

Panaray® 502® B

bass loudspeaker



Key Features

- **Single 12" (305 mm) woofer** with Bose® patented Acoustimass® speaker technology, which reduces audible distortion and delivers non-localized bass
- **450 W long-term** and 1800 W peak power rating
- **Integrated suspension** inserts allow easy permanent installations with optional rigging accessories
- **Engineered to match** acoustically with the Panaray 502 A speaker systems



TECHNICAL DATA SHEET

Product Overview

The Bose® Panaray 502 B is a low-frequency loudspeaker designed for indoor permanent installations. Originally designed as the companion low-frequency unit to the Panaray 502 A mid/high-frequency loudspeaker, the 502 B loudspeaker features patented Acoustimass® speaker technology to deliver low-frequency down to 45 Hz.

Technical Specifications

System Performance	
Frequency Response (+/-3 dB) ¹	50 Hz - 140 Hz
Frequency Range (-10 dB) ¹	45 Hz - 160 Hz
Nominal Dispersion	Omni-directional below 200 Hz
Loudspeaker EQ	Required
Overload Protection	7-ampere AGC or 3AG (Littlefuse)
Long-Term Power Handling ²	450 W (1800 W peak)
Sensitivity (SPL / 1 W @ 1 m) ³	90 dB SPL
Maximum SPL @ 1 m ⁴	116 dB SPL (122 dB SPL peak)
Nominal Impedance	8 Ω
Transducers	
Driver Complement	12" (305 mm) woofer
Physical	
Enclosure	Vinyl-wrapped, high-density wood composite
Environmental	Indoor use only
Connectors	Two (2) parallel-wired barrier strips
Suspension / Mounting	Eight (8) 8 mm threaded inserts (4 top, 4 bottom), 20 mm depth
Dimensions	31.0" H x 14.0" W x 15.5" D (787 mm x 356 mm x 394 mm)
Net Weight	85 lb (38.6 kg)
Shipping Weight	88 lb (39.8 kg)
Product Code	
Grey	040090
White	040091

Footnotes:

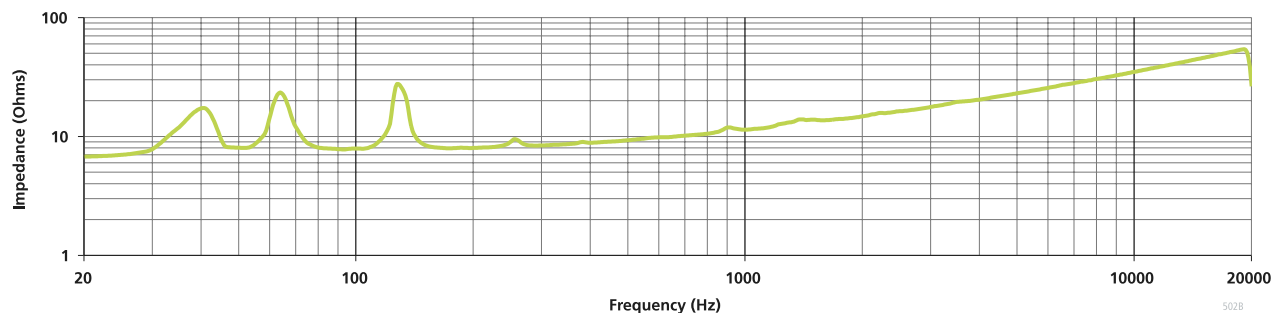
- ¹ Frequency response and range measured on-axis with recommended active EQ in an anechoic environment.
- ² Power handling tested using pink noise filtered to meet IEC 268-5, 6 dB crest factor, 100 hours, with recommended EQ.
- ³ Sensitivity measured in free field (no boundary-loading gain) with recommended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

