



VT4887

Compact Bi-Amplified Three-Way High Directivity Line Array Element



VERTEC™ Series

Application:

The VT4887 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.

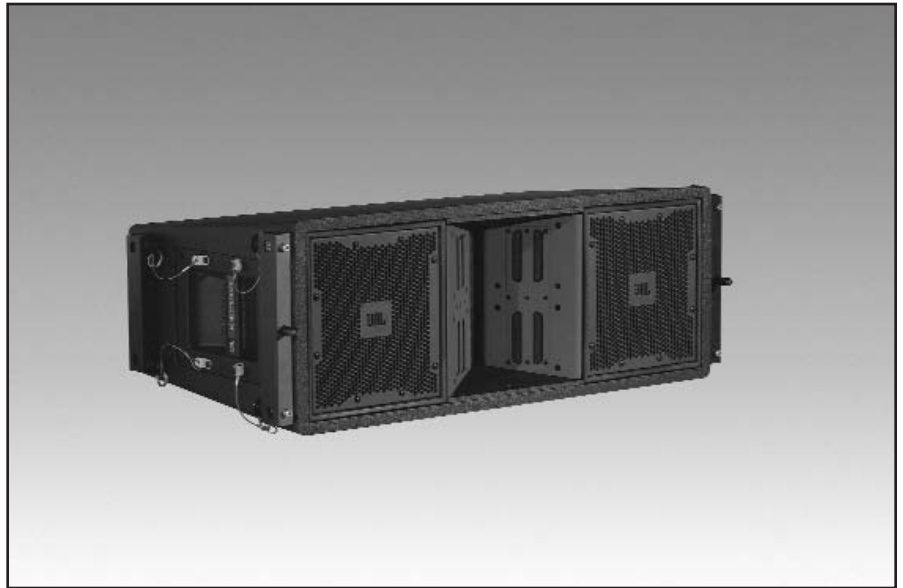
Key Features:

- ▶ Advanced technology components: Neodymium Differential Drive®, neodymium magnet, dual voice coil, Direct Cooled™ cone transducers for low weight and high output
- ▶ Waveguide units couple to create precision HF vertical slot aperture
- ▶ Radiation Boundary Integrator® (RBI): Patented technology integrates output of individual bandpass elements
- ▶ Advanced construction techniques and hybrid materials 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
- ▶ Pre-engineered to accept optional amplified electronics package. Rear-panel mechanical attachments and electrical connections ensure upgrade path for DrivePack™ self-powered system modules with integral signal processing
- ▶ For use in stand-alone arrays or in combination with other VERTEC system products

The VT4887 is a compact, lightweight enclosure housing two 8" woofers, four 4" midrange radiators, and two high frequency compression drivers. Advanced components provide the highest power-to-weight ratio of any speaker system in its class.

Enclosure features foam-backed low frequency grilles, dense protective foam inserts for midrange apertures, and a fine steel mesh grille to protect high-frequency apertures. Speaker cones are treated with weather-resistant compounds. Rigging tubes made of hard-black anodized 6061-T6 Aluminum. Hinge bars made from premium-grade chromoly alloy steel, with epoxy powder coating over zinc-plated surfaces. Cadmium-plated hinge pins and stainless steel quick-release pin lanyards to resist corrosion and weather damage.

VERTEC arrays are rigid for maximum support strength, yet flexible in design and application. The VT4887's suspension hardware relies on quick-release pins and end-mounted metal tubes to couple adjacent VT4887's together. Enclosure ships with integral front and rear hinge bar set. Protective grille cover/wheel board and soft cover to ensure handy transport for rough road conditions, purchased separately as VT4887-ACC.



