

PD544

15" Horn-Loaded Full-Range Loudspeaker



SPEC SHEET

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

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 Range¹ (-10 dB)	50Hz to 20kHz	
Frequency Response¹ (±3 dB)	90Hz to 17kHz	
Coverage Pattern	40° x 40°	
Directivity Factor (Q)	31.5	
Directivity Index (DI)	15 dB	
Crossover Modes	Bi-amp/Passive switchable	
Passive Crossover²	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 SPL⁵	Bi-amp LF: 133 cont (139 peak) HF: 134 cont (140 peak)	Passive 133 cont (139 peak)
System Sensitivity (1W @ 1m)	Passive Mode: 106 dB SPL	
Nominal Impedance	8 ohms	

PD544

15" Horn-Loaded Full-Range Loudspeaker



SPEC SHEET

SPECIFICATIONS (Cont.) ■

Transducers

Low Frequency Driver	2031H 380 mm (15 in) driver with 75 mm (3 in) voice coil
Nominal Impedance	8 ohms
Sensitivity⁶ (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
Sensitivity⁷ (1W @ 1m)	115 dB (avg 1.5k-5kHz)
Waveguide	HF: PT-H40HF-1 300 x 300 mm (12 x 12 in)

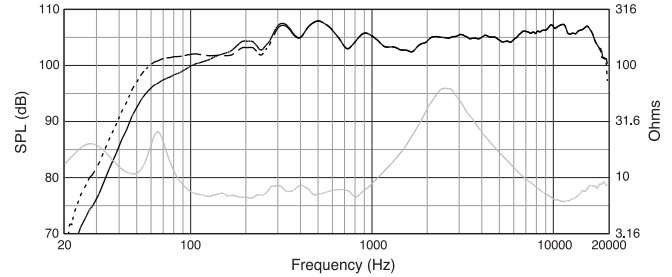
Physical

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 x 783 x 670 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.

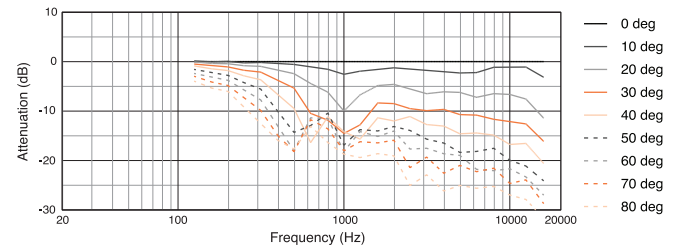
SPECIFICATIONS NOTES

- In bi-amp mode, with required active tuning.
- Resultant engineered acoustical response of crossover network and components.
- AES standard, one decade pink noise with 6 dB crest factor within device's operational band, free air. Standard AES 2 hr rating plus long-term 100 hr rating are specified for low-frequency transducers.
- IEC standard, full bandwidth pink noise with 6 dB crest factor, 100 hours.
- Calculated based on power rating and sensitivity, exclusive of power compression.
- Measured in full-passive mode at 300W (100 hr rating).
- Anechoic sensitivity in free field, no additional sensitivity gains from boundary loading.

