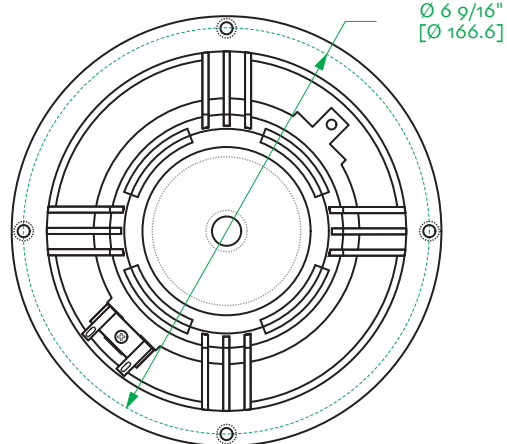
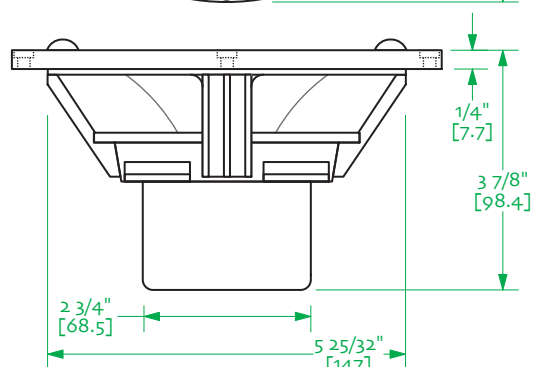
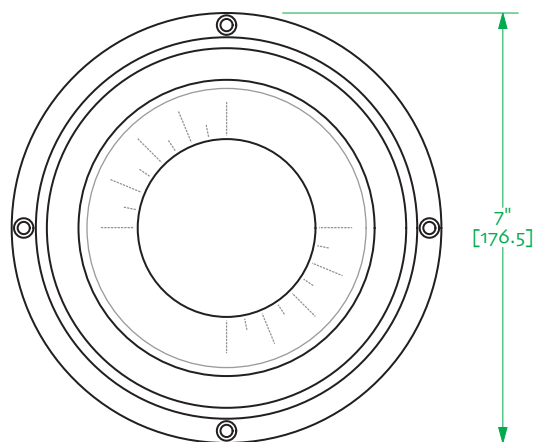


# ADIRE AUDIO® EXTREMIS 6.8™ MIDWOOFER



The Extremis 6.8 is a high performance midwoofer with a cast aluminum frame, suitable for use in mid-sized ported and sealed cabinets. It has an exponentially flared polypropylene cone, concave/flat polypropylene dustcap, rubber surround for excellent cone termination.

The driver has an aluminum former with a 4 layer copper wound voice coil for high power handling. A progressive spider with flat landing attachment is used to ensure linear suspension operation. The motor uses a neodymium magnet mounted on the pole to create an extremely compact, inherently video shielded motor structure.

The motor uses our patent-pending XBL<sup>2</sup>™ motor for extreme linearity over the entire range of motion. This motor yield a very high motor force factor of 9 Newtons per Ampere, and maintains over 90% of its peak force over the center 20mm of excursion. Combined with a linear excursion