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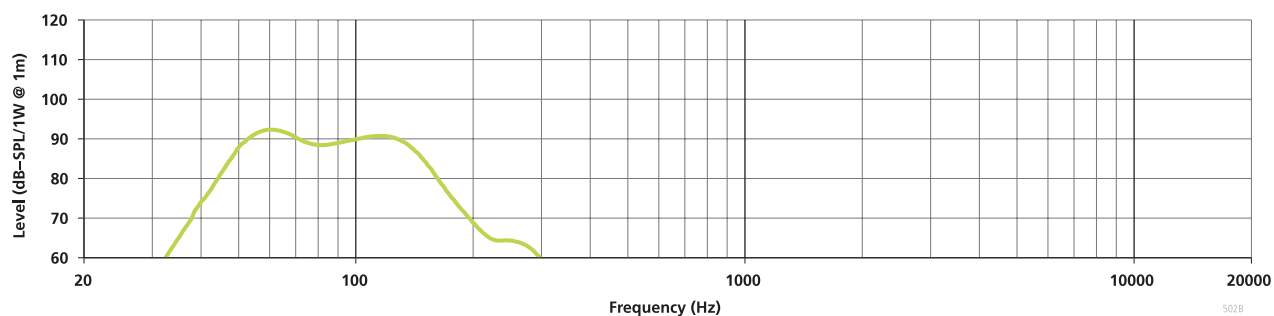
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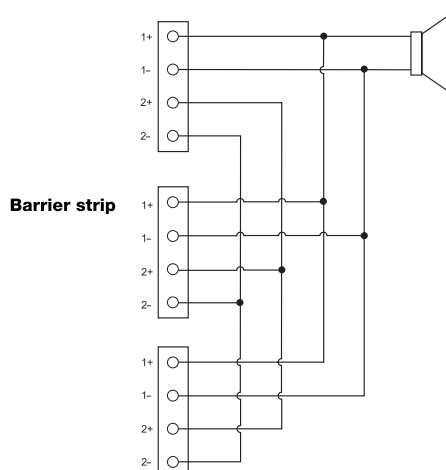
Impedance



