



VT4888DP

Mid-Size Powered Three-Way
High Directivity Line Array Element,
Integrated Audio System



VT4888DP-AN (Optional network input module)

VT4888DP-CN (Optional network input module with digital audio)

VERTEC® DP Series

Application:

The VT4888DP Mid-Size Powered Three-Way Line Array Element is designed to deliver high-quality reinforcement of music and speech in a variety of applications including concert audio, corporate A/V and theatrical presentations of all types for both portable users and fixed venue installations.

Key Features:

- ▶ JBL DrivePack® DP-3 electronics package with robust high efficiency Class-I power
- ▶ Modular bay accepts standard dbx or optional Crown networked input modules
- ▶ World-wide AC line voltages automatically selected for 50 or 60 Hz
- ▶ Advanced technology components: Differential Drive®, Neodymium Magnet, Dual Voice Coil, Direct Cooled™ cone transducers for low weight and high output
- ▶ Proprietary waveguides couple to create precision HF vertical slot aperture
- ▶ Radiation Boundary Integrator® (RBI): Patented technology integrates output of individual bandpass elements
- ▶ JBL PlyMax® engineered wood materials provide rigid, yet lightweight enclosure
- ▶ Rugged DuraFlex™ exterior finish; weatherized loudspeaker cones
- ▶ Patented integrated S.A.F.E.™ suspension system with premium heat-treated alloys

The VT4888DP is a powered, lightweight 3-way Line Array Element housing two 12" woofers, four 5.5" midrange radiators and two high frequency compression drivers, with 6000 Watts peak output power and comprehensive digital signal processing. Designed in cooperation with Harman Professional development partners, the JBL DrivePack DP-3 features patented high efficiency Class-I power amplifier technology from Crown and onboard digital signal processing that communicates readiness and operational status while monitoring fault detection of components and electronics.

The PlyMax® enclosure features foam-backed low frequency grilles, dense protective foam inserts for midrange apertures, and fine steel mesh grille to protect high-frequency apertures. Speaker cones are treated with weather-resistant compounds. Rugged DuraFlex™ exterior finish.

VERTEC suspension systems are engineered for maximum support strength and flexibility. The VT4888DP's suspension hardware relies on quick-release pins and end-mounted metal tubes to couple adjacent VT4888DP's together in rigid arrays. Enclosure ships with integral front and rear hinge bar set.



Specifications:

Line Array Element	
Frequency Range (-10 dB):	48 Hz – 18 kHz
Frequency Response (±3 dB):	60 Hz – 16 kHz
Horizontal Coverage Angle (-6 dB):	90 deg. nominal (250 Hz – 16 kHz)
Vertical Coverage Angle (-6 dB):	Varies with array size and configuration
Maximum Peak Output ¹ :	140 dB SPL, 1 m
Transducer Sections	
Low Frequency:	Two 2262H, 304 mm (12 in) dia., 76 mm (3 in) Dual Coil, neodymium Differential Drive®, Direct Cooled™
Bandpass Nominal Impedance:	4 ohms (LF woofers wired in parallel)
Mid Frequency:	Four 2106HPL 138 mm (5.5 in) with 50 mm (2 in) dia. voice coil
Bandpass Nominal Impedance:	8 ohms (drivers wired in series-parallel)
High Frequency:	Two 2431H, 76 mm (3 in) aluminum diaphragm, 38 mm (1.5 in) throat diameter neodymium compression drivers
Bandpass Nominal Impedance:	16 ohms (HF drivers wired in series)
System	
DP-3 Internal Amplification Output (at nominal load):	6000W Peak, 3000W Continuous
DP-3 Output Topology:	3-Channel, Class-I
Signal Processing:	dbx Type IV Conversion System, 3-Way Precision bandpass filters, limiting, pre-equalization filters and automatic self-test functions.
System Management:	DSP based limiters for mechanical and thermal protection
Signal Input:	F-XLR Active 20k Ohms Balanced, 10k Ohms Unbalanced
Signal Loop-Through:	M-XLR (passive pass-through)
Controls:	Precision 0.5 dB increment 16 dB input attenuator (DPIP only)
AC Power Operating Range:	Auto Select 90-132VAC/216-264VAC, 50/60 Hz
AC Line Voltage:	50/60 Hz, Auto-Detect; 120V/240V (-15%, +10%)
AC Input Connector:	Neutrik PowerCon (NAC3MPA)
AC Power Loop-thru:	Neutrik PowerCon (NAC3MPB)
AC Current Requirement:	6A per system at 120V, 3A per system at 240V
Enclosure	
Box Construction:	Wedge frustum 5 degree side angle enclosure. PlyMax® engineered composite structure, DuraFlex finish, 6 handles
Suspension System:	Patented S.A.F.E.™ hardware, integral hinge bars nest in suspension tubes on enclosure sides. Quick release pins with restraining lanyards. Set of 4 hinge bars included. Suspend with VT4888-AF or VT4888-SF array frames
Grille:	Black perforated steel, foam backed
Dimensions (W x H x D):	1000 mm x 378 mm x 673 mm (39.4" x 14.9" x 26.5")
Net Weight:	68 kg (150 lb)
Shipping Weight:	74.0 kg (163 lb)

¹ Measured maximum SPL in Free Field conditions with IEC shaped noise.

