JBL VLA-C265 Two Way Full Range Dual 10 Inch Array Module User Manual

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JBL VLA-C265 Two Way Full Range Dual 10 Inch Array Module

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Product Information

The VLA-C265 VLACOMPACT variable line array Two-Way Full Range Dual 10 Array Module is a professional series compact line array module optimized for permanent install applications. It features advanced technology component transducers for low weight and high output, an outdoor IP55-rated enclosure for protection from dust and water, comprehensive rigging points for creating a line array configuration, and fiberglass box construction with weatherized components. The module can be bi-amplified for maximum SPL or fed passively for reduced amplification costs.

Physical Information:

- Enclosure Material
- Grille
- Inter-Enclosure Angles
- Colors
- Dimensions (H x W x D)
- Net Weight (each)
- Shipping Weight (each)

Product Usage Instructions

1. Ensure the product is placed in a suitable location with proper ventilation.
2. Connect the product to the recommended amplifiers following the specified impedance and power ratings.
3. Adjust the coverage pattern and rigging points as needed for your specific application.
4. For bi-amplification, use the Crown DCi Family with DSP on-board amplifiers for optimal performance.
5. Maintain touch-proof covers on terminals for safety during operation.

FAQ

- **Q: Can the VLA-C265 module be used outdoors?**
  - **A**: Yes, the VLA-C265 module features an IP55 rating for protection against dust and water, making it suitable for outdoor use.
- **Q: What is the recommended amplifier for bi-amplification?**
  - **A**: The Crown DCi Family with DSP onboard amplifiers is recommended for bi-amplifying the VLA-C265 module.

The VLA-C265 uses JBL-proven technology components. The high-frequency section is horn-loaded for maximum sensitivity and optimum pattern control and features three D2415 drivers featuring 1.5″ diameter annular diaphragms, 1.5″ voice coils, and neodymium motors.

The low-frequency section utilizes dual 2261 10″ Differential Drive® 3″ voice coil drivers.

Enclosures feature multi-layer reinforced fiberglass and steel end panels. Grilles are zinc-plated, powder-coated 14-gauge perforated steel with an acoustically transparent black grill cloth backing, a hydrophobic mesh underlayer, and a waterproof rail system.

The rigging system is inherent to the design of the system. Inter-box angles are selected when the array is assembled. Other accessories include a rigging frame, a pull-back bar, and a cardioid kit for the sub.

Specifications

- **System:**
  - **Frequency Range (-10 dB)** :85 Hz – 19 kHz
  - **Frequency Response (+3 dB)'.** 108 H7 – 16.5 kH7
- **System Power Rating2**
  - **Full Range**: 800 W Continuous Pink Noise (3200 W peak), 2 hrs
  - 400 W Continuous Pink Noise (1600W peak), 100 hrs
- **Bi-amp LF**: 800 W Continuous Pink Noise (3200 W peak), 2 hrs
  - 400 W Continuous Pink Noise (1600W peak), 100 hrs
- **Bi-amp HF**: 150 W Continuous Pink Noise (600 W peak), 2 hrs
  - 50 W Continuous Pink Noise (200 W peak), 100 hrs
- **Maximum Input Voltage**: Full-Range: 80 V RMS (2 hrs), 160 V peak
  - **Bi-Amp LF**: 80 V RMS (2 hrs), 160 V peak
  - **Bi-Amp HF**: 50 V RMS (2 hrs), 135 V peak
- **Maximum SPL (1m)3 :**131 dB Cont. Ave (2 hrs), 137 dB Peak
- **Sensitivity4**
  - **Full-Range**: 102 dB (85 Hz – 19 kHz)
  - **Bi-Amp LF**: 100 dB (85 Hz – 950 Hz)
  - **Bi-Amp HF:** 108 dB (950 Hz – 19.2 kHz)
- **Coverage Pattern (-6 dB): Horizontal:** 65° (+15°/-10°, 1.5 kHz to 15 kHz)
  - **Vertical:** Varies with array size and configuration
- **Impedance:** Full-Range: 8Ω, 6.6Ω min @ 162 Hz
  - **Bi-Amp LF**: 8Ω, 6.8 Ω min @ 162 Hz
  - **Bi-Amp HF**: 16 Ω, 16.2 Ω min @ 11 kHz
- **Amplifiers:** Crown DCi Family with DSP onboard
  - **Recommended:** Crown DCi 2 | 1250N
  - Crown DCi 4 | 1250N/ND/DA
  - Crown DCi 2 | 2400N
  - Crown DCi 4 | 2400N

