

# CL208/CL208T

Ultra-Compact 200-Watt, 2-Way, 4  $\Omega$  Loudspeaker System and 70.7 V / 100 V Loudspeaker System



bracket included



bracket included

## Features

- Dual 150-Watt 8" low-frequency transducers provide deep bass for small to medium sized rooms
- Constant directivity 90° H x 70° V rotatable waveguide with 1.35" high-frequency transducer
- Passive crossover with overload circuitry ensures optimal driver protection
- Professional speaker connector (compatible with Neutrik Speakon connectors) and 4-position terminal strip
- Internally braced and acoustically inert 15° trapezoidal birch plywood enclosure ideal for array applications
- Multiple threaded inserts for flexible installation including Omnimount™ bolt pattern; includes matching yoke bracket
- Powder coated steel grille wrapped with acoustically transparent fabric and foam matching cabinet color
- Available in either black (CL208/CL208T) or white (CL208-WH/CL208T-WH)

# CL208/CL208T

## Ultra-Compact 200-Watt, 2-Way, 4 Ω Loudspeaker System and 70.7 V / 100 V Loudspeaker System

Product Overview

Technical Specifications

The EUROCOM CL208/CL208T is an ultra-compact professional two-way loudspeaker system that is ideal for a wide variety of fixed installation applications. Featuring clean lines and a unique fabric-finished wrap-around grille, the CL208/CL208T is fully at home in even the most elegant settings, including theaters and auditoria, houses of worship, themed entertainment, and sporting venues. Perfect for mains in small venues, the CL208/CL208T also excels for fill and delay systems in larger rooms.

Built of high-quality laminated Baltic birch plywood, the CL208/CL208T's lightweight cabinet combines natural rigidity and acoustic inertness with the additional strength of internal steel bracing. Threaded mounting-point inserts in the internal brackets provide a rated load factor of at least 10 times overall cabinet weight, making the CL208/CL208T exceptionally safe for flown installation, either singly or in arrays.

The CL208/CL208T achieves fully-professional performance and reliability with newly-designed components whose frequency response, sensitivity, and power handling are all custom-tailored for CL Series loudspeakers. BEHRINGER maintains complete control over quality and sonic character by manufacturing all CL Series components—starting with the pulp used for cone fabrication—in our own factories.

Dual 8" (200 mm) low frequency drivers providing full, rich lows are matched to a 1.35" (34 mm) high frequency driver via an internal passive crossover at 2.5 kHz to deliver clear, smooth sound across the entire audible spectrum. A rotatable waveguide allows optimal application of the 90° x 70° coverage pattern regardless of speaker orientation, which may be either vertical or horizontal.

Every aspect of the CL208/CL208T has been thought through to maximize value and convenience for both the installer and the end user. The result is an attractive, durable, installation-ready loudspeaker system that will deliver top-notch sound day-after-day for years to come.

- Frequency range (-10 dB) 49 Hz - 20 kHz
- Frequency response (±3 dB) 55 Hz - 15 kHz
- Nominal dispersion 90° H x 70° V
- Directivity factor (Q) 7.5
- Directivity index (DI) 8.8 dB
- Sensitivity (1 W @ 1 m passive) (half space) 91 dB
- Crossover modes Passive
- Crossover frequency 2.5 kHz
- Power handling (long term, IEC passive) 200 W RMS @ 28.3 V

Transducers

- Nominal impedance 4 Ω
- Low frequency driver 2 x 8" @ 150 W
- High frequency driver 1.35" @ 30 W
- Horn waveguide 90° H x 70° V, rotatable
- Maximum continuous SPL (passive) 114 dB
- Maximum peak SPL (passive) 120 dB
- Overload protection Full range power limiting to protect drivers and crossovers