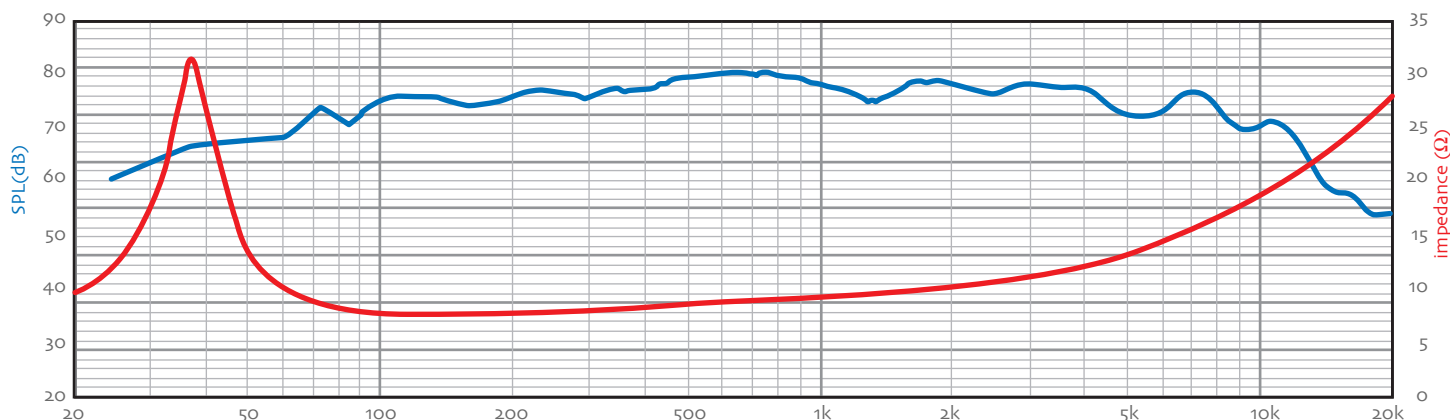
rating of 13mm one way this motor yields the highest level of low distortion stroke available in any 6.5"/7" woofer on the market today.

The flat progressive spider and soft rubber surround combine to yield an extremely linear suspension as well. Suspension compliance has less than a 25% change over the center 20mm of excursion, and provides a full 26mm of peak to peak throw capability to equal that of the motor.

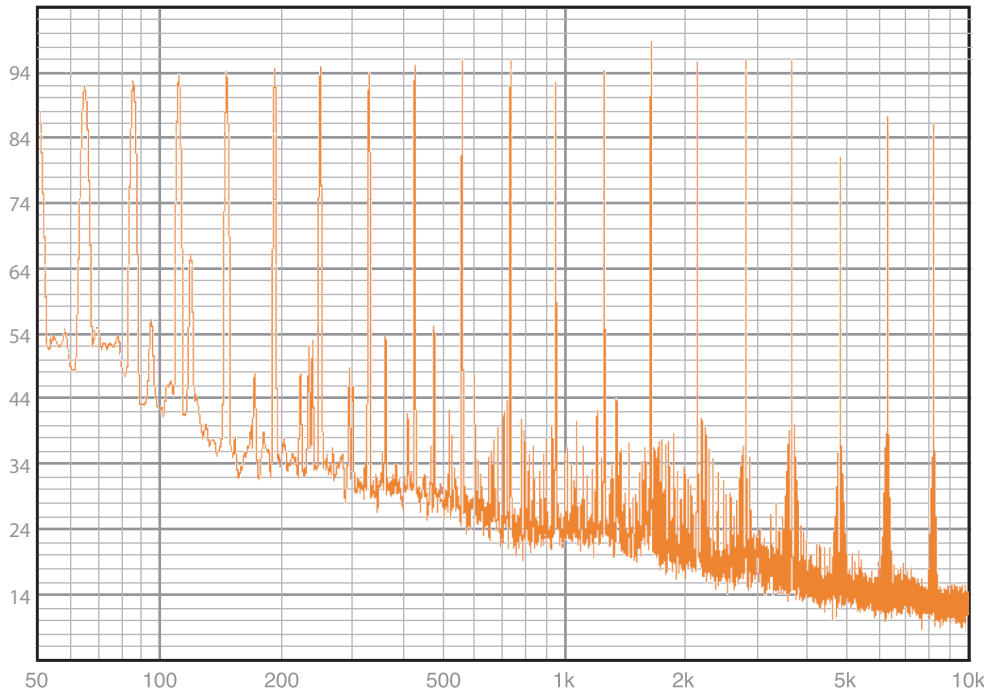
Inductance nonlinearities are kept to a minimum by the use of a full copper sleeve on the pole. This sleeve is a full 1mm thick copper ring that extends 9mm beyond the top plate. The result is a very low inductance of 0.13 mH, and inductance that does not change by more than 15% over the entire usable range of throw.