Specifications:

Line Array Element

Frequency Response (±3 dB):	80 Hz – 20 kHz
Frequency Range (-10 dB):	60 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:	131 dB to 141 dB, 1m frequency/bandpass dependent
Recommended Signal Processing:	dbx 480, BSS 366, XTA 226 supported

Transducer Sections

<u>Low Frequency:</u>	Two 2168J, 203 mm (8 in) dia., 76 mm (3 in) Dual Coil, Neodymium Differential Drive, Direct Cooled
Bandpass Nominal Impedance:	8 ohms (16 ohms each transducer wired in parallel)
Input Power Rating ¹ :	1000 W (4000 W peak) 2 hours 700 W (2800 W peak) 100 hours
Bandpass Sensitivity:	97 dB, 1 W, @ 1m (3.3 ft)
<u>Mid & High Frequency:</u>	MID: Four 2104H, 101 mm (4 in) dia., 25.4 mm (1 in) coil HF: Two 2407H Neodymium ultra light ring radiator
Bandpass Nominal Impedance:	8 ohms
Input Power Rating ¹ :	225 W (900 W peak) 100 hours
Bandpass Sensitivity:	101 dB, 1 W, @ 1m (3.3 ft)

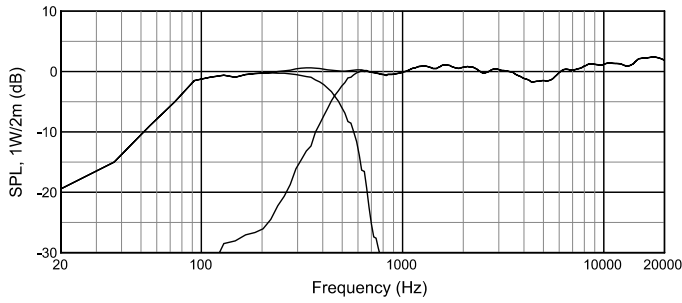
Enclosure

Box Construction:	Wedge frustum 5 degree side angle enclosure engineered wood 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
Input Connectors:	NL8, 2 each. (Pin 3+/- for Lows & Pin 4+/- for Mid-highs)
Dimensions (H x W x D):	279 mm x 787 mm x 417 mm (11 in x 31 in x 16.4 in)
Net Weight:	28 kg (62 lb)
Shipping Weight:	39 kg (85 lb)

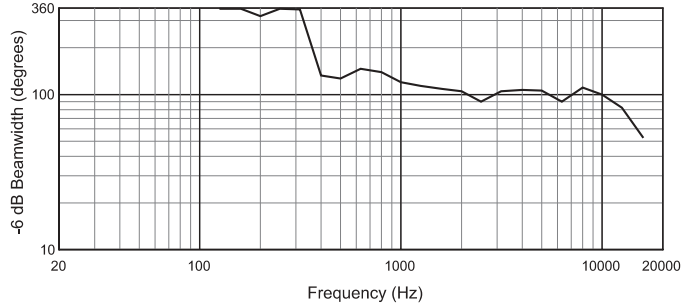
¹AES Standard, one decade pink noise with 6 dB crest factor within device's operational band, free air. Standard AES 2 hr rating plus long term 100 hr rating are specified for cone transducers.

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.

▶ VT4887 Compact Bi-Amplified Three-Way High Directivity Line Array Element



Normalized Frequency Response
(Individual bandpasses with composite overlay)



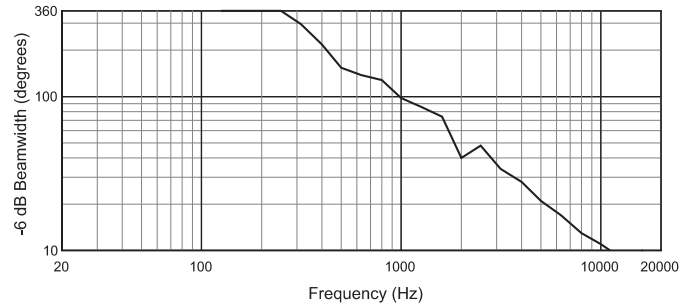
Horizontal Beamwidth, Single Element and Typical Array

VT4887 Acoustical Measurements

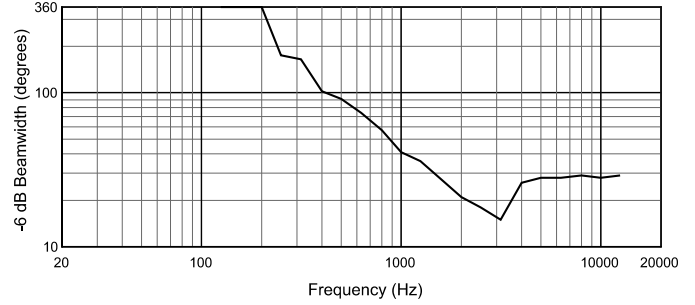
The frequency response measurement shows individual bandpass responses with composite response overlay. The Vertical Beamwidth results range from a single box up to an 8-box array with 10° splay angles between adjacent array elements.

