



PD6212/43

High Output Two-Way Full-Range Loudspeaker with 1 x 12" LF

PD SERIES

precision directivity

Key Features:

- ▶ 300 mm (12 in) horn-loaded LF and large format HF driver – high sensitivity design with high continuous SPL capability.
- ▶ Large PT™ Progressive Transition™ waveguides provide broad band 40° x 30° pattern control, low distortion at high SPL levels and smooth frequency response.
- ▶ Rotatable low and high frequency waveguides allow either horizontal or vertical cabinet orientation.
- ▶ Sophisticated, steep-slope passive crossover network with switchable bi-amp/passive crossover modes.

Applications:

- ▶ Performing arts facilities
- ▶ Live theaters
- ▶ Auditoriums
- ▶ Houses of worship
- ▶ Dance clubs
- ▶ Sports facilities

PD6212/43 is a Precision Directivity™ 40° by 30° loudspeaker designed for applications requiring high output capability with excellent pattern control. PD6212/43 can be utilized alone in music or speech systems where frequency extension to 80 Hz is adequate or combined with subwoofers to create extended bandwidth full-range systems.

The M222-8A 300 mm (12 in) low frequency transducer features high sensitivity and low power compression for high continuous SPL capability. It is horn-loaded for additional sensitivity and improved pattern control. A newly designed low frequency phasing plug extends frequency response, providing smoother transition to the high frequency driver. The 2453H large format high frequency compression driver utilizes a neodymium magnet and pure titanium diaphragm to deliver clear and intelligible high frequency projection, extended frequency response, and low distortion at even the highest drive levels.

Large PT Progressive Transition waveguides achieve an optimum balance of extremely well controlled coverage with low distortion, smooth frequency response, and natural sound character. The low and high frequency horns are rotatable for cabinet positioning in either horizontal or vertical orientation. High-slope crossovers minimize band overlap and a well-controlled off-axis response enhances arrayability.

The loudspeaker can be operated in either bi-amplified or in full passive mode. In either case, digital signal processing is required in order to achieve specified performance. Input connectors include both Speakon® and CE-compliant covered barrier strip for hookup versatility. The cabinet is fitted with twenty M10 threaded suspension points, supporting a wide variety of installation approaches.

PD6212/43 is part of JBL's broad lineup of installed sound loudspeakers, complementing the larger PD700 mid-high cabinets with a more compact size and greater low frequency extension, and supplementing the smaller AE Series cabinets with higher SPL capability and larger horns for pattern control to a lower frequency.



Specifications:

Frequency Range ¹ (-10 dB):	80 Hz to 18 kHz
Frequency Response ¹ (±3 dB):	90 Hz to 16 kHz
Coverage Pattern:	40° x 30°
Directivity Factor (Q):	24.1
Directivity Index (DI):	16.0 dB
Crossover Modes:	Bi-amp/Passive switchable
Passive Crossover:	850 Hz
Transducer Power Ratings (AES):	LF: 400 W (1600 W peak), 2 hrs. 300 W (1200 W peak), 100 hrs HF: 75 W (300 W peak), 2 hrs
Long-Term System Power Rating (IEC):	Passive Mode: 300 W (1200 W peak), 100 hrs.
Maximum SPL ² :	Bi-amp mode: LF: 137 dB-SPL cont avg (143 dB peak) HF: 135 dB-SPL cont avg (141 dB peak) Passive mode: 134 dB-SPL cont avg (140 dB peak)
System Sensitivity (1W @ 1m):	Passive Mode: 109 dB-SPL
Transducers:	
Low Frequency Driver:	M222-8A 300 mm (12 in) driver with 75 mm (3 in) voice coil
Nominal Impedance:	8 ohms
Sensitivity ⁶ (1W, 1m within operational band):	111 dB-SPL
High Frequency Driver:	2453H, 38 mm (1.5 in) exit compression driver with 100 mm (4 in) voice coil
Nominal Impedance:	8 ohms
Sensitivity ⁶ (1W @ 1m):	116 dB-SPL
Waveguides:	LF: PT-N43MF 600 x 600 mm (24 x 24 in) HF: PT-H43HF 300 x 300 mm (12 x 12 in)
Physical:	
Enclosure:	Trapezoidal with 12.5 degree side angles, 16 mm (5/8 in) exterior grade 11-ply Finnish birch plywood.
Suspension Attachment:	20 points (5 top, 5 bottom, 4 each side, 2 rear), M10 threaded hardware (eyebolts NOT included, see optional accessories).
Finish:	Black DuraFlex™ finish. White (-WH) available upon request.
Optional Weather Resistant Versions:	WRC for outdoor placement where the loudspeaker will be sheltered from direct exposure to the elements. WRX for direct exposure or extreme environments, such as tropical or beach, or in areas with salt air, extreme high humidity or rapid changes in temperature. See WRC/WRX configuration sheet for details.
Grille:	Powder coated 14 gauge perforated steel, acoustically transparent foam backing (grille cloth backing on white units)
Input Connectors:	Neutrik Speakon® NL4, plus CE-compliant covered barrier strip terminals. Barrier terminals accept up to 5.2 sq mm (10 AWG) wire or max width 9 mm (.375 in) spade lugs. Speakon in parallel with barrier strip for loop-through.
Environmental Specifications:	Mil-Std 810; IP-x3 per IEC529. For higher environmental ratings, use WRC or WRX.
Dimensions (H x W x D in vertical orientation):	991 x 673 x 897 mm (39.0 x 26.5 x 35.3 in)
Net Weight:	79.5 kg (175 lb)
Optional Accessories:	229-00009-01 kit of three M10 x 35 mm forged shoulder steel eyebolts.

