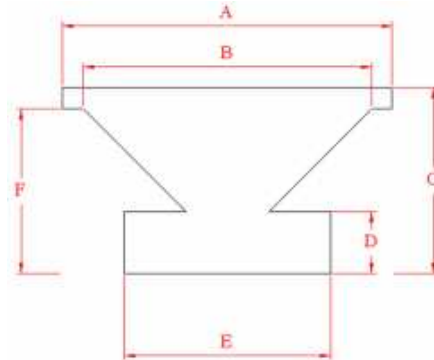


# ACOUSTIC DEVELOPMENT INTERNATIONAL™ EXTREMIS 6.8™ MIDWOOFER DATA SHEET



- A: 176.5mm / 6.95"
- B: 147.0mm / 5.79"
- C: 98.4mm / 3.88"
- D: 44.5mm / 1.75"
- E: 70.0mm / 2.76"
- F: 90.5mm / 3.63"

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.

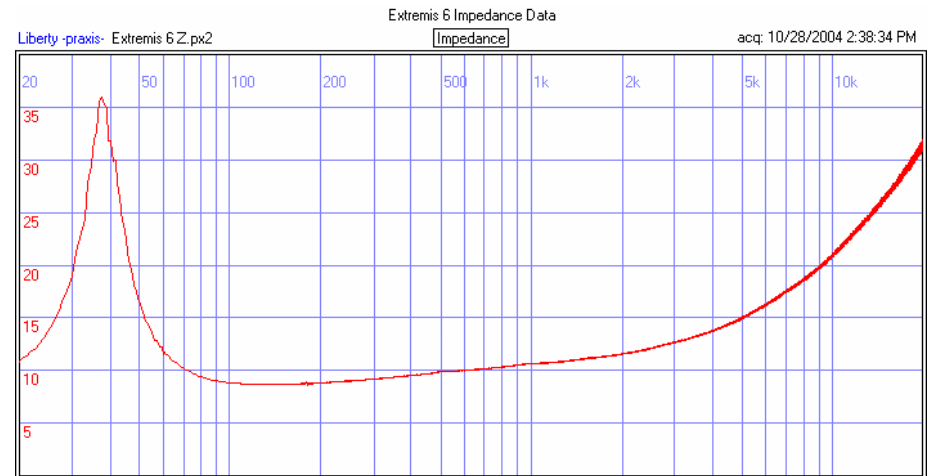
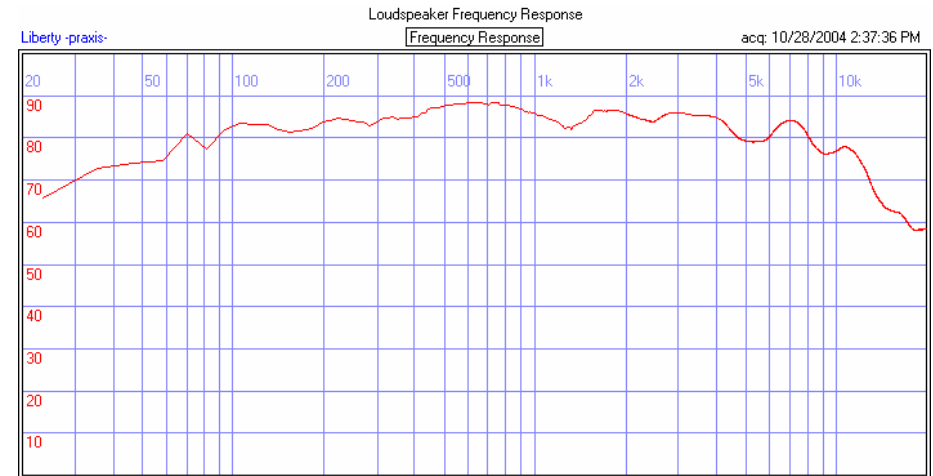
The motor uses our patented XBL™ motor for extreme linearity over the entire range of motion. This motor yield a very high motor force factor of 9 Newtons per Ampere, and maintains over 90% of its peak force over the center 20mm of excursion. Combined with a linear excursion rating of 13mm one way this motor yields the highest level of low distortion stroke available in any 170mm/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.