	CL208	CL208T
• Transformer	70 V: 25 W, 50 W, 100 W, 200 W	100 V: 50 W, 100 W, 200 W
• Enclosure	Trapezoidal 15° side angle, laminated birch plywood	
• Grille	Steel	
• Rigging points	14 x M6 threaded points; 4 x M6 threaded inserts for OmniMount™ 30 series	
• Termination	NL4 and 4-position terminal strip connection	5-position terminal strip connection
• Dimensions (H x W x D)	28.4 x 10.2 x 11.9" / 720 x 260 x 302 mm	
• Weight	32.4 lbs / 14.7 kg 35.9 lbs / 16.3 kg	
• Included accessories	Yoke and bracket	

\* Optional accessories Model CLFK array bracket



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## Ultra-Compact 200-Watt, 2-Way, 4 $\Omega$ Loudspeaker System and 70.7 V / 100 V Loudspeaker System

### Architect's and Engineer's Specifications

**Summary description:** The loudspeaker shall be a professional 2-way fixed-installation loudspeaker system in a steel-braced plywood enclosure using a bypassable internal crossover network with two 8" / 200 mm low-frequency cone transducers and a waveguide-mounted high-frequency dome driver.

**Drivers:** The loudspeaker system shall use two transducers:

- Low-frequency drivers shall be 8" / 200 mm direct-radiating cone transducers
- High-frequency driver shall be a 1.35" / 34 mm diaphragm compression driver mounted on a rotatable 90° x 70° waveguide constructed of polypropylene

**Enclosure:** The loudspeaker system shall be housed in an enclosure constructed of laminated birch plywood that is internally braced with steel. The enclosure shall be finished with durable, scuff-free black or white paint. The front of the enclosure shall be protected with a perforated grille of powder-coated structural steel behind fabric-wrapped acoustically transparent foam. The back of the enclosure shall have a recessed steel input plate for connectors.

**Rigging and mounting:** The exterior of the enclosure shall be fitted with 14 M6 threaded rigging points. The rear of the enclosure shall have 4 M6 threaded inserts for OmniMount™ 30 series. The enclosure shall provide attachment points for an optional yoke bracket.

**I/O and connectors:** The loudspeaker shall have the following connectors:

- One NL4 connector, wired in parallel as a full-range input to the passive crossover (CL208)
- One 4-position terminal strip with captive wire clamps and removable plastic cover, with IN terminals wired in parallel to OUT terminals and to the NL4 connectors (CL208)
- One 5-position terminal strip with captive wire clamps and removable plastic cover, with 70 V and 100 V terminals wired to the primary side of the matching transformer (CL208T)

**Performance criteria:** The loudspeaker system shall meet the following performance criteria:

- Nominal impedance shall be 4  $\Omega$  for models CL208 / CL208-WH
- CL208T / CL208T-WH Transformer taps shall be 25 W, 50 W, 100 W, 200 W (70.7 V), 50 W, 100 W, 200 W (100 V)
- Sensitivity (1 W / 1 m passive) shall be 91 dB
- Usable frequency range (-10 dB) shall be 49 Hz - 20 kHz
- Frequency response ( $\pm 3$  dB) shall be 55 Hz - 15 kHz
- Power handling (IEC268-5, passive) shall be 200 W RMS @ 28.3 V (CL208) / 200 W RMS (CL208T)
- Nominal dispersion shall be 90° x 70° (axis dependent on horn orientation)
- Maximum SPL (1 m, passive) shall be 114 dB continuous and 120 dB peak (CL208/CL208T)

**Dimensions and weight:** The loudspeaker system shall have the following characteristics:

- Height shall be 28.4" / 720 mm
- Width shall be 10.2" / 260 mm
- Depth shall be 11.9" / 302 mm
- Net Weight for CL208 shall be no more than 32.4lbs / 14.7 kg
- Net Weight for CL208T shall be no more than 35.9 lbs / 16.3 kg

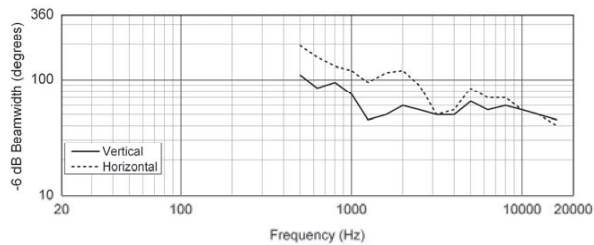
**Model:** The loudspeaker shall be the BEHRINGER EUROCOM CL208/CL208-WH/CL208T/CL208T-WH.



