# VT4881ADP-DA

18" Compact Powered Subwoofer Module, Integrated Audio System

VERTEC® DP Series System with DPDA (Drive Pack Digital Audio Input Module)

## Application:

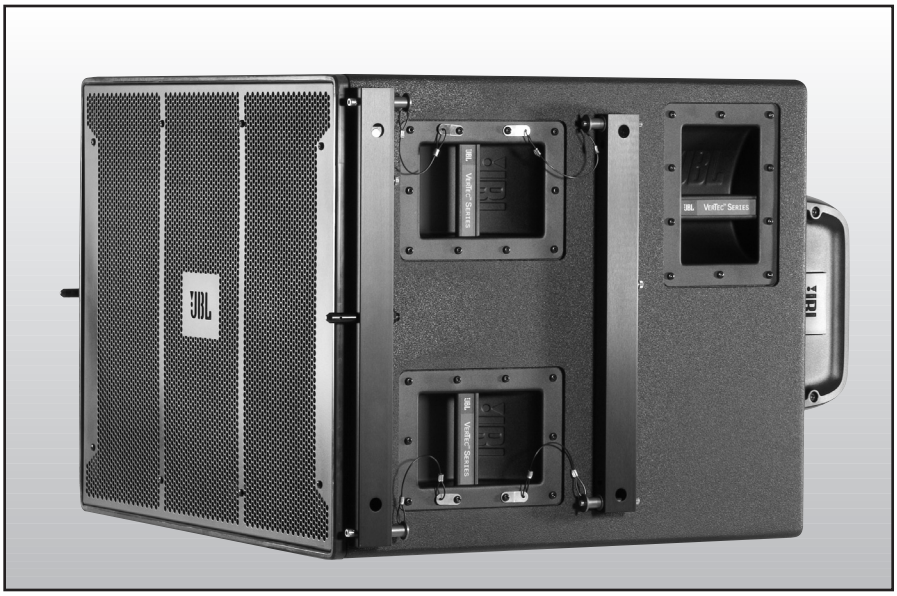
The VT4881ADP-DA Compact Powered 18" Arrayable Subwoofer is designed to deliver high quality sound reinforcement of VLF (Very Low Frequency) musical information for a variety of applications including concert audio, corporate A/V and theatrical presentations of all types. Ideal companion to VT4887ADP-DA compact three-way systems.

## Key Features:

- New 2269G Advanced Technology Component: Differential Drive® Neodymium Magnet, Dual Voice Coil, Direct Cooled™ cone transducer with Ultra-Long Excursion capabilities
- JBL DrivePack® technology delivers superb audio quality and robust high efficiency Class-I power, perfectly matched to the enclosure, with comprehensive onboard BSS Omnidrive HD digital signal processing.
- Modular bay fitted with DPDA input module; accepts other optional versions
- World-wide AC line voltages are automatically selected for 50 or 60 Hz.
- Advanced construction techniques using JBL PlyMax™ provide exceptionally rigid, lightweight enclosure
- Rugged DuraFlex™ exterior finish; Weatherized loudspeaker cone.
- Integrated S.A.F.E™ suspension system: premium heat-treated alloys provide rigid, reliable hanging arrays designed for vertical orientation at various angles.

The VT4881ADP-DA is a lightweight, vented sub-woofer enclosure housing one Ultra-Long Excursion 18" woofer and a JBL DrivePack DP1 fully integrated power and DSP electronics package. The JBL DrivePack, designed in cooperation with Harman Professional development partners, brings leading-edge technology to the VERTEC DP Series including patented high efficiency Class-I power amplifier technology and onboard BSS Omnidrive HD digital signal processing. This provides not only unmatched audio quality and performance but also onboard DSP functionality that communicates readiness and operational status to the user, and monitors fault detection of components and electronics.