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.

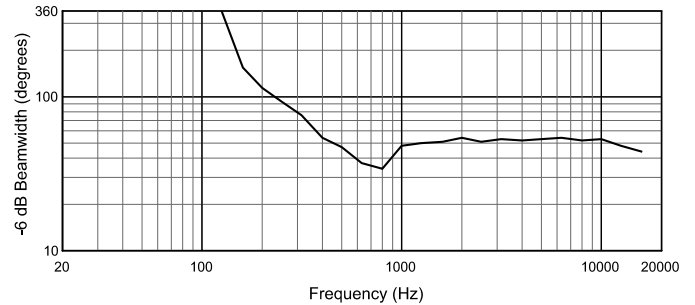
All polars were taken as groundplane measurements at a distance of 10 meters, with data gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



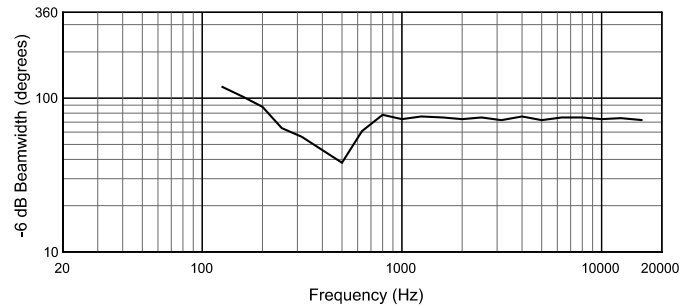
Vertical Beamwidth, Single Line Array Element



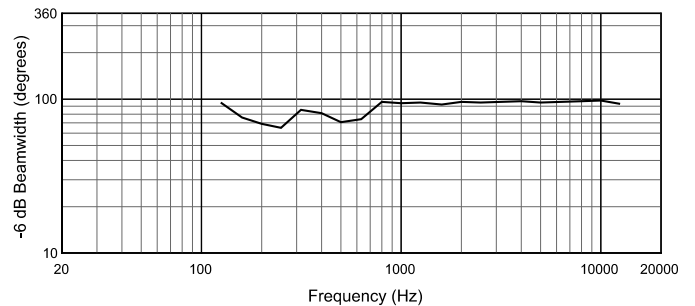
Vertical Beamwidth, Two Element Array
(10° splay between cabinets)



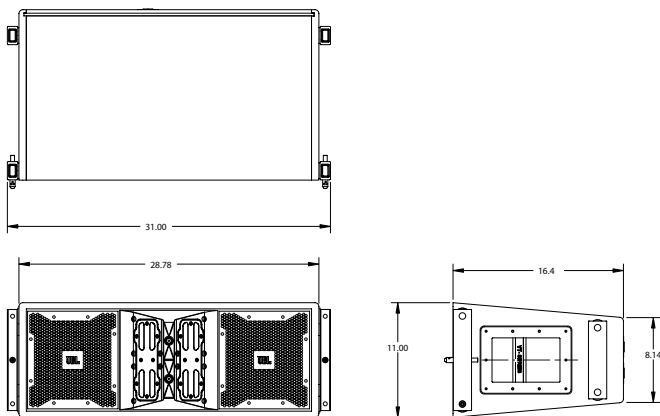
Vertical Beamwidth, Four Element Array
(10° splay between cabinets)