Key Features

Compact line array module optimized for permanent install applications

- Advanced technology component transducers for low-weight and high-output
- Outdoor IP55-rated enclosure for protection from dust and water
- Comprehensive rigging points for creating a line array configuration
- Fiberglass box construction and weatherized components
- Can be bi-amplified for maximum SPL, or fed passively for reduced amplification costs
- 65° horizontal coverage pattern

The Variable Line Array (VLA) Compact Series is a family of three loudspeaker array modules designed to fill the needs of system designers for applications requiring a more compact line array solution with weather protection for stadia and arenas or any other project in need of compact line arrays.
The VLA Compact Series consists of three loudspeaker array modules:

- The C2100, a dual 10” full-range speaker with a 100° horizontal coverage pattern
- The C265, a dual 10” full range speaker with a 65° horizontal coverage pattern
- The C125S, a dual 15” subwoofer
- The modular design concept provides the system designer the ability to build large line array systems for larger venue applications or to design smaller line array systems for use as distributed clusters in arenas, domed stadiums and larger performance spaces, including large houses-of-worship.
- VLA Compact is designed specifically for permanent installation applications where even coverage, intelligibility, and high sound pressure levels are required.
- VLA Compact modules are based on the same advanced engineering used in the highly successful VLA Series line array systems. VLA Compact utilizes the same concept as VLA by providing large format horn-loaded modules with different horizontal horn coverage patterns (100° & 65°). This modular concept provides the designer the flexibility to optimize the horizontal pattern of the line array system by incorporating the appropriate module within the array while still maintaining the vertical directivity

VLA-C265 Two-Way Full Range Dual 10” Array Module

1. Using recommended DSP tuning, full-space (4π)
2. Continuous Pink Noise rating is IEC-shaped pink noise with 6 dB crest factor. Peak is defined as 6 dB above Continuous Pink Noise Rating.
3. Continuous Average calculated from sensitivity and power handling, exclusive of power compression. Peak measured, unweighted SPL, bi-amp mode, measured under full-space conditions at 1 meter using broadband pink noise with a 12 dB crest factor and specified preset.
4. 2.83 V RMS, full-space (4π)

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.

Transducers:

Low Frequency Driver:2 x 2261FF, 254 mm (10 in) diameter, each with two 76 mm (3 in) diameter voice coils,