¹ In bi-amp mode, with required active tuning.

² Resultant engineered acoustical response of crossover network and components.

³ AES standard, one decade pink noise with 6 dB crest factor within device's operational band, free air. Standard AES 2 hr rating plug long-term 100 hr rating are specified for low-frequency transducers.

⁴ IEC standard, full bandwidth pink noise with 6 dB crest factor, 100 hours.

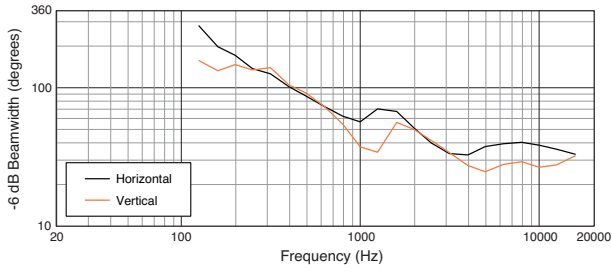
⁵ Calculated based on power rating and sensitivity, exclusive of power compression.

⁶ Anechoic sensitivity in free field, no additional sensitivity gains from boundary loading.

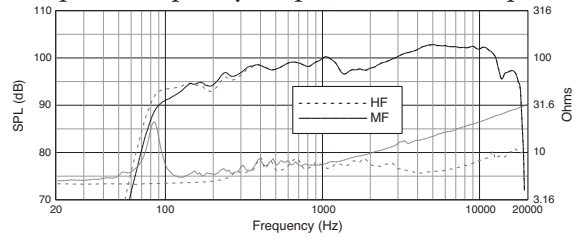
JBL continually engages in research related to product improvement. Some materials, production methods and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

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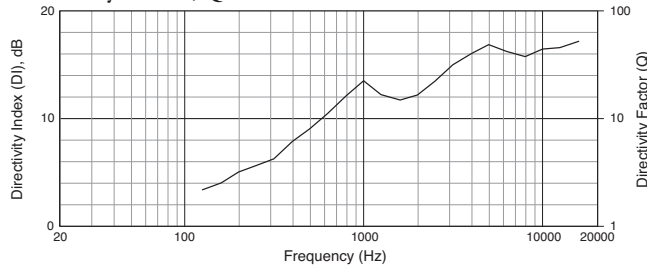
Beamwidth



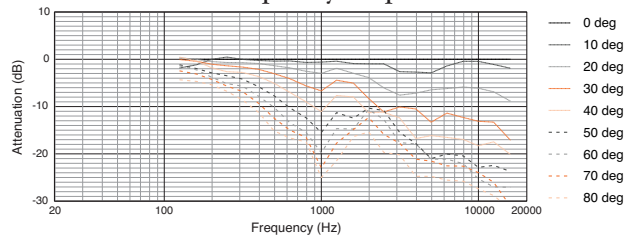
Bi-Amp FIR Frequency Response and Raw Impedance