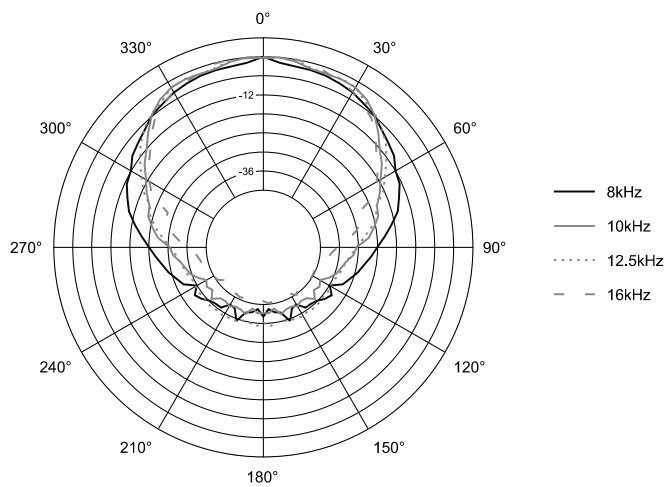
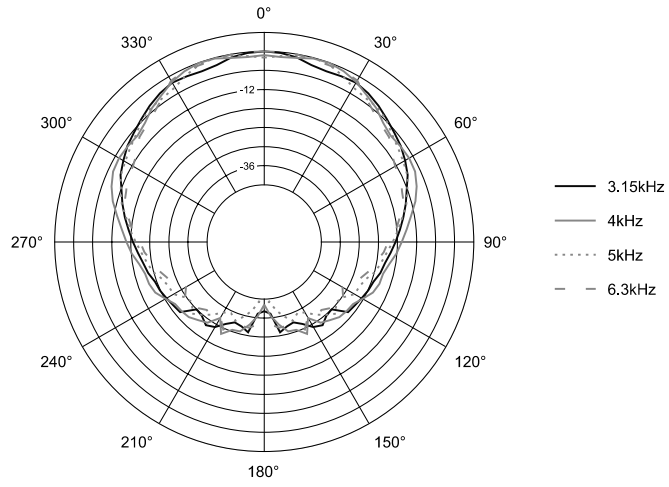
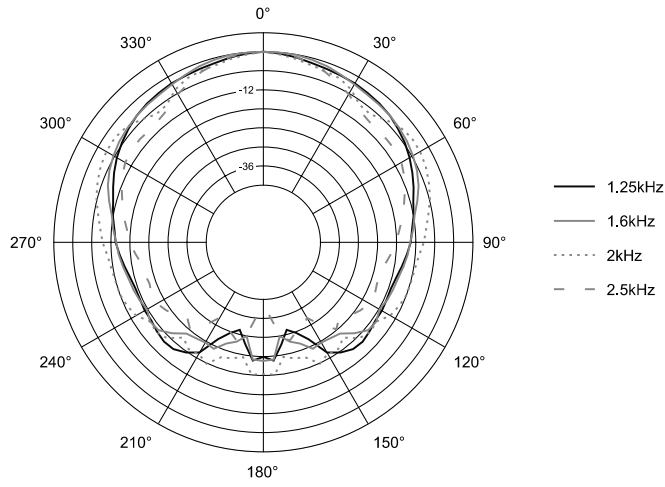
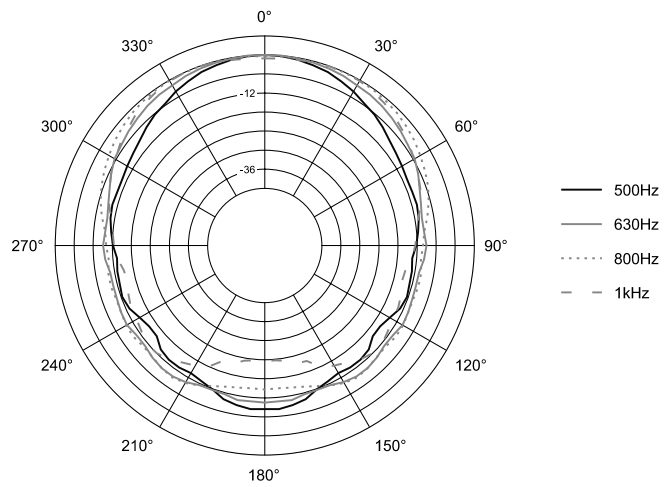
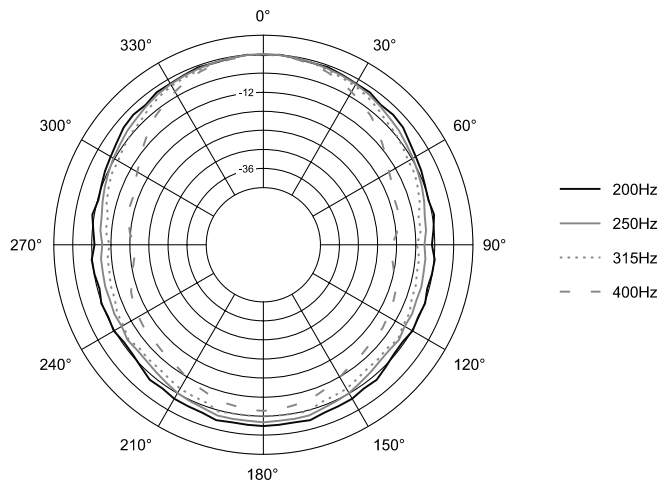
Vertical Beamwidth, Six Element Array
(10° splay between cabinets)