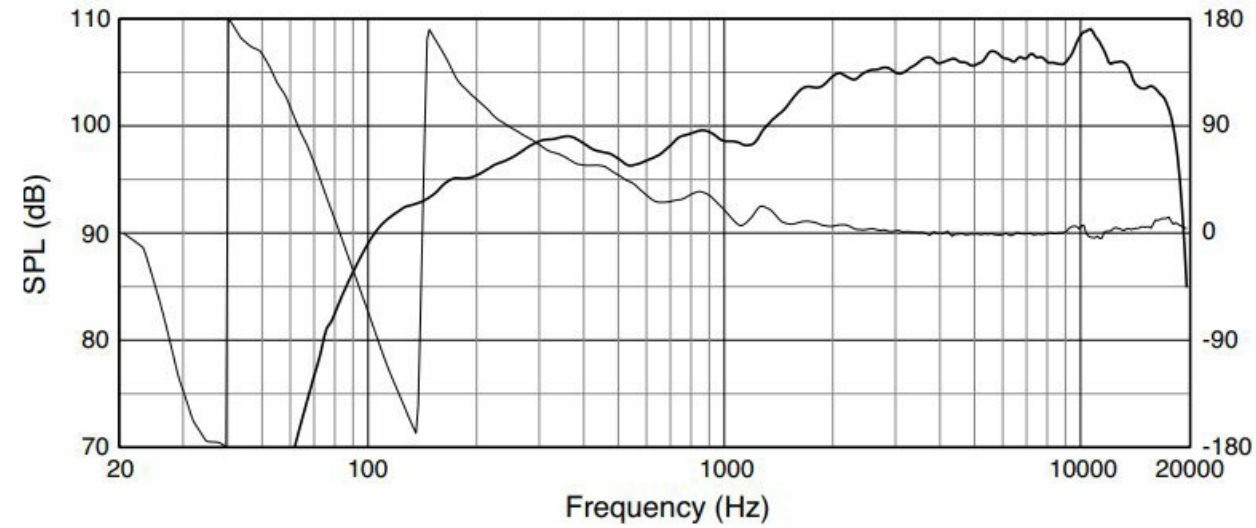
Neodymium Differential Drive®, Direct Cooled™
High-Frequency Driver x 2415K, D2 Dual Diaphragm Dual Voice Coil Compression Drivers, each with two 38 mm (1.5 in) dia. Voice Coils; 21 mm (0.8 in) exit

Physical

- **Enclosure Material:** Fiberglass shell, gel coat finish, with 18 mm Birch plywood internal bracing.
  - **Grille:** Powder-coated 14 gauge hex-perforated steel with zinc under-coating, backed with acoustically transparent cloth and hydrophobic screen
- **Inter-Enclosure Angles:** VLA-C265 to VLA-C265: 1.5°, 2.4° 3.8°, 6.0°, 9.5° using VLA-C265
  - Bracket Plate (included with VLA-C265)
  - VLA-C265 to VLA-C2100 (either model on top/bottom): 1.9°, 3.0° using VLA-C2100 Bracket Plate (included with VLA-C2100) and 4.7°,
  - 7.5°, 11.9° using VLA-C265 Bracket Plate (included with VLA-C265)
  - VLA-C265 below VLA-C125S Subwoofer (VLA-C265 cannot be connected above C125S): 0°, 5° using VLA-C125S Bracket Plate (included with VLA-C125S)
- **Environmental:** IP-55 rating per IEC529 (dust-protected and protected against jets of water).
- **Terminals**: CE-compliant covered barrier strip terminals. Barrier terminals accept up to 5.2 sq mm (10 AWG) wire or max width 9mm (0.375 in) spade lugs.
  - Touch-proof covers.
  - **Colors:** -GR: Gray (similar to Pantone 420C), -BK: Black
  - **Dimensions (H x W x D):** 381 x 848 x 460 mm (15.0 x 33.4 x 18.1 in)
  - **Net Weight (ea):** 37.7 kg (83 lbs)
  - **Shipping Weight (ea):** 44.0 kg (97 lbs)
- Included Accessories: 2 pcs. VLA-C265 Bracket Plates
  - 8 pcs. M10 x 35 mm stainless steel bolts (1.5mm pitch, 6 mm hex-drive) for attaching Bracket Plates
  - 2 pcs. Plastic Trim Cover Panels for Bracket Plates, each attaches via
  - 4 pcs (8 total) 3-32 x ½” trusshead, phillips-drive, stainless steel bolts.
- **Optional Accessories**: VLA-C-SB Suspension Bar Kit for the array, includes 2 identical Suspension Bars (for top/bottom), 4 pcs ¾-inch Class 2 Screw Pin Shackles
  - (must use 2 Shackles for each Suspension Bar, located at end channels, not in the center).

See the User’s Guide for more information about bracket plates, suspension bar kit, and wiring hookup to terminals.

