



PD6322/43

High Output Three-Way Full-Range Loudspeaker with 2 x 12" LF

PD SERIES precision directivity

Key Features:

- ▶ Two high power 300 mm (12 in) transducers in a compact slot-loaded configuration for low frequency extension to 40 Hz
- ▶ High power CMCD™ Cone Midrange Compression Driver provides high sensitivity and high continuous SPL capability along with low distortion, extended bandwidth and improved phase coherence
- ▶ Large format neodymium high frequency driver provides clear, intelligible high frequency projection
- ▶ Large PT™ Progressive Transition™ waveguides provide consistent 40° x 30° pattern control, low distortion at high SPL levels and smooth frequency response
- ▶ Rotatable mid and high frequency waveguides allow either horizontal or vertical cabinet orientation
- ▶ Sophisticated, steep-slope passive mid-high crossover network with switchable tri-amp/bi-amp crossover modes

Applications:

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

PD6322/43 is a Precision Directivity™ 40° by 30° full range, three-way loudspeaker designed for use in arrays or singly in demanding music or speech system applications requiring high output capability with excellent pattern control and low frequency extension to 40 Hz.

The low frequency section, two 2206H 300 mm (12 in) VGCT™ Vented Gap Cooled low frequency transducers, offers high power handling and low power compression for high continuous SPL capability. A newly designed LF loading plate provides the highest possible sensitivity, low frequency output and system reliability.

The mid and high frequency sections are horn-loaded for maximum sensitivity and pattern control. The CMCD-82H cone midrange compression driver consists of a driver/phasing plug assembly providing high output with low distortion. The design's extended response coupled with a small 100 mm (4 in) exit diameter allow for smoother transition to the high frequency driver in the magnitude and polar pattern domains. The integral 200 mm (8 inch) transducer features a high power Differential Drive® dual voicecoil design. The 2432H large format 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.



Specifications:

Frequency Range ¹ (-10 dB):	41 Hz to 18 kHz
Frequency Response ¹ (±3 dB):	49 Hz to 16 kHz
Coverage Pattern:	40° x 30°
Directivity Factor (Q):	24.1
Directivity Index (DI):	16.0 dB
Crossover Modes:	Tri-amp/Bi-amp (passive mid-high) switchable
Passive Crossover ² :	1.7 kHz
Transducer Power Ratings (AES) ³ :	LF: 1600 W (6400 W peak), 2 hrs. 1200 W (4800 W peak), 100 hrs MF: 350 W (1400 W peak), 100 hrs HF: 75 W (300 W peak), 2 hrs
Long-Term System Power Rating (IEC) ⁴ :	Bi-amplified Passive Mode: LF: 1200 W (4800 W peak) M/HF: 300 W (1200 W peak), 100 hrs
Maximum SPL ⁵ :	Tri-amp mode: LF: 128 dB-SPL cont avg (134 dB peak) MF: 137 dB-SPL cont avg (143 dB peak) HF: 135 dB-SPL cont avg (141 dB peak) Passive mode: 136 dB-SPL cont avg (142 dB peak)
System Sensitivity (1W @ 1m):	Passive Mode: 111 dB-SPL (mid/high section only)
Transducers:	
Low Frequency Driver:	2 x 2206H 300 mm (12 in) driver with 100 mm (4 in) voice coil
Nominal Impedance:	4 ohms (2 x 8 ohms, internally wired in parallel)
Sensitivity ⁶ (1W, 1m within operational band):	96 dB-SPL
Mid Frequency Driver:	CMCD-82H cone midrange compression driver with integral 200 mm (8 in) diameter Differential Drive® dual 75 mm (3 in) voice coil driver
Nominal Impedance:	8 ohms
Sensitivity ⁶ (1W, 1m):	112 dB-SPL
High Frequency Driver:	2432H, 38 mm (1.5 in) exit compression driver with 75 mm (3 in) voice coil
Nominal Impedance:	8 ohms
Sensitivity ⁶ (1W @ 1m):	116 dB-SPL
Waveguides:	MF: 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, zinc-phosphate dipped, foam backing (grille cloth backing on white units)
Input Connectors:	Neutrik Speakon® NL8, 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	991 x 673 x 897 mm
(H x W x D in vertical orientation):	(39.0 x 26.5 x 35.3 in)
Net Weight:	87.3 kg (192 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 plus long-term 100 hr rating are specified for low-frequency transducers.

