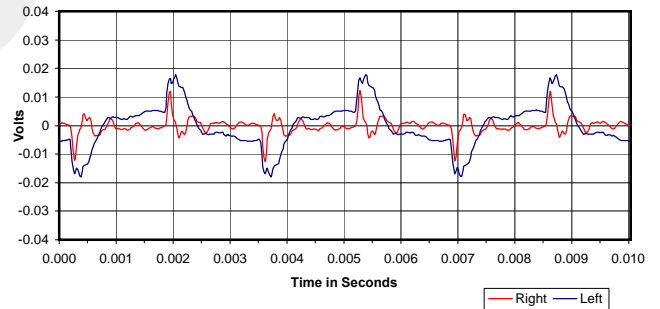
30 Hz Square Wave



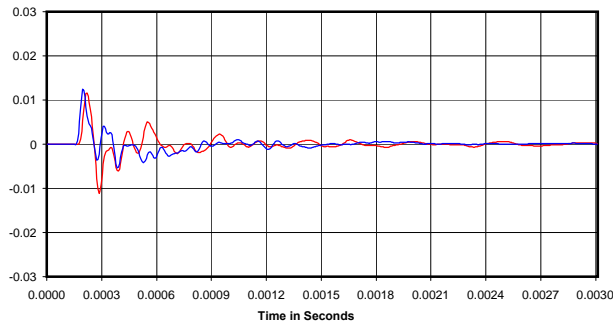
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



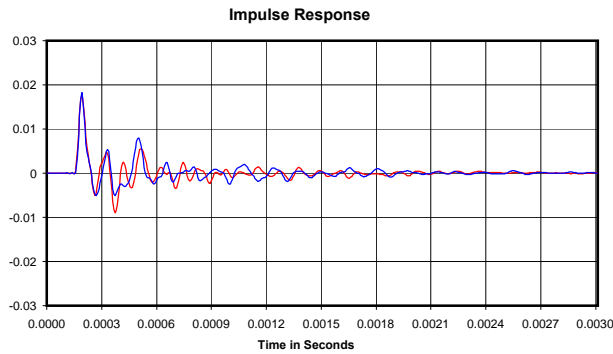
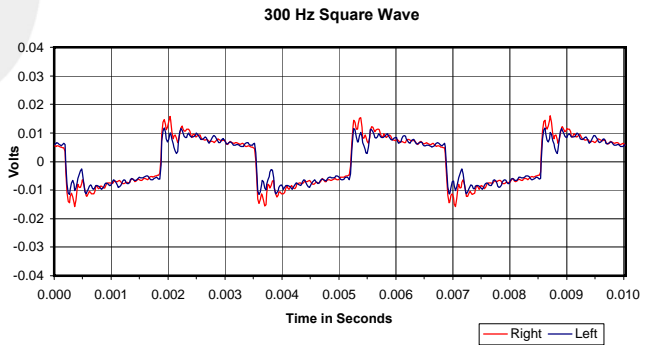
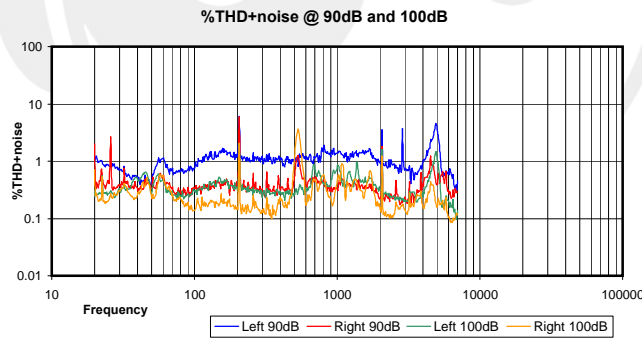
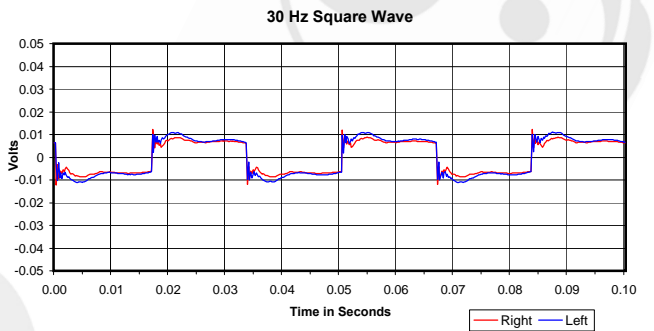
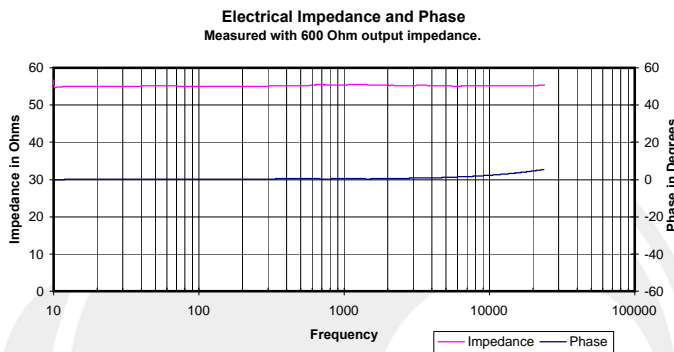
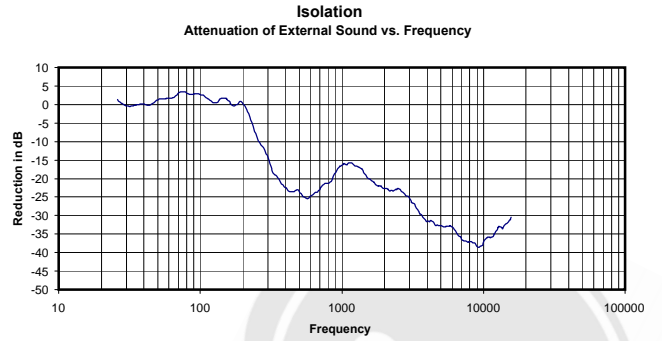
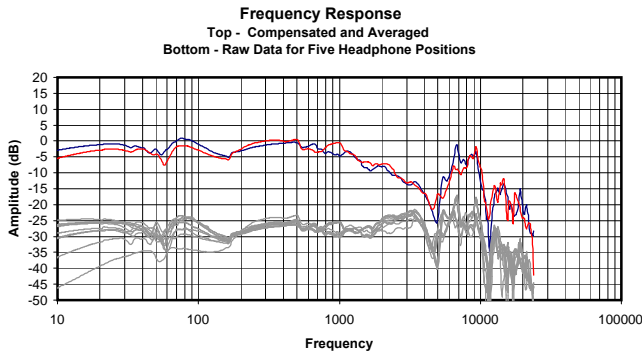
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90dB BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.001 Vrms
 58 Ohms
 0.00 mW
 -10 dB

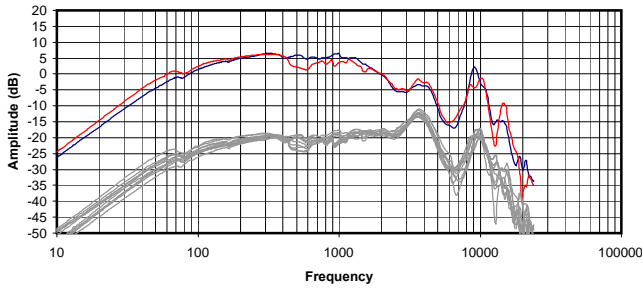




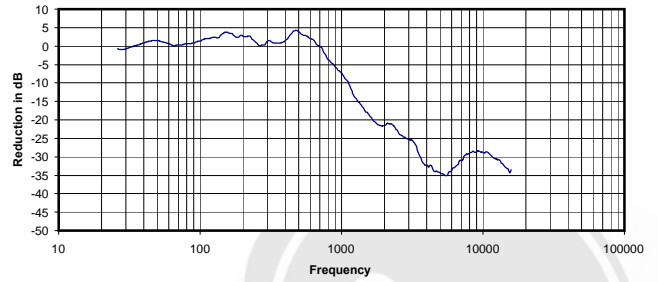
Volts RMS required to reach 90dB SPL: 0.261 Vrms
 Impedance @ 1kHz: 55 Ohms
 Power Needed for 90d BSPL: 1.23 mW
 Broadband Isolation in dB (100Hz to 10kHz): -17 dB



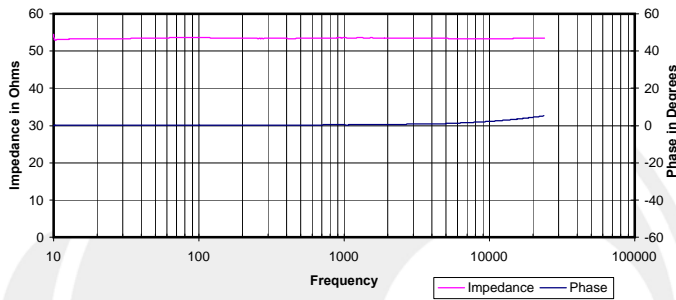
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



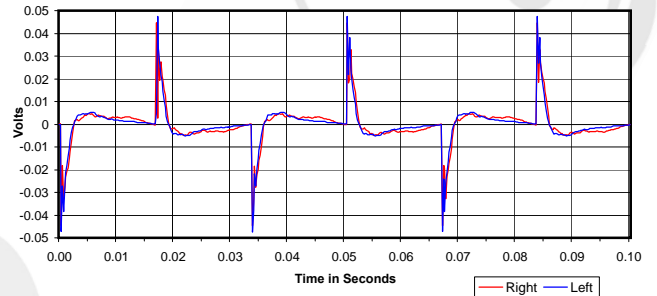
Isolation
Attenuation of External Sound vs. Frequency



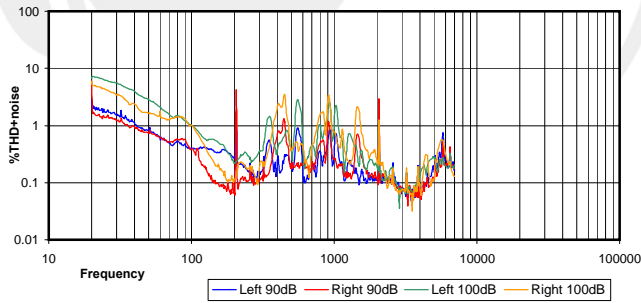
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



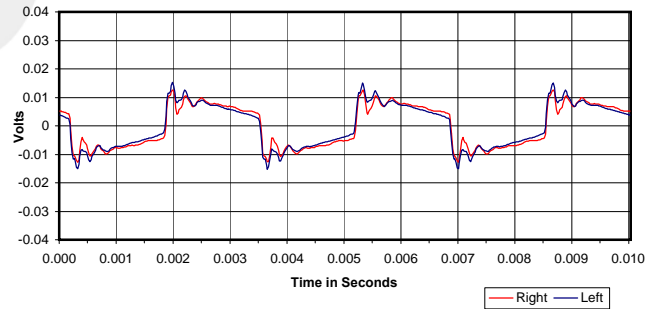
30 Hz Square Wave



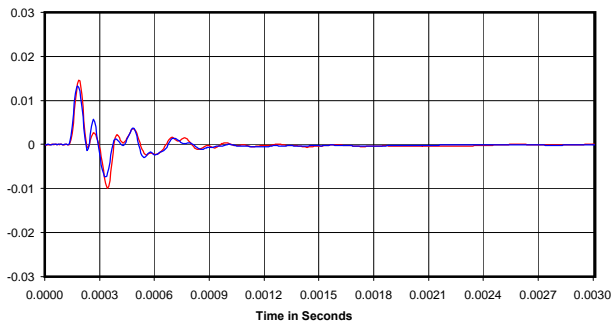
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

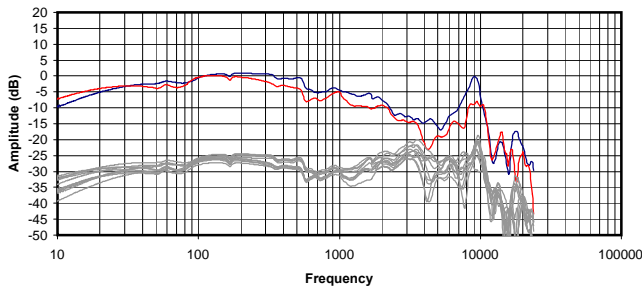


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

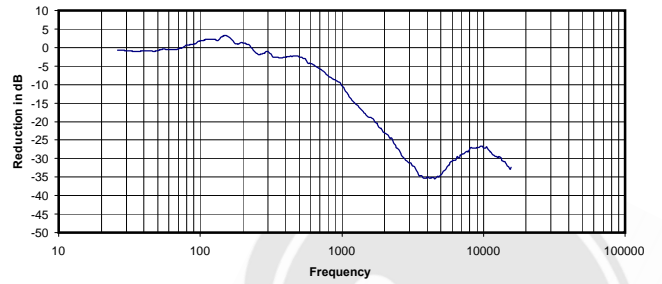
0.098 Vrms
54 Ohms
0.18 mW
-10 dB



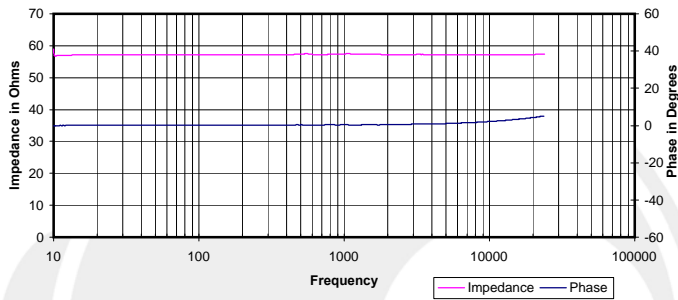
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



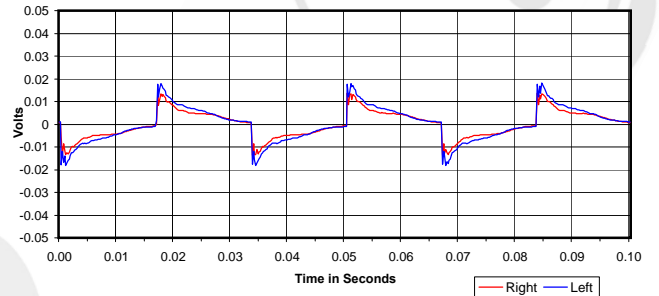
Isolation
Attenuation of External Sound vs. Frequency



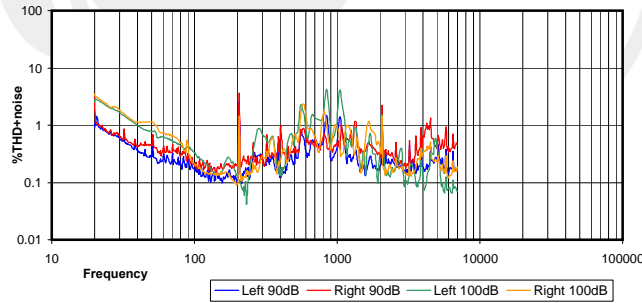
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



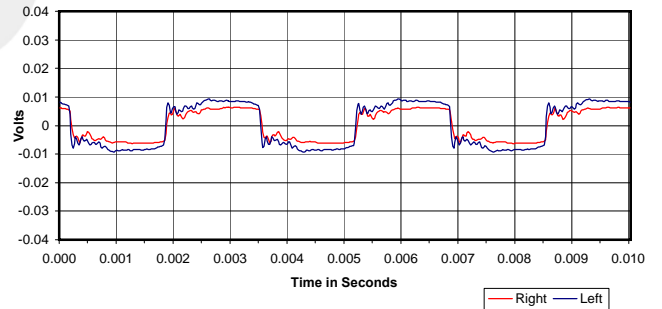
30 Hz Square Wave



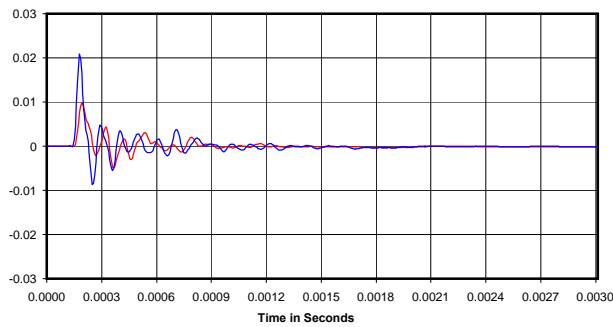
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

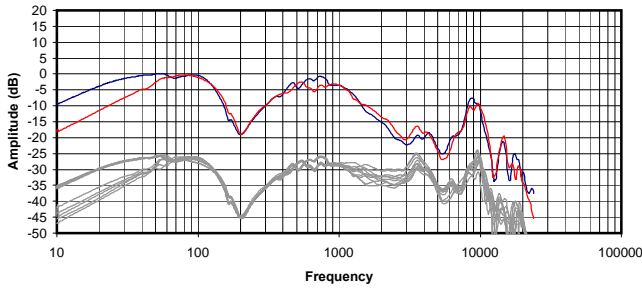


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

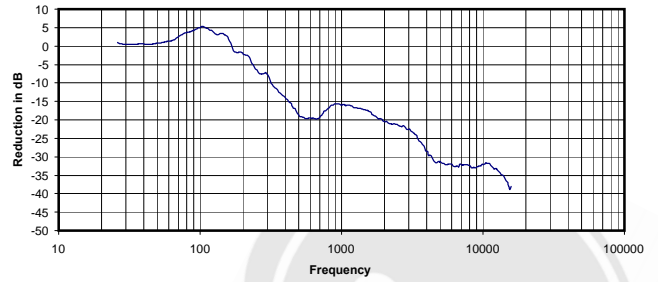
0.260 Vrms
57 Ohms
1.17 mW
-12 dB



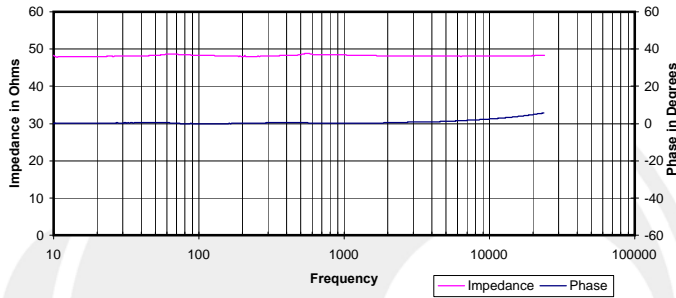
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



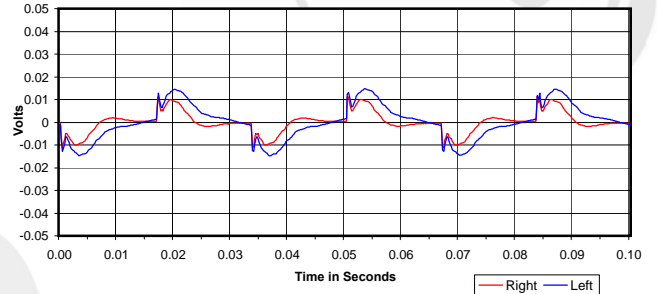
Isolation
 Attenuation of External Sound vs. Frequency



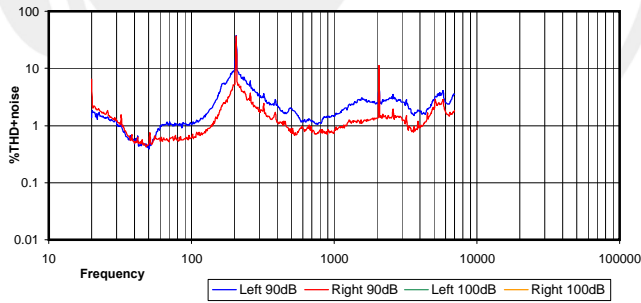
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



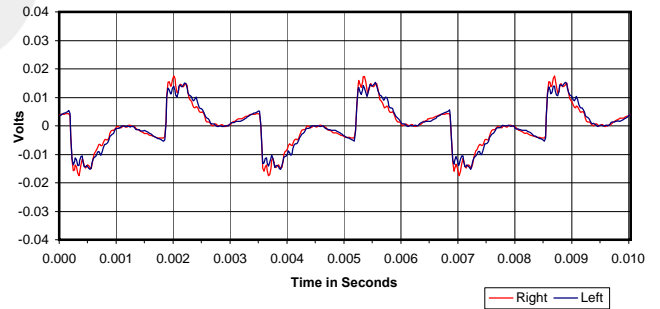
30 Hz Square Wave



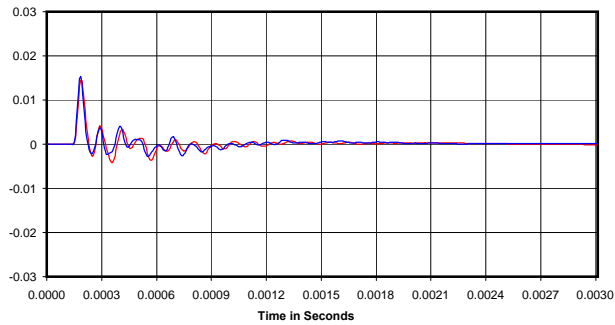
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

