VT4887ADP

Compact Powered Bi-Amplified Three-Way Line Array Element, Integrated Audio System

VERTEC® DP Series

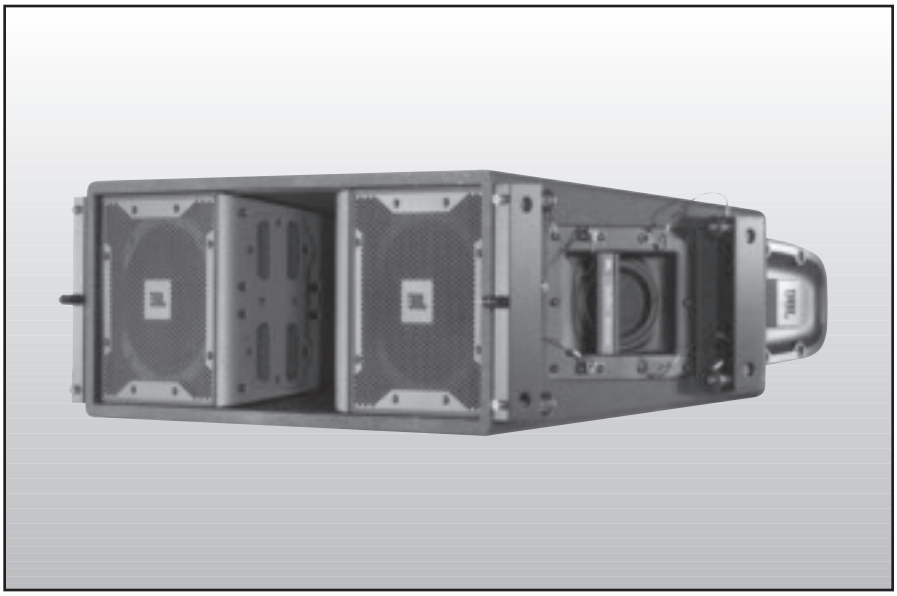
Application:

The VT4887ADP Compact 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 performance venues.

Key Features:

- New 2268H-1 8" low frequency drivers offer improved performance and extended low frequency response.
- Advanced technology components: Differential Drive®, neodymium magnet, dual voice coil, Direct Cooled™ cone transducers for low weight and high output
- JBL DrivePack® technology delivers superb audio quality and robust high efficiency "Class-I" power, perfectly matched to the enclosure, with comprehensive onboard digital signal processing
- Modular input bay provides choice of analog or digital audio input options, with networked control and monitoring capabilities
- World-wide AC line voltages are automatically selected for 50 or 60 Hz.
- Advanced construction techniques using 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
- For use in stand-alone arrays or in combination with other VERTEC system models

The VT4887ADP is a compact, powered lightweight 3-Way Line Array Element housing two 8" woofers, four 4" midrange radiators, and two 1" exit high frequency drivers. Designed in cooperation with Crown and dbx, the JBL DP2 DrivePack features 2200 watts peak output power and comprehensive digital signal processing, including patented high efficiency "Class-I" power amplifier technology from Crown and onboard DSP functionality that communicates readiness and operational status and monitors fault detection of components and electronics. Advanced VERTEC-class component transducers 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. The VT4887ADP's suspension hardware relies on quick-release pins and end-mounted metal tubes to couple adjacent VT4887ADP's together. Enclosure ships with integral front and rear hinge bar set.



Specifications:

