

MID-BASS MB10N251

Professional Low Frequency Transducer

PART NUMBER **11100064**

Features

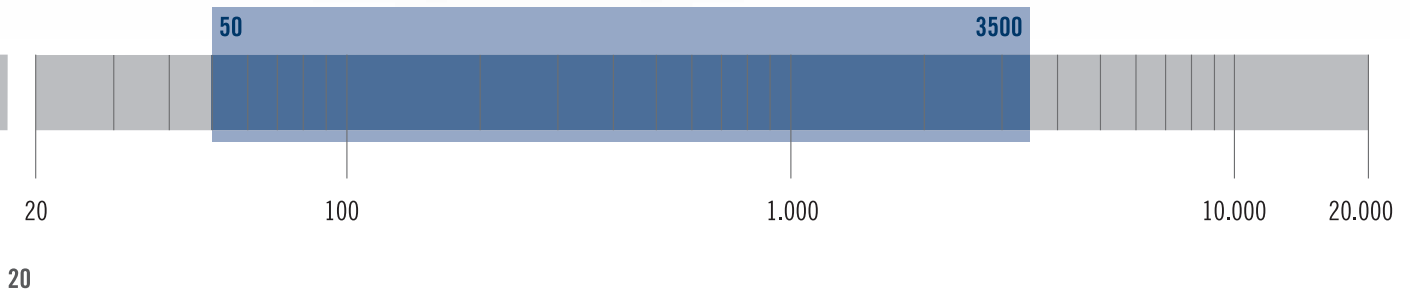
- 2.5-inch , fibreglass former, aluminium voice coil
- 600 Watt continuous program power handling
- 97dB Sensitivity
- 50Hz –3.5KHz Frequency range
- Forced air ventilation
- M-roll surround and exponential cone geometry

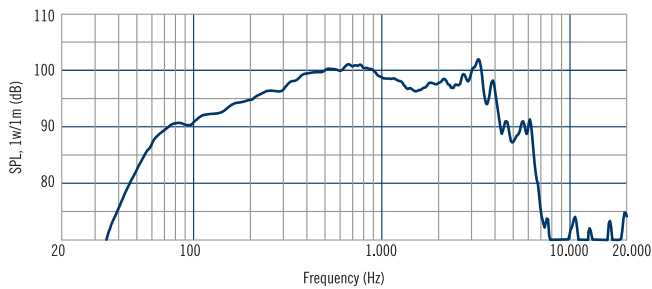
The MB10N251 is a 10" neodymium mid-bass driver with an excellent linearity, good efficiency and high power handling capabilities. The 2.5" aluminium voice coil combined with a high strength fibreglass former allows high efficiency and good frequency response extension. Aluminium basket and magnetic assembly design provide an excellent heat dissipation and very low power compression. The M-roll surround shape combined to spider design offer good linear displacement and precise low frequency reproduction.

The waterproof body cone treatment ensures a durable performance in every application.

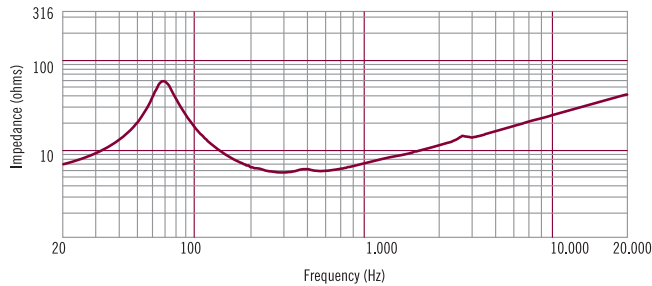
Applications

The MB10N251 finds its application in compact 2-way bass reflex system where very high dynamic and power handling are required. Perfect for multi-way reflex enclosures such as line arrays.





Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 30 litres and tuned at 55Hz, applying a sinusoidal signal of 2.83 V@8 at 1m.



Impedance magnitude curve measured in free air.

General Specifications

| | | |
|--|-----------------|---------|
| Nominal Diameter | 250/10 | mm/inch |
| Rated Impedance | 8 | ohm |
| Program Power ¹ | 600 | Watts |
| Power handling capacity ² | 300 | Watts |
| Sensitivity ³ | 97 | dB |
| Frequency Range | 50 - 3500 | Hz |
| Effective Piston Diameter | 210/8.27 | mm/inch |
| Max Excursion Before Damage (peak to peak) | 40/1.57 | mm/inch |
| Minimum Impedance | 6.4 | ohm |
| Voice Coil Diameter | 64/2.51 | mm/inch |
| Voice Coil Material | Aluminum | |
| Voice Coil Winding Depth | 14/0.55 | mm/inch |
| Number of layers | 1 | |
| Kind of layer | outside | |
| Top Plate Thickness | 9/0.35 | mm/inch |
| Cone Material | No pressed pulp | |
| Cone Design | Curved | |
| Surround Material | Polycotton | |
| Surround Design | M-roll | |

Thiele - Small Parameters ⁴

| | | | |
|---|------|-------|----------------|
| Resonance frequency | Fs | 55 | Hz |
| DC resistance | Re | 5.1 | ohm |
| Mechanical factor | Qms | 4.2 | |
| Electrical factor | Qes | 0.29 | |
| Total factor | Qts | 0.27 | |
| BL Factor | BL | 15.2 | T · m |
| Effective Moving Mass | Mms | 36 | gr |
| Equivalent Cas air load | Vas | 38.8 | liters |
| Effective piston area | Sd | 0.035 | m ² |
| Max. linear excursion (mathematical) ⁵ | Xmax | 4.8 | mm |
| Voice - coil inductance @ 1KHz | Le1K | 1.3 | mH |
| Half-space efficiency | Eff | 2.20 | % |

Mounting Information

| | | |
|--|-----------------|------------|
| Overall Diameter | 260/10.24 | mm/inch |
| Bolt Circle Diameter | 241-246/9.5-9.6 | mm/inch |
| Bolt Hole Diameter | 5.5/0.21 | mm/inch |
| Front Mount Baffle Cut-out | 234/9.21 | mm/inch |
| Rear Mount Baffle Cut-out | 234/9.21 | mm/inch |
| Depth | 113/4.45 | mm/inch |
| Volume occupied by the driver ⁶ | 1.2/0.04 | liters/ft3 |

Shipping Information

| | | |
|-----------------|----------|--------|
| Net Weight | 2.2/4.85 | Kg/Lbs |
| Shipping Weight | 2.4/5.29 | Kg/Lbs |

Notes to Specifications

1 Program Power is defined as 3 dB greater than AES power. - 2 AES standard. - 3 Sensitivity measurement is based on a 500-2,5 kHz pink noise signal with input power of 2.83V @ 8 Ohms. - 4 Thiele-Small parameters are measured after a 2 hour warm up period running the loudspeaker at full power handling capacity. - 5 The maximum linear excursion is calculated as: $(Hvc - Hg)/2 + Hg/4$ where Hvc is the voice coil depth and Hg the gap depth. - 6 Calculated for front mounting on 18 mm thick board.