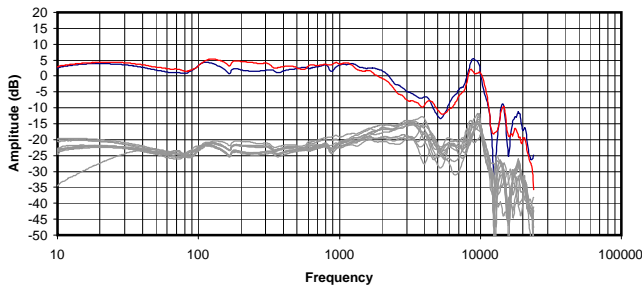


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

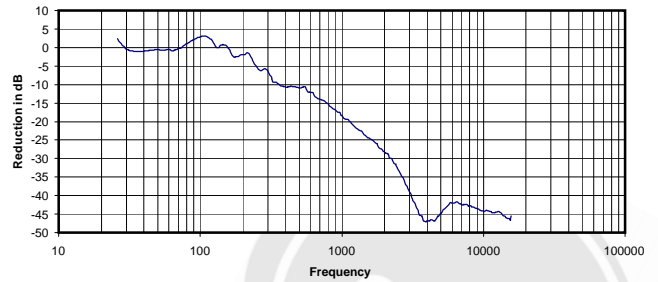
0.105 Vrms
 48 Ohms
 0.23 mW
 -15 dB



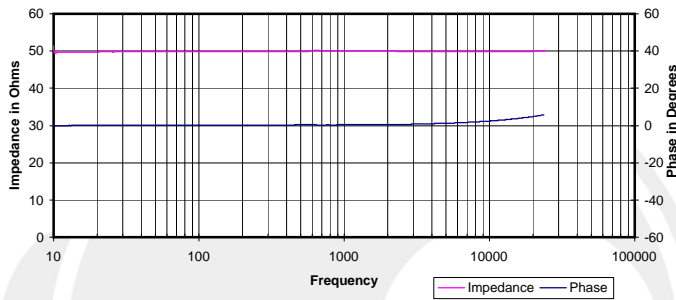
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



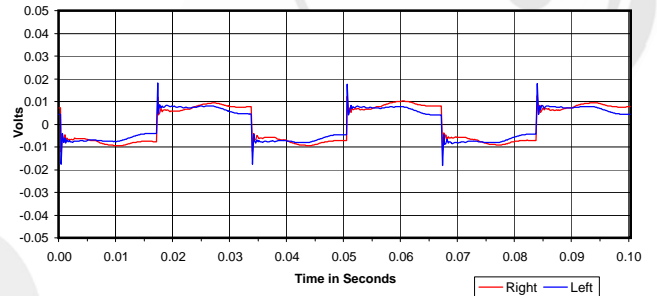
Isolation
Attenuation of External Sound vs. Frequency



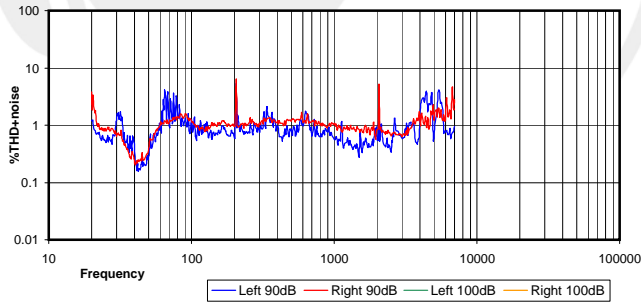
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



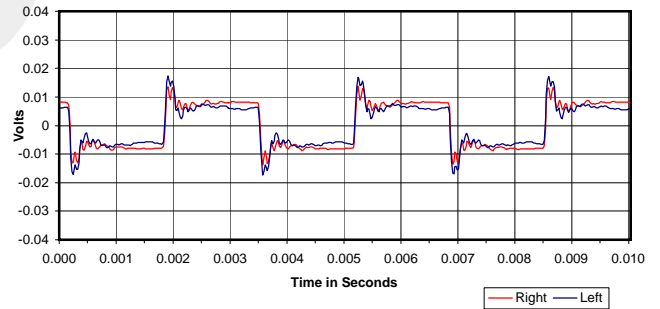
30 Hz Square Wave



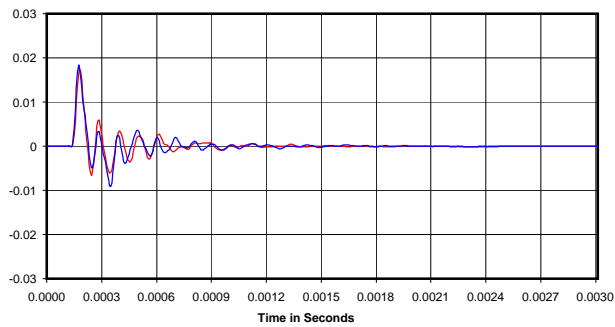
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

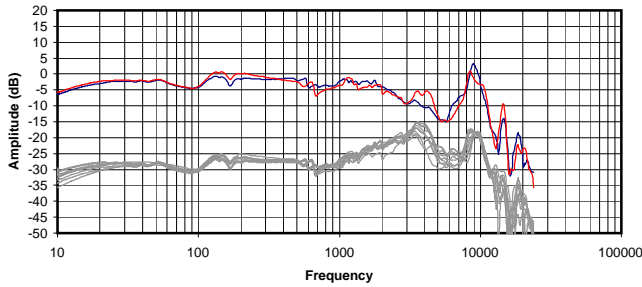


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

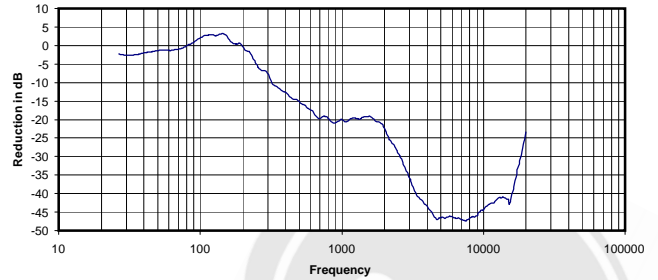
0.164 Vrms
50 Ohms
0.54 mW
-18 dB



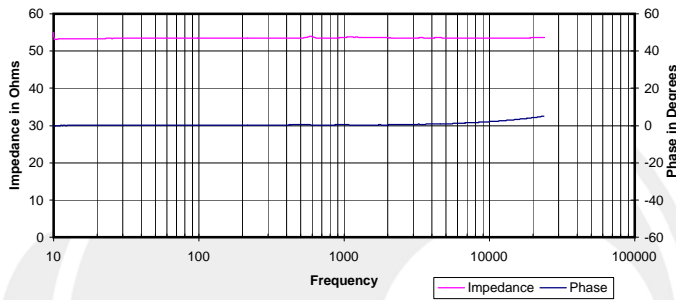
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



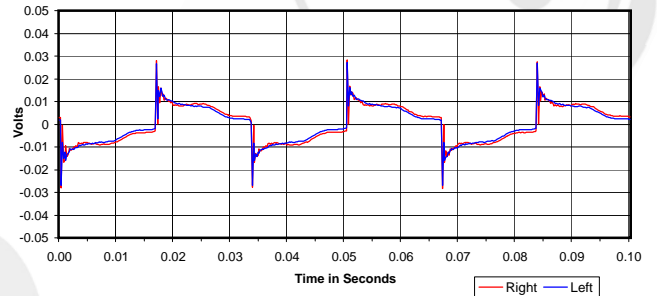
Isolation
 Attenuation of External Sound vs. Frequency



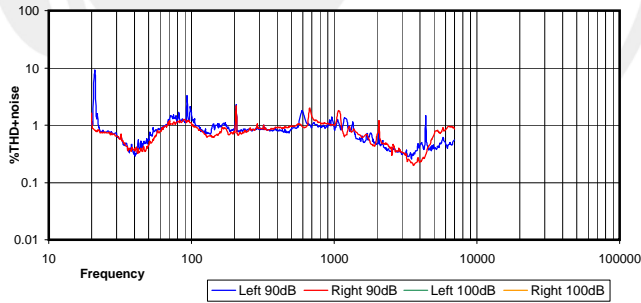
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



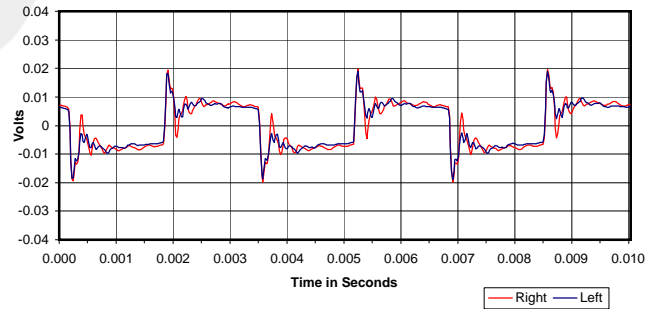
30 Hz Square Wave



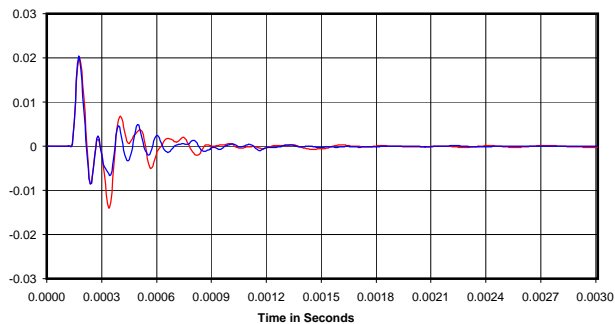
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

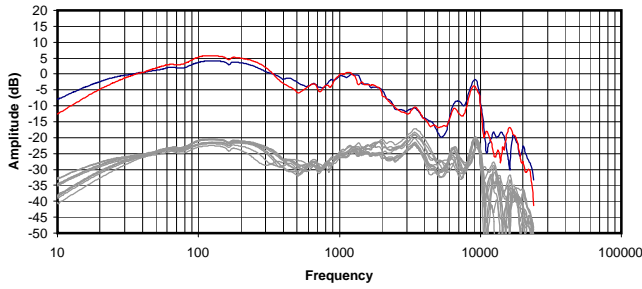


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

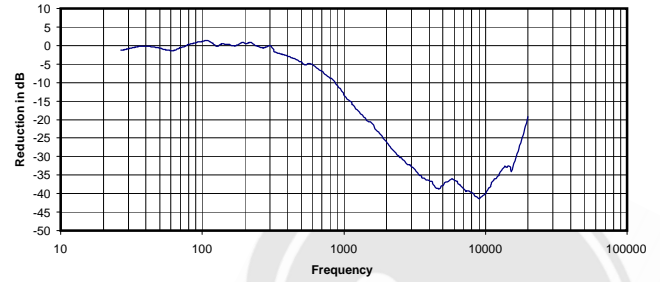
0.252 Vrms
 54 Ohms
 1.19 mW
 -22 dB



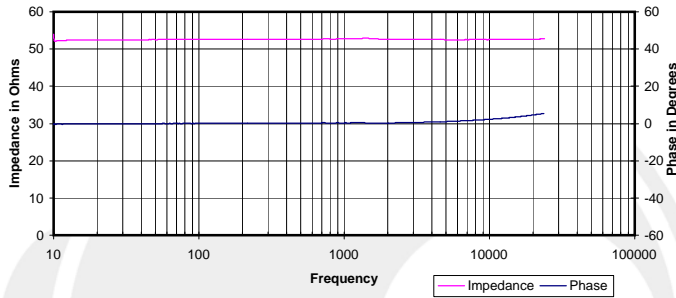
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



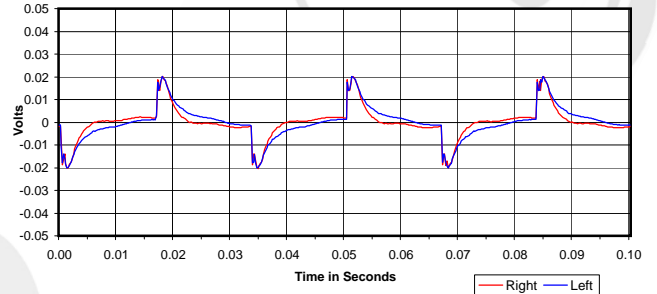
Isolation
 Attenuation of External Sound vs. Frequency



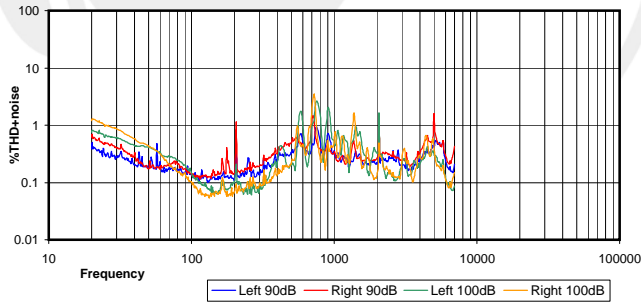
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



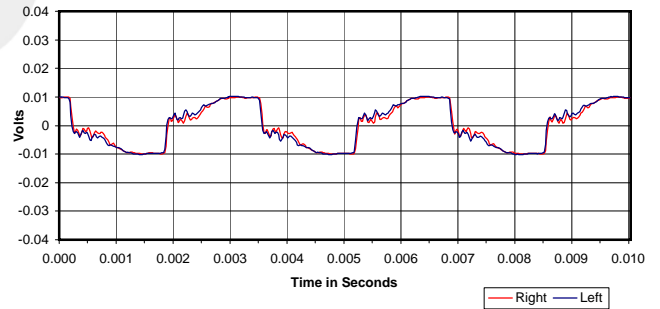
30 Hz Square Wave



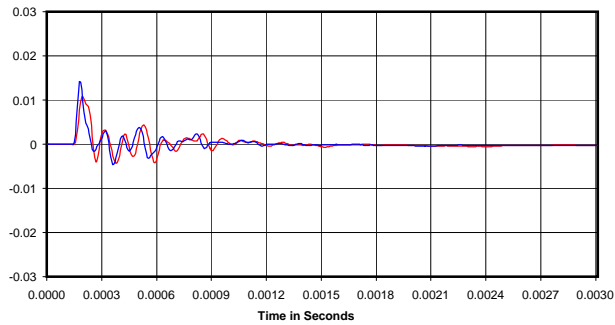
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

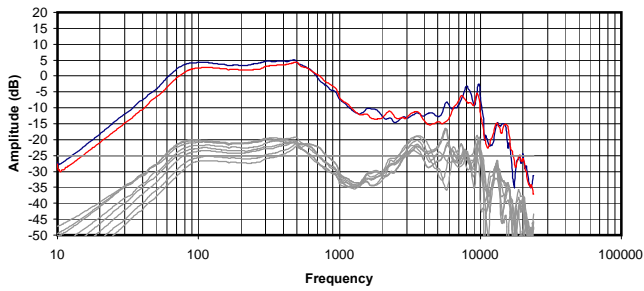


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

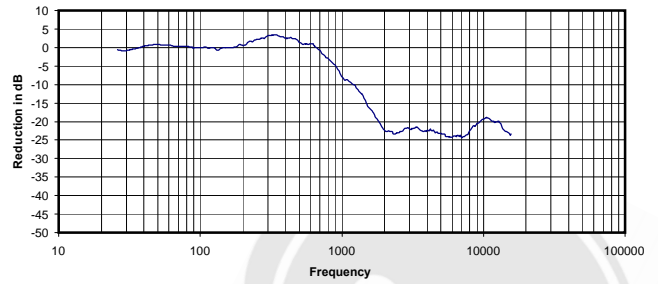
0.172 Vrms
 53 Ohms
 0.56 mW
 -17 dB



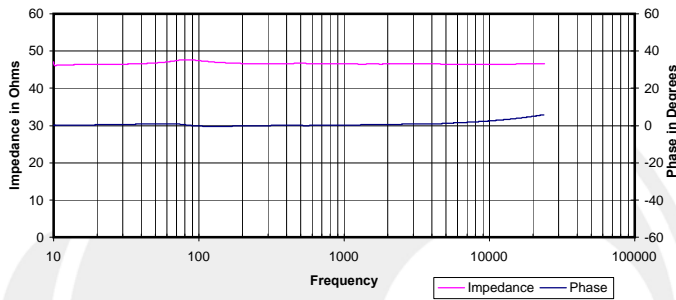
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



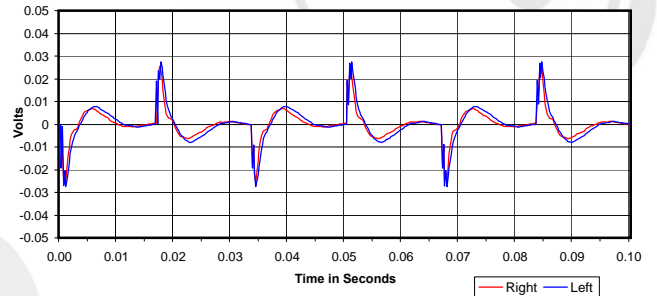
Isolation
Attenuation of External Sound vs. Frequency



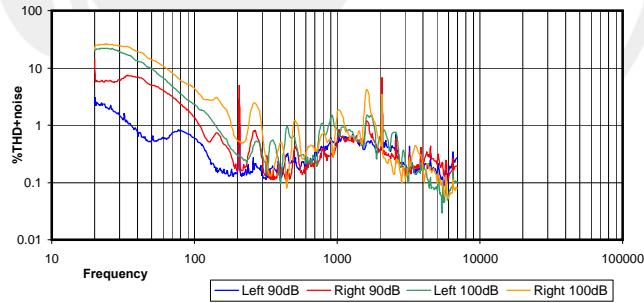
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



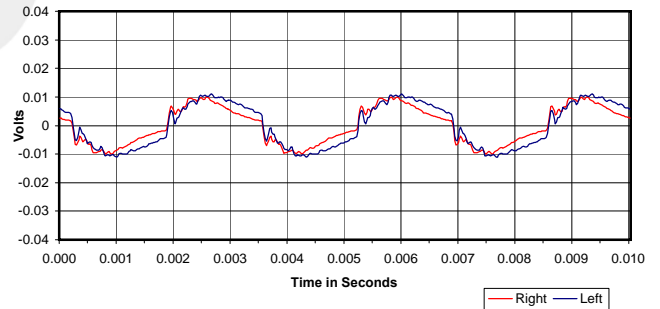
30 Hz Square Wave



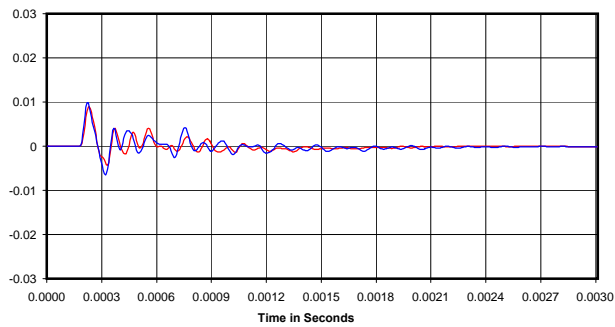
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

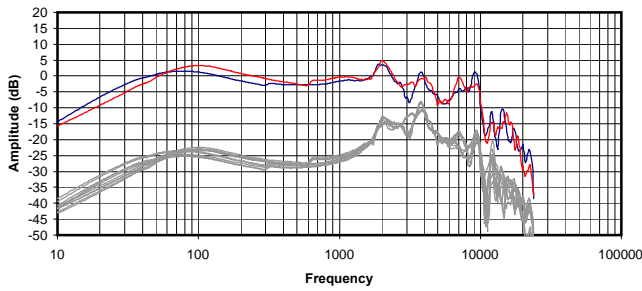


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

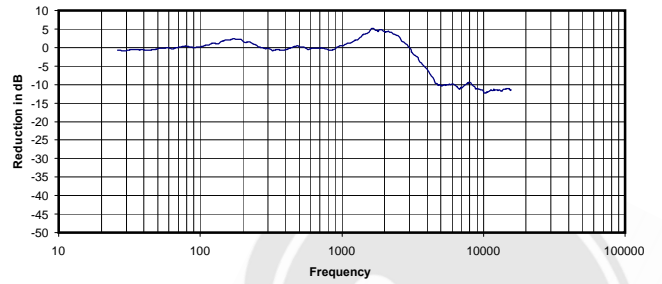
0.405 Vrms
47 Ohms
3.53 mW
-8 dB



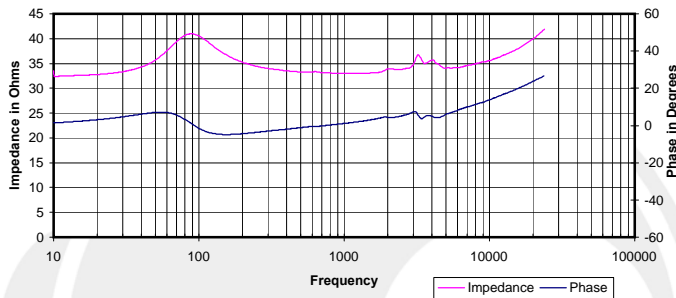
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



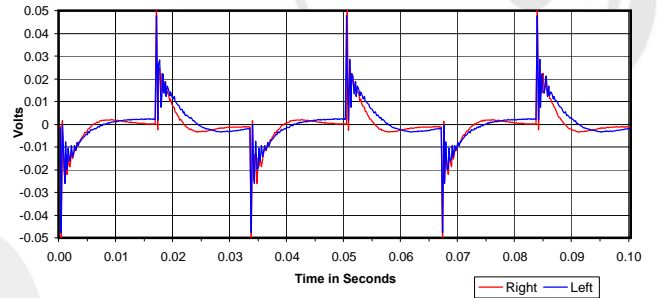
Isolation
Attenuation of External Sound vs. Frequency



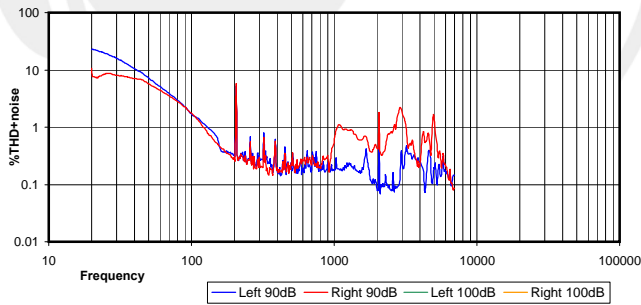
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