Line Array Element	
Frequency Response (±3 dB):	67 Hz – 20 kHz
Frequency Range (-10 dB):	55 Hz – 22 kHz
Horizontal Coverage Angle (-6 dB):	100 deg. nominal (500 Hz – 16 kHz)
Vertical Coverage Angle (-6 dB):	Varies with array size and configuration
Maximum Peak Output[1]:	136 dB SPL, 1m
Transducer Sections	
Low Frequency:	Two 2168H-1, 203 mm (8 in) dia., 76 mm (3 in) Dual Coil, Differential Drive®, Direct Cooled
Bandpass Nominal Impedance:	4 ohms (LF woofers wired in parallel)
Mid & High Frequency:	MID: Four 2104H 101 mm (4 in) with 25.4 mm (1 in) dia. voice coil HF: Two JBL 2408H 25 mm (1 in) exit compression drive, 38 mm (1.5 in) voice coil
Bandpass Nominal Impedance:	8 ohms (drivers wired in series-parallel)
System	
DP2 Internal Amplification Output (at load):	2200W Peak, 1100W Continuous
DP2 Output Topology:	2-Channel, Class-I
Signal Processing:	dbx Type IV Conversion System, 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 Detented 16 dB input attenuator
AC Power Operating Range:	Auto Select 90-132/VAC 50/60 Hz
AC Line Voltage:	50/60 Hz, Auto-Detect; 120V/240V (±10%)
AC Input Connector: AC Power Loop-thru:	Neutrik Powercon Neutrik PowerCon
AC Current Requirement:	4A 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, 2 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):	787 mm X 279 mm X 563 mm (31 in X 11 in X 22.1 in)
Net Weight:	39.7 kg (87.5 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, 16dB range	Network Controllable	Network Controllable
Remote Load Monitoring	No	Yes	Yes
User Assignable Filters	No	16	16
User Assignable Filter Types	None	9	9
User Accessible Delays	No	Yes	Yes
Noise Generator	No	Pink, White	Pink, White
Sine Wave Generator	No	Continous, 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

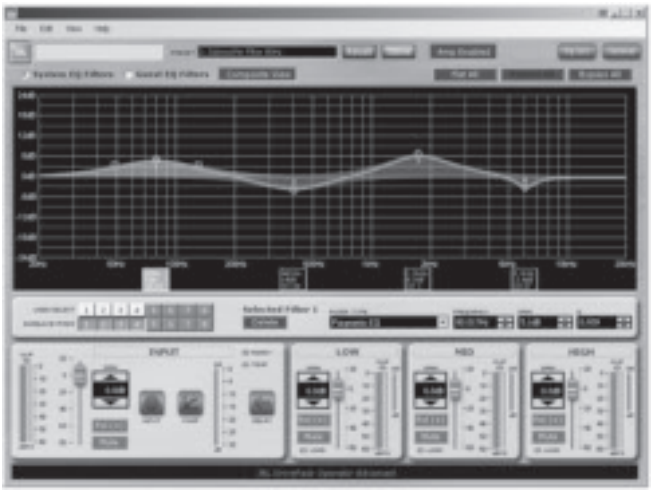
Analog Audio Input Connectors	XLR, female	XLR, female	XLR, female
Input Type	Electronically Balanced, RF Filtered		
Signal Loop-through	XLR, male, passive pass-through		
Input Impedance	20K Ohms Balanced		
Polarity	(+) voltage on XLR pin 2 yields (+) LF pressure		
Max Input Level	+23 dBu		
Frequency 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
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: 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 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 DrivePack Software Device 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.

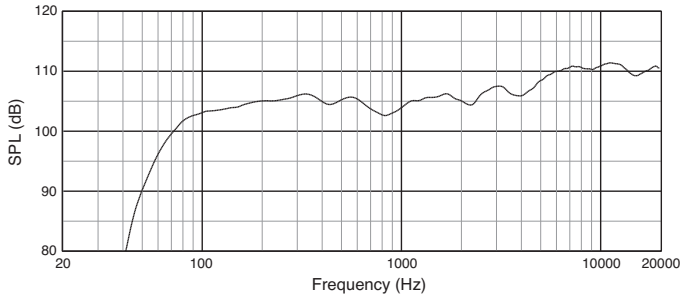
HiQnet™

DPCN (Optional HiQnet Network Input Module with Digital Audio)

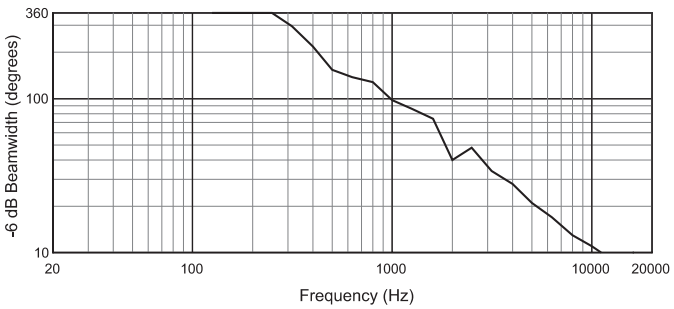


In addition to all of the features included on the DPAN, the DPCN input module adds CobraNet™ to the mix and offers the ability to direct up to 64 audio channels on one network, with digital audio and remote control and monitoring via Ethernet combined on a single cable. DPCN includes the option to use 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™



