

Panaray MA12

modular columnar array loudspeaker

Product Overview

The Panaray MA12 is a mid/high-frequency modular line array loudspeaker designed to provide outstanding vocal intelligibility in acoustically demanding spaces. The slim column enclosure blends with almost any décor

Key Features

Twelve 2 ¼-in (64 mm) drivers mounted in a vertical line array deliver wide horizontal coverage with narrow vertical pattern control

Modular design allows stacking of multiple enclosures in a line array configuration to provide increased vertical pattern control which improves “throw” distance and reduces unwanted floor/ceiling reflections.

145° horizontal × 20° nominal coverage for a single module. Vertical coverage varies with number of modules stacked in line array configuration.

Mid/high configuration allows bass management and design flexibility. Use with Bose Professional MB4, MB12, or MB24 modular bass loudspeakers for fullrange reinforcement.

Optional brackets allow easy installation of single-, double- or triple-stack line array modules



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Technical Specifications

SYSTEM PERFORMANCE	
Frequency Response (± 3 dB) ¹	155 Hz – 12 kHz
Frequency Range (-10 dB) ¹	100 Hz – 16 kHz
Nominal Dispersion ²	145° H × 20° V
Recommended High-Pass Filter	125 Hz
Loudspeaker EQ	Required
Overload Protection	PTC / Lamp
Long-Term Power Handling ³	300 W (1200 W peak)
Sensitivity (SPL / 1 W @ 1 m) ⁴	88 dB-SPL
Maximum SPL @ 1 m ⁵	113 dB-SPL (119 dB-SPL peak)
Nominal Impedance	8 Ω
Transformer Taps (70/100 V)	CVT-MA12 transformer available
TRANSDUCERS	
Driver Complement	Twelve (12) 2 1/4-in (57 mm) high-excursion, mid/high-frequency drivers
PHYSICAL	
Enclosure	Extruded-aluminum sidewalls with steel top & bottom endcaps, all powder-coated
Grille	Powder-coated steel grille
Environmental	Indoor use only
Connectors	Two (2) parallel-wired NL4 Neutrik® Speakon® connectors One (1) two-conductor barrier strip
Suspension/Mounting	Four (4) × M6 threaded inserts (back)
Dimensions (H × W × D)	984 mm × 105 mm × 128 mm (38.8 × 4.2 × 5.0 in)
Net Weight	8.5 kg (19.0 lb)
Shipping Weight	9.4 kg (21.0 lb)
PRODUCT CODES	
Black	040189
White	040188