A new Ultra Long Excursion 18" VLF component, fitted with dual voice coils, and Ultra Robust composite cone provides high output capabilities with an advantageous power-to-weight ratio. Enclosure features: foam-back perforated steel grille; speaker cone treated with weather-resistant compound; rigging tubes and hinge bars made from premium-grade alloy aluminum; plated hinge pins; stainless steel quick-release pin restraining lanyards; and inter-locking



rubber feet which allow vertical stacking of multiple inter-locking units, including reverse ground-stacking for cardioid subwoofer array applications if desired. VT4881ADP-DA rigging hardware (same as in the companion VT4887ADP-DA compact full-range system) relies on quick-release pins and end-mounted metal frames to couple adjacent units together in rigid but flexible arrays.

## Specifications:

| | |
|---|---|
| Frequency Response (-3 dB): | 34 Hz - 125 Hz |
| Frequency Range (-10 dB): | 25 Hz - 160 Hz |
| Maximum Peak Output[1]: | 131 dB SPL, 1m |
| **Transducers** | |
| Low Frequency: | One 2269G, 457 mm (18 in) dia., 100 mm (4 in) Dual Coil, Differential Drive®, Direct Cooled |
| Nominal Impedance: | 4 Ohms |
| Power Handling: | 2000W Continuous/8000W Peak (AES/2 hours)<br>1200W Continuous/4800W Peak (100 hrs) |
| **System** | |
| Internal Amplification Output (at load): | 3600W Peak, 1800W Continuous |
| DP1 Output Topology | 1-Channel Class-I |
| Signal Processing: | BSS OmniDrive HD processing provides 3-Way Precision bandpass filters, limiting, pre-equalization filters and automatic self-test functions. |
| System Management: | LevelMax™ multi-state limiters provide electrical, mechanical and thermal protection |
| Signal Input: | Analog F-XLR Active 20k Ohms Balanced<br>AES F-XLR, 110 ohms |
| Signal Loop-Through: | M-XLR (analog pass-through)<br>M-XLR (buffered AES) |
| Controls: | Via Harman HiQnet System Architect software |
| AC Power Operating Range: | Auto Select 90-132VAC/216-264VAC, 50/60Hz |
| AC Line Voltage: | 50/60 Hz, Auto-Detect; 100V/220V, 120V/240V (±10%) |
| AC Input Connector:<br>AC Power Loop-thru: | Neutrik PowerCon<br>Neutrik Powercon |
| AC Current Requirement: | 5A per system at 120V, 3.2A per system at 240V |
| **Enclosure** | |
| Box Construction: | Rectangular enclosure. PlyMax™ engineered wood 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. Suspend with VT4887-AF Array Frame. Set of 4 hinge bars included with VT4881ADP-DA system. |
| Grille: | Black perforated steel, Foam backed |
| Dimensions (W x H x D): | 787 mm X 569 mm X 800 mm<br>(31 in X 22.4 in X 31.5 in) |
| Net Weight: | 62.2 kg (137 lb) |

[1]Measured maximum SPL in Free Field conditions with IEC shaped noise.

# INPUT MODULE CHARACTERISTICS AND OPTIONS

## Features

| Description | DPDA |
|---|---|
| | (DrivePack Digital Audio) |
| HiQNet Compliant | Yes |
| Network Communication | 100MB Ethernet |
| Internal Switch | Embedded 2 port switch |
| Network Connections | Ethercon/RJ-45, CAT5/6 |
| Supported Audio format | AES3 Digital, Analog balanced |
| Level Controls | Network Controllable |
| Remote Load Monitoring | Yes |
| User Accessible Delays | Yes |
| Noise Generator | Pink, White, Sine |
| Sine Wave Generator | Continuous, Burst |
| Error Reporting | Yes, via software |
| Digital Speaker Setting Presets | 50, user assignable |
| Polarity Reverse | Yes, via software |
| Firmware upgrades via network | Yes |
| Mute | Remote via Network |