Frequency Response, On-Axis, Single Line Array Element



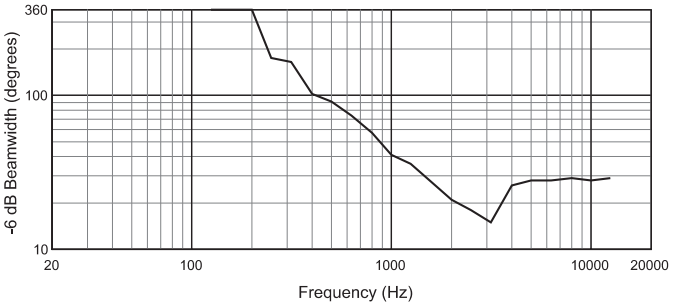
Vertical Beamwidth, Single Line Array Element

VT4887ADP Acoustical Measurements

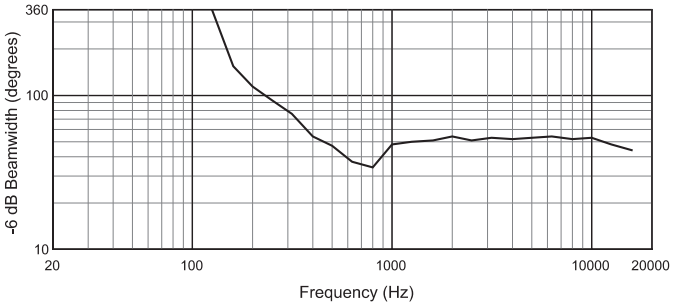
The frequency response measurement shows individual bandpass responses with composite response overlay. The Vertical Beamwidth results range from a single box up to an 8-box array with 10° splay angles between adjacent array elements.

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.

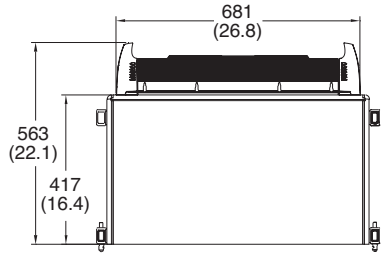
All polars were taken as groundplane measurements at a distance of 10 meters, with data gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



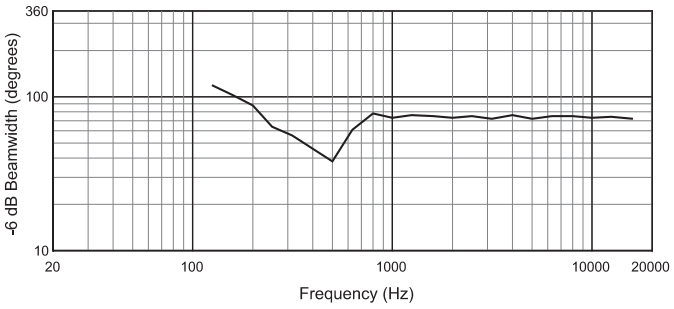
Vertical Beamwidth, Two Element Array
(10° splay between cabinets)



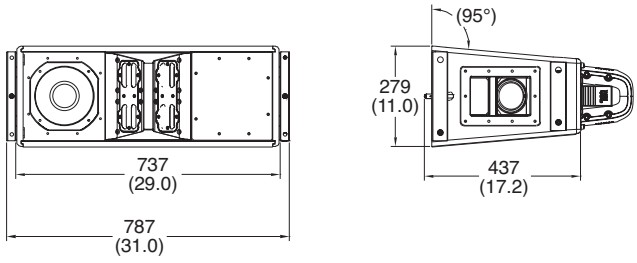
Vertical Beamwidth, Four Element Array
(10° splay between cabinets)



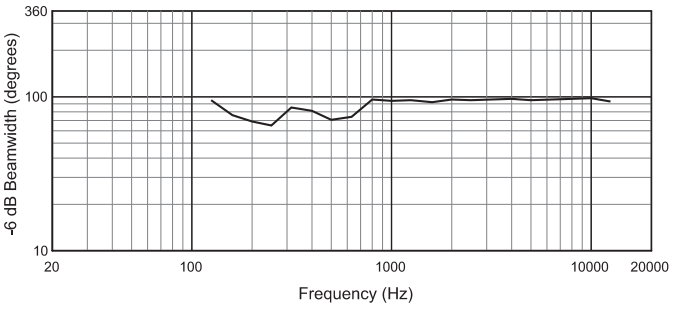
Dimensions in mm (in)



