

Panaray® 302™ A loudspeaker



Key Features

- **Articulated Array® design** provides wide 175° x 90° coverage to deliver wide-range reproduction over a broad dispersion area
- **Two-way design** with 5.25" (133 mm) woofer and two 2.5" (64 mm) drivers for extended, smooth response
- **Frequency range down to 60 Hz** allows full-range speech and light music reinforcement without the need for subwoofers in many applications
- **Integrated** multi-tap line transformer for 70 V or 100 V applications
- **Included mounting hardware** permits fast and easy installation. Provides 30° pitch when mounted vertically, or 90° pitch when mounted on a horizontal surface
- **Weather resistant design** and hardware for reliable performance indoors or outdoors



TECHNICAL DATA SHEET

Product Overview

The Bose® Panaray® 302™ A is a full-range, two-way loudspeaker designed primarily for background/foreground music. It is appropriate for both indoor and outdoor applications. Its Articulated Array® design provides a wide 175° x 90° pattern to effectively cover a broad area with a single loudspeaker.

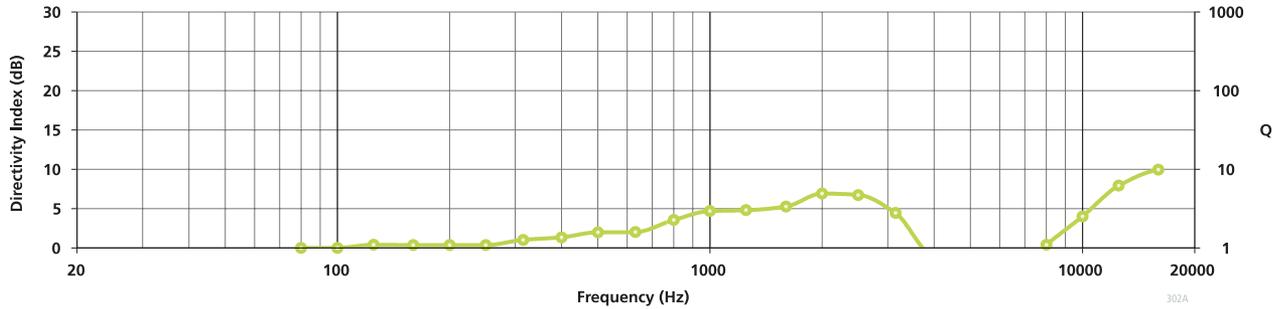
Technical Specifications

System Performance	
Frequency Response (+/-3 dB) ¹	75 Hz - 16 kHz
Frequency Range (-10 dB) ¹	60 Hz - 19 kHz
Nominal Dispersion	175° H x 90° V
Recommended High-Pass Filter	65 Hz high-pass filter
Loudspeaker EQ	Recommended
Long-Term Power Handling ²	100 W (400 W peak)
Sensitivity (SPL / 1 W @ 1 m) ³	82 dB SPL
Maximum SPL @ 1 m ⁴	102 dB SPL (108 dB SPL peak)
Nominal Impedance	6 Ω
Transformer Taps (70/100 V)	25 W, 50 W, 100 W, 200 W
Transducers	
Driver Complement	Two (2) 2.5" (64 mm) environmental Twiddler™ drivers 5.25" (133 mm) environmental woofer
Physical	
Enclosure	Mica-reinforced structural foam, textured
Grille	Powder-coated steel grille
Environmental	Outdoor per IEC 529 IP35D
Connectors	Screw-terminals
Suspension / Mounting	Quick install U-bracket with transformer and hardware. Provides 30° pitch when mounted vertically or 90° pitch when mounted on a horizontal surface.
Dimensions	13.4" H x 5.7" W x 12.0" D (340 mm x 144 mm x 304 mm) - with bracket
Net Weight	13 lb (3.9 kg) - including transformer and bracket
Shipping Weight	32 lb (14.6 kg) - pair
Product Code	
Black	040167 - pair
White	040166 - pair