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.

INPUT MODULE CHARACTERISTICS AND OPTIONS

Features

Description	DPIP (standard input module)	DPAN (optional HiQnet network input module)	DPCN (optional HiQnet network input module; digital audio)
HiQNet Compliant	No	Yes	Yes
Network Communication	No	100MB Ethernet	100MB Ethernet
Network Connections	N/A	RJ-45, CAT5	RJ-45, CAT5
Supported Audio format	Analog	Analog	Digital with analog backup
CobraNet™ digital audio over ethernet	No	No	Yes
Level Controls	Attenuator, 16 dB range	Network Controllable	Network Controllable
Remote Load Monitoring	No	Yes	Yes
User Accessible Delays	No	Yes	Yes
Noise Generator	No	Pink, White	Pink, White
Sine Wave Generator	No	Continuous, Burst	Continuous, Burst
Error Reporting	No	Yes, via software	Yes, via software
Digital Speaker Setting Presets	2, fixed	10, user assignable	10, user assignable
Polarity Reverse	No	Yes, via software	Yes, via software
Listen Bus line level remote monitor	No	No	Yes
Firmware upgrades via network	No	Yes	Yes
Mute	No	Remote via Network	Remote via Network

Specifications

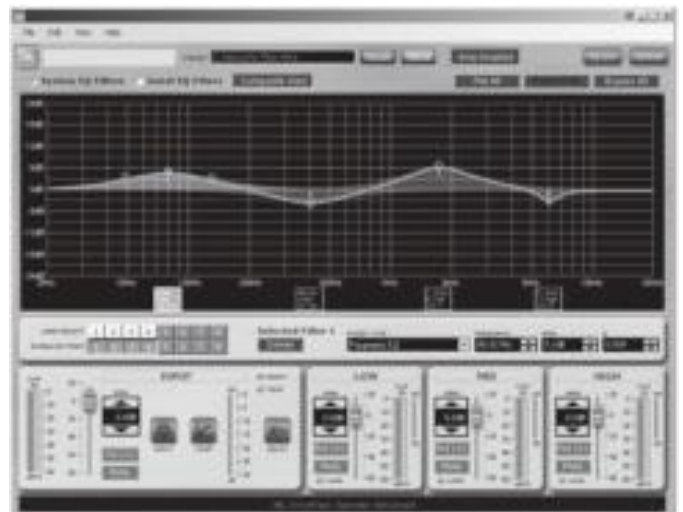
Analog Audio Input Connectors	XLR, female	XLR, female	XLR, female
Input Type	Electronically Balanced, RF Filtered		
Signal Loop-through	XLR, male, passive pass-through		
Input Impedance	20k Ohms Balanced		
Polarity	(+) voltage on XLR pin 2 yields (+) LF pressure		
Max Input Level	+23 dBu		
Frequency Response	20 Hz – 20k Hz ± 0.5 dB		
DSP Processing	dbx Type IV analog-to-digital conversion circuitry	24 Bit conversion, 32 bit floating point processing	24 Bit conversion, 32 bit floating point processing
Latency	n/a	0.625 mS	0.625 mS + 5.333 mS
Dynamic Range (20-20 KHz)	> 107 dB (A Weighted)	> 105 dB (A Weighted)	> 103 dB (A Weighted)
THD+N (20-20 KHz), rated power	< 0.05%		
Crosstalk	> 110 dB, 120 dB typical	> 60 dB @ 1 kHz	> 60 dB @ 1 kHz
User Programmable Signal Delay	N/A	> 2 seconds	> 2 seconds
Rear Panel Controls	Gain, Sub Filter Enable	Enable ALT Preset	Enable ALT Preset
Rear Panel Indicators	Signal/clip, ready, thermal, fault, sub filter on/off	Signal/clip, ready, thermal, fault, alt. preset select, Network: activity, link	Signal/clip, ready, thermal, fault, alt. preset select, Network: activity, link, CobraNet™ conductor

JBL DrivePack® Software Device Panel

With optional HiQnet-compatible input modules installed, JBL DrivePack systems can be remotely controlled and monitored using *HiQnet System Architect*™ software. A Windows-based application, it provides an intuitive, unified platform for system configuration and operation of not only JBL DrivePack-equipped systems, but any other HiQnet-compliant audio devices in the signal chain, like the VP (Venue Performance) Series. *HiQnet System Architect* enables the unified layout of on-screen product control surfaces, and simple preset configuration of an entire system made up of HiQnet-compliant products across multiple brands and product classes.