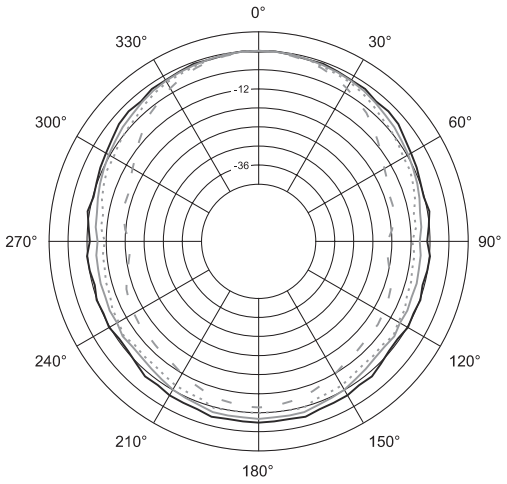
Vertical Beamwidth, Six Element Array
(10° splay between cabinets)

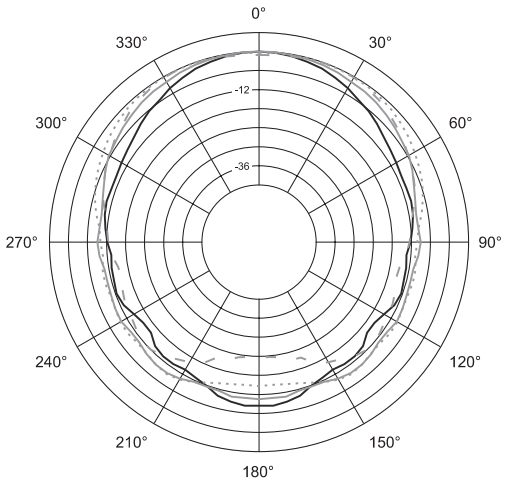


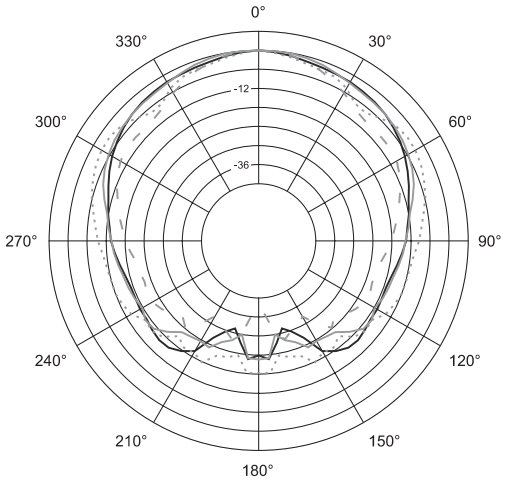
System Dimensions (WxHxD):
787 mm x 279 mm x 563 mm including attached suspension hardware