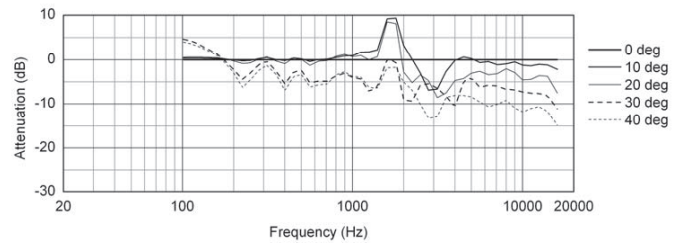
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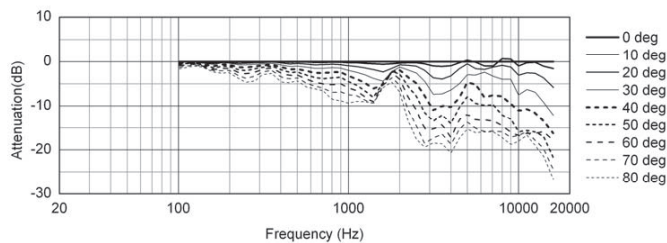
## Beamwidth VS. Frequency



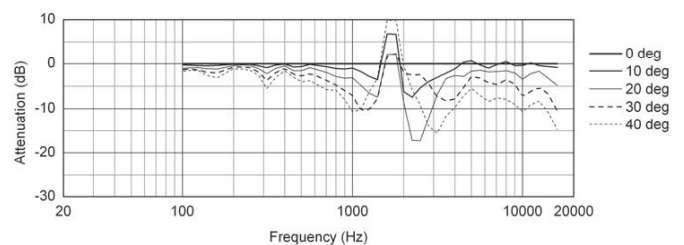
## Vertical Up Off-Axis Frequency Response



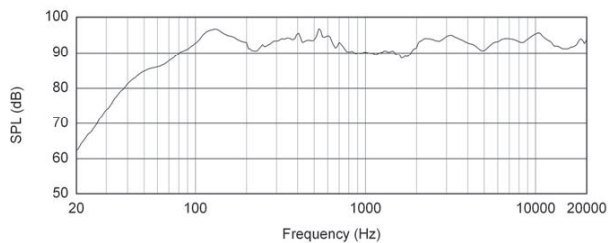
## Horizontal Off-Axis Frequency Response



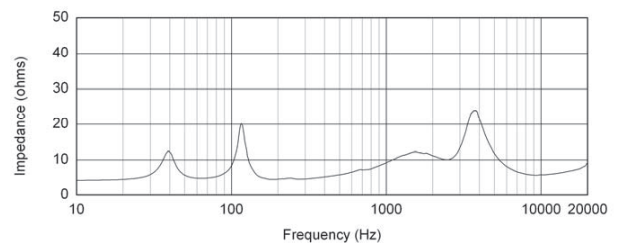
## Vertical Down Off-Axis Frequency Response



