



FR135EX fullrange driver

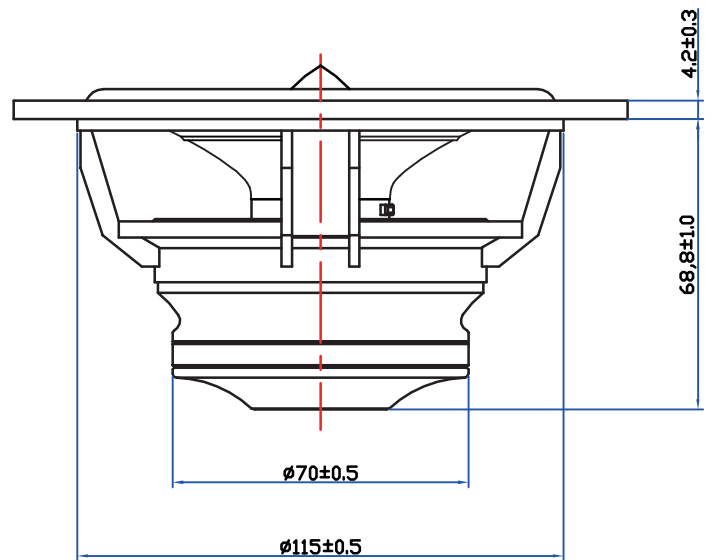
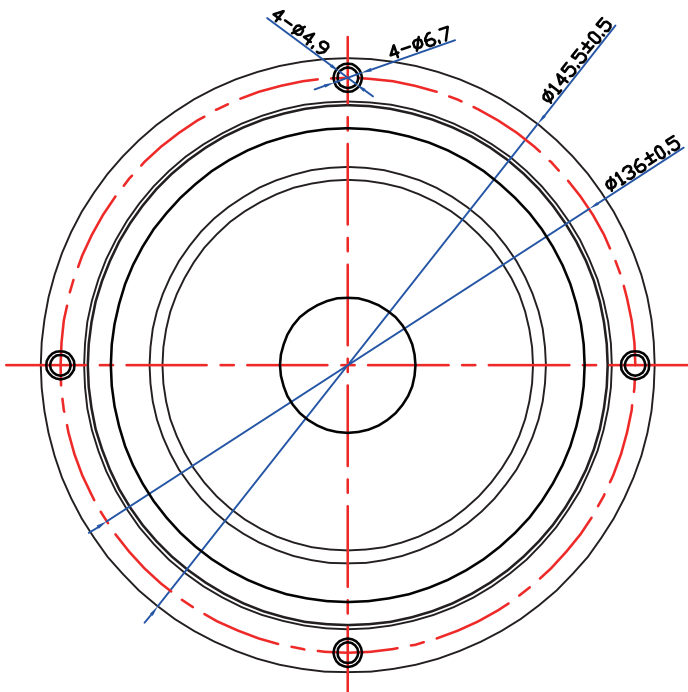
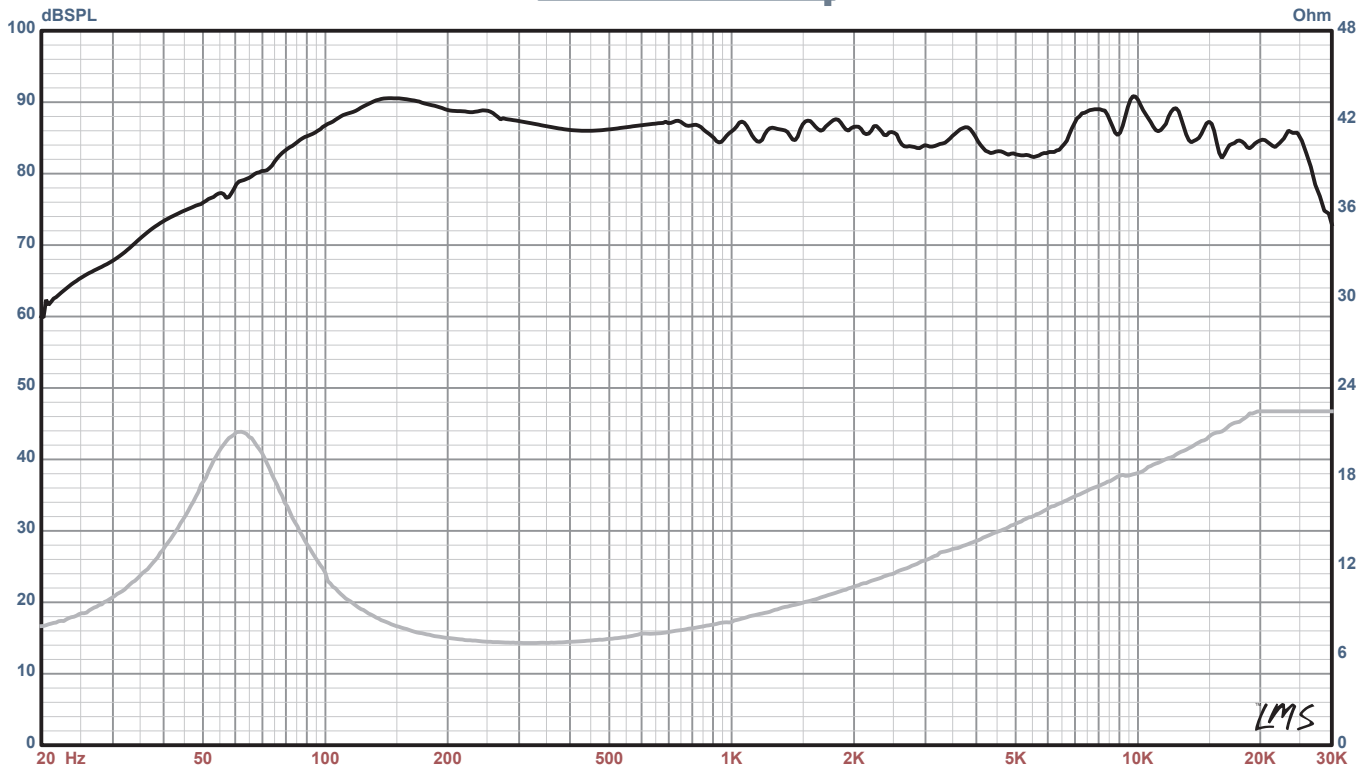
FEATURES