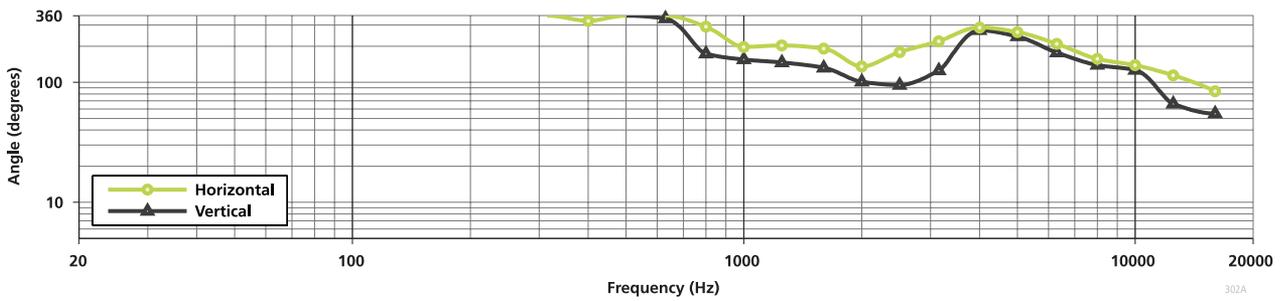
Footnotes:

- ¹ Frequency response and range measured on-axis with recommended active EQ in an anechoic environment.
- ² Power handling tested using pink noise filtered to meet IEC 268-5, 6 dB crest factor, 100 hours, with recommended EQ.
- ³ Sensitivity measured in free field (no boundary-loading gain) with recommended active EQ, referenced to 1W/1m.
- ⁴ Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.

