DPDA INPUT MODULE

HiQnet™ Network Input Module with AES Digital Audio, BSS Omnidrive HD™ Signal Processing

Application:

The JBL DPDA (DrivePack Digital Audio) Input Module enables AES/EBU digital audio capability with analog audio backup, BSS Omnidrive HD™ digital signal processing and LevelMax multi-stage limiting. It is suitable for use on any JBL DrivePack-equipped loudspeaker model in the VERTEC® DP Series and VP Series families of powered loudspeaker systems that is fitted with a DP-1, DP-2 or DP-3 JBL DriverPack® assembly.

Key Features:

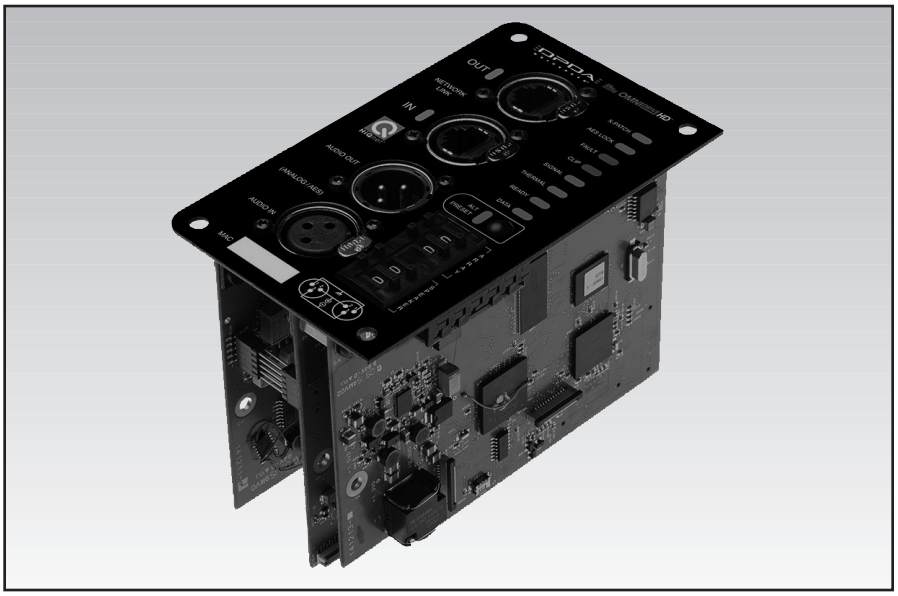
- HiQnet system compatibility for use in conjunction with other Harman Professional audio products
- AES/EBU digital audio, 96 kHz sampling rate
- BSS Omnidrive HD signal processing with F.I.R./I.I.R. filters and LevelMax multi-stage limiting circuitry
- 100 Mb native Ethernet switch with daisy-chain capability enables remote control and monitoring
- Fitted with both Ethercon connectors and XLR connectors; multiple signal path and connectivity options
- Ability to transport AES digital audio signals and Ethernet/HiQnet control over the same CAT5 cable and auto-sensing of array configurations based on CAT5 wiring format
- Auto detection of AES/analog audio signals with failsafe operation and redundancy modes for digital vs. analog audio signal path
- Mechanical encoder for pre-setting array identification and box positioning when PC or electricity are not available
- Speaker-specific device control interface panels for use within Harman's HiQnet System Architect™ software

The DPDA Input Module can be used as a retro-fittable sub-assembly for the noted JBL DrivePack-equipped speaker systems. Upgrading to the DPDA module provides powered loudspeaker system users with AES/EBU digital audio capabilities, the sonic benefits of advanced signal processing features, and a variety of input and connectivity options.

Its onboard 100 Mb Ethernet networking switch with daisy-chain capability allows for Remote Control and Monitoring via HiQnet System Architect™ software. Additionally, a rotary mechanical encoder switch allows for array identification and box positioning, up to 99 different speaker positions within each of 99 different speaker arrays or groups.

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.

Additionally, as part of the system's powerful remote control/monitoring interface, a self-diagnostic mode for speaker load monitoring verifies electrical transfer functions and impedance loads with the simple push of a button.