Recommended ported box: 21 litres tuned to 33 Hz  
 Recommended sealed box: 9.5 litres with 100% stuffing  
 Suitable for dipole & transmission line use

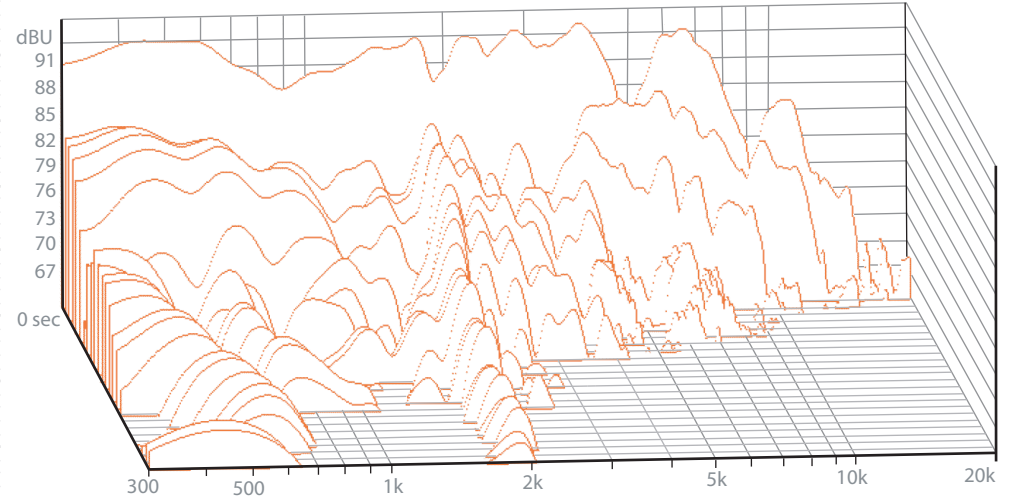
F <sub>s</sub>	(Hz)	30	SPL	(dB@1W 1m)	86
Q <sub>es</sub>		0.383	S <sub>d</sub>	(cm <sup>2</sup> )	140
Q <sub>ms</sub>		2.54	Linear Travel	(p-p/mm)	26
Q <sub>ts</sub>		0.332	Max Travel	(p-p/mm)	30
V <sub>as</sub>	(litres)	33.2	Nominal Impedance	(Ω)	8
R <sub>e</sub>	(Ω)	7.02	Usable bandwidth	(Hz)	30 – 5k
L <sub>e</sub>	(mH)	0.13	Rated Power	(W RMS)	100
BL	NA	9.0	Peak Power	(W)	300
M <sub>ms</sub>	(g)	23.3	VC Diameter	(mm)	40
C <sub>ms</sub>	(mm/N)	1.2	Driver Weight	(kg)	2.5