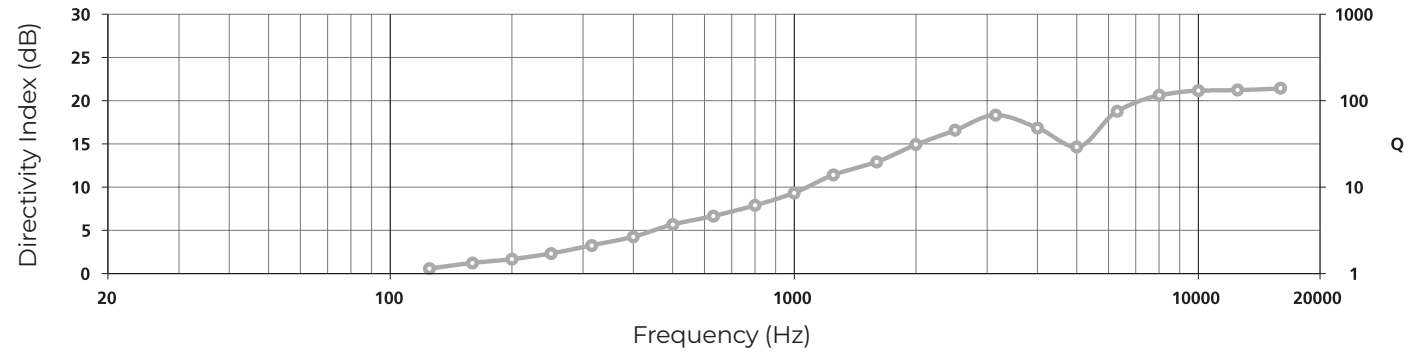
Footnotes

1. Frequency response and range measured on-axis with recommended active EQ in an anechoic environment.
2. Vertical coverage varies by number of modules vertically arrayed and distance from line-source boundary. Use Bose Professional Modeler software for the best prediction.
3. Power handling tested using pink noise filtered to meet IEC 268-5, 6-dB crest factor, 100 hours, with recommended EQ.
4. Sensitivity measured in free field (no boundary-loading gain) with recommended active EQ, referenced to 1 W / 1 m.
5. Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.

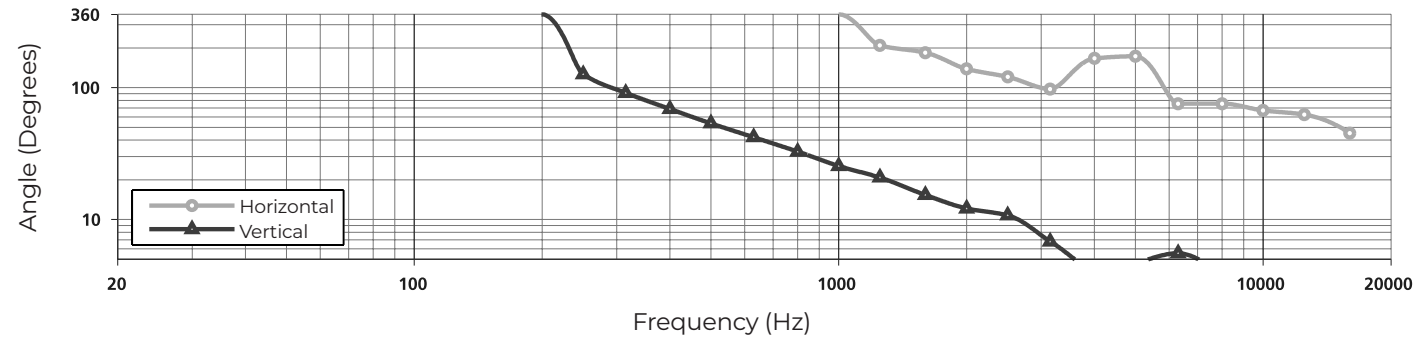
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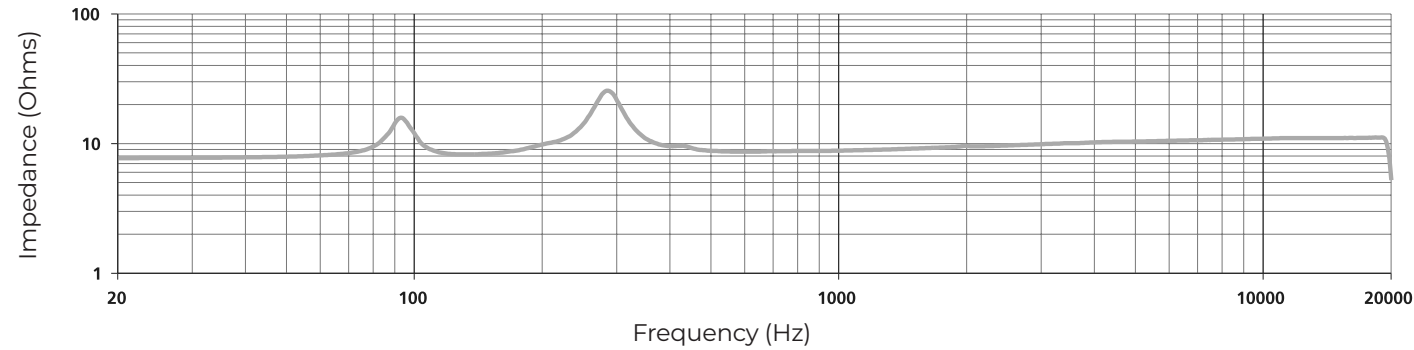
Directivity Index & Q