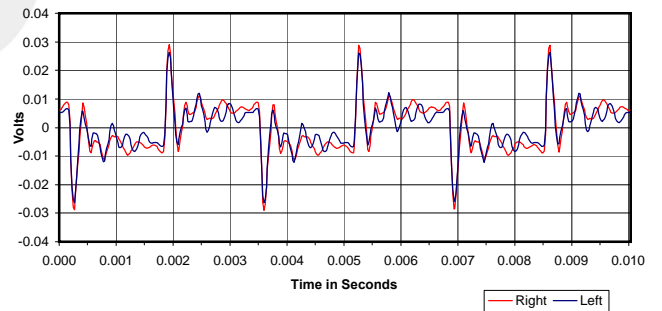
30 Hz Square Wave



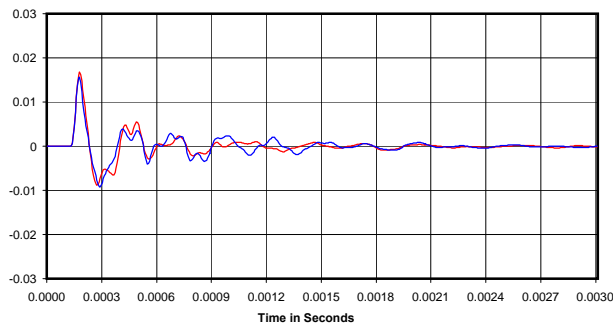
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

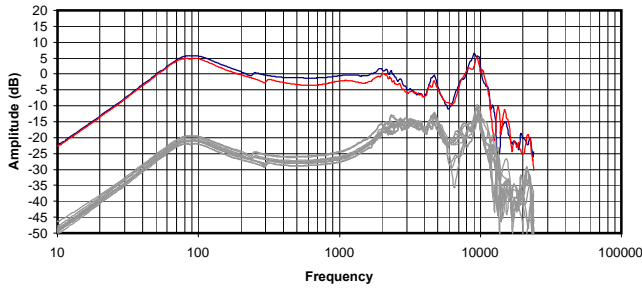


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

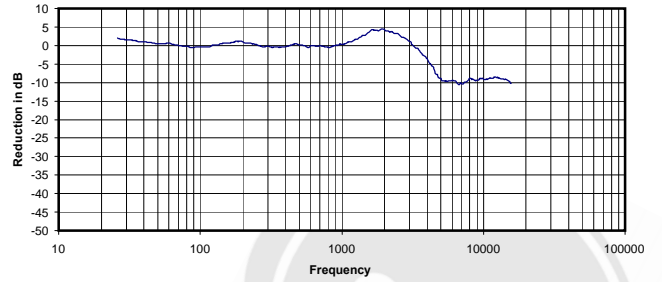
0.109 Vrms
33 Ohms
0.36 mW
0 dB



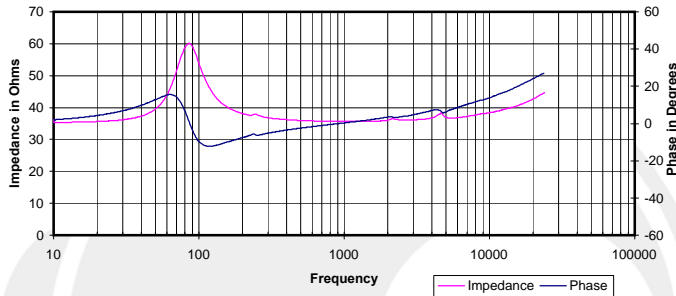
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



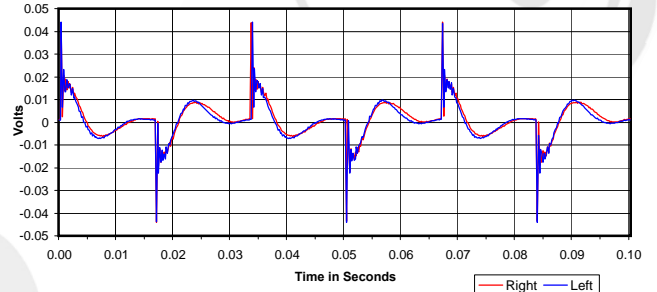
Isolation
Attenuation of External Sound vs. Frequency



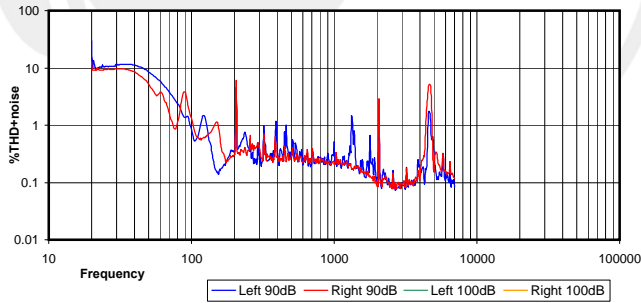
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



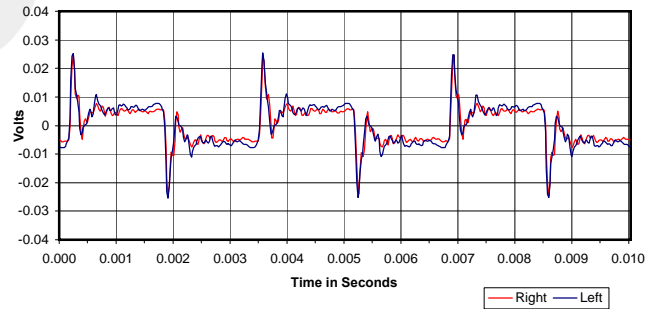
30 Hz Square Wave



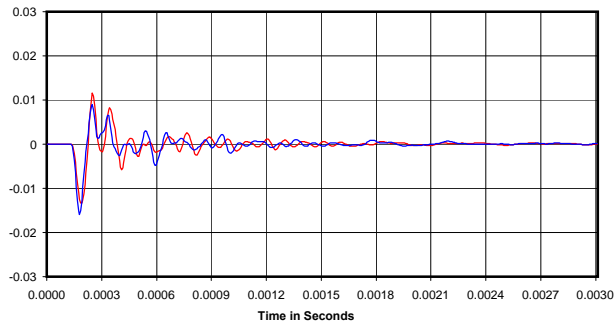
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



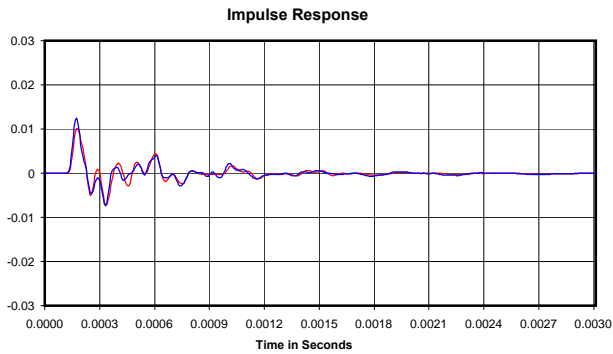
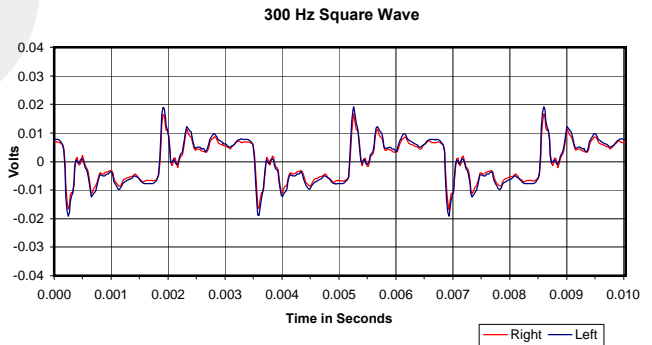
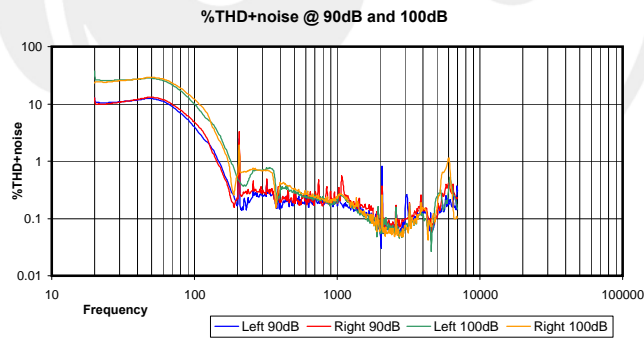
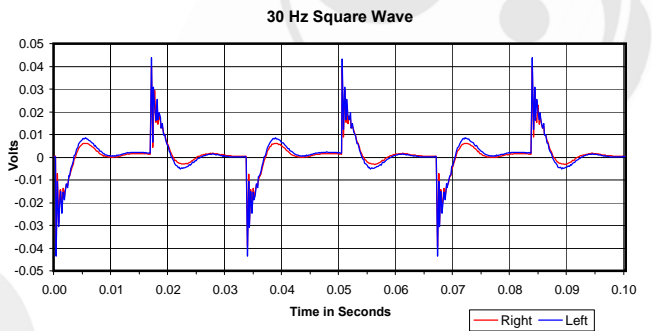
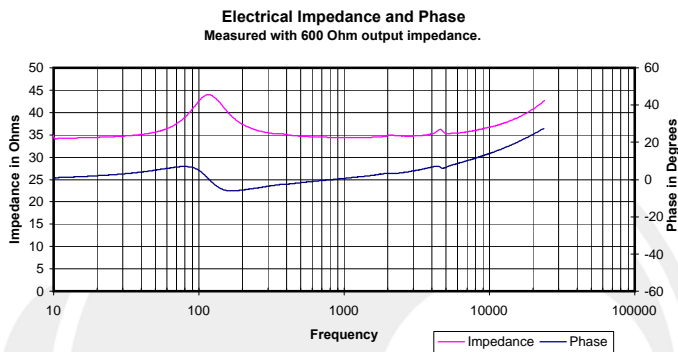
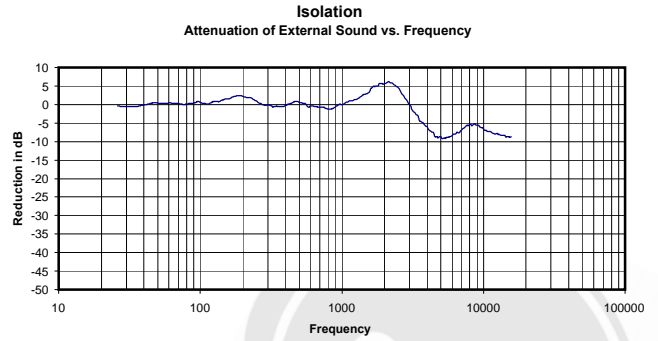
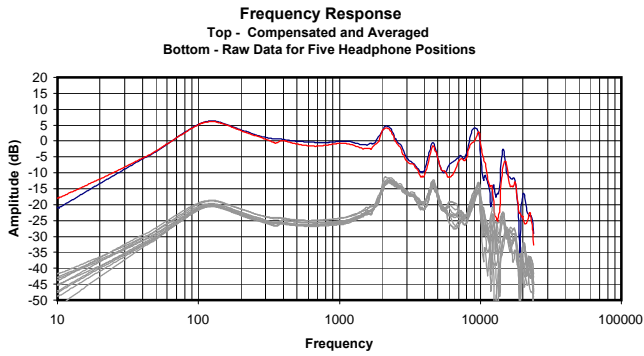
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.120 Vrms
36 Ohms
0.41 mW
0 dB



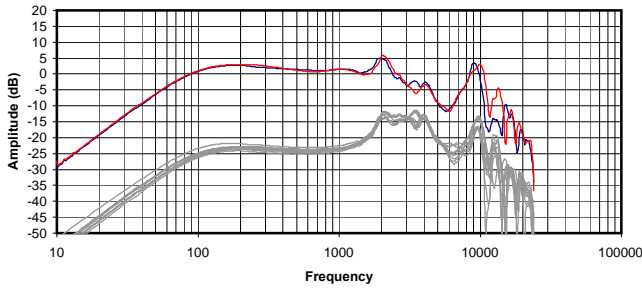


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

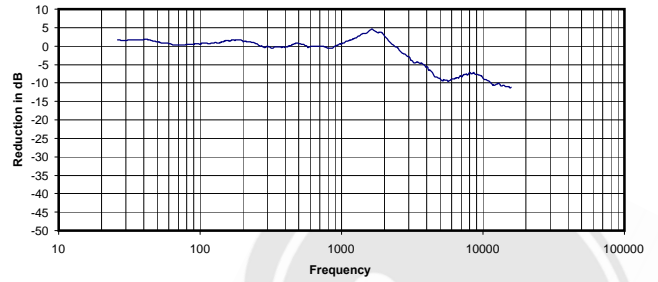
0.094 Vrms
34 Ohms
0.25 mW
0 dBr



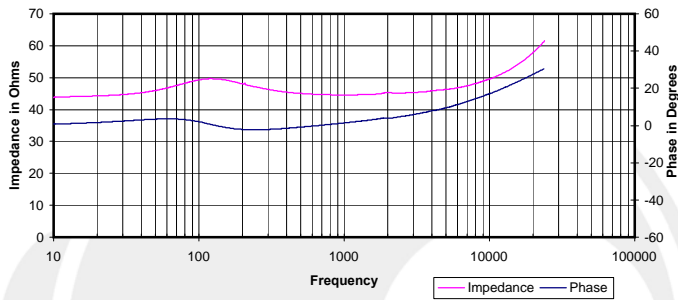
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



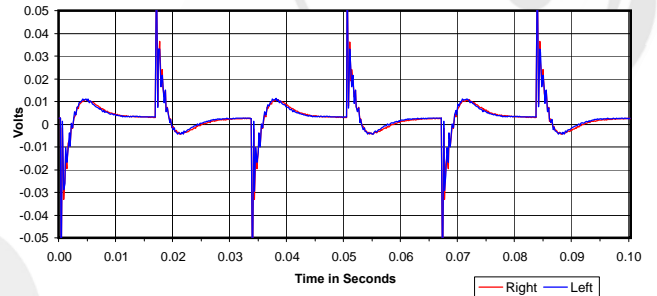
Isolation
Attenuation of External Sound vs. Frequency



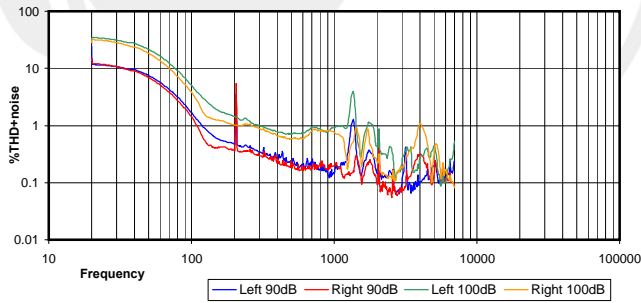
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



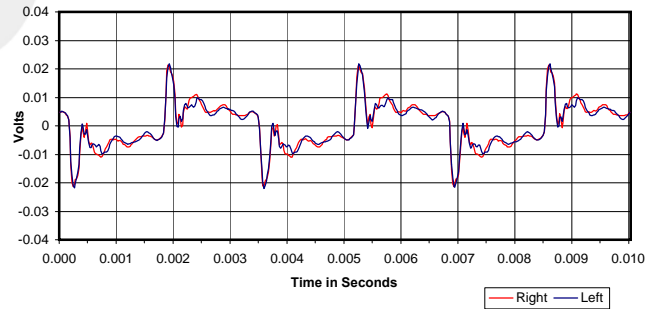
30 Hz Square Wave



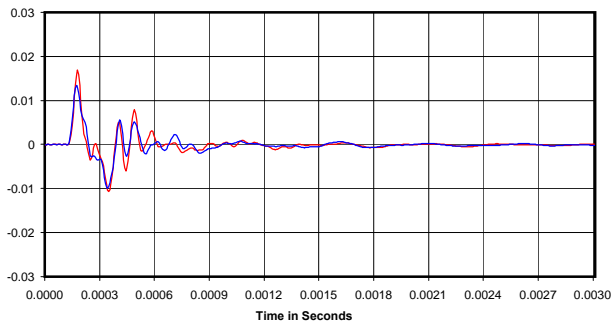
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

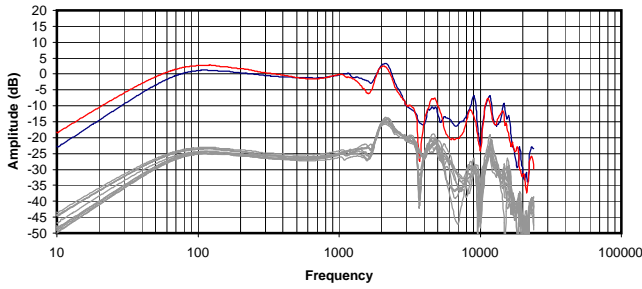


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

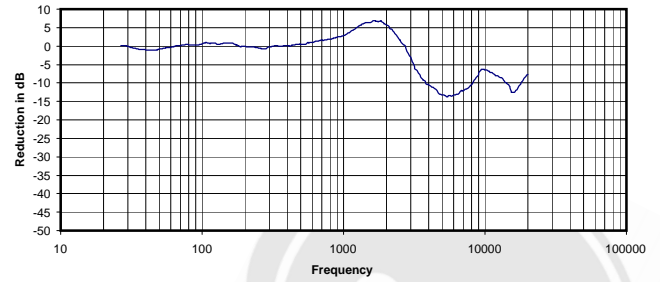
0.142 Vrms
45 Ohms
0.45 mW
-1 dB



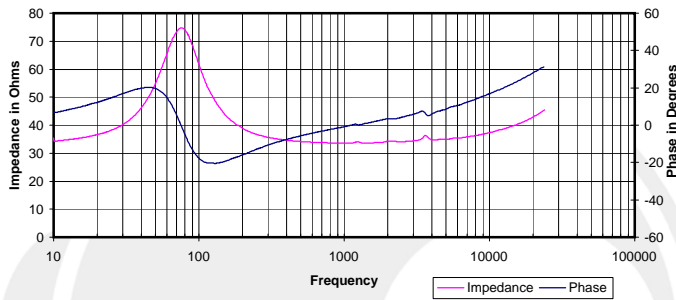
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



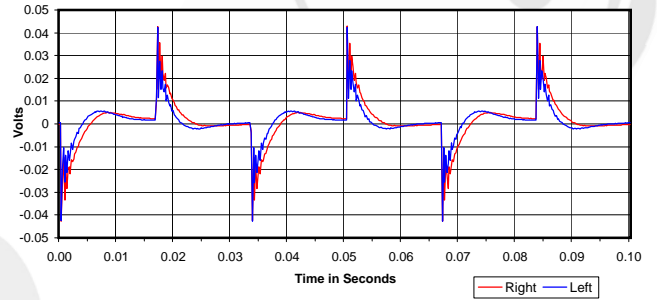
Isolation
 Attenuation of External Sound vs. Frequency



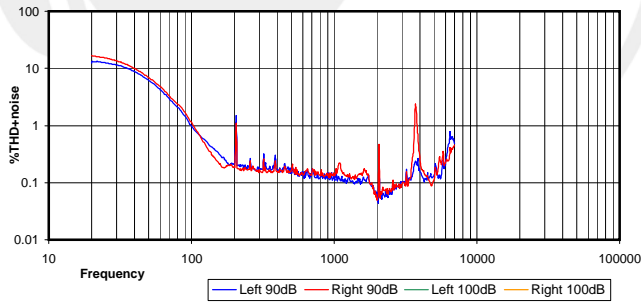
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



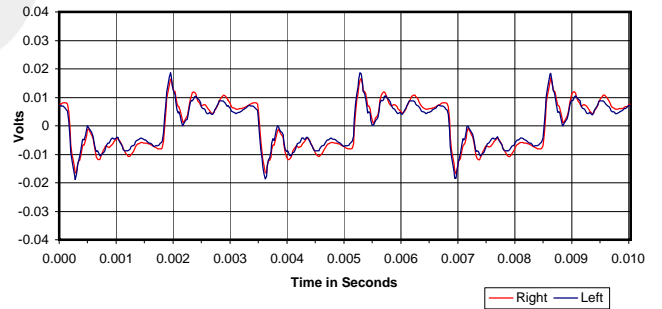
30 Hz Square Wave



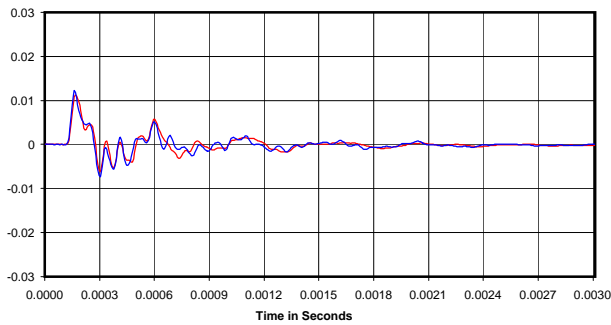
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