Advanced remote control and diagnostic capabilities, custom control panel creation, unified event logging and error reporting for the entire system, and the recall of presets on all connected HiQnet devices are included. In addition, the application enables a user to copy / paste like parameter values from, and to, multiple products across the HiQnet network.

Use with current version of *HiQnet System Architect* network configuration and control software, available for download at www.harmanpro.com.



► VT4888DP Mid-Size Powered Three-Way High Directivity Line Array Element, Integrated Audio System

JBL DrivePack® enclosures are equipped with a modular input bay that accepts either DPIP, DPAN or DPCN input modules. Speaker-dependent processing such as crossover filtering and component equalization, time alignment and protection are not user-configurable, however, the following options are available for connectivity, audio signal path and control functionality for respective input modules:

DPIP (Standard dbx Input Module)

The standard DPIP input module features analog audio inputs and sophisticated onboard digital signal processing technology. Precision bandpass filtering, limiting, time alignment, component equalization and automatic self-test functions ensure optimized performance. Rear panel controls include a 32-position detented rotary attenuator calibrated in 0.5 dB steps, providing a 16 dB range of control. The “Enable Subwoofer Filter” button is a momentary-contact switch that enables or disables an 80 Hz filter. For subwoofer systems, the low-pass frequency is set to 80 Hz when selected or 100 Hz when deselected. For full-range systems, the high-pass frequency is set to 80 Hz when the “Enable Subwoofer Filter” button is selected.



DPAN (Optional HiQnet Network Input Module with Analog Audio)

In addition to features included on the standard DPIP input module, the optional DPAN module adds 100 Mb Ethernet networking functionality, thus allowing for Remote Control and Monitoring via HiQnet System Architect™ software. Available monitoring functions include: input signal level, clip and gain reduction; ready / temp status; individual channel load status, signal level, clip and gain reduction; event logging and user alert messaging. Available remote control functions include: input level, polarity and mute; input compressor attack/release, ratio and makeup gain; individual channel gain and mute. Sixteen, type-selectable input filters (8 System and 8 Guest filters) are available for system equalization along with user-adjustable input delay of up to 2 seconds and sub filter access (user-adjustable low pass filter for subwoofer systems; high pass filter for full-range systems). Signal generator functions (sine wave, pink noise) are available to facilitate system testing and up to ten presets can be stored internally. In addition, Master Control Panels and Master Monitor Panels allow for convenient grouping of control and monitoring functions for multiple DPAN-equipped DrivePack enclosures, providing a powerful control/monitoring interface for large format line array or subwoofer systems.



HiQnet™

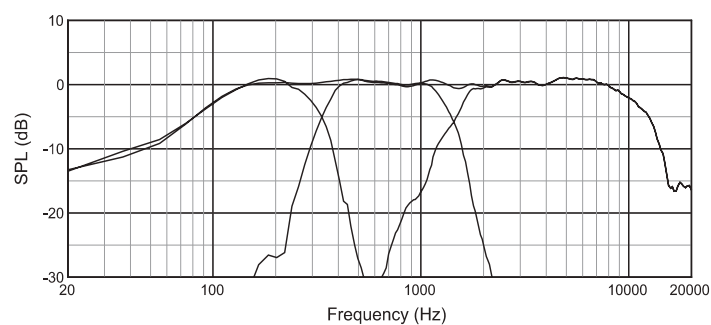
DPCN (Optional HiQnet Network Input Module with Digital Audio)

In addition to features included on the DPAN input module, the optional DPCN module adds CobraNet™ digital audio input capability. The DPCN module provides the ability to direct up to 64 digital audio channels on one network with digital audio plus remote control and monitoring combined on a single Ethernet cable. Flexible input source selection via HiQnet System Architect allows for operation using either Analog, CobraNet, CobraNet with Analog Backup or CobraNet with Analog Override input signals, providing complete reliability and flexibility to cover any situation. HiQnet System Architect provides the software user interface with the same powerful, networked Remote Control and Monitoring functionality as described above for the DPAN input module.

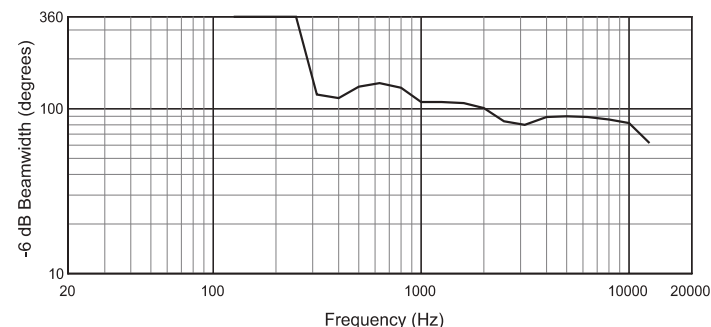
HiQnet™



► VT4888DP Mid-Size Powered Three-Way High Directivity Line Array Element, Integrated Audio System