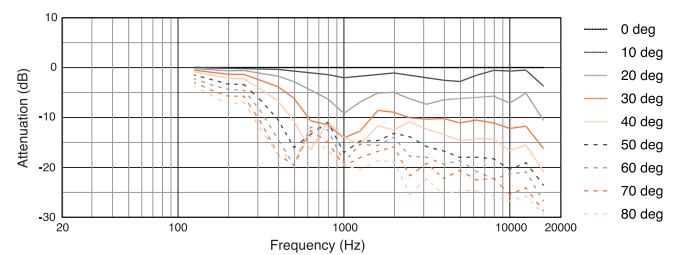
FREQUENCY RESPONSE (IMPEDANCE) ■



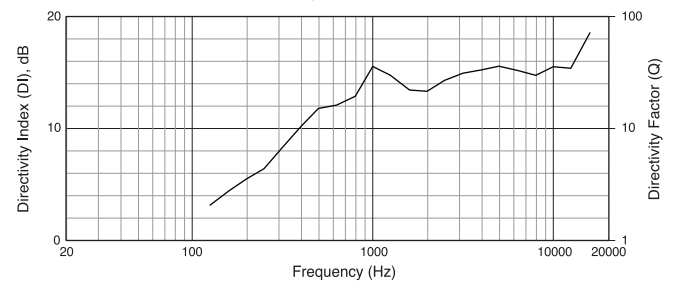
VERTICAL AXIS ■



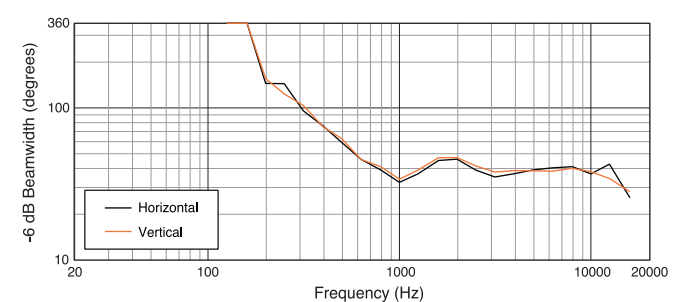
HORIZONTAL AXIS ■



DIRECTIVITY INDEX Q ■



BEAMWIDTH ■



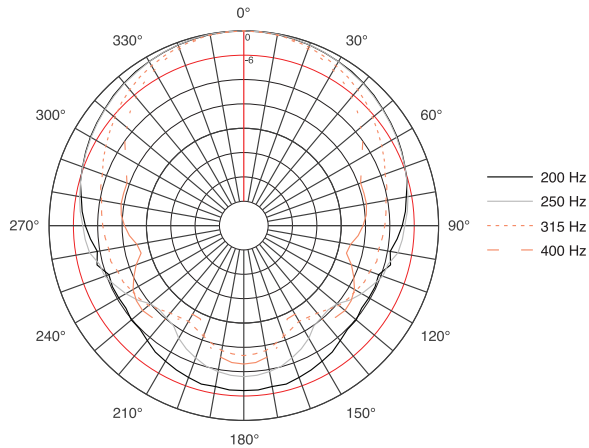
PD544

15" Horn-Loaded Full-Range Loudspeaker

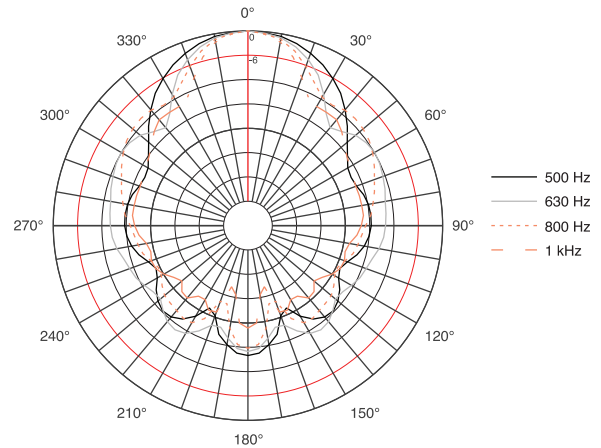


SPEC SHEET

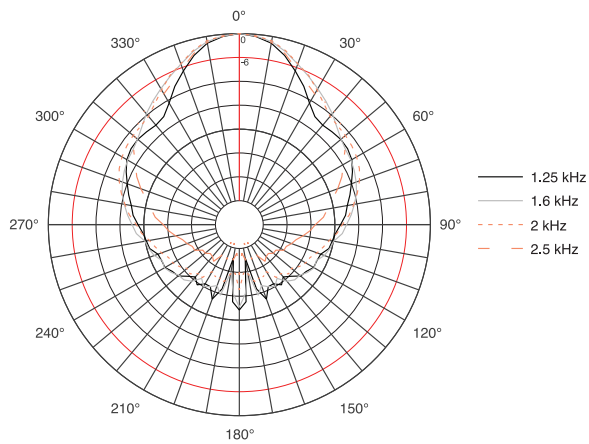
HORIZONTAL POLAR (200Hz) ■



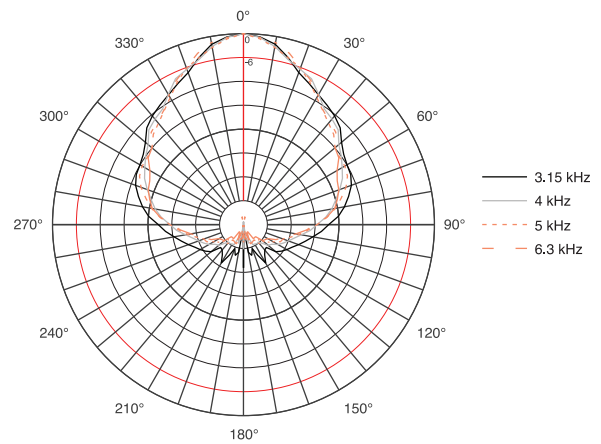
HORIZONTAL POLAR (500Hz) ■



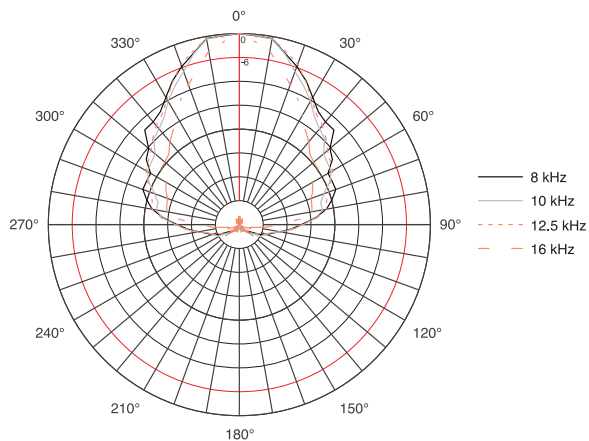