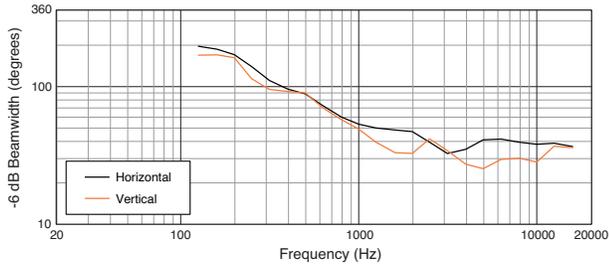
⁴ IEC standard, full bandwidth pink noise with 6 dB crest factor, 100 hours.

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

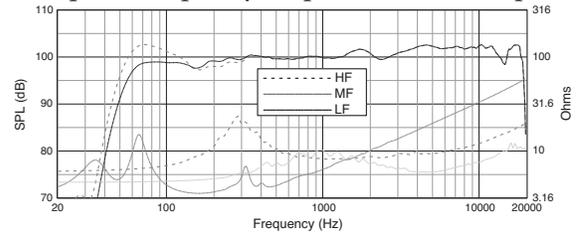
⁶ Anechoic sensitivity in free field, no additional sensitivity gains from boundary loading.

▶ PD6322/43 High Output Three-Way Full-Range Loudspeaker

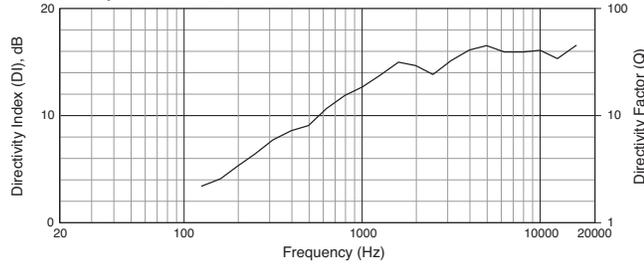
Beamwidth



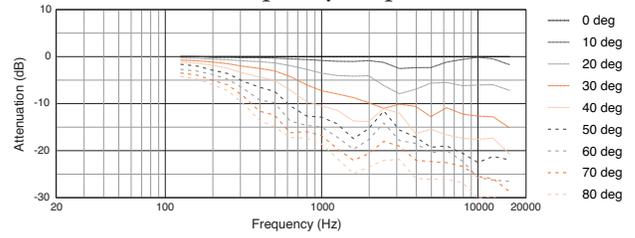
Tri-Amp FIR Frequency Response and Raw Impedance



Directivity Index, Q



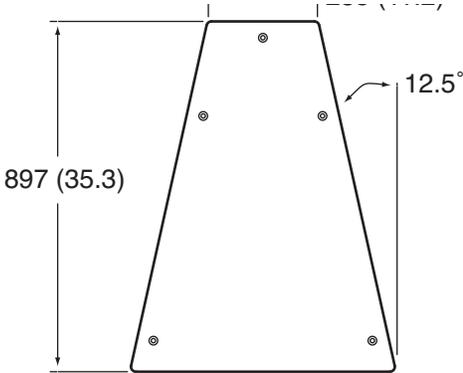
Horizontal Off-Axis Frequency Response



Dimensions

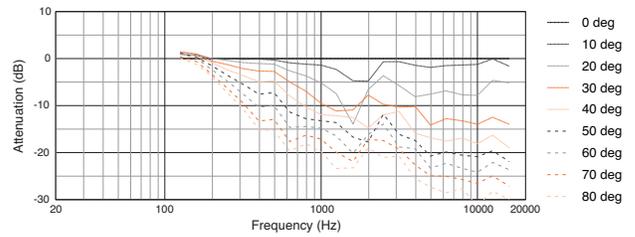
Dimensions in mm (in)