Normalized Frequency Response
(Individual bandpasses with composite overlay)



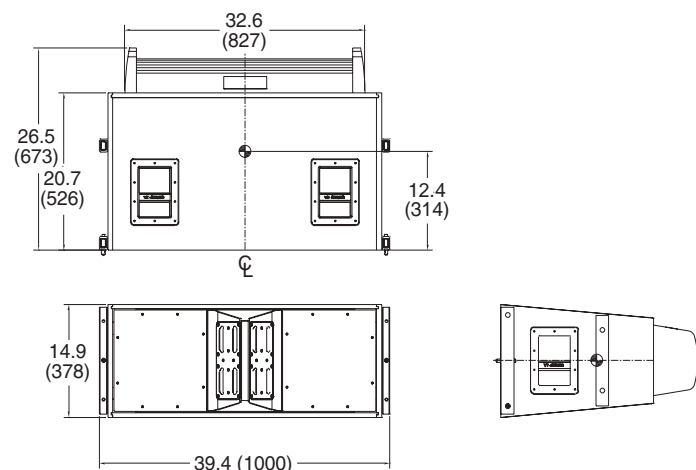
Horizontal Beamwidth, Single Element and Typical Array

VT4888DP Acoustical Measurements

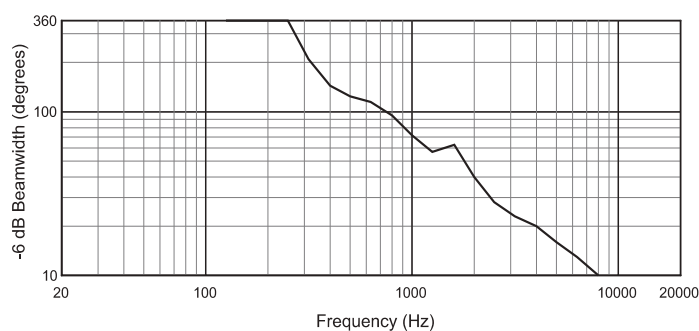
The frequency response measurement shows individual band-pass responses with composite response overlay. The Vertical Beamwidth results range from a single box up to an 8-box array with 10° splay angles between adjacent array elements.

All measurements provided herewith are derived from data gathered with a calibrated measurement microphone centered on-axis of the box or array, with polar data points taken symmetrically around the measurement axis.

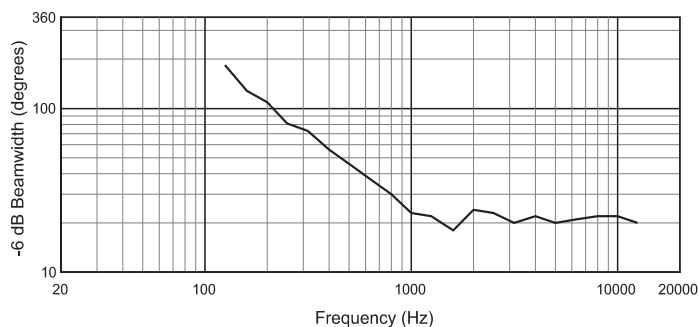
All polars were taken as groundplane measurements at a distance of 10 meters, with data gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



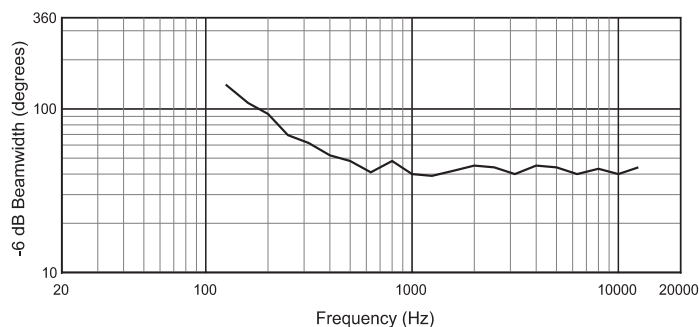
System Dimensions (WxHxD):
1000 mm x 378 mm x 673 mm including attached
suspension hardware and JBL DrivePack unit



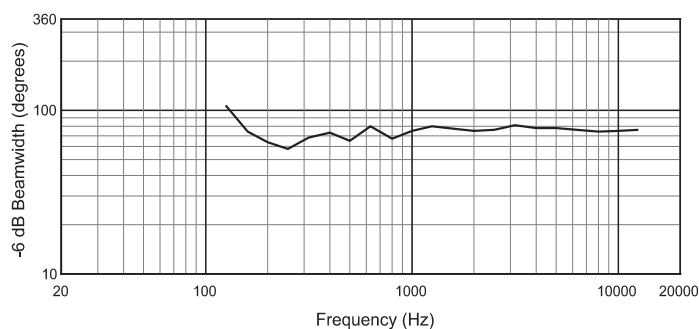
Vertical Beamwidth, Single Line Array Element