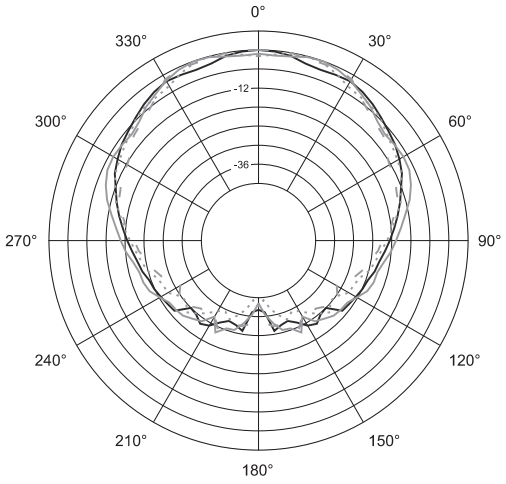


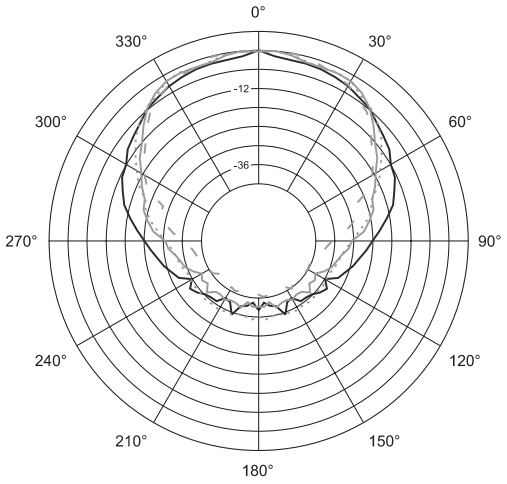
Vertical Beamwidth, Eight Element Array
(10° splay between cabinets)