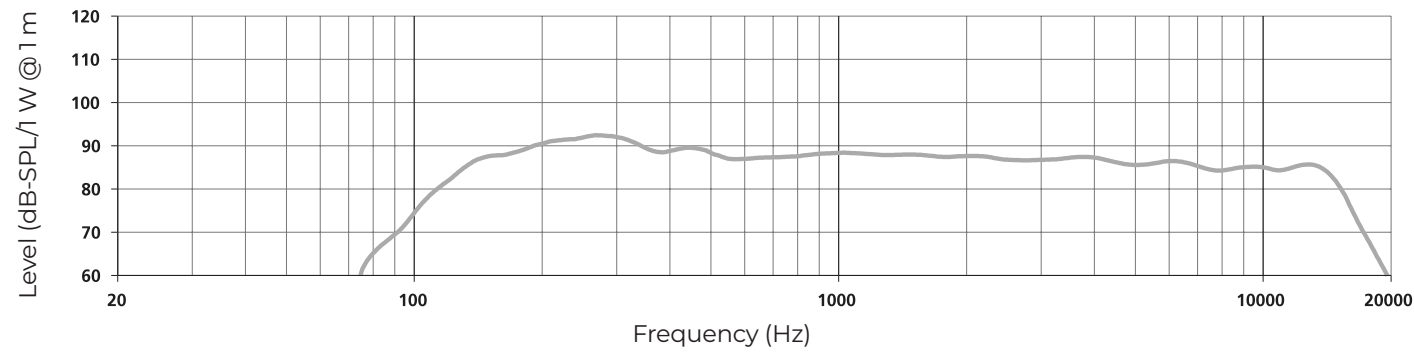
Beamwidth



Impedance



On-axis Response

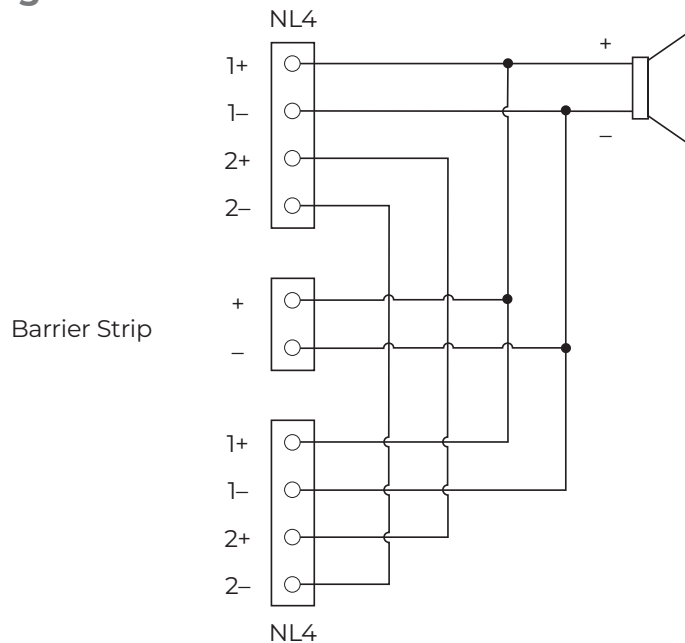


For additional specifications and application information, please visit BoseProfessional.com. Specifications subject to change without notice. 07/2023

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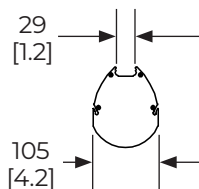
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Wiring Diagram