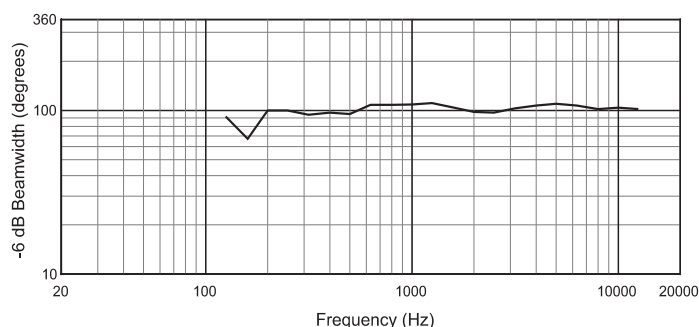
Vertical Beamwidth, Two Element Array
(10° splay between cabinets)



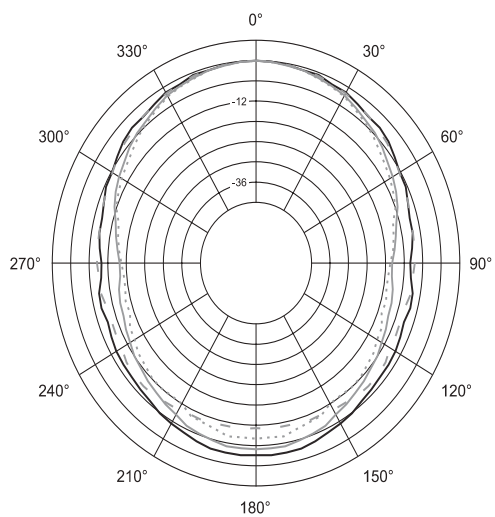
Vertical Beamwidth, Four Element Array
(10° splay between cabinets)



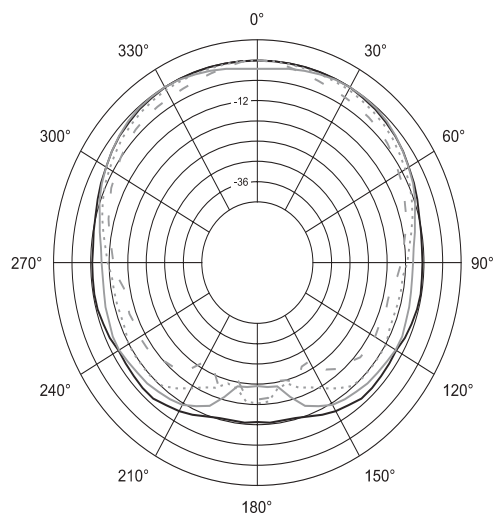
Vertical Beamwidth, Six Element Array
(10° splay between cabinets)



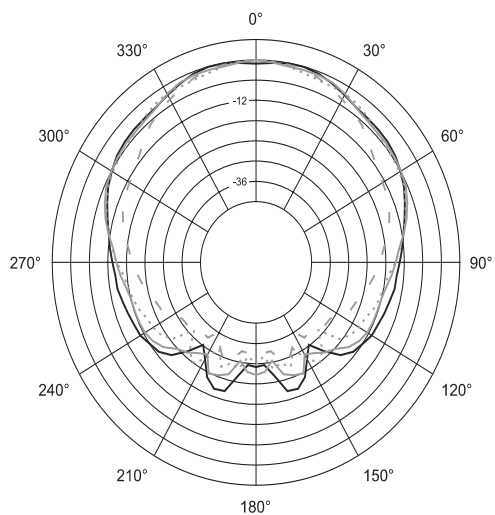
Vertical Beamwidth, Eight Element Array
(10° splay between cabinets)



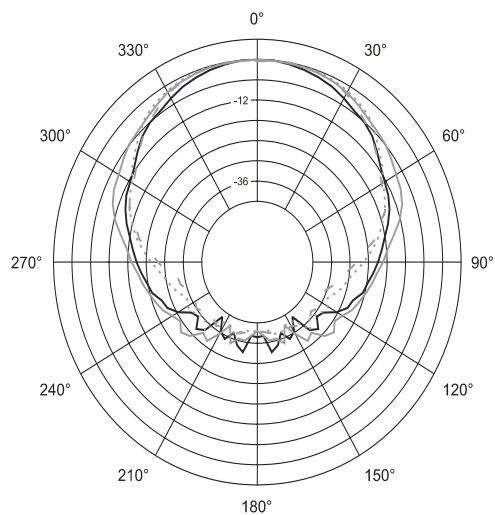
— 200Hz
— 250Hz
... 315Hz
- - 400Hz



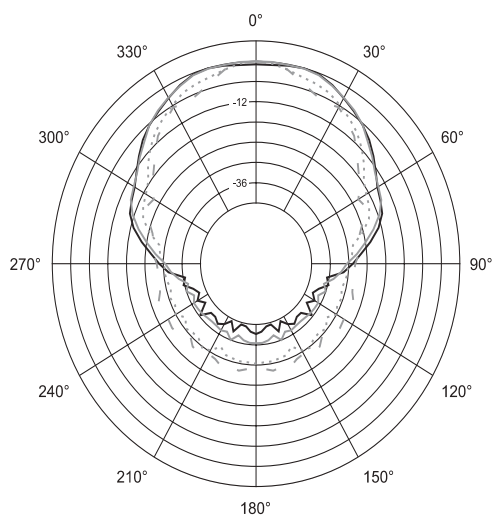
— 500Hz
— 630Hz
... 800Hz
- - 1kHz



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



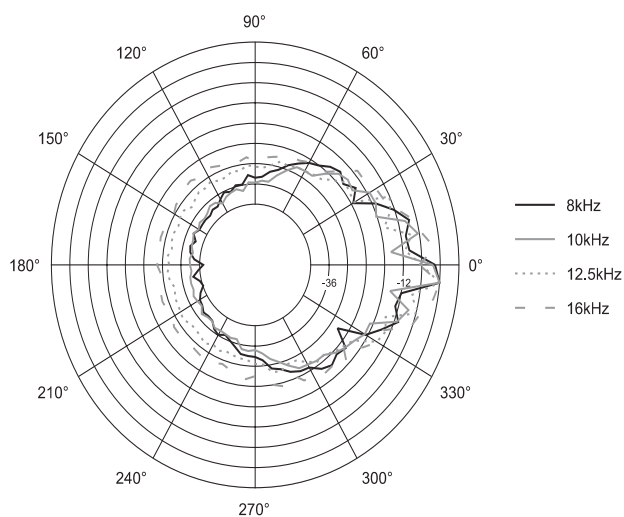
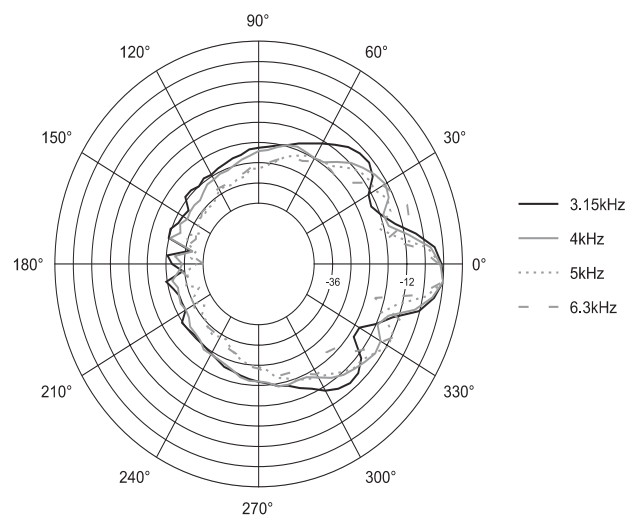
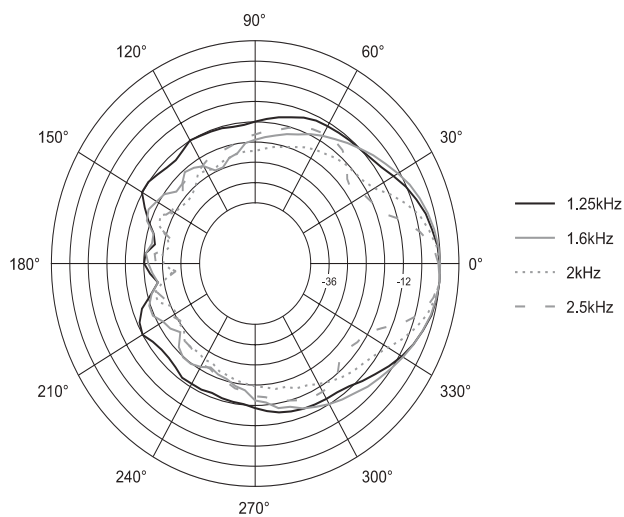
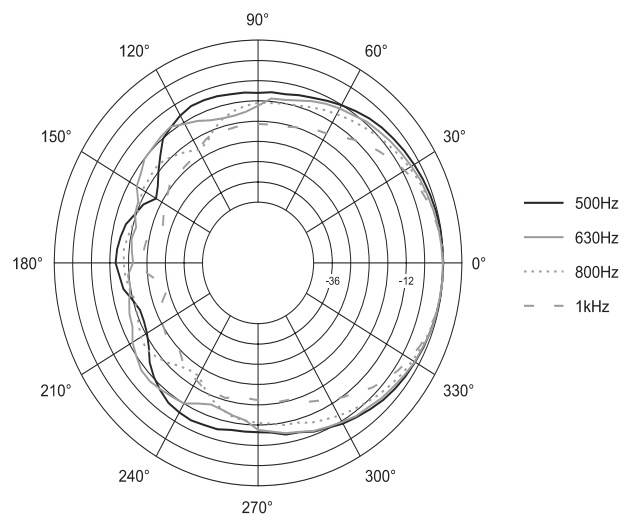
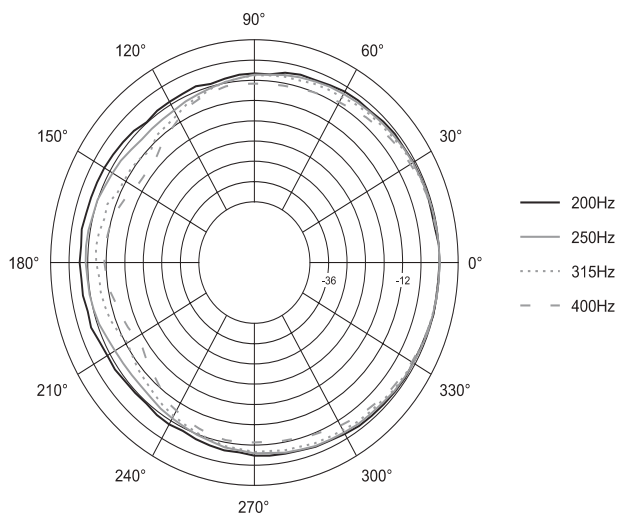
— 3.15kHz
— 4kHz
... 5kHz
- - 6.3kHz



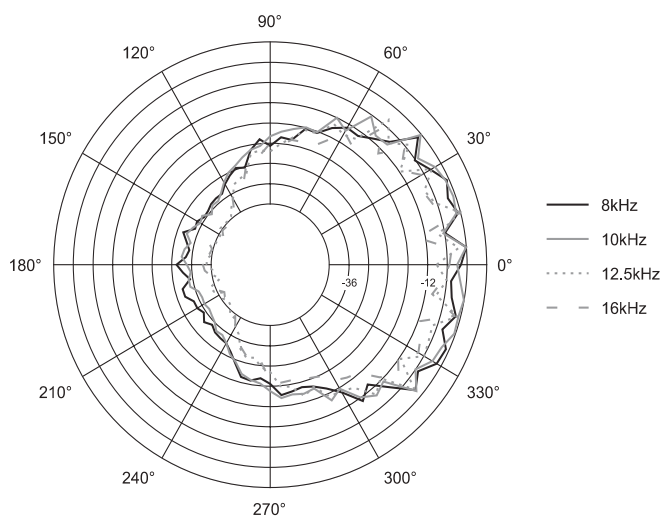
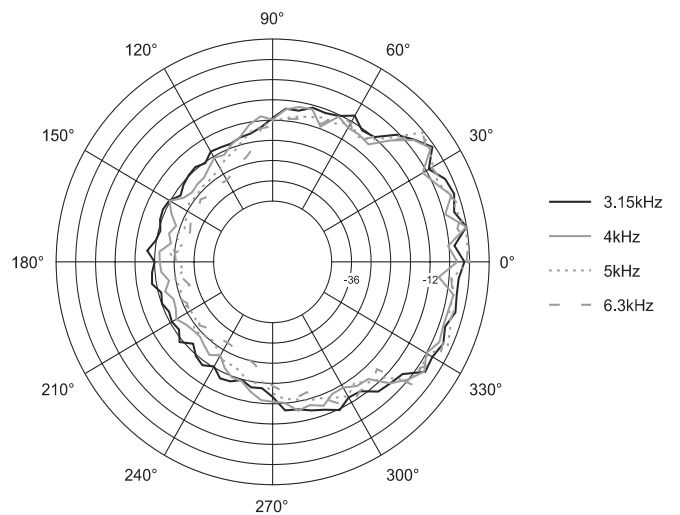
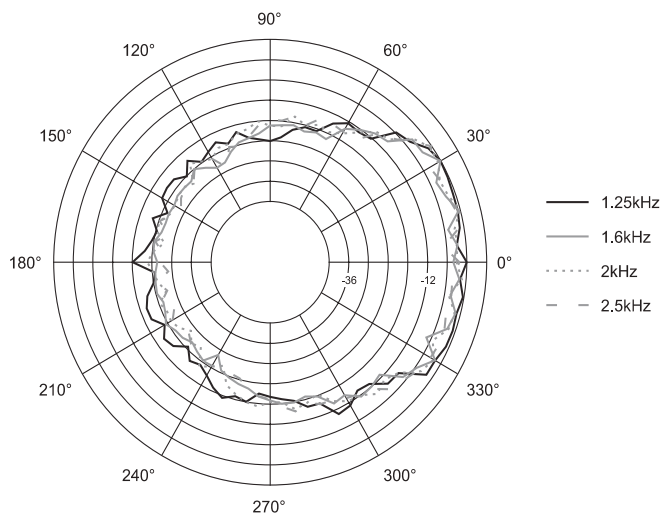
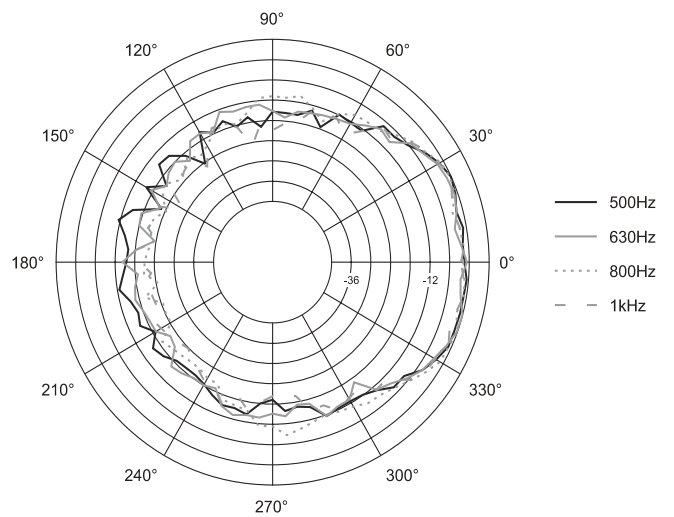
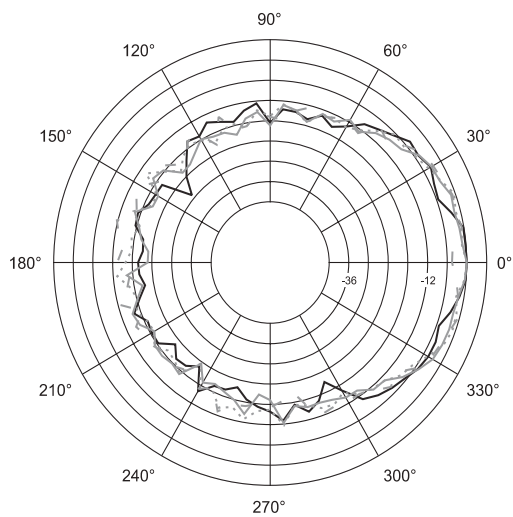
— 8kHz
— 10kHz
... 12.5kHz
- - 16kHz