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



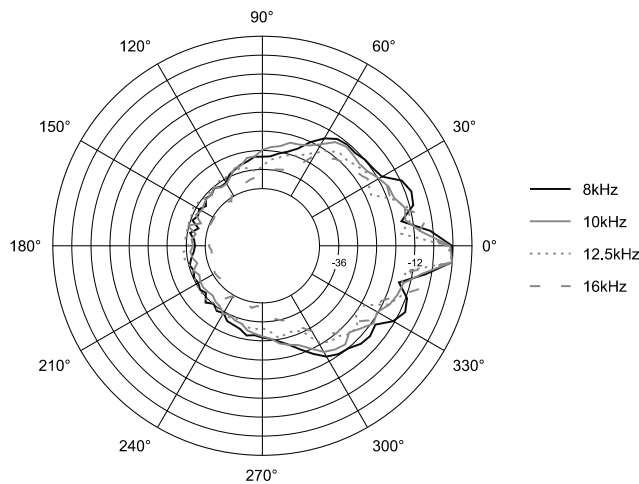
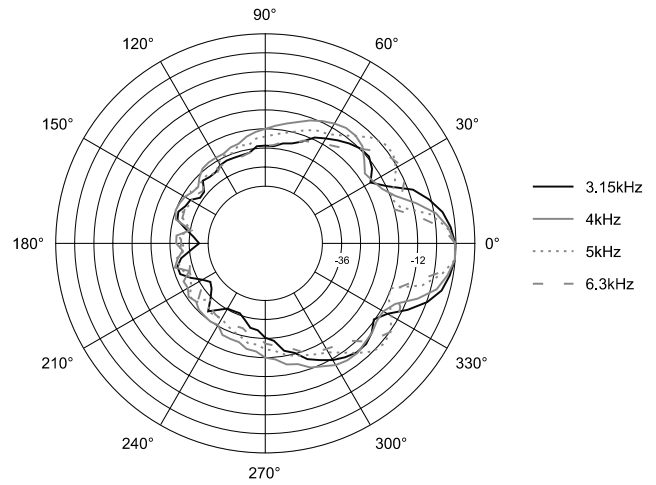
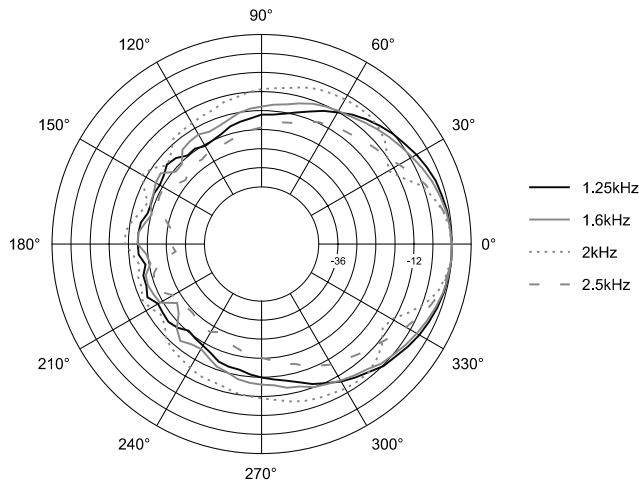
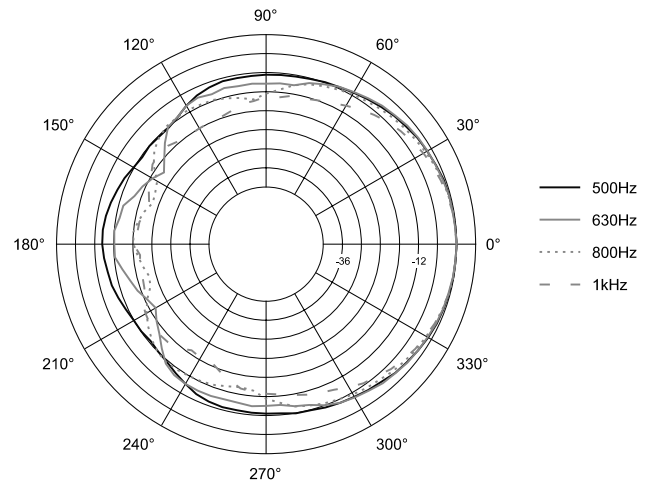
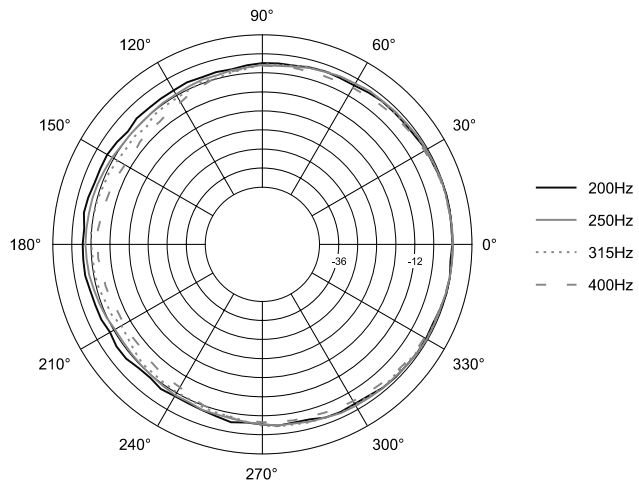
System Dimensions (HxWxD):
279 mm x 787 mm x 417 mm including attached suspension hardware