For more detailed dimensional information, refer to Application Data Sheet

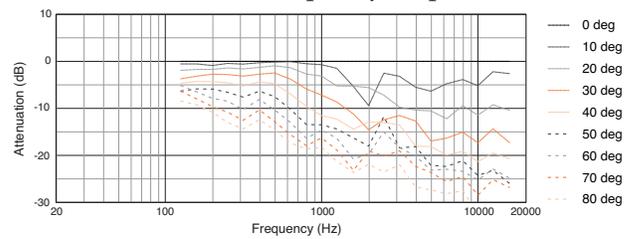


Top

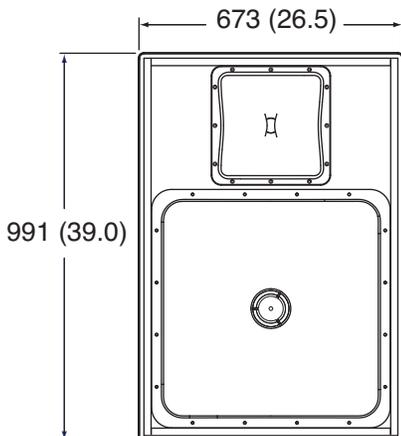
Vertical Up Off-Axis Frequency Response



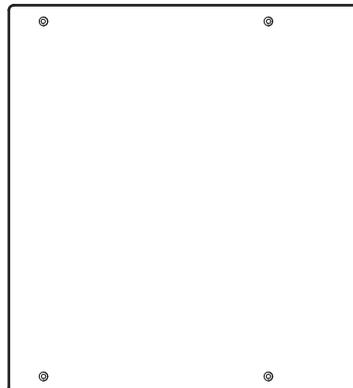
Vertical Down Off-Axis Frequency Response



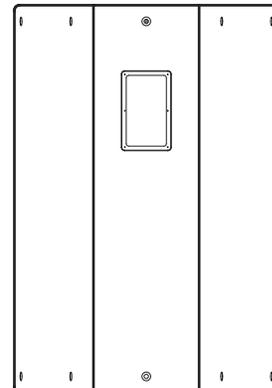
Measurements obtained in bi-amp mode using FIR filters. Graphs are from unaltered measured data.