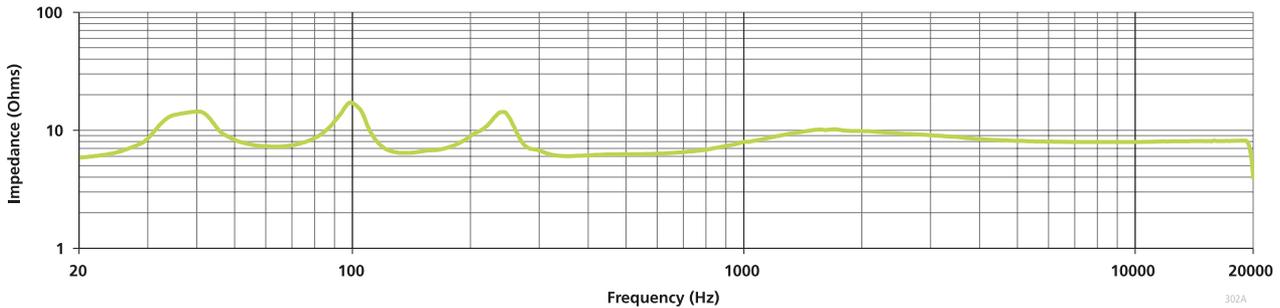
Directivity Index and Q



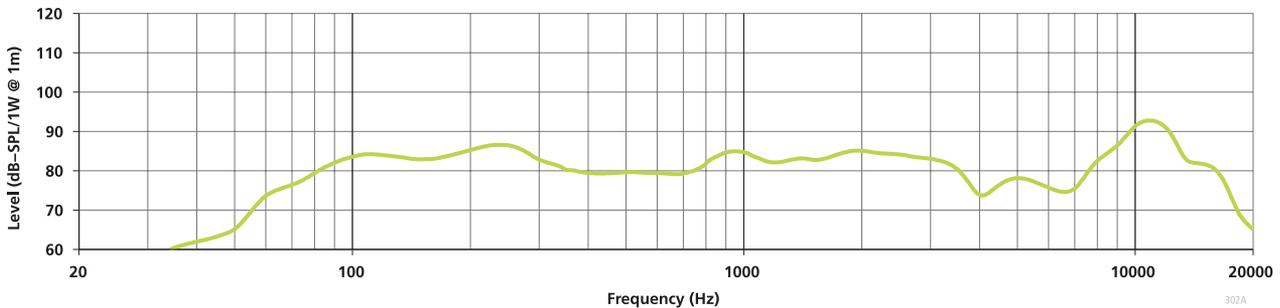
Beamwidth



Impedance



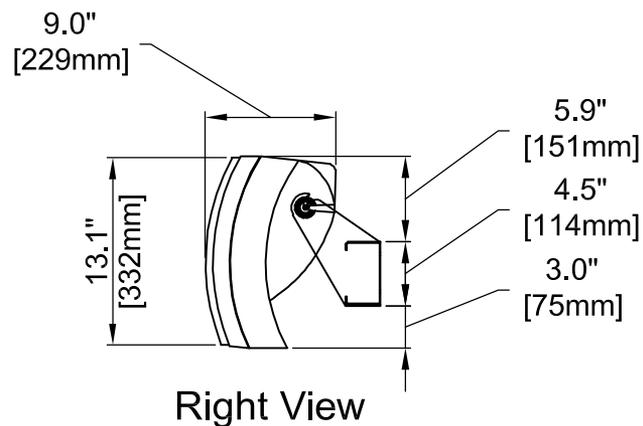
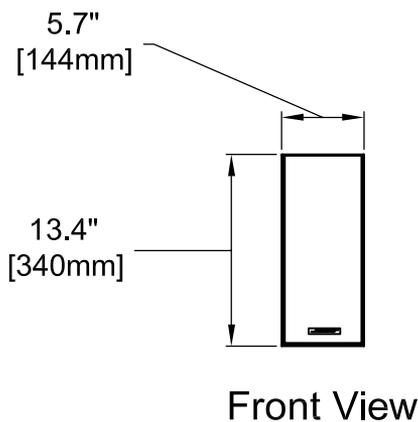
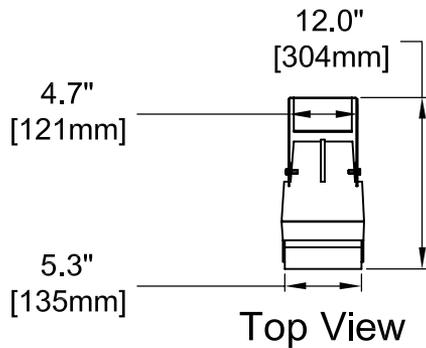
On-Axis Response



Tap Chart

Panaray 302A Tap Chart							
Mount	m	2.4	3.0	3.6	4.2	4.8	
Height	ft	8	10	12	14	16	
T	25	87	86	86	85	84	dB _{SPL}
A	50	90	89	89	88	87	
P	100	93	92	92	91	90	
	200	96	95	95	94	93	

