

XD110

Constant coverage high frequency transducer

KeyFeatures

109dB SPL 1W/1m average sensitivity
1 inch HF driver exit
1 inch voice coil diameter
40W Program Power
Rugged phenolic diaphragm
60° x 50° Constant Directivity Coverage
Usable in two way or multi-way system Unique Eighteen Sound elliptical horn shape

Description

The XD110 is a HF unit suitable for compact size two and three way lightweight systems. XD110 with its Elliptical Constant Directivity Horn is designed for linear and extended response over a wide frequency range (1.5kHz to 18kHz).

The phenolic diaphragm assembly with its 1 inch voice coil is capable to handle up to 250°C. Computer Aided Finite Element Analysis and extensive testing were used to obtain phase plug shape made in high pressure injectionmolded polypropylene foam, designed to assuring maximum strength.

Final result is a smooth coherent wavefront in the horn entrance, high thermal stability and manufacturing consistency.

The horn is made by high-pressure die-cast polyurethane foam, and is designed to minimize resonances.

The XD110 horn maintains nominal 60° Horizontal x 50° Vertical pattern control, providing consistent on axis and off axis frequency response from 2kHz up to 16kHz in the horizontal plane and from 2,5kHz to 16kHz in the vertical plane. Horn directivity is constant from 2,5kHz.

The XD110 compact size and lightweight ceramic magnet assembly is designed to obtain 16KGauss in the gap.

Models

Model	Code	Information
0421F8H100	0421F8H100	

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General Specifications

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 Ohm
DC Resistance	5,6 Ohm
Minimum Impedance	7 Ohm at 4000Hz
Sensitivity	2 kHz ± 20 kHz
Frequency Range	2 kHz ± 20 kHz
Recomm. Xover Frequency	2500 Hz (12dB/oct slope)
Minimum Impedance	7 Ohm at 4000Hz
Diaphragm Material	Cloth
Voice Coil Diameter	25,4 mm (1 in)
Voice Coil Winding Material	Round copper

Thiele Small Parameters

Magnet Material	Ceramic
Flux Density	1,6 T
BL Factor	3,5 N/A
Polarity	Positive voltage on red terminal gives positive pressure in the throat

Mounting information

Net weight	0,9 Kg (2 lb)
Shipping weight	1 Kg (2,2 lb)
CardBoard Packaging dimensions	160x120x147 mm (6,3x4,7x5,8 in)

XD110 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF THE HORN

FREE AIR IMPEDANCE MAGNITUDE CURVE

Notes

- (1) Continuous pink noise 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 is defined as 3 dB greater than continuous pink noise but with 50% duty cycle.
- (3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of the horn averaged between 1kHz and 4 kHz.

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