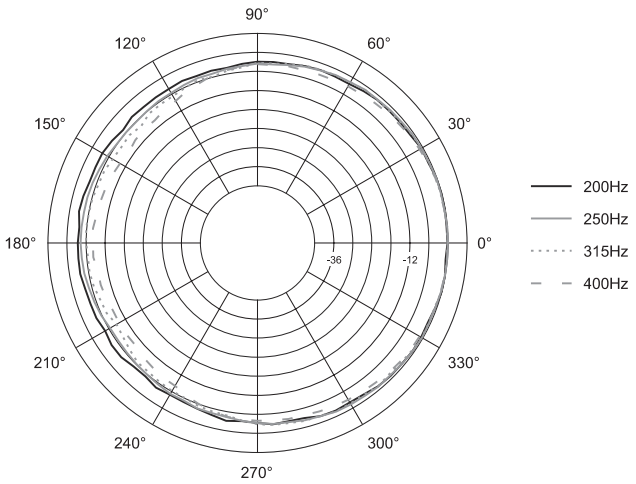


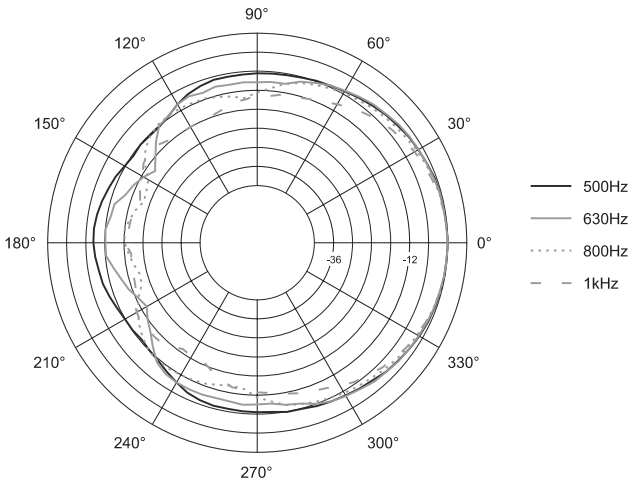


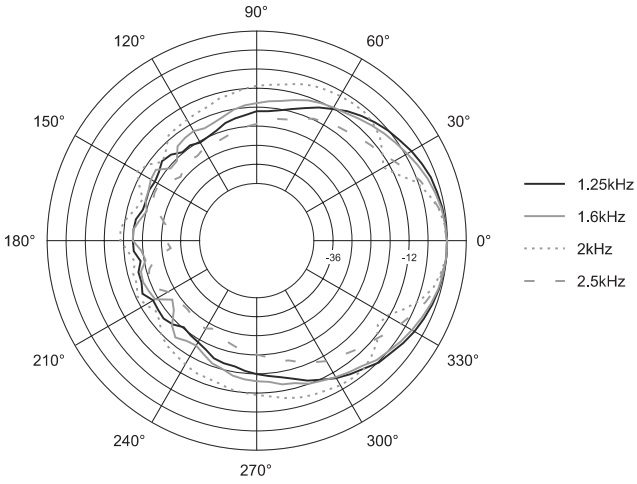


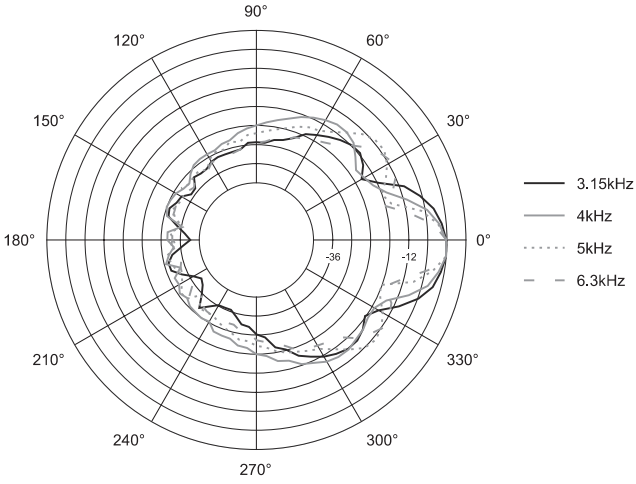
Horizontal 1/3 Octave Polars (Single VT4887ADP Array Element)

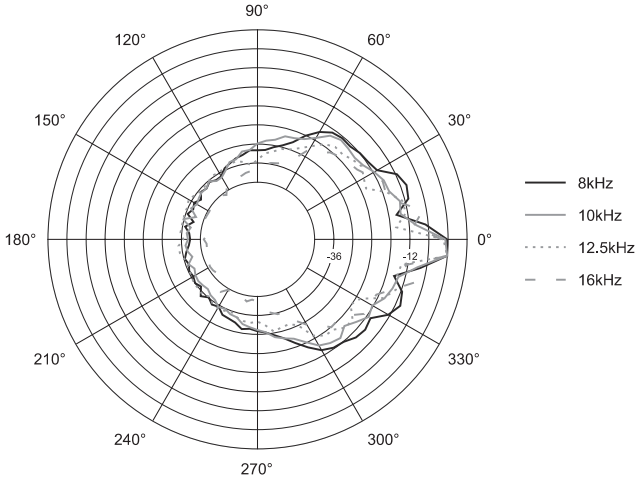
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.