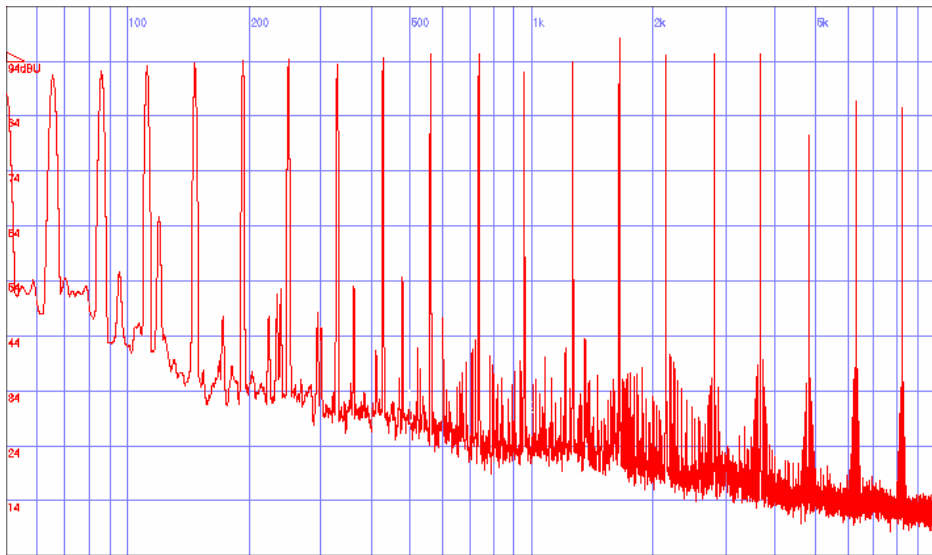
Inductance nonlinearities are kept to a minimum by the use of a full copper sleeve on the pole. This sleeve is a full 1mm thick copper ring that extends 9mm beyond the top plate. The result is a very low inductance of 0.13 mH, and inductance that does not change by more than 15% over the entire usable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

Nominal Impedance:	8 Ohms	DC Resistance:	7.02 Ohms
Usable Bandwidth:	30-5000 Hz	Inductance:	0.13 mH
Rated Power:	100W RMS	BL:	9.0 N/A
Peak Power:	300W	Resonant Frequency:	30 Hz
Rated Efficiency:	86 dB	Moving Mass:	23.3 g
VC Diameter:	40mm	Compliance:	1.2 mm/N
Linear Travel:	26mm p-p	Vas:	33.2 L
Maximum Travel:	30mm p-p	Qms:	2.54
Cone Area:	140 cm <sup>2</sup>	Qes:	.383
Driver Weight:	2.5 kg	Qts:	.332

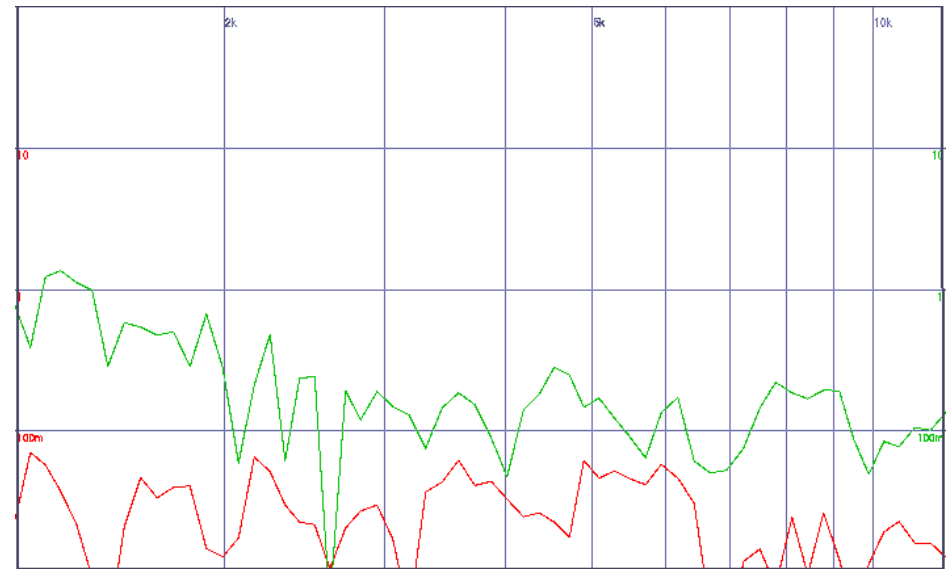
**RECOMMENDED PORTED BOX: 21 liters tuned to 33 Hz**  
**RECOMMENDED SEALED BOX: 9.5 liters with 100% stuffing**  
**SUITABLE FOR DIPOLE AND TRANSMISSION LINE USE**