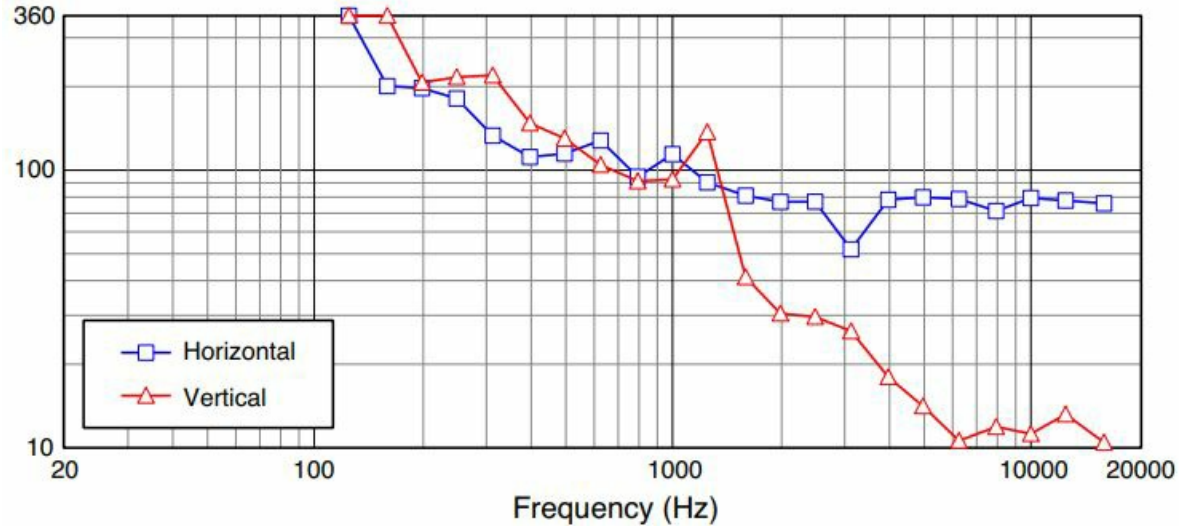
Frequency Response & Phase:



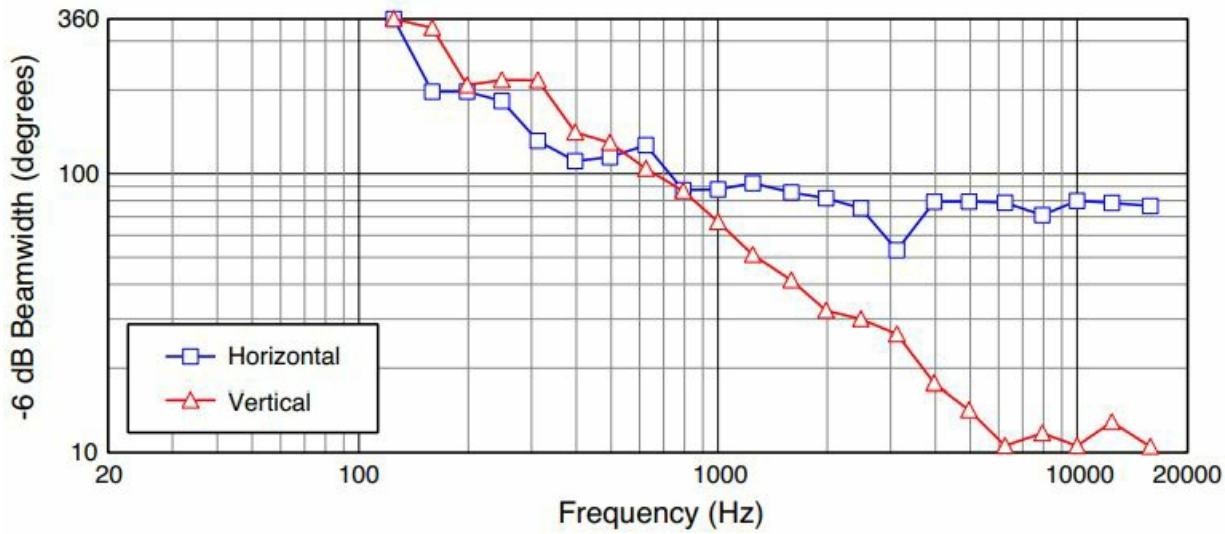
On-Axis in full-space (4π, using recommended DSP tuning), plus phase curve

