

ND1080

Neo High Frequency Driver

Key Features

- 109 dB SPL 1W / 1m average sensitivity
- 1 inch exit throat
- 44 mm (1 3/4 inch) voice coil diameter
- 100 Watt program power handling
- Pure titanium dome
- Patented phase plug design
- Neodymium ring magnetic structure
- Excellent thermal exchange



General Description

The ND1080 one inch exit neodymium compression driver is designed for use in three-way high-end audio systems, where superior top end control is achieved.

Equipped with unique Phase Plug architecture, the ND1080 is designed to give high level manufacturing consistency and smooth coherent wavefront at horn entrance over all the working frequency range. The phase plug with short openings and high flare rate value assures low distortion and remarkable improvements in mid-high frequency reproduction.

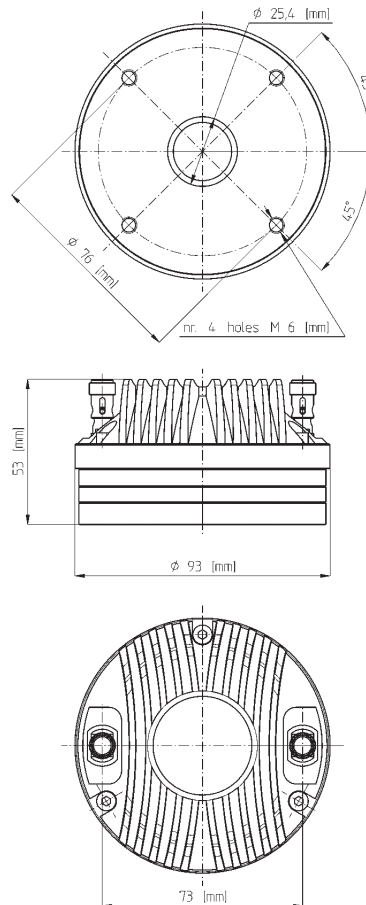
The diaphragm assembly, which is composed by a titanium dome sandwiched to a proprietary treated polyester suspension, has a higher resonance frequency if compared to ND1090, usable for crossover frequency down to 1.9 kHz, keeping very high control on the upper frequency range. An edge-wound aluminum voice coil, wound on the proprietary treated Nomex, completes diaphragm assembly. Thanks to its physical properties, the proprietary treated Nomex former shows 30% higher value of tensile elongation at working operative temperature (200°C) when compared to Kapton. Moreover, this proprietary former material is suitable to work also in higher moisture contents environments.

The ND1080 powerful neodymium magnet assembly is designed to obtain 20 KGauss in the gap for major benefits in transient response. A copper ring on the pole piece reduces inductance above 10 kHz improving phase and impedance linearization.

The custom designed O-ring creates a tight seal between the plate and the cover assuring air chamber loading. Excellent heat dissipation and thermal exchange are guaranteed by the direct contact between the magnetic structure and the aluminum cover that allows to obtain a lower power compression value.

The special treatment applied to the magnet and the top and back plates of the magnetic structure makes the ND1080 compression driver more resistant to the corrosive effects of salts and oxidation than any other treatment used by any other manufacturer.

042108N110 8ohm



NEODYMIUM HF DRIVERS

ND1080

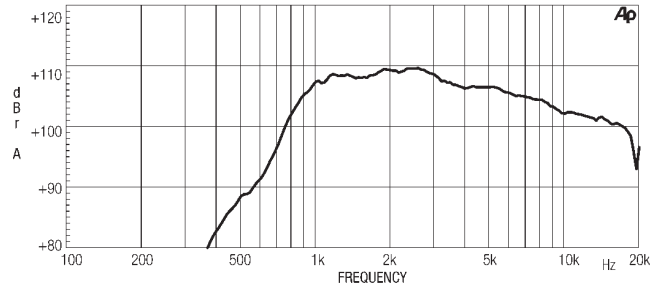
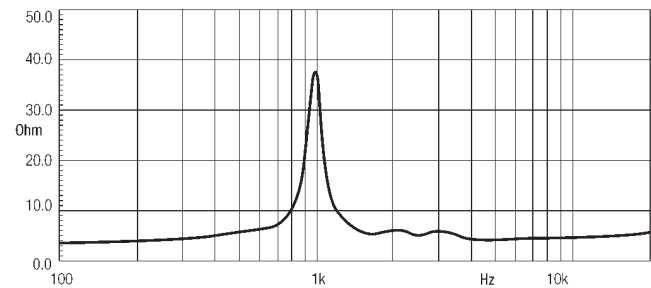
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GENERAL SPECIFICATIONS

THROAT DIAMETER	25,4 mm (1 in)
RATED IMPEDANCE	8 ohm
DC RESISTANCE	6,2 ohm
MINIMUM IMPEDANCE	8 Ohm at 4000Hz
LE (AT 1KHZ)	83 µH
AES POWER (1)	50W above 2 kHz
CONTINUOUS PROGRAM (2)	100W above 2 kHz
SENSITIVITY (1W@1M) (3)	109 dB
FREQUENCY RANGE	1900Hz ÷ 20kHz
RECOMM. XOVER FREQUENCY	1900Hz (12dB/oct slope)
DIAPHRAGM MATERIAL	Pure Titanium dome
VOICE COIL DIAMETER	44,4mm (1 3/4 in)
VOICE COIL WINDING MATERIAL	Edge-wound aluminum
MAGNET MATERIAL	Neodymium
FLUX DENSITY	2 T
BL FACTOR	9,5 N/A
POLARITY	Positive voltage on red terminal gives positive pressure in the throat

MOUNTING INFORMATION

Overall diameter	93 mm (3,7 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	53 mm (2,1 in)
Net weight	1,2 Kg (2,6 lb)
Shipping weight	1,3 Kg (2,9 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

ND1080 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS.**FREE AIR IMPEDANCE MAGNITUDE CURVE.****NOTES**

- (1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.
- (2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.
- (3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn averaged between 1kHz and 4 kHz.

Eighteen Sound engages in research and product improvement. New materials and design refinements can be introduced into existing products without notice.