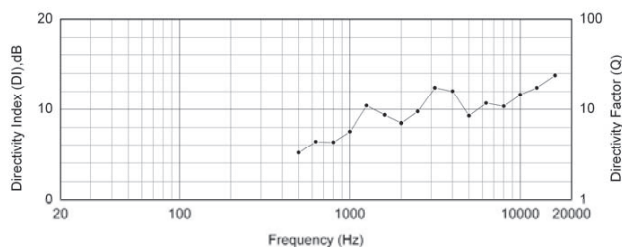
## Frequency Response, 1 W @ 1 M



## Impedance VS. Frequency



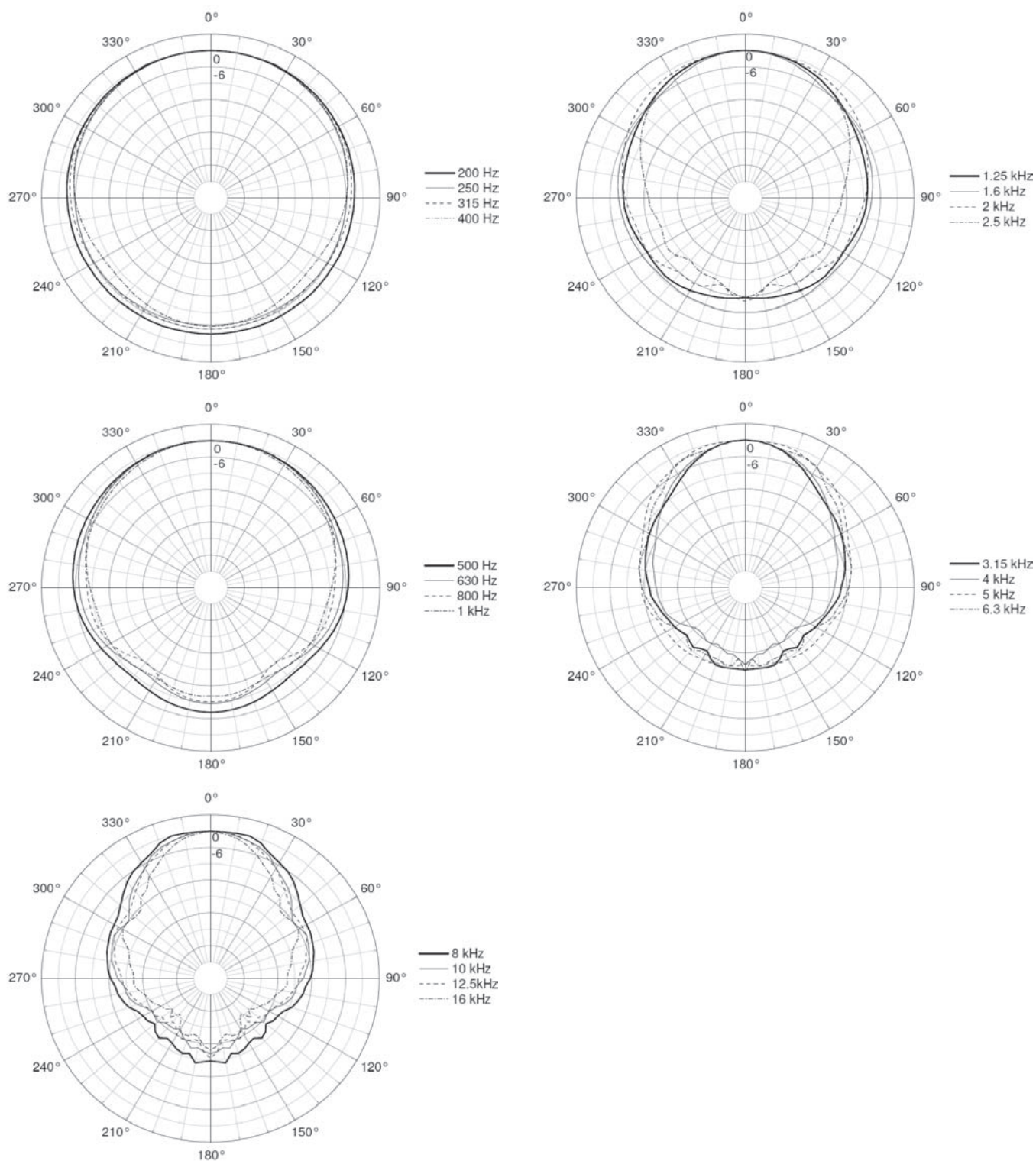
## Directivity Index, Q



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## Horizontal 1/3 Octave Polars

