5212B 12” Coaxial driver

- **Designed for high SPL applications where precise 90° conical coverage in a compact coaxial system is required**
- **ideal for small to medium cinema room surround systems for immersive digital audio formats**
- **750 W continuous program power**
- **dual magnet design with independent magnetic gaps eliminates flux modulation and dramatically reduces intermodulation distortion in HF range**
- **1” HF driver diaphragm made from proprietary hardened aerospace grade Aluminum alloy with highest tensile strength to weight ratio and superior long term fatigue resistance**
- **heat stabilized polymer suspension ensures low distortion at high peak SPL and long term stability in most demanding applications**
- **high performance edge-wound ribbon wire voice coils with high performance adhesives for maximum reliability**
- **extended to 30 kHz frequency range**
- **high transparency and resolution**
- **optional premium XO**
- **optional matching 70V transformers**
- **HF driver with 16 ohms impedance option**

SPECIFICATIONS GENERAL/LF

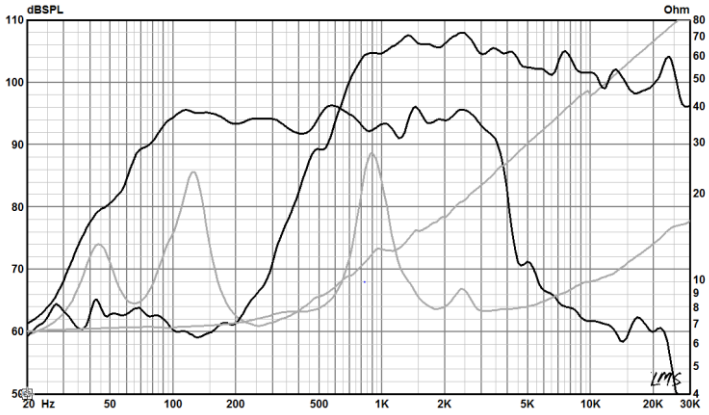
Nominal diameter	12”/305mm
Rated impedance	8 Ω
Power handling [1]	375 W
Continuous program power [2]	750 W
Sensitivity[3]	95 dB
Rated frequency range[4]	50 Hz – 30 kHz
Coverage angle [5]	90° conical
Recommended XO frequency	1.2 kHz
Minimum impedance	6.8 Ω
Cone material	Paper/Kevlar composite
Voice coil diameter	76.2 mm (3”)
Voice coil winding	edge wound ribbon
Voice coil wire	copper clad Aluminum
Voice coil former	Fiberglass
Displacement limit for VC	17 mm
Voice coil winding height	16 mm
Magnetic gap height	9.5 mm
Suspension	M-roll, Poly-cotton
Magnet	Ferrite ring
Frame	Cast Aluminum
Recommended enclosure volume	40 – 80 L (1.4-2.8 ft³)

Thiele-Small parameters

Fs	62 Hz
Sd	500 cm2
Re	6.0 Ω
Qms	9.2
Qes	0.44
Qts	0.42
Vas	58.4 dm³ (L)
Cms	0.15 mm/N
Mms	45.5 g
BL	15.5 N/A
Le	1.4 mH
Xmax[6]	5.6 mm

SPECIFICATIONS HF

Nominal exit diameter	1”/25.4
Rated impedance	8 Ω (16 Ω optional)
Power handling [1]	40 W
Continuous program power [2]	80 W
Sensitivity[3]	107 dB
Rated frequency range[4]	800 Hz – 30 kHz
Min. XO frequency (12dB/oct.)	1.2kHz
Dome/surround material	Aluminum alloy/polymer
Voice coil diameter	44 mm (1.5”)
Voice coil winding	edge wound ribbon
Voice coil wire	Aluminum
Magnet	Ferrite ring