## Specifications

| | |
|---|---|
| Analog Audio Input Connectors | XLR, Female |
| Input Type | Electronically Balanced, RF Filtered |
| Signal Loop-through | XLR, male, passive pass-through |
| Input Impedance | 20k Ohms Balanced |
| AES/EBU Audio Input Connectors | XLR, female & Ethercon/RJ45 for CAT5 UTP Structured Wiring |
| Input Type | Digitally Balanced |
| Signal Loop-through | XLR, Male, 110 ohm, buffered Ethercon/RJ45 (labeled as output) |
| Input Impedance | 110 ohms, balanced |
| Sampling Frequency | Auto sensing, 48 KHz, 96 Khz. |
| Polarity | (+) voltage on XLR pin 2 yields (+) LF pressure |
| Max Analog Input Level | +26 dBu RMS / +29 dBu Peak |
| Max AES/EBU digital Input Level | 10 V pk-pk |
| Frequency Response | 20 Hz – 20k Hz ± 0.5 dB |
| DSP Processing | 24 Bit conversion, 32 bit FPP<br>BSS Omnidrive HD with FIR filters, LevelMax Limiting |
| Latency | Analog 675us<br>AES 48kHz 1.92ms<br>AES 96kHz 1.75ms |
| Dynamic Range (20-20 KHz) | > 103 dB (A Weighted) |
| THD+N (20-20 KHz), rated power | < 0.05% |
| User Programmable Signal Delay | > 2 seconds |
| Input Module Controls | Enable ALT Preset – Mechanical Encoder for array ID and box position |
| Rear Panel Indicators | Cross-patch, AES Lock, Fault, Clip, Signal, Thermal, Ready, Data, Alt Preset Select, Network link: In/Out |

## JBL DrivePack® Software Device Panel


With 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 JBL DrivePack-equipped systems, and 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 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 DPDA, DPIP, DPAN or DPCN input modules. Speaker-dependent processing such as crossover filtering and component equalization, time alignment and protection are not user-configurable. Options are available for connectivity, audio signal path and control functionality.

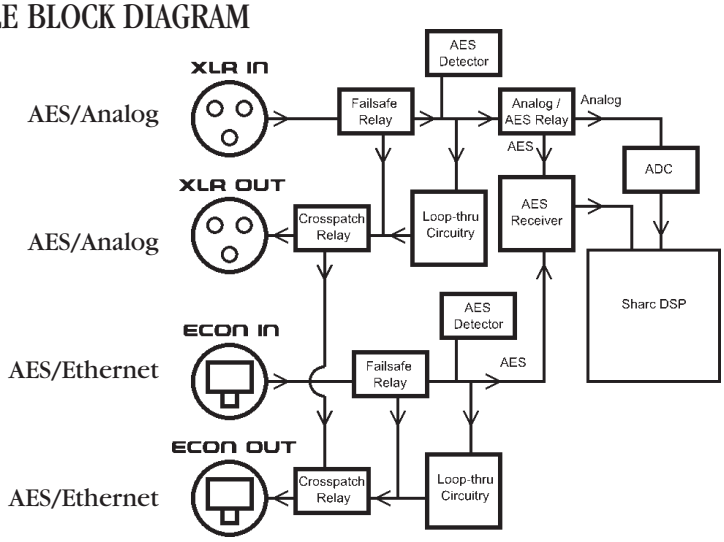
## DPDA (HiQnet Network Input Module with AES Digital Audio)


The DPDA module adds AES/EBU digital audio input capability with analog audio backup, BSS Omnidrive HD digital signal processing and LevelMax multi-stage limiting. Its 100 Mb Ethernet networking (with daisy-chain capability), allows for Remote Control and Monitoring via HiQnet System Architect™ software. A rotary mechanical encoder allows for array identification and box positioning.

Available monitoring functions include: audio input type, AES lock, 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 type (analog or AES), input connector (XLR or Ethercon), input level, input polarity and mute; input compressor attack/release, ratio and makeup gain; individual channel gain and mute. Twenty, type-selectable input filters (10 System and 10 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, swept tone, pink or white noise) are available to facilitate system testing and up to fifty 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 DPDA equipped DrivePack enclosures, providing a powerful control/monitoring interface for large format line array or subwoofer systems. See JBL DPDA specification sheet for more information on DPDA input modules.