Front

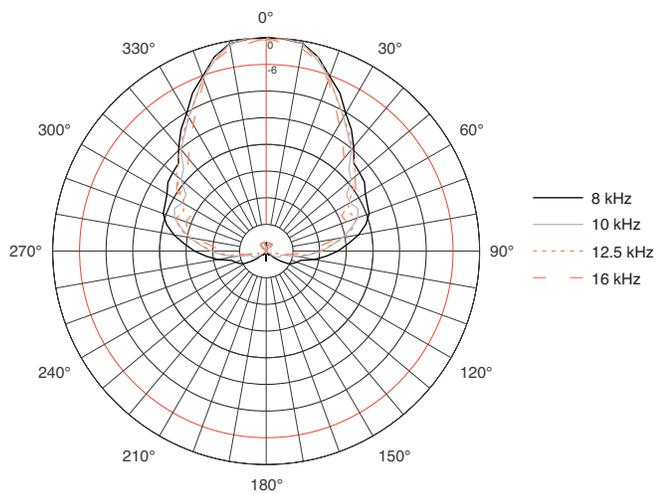
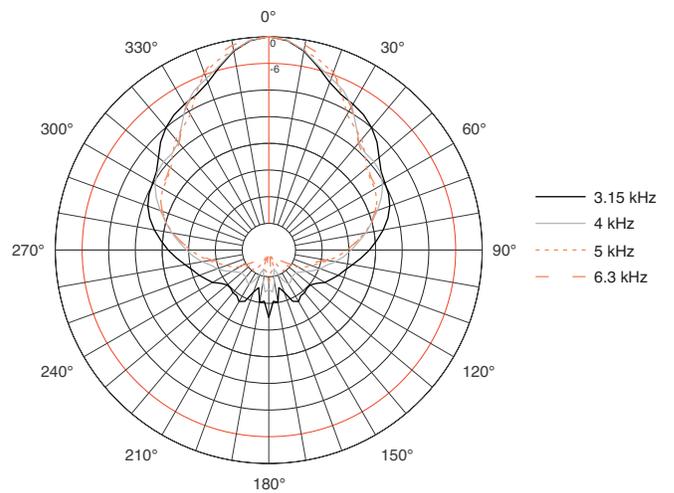
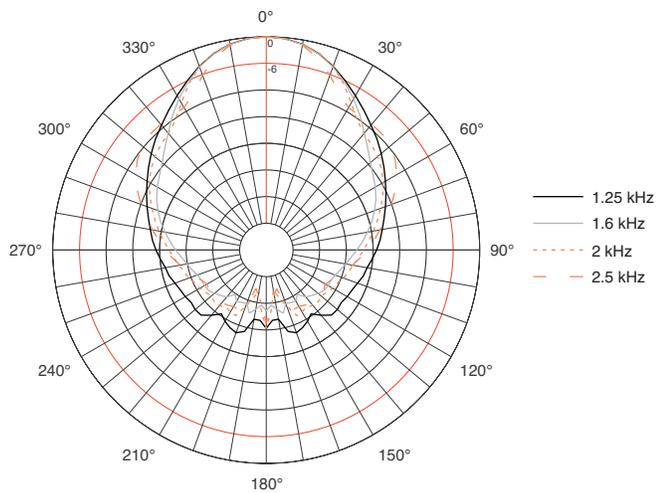
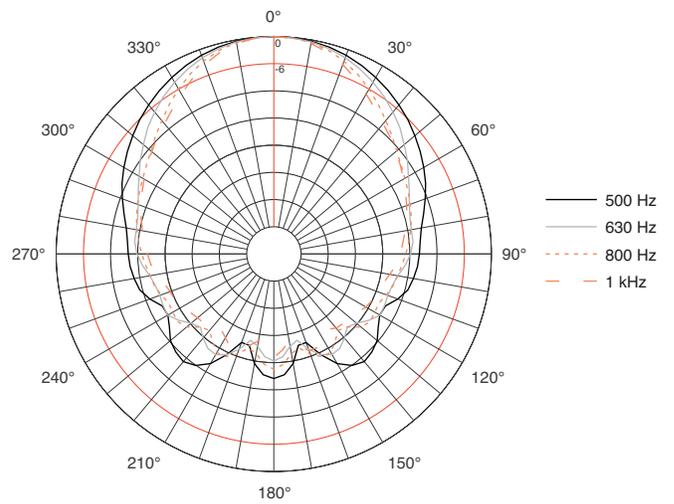
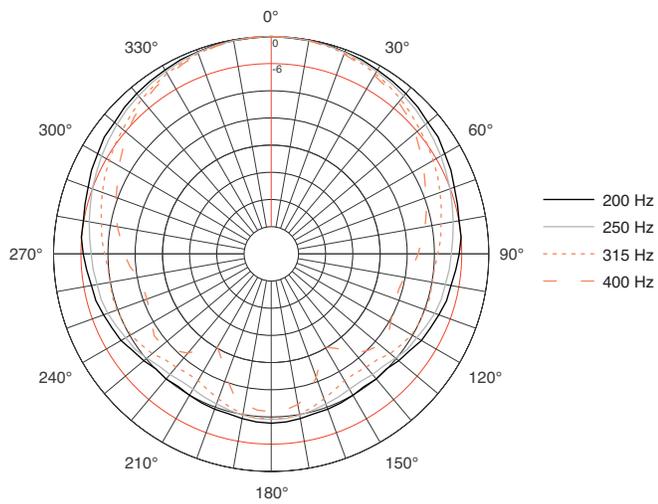