- Large linear excursion
- Low distortion, fast transient
- 32mm voice coil
- Die cast frame
- Aluminum phase plug

Specifications		Magnet System	
Overall Dimensions	D146X73mm	Magnet system type	Neodymium
Net. Weight	0.98kg	Magnetic Gap Height	14mm
Nominal Power Handlng	40 W rms	B Flux Density	0.88T
Nominal Impedance	8 Ohms	Bl Product	5.027Tm
Sensitivity 1W/1M	85.1dB	Max Linear Excursion	5.0mm +/-
Frequency Response	50-26,000Hz *	T/S Parameter	
Resonant frequency	61.5Hz	Cms	0.887mm/N
Voice Coil		Sd	70.50cm ²
Voice Coil Diameter	32mm	Vas	6.263 litre
Voice Coil Height	4mm	Mmd	7.205gm
Voice Coil Former	Black aluminum	Mms	7.546gm
Voice Coil Wire	copper ribbon	Qms	1.709
Number of Layers	1	Qes	0.692
DC Resistance	6 Ohms	Qts	0.493

* Frequency response extends to 50Hz (-3dB) in a 13 liter enclosure.

SPL vs Freq



This simulator is based on the mathematical model from [Acoustics: Sound Fields, Transducers and Vibration](#) by Leo Beranek and Tim Mellow.

- It calculates the internal resonances depending on the box dimensions and the loudspeaker placement.
- And you can add lining material on the back of the box to reduce these resonances.