Mechanical Diagrams



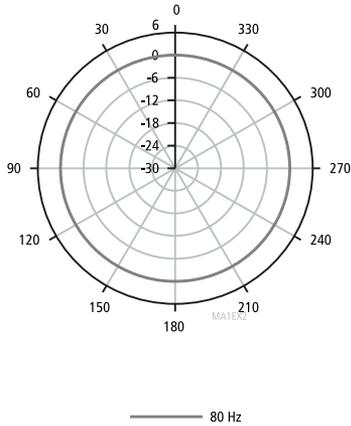
Panaray® 302™ A loudspeaker



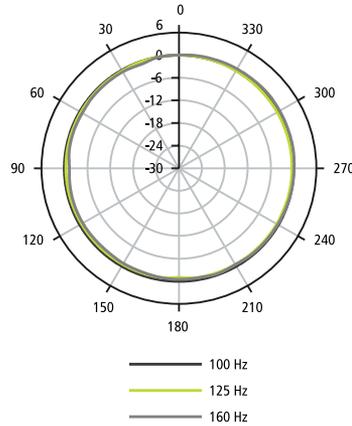
Horizontal Plots

TECHNICAL DATA SHEET

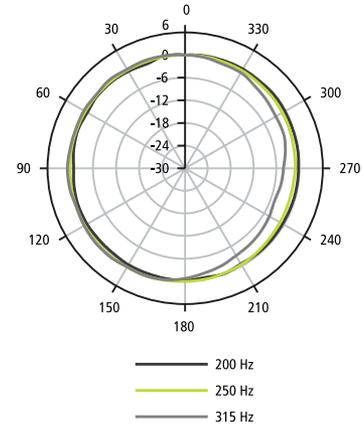
63 Hz Octave Band



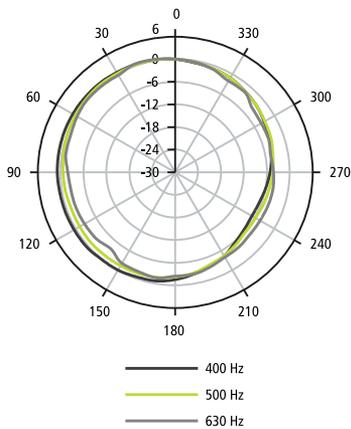
125 Hz Octave Band



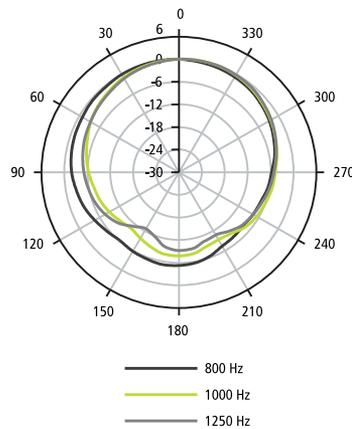
250 Hz Octave Band



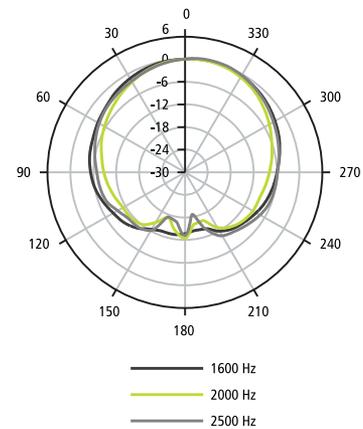
500 Hz Octave Band



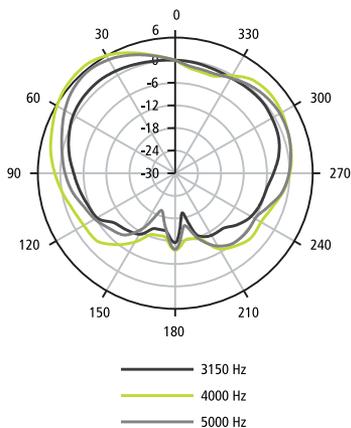
1000 Hz Octave Band



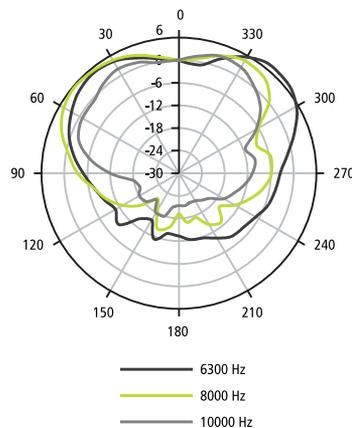
2000 Hz Octave Band



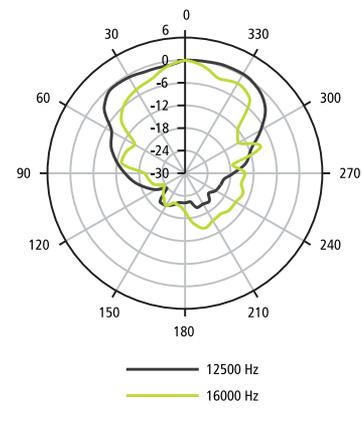
4000 Hz Octave Band



8000 Hz Octave Band



16000 Hz Octave Band



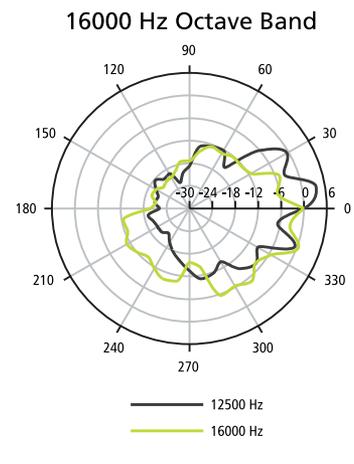
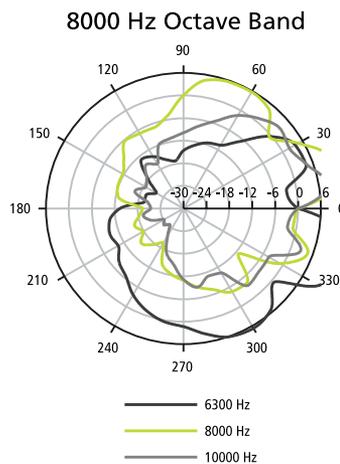
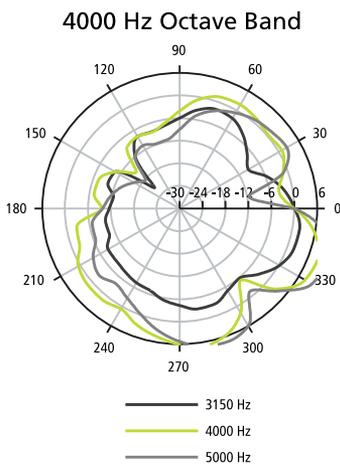
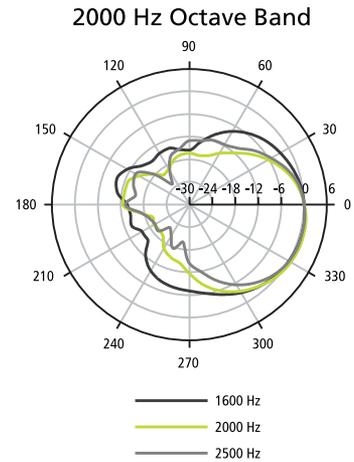
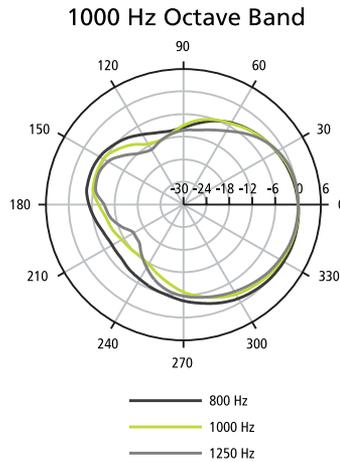
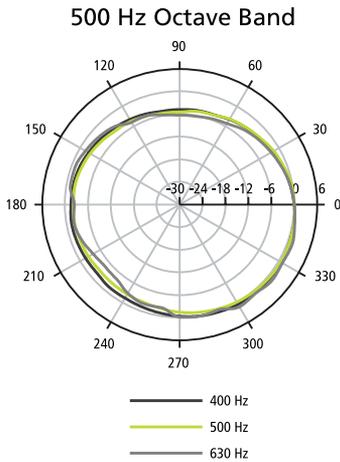
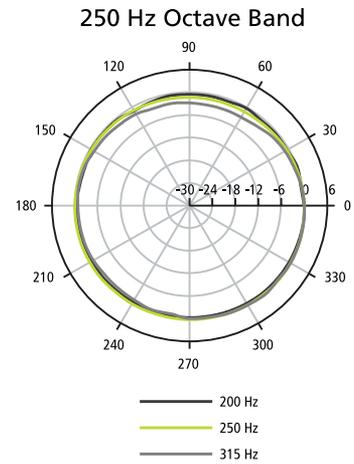
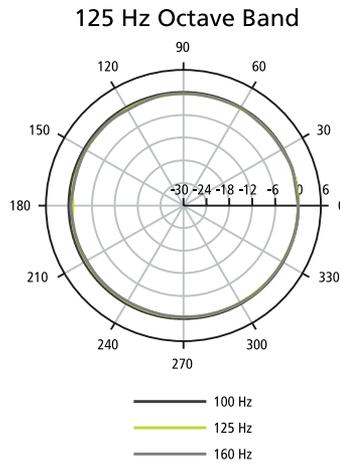