Side



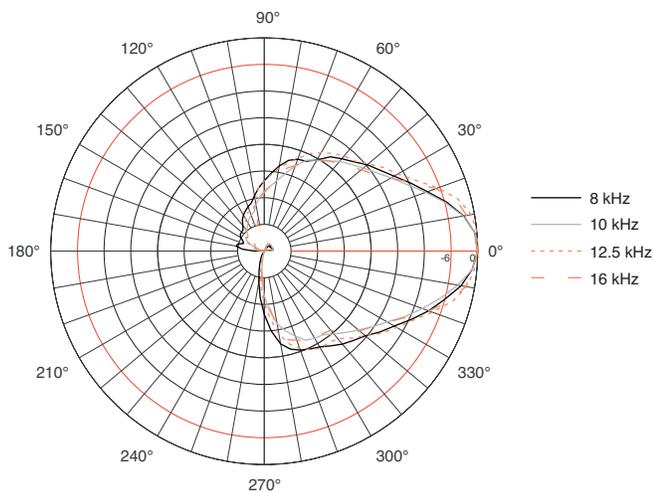
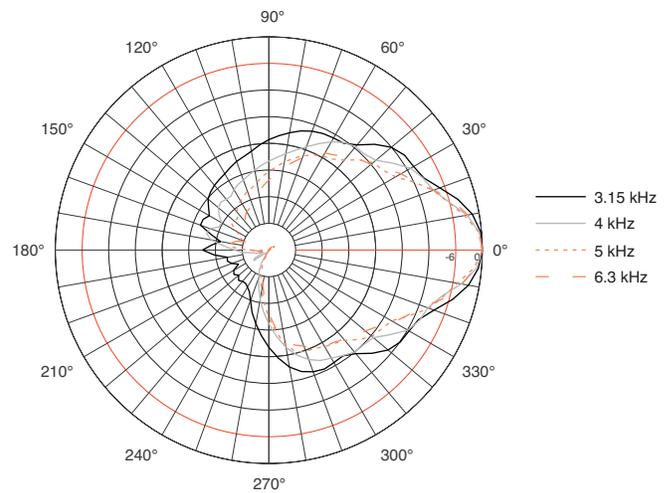
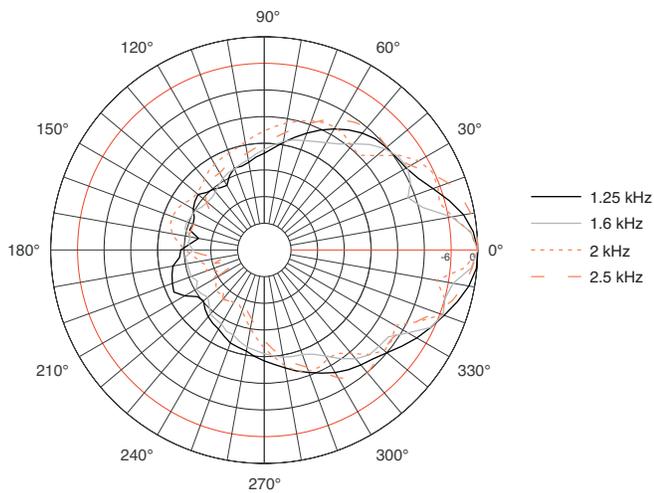
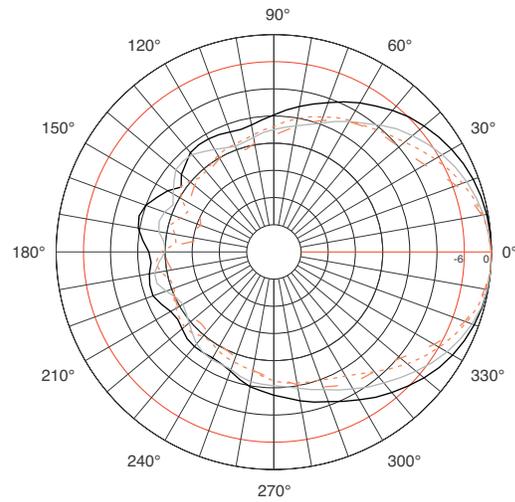
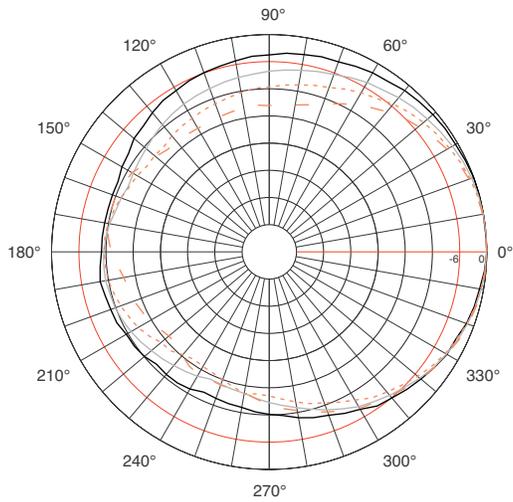
Back

Horizontal 1/3 Octave Polars



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Vertical 1/3 Octave Polars



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