Horizontal 1/3 Octave Polars (Single VT4887 Array Element)

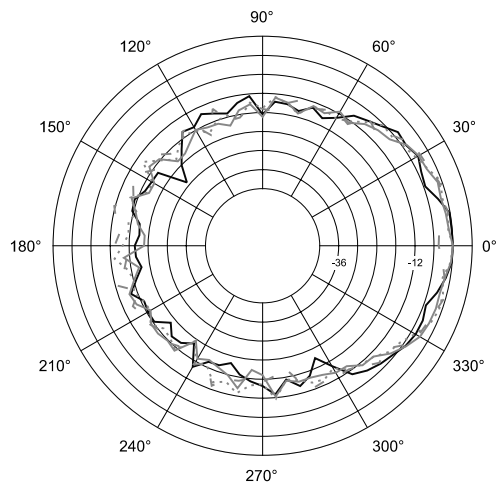
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.

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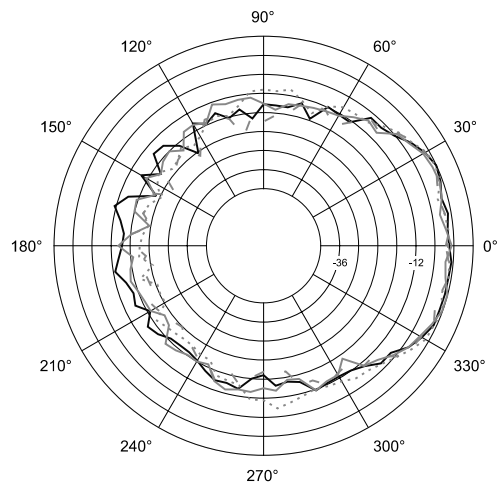