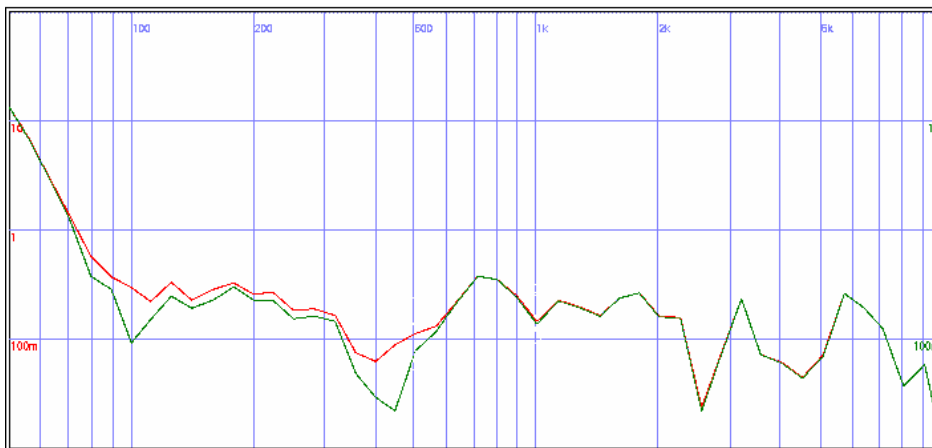
# ACOUSTIC DEVELOPMENT INTERNATIONAL™ EXTREMIS 6.8™ MIDWOOFER DATA SHEET



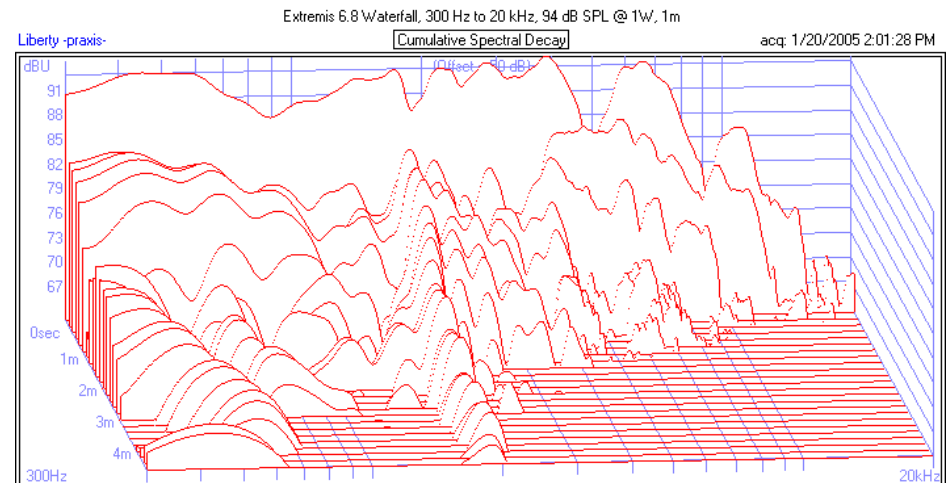
Spectral Contamination, 20 tones spaced from 50 Hz to 8.2 kHz, nominal SPL level of 94 dB averaged from 200 Hz to 2 kHz.



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



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



Waterfall showing decay in less than 3 msec to -30 dB; decay in 2 msec to -20 dB. Total waterfall time of 5 msec (no smoothing applied).