Directivity Index, Q



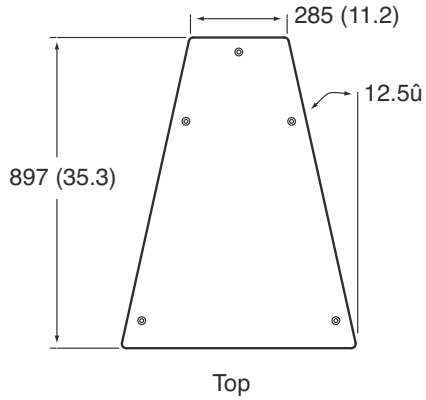
Horizontal Off-Axis Frequency Response



Dimensions

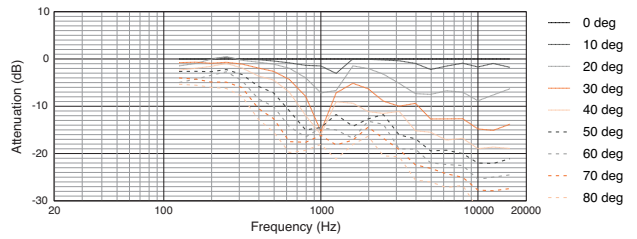
Dimensions in mm (in)

For more detailed dimensional information, refer to Application Data Sheet

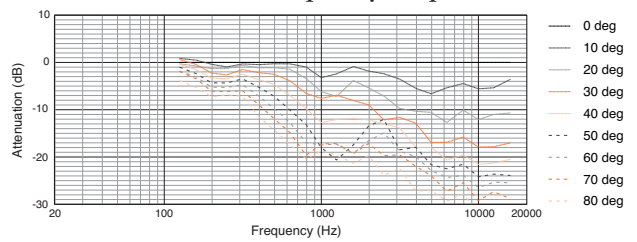


Top

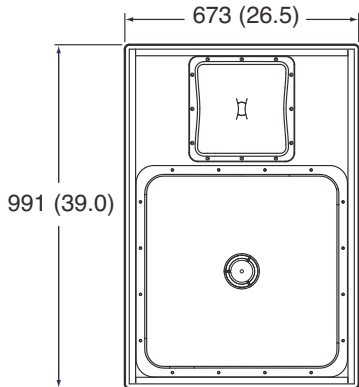
Vertical Up Off-Axis Frequency Response



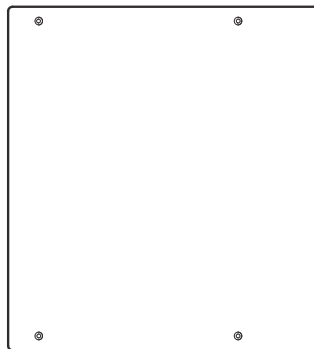
Vertical Down Off-Axis Frequency Response



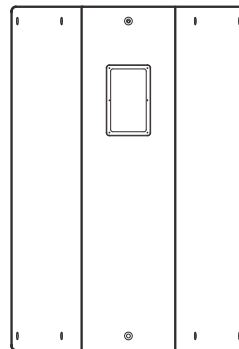
Measurements obtained in bi-amp mode using FIR filters. Graphs are from unaltered measured data.