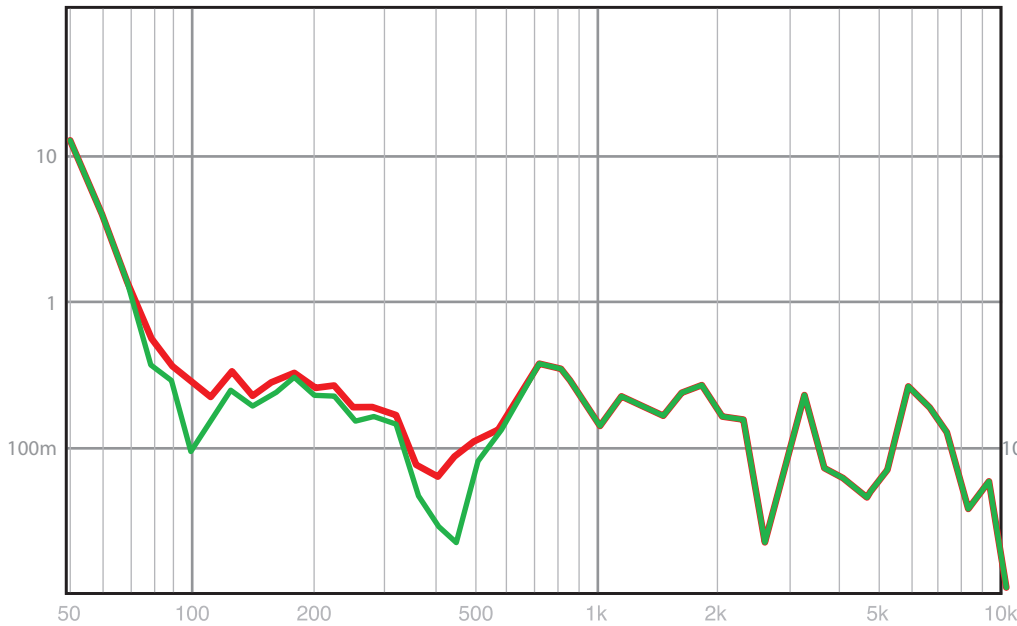
# ADIRE AUDIO® EXTREMIS 6.8™ MIDWOOFER



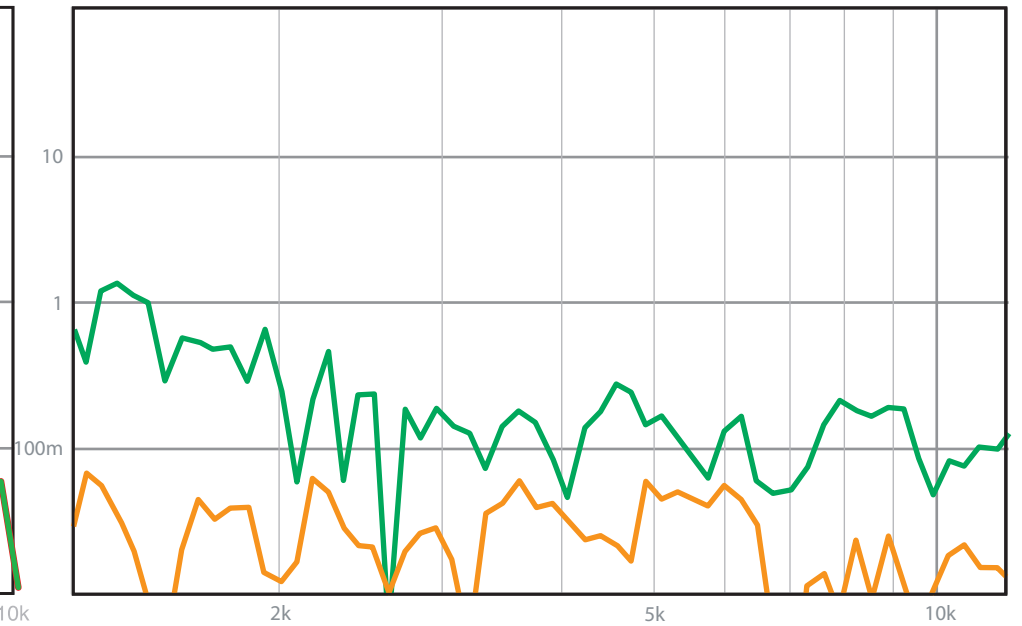
Spectral Contamination, 20 tones spaced from 50 hz to 8.2 kHz, nominal SPL level of 94 dB averaged from 200 Hz to 2 kHz



Waterfall 300 Hz to 20kHz, 94 dB SPL @ 1m Shows decay in less than 3 msec to -30dB: decay in 2 msec to -20dB. Total waterfall time of 5 msec (no smoothing applied)



THD (red) / 3<sup>rd</sup> Harmonic (green) at 94 dB SPL (averaged from 200 Hz to 2 kHz)



IMD tests at 94 dB SPL (averaged from 200 Hz to 2 kHz). Frequencies of excitation F1 swept from 50 to 500 Hz. Frquency F2 swept from 1.2 to 12 kHz. Green shows (F2 ± F1) Red shows (F1 ± F2)