

# XR1496

## Constant Coverage Horn

### Key Features

- 1.4 throat inch entry
- Aluminum construction for excellent heat transfer
- Uniform on-axis and off-axis frequency response
- 90° x 60° horizontal and vertical constant coverage
- Very low distortion at high sound pressure
- Improved compression driver cooling
- Rotatable structure



### General Description

The XR1496 has been designed in order to obtain a smooth frequency response maintaining constant coverage and directivity pattern, and avoiding the midrange narrowing effect as well as high frequency beaming problems.

With a throat entry of 1.4 inch, the XR1496 has been developed to reach the optimum performance when it will coupled with 1.4 inch exit Eighteen Sound high frequency compression drivers.

The low pressure injected aluminum construction brings the following advantages:

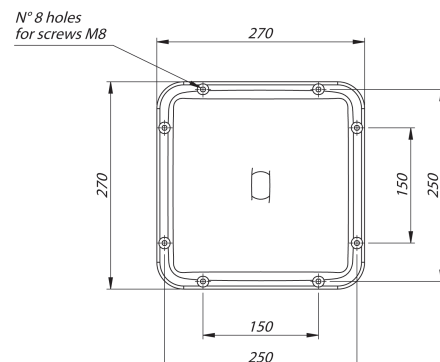
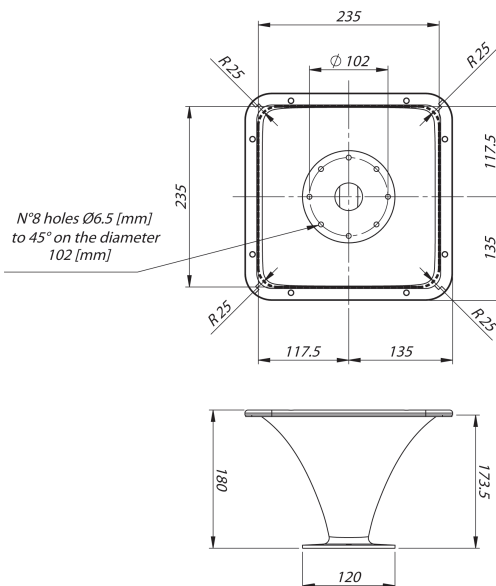
- thermal: aluminum horns are capable to reduce up to 30°C the steady state compression driver working temperature at full power, when compared to an equivalent size plastic horn. This reflects in a lower power compression ratio (down to 1dB) as well as higher driver power handling (30% higher);

- mechanical: no need for any mechanical support for the compression driver (like brackets), avoiding the issue of horn resonance with optimum waterfall and impulse system behavior.

The XR1496 maintains nominal 90° Horizontal x 60° Vertical pattern control, providing consistent on-axis and off-axis frequency response from 1,2kHz to 16kHz in both horizontal and vertical planes.

Horn directivity is constant down to 1,2kHz.

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CONSTANT COVERAGE HORNS

# XR1496

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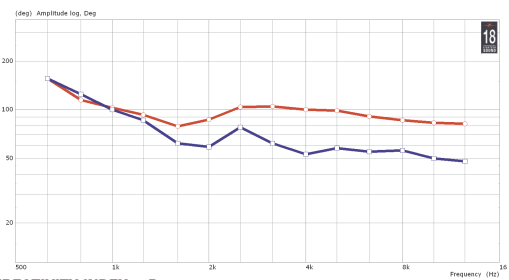
## GENERAL SPECIFICATIONS

THROAT DIAMETER	35,5 mm (1,4 in)
HORIZONTAL COVERAGE (-6DB)	90° (15 ÷ -10) average range (1,25kHz - 12,5kHz)
VERTICAL COVERAGE (-6 DB)	60° (18 ÷ -12) average range (1,25kHz - 12,5kHz)
DIRECTIVITY INDEX	9dB (1,8 ÷ -1,2) average range (1,25kHz - 12,5kHz)
USABLE FREQUENCY RANGE	Above 800 Hz
RECOMM. CROSS.FREQUENCY	800 Hz or more
SENSITIVITY (ON AXIS) (1)	110 dB
FREQUENCY RANGE	800 Hz - 18kHz
MATERIAL	Low pressure injected aluminum

