



PD544

15" Horn-Loaded Full-Range Loudspeaker System

Features:

- ▶ 380 mm (15") horn-loaded low-frequency driver
- ▶ Large PT™ Progressive Transition™ waveguides provide broad band 40° x 40° pattern control, low distortion at high SPL levels and smooth frequency response
- ▶ Rotatable waveguide allows for either horizontal or vertical cabinet orientation
- ▶ Sophisticated, steep-slope passive crossover network with switchable bi-amp/passive crossover modes
- ▶ EN54-24 certified for full-range passive mode

Applications:

- ▶ Sports Facilities
- ▶ Performance spaces
- ▶ Auditoriums
- ▶ Worship facilities

PD544 is a Precision Directivity™ loudspeaker designed for applications requiring high output capability with excellent pattern control. PD544 can be utilized in music or speech systems where frequency extension to 80 Hz is adequate or combined with subwoofers to create extended bandwidth fullrange systems.

The 2031H 380 mm (15") 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. The 2432H 38 mm (1.5") exit, 75 mm (3") voice coil high frequency compression driver utilizes a neodymium magnet and aluminum diaphragm to deliver clear and intelligible high frequency projection, extended frequency response, and low distortion at even the highest drive levels.

The system is equipped with a large format rotatable PT waveguide allowing the PD544 to be used in either the vertical or horizontal orientation.

The loudspeaker can be operated in either biamplified or in full passive mode. In either case, digital signal processing is required in order to achieve specified performance. Input connectivity is achieved via CE-compliant covered barrier strips. The cabinet is fitted with twenty-two M10 threaded suspension points, supporting a wide variety of installation approaches.

The PD500 Series is part of JBL's broad lineup of installed sound loudspeakers, complementing the larger PD6000 Series with a more compact size and supplementing the smaller AE Series.



Specifications:

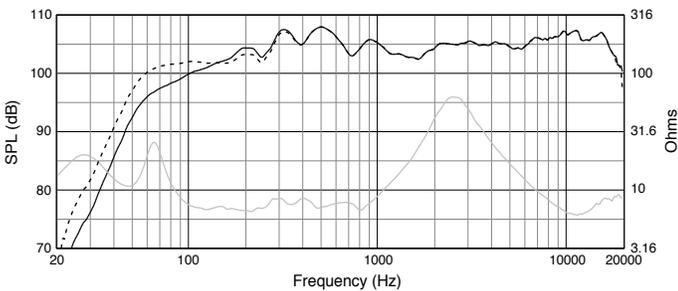
Frequency Range ¹ (-10 dB):	50Hz to 20kHz			
Frequency Response ¹ (±3 dB):	90Hz to 17kHz			
Coverage Pattern:	40° x 40°			
Coverage Pattern:	500 Hz	1000 Hz	2000 Hz	4000 Hz
Horizontal:	56°	33°	40°	35°
Vertical:	60°	38°	46°	40°
Directivity Factor (Q):	31.5			
Directivity Index (DI):	15 dB			
Crossover Modes:	Bi-amp/Passive switchable			
Passive Crossover ² :	1.2 kHz			
Transducer Power Ratings (AES) ³ :	LF: 450W 2hrs, 300W 100hrs HF: 75W, 2hrs, 50W 100hrs			
System Power Rating (IEC) ⁴ :	Passive mode: 500W 2hrs, 300W 100hrs (IEC)			
Maximum SPL ⁵ :	Bi-amp: LF: 133 cont (139 peak) HF: 134 cont (140 peak) Passive: 133 cont (139 peak)			
Measured Maximum SPL ⁶ :	116.84 dB SPL @ 4m			
System Sensitivity (1W @ 1m):	Passive Mode: 106 dB SPL			
System Sensitivity (1W @ 4m):	Passive Mode: 92.65 dB SPL			
Nominal Impedance:	8 ohms			
Reference Axis:	Specification and measurement reference is directly on-axis vertically and horizontally			
Transducers:				
Low Frequency Driver:	2031H 380 mm (15 in) driver with 75 mm (3 in) voice coil			
Nominal Impedance:	8 ohms			
Sensitivity ⁶ (1W, 1m within operational band):	106 dB (avg 300Hz-1.3kHz)			
High Frequency Driver:	JBL 2432H, 38 mm (1.5 in) exit compression driver, 75 mm (3 in) voice coil			
Nominal Impedance:	8 ohms			
Sensitivity ⁷ (1W @ 1m)	115 dB (avg 1.5k-5kHz)			
Waveguide:	HF: PT-H40HF-1 300 x 300 mm (12 x 12 in)			
Physical:				
Enclosure:	Trapezoidal with 10 degree side angles, 18 mm 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 and weather resistant cloth backing.			
Input Connectors:	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.			
Environmental Specifications:	IP55C per IEC 529			
Dimensions (H x W x D in vertical orientation):	782.0 x 783.0 x 670.0 mm (30.8 x 30.8 x 26.4 in)			
Net Weight:	69.0 kg (152 lb)			
Optional Accessories:	229-00009-01 kit of three M10 x 35 mm forged shoulder steel eyebolts.			