HORIZONTAL POLAR (1250Hz) ■



HORIZONTAL POLAR (3150Hz) ■



HORIZONTAL POLAR (8000Hz) ■



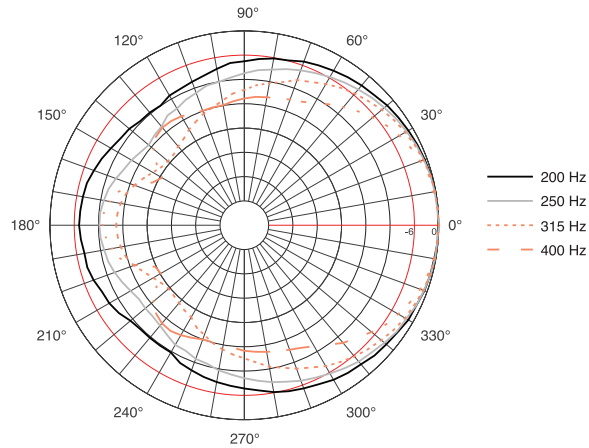
PD544

15" Horn-Loaded Full-Range Loudspeaker

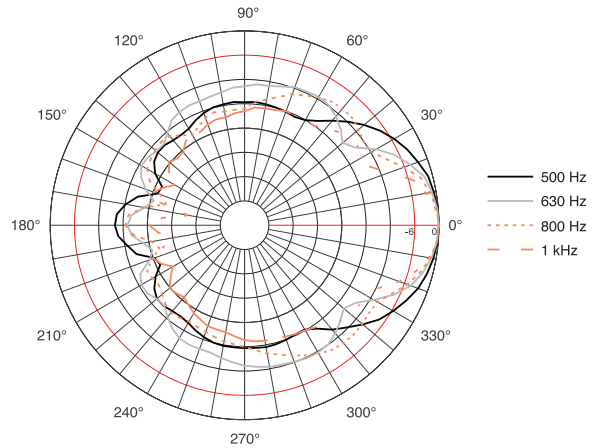


SPEC SHEET

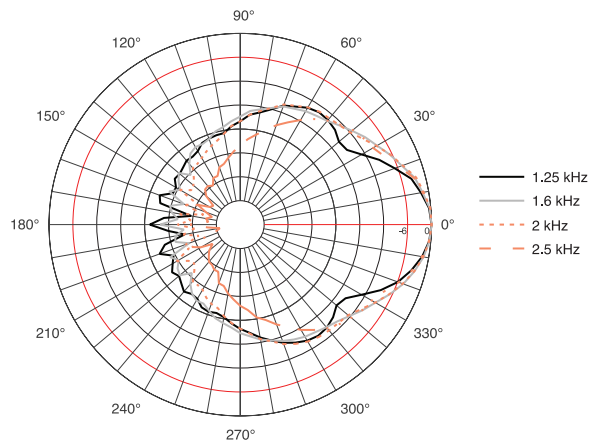
VERTICAL POLAR (200Hz) ■



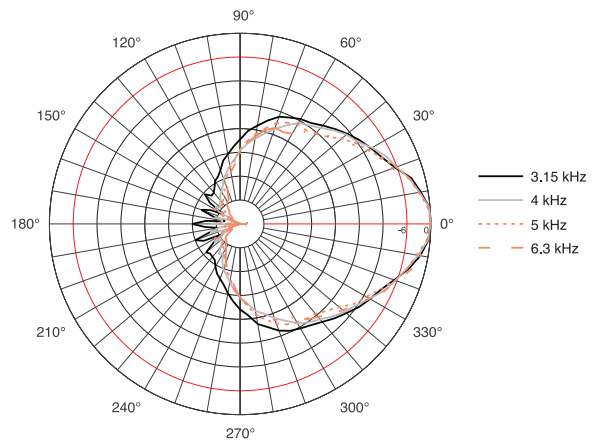
VERTICAL POLAR (500Hz) ■



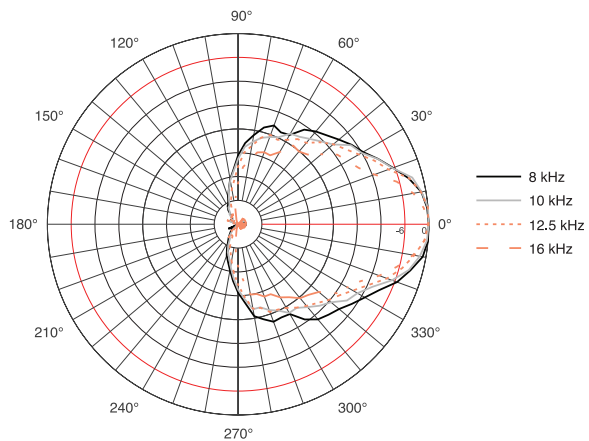
VERTICAL POLAR (1250Hz) ■



VERTICAL POLAR (3150Hz) ■



VERTICAL POLAR (8000Hz) ■



PD544

15" Horn-Loaded Full-Range Loudspeaker



SPEC SHEET

PRODUCT DIMENSIONS ■