On-Axis Response



Wiring Diagram

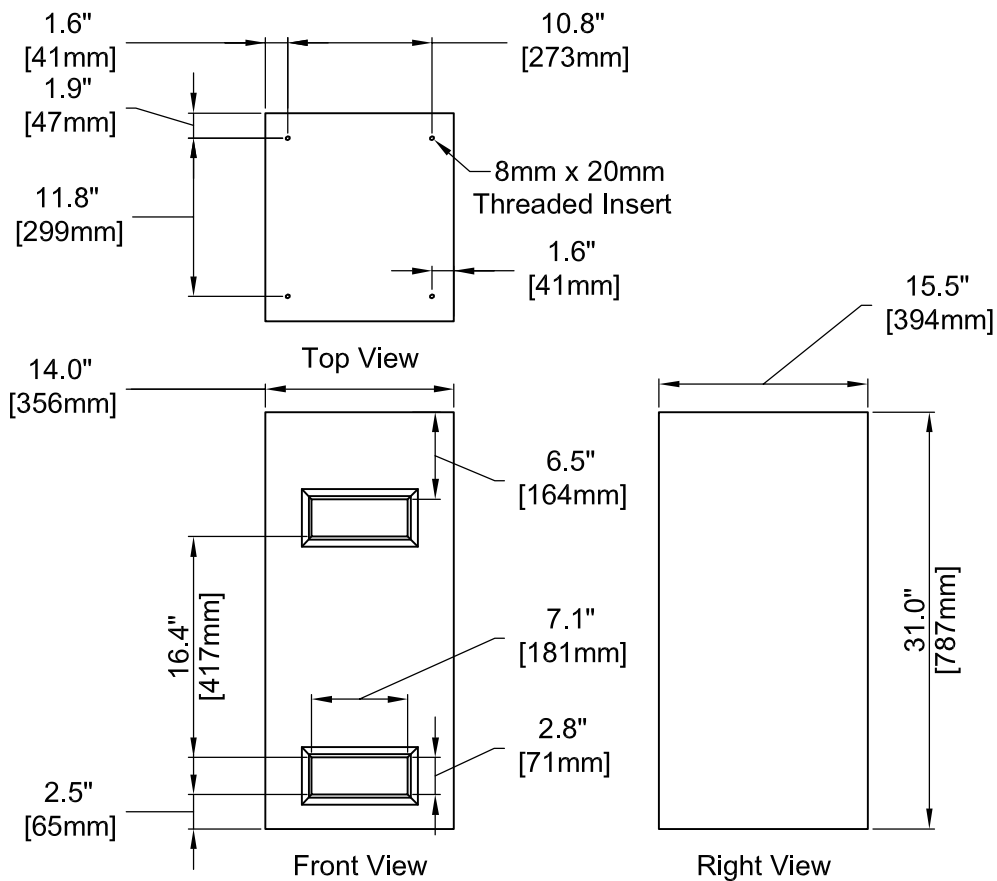


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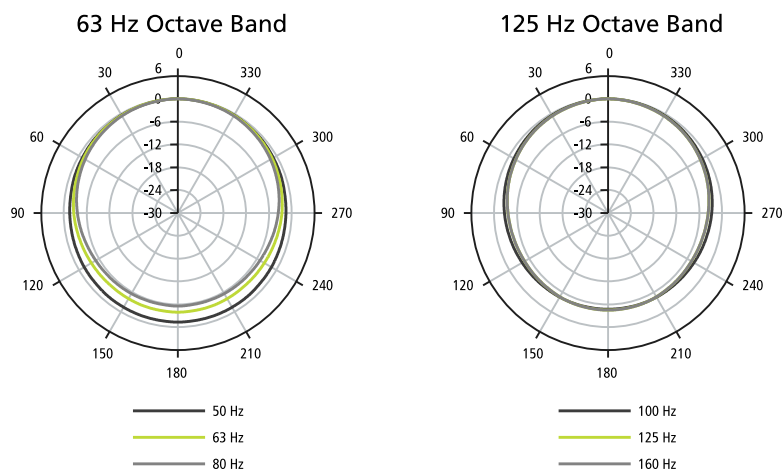
Mechanical Diagrams



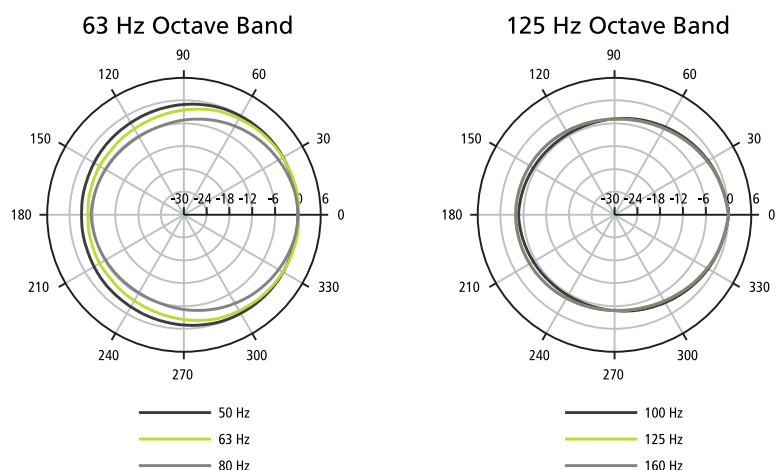
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Horizontal Plots



Vertical Plots



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Architects' and Engineers' Specifications

The low-frequency device shall be a dual-ported highly compact enclosure with matched active equalization as follows:

The transducer complement shall consist of one (1) high-power-handling driver of 12" (305 mm) diameter, mounted inside an enclosure such that distortion is minimized as a result of acoustic filtering. Its operating frequency range shall be below 160 Hz so that non-localizability shall allow a high degree of location placement flexibility.

The input connector, located on the rear of the enclosure, shall be a screw-type barrier strip.

The enclosure shall be made of vinyl-wrapped, high-density wood composite, with outer dimensions of 31.0" x 14.0" x 15.5" (787 mm x 356 mm x 394 mm); its weight shall be 85 lb (38.6 kg).

The bass enclosure's maximum continuous acoustic output shall be 116 dB SPL from 50 Hz to 140 Hz, with measurements referenced to a full-bandwidth pink-noise input at 1 meter at the enclosure's rated power. Its power-handling capacity shall be 450 watts continuous referenced to IEC noise for 100 hours.

The bass enclosure shall be the Bose® Panaray® 502® B Acoustimass® enclosure.