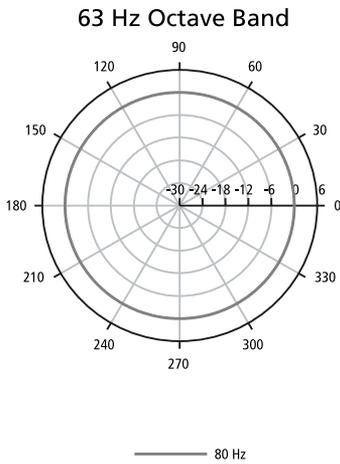
302A

Panaray® 302™ A loudspeaker



Vertical Plots

TECHNICAL DATA SHEET



302A

Panaray® 302™ A loudspeaker



Architects' and Engineers' Specifications

The system shall consist of a loudspeaker with bracket that houses one 200 watt transformer. The loudspeaker shall be an indoor/outdoor 200 watt, ported loudspeaker utilizing one 5.25" (133 mm) environmental woofer and two 2.5" (64 mm) environmental Twiddler™ transducers arrayed for wide dispersion. The transformer shall offer multiple taps of 25 W, 50 W, 100 W, and 200 W.

The loudspeaker shall have a maximum continuous acoustic output of 102 dB SPL at 1 meter from 75 Hz to 16 kHz. The input connector to the transformer shall be a terminal strip. The dispersion angle shall be 175 degrees horizontal and 90 degrees vertical. The loudspeaker shall be available in black and Arctic white.

The loudspeaker shall be the Bose® Panaray® 302™ A loudspeaker.