▶ PD544 Two-Way Full-Range Loudspeaker

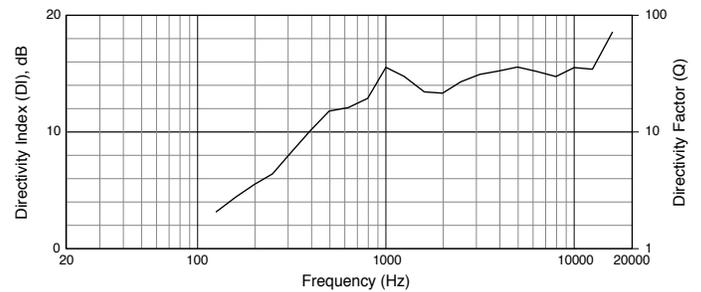
Specification Notes:

- 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 Measured in full-passive mode at 300W (100 hr rating).
- ⁷ Anechoic sensitivity in free field, no additional sensitivity gains from boundary loading.

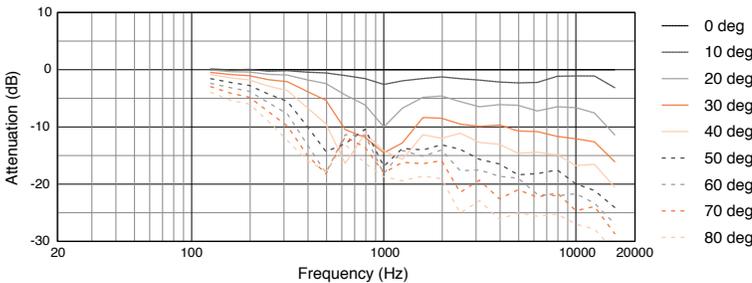
Frequency Response (Impedance)