HiQnet™

### DPDA INPUT MODULE BLOCK DIAGRAM

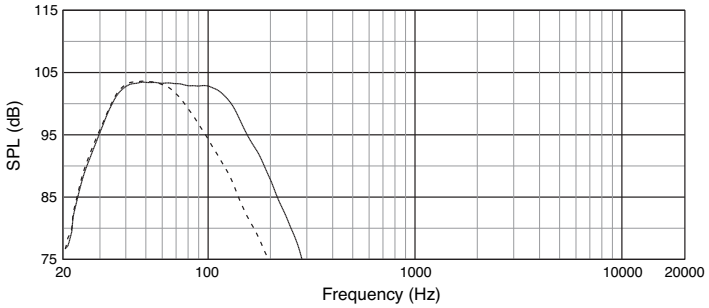



## DPIP (Optional non-networked dbx Input Module with basic functionality)

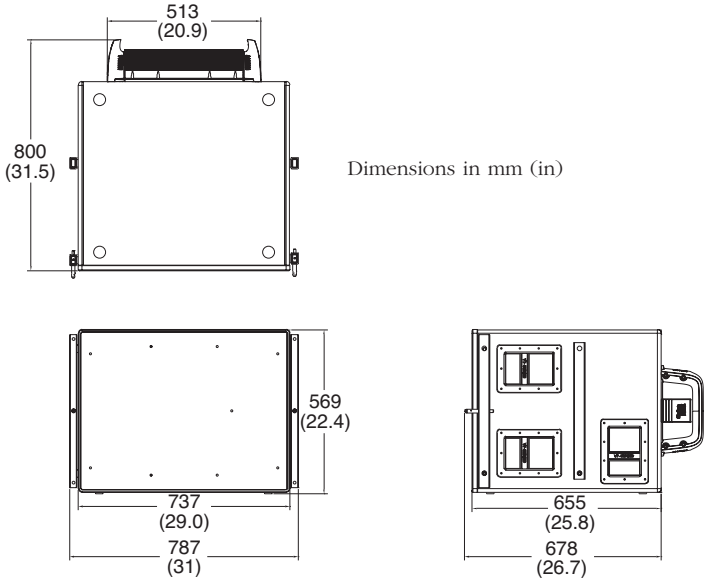

The standard DPIP input module features analog audio inputs and sophisticated onboard digital signal processing technology. Precision bandpass filtering, limiting, time alignment, component equalization and automatic self-test functions ensure optimized performance. Rear panel controls include a 32-position 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.

# VT4881ADP-DA Compact Powered Arrayable Subwoofer Module, Integrated Audio System

## Frequency Response:

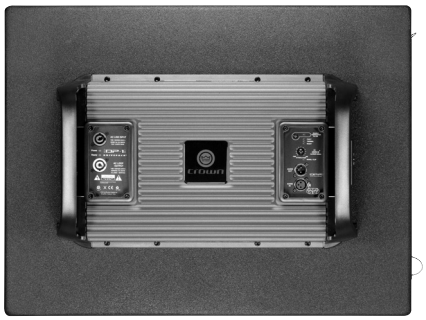



Frequency Response (solid line) of a single VT4881ADP-DA with 80 Hz Subwoofer Filter Enabled (dashed line)




Dimensions in mm (in)

System Dimensions (WxHxD):
787 mm x 569 mm x 800 mm including attached suspension hardware



The JBL DrivePack® DP1 with DPDA input module is attached to the back panel of the subwoofer enclosure, creating the model VT4881ADP-DA. Robust Crown amplification and onboard BSS digital signal processing are combined to create a compact, powerful, integrated audio system.

## VT4881ADP-ACC:

The VT4881ADP-ACC includes items necessary for the proper transport and protection of the VT4881ADP-DA. This accessory kit includes: (1) VT4881-DOLLY & (1) VT4881ADP-COVER.

*Important Note:* The VT4881ADP-ACC is sold as a separate item. One VT4881ADP kit should be ordered with each VT4881ADP-DA or VT4881ADP system to ensure safe and reliable transport of each system in portable use. The VT4881ADP-ACC does not include hingebars for box inter-connection; these are intergal to, and ship with, the VT-4881ADP system enclosure. The VT4881ADP-DA uses either theVT4887-AF or VT4887-SF for array suspension.

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