Front

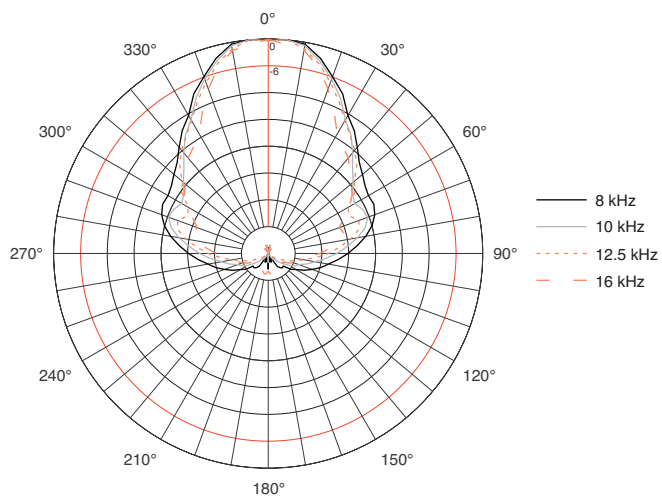
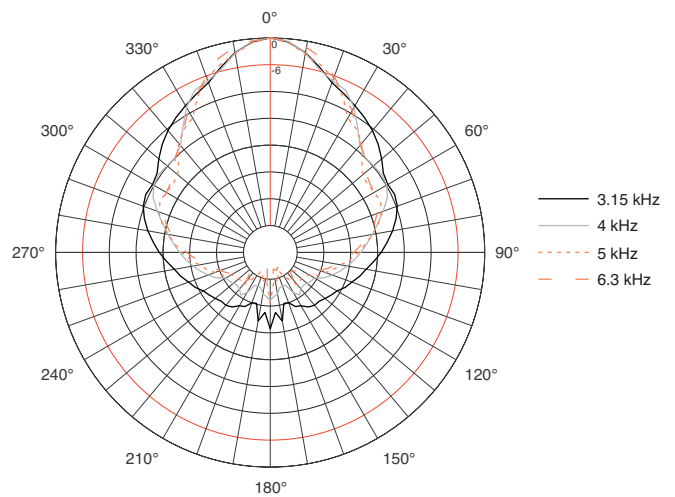
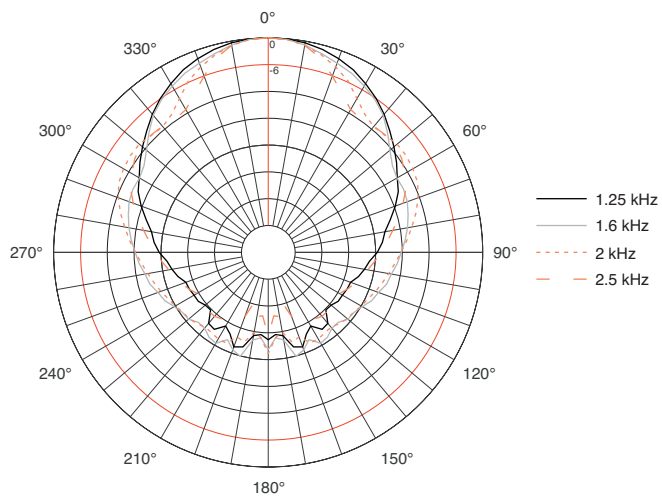
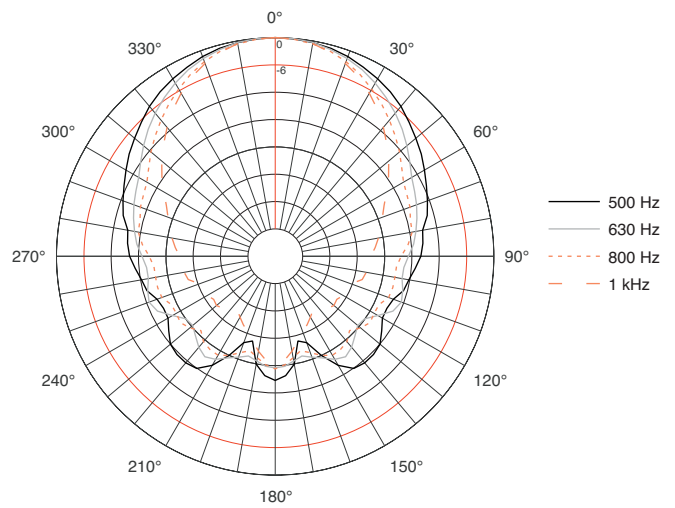
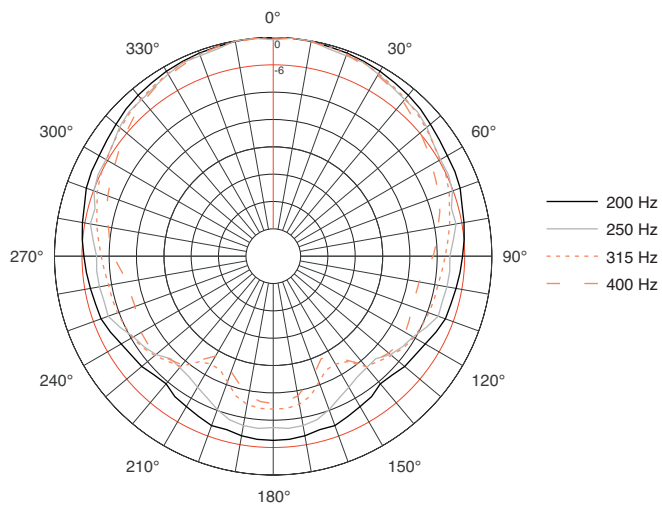


