MediaMatrix® nion® nE

Commercial Audio

Commercial Audio

MediaMatrix® nion® nE

Bringing the power and flexibility of nWare™ to a broader array of designers and contractors.

nWare™ v1.6.1

nWare is the proprietary programming and control application for Peavey's MediaMatrix® DSP system.

- Python scripting support for market-leading depth and flexibility
- Programming and GUI objects for custom control interfaces

Free Download

No hardware needed. Get nWare now at mm.peavey.com. Free training also available at mmtraining.peavey.com

The NION (n. nee-on) nE is a programmable digital audio processing node designed for professional and commercial audio and communications applications. Coupled with 3 floating-point DSPs and the industry's most efficient audio algorithms, the NION nE extends the world-class power of MediaMatrix to levels never seen before at a lower price that will be hard to resist. The internal processing core is supported by a wide range of features including MediaMatrix's Scalable I/O Architecture, a modular I/O scheme that supports a variety of optional plug-in cards for maximum versatility. The four module bays support up to 64 simultaneous analog audio channels using NIO-AES cards (or up to 32 channels using 8 channel Nio cards). The optional

CobraNet or Dante port provides another 64 channels, for a total of 128 simultaneous configurable audio channels. The NION nE is built on an embedded Linux architecture designed for stable, efficient and robust performance. Low-latency audio across all I/O ports makes NION perfect for performance audio projects, in addition to applications where a large amount of audio processing is required. Software support includes a Windows-based interface that works with multiple nodes across an Ethernet network. Additional support for third party control and SNMP management tools is included. Control interfacing is provided by both RS-232 and EIA-422/485 ports, while a configurable GPIO system makes interfacing with hard-contacts and logic systems easier than ever..

Supports up to four MediaMatrix Nio input/output cards, including the new Nio-AECTM echo cancellation card.

FEATURES:

- Floating-point DSP engine
- World-famous MediaMatrix® audio algorithms
- Scalable I/O architecture with four NIO™ Series card bays
- Low-latency audio performance
- Software support for large-scale multi-node systems
- Optional, modular CobraNet® or Dante® I/O available (32x32 I/O)
- Network-centric architecture
- Integrated serial support
- Robust embedded Linux system processor/controller
- Integrated flash-based storage
- Supports ControlMatrix® & PageMatrix™ paging applications
- Windows-based configuration and control client (Windows® XP, Vista, and 7)
- Full support for SNMP network management tools
- Universal industrial-grade power supply
- Configurable GPIO with optional DIN rail Euro breakout panel
- Transparent control grouping across physical NIONs and between independent systems
- Supports redundant, self-healing configurations
- Stand-alone or distributed operation
- Robust air handling
- Up to 64 channels total audio I/O
- 32-bit processing engine
- 24-bit A/D and D/A conversion
- Supports sample rates from 16kHz to 96kHz
- Front panel audio and status monitoring
- Rack mounts included
- 2RU package with three Analog Devices SHARC® Hammerhead DSPs
- Includes NWare™ configuration and control software

NION® NE SPECS

REAR PANEL CONNECTIONS

Mains Power:	100v > 240v 50/60 Hz 300W A/C
LaN:	Female RJ-45 - transports control and communications via Ethernet on Category 5e (CAT5) cabling.
EIA-422/485 Serial:	Female DB-9 - supports bidirectional EIA-422/485 multi-dropped serial communications.
RS232 Serial:	Female DB-9 - supports general purpose RS-232 communications.
CobraNet:	Optional CM-1 Module with 2 Female RJ-45 connectors for redundancy - transports digital audio via CobraNet audio network on CAT-5 cabling terminated with male RJ-45 jacks.
Dante:	Optional DLM Module with 2 Female RJ-45 connectors for redundancy - transports digital audio via Dante audio network on CAT-5 or better cabling terminated with male RJ-45 plugs.
GpIO:	Female DB-25 - breaks out configurable general purpose logic and status connections to external DIN terminating block (available separately).
I/O Bays:	4x Proprietary I/O Card Slots - supports proprietary audio and interface cards, available separately.

DIGITAL AUDIO PERFORMANCE

Data Format:	32-bit floating point audio.
Processing:	PowerPC Host (Linux OS) with 3 ADI SHARC Hammerhead digital signal processors.
DSP MFLOpS:	1200 sustained, 1800 peak.
Sample Rate:	Configurable, 22.05KHz, 24KHz, 32KHz, 44.1KHz, 48KHz, 64KHz, 88.1KHz, 96KHz., supports multi-rate processing.
Latency:	Configurable, minimum latency (analog in to analog out @ 48kHz sample rate, 8 sample vector) 1.8msec. Total latency varies with audio configuration.
Storage:	2GB Compact Flash, supports OS, configuration, control and .wav audio.

COBRANET PERFORMANCE

Data Format:	20/24-bit audio.
Protocol:	Ethernet w/ Proprietary CobraNet protocol.
Channels:	32x32 channels at 48kHz.
Maximum cobraNet Latency:	3 sample vectors.
Cable Length:	328 foot (100m) maximum.

DANTE PERFORMANCE

Data Format:	24-bit audio.
Protocol:	Gigabit Ethernet / IP with proprietary Dante protocol.
Channels:	32x32 channels at 48kHz.
Cable Length:	328 foot (100m) maximum.

GPIO

Connections:	25 pins with 16 individually programmable pins, 4 switchable high current outputs, plus a form C fault relay.
Configurations:	Digital Input / Analog Input / Digital Output software selectable.
Digital Input:	Vin < 0.8v = logic 0; Vin > 2.0v = logic 1 (1.2v hysteresis).
Analog Input:	0.0v < Vin < 24.0v; 12-bit analog converter precision.
Digital Output:	logic 0 Vout = 0.0v, Isink <= 2mA; logic 1 Vout = 3.3v, Isource <= 2mA.
High current Outputs	4 pins, each with a 0.5A self-resetting fuse and protection diodes for driving inductive loads. Vout = 11.5v nominal @ Isource = 0.5A. Direct short protection from ground to +36v.
Relay Contacts:	Form C contacts rated at 0.3A @ 125VAC or 110VDC, or 1A @ 30VDC.

MECHANICAL SPECIFICATIONS

Chassis Style:	2RU EIA rack package.
Dimensions:	19 in. W x 16.8 in. D x 3.5 in. H

Features and specifications subject to change without notice.

Peavey Electronics Corporation • 5022 Hartley Peavey Drive • Meridian, MS 39305

Phone: (601) 483-5365 • Fax: (601) 486-1278 • www.peavey.com • Printed in the U.S.A.

Commercial Audio