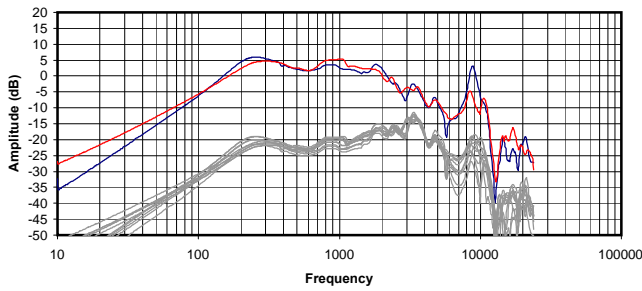


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

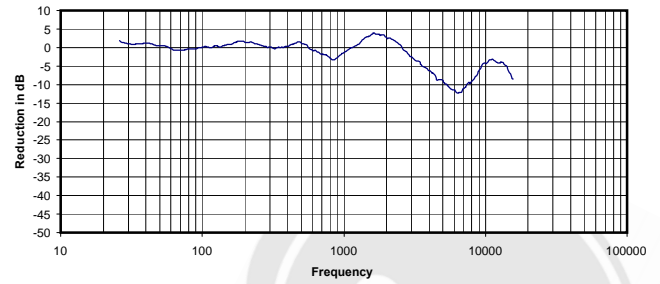
0.049 Vrms
 34 Ohms
 0.07 mW
 -2 dB



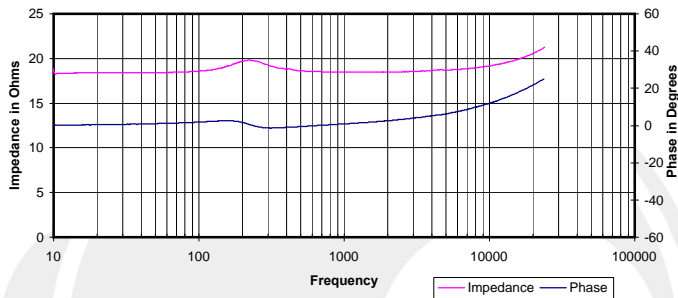
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



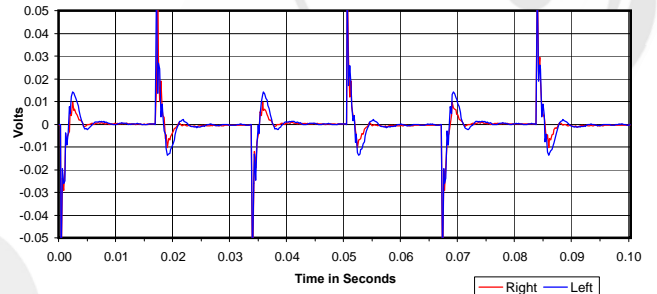
Isolation
Attenuation of External Sound vs. Frequency



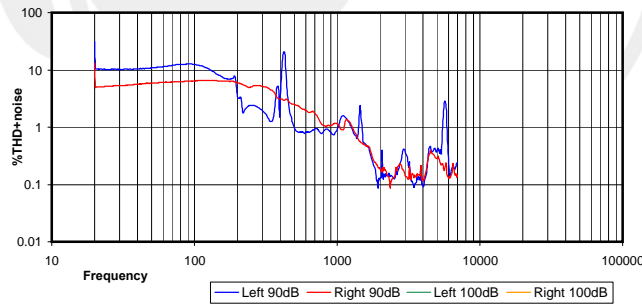
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



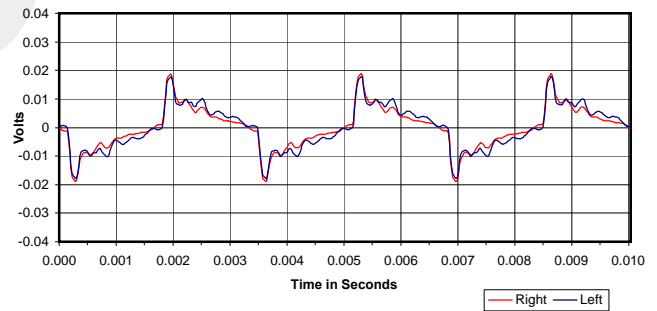
30 Hz Square Wave



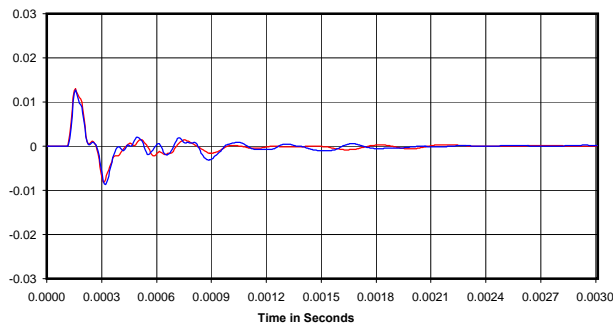
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

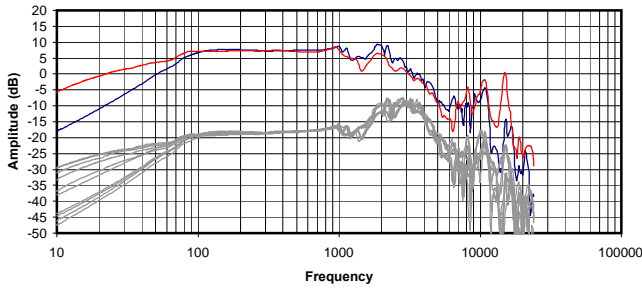


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

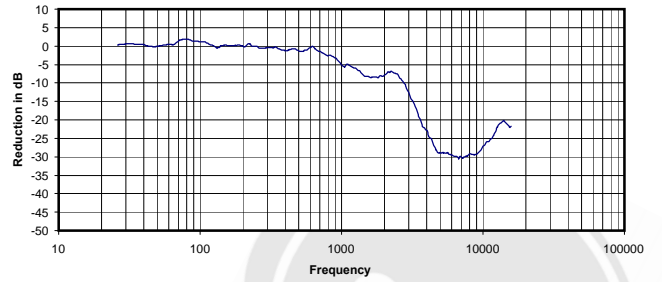
0.149 Vrms
18 Ohms
1.19 mW
-1 dB



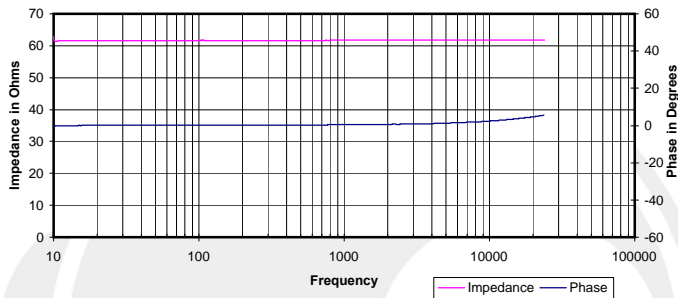
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



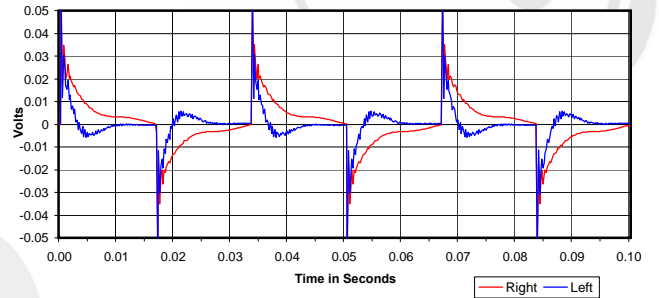
Isolation
Attenuation of External Sound vs. Frequency



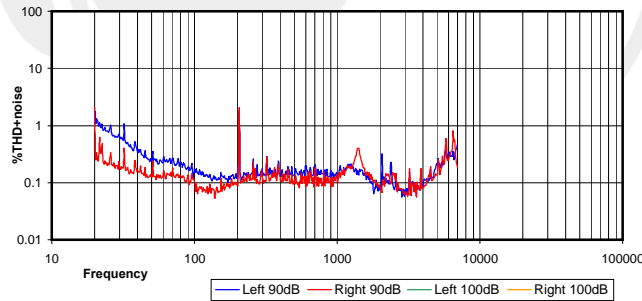
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



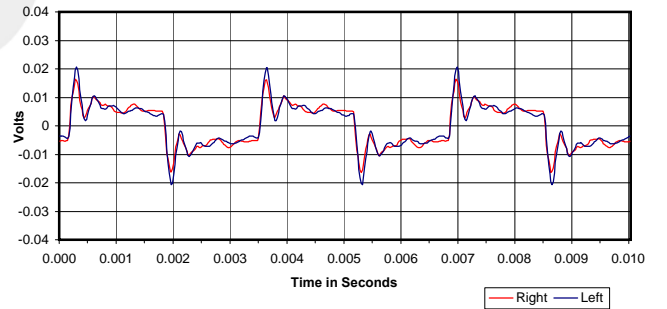
30 Hz Square Wave



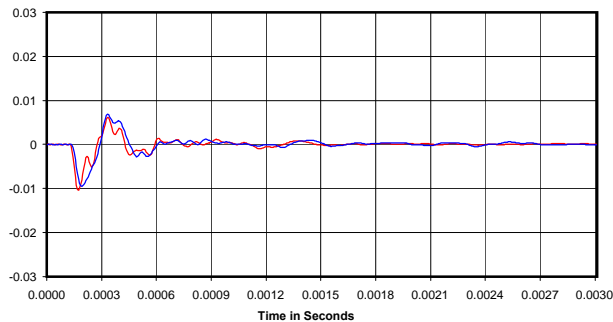
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

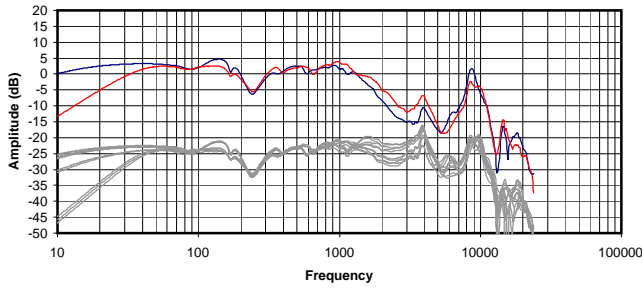


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

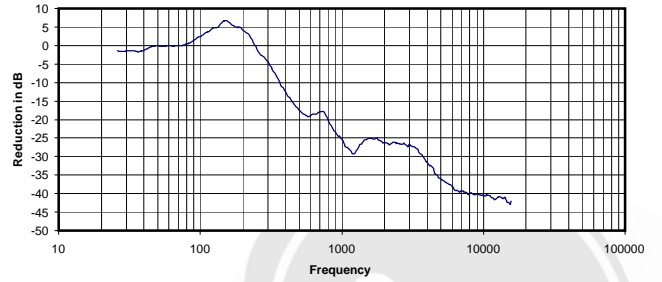
0.160 Vrms
62 Ohms
0.42 mW
-7 dB



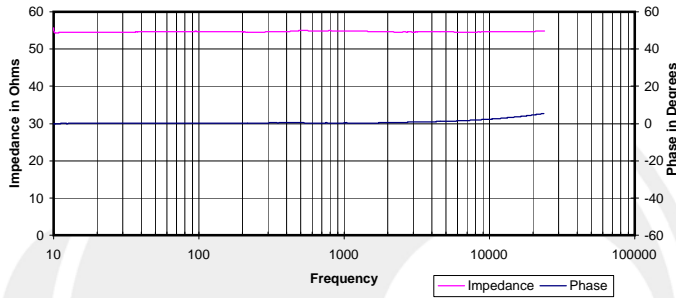
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



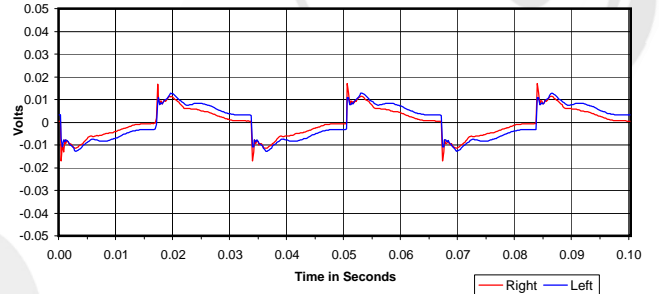
Isolation
 Attenuation of External Sound vs. Frequency



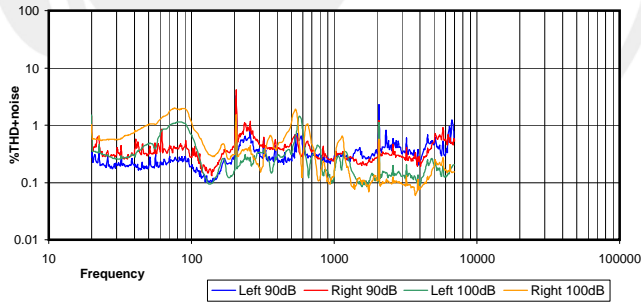
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



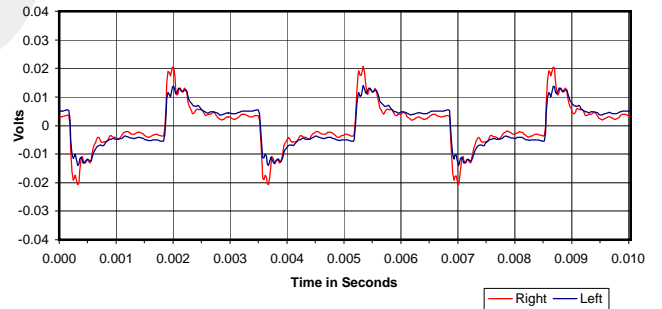
30 Hz Square Wave



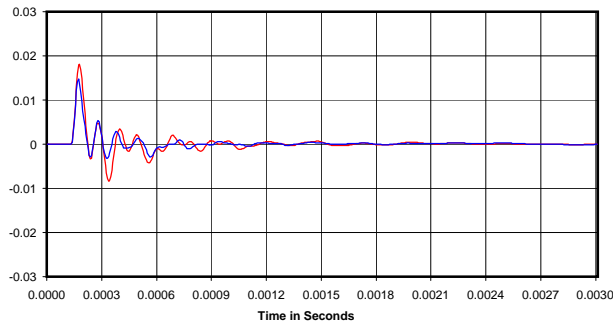
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



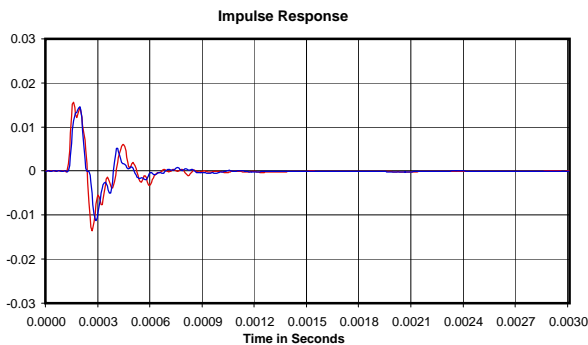
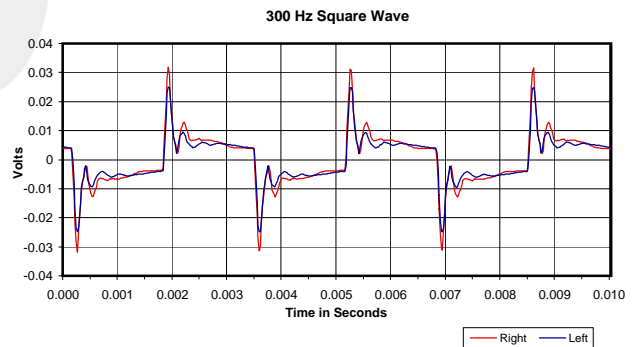
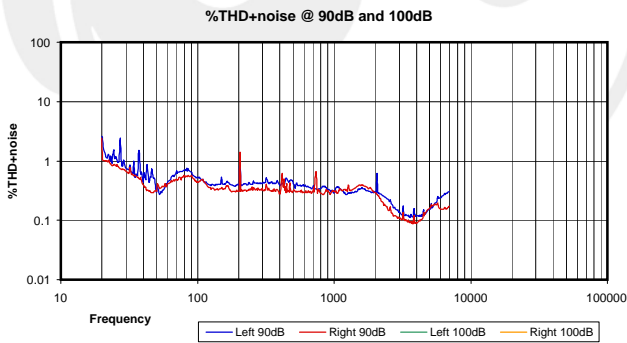
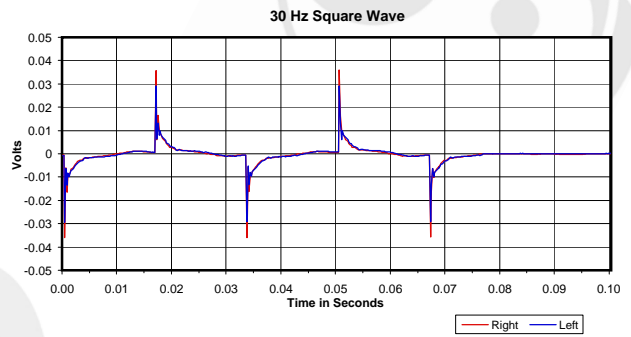
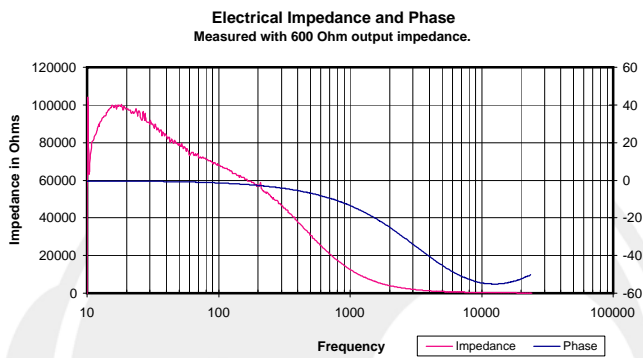
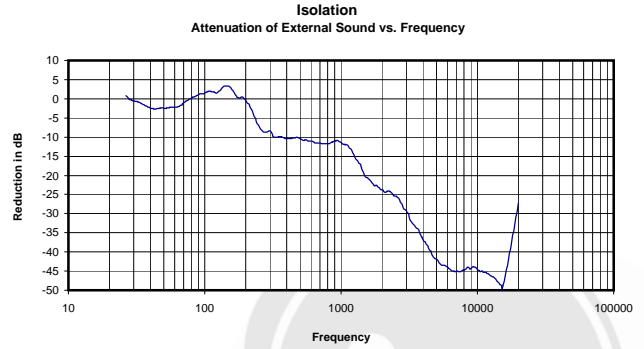
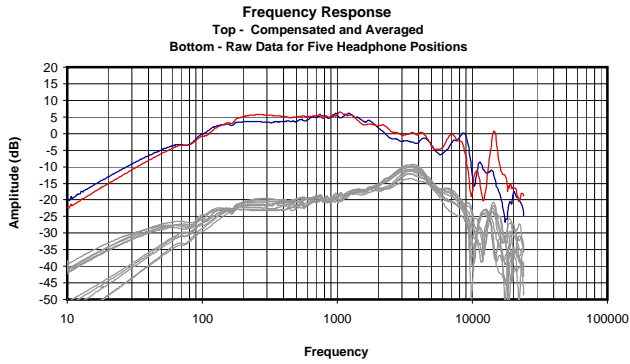
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.128 Vrms
 55 Ohms
 0.30 mW
 -16 dB

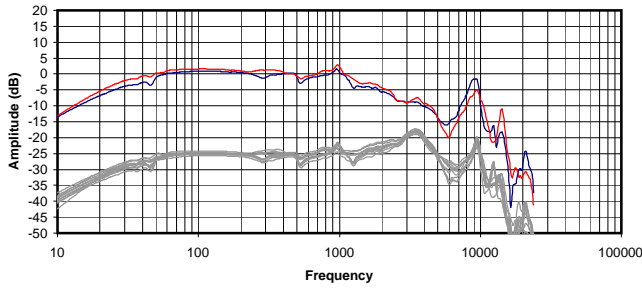




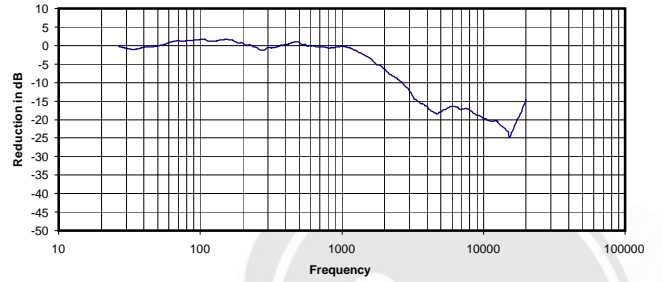
Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

1.940 Vrms
12546 Ohms
0.30 mW
-19 dBr

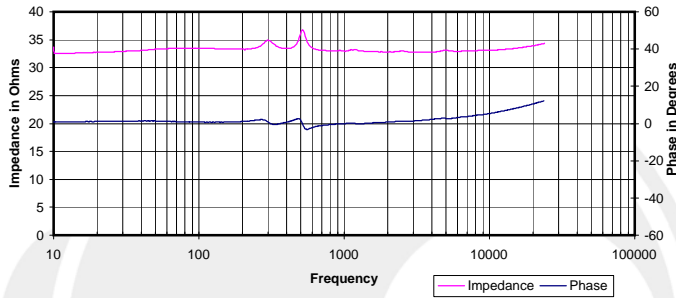
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



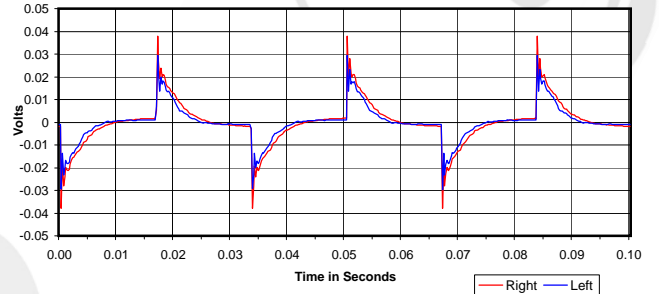
Isolation
Attenuation of External Sound vs. Frequency