Environment Temperature °C Pressure hPa
 Speed of sound m/s Density of air kg/m³

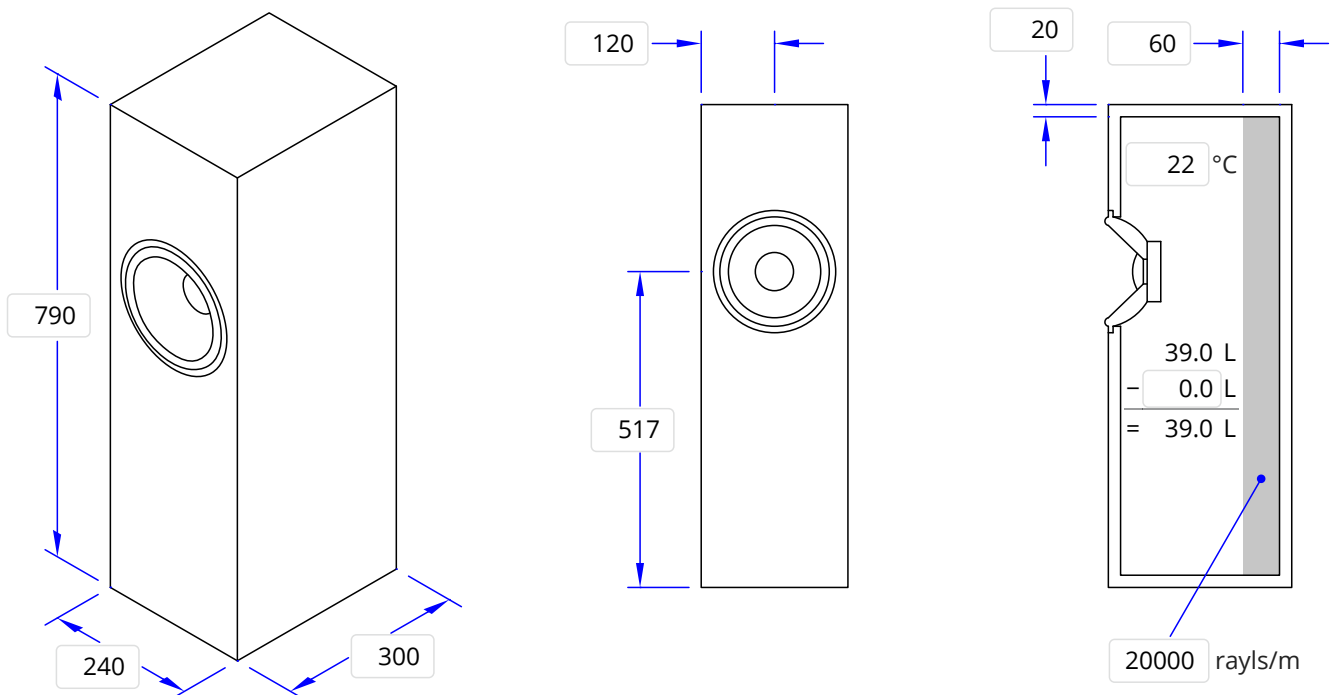
Amplifier Voltage V Output resistance Ω

Driver



f_s	<input type="text" value="61.5"/> Hz	S_D	<input type="text" value="71"/> cm ²	$B \cdot l$	<input type="text" value="5.03"/> T·m	P_{max}	<input type="text" value="80"/> W
V_{AS}	<input type="text" value="6.2"/> L	R_E	<input type="text" value="6"/> Ω	R_{MS}	<input type="text" value="1.7"/> N·s/m	X_{max}	<input type="text" value="5"/> mm
Q_{ES}	<input type="text" value="0.693"/>	L_E	<input type="text" value="0.23"/> mH	C_{MS}	<input type="text" value="887"/> μm/N	T_{VC}	<input type="text" value="22"/> °C
Q_{MS}	<input type="text" value="1.716"/>	M_{MS}	<input type="text" value="7.5"/> g				
Q_{TS}	<input type="text" value="0.493"/>						

Closed box. All dimensions are in mm. The default values are not recommendations.



