VT4880ADP

Full-Size Powered Ultra Long Excursion Dual 18" Arrayable Subwoofer, Integrated Audio System

VERTEC® DP Series

VT4880ADP-AN (Optional network input module)
VT4880ADP-CN (Optional network input module with digital audio)

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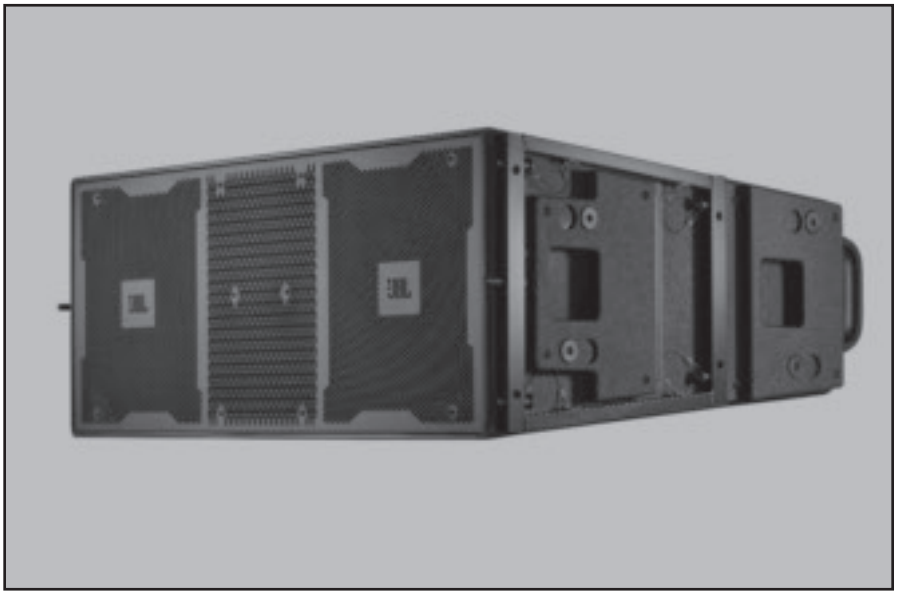


Application:

The VT4880ADP Full Size Powered Dual 18" Arrayable Subwoofer is designed to deliver high-quality reinforcement of VLF (Very Low Frequency) musical information for a variety of applications including concert audio, corporate A/V and theatrical presentations of all types for both portable users and performance-venue applications. Ideal companion to VT4889ADP full size powered three-way systems.

Key Features:

- JBL DrivePack® DP3-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
- New 2269G Advanced Technology Components: Differential Drive® Neodymium Magnet, Dual Voice Coil, Direct Cooled™ cone transducers with Ultra-Long Excursion capabilities
- 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
- For use in stand alone arrays or in combination with other VERTEC system models

The VT4880ADP is a versatile, powered integrated audio system with a centrally-vented enclosure housing two 2269G Ultra Long Excursion 18" woofers. JBL DrivePack DP-3 power and DSP electronics package, developed in cooperation with Crown and dbx, includes patented high efficiency Class-I power amplifier technology and onboard digital signal processing that communicates readiness and operational status to the user, while monitoring fault detection of components and electronics. New UItra Long Excursion 18" VLF (Very Low Frequency) components, fitted with dual voice coils and robust composite cones, provide high output capabilities and a high power-to-weight ratio.

The PlyMax® enclosure features foam-backed perforated steel grille, rugged DuraFlex™ exterior finish, and weather resistant speaker cones. Protective end-caps safeguard the suspension hardware while allowing vertical stacking of multiple enclosures on end using integral end-mounted, scuff-resistant pads, keyed for aligning surfaces and preventing slippage.

VERTEC suspension systems are engineered for maximum support strength and flexibility. The VT4880ADP's suspension hardware (same as used in the powered full-range VT4889ADP) relies on quick-release pins and end-mounted metal frames to couple adjacent units together in rigid arrays. Suspension frames are made from premium-grade chromoly alloy steel, with plated surfaces; hinge pins are plated and quick-release pin restraining lanyards are stainless steel to resist corrosion. Enclosure ships with integral front and rear hinge bar set (VT4889-RIG).

Available protective grille cover/wheel board and padded soft cover to ensure handy transport for rough road conditions, purchased separately as VT4880ADP-ACC.

Subwoofer Line Arrays:

The low-frequency capabilities of the multi-enclosure VT4880ADP array will be determined by the total number of units coupled. The directivity of a subwoofer line array at any given frequency is proportional to the product of frequency and length of the array. The beamwidth will be inversely proportional to the product of the array's length and the frequency of interest, typically 20-80 Hz for subwoofer applications.

In summary, the more subwoofer elements that are used in the array, the greater directivity will be at lower frequencies, enabling better pattern control. Medium to large arrays can generate extreme amounts of sub-low frequency energy.