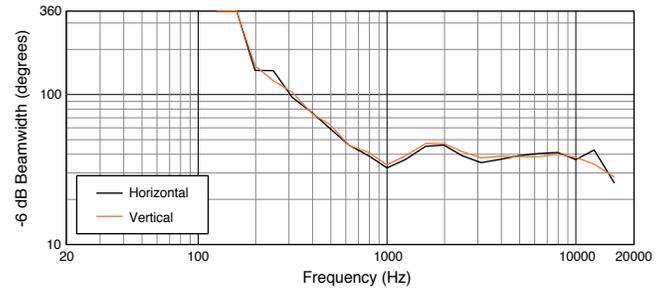
Directivity Index Q



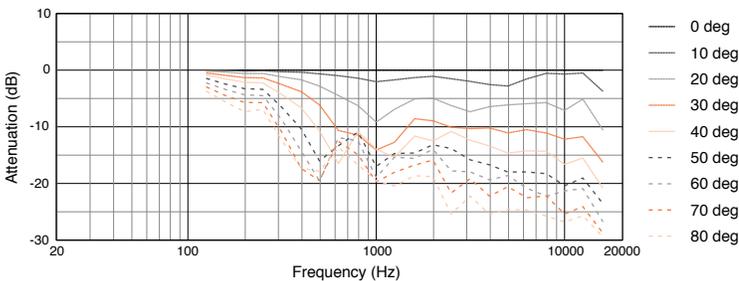
Vertical Axis



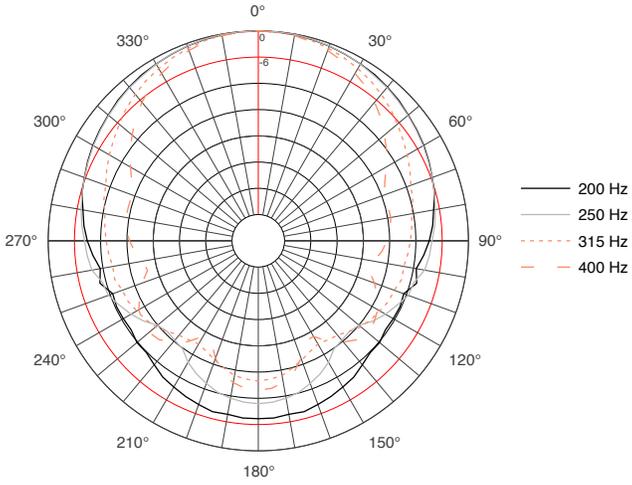
Beamwidth



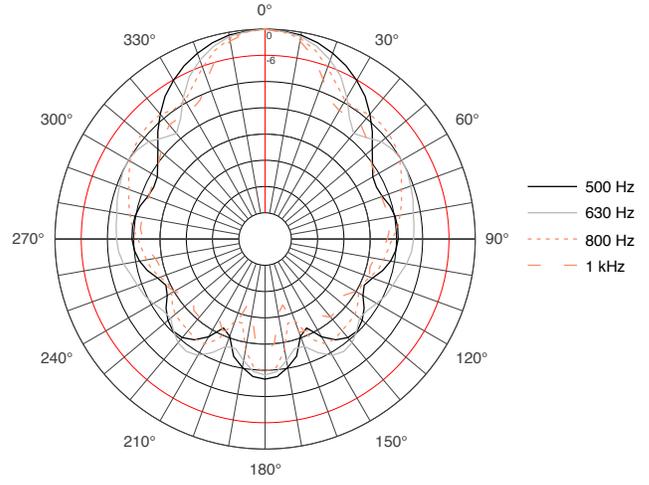
Horizontal Axis



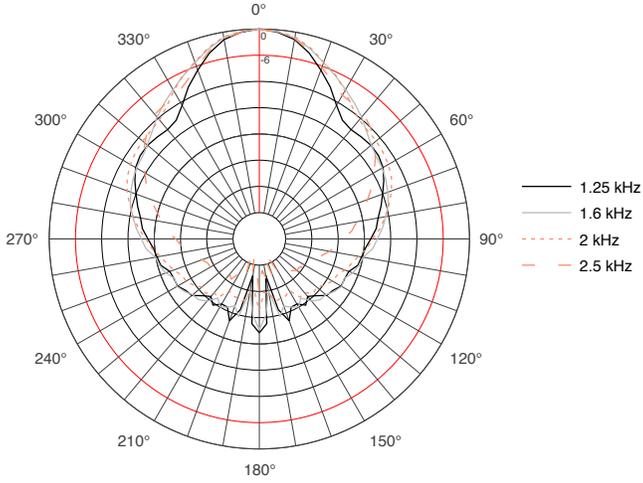
Horizontal Polar (200Hz)



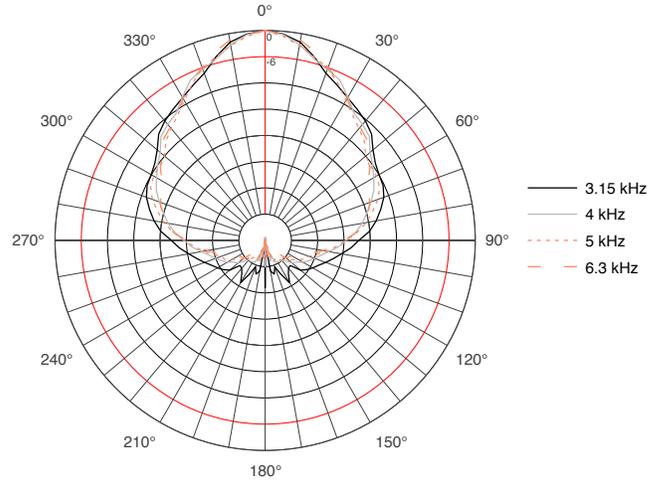
Horizontal Polar (500Hz)