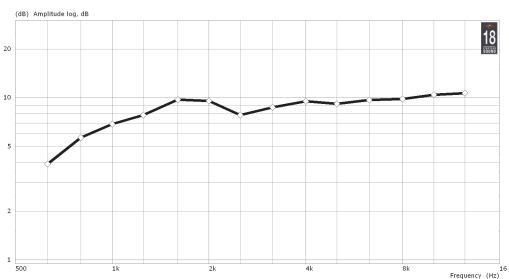
## MOUNTING INFORMATION

Mouth Height	270 mm (10,6 in)
Mouth Width	270 mm (10,6 in)
Depth	180 mm (7,1 in)
Mouth Mounting Dimensions	8 ø 6 holes
Net weight	1,9 Kg (4 lb)

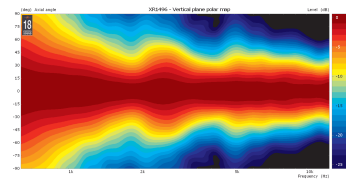
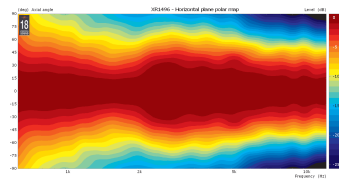
HORIZONTAL BEAMWIDTH – RED PLOT – VERTICAL BEAMWIDTH – BLUE PLOT – A



DIRECTIVITY INDEX – B



HORIZONTAL POLAR DIRECTIVITY MAP – C  
VERTICAL POLAR DIRECTIVITY MAP – D

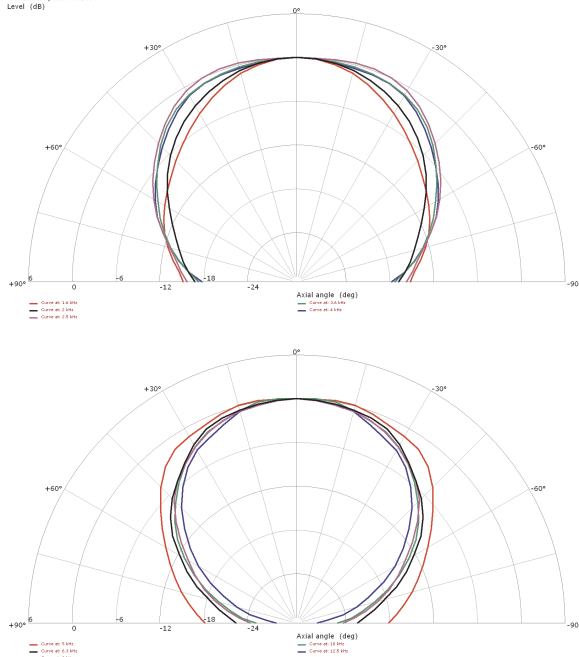


### NOTES

(1) Sensitivity is measured at 1W input on ND1480 rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

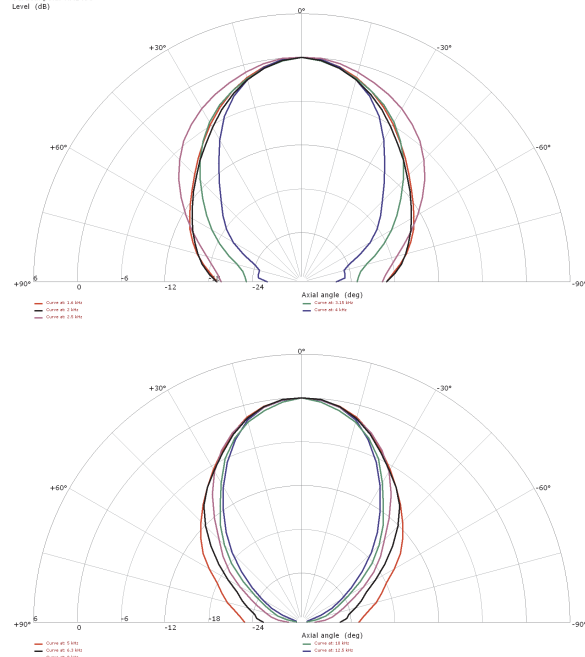
## HORIZONTAL 1/3 OCTAVE POLAR PLOTS

Horizontal polar XR1496  
Level (dB)



## VERTICAL 1/3 OCTAVE POLAR PLOTS

Vertical polar XR1496  
Level (dB)



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