

# ND1050

HF Neodymium Transducer

## KeyFeatures

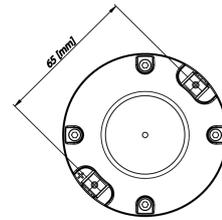
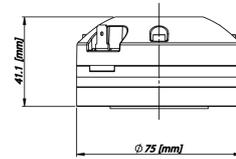
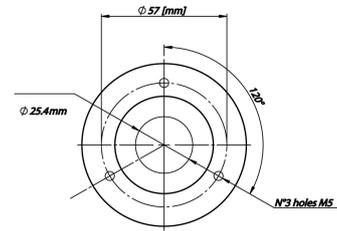
- 110 dB SPL 1W / 1m average sensitivity
- 1 inch exit throat
- 44mm (1 3/4 inch) voice coil diameter
- 100 Watt program power handling
- Neodymium magnet structure
- Titanium dome over PEN suspension
- Ultra compact size - 75mm external diameter
- Proprietary phase plug design
- Ideal for multiple HF line arrays

## Description

The ND1050 one inch exit high frequency compression driver is designed for high quality applications, where size is a critical issue. ND1050 high flux ultra compact magnetic assembly architecture, achieves the remarkable 1,9 Tesla value in the gap containing the external size in 75mm - 3 inches - making this HF driver a benchmark in its category. Equipped with Eighteen Sound proprietary Phase Plug architecture, the ultra compact ND1050 ensures a coherent wavefront at the horn entrance over all the working frequency range. The radial - tangerine phase plug design with short openings and high flare rate value assures low distortion and remarkable improvements in mid-high frequency reproduction. The transducer diaphragm assembly is composed of a titanium dome sandwiched to a proprietary treated polyester suspension. This design maintains low resonance and lowers the minimum crossover point value to 1.6kHz. An edge-wound aluminum voice coil, wound on 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 material is suitable to work also in higher moisture contents environments. The ability to perform properly under inclement weather conditions is a key-point of the Eighteen Sound philosophy. The special treatment applied to the magnet and the top and back plates of the magnetic structure makes the driver more resistant to the corrosive effects of salts and oxidization than any other treatment used by other manufacturers.

## Models

Model	Code	Info
0421T8N500	0421T8N500	80hm
0421T6N500	0421T6N500	160hm

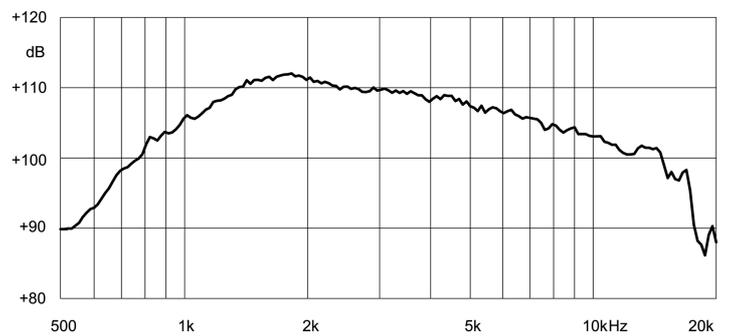


## Mounting information

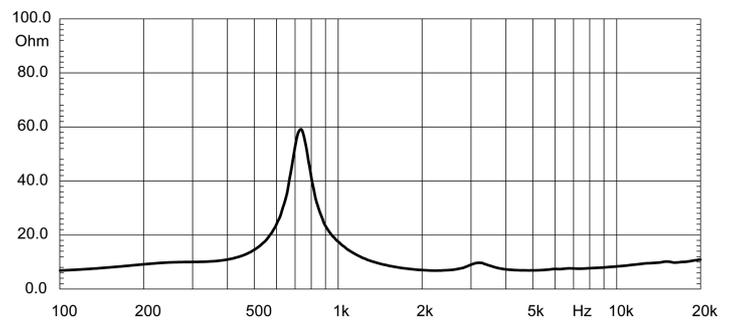
Overall diameter	75 mm (3 in)
N. of mounting holes and bolt	3 M5 holes 120°
Bolt circle diameter	57 mm (2.2 in)
Total depth	41 mm (1.6 in)
Net weight	0,55 kg (1,21 lb)
Shipping weight	0,6 Kg (1,32 lb)
Packaging Dimensions	0,6 Kg (1,32 lb)

## General Specifications HF

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 Ohm
D.C. Resistance	5,3 Ohm
Minimum Impedance	6,9 Ohm at 2000Hz
Le (1kHz)	67 µH
AES Power	50 W above 1,6 kHz
Program power (8)	100 W above 1,6 kHz
Sensitivity (9)	110 dB
Frequency Range	1600Hz - 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm material	Titanium - PEN
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil winding material	Edge-wound aluminum
Magnet material	Neodymium
Flux Density	1,9 T
BI Factor	8,5 N/A
Polarity	Positive voltage on red terminal gives positive pressure in the throat



**ND1050 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.<br />
- 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.<br />
- 3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn averaged between 1kHz and 4kHz.<br />