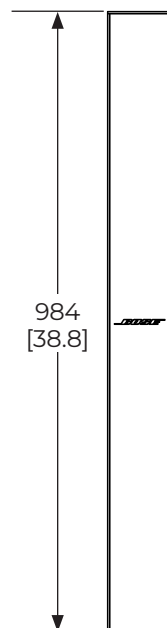


Mechanical Diagrams¹

Top View

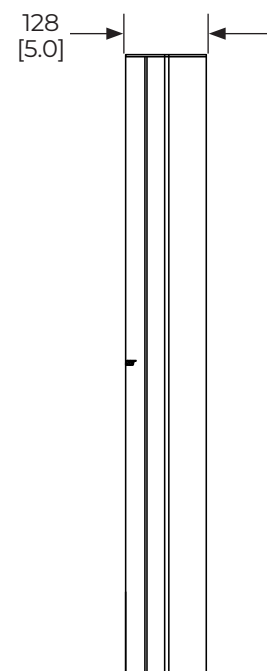


Front View



Right View

DIMENSIONS APPLY TO BOTH SIDES

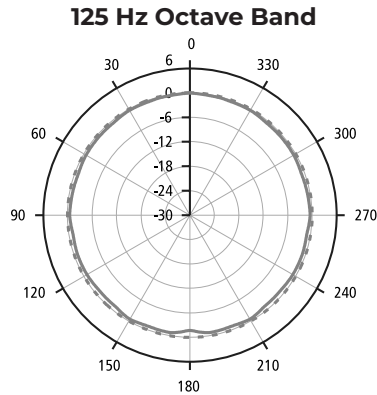


1. DIMENSIONS ARE SHOWN IN MILLIMETERS OVER INCHES.

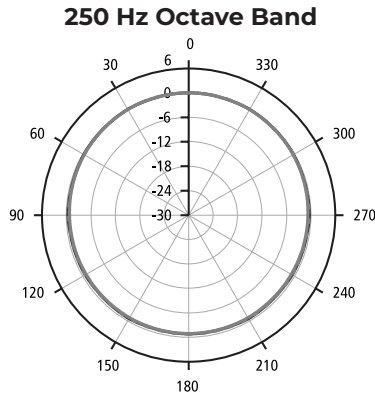
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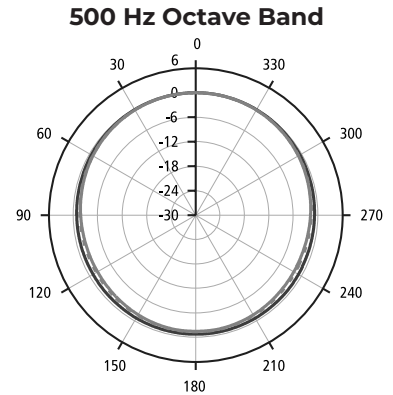
Horizontal Plots