Features:

HiQNet Compliant:	Yes
Network Communication:	100MB Ethernet Internal 2 port switch
Network Connections:	RJ-45 (Ethercon) for CAT5
Supported Audio format:	Analog and AES/EBU, AES3
Level Controls:	Network Controllable
Remote Load Monitoring:	Yes
User Accessible Input Delay:	Yes
Noise Generator:	Pink, White, Sine, Swept Tone
Sine Wave Generator:	Continuous
Error Reporting:	Yes, via software
Digital Speaker Setting Presets:	50, user assignable
Input 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:	20 k Ohms Balanced
Max Analog Input Level:	+23 dBu RMS (+26 dBu peak)
Polarity:	(+) voltage on XLR pin 2 yields (+) LF pressure
AES/EBU Audio Input	
Connectors:	XLR, female & RJ45 (Ethercon) for CAT5 Wiring
Input Type:	Differentially Balanced
Signal Loop-through:	XLR, Male, 110 ohm, buffered RJ45 (Ethercon) labeled as output
Input Impedance:	110 ohms
Sampling Frequency:	Auto sensing, 32 kHz to 96 kHz
Max AES/EBU Digital Input Level:	7 V pk-pk
Signal Processing	
DSP:	24 Bit conversion, 32 bit Floating Point Processing 96 kHz, BSS Omnidrive HD with FIR filters, LevelMax Multi-Stage Limiting
Latency:	Analog: 675 us AES 48 kHz: 1.92 ms AES 96 kHz: 1.75 ms
Dynamic Range (20-20 kHz):	LF: 101 dB, MF: 97 dB, HF: 104 dB all A-weighted for a DP3
THD+N (20-20 kHz):	< .04%, +4 dBu card output at rated power < 0.5% as tested DP system
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
Dimensions (W x H x D):	127 mm x 76.2 mm x 89 mm (5" x 3" x 3.5")

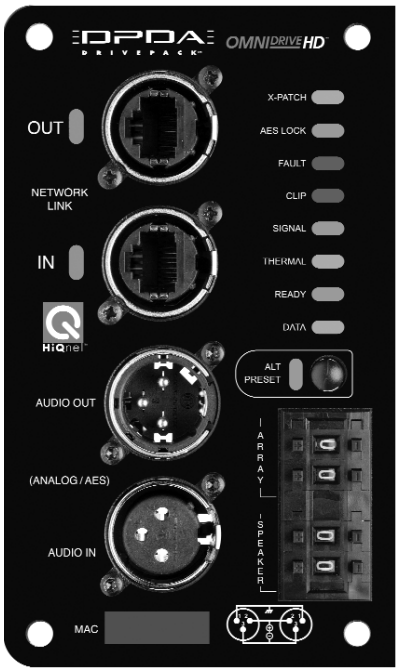
DPDA Input Module (DrivePack Digital Audio)

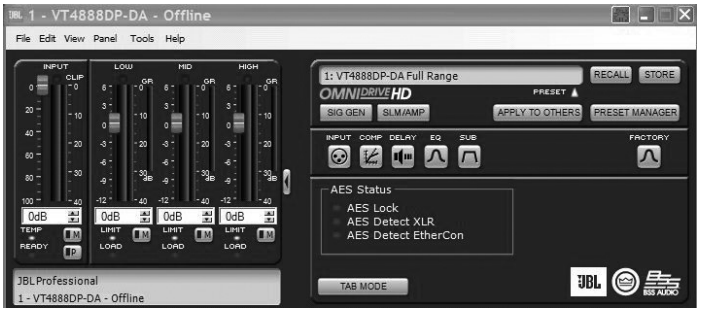
Controls and Indicators

Comprehensive onboard LED indicators and software control and monitoring functions enable complete awareness of the system's configuration and performance status.

Available monitoring functions for the DPDA Input Module 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 control functions in software 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. An "alt-enable" preset switch toggles the high-pass filter on fullrange speakers, differentiating between extended low-frequency use as a stand-alone system, or with a high pass filter enabled for optimal use with subwoofers. On subwoofers, the "alt-enable" switch adjusts the low-pass filter.





JBL DrivePack® Software Device Panel

With HiQnet-compatible DPDA input modules installed, JBL DrivePack systems can be remotely controlled and monitored using HiQnet System Architect™ software. A Windows-based application, this interface provides an intuitive, unified platform for system configuration and operation of not only JBL DrivePack-equipped systems in the VERTEC DP Series and VP Series, but any 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 DPDA-equipped powered speakers with the current version of HiQnet System Architect network configuration and control software, available for download at www.harmanpro.com.

Ordering Code for use with these models:

DPDA-VT4881A	DPDA-VP7212/64
DPDA-VT4887A	DPDA-VP7212/95
DPDA-VT4882	DPDA-VP7215/64
DPDA-VT4888	DPDA-VP7215/95
DPDA-VT4880A	DPDA-VP7315/64
DPDA-VT4889A	DPDA-VPSB7118

DPDA DRIVEPACK™ OMNIDRIVE HD™ PROCESSING JBL

JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.
A Harman International Company

www.jblpro.com

SSDPDA
CRP
03/10