Beamwidth:

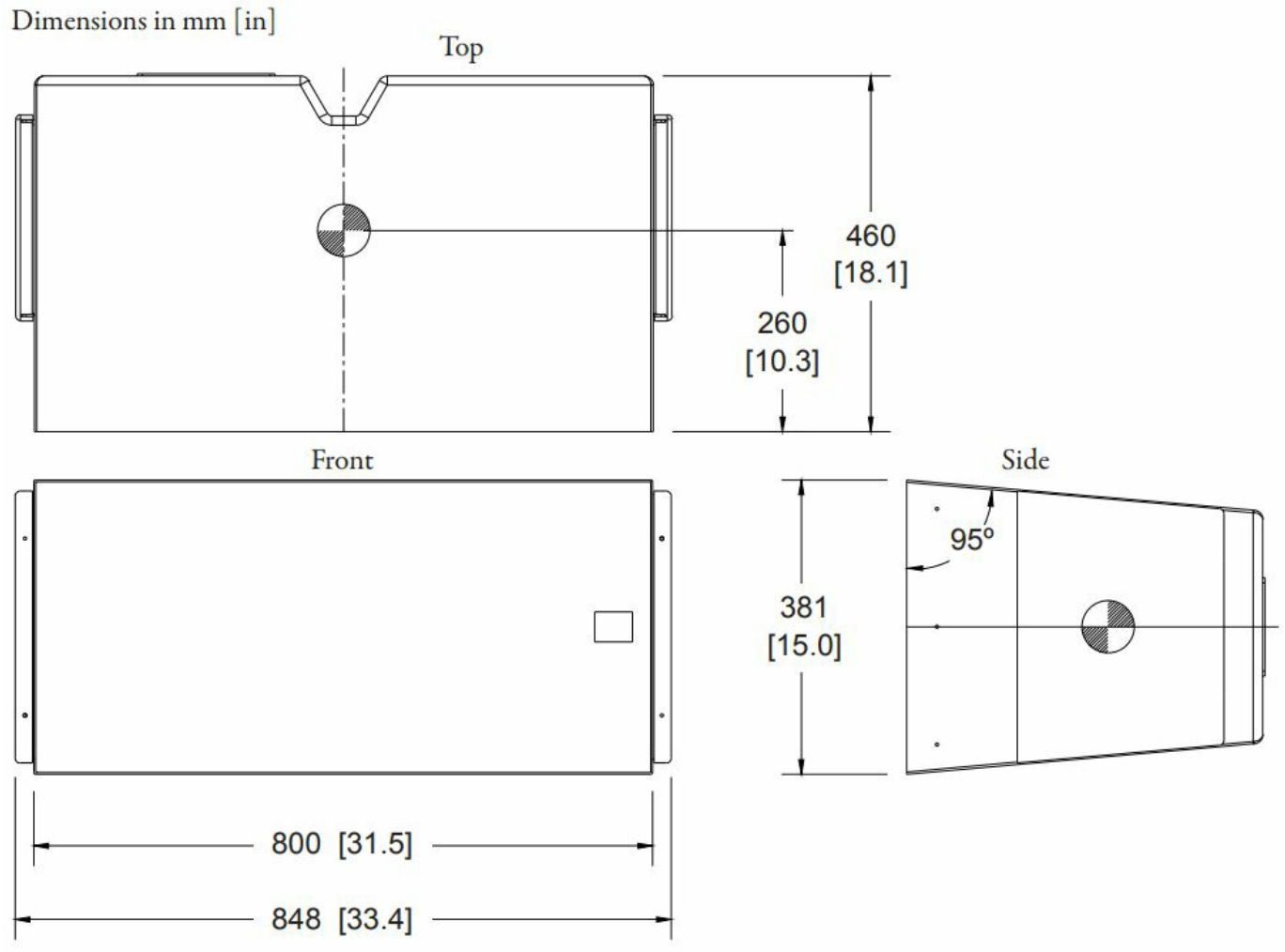
- **Passive**



Bi-amplified



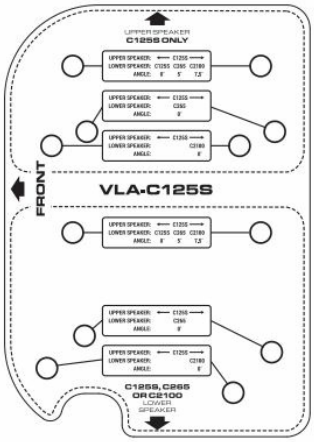
- **Dimensional:**
  - Dimensions in mm [in]



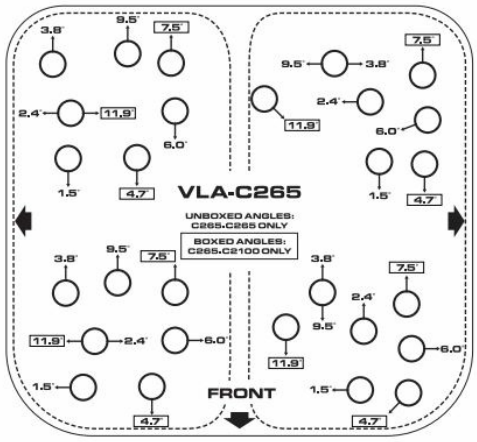
Bracket Plates:

VLA-C265 Bracket Plates come with a VLA-C265 speaker. The mirror image is included on another side of the bracket for use on left and right sides. Each bracket plate is installed by including two bolts to top cabinet and two bolts to the bottom cabinet, through bracket holes marked for the desired inter-cabinet angle with that particular VLA-C model. Plastic Trim Cover Panel installs over bracket plate for a clean look. See VLA-C Series User's Guide for additional Bracket Plate installation instructions