Specifications:

Frequency Range (-10 dB):	25 Hz – 160 Hz
Frequency Response (±3 dB):	29 Hz – 120 Hz
Maximum Peak Output[1]:	143 dB SPL, 1m (2π, half-space ground-based application) 137 dB SPL, 1m (4π, free-field, suspended application)
Transducer Sections	
Low Frequency:	Two 2269G, 457 mm (18 in) dia., 100 mm (4 in) Dual Coil, Differential Drive®, Direct Cooled™
Bandpass Nominal Impedance:	4 ohms (each driver)
System	
DP3 Internal Amplification Output (at load):	6900 W Peak, 3500 W Continuous
DP3 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 0.5dB increment 16 dB input attenuator (DPIP only)
AC Power Operating Range:	Auto Select 90-132/VAC 50/60 Hz
AC Line Voltage:	50/60 Hz, Auto-Detect; 120V/240V (-15%, +10%)
AC Input Connector: AC Power Loop-thru:	Neutrik PowerCon (NAC3MPA) Neutrik PowerCon (NAC3MPB)
AC Current Requirement:	15A per system at 120V, 7.5A per system at 240V
Enclosure	
Box Construction:	Wedge frustum 5 degree side angle enclosure. PlyMax™ engineered wood composite structure, DuraFlex finish, 8 handles
Suspension System:	Patented S.A.F.E.™ hardware, integral hinge bars nest in suspension frames on enclosure sides (ends). Quick release pins with restraining lanyards. Set of 4 hinge bars included. Suspend with VT4889-AF or VT4889-SF Array Frame.
Grille:	Black perforated steel, foam backed
Dimensions (W x H x D):	1229 mm X 493 mm X 1011 mm (48.4 in x 19.4 in x 39.8 in)
Net Weight:	99.4 kg (219 lb)
Shipping Weight:	116.7 kg (257 lb)

[1]Maximum SPL measured in Free-Field (4π) and half-space (2π) conditions with pink noise.

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 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

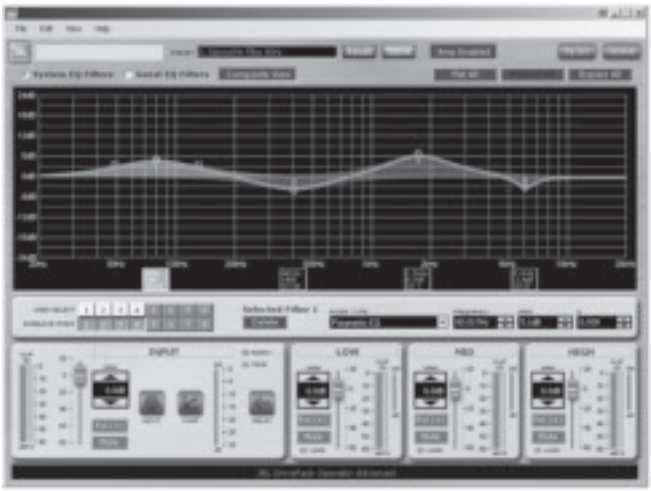
Analog Audio Input Connectors	XLR, female	XLR, female	XLR, female
Input Type	Electronically Balanced, RF Filtered		
Signal Loop-through	XLR, male, passive pass-through		
Input Impedance	20k Ohms Balanced		
Polarity	(+) voltage on XLR pin 2 yields (+) LF pressure		
Max Input Level	+23 dBu		
Frequency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



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 raised 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 Analog 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™

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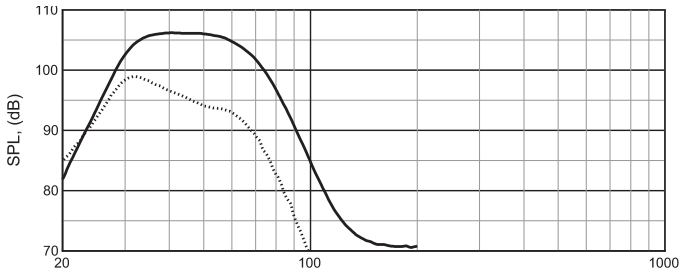
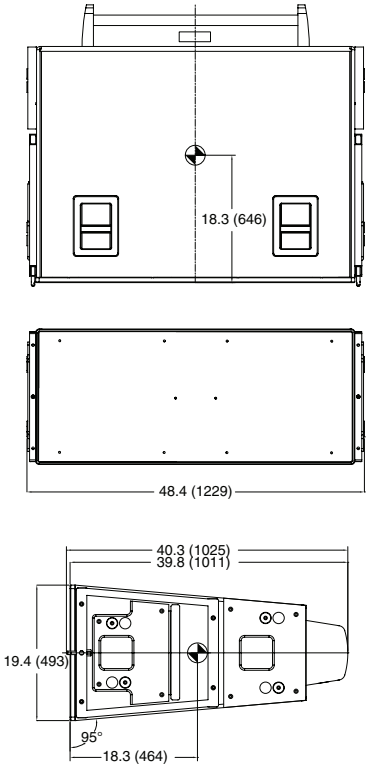


Frequency Response (solid line) of a single VT4880ADP with 80 Hz Subwoofer Filter Enabled (dashed line). Additional presets available for DP-AN, DP-CN models.

The JBL DrivePack® DP-3 is attached to the back panel of a modified VT4880A, creating the model VT4880ADP. Robust Crown amplification and onboard digital signal processing are combined to create a compact, powerful, integrated audio system.



(W x H x D): 1229 mm x 493 mm x 1011 mm (48.4 in x 19.4 in x 39.8 in)

2269G Ultra Long Excursion 460 mm (18") Transducer

VT4880ADP-ACC

The VT4880ADP-ACC Accessory kit includes items necessary for proper transport of the VT4880ADP. The accessory kit includes: (1) VT4880-DOLLY, & (1) VT4880ADP-COVER with rigid foam blocks and protective metal plates for DrivePack. *Important note:* the VT4880ADP-ACC is sold as a separate item. One VT4880ADP-ACC should be ordered with each VT4880ADP to ensure safe, reliable transport of each system in portable use.

VERTEC® DP Series

DP DRIVEPACK™

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