Side



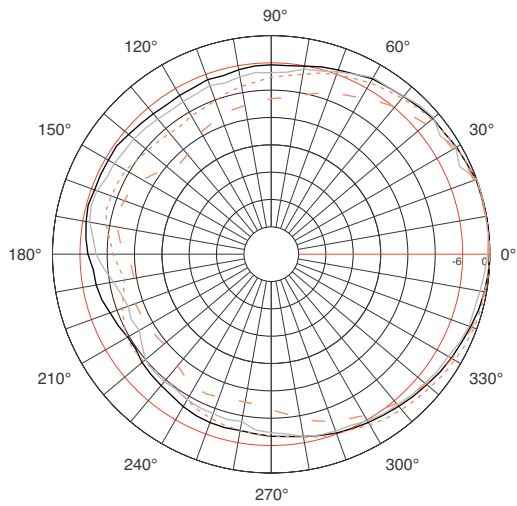
Back

Horizontal 1/3 Octave Polars

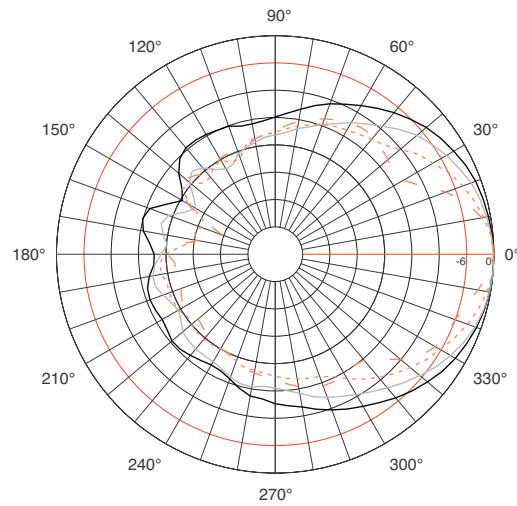


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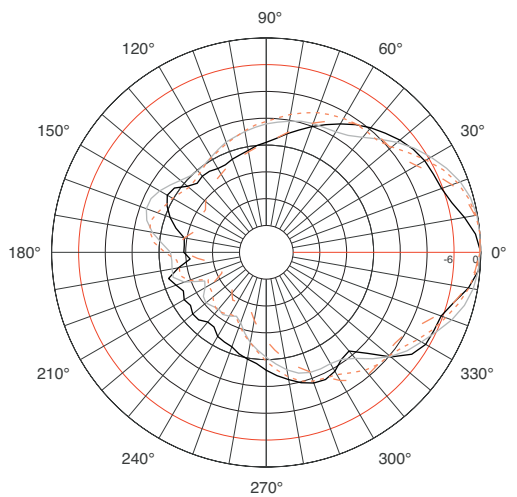
Vertical 1/3 Octave Polars



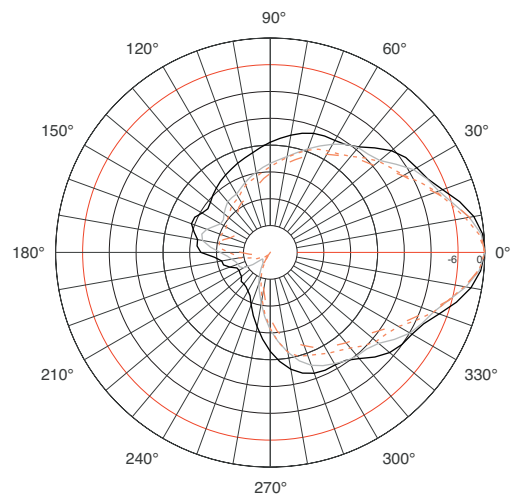
— 200 Hz
— 250 Hz
- - - 315 Hz
- - - 400 Hz



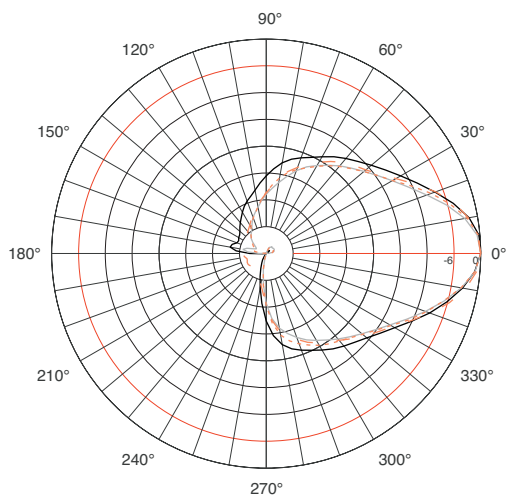
— 500 Hz
— 630 Hz
- - - 800 Hz
- - - 1 kHz



— 1.25 kHz
— 1.6 kHz
- - - 2 kHz
- - - 2.5 kHz



— 3.15 kHz
— 4 kHz
- - - 5 kHz
- - - 6.3 kHz



— 8 kHz
— 10 kHz
- - - 12.5 kHz
- - - 16 kHz



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