

DM-NAX-16AIN

DM NAX™ Audio-over-IP Network Encoder with 16 Stereo Inputs



- Audio-over-IP (AoIP) input device, putting local sources on the Crestron® multiroom distributed audio network
- Compact 1 RU form factor, cool-running operation
- Provides 16 stereo inputs for a DM NAX™ AoIP network
- Includes 8 SPDIF (4 TOSLