VT4888DP

Midsize Self-Powered
Line Array Element,
Integrated Audio System

VERTEC® DP Series

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

VERTEC® DP Series

Application:

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

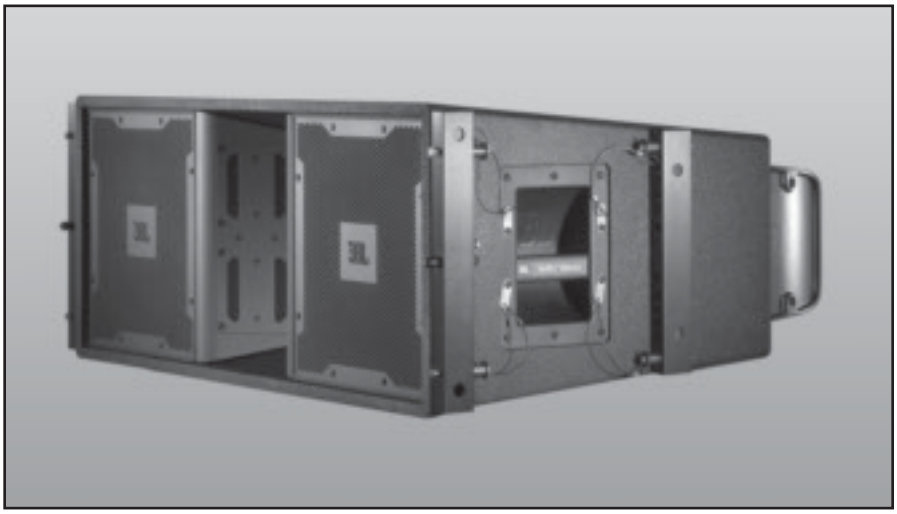
Key Features:

- Advanced technology components: Differential Drive®, neodymium magnet, dual voice coil, Direct Cooled™ cone transducers for low weight and high output
- JBL DrivePack™ DP3 electronics package delivers superb audio quality and robust high efficiency Class-I power, perfectly matched to the enclosures, with comprehensive digital signal processing and a modular bay that accepts the standard dbx, or optional Crown networked input modules.
- World-wide AC line voltages are automatically selected for 50 or 60 Hz
- Advanced construction techniques using JBL PlyMax™ provide exceptionally rigid, lightweight enclosure construction
- Rugged DuraFlex™ exterior finish; weatherized components
- Integrated S.A.F.E.™ suspension system: premium heat-treated alloys provide rigid, reliable hanging arrays

The VT4888DP is a self-powered, lightweight Integrated Audio System 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 DP3 features cutting-edge technology such as patented high efficiency Class-I power amplifier technology from Crown and onboard digital signal processing that communicates readiness and operational status and monitors fault detection of components and electronics.

VERTEC's advanced components provide a high power-to weight ratio. 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.

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



Specifications:

Line Array Element	
Frequency Response (±3 dB):	60 Hz – 16 kHz
Frequency Range (-10 dB):	48 Hz – 18 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:	139 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[1]:	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 drivers
Bandpass Nominal Impedance:	16 ohms (HF drivers wired in series)
System	
DP3 Internal Amplification Output (at nominal load):	6000W Peak, 3000W Continuous
DP3 Output Section: Output at nominal load:	3-Channel, Class-I LF: 118V peak, MF: 118V peak HF: 118V peak
Signal Processing:	DSP based, resident in Input Module. See page 2 for input module specifications
System Management:	DSP based limiters for mechanical and thermal protection
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: AC Power Loop-thru:	Neutrik PowerCon Neutrik PowerCon
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:	S.A.F.E. hardware, integral hinge bars nest in rigging tubes on box ends. Quick release pins with restraining lanyards
Grille:	Black perforated steel, foam backed
Dimensions (W x H x D):	1013 mm x 355 mm x 678 mm (39.9" x 14" x 26.7")
Net Weight:	67.2 kg (148 lb)
Shipping Weight:	74.0 kg (163 lb)

[1]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 cone transducers.

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) 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
Audio signal format	Analog	Analog	Digital with analog backup
CobraNet™ digital audio over ethernet	No	No	Yes
Level Controls	Attenuator, 16dB range	Network Controllable	Network Controllable
Remote Load Monitoring	No	Yes	Yes
User Assignable Filters	No	16	16
User Accessible Delays	No	Yes	Yes
Noise Generator	No	Pink, White	Pink, White
Sine Wave Generator	No	Continous, Burst	Continuous, Burst
User Assignable Filter Types	None	9	9
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

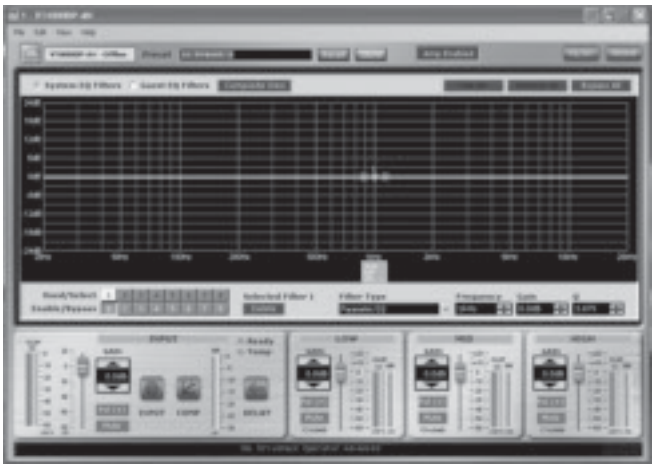
Analog Audio Input Connectors	XLR, female	XLR, female	XLR, female
Input Type	Electronically Balanced, RF Filtered		
Signal Loop-through	XLR, male, passive pass-through		
Input Impedance	20K Ohms Bal	20K Ohms Bal	20K Ohms Bal
Polarity	(+) voltage on XLR pin 2 yields (+) LF pressure		
Input Sensitivity at 1m	0 dBu: 130 dB spl 0 dBV: 128 dB spl (Input attenuator set at 0 dB)	0 dBu: 130 dB spl 0 dBV: 128 dB spl (Internal sensitivity set to +4dBu)	0 dBu: 130 dB spl 0 dBV: 128 dB spl (Internal sensitivity set to +4 dBu)
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
Dynamic Range (20-20 KHz)	> 107 dB (A Weighted)	> 110 dB (A Weighted)	> 110 dB (A Weighted)
THD+N (20-20 KHz), rated power	< 0.5%		
Crosstalk	> 60 dB @ 1kHz		
User Programmable Signal Delay	N/A	> 2 seconds	> 2 seconds
Front Panel Controls	Gain, Sub Filter Enable	Enable ALT Preset	Enable ALT Preset
Front 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: acivity, link, CobraNet conductor

JBL VT DP-SCP (DrivePack Software Control Panel)

With optional HiQnet-compatible input modules installed, JBL DrivePack systems can be remotely controlled and monitored using *HiQnet System Architecf*™ software. A Windows-based application, it provides an intuitive, unified platform for system configuration and operation of JBL DrivePack-equipped systems and any other HiQnet-compliant audio devices in the signal chain. *HiQnet System Architect* enables the unified layout of on-screen product control surfaces, and simple preset configuration of an entire system across multiple brands and product classes.

Advanced remote control and diagnostic capabilities, custom control panel creation, 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.

HiQnet System Architect is available for download at harmanpro.com.



JBL DrivePack input modules are used to implement crossovers, equalization, time alignment, and protection for the attached speaker system. Speaker-dependent settings are not user-configurable from any version of the input module. The following options are available for connectivity, audio signal path and control functionality.

DPIP (Standard dbx Input Module)

JBL DrivePacks are equipped with a modular input bay and are available in several versions. The standard DPIP input module features analog audio inputs and sophisticated onboard digital signal processing technology. Precision bandpass limiting, pre-equalization filters and automatic self-test functions ensure optimized performance. Front panel controls include a 32-position detented rotary attenuator calibrated in 0.5 dB steps which provides a 16 dB range of control. This can be useful for setting up downfill shading or overall system gain structuring. Another feature is the "Enable Subwoofer Filter" button. This is a momentary-contact type switch which enables or disables the selected function. On subwoofer applications, the low-pass frequency is set to 80 Hz. For full-range systems used with subwoofers, the high-pass is raised to 80 Hz.

DPAN (Optional HiQnet Network Input Module with Analog Audio)

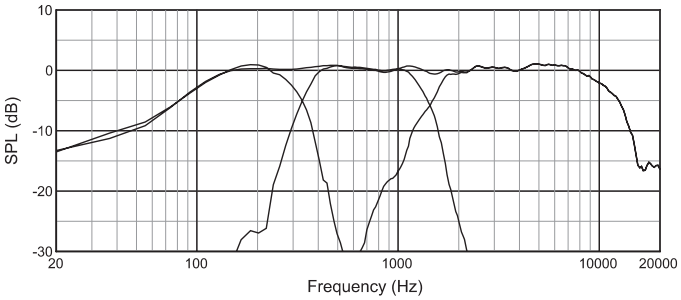
In addition to all of the features included on the standard input module, the DPAN adds 100 Mb Ethernet networking functionality and HiQnet compatability. It enables remote control and monitoring via HiQnet System Architect™ software. Network Control and Monitoring is enabled by the JBL DP-SCP (DrivePack Software Control Panel) supplied within HiQnet System Architect. Network capabilities include monitoring of status, input and output levels, clipping, temperature, load faults and gain reduction. Additional control features available in software include load supervision, dynamic processing, ten internal pre-e.q.filter presets, delays, onboard noise and sine-wave generators, network device event logging, and user alert messaging.

HiQnet™

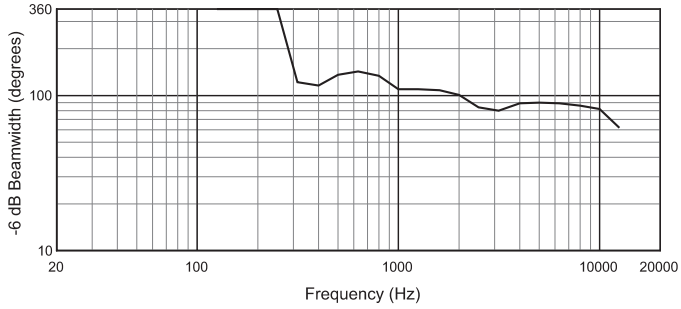
DPCN (Optional HiQnet Network Input Module with Digital Audio)

In addition to all of the features included on the DPAN, the DPCN input module adds CobraNet™ to the mix and offers the ability to direct up to 64 audio channels on one network, with digital audio and remote control and monitoring via Ethernet combined on a single cable. DPCN includes the option to use an analog input as a backup audio source providing you complete reliability and flexibility to cover any situation. With HiQnet System Architect providing the software user interface, the HiQnet communications protocol provides remote access to digital speaker preset files in the JBL DrivePack. As with the DPAN, user-addressable features include ten internal pre-e.q. filter presets, up to 2 seconds of delay per channel, onboard noise and sine-wave generators, network device event logging, and user alert messaging.

HiQnet™



Normalized Frequency Response
(Individual bandpasses with composite overlay)



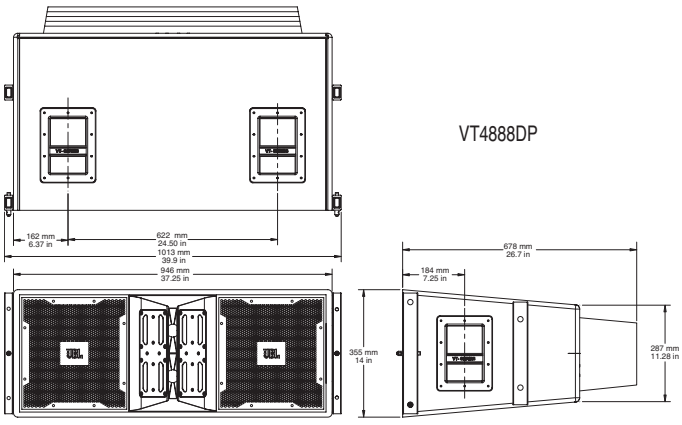
Horizontal Beamwidth, Single Element and Typical Array

VT4888DP Acoustical Measurements

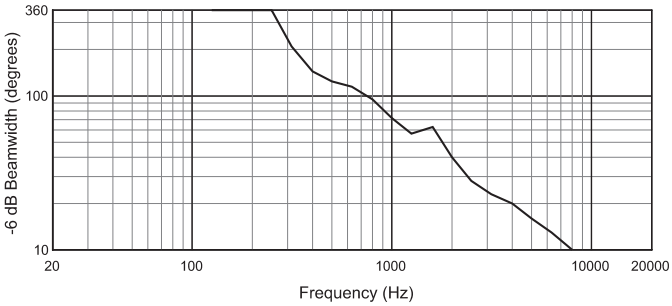
The frequency response measurement shows individual bandpass responses with composite response overlay. The Vertical Beamwidth results range from a single box up to an 8-box array with 10° splay angles between adjacent array elements.

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.

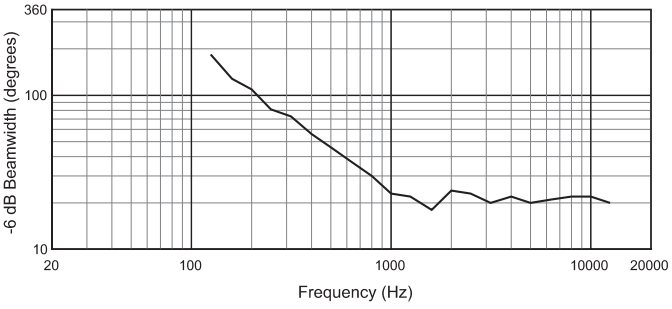
All polars were taken as groundplane measurements at a distance of 10 meters, with data gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



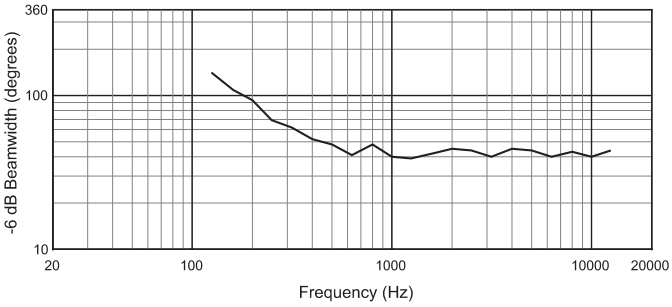
System Dimensions (HxWxD):
355.6 mm x 1013 mm x 678 mm including attached suspension hardware and JBL DrivePack unit



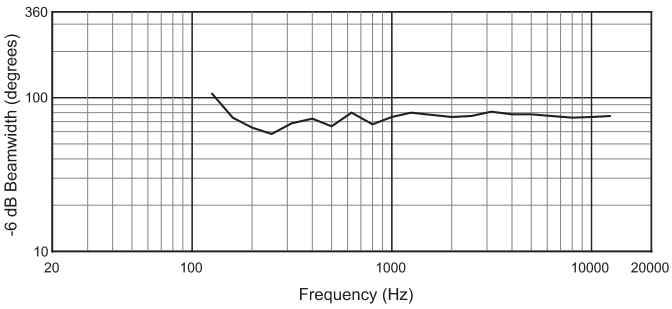
Vertical Beamwidth, Single Line Array Element



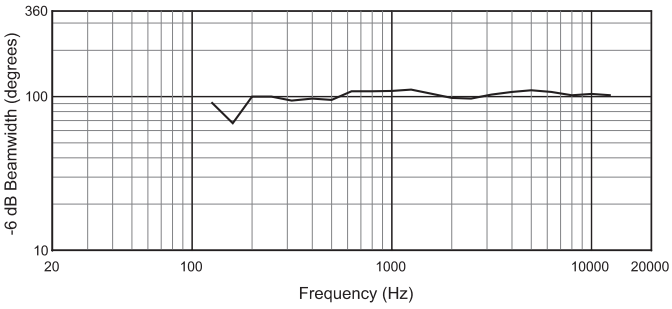
Vertical Beamwidth, Two Element Array
(10° splay between cabinets)



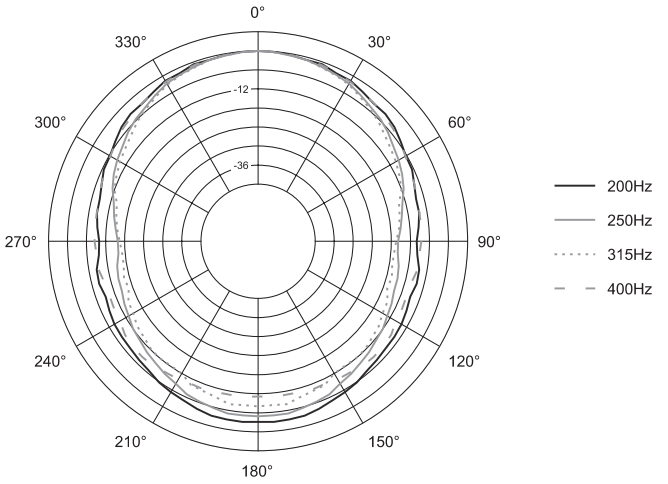
Vertical Beamwidth, Four Element Array
(10° splay between cabinets)

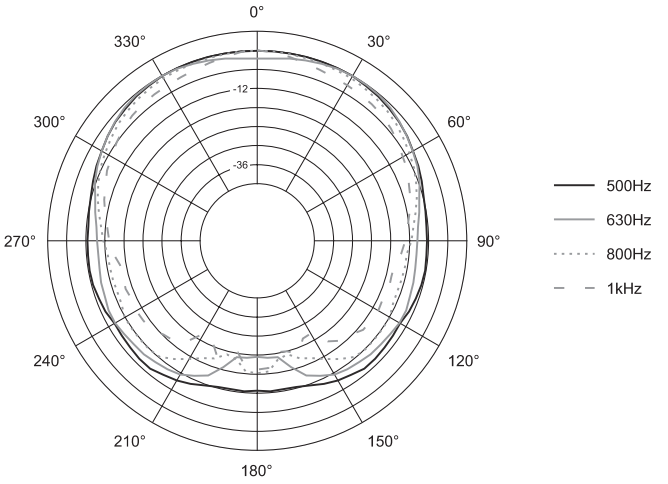


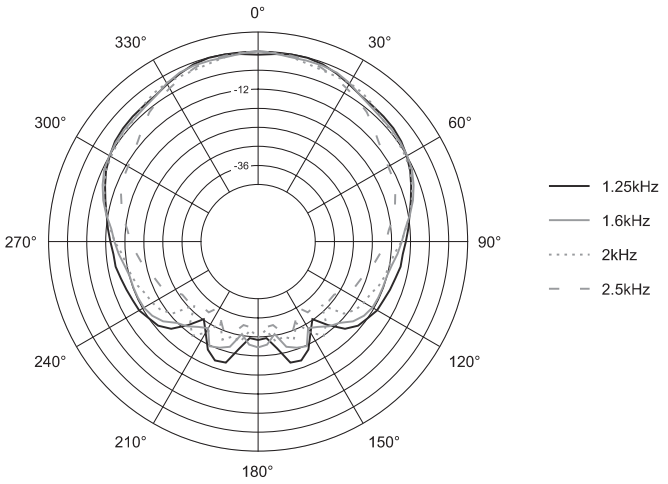
Vertical Beamwidth, Six Element Array
(10° splay between cabinets)

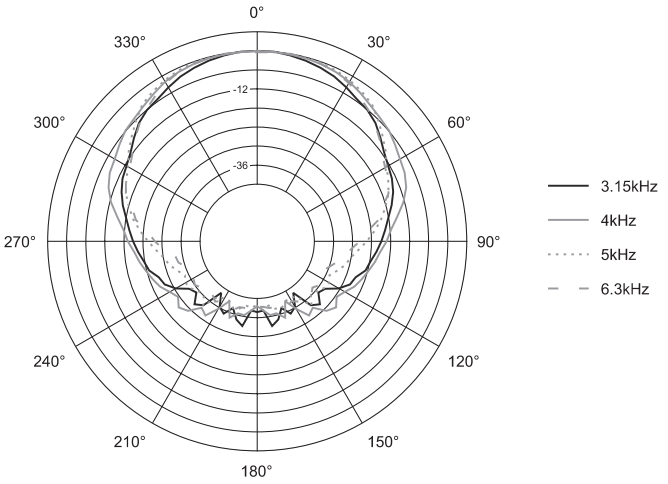


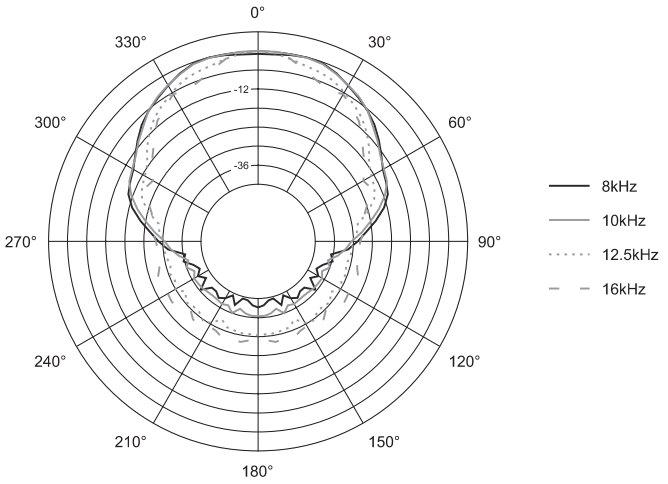
Vertical Beamwidth, Eight Element Array
(10° splay between cabinets)





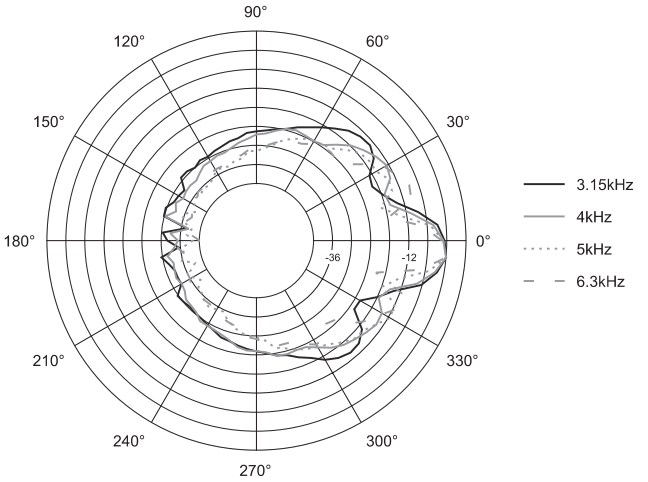


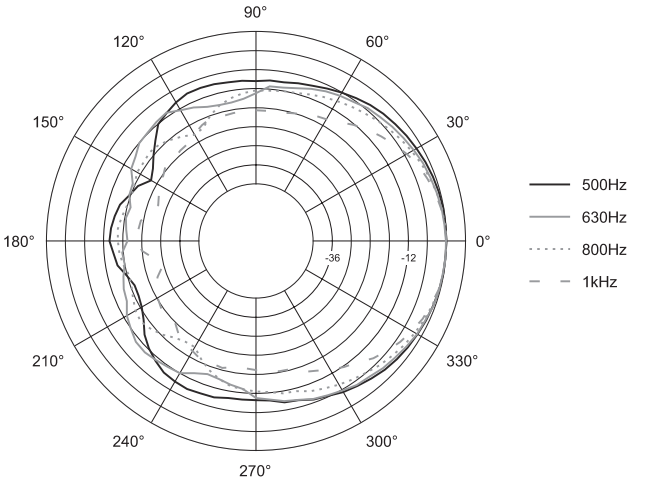


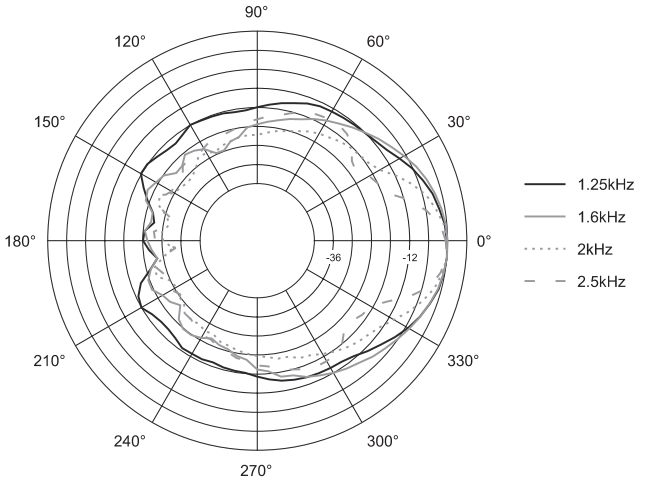


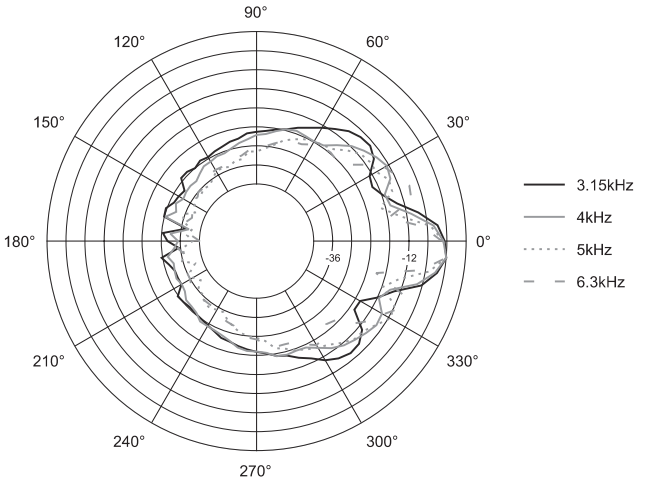
Horizontal 1/3 Octave Polars (Single VT4888DP Line Array Element)

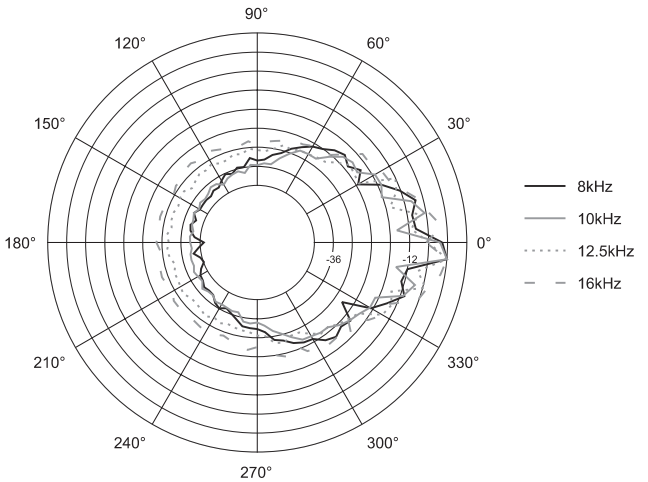
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.





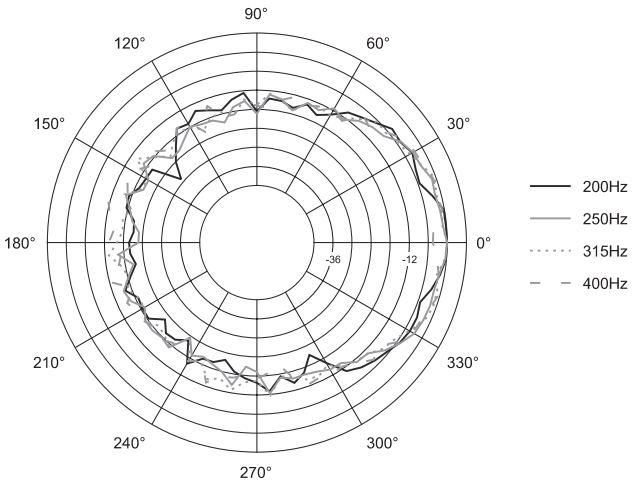


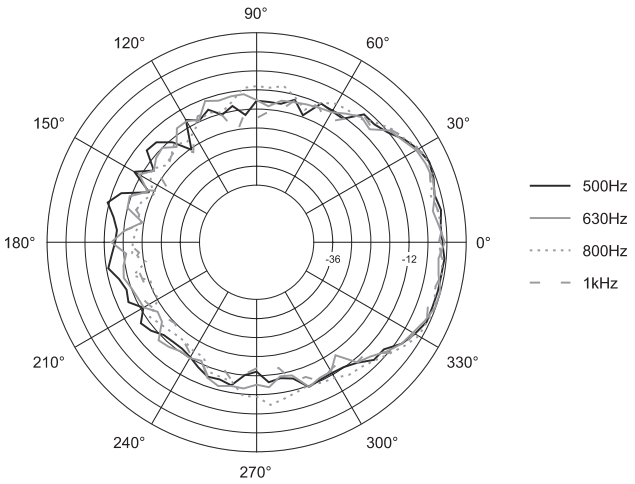


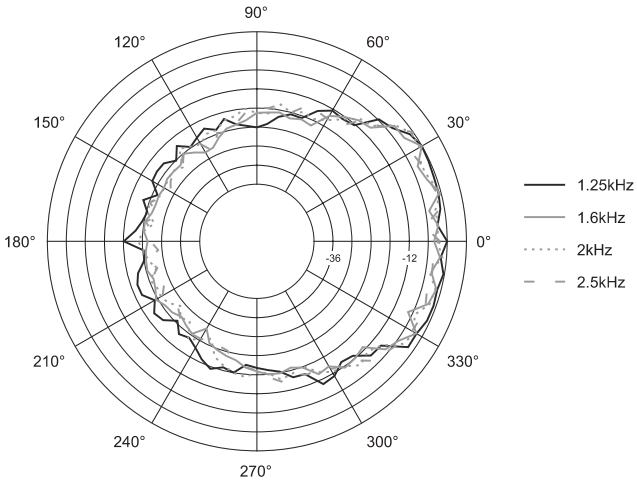


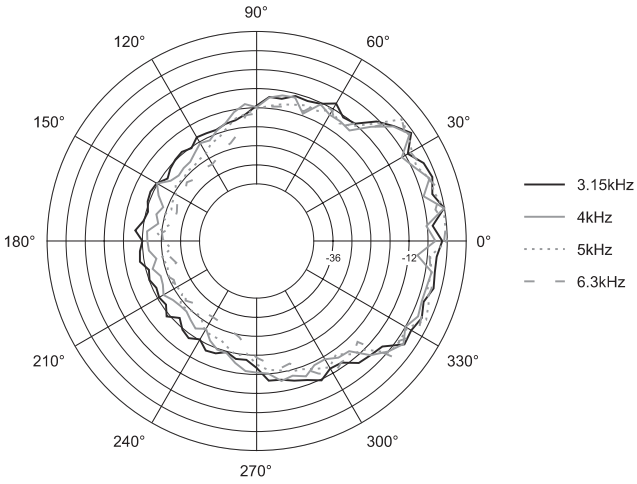
Vertical 1/3 Octave Polars (Single VT4888DP Line Array Element)

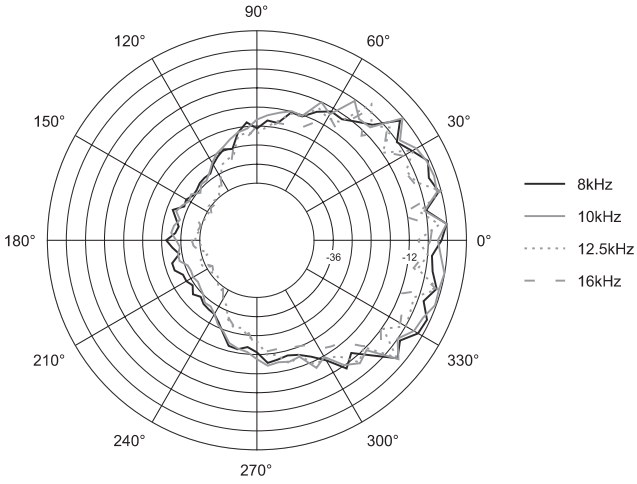
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.











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

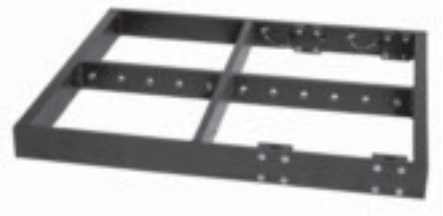
The VT4888DP is an articulating line array element designed for use in vertically oriented, multi-box systems. A nominal horizontal coverage pattern of 90° is maintained, while setting the individual box angles allows the creation of arrays with varying vertical coverage angles. Vertical coverage of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

Due to the use of JBL's 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. Rear hinge bars are used to set angles from zero to ten degrees for adjacent enclosures.

The JBL DrivePack DP3 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.

VT4888-AF (Array Frame)

This array suspension frame is crafted of 6061 heat-treated aluminum. It includes 11 (eleven) attachment holes for shackles, each fitted with bronze bushings for long life. These holes are set on approx. 4" centers. Each hole has an I.D. (inner diameter) of 25.4 mm (1 in). Array frames are 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 groundstack 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 in tight places or distributed satellite arrays. Optional anchor for use on bottom of large arrays. It can also be used to groundstack 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. This accessory kit includes: (1) VT4888DP-DOLLY & (1) VT4888DP-COVER with protective metal insert panels.

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 VT4888DP-ACC does not include hingebars for box inter-connection; these are integral to, and ship with, the VT4888DP system enclosure.

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SSVT4888 DP
CRP 5M
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