

4596ND 2" Neodymium mid-range compression driver

FEATURES

- 3,5" sandwich in- and outside voice coil
- Large annular diaphragm
- High efficiency of 35%
- High power handling of 150W (AES)
- Frequency range 200Hz to 9kHz, optimized for human voice
- Specially designed for high output applications
- · Ultra low distortion
- Neodymium Magnet Assembly
- Ultra light weight and small size
- 8 or 16 Ohms

The 4596 is the BMS latest generation 2" mid-range compression driver providing extremely high acoustical output. The driver incorporates a 3,5" voice coil and a large annular ring diaphragm and has been optimized for middle range applications requiring high SPL. Overall improvements to previous models include optimized frequency response as well as increased peak power and reliability.

The patented design of the BMS 4596 is a result of extensive dedicated research and development, providing dramatic improvement in efficiency, power handling, dynamic response and clarity.

The BMS large annular diaphragm covers the frequency range from 250 Hz to 9.000 Hz with a smooth, linear response.

The high diaphragm excursion of maximal + / - 0,8 mm results in high output and increased power handling up to 1300 W peak.





The unique voice coil technology employs a high purity copper wire wound inside and outside of the Kapton $^{\text{M}}$ former to improve the heat dissipation, dramatically increasing the acoustic output and reliability of the driver while minimizing the power compression.

The use of high grade neodymium magnets provides improved performance while significantly reducing transducer weight.

APPLICATIONS

- · Communication devices for long distance
- Security systems
- · Emergency devices
- · Mass notification systems
- · Systems for scattering birds from airports
- Marine applications
- · Military and police communication system
- Noise cancelation systems
- High End Audio Loudspeakers



Peak power

4596ND 2" Neodymium mid-range compression driver

SPECIFICATIONS

Throat

Nominal impedance

Power capacity (AES)

4596ND

2" (50,8mm)

8 or 16 Ohm

150W

Sensitivity 1W@1m 116 dB on a 40°x20° waveguide

Frequency range 200 - 9.000 Hz

Recommended crossover 300 Hz
Voice coil 3,5 " (90 mm)
Magnet material Neodymium

Flux density mid-range 1,95 T

Voice coil material Copper (2 layers inside and outside of the VC)

1500W

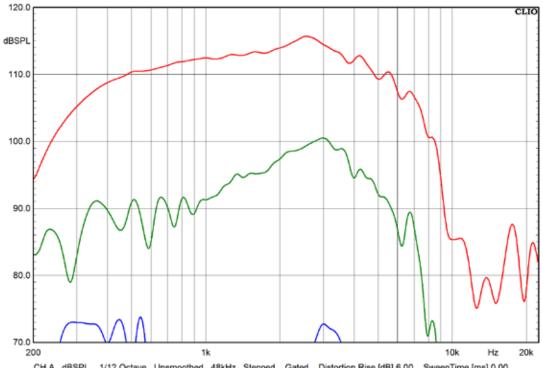
Voice coil former Kapton
Diaphragm material Polyester

MOUNTING INFORMATION

Overall Diameter 133 mm (+/- 0.3mm)

Depth 92 mm Net weight 1.9 kg $4x \text{ M6 holes } 90^{\circ} \text{ on } 101.6 \text{ mm, } 4$ " Diameter

BMS-4596ND-8, 40°x20° CD horn, 2nd and 3rd harmonic distortion raised 10 dB, SPL 1W / 1m

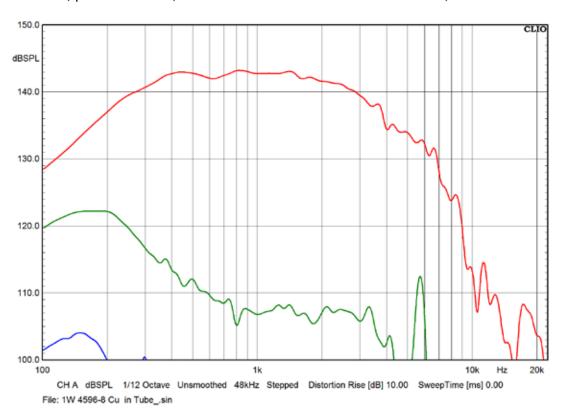


CH A dBSPL 1/12 Octave Unsmoothed 48kHz Stepped Gated Distortion Rise [dB] 6.00 SweepTime [ms] 0.00

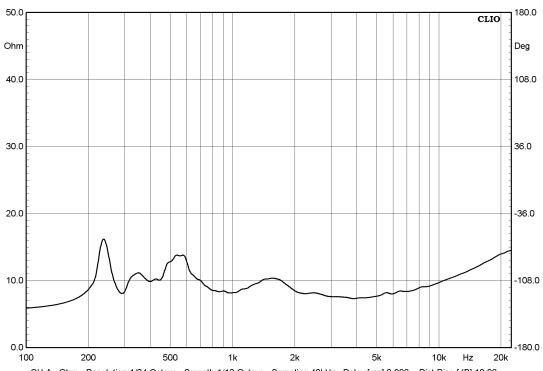
File: 1w1m 4596-8 Cu + 2242 horn gtd.sin

4596ND 2" Neodymium mid-range compression driver

BMS-4596ND-8, plane wave tube, 2nd and 3rd harmonic distortion raised 10 dB, SPL 1W / 1m



BMS-4596ND-8, Impedance in 40°x20° CD horn

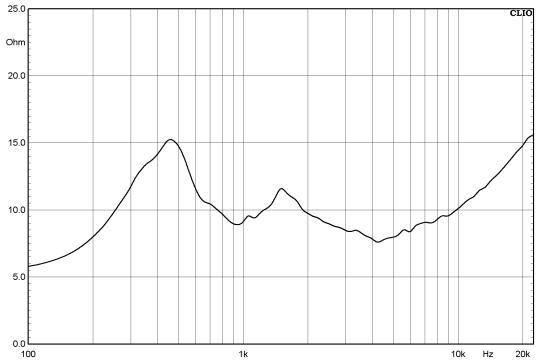


CH A Ohm Resolution 1/24 Octave Smooth 1/12 Octave Sampling 48kHz Delay [ms] 0.000 Dist Rise [dB] 10.00 File: 4596C-8 + 2242 horn Imp_.sini



4596ND 2" Neodymium mid-range compression driver

BMS-4596ND-8, Impedance in plane wave tube



CH B Ohm 1/12 Octave Unsmoothed 48kHz Delay [ms] 0.000 Distortion Rise [dB] 0.00 SweepTime [ms] 0.00 File: 4596C-8 in Tube Imp.sin