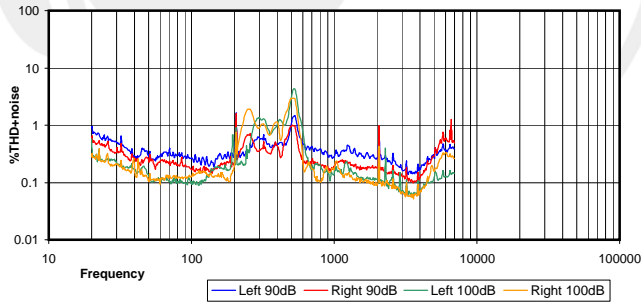
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



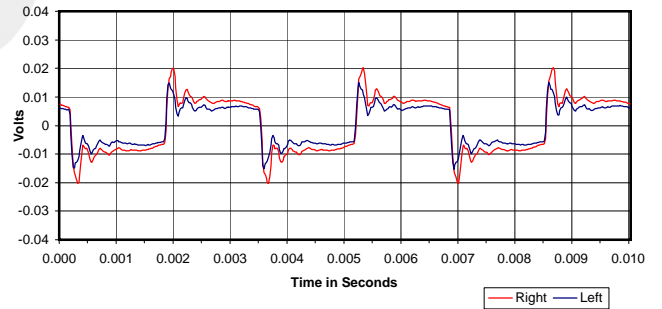
30 Hz Square Wave



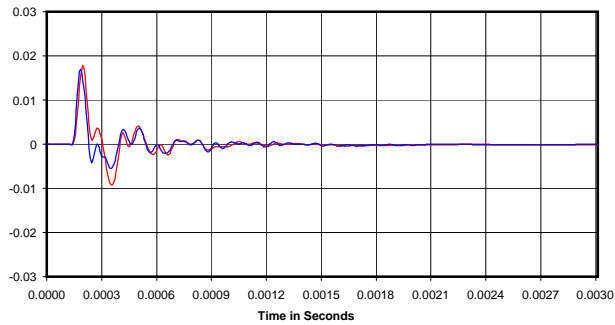
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



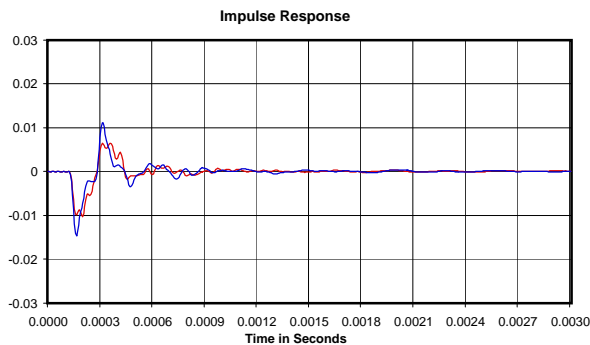
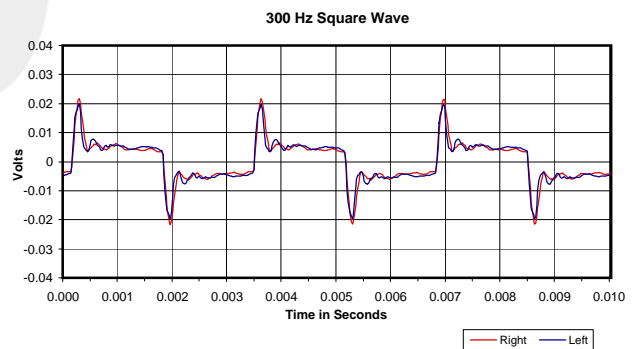
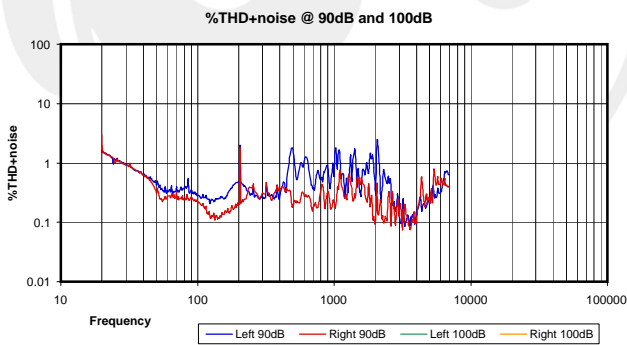
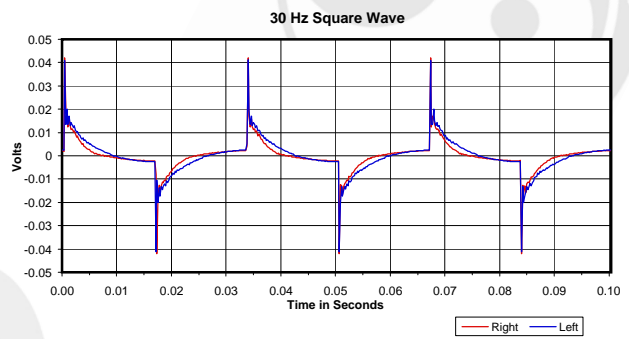
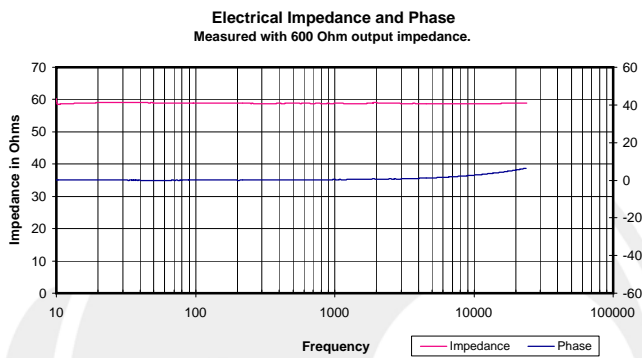
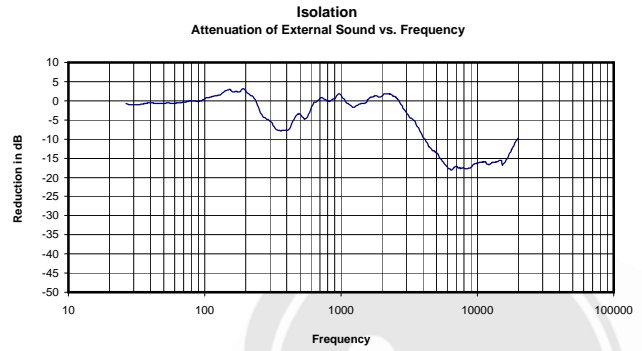
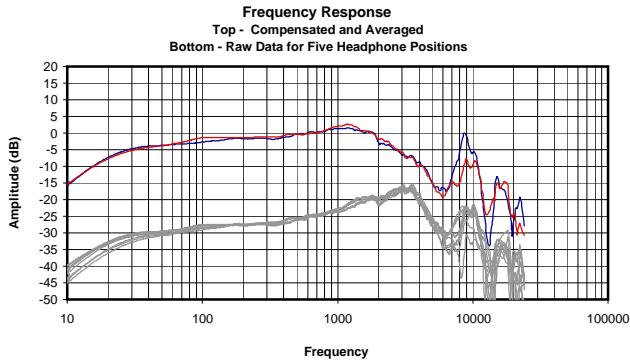
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.080 Vrms
33 Ohms
0.19 mW
-6 dBr



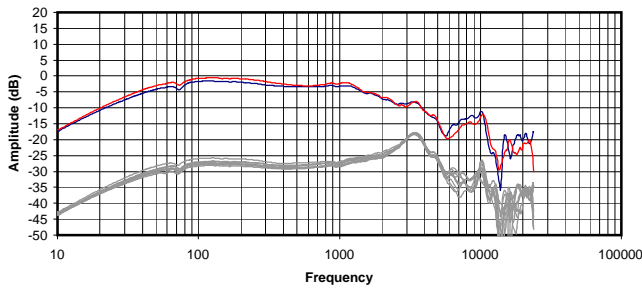


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

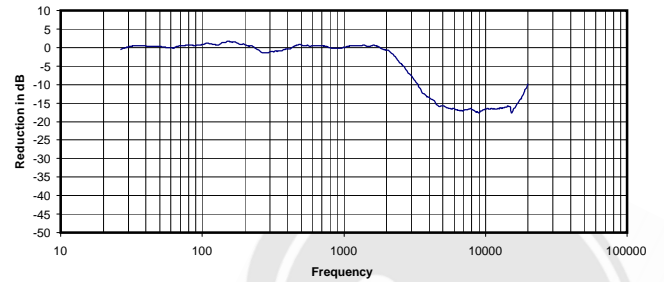
0.152 Vrms
59 Ohms
0.39 mW
-4 dBr



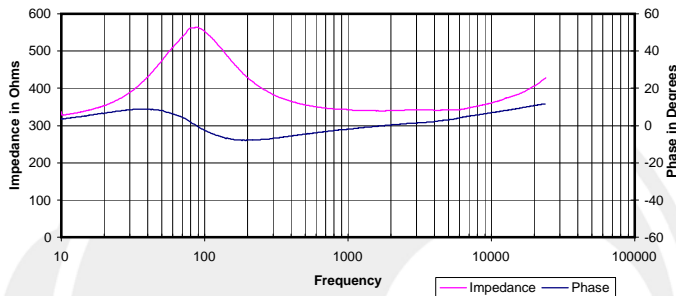
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



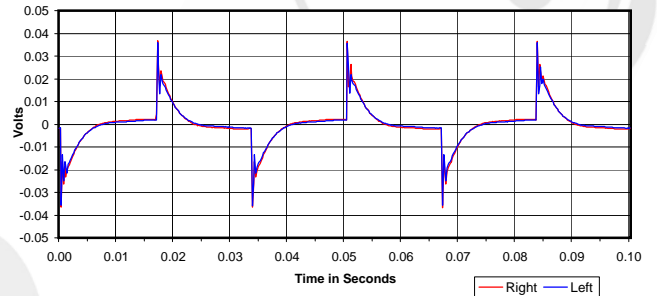
Isolation
 Attenuation of External Sound vs. Frequency



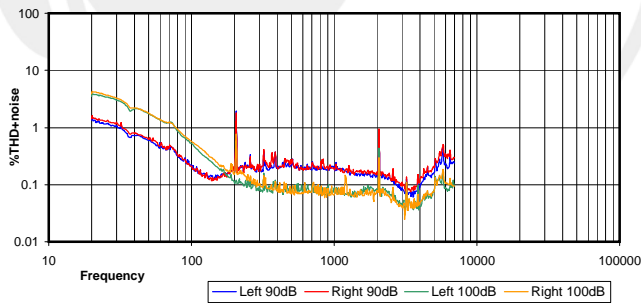
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



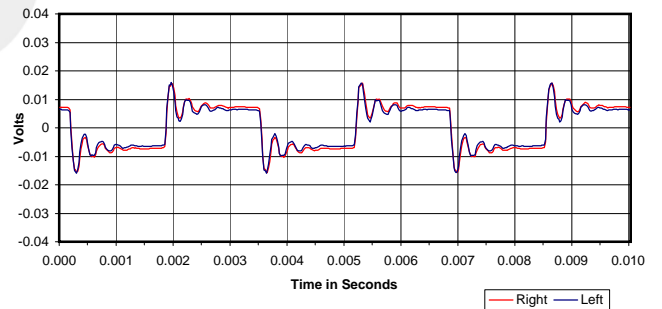
30 Hz Square Wave



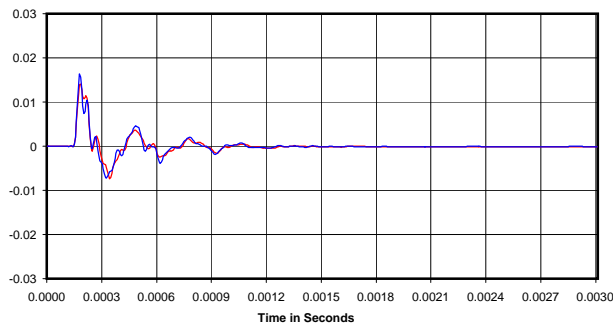
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



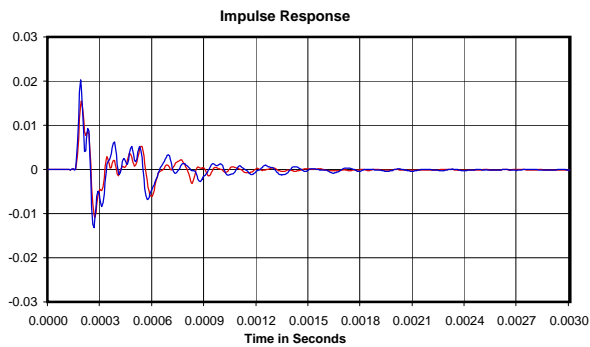
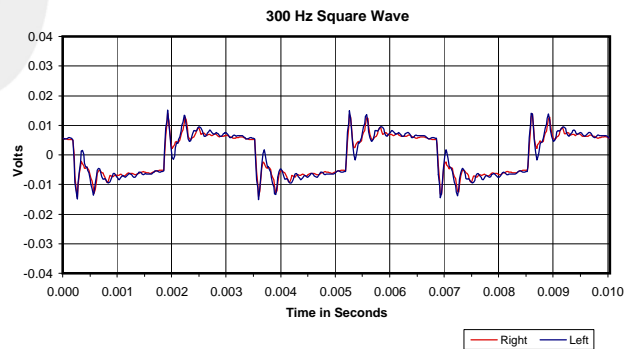
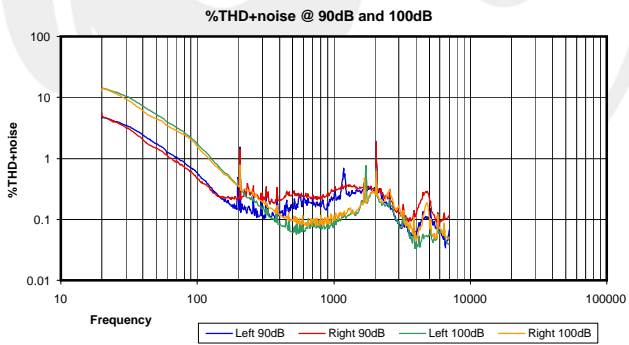
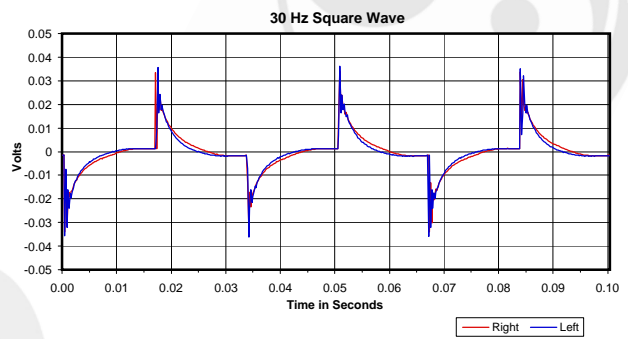
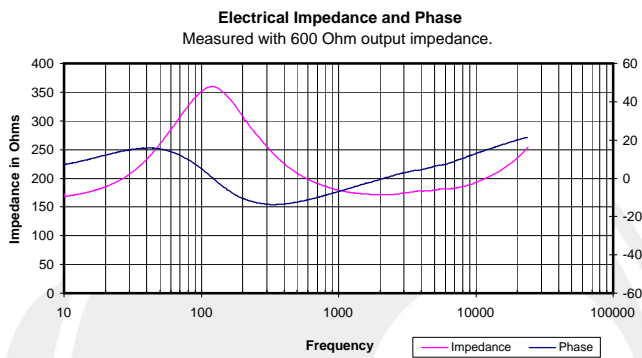
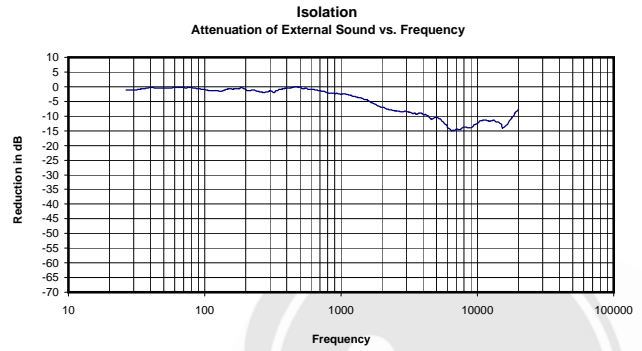
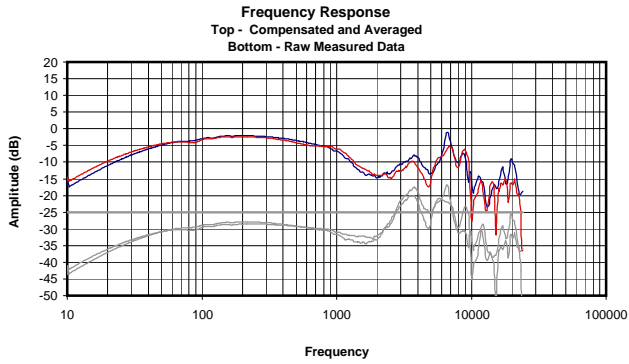
Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.156 Vrms
 342 Ohms
 0.07 mW
 -4 dB

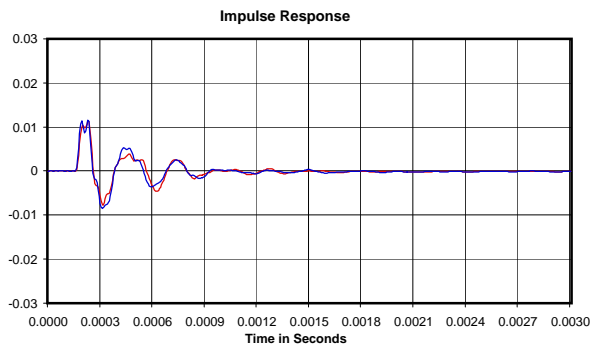
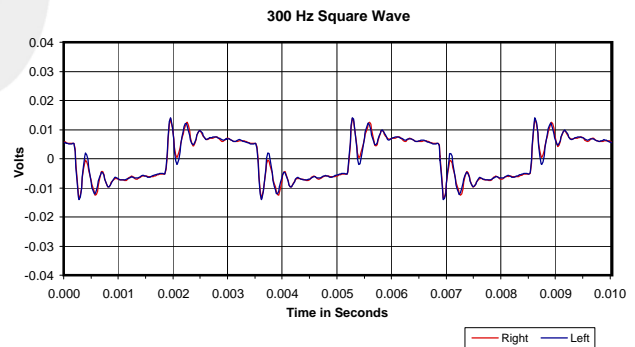
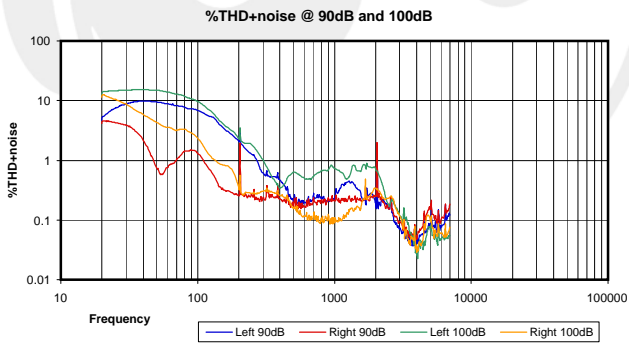
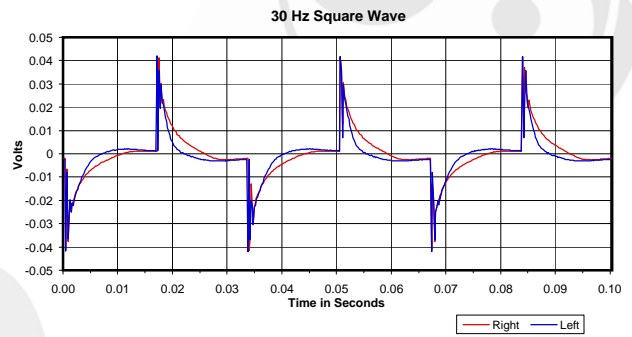
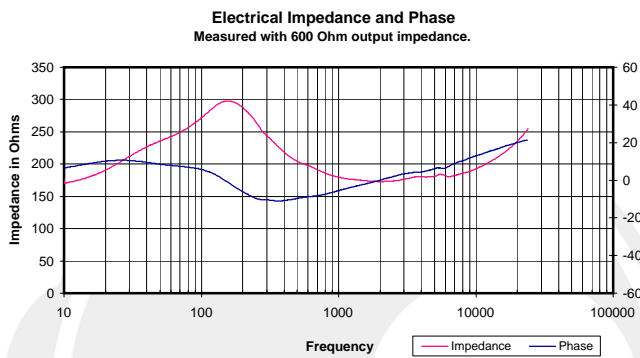
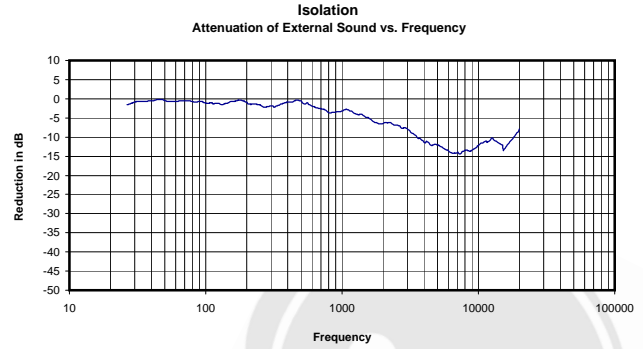
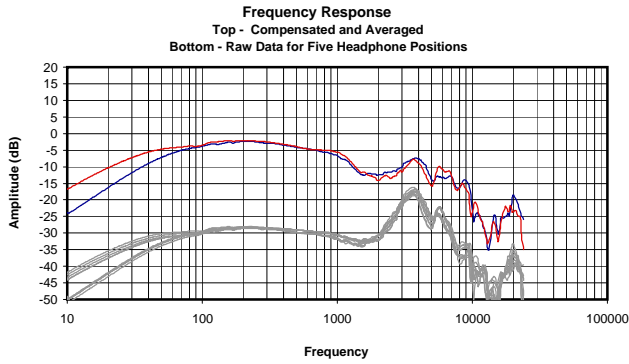