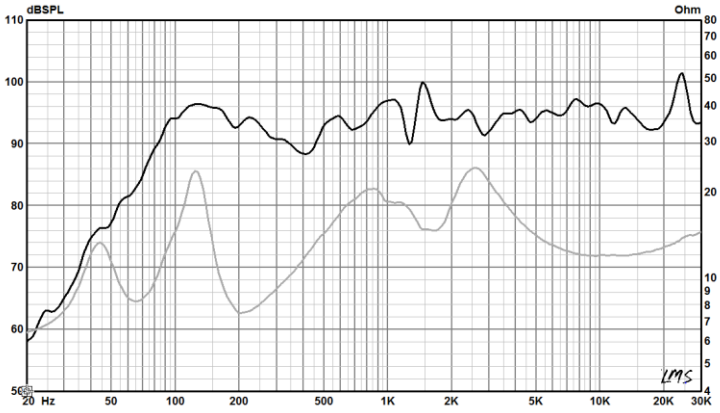
Frequency response and impedance of individual drive units in 40 L/Fb=65Hz vented box, free field.

Mounting parameters

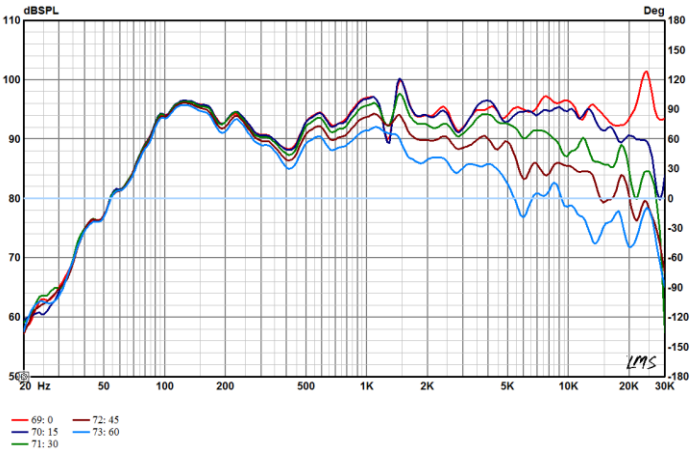
Overall diameter	313.7 mm (12.35 in)
Bolt circle diameter	295.3 mm (11.625in)
Baffle cut-out diameter	283 mm (11.125 in)
Flange and gasket thickness	14.5 mm (0.57 in)
Overall depth	175 mm (6.9 in)
Net weight	6.6 kg (14.5 lbs.)

Optional Accessories

Crossover	322/5212
70V matching transformer	TR-6070,TR-10070



Combined frequency response and impedance of 5212B with recommended XO in 40 L/Fb=65Hz vented box, free field.



Directivity response curves of 5212B with recommended XO in 40 L/Fb=65Hz vented box, free field.

Specifications notes

1. As per AES2-1984 Rev.2003. Radian Audio tests power using voltage levels calculated based on rated impedance, according to AES and IEC 60268-5 standards, as better reflecting real life operating conditions. To be distinguished from power specification approach that uses minimum impedance, resulting in inflated power rating.
2. Continuous program power is defined at 3dB higher than AES power and reflects power handling capacity for typical music and cinema content reproduction.
3. Driver mounted in specified test box, measured at 1m, at 2.83V in simulated free field conditions as per AES 2-2012 and IEC 60268-5 (Ed.3.1 2007-09). Sensitivity is calculated based on SPL frequency response averaged in reference octave bands within 100Hz-800Hz band for LF and 1.5 kHz – 3 kHz band for HF as per IEC 60268-5 and scaled, when necessary, to 1W/1m conditions based on driver rated impedance.
4. Specified in accordance with IEC 60268-5 (Ed. 3.1 2007-09). Defines recommended operating frequency band. A larger enclosure than the one used for this data sheet measurements may be required for maximum LF extension. Higher LF cut off is possible if higher max SPL of program reproduction is required.
5. Coverage angle is specified for complete unit with recommended XO. Defined at -6dB, averaged on octave band points in 500-10000Hz range.
6. Xmax is defined as Xmax= (Hvc-Hgap)/2+ Hgap/4 and based on actual BL linearity data measured for each driver by laser based analyser with 82% BL reduction limit from normalized maximum at voice coil rest position. Hvc – voice coil height, Hgap – active magnetic gap height.