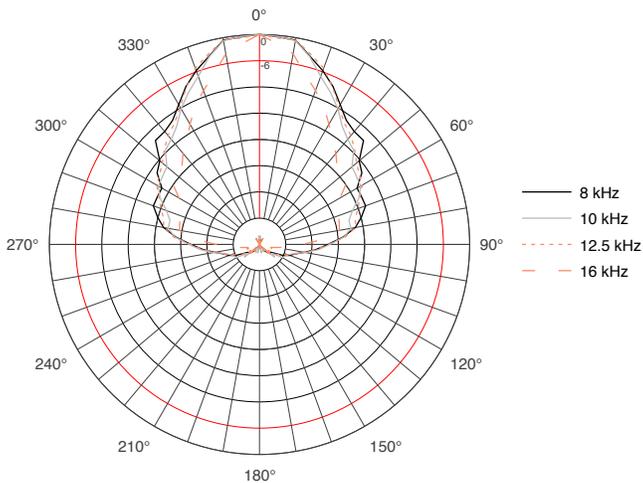
Horizontal Polar (1250Hz)



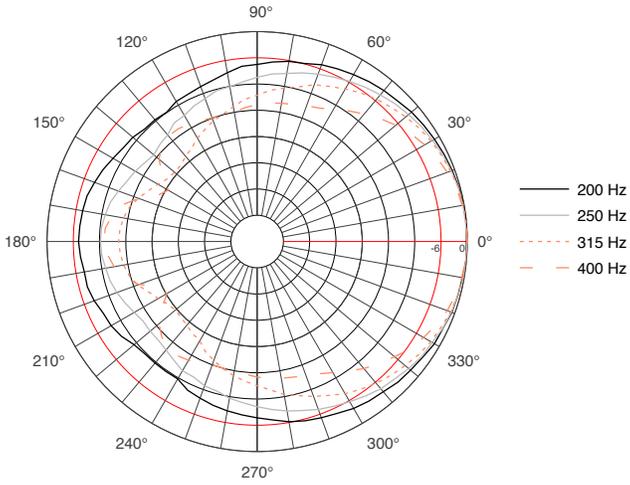
Horizontal Polar (3150Hz)



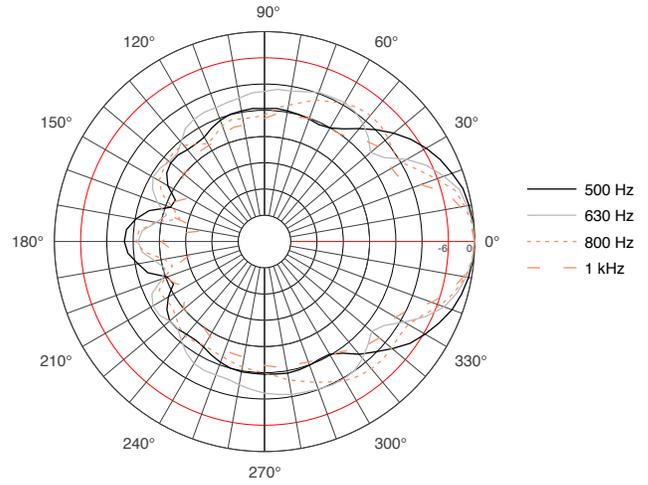
Horizontal Polar (8000Hz)



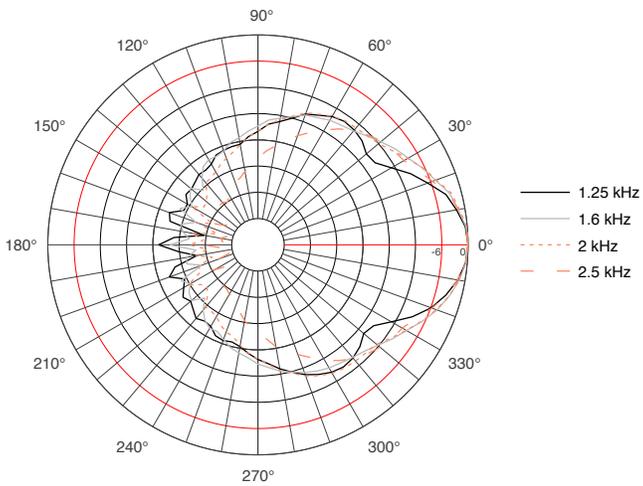
Vertical Polar (200Hz)