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.210 Vrms
179 Ohms
0.25 mW
-5 dB

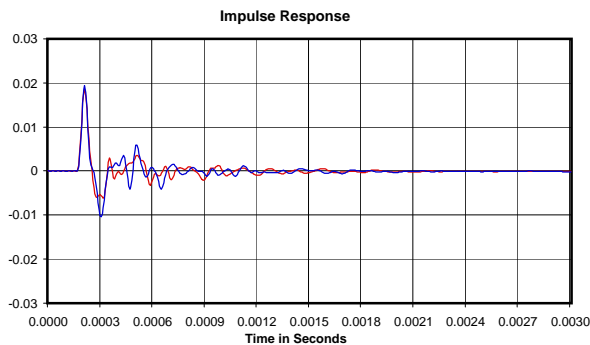
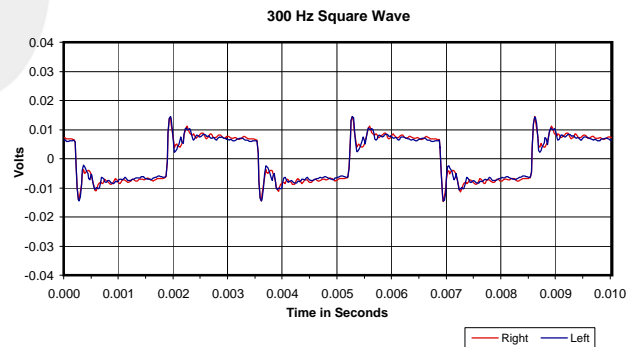
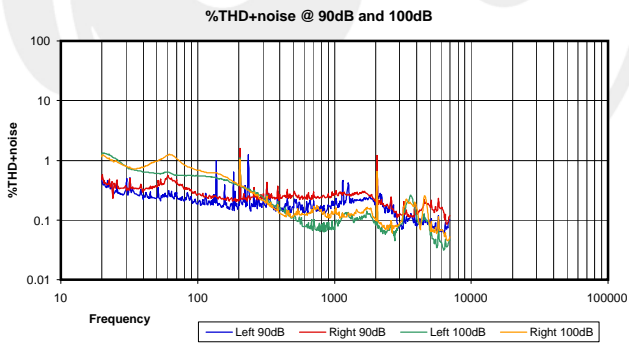
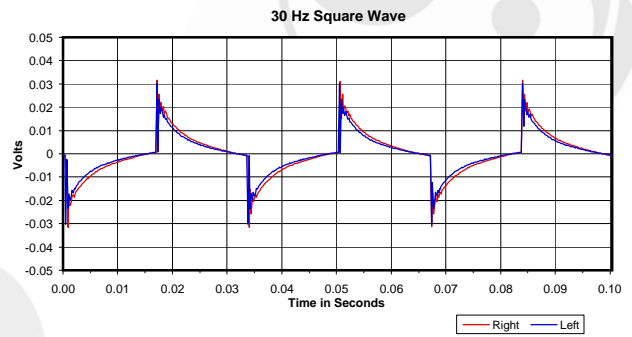
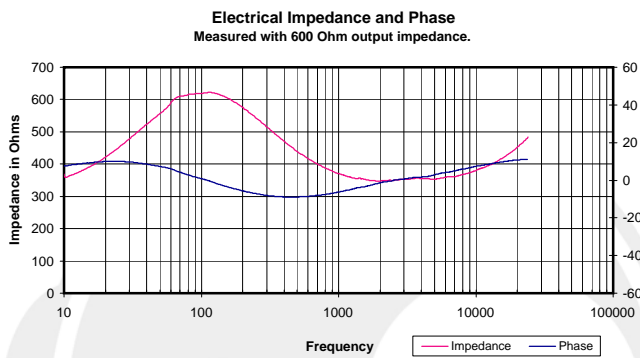
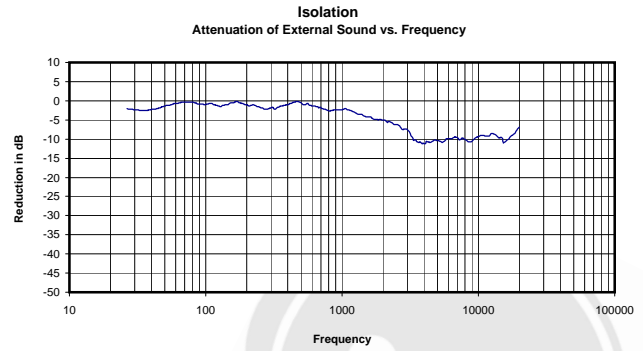
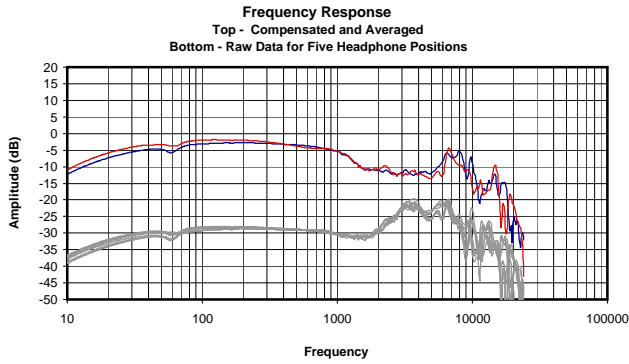




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.262 Vrms
180 Ohms
0.38 mW
-5 dBr

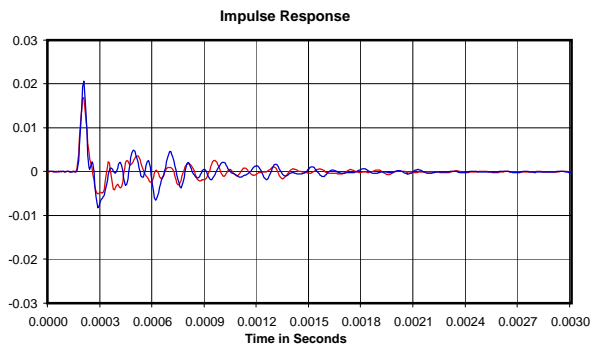
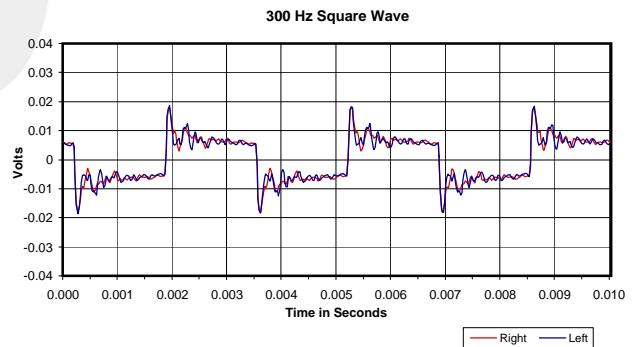
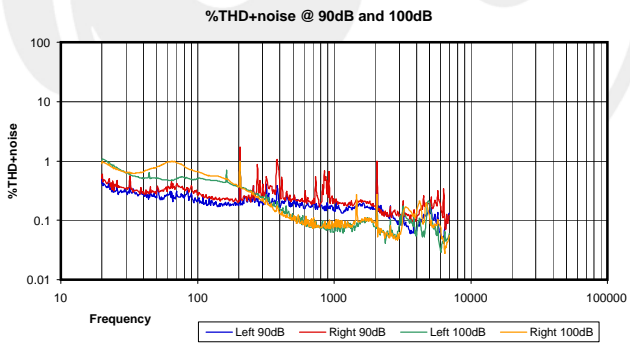
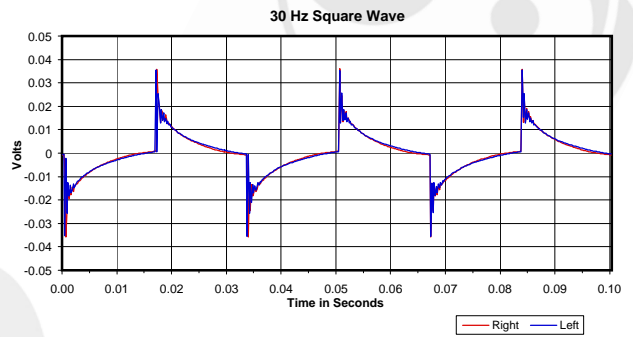
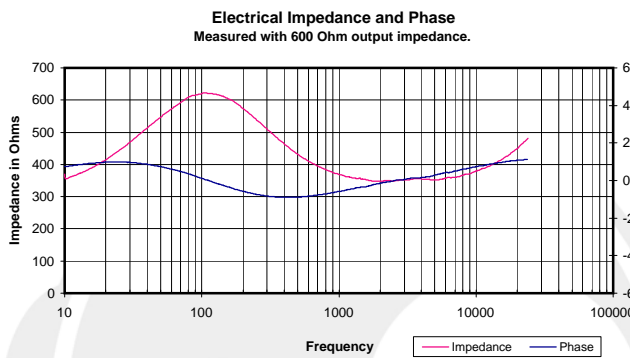
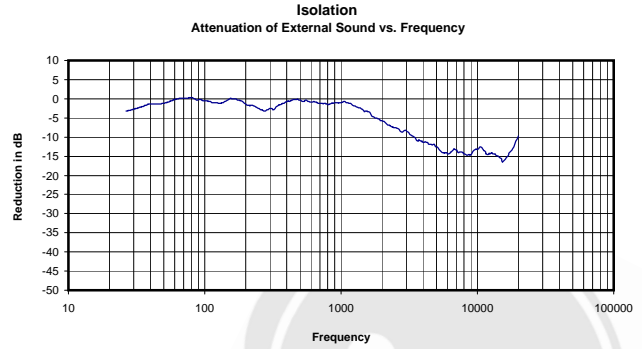
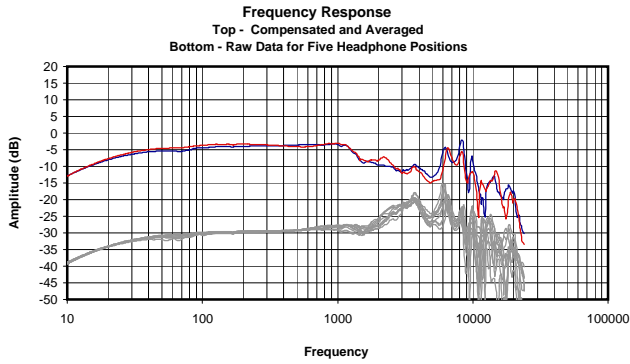




Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.257 Vrms
370 Ohms
0.18 mW
-4 dBr

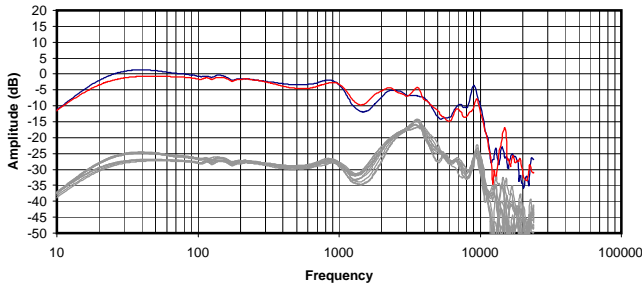




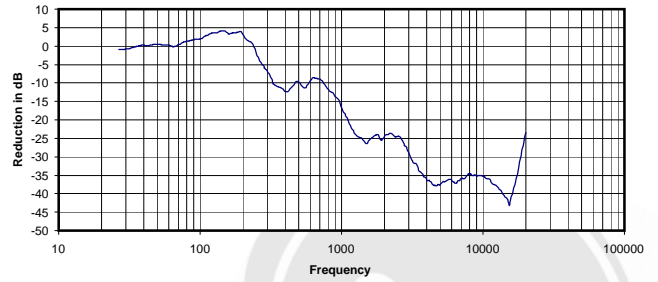
Volts RMS required to reach 90dB SPL: 0.165 Vrms
 Impedance @ 1kHz: 369 Ohms
 Power Needed for 90d BSPL: 0.07 mW
 Broadband Isolation in dB (100Hz to 10kHz): -5 dBr



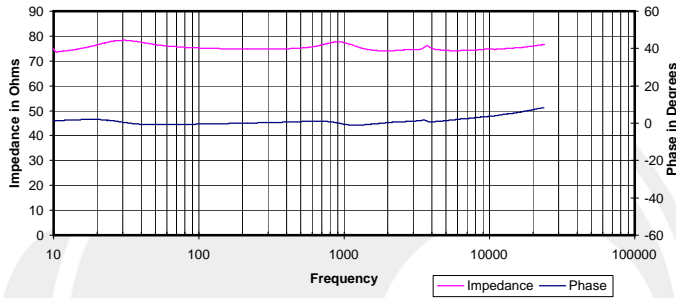
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



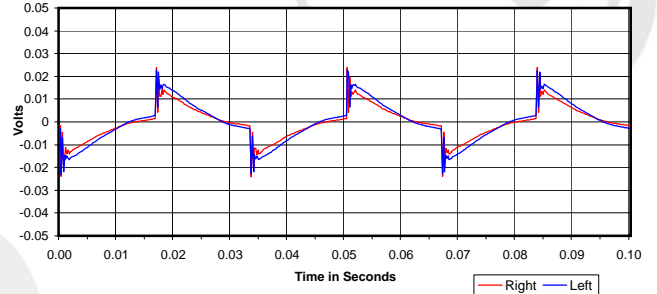
Isolation
 Attenuation of External Sound vs. Frequency



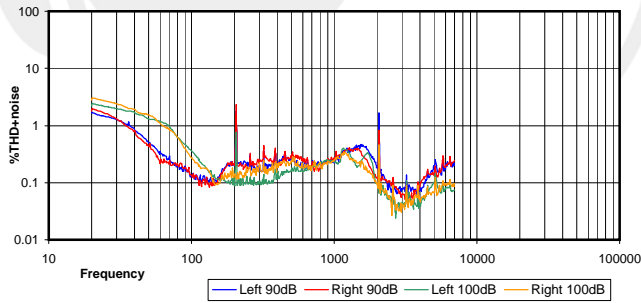
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



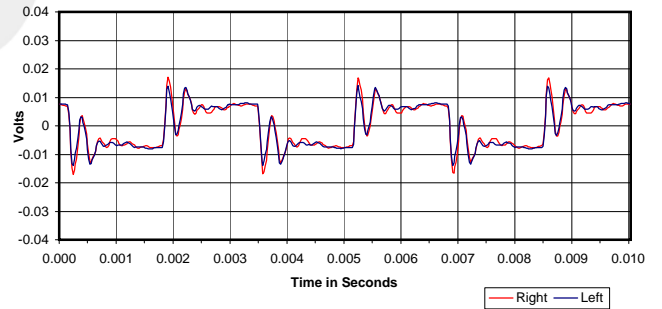
30 Hz Square Wave



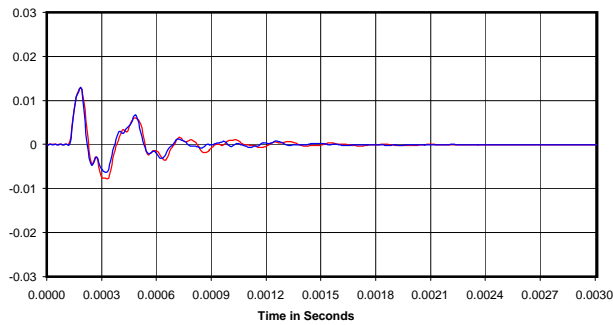
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

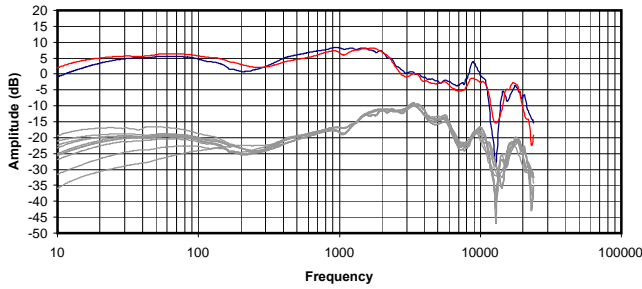


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

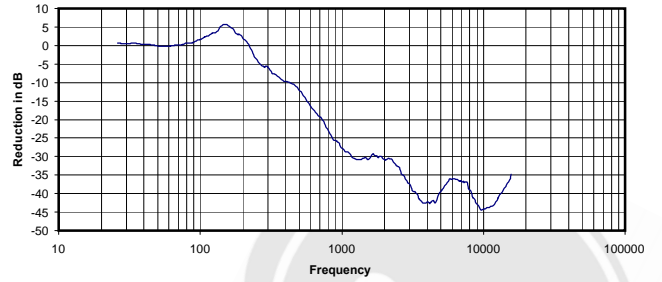
0.095 Vrms
 77 Ohms
 0.12 mW
 -18 dB



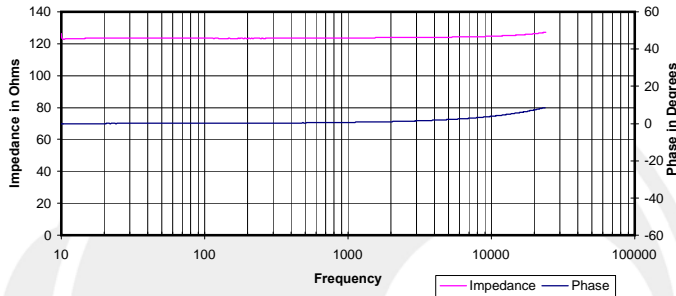
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



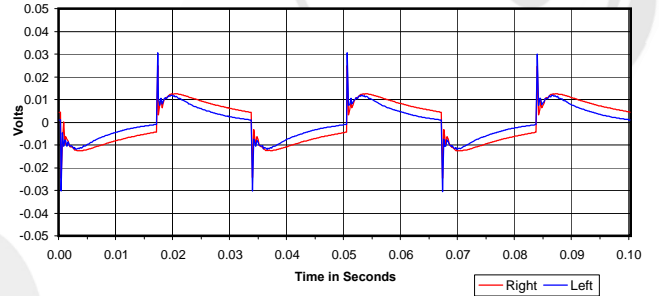
Isolation
Attenuation of External Sound vs. Frequency



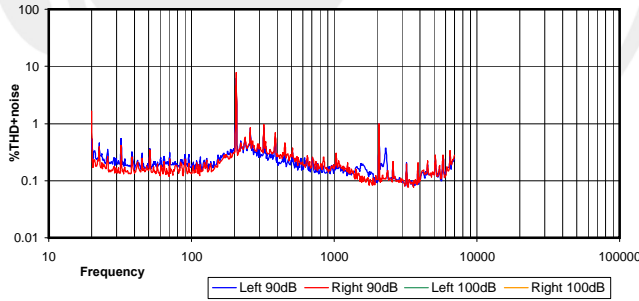
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



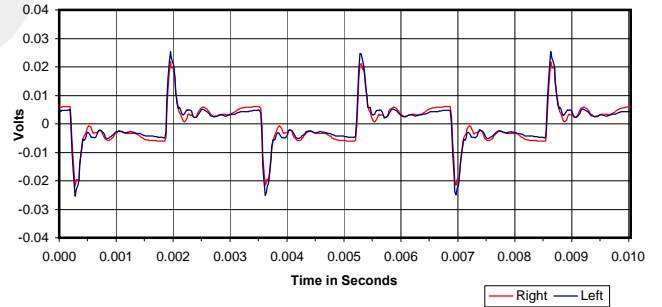
30 Hz Square Wave



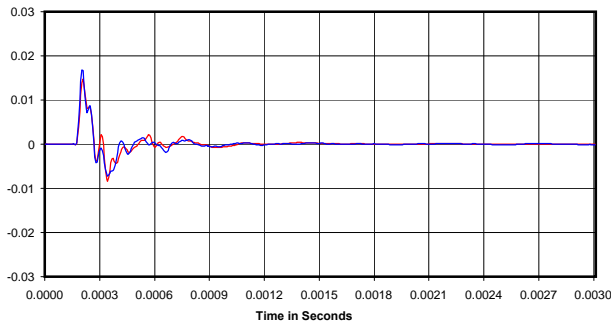
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

