

XD110

Key Features

- 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

General Description

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

Computer Aided Finite Element Analysis and extensive testing were used to obtain a phase plug shape made in high pressure injection-molded polypropylene foam, designed to assure maximum strength.

The final result are a smooth coherent wavefront in the horn entrance, high thermal stability and manufacturing consistency.

The phenolic diaphragm assembly with its 1 inch voice coil is capable to handle up to 250°C.

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 pattern remains constant after 2,5kHz.

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

Constant Coverage Horn



0421F8H100

FERRITE HF DRIVERS

GENERAL SPECIFICATIONS

THROAT DIAMETER	25,4 mm (1 in)
RATED IMPEDANCE	8 ohm
DC RESISTANCE	5,6 Ohm
MINIMUM IMPEDANCE	7 Ohm at 4000Hz
POWER HANDLING	
CONTINUOUS PINK NOISE (1)	25 W above 2,5 kHz
CONTINUOUS PROGRAM (2)	40 W above 2,5 kHz
SENSITIVITY(1W@1M) (3)	109 dB
FREQUENCY RANGE	2 kHz ÷ 20 kHz
RECOMM. XOVER FREQUENCY	2500 Hz (12dB/oct slope)
NOMINAL COVERAGE: HORIZONTAL	60°
NOMINAL COVERAGE: VERTICAL	50°
DIAPHRAGM MATERIAL	Cloth
VOICE COIL DIAMETER	25,4 mm (1 in)
VOICE COIL WINDING MATERIAL	Round copper
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

Mouth Height	120 mm (4,7 in)
Mouth Width	160 mm (6,3 in)
Depth	145 mm (5,7 in)
Mouth mounting dimension	4 M6 holes on the edge of rectangle with 130 mm x 90 mm sides
HF unit diameter	86 mm (3,4 in)
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.



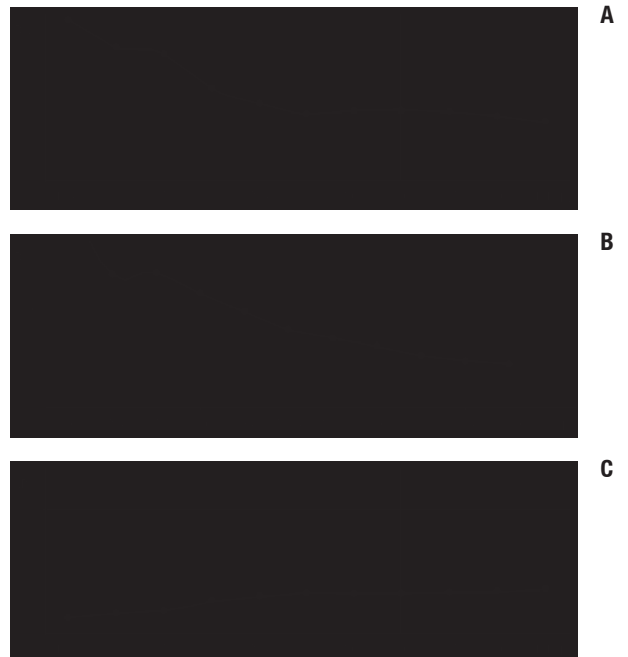
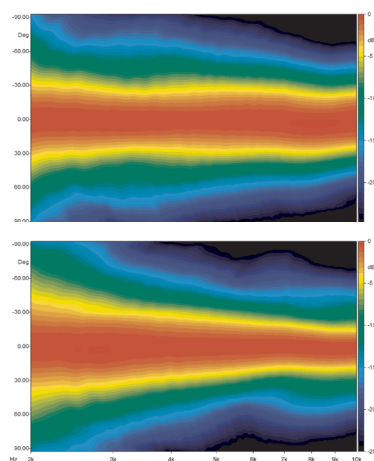
FREE AIR IMPEDANCE MAGNITUDE CURVE.



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.

XD110 HORIZONTAL BEAMWIDTH – A
 XD110 VERTICAL BEAMWIDTH – B
 XD110 DIRECTIVITY INDEX – C
 HORIZONTAL POLAR DIRECTIVITY MAP – D
 VERTICAL POLAR DIRECTIVITY MAP – E



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