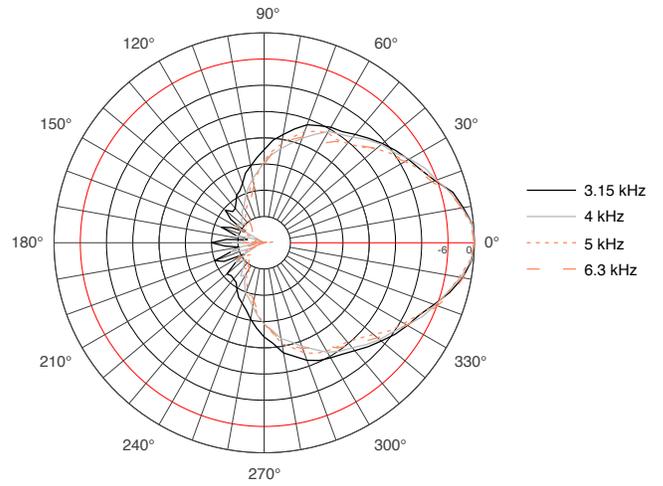
Vertical Polar (500Hz)



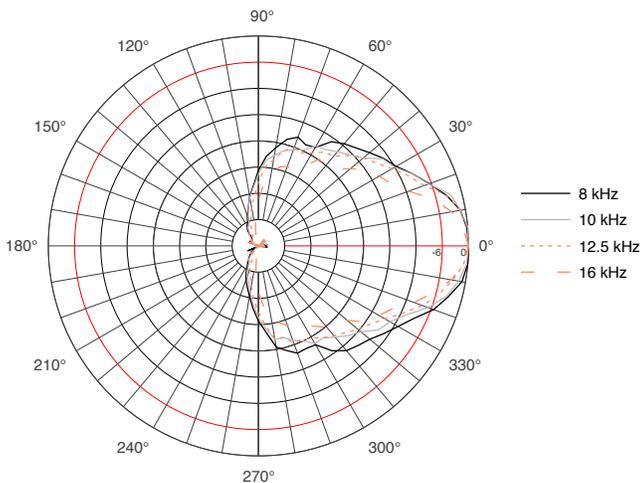
Vertical Polar (1250Hz)



Vertical Polar (3150Hz)

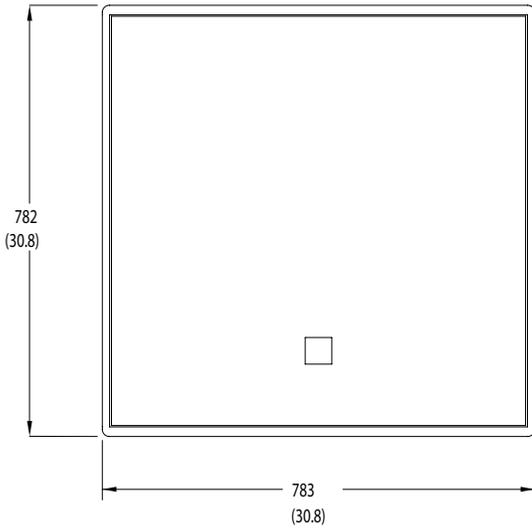
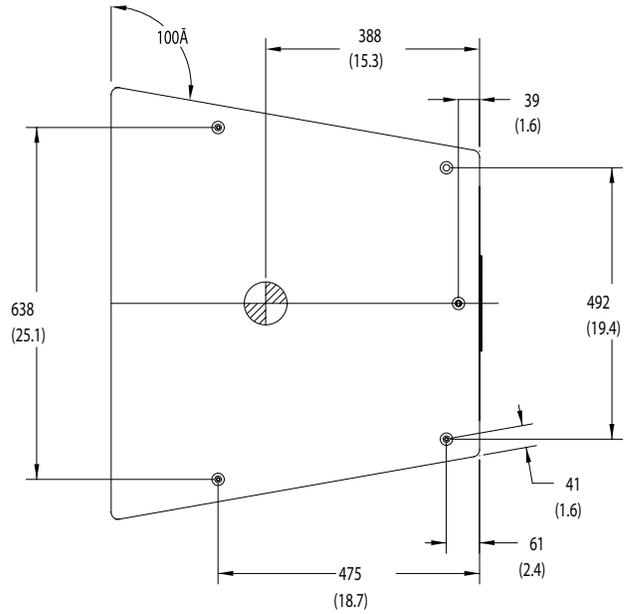


Vertical Polar (8000Hz)



▶ PD544 Two-Way Full-Range Loudspeaker

Dimensions:



JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.

© Copyright 2016 JBL Professional
www.jblpro.com