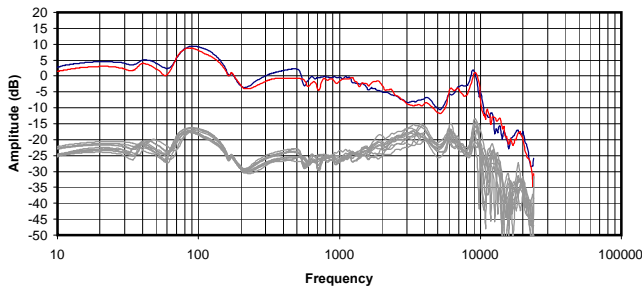


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

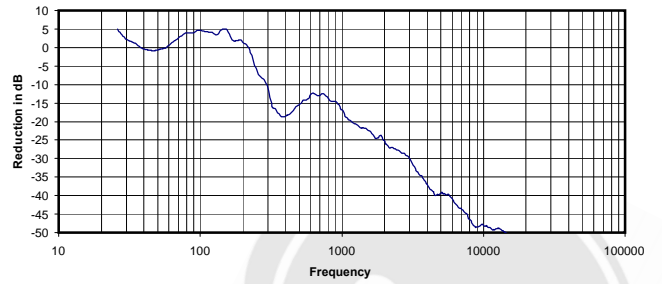
0.426 Vrms
123 Ohms
1.47 mW
-19 dB



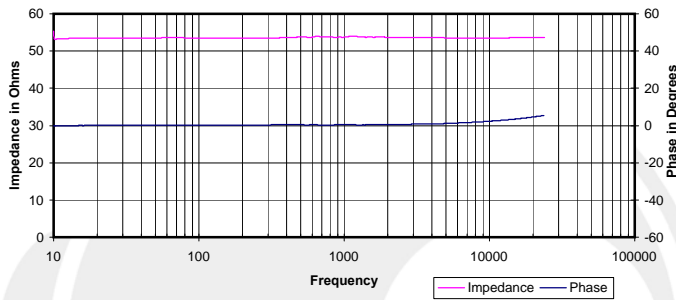
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



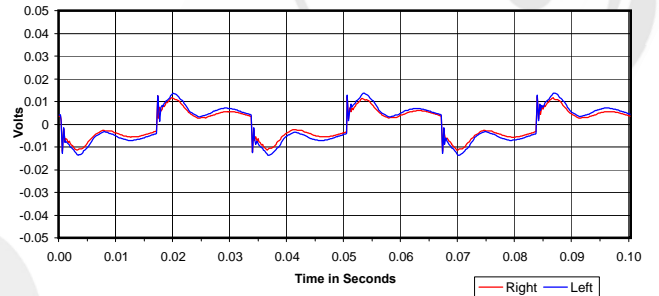
Isolation
Attenuation of External Sound vs. Frequency



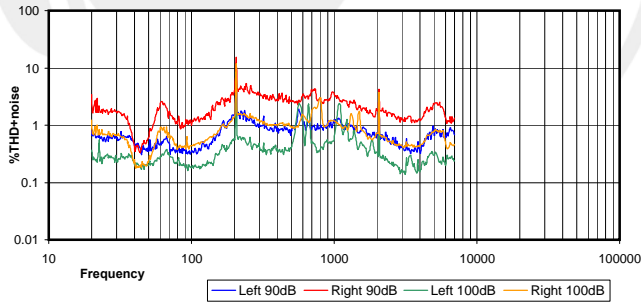
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



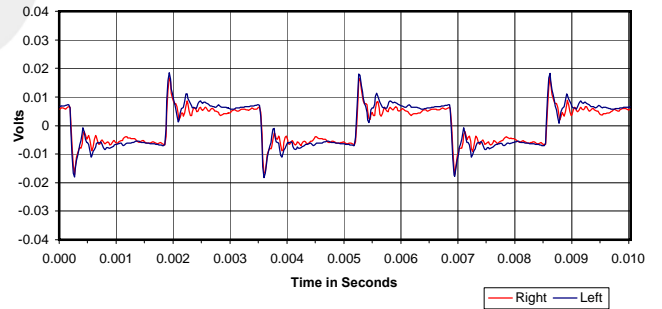
30 Hz Square Wave



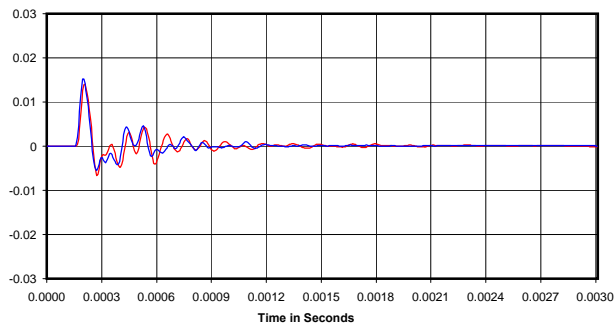
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

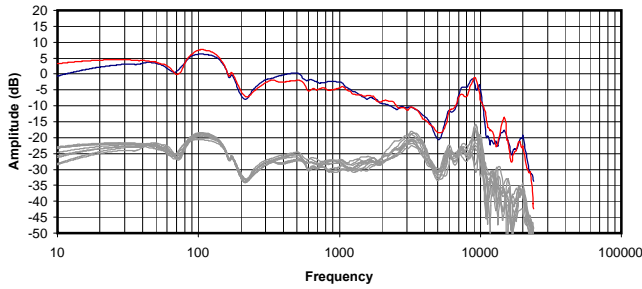


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

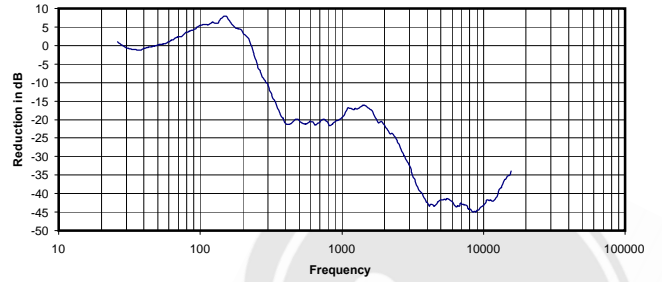
0.333 Vrms
54 Ohms
2.06 mW
-17 dB



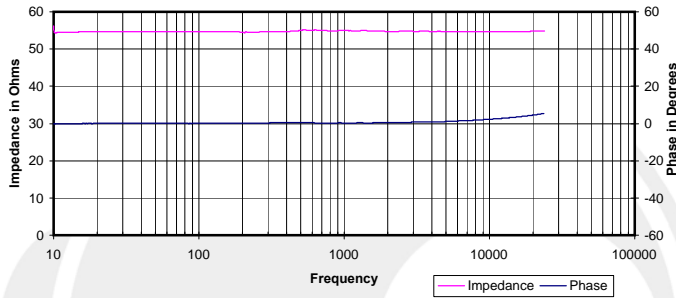
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



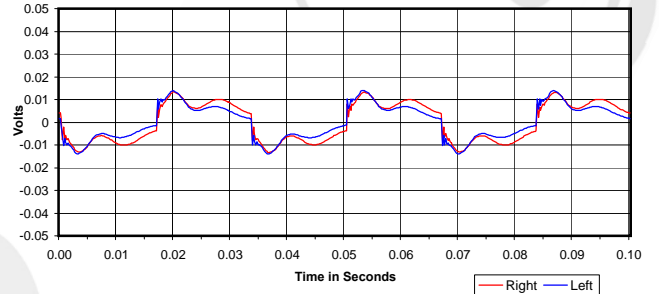
Isolation
Attenuation of External Sound vs. Frequency



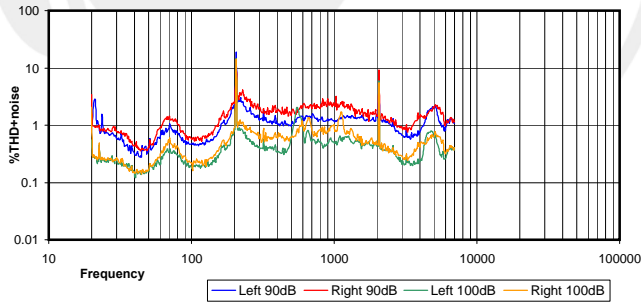
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



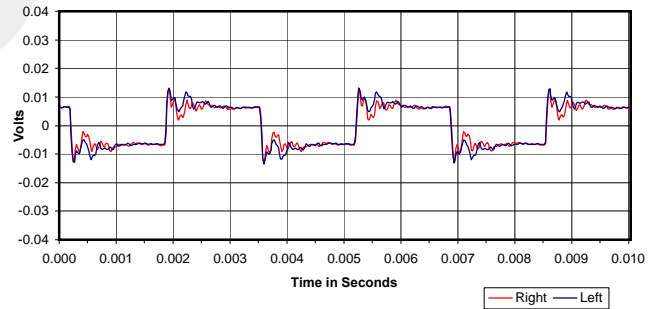
30 Hz Square Wave



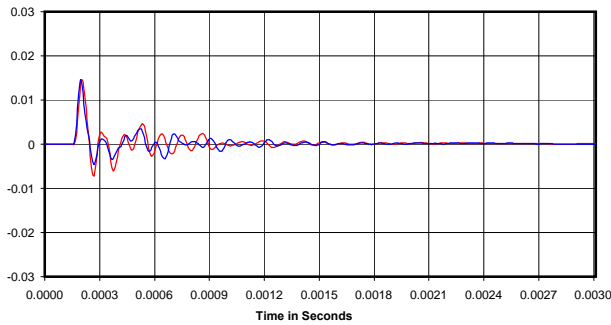
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

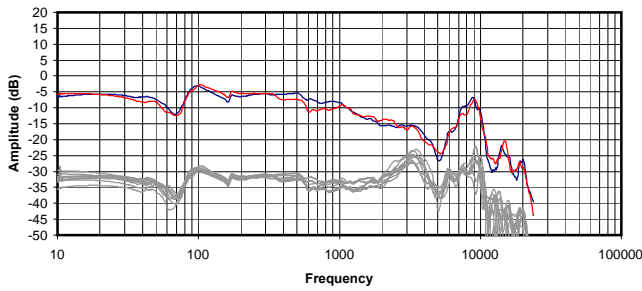


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

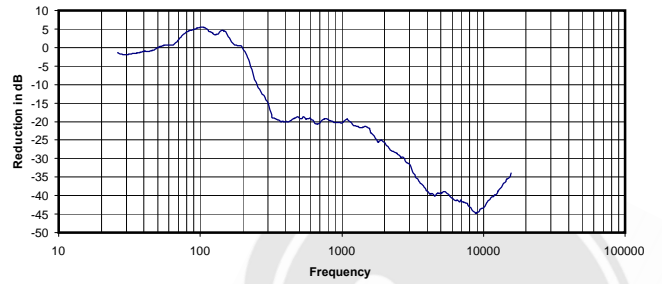
0.242 Vrms
55 Ohms
1.07 mW
-17 dB



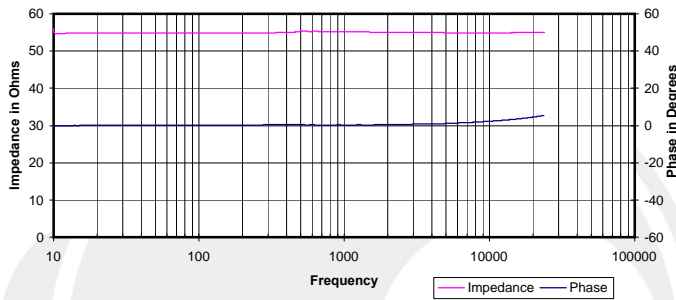
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



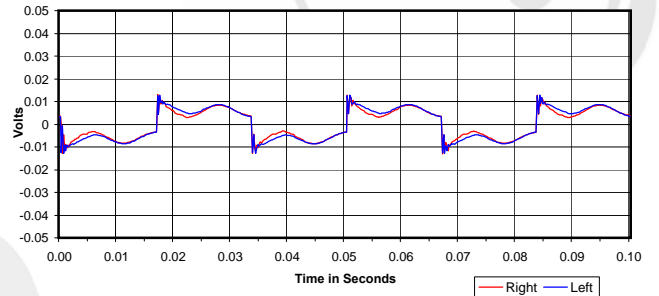
Isolation
Attenuation of External Sound vs. Frequency



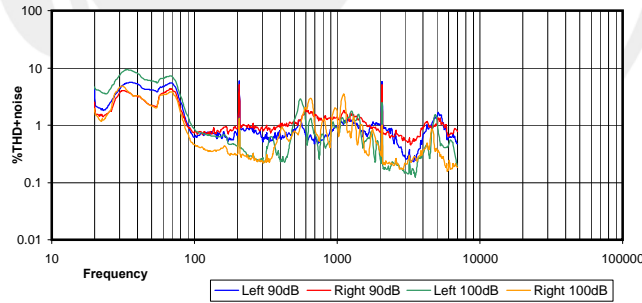
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



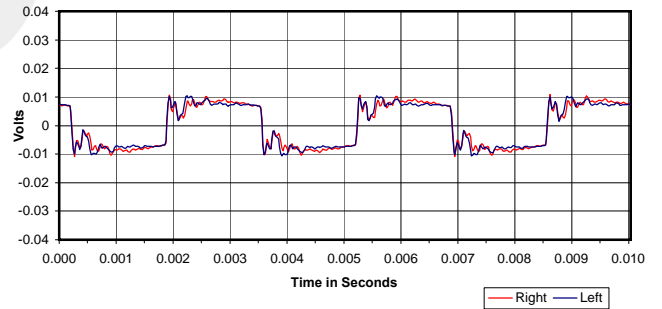
30 Hz Square Wave



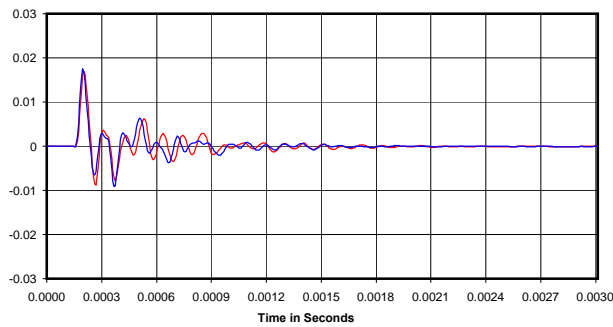
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

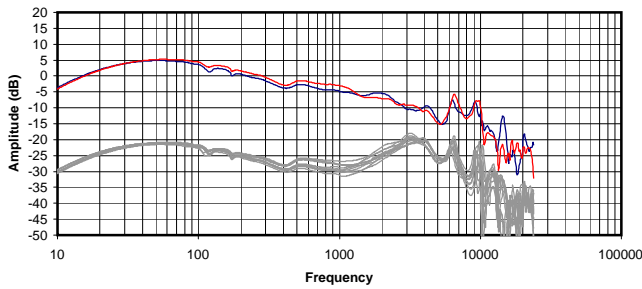


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

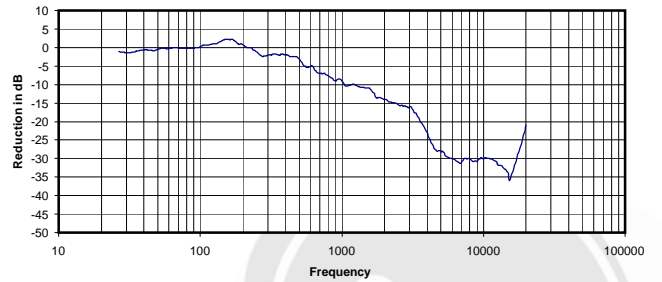
0.269 Vrms
55 Ohms
1.31 mW
-19 dB



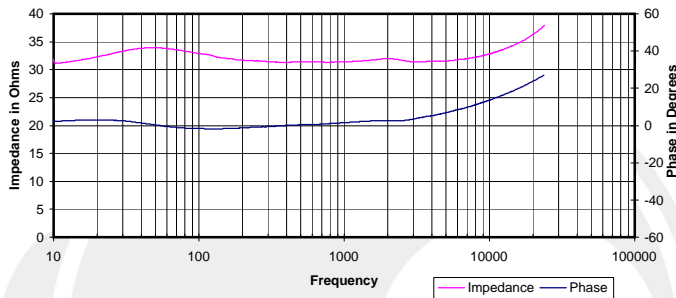
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



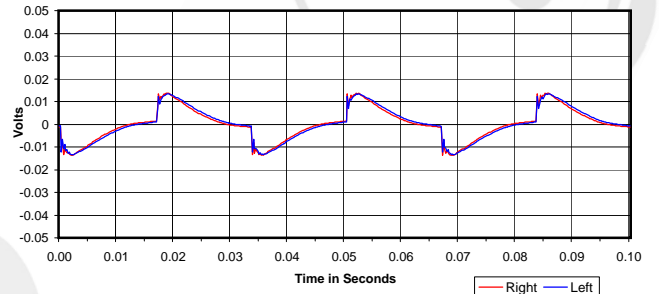
Isolation
 Attenuation of External Sound vs. Frequency



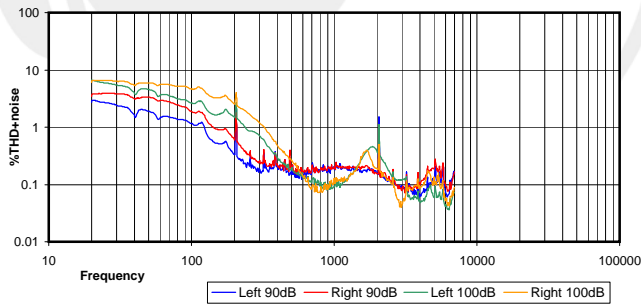
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



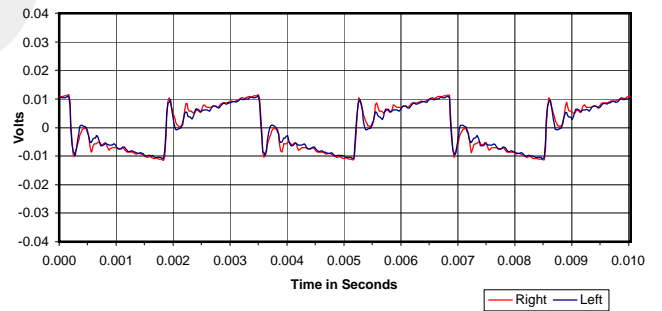
30 Hz Square Wave



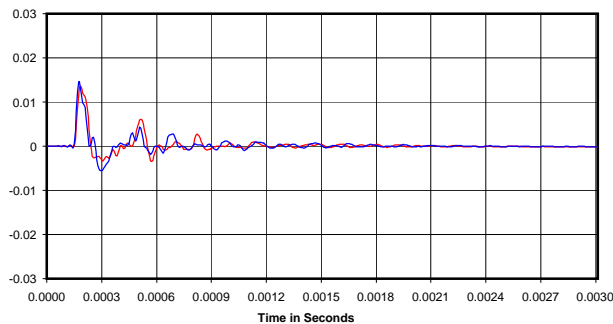
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

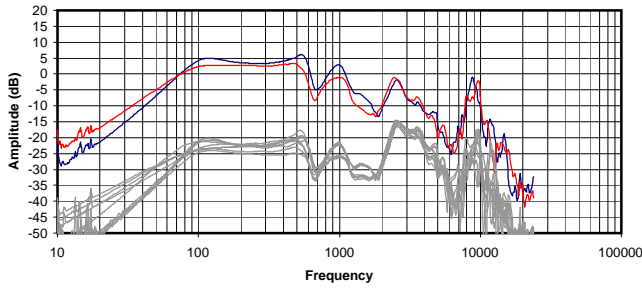


Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

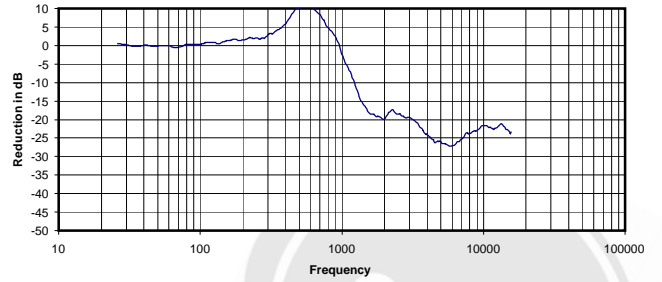
0.140 Vrms
 31 Ohms
 0.63 mW
 -11 dB



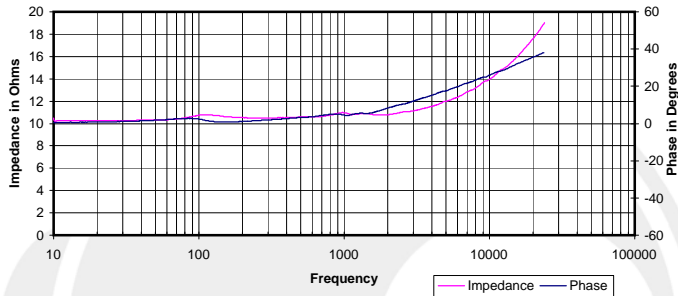
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



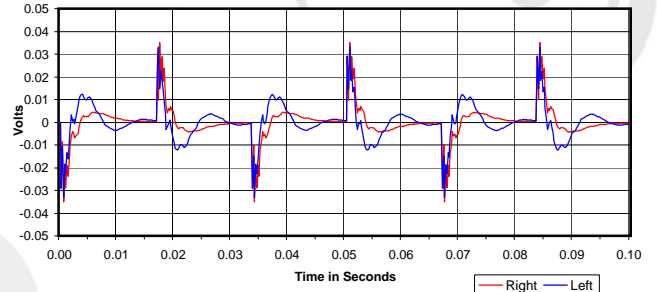
Isolation
Attenuation of External Sound vs. Frequency



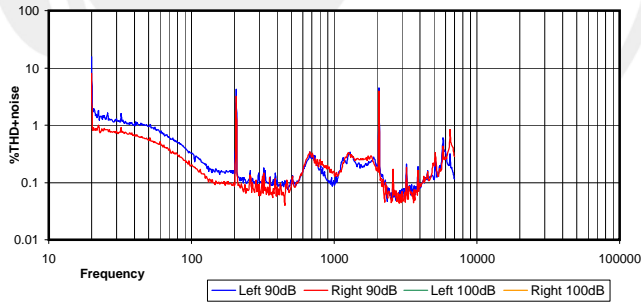
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