Horizontal 1/3 Octave Polars (Single VT4888DP Line Array Element)

Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



**Vertical 1/3 Octave Polars
(Single VT4888DP Line Array Element)**
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



Vertical 1/3 Octave Polars (8-Box Array of VT4888DP Line Array Elements)

Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.

VERTEC DP System Arrays

The VT4888DP is an Articulating Line Array™ element designed for use in vertically-oriented, multi-box systems. A nominal horizontal coverage pattern of 90° is maintained, while setting the individual box angles allows the creation of arrays with varying vertical coverage angles. Vertical coverage of an array is a function of the number of boxes used and the splay angles chosen.

VT4888DP enclosures can be suspended from VT4888-AF or VT4888-SF array frames. Due to the use of JBL's patented S.A.F.E.™ suspension hardware system, rigid arrays can be constructed that can be tilted either upwards or downwards at radical angles. Front hinge bars are tightly coupled while rear hinge bars are used to set angles from zero to ten degrees for adjacent enclosures. No "gaps" appear on the array's front baffle due to trapezoidal box shape. No "straps" are required on the rear of the array.

VT4888-AF (Array Frame)

This array suspension frame is crafted of 6061 heat-treated aluminum and includes 11 (eleven) shackle attachment holes, set on 4" centers. Each hole has an I.D. (inner diameter) of 1" (25.4 mm) and is fitted with bronze bushings for long life. Fitted with SAE Grade 8 bolts, 7075 Grade aluminum receiver blocks and steel quick release pins with stainless steel restraining lanyards. The VT4888-AF can also be used to ground stack up to 6 enclosures. Also used with VT4882DP subwoofers. Weight: 38 kg (83 lb).

VT4888-SF (Short Frame)

This array suspension frame is crafted in similar fashion to the VT4888-AF. The VT4888-SF is primarily intended for use with smaller clusters or distributed satellite arrays. Optional anchor for use on bottom of large arrays. Can be used to ground stack up to 4 enclosures. Also used with VT4882DP subwoofers. Weight: 19 kg (42 lb).

VT4888DP-ACC

The VT4888DP-ACC includes items necessary for the proper transport and protection of one VT4888DP. The accessory kit includes: (1) VT4888DP-DOLLY & (1) VT4888DP-COVER with rigid foam blocks and protective metal plates.

Important Note: The VT4888DP-ACC is sold as a separate item. One kit should be ordered with each VT4888DP to ensure safe and reliable transport of each system in portable use.



The JBL DrivePack DP-3 attaches to the back panel of a standard VT4888, creating the model VT4888DP. Robust Crown amplification and onboard digital signal processing are combined to create a compact, powerful, integrated audio system.



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