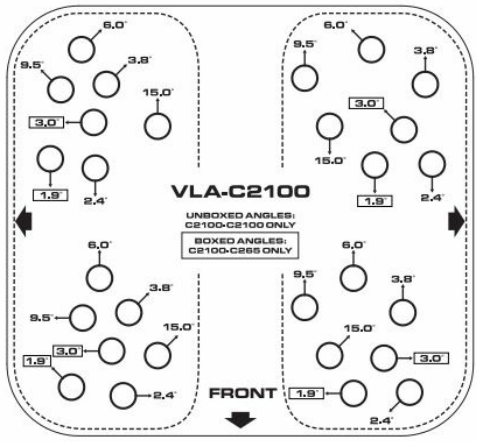
	Array Rigging Combinations		
	VLA-C265 to VLA-C265	VLA-C265 to VLA-C2100	VLA-C2100 to VLA-C2100
VLA-C265 Bracket Plates (x2)	1.5°, 2.4° 3.8°, 6.0°, 9.5°	4.7°, 7.5°, 11.9°	NO
VLA C2100 Bracket Plates (x2)	NO	1.9°, 3.0°	2.4°, 3.8°, 6.0°, 9.5°, 15°



VLA-C125S



VLA-C265



VLA-C2100

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Documents / Resources

	JBL VLA-C265 Two Way Full Range Dual 10 Inch Array Module [pdf] User Manual VLA-C265 Two Way Full Range Dual 10 Inch Array Module, VLA-C265, Two Way Full Range Dual 10 Inch Array Module, Full Range Dual 10 Inch Array Module, Dual 10 Inch Array Module, 10 Inch Array Module, Array Module

References

- JBL Professional Loudspeakers | English (US)
- User Manual