### ND1070

**HF Neodymium Driver**

#### Key Features
- 109 dB SPL 1W / 1m average sensitivity
- 1 inch exit throat
- 44 mm (1 3/4 inch) edgewound aluminum voice coil
- 100 Watt program power handling
- Titanium dome over polyester suspension
- Proprietary phase plug design
- Neodymium magnetic structure
- Excellent thermal exchange

#### Description
The ND1070 1-inch exit high frequency compression driver has been designed for use in high quality two-way audio systems. Equipped with Proprietary Phase Plug architecture, ND1070 shows high level manufacturing consistency and a smooth coherent wavefront at the horn entrance across the whole working frequency range. With its short openings and high flare rate value, this phase plug configuration assures low distortion and demonstrates remarkable improvements in mid-high frequency reproduction. The ND1070 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 1.6 kHz. An edgewound aluminum voice coil wound on proprietary treated Nomex completes the diaphragm assembly. Nomex shows a 30% higher value of tensile elongation at a working operative temperature (200°C) when compared to Kapton. This feature enables proper energy transfer control from the voice coil to the dome in real working conditions. Moreover, this proprietary former material is also suitable for use in high moisture content environments. A copper ring on the pole piece reduces inductance above 10 kHz, improving phase and impedance linearization. By careful use of elementary pieces of neodymium magnets, Eighteen Sound engineers have developed a powerful neodymium magnet assembly capable of reaching 18K Gauss in the gap within a compact and lightweight structure. 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 which leads to a lower power compression value. The ability to perform properly under inclement weather conditions is a key feature in Eighteen Sound philosophy. A special treatment has been applied to the magnet and the top and back plates of the magnetic structure making the driver more resistant to the corrosive effects of salts and oxidation. This treatment is more effective than any other treatment used by other manufacturers.

#### Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Code</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>0421T8M400</td>
<td>0421T8M400</td>
<td>8 Ohm</td>
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<tr>
<td>0421T6M400</td>
<td>0421T6M400</td>
<td>16 Ohm</td>
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</tbody>
</table>
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HF Neodymium Driver

**General Specifications**

- **Throat Diameter**: 25.4 mm (1 in)
- **Rated Impedance**: 8 Ohm
- **DC Resistance**: 5.3 Ohm
- **Minimum Impedance**: 7 Ohm at 4000Hz
- **Le (at 1kHz)**: 67 µH
- **AES Power**: 50 W above 1.6 kHz
- **Program Power**: 100 W above 1.6 kHz
- **Sensitivity**: 109 dB
- **Frequency Range**: 1600Hz - 20kHz
- **Recomm. Xover Frequency**: 1600Hz (12dB/oct slope)
- **Diaphragm Material**: Titanium - Polyethylene
- **Voice Coil Diameter**: 44.4 mm (1 3/4 in)
- **Voice Coil Winding Material**: Edge-wound aluminum
- **Magnet Material**: Neodymium
- **Flux Density**: 1.8 T
- **BL Factor**: 8.2 N/A
- **Polarity**: Positive voltage on “+” terminal gives positive pressure in the throat

**Thiele Small Parameters**

**Mounting information**

- **Overall diameter**: 98 mm (3.9 in)
- **N. of mounting holes and bolt**: 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**: 1.1 Kg (2.4 lb)
- **Shipping weight**: 1.2 Kg (2.6 lb)
- **CardBoard Packaging dimensions**: 97x97x58 mm (3.8x3.8x2.3 in)

**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 4kHz.