Impedance

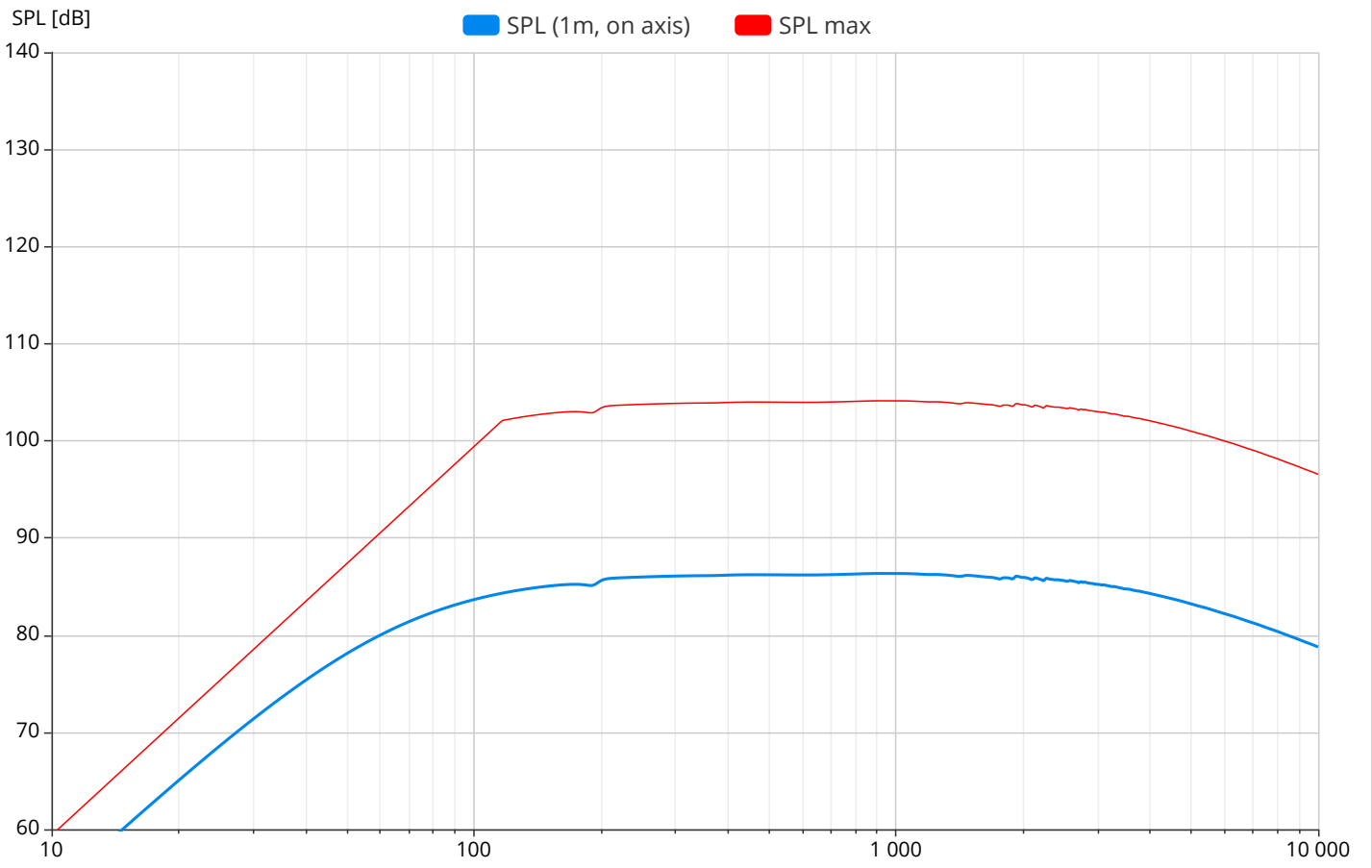
Velocity

Excursion

SPL

Phase

Group Delay



Impedance

Velocity

Excursion

SPL

Phase

Group Delay