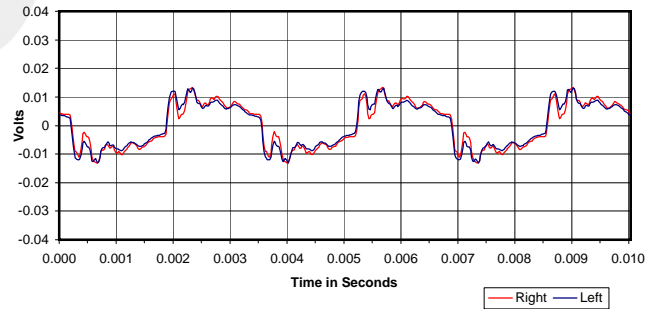
30 Hz Square Wave



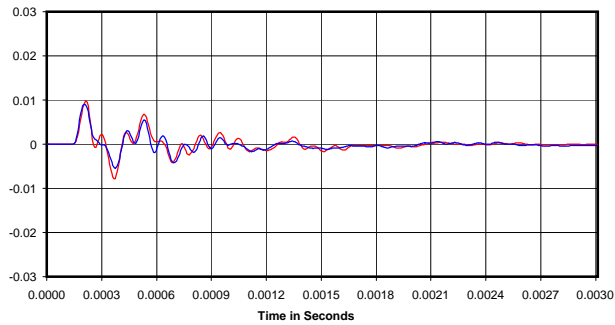
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



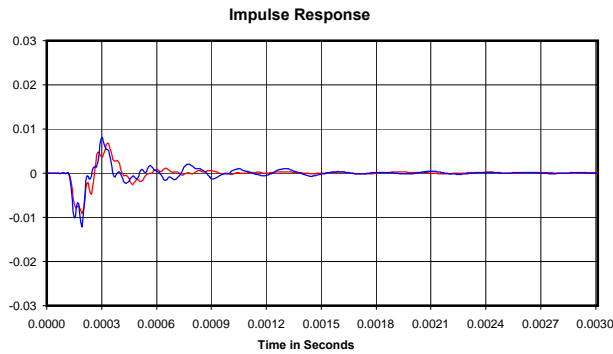
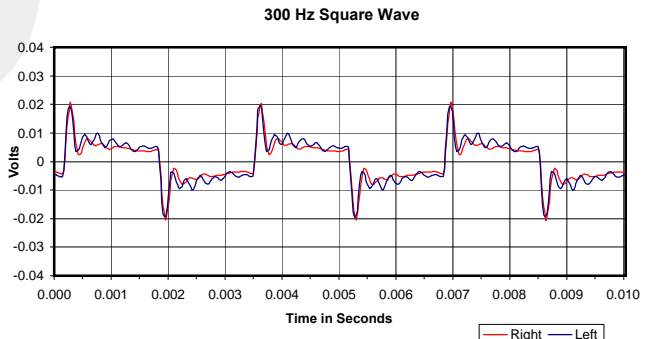
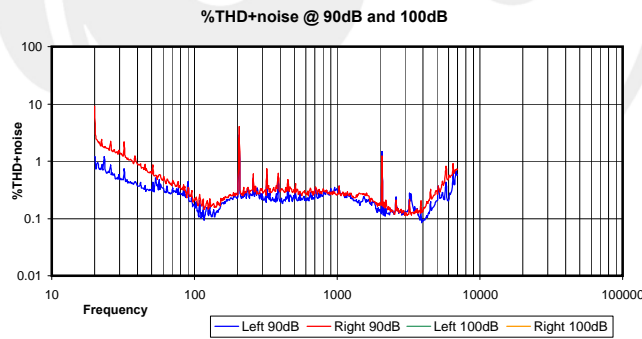
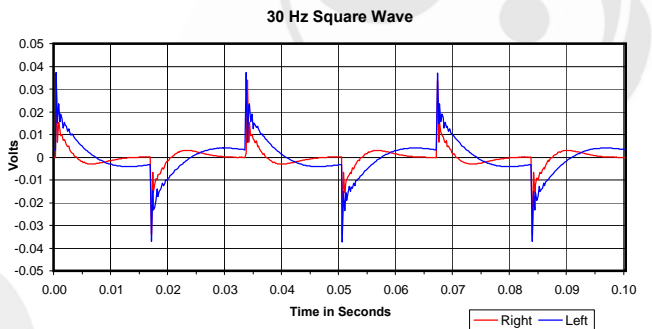
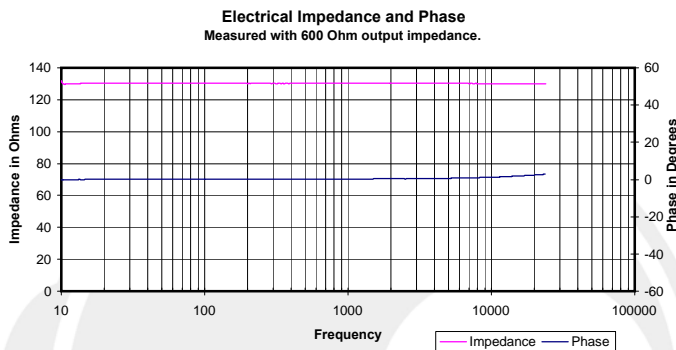
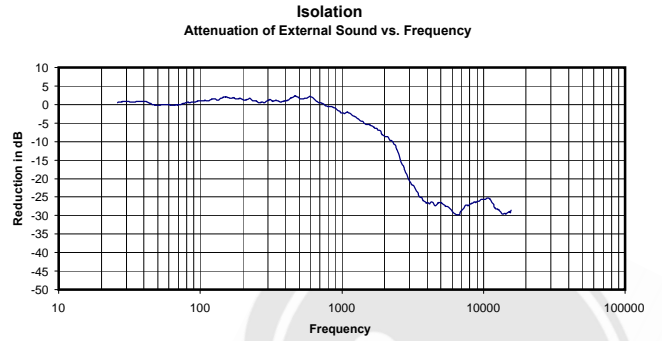
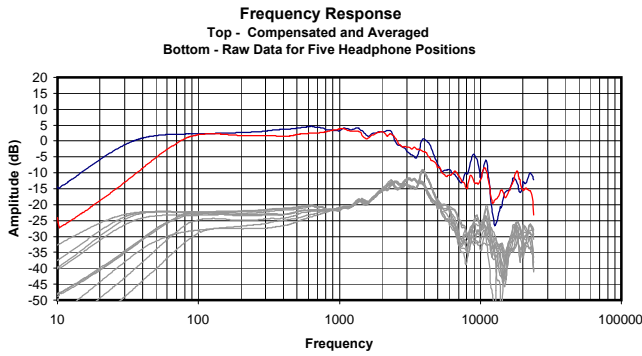
Impulse Response



Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

0.024 Vrms
11 Ohms
0.05 mW
-6 dBr



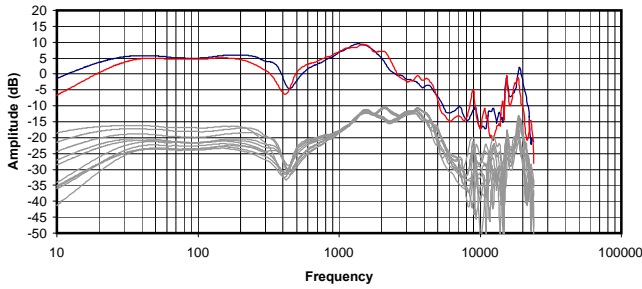


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

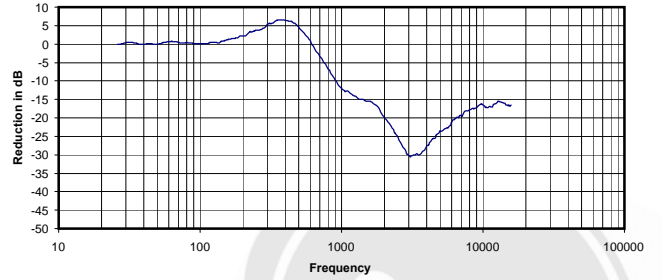
0.346 Vrms
130 Ohms
0.92 mW
-6 dBr



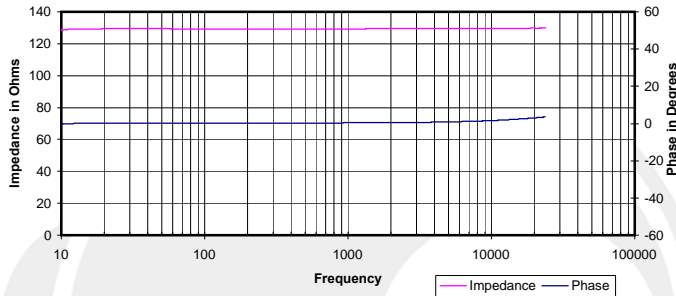
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



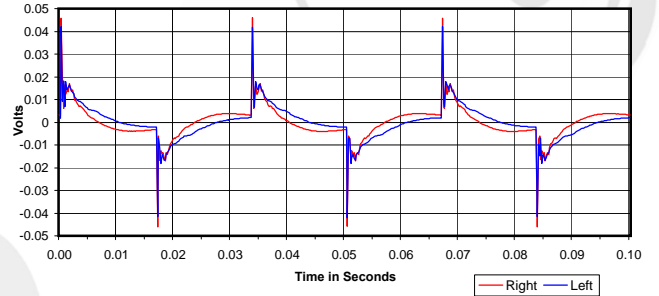
Isolation
Attenuation of External Sound vs. Frequency



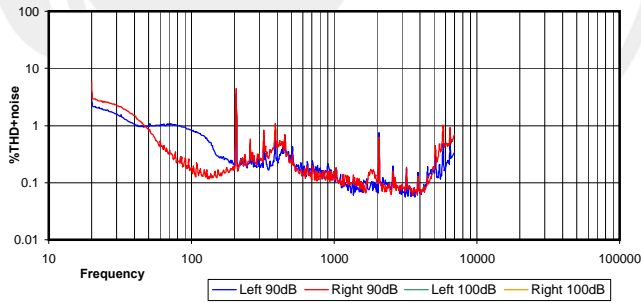
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



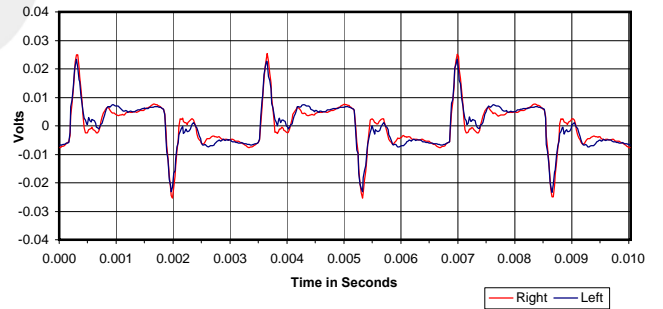
30 Hz Square Wave



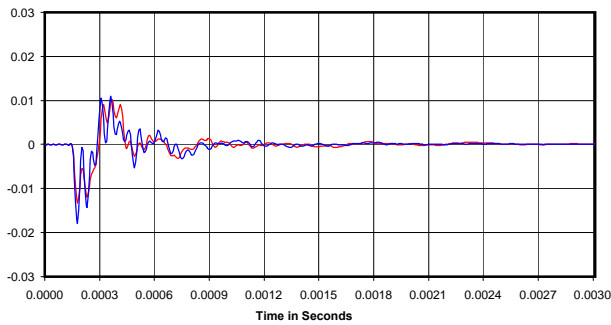
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

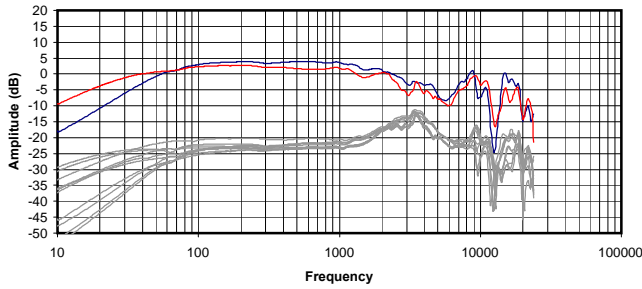


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90dB BSPL
Broadband Isolation in dB (100Hz to 10kHz):

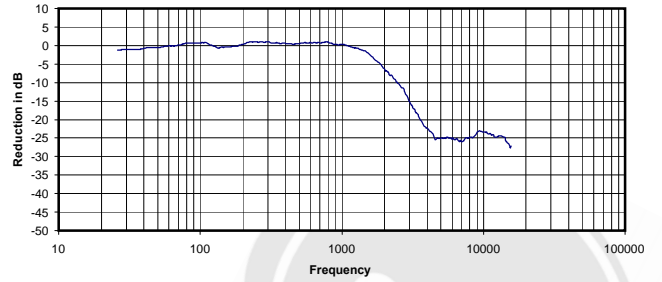
0.233 Vrms
129 Ohms
0.42 mW
-9 dB



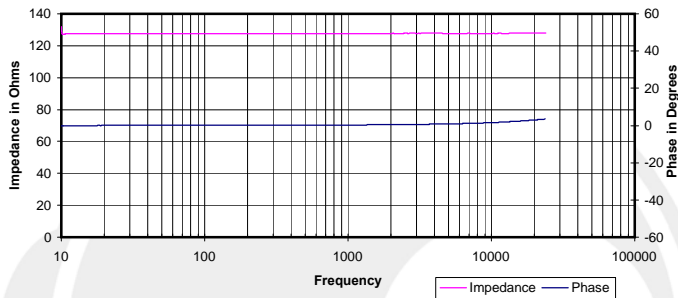
Frequency Response
Top - Compensated and Averaged
Bottom - Raw Data for Five Headphone Positions



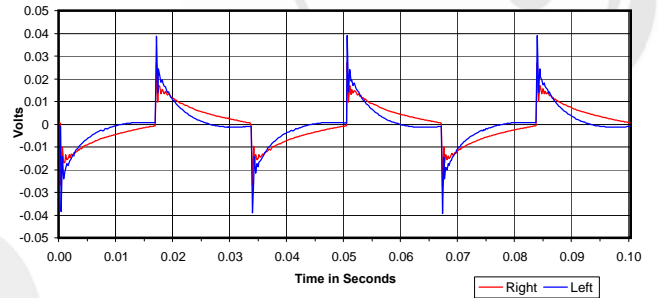
Isolation
Attenuation of External Sound vs. Frequency



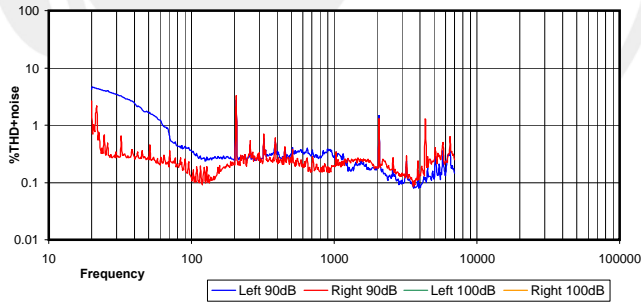
Electrical Impedance and Phase
Measured with 600 Ohm output impedance.



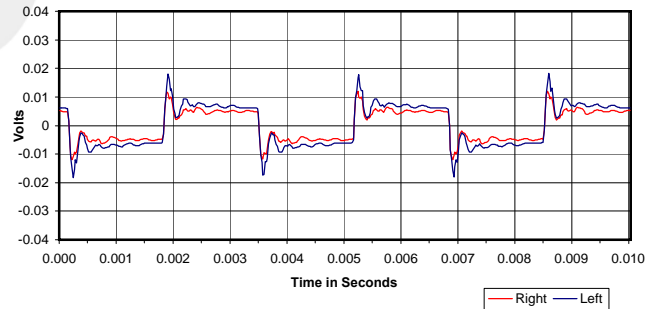
30 Hz Square Wave



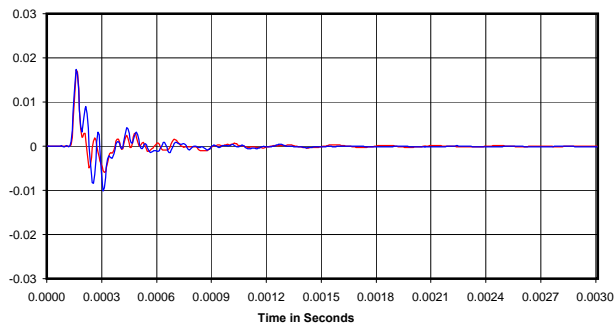
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response

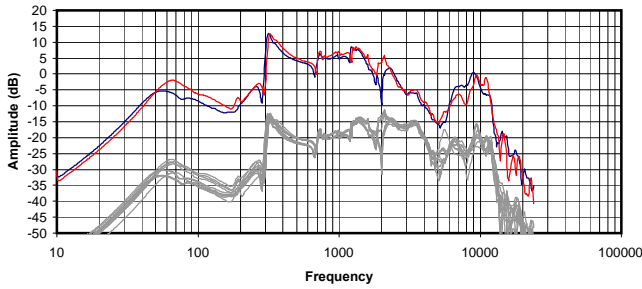


Volts RMS required to reach 90dB SPL:
Impedance @ 1kHz:
Power Needed for 90d BSPL
Broadband Isolation in dB (100Hz to 10kHz):

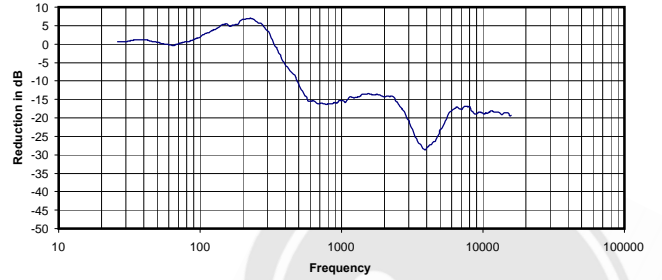
0.440 Vrms
128 Ohms
1.52 mW
-5 dB



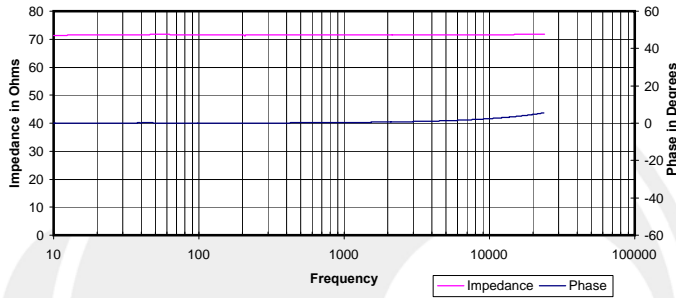
Frequency Response
 Top - Compensated and Averaged
 Bottom - Raw Data for Five Headphone Positions



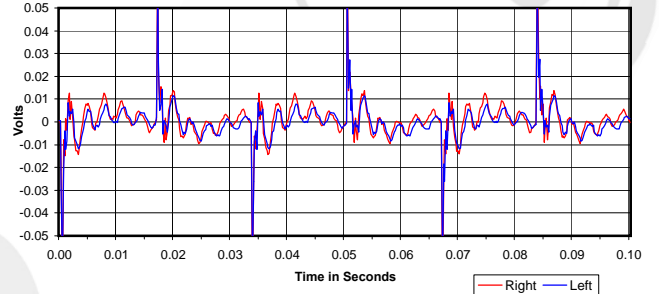
Isolation
 Attenuation of External Sound vs. Frequency



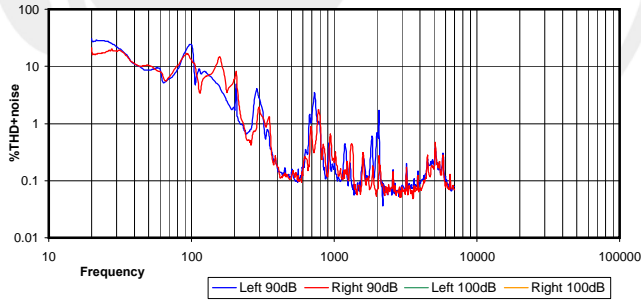
Electrical Impedance and Phase
 Measured with 600 Ohm output impedance.



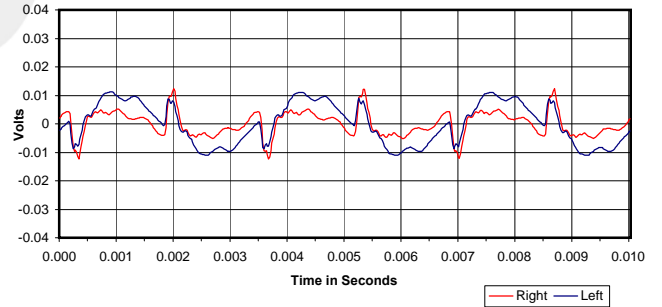
30 Hz Square Wave



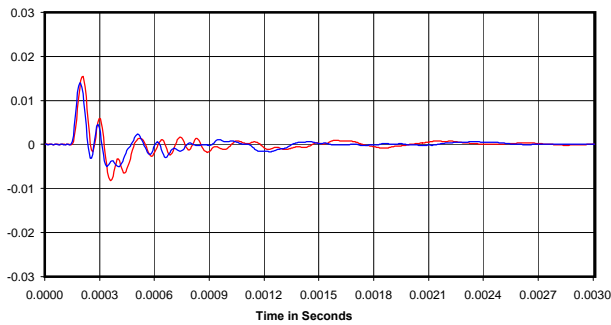
%THD+noise @ 90dB and 100dB



300 Hz Square Wave



Impulse Response



Volts RMS required to reach 90dB SPL:
 Impedance @ 1kHz:
 Power Needed for 90d BSPL
 Broadband Isolation in dB (100Hz to 10kHz):

0.894 Vrms
 71 Ohms
 11.19 mW
 -10 dB