Vertical 1/3 Octave Polars (Single VT4887 Array Element)

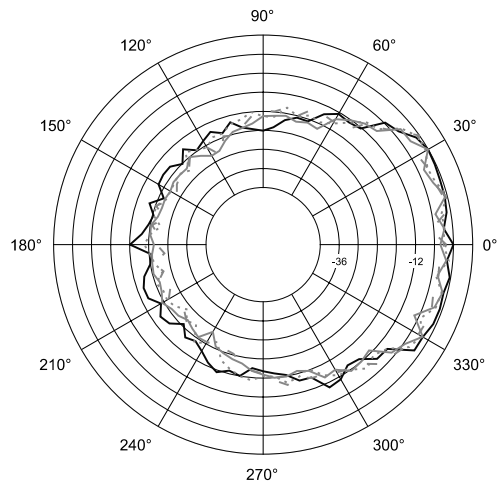
Data taken as groundplane measurements at a distance of 10 meters, gathered on 5-degree intervals from 0-355° using the MLSSA measurement system.



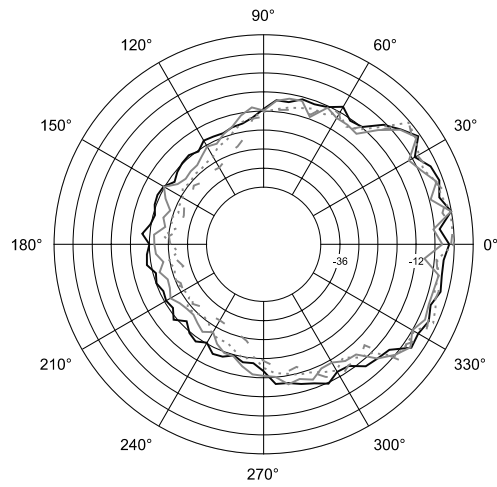
- 200Hz
- 250Hz
- 315Hz
- - 400Hz



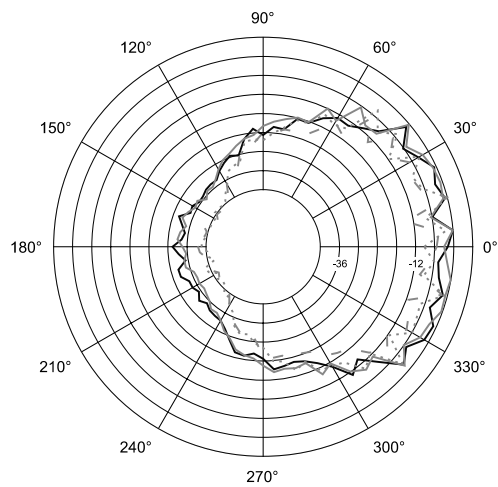
- 500Hz
- 630Hz
- 800Hz
- - 1kHz



- 1.25kHz
- 1.6kHz
- 2kHz
- - 2.5kHz



- 3.15kHz
- 4kHz
- 5kHz
- - 6.3kHz



- 8kHz
- 10kHz
- 12.5kHz
- - 16kHz

Vertical 1/3 Octave Polars (8-Box Array of VT4887 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.

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VERTEC System Arrays

The VT4887 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.

Up to 28 of the VT4887 enclosures can be suspended from the available VT4887-AF or VT4887-SF array frames with a 7:1 design factor. 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.

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, and are designed to suspend up to 28 VT4887 enclosures at a 7:1 design factor. The VT4887-AF can also be used to groundstack up to 8 enclosures. Weight: 36 kg (80 lb).

VT4887-SF (Short Frame)

This array suspension frame is crafted in similar fashion to the VT4887-AF. Designed to suspend up to 28 VT4887 enclosures at a 7:1 design factor. 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. It can also be used to groundstack up to 6 enclosures. Weight: 18 kg (40 lb).

VT4887-ACC

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

Important Note: The VT4887-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.



4-element array, VT4887, suspended application with VT4887-AF array frame



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