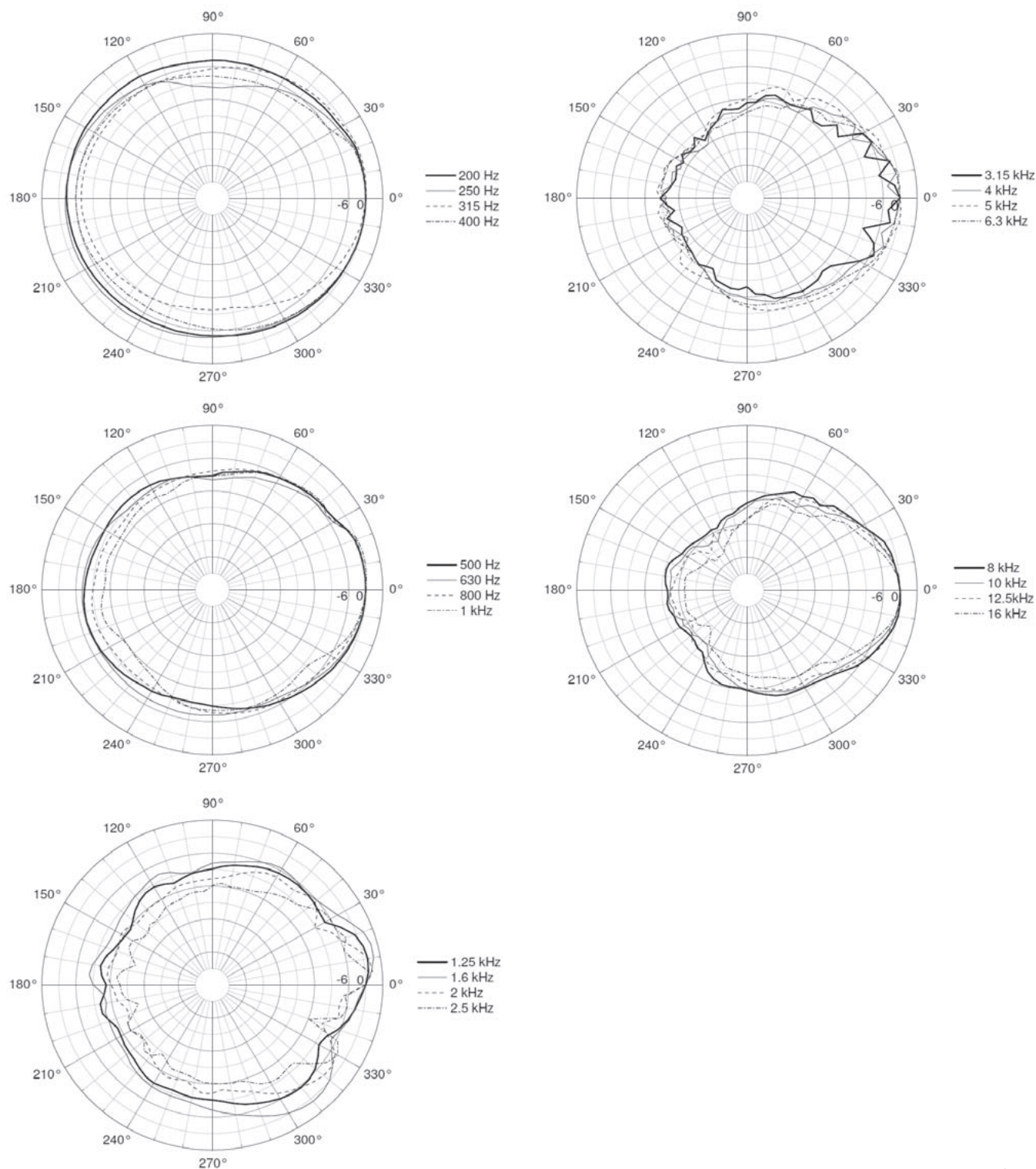




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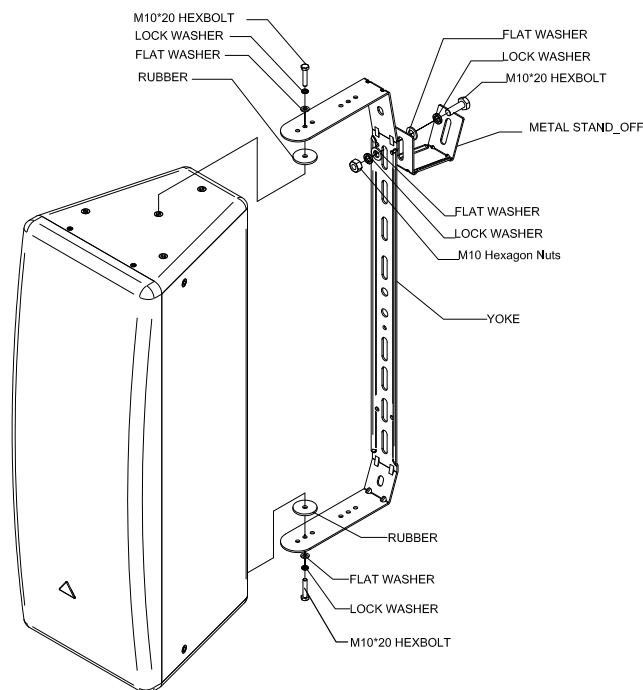
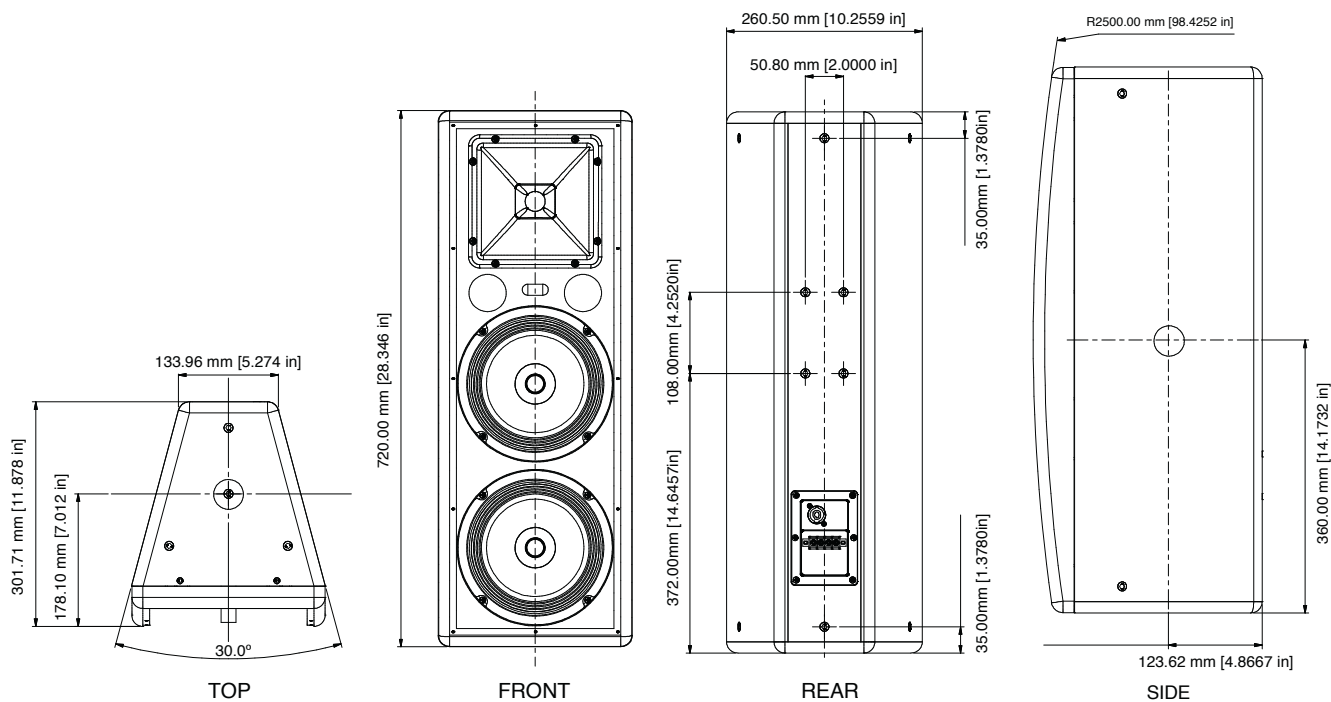
## Vertical 1/3 Octave Polars



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## Dimensional Drawings



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