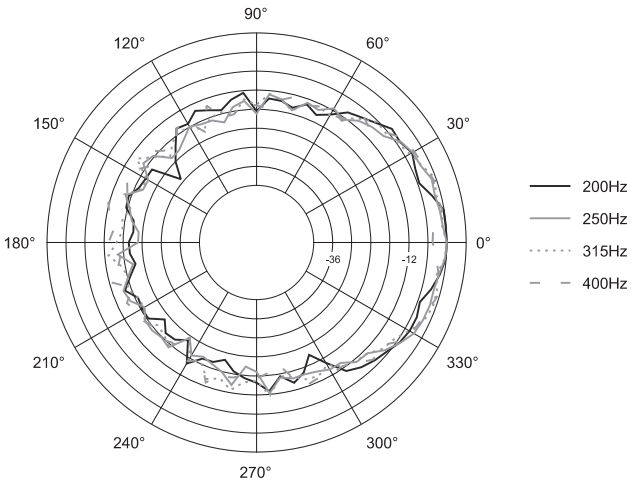


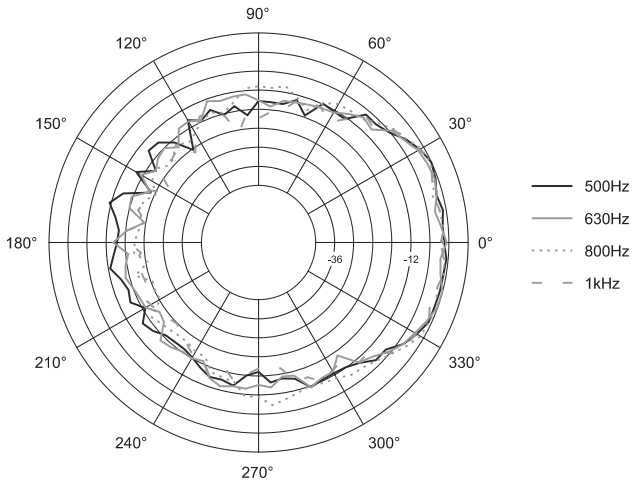


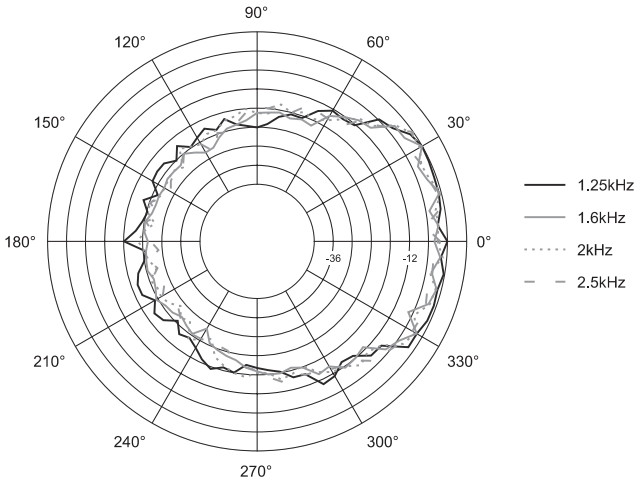


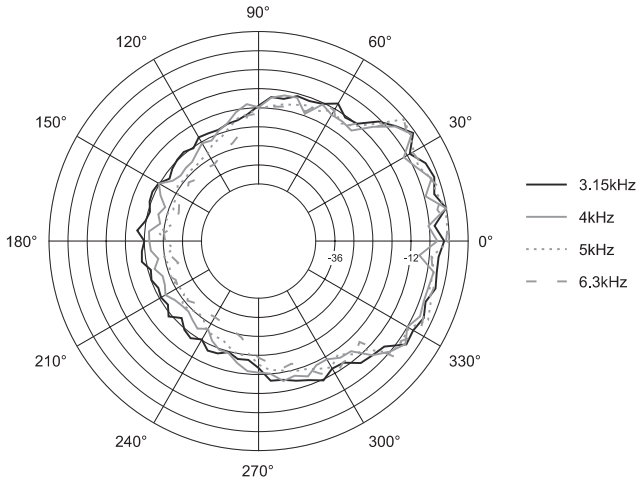
Vertical 1/3 Octave Polars (Single VT4887ADP Array Element)

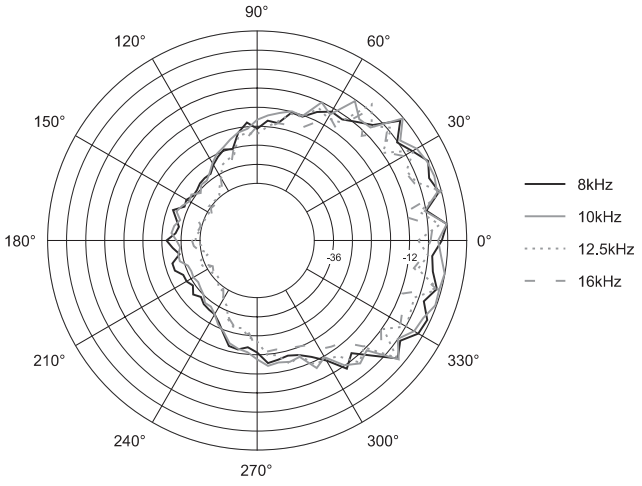
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.











Vertical 1/3 Octave Polars (8-Box Array of VT4887ADP 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.

▶ VT4887ADP Compact Powered Bi-Amplified Three-Way Line Array Element, Integrated Audio System

VERTEC System Arrays

The VT4887ADP is an articulating line array element designed for use in vertically oriented, multi-box systems. A nominal horizontal coverage pattern of 100° 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.

VT4887ADP enclosures can be suspended from available VT4887-AF or VT4887-SF array frames. 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, while rear hinge bars are used to set angles from zero to ten degrees for adjacent enclosures.



The JBL DrivePack® DP2 attaches to the back panel of the enclosure, creating the model VT4887ADP. Robust Crown amplification and onboard digital signal processing are combined to create a compact powerful, integrated audio system.

VT4887-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. Weight: 36 kg (80 lb).



VT4887-SF (Short Frame)

This array suspension frame is crafted in similar fashion to the VT4887-AF. The VT4887-SF is primarily intended for use with smaller clusters in tight spaces or distributed satellite arrays. Optional anchor for use on bottom of large arrays. Weight: 18 kg (40 lb).



VT4887ADP-ACC

The VT4887ADP-ACC includes items necessary for the proper transport and protection of the VT4887adp. This accessory kit includes: (1) VT4887-DOLLY & (1) VT4887ADP-COVER.



Important Note: The VT4887ADP-ACC is sold as a separate item. One kit should be ordered with each VT4887 to ensure safe and reliable transport of each system in portable use.

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