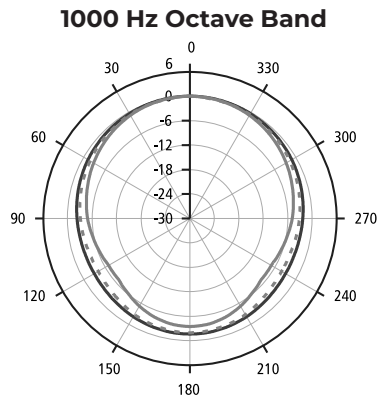
----- 125 Hz
——— 160 Hz



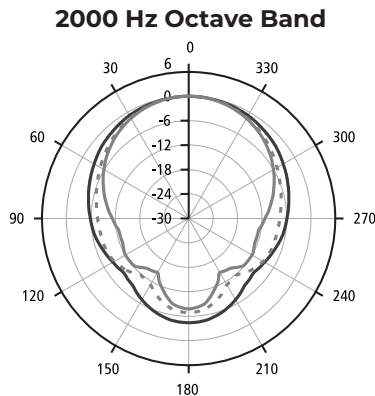
——— 200 Hz
----- 315 Hz



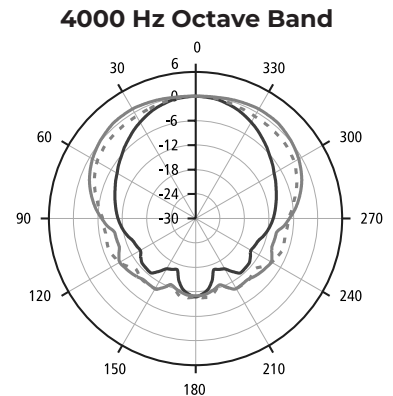
——— 400 Hz
----- 630 Hz



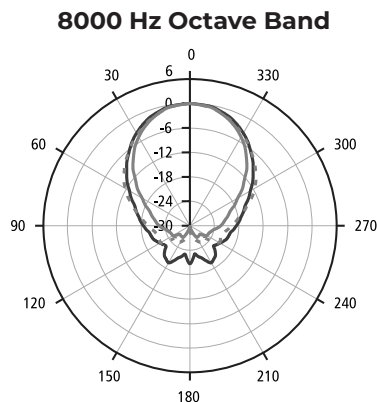
——— 800 Hz
----- 1000 Hz
——— 1250 Hz



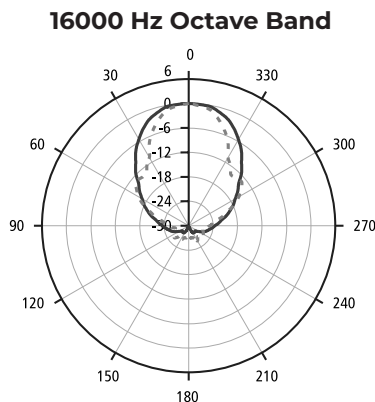
——— 1600 Hz
----- 2000 Hz
——— 2500 Hz



——— 3150 Hz
----- 4000 Hz
——— 5000 Hz



——— 6300 Hz
----- 8000 Hz

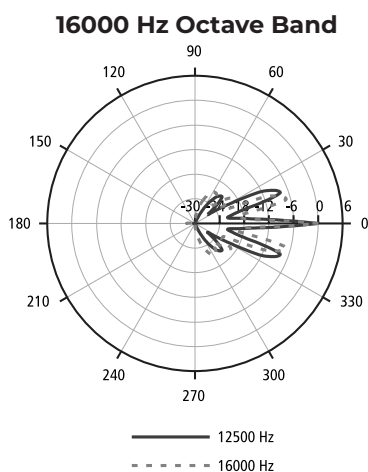
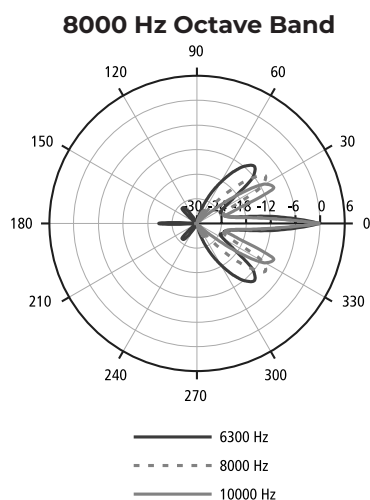
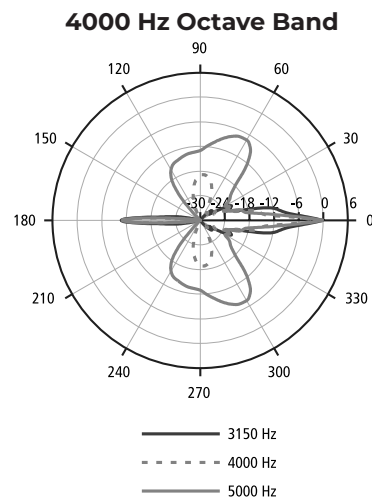
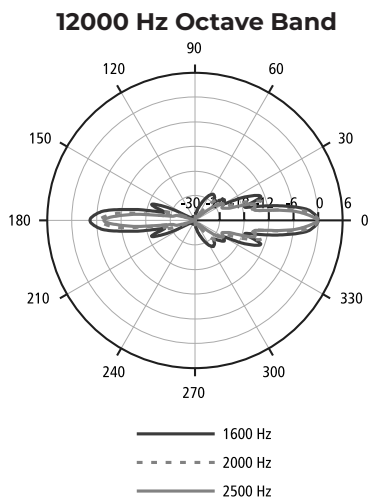
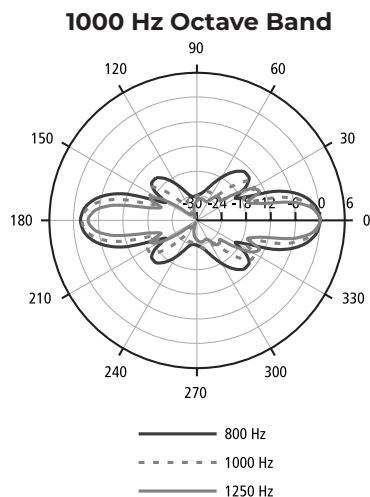
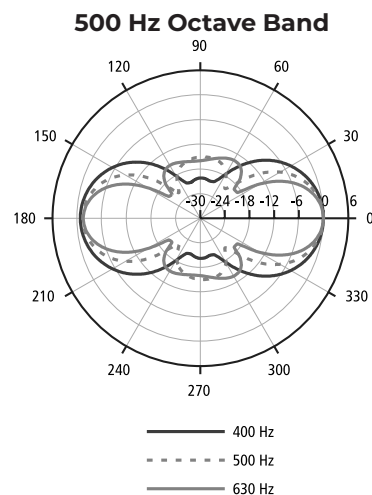
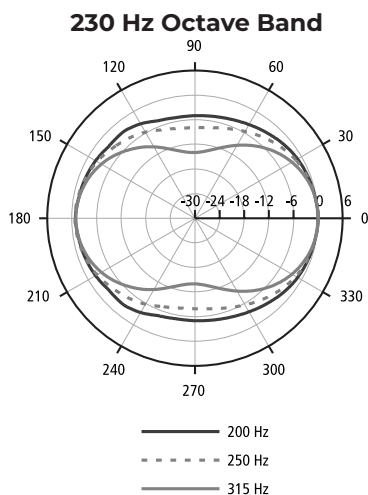
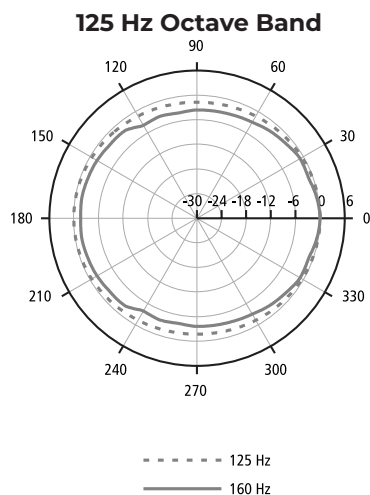


——— 12500 Hz
----- 16000 Hz

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Vertical Plots



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Architects' & Engineers' Specifications

The loudspeaker shall be a multiple driver system with matched active equalization as follows.

The transducer complement shall consist of twelve (12) 2¾-in (57 mm) mid/high-frequency drivers mounted in vertical line array. Each driver shall have a rated impedance of 6.2 ohms and wired in series/parallel, resulting in a composite nominal impedance of 8 ohms.

The nominal horizontal beamwidth of the loudspeaker shall be 145 degrees, and the vertical coverage is a band of constant height. The power handling capacity of the loudspeaker shall be 300 watts continuous pink noise, band-limited from 155 Hz to 12 kHz (± 3 dB).

The loudspeaker shall be provided with a ducted vent system, tuned at 150 Hz. The input connector of the loudspeaker module shall consist of two parallel-wired NL4 Neutrik® Speakon® connectors and one (1) two-conductor barrier strip.

The enclosure of the MA12 loudspeaker module shall be extruded-aluminum sidewalls with steel top and bottom endcaps, all powder-coated. Its outer dimensions shall be 984 mm × 105 mm × 128 mm (38.8 in × 4.2 in × 5.0 in). Its weight shall be 8.5 kg (19 lb).

The loudspeaker shall be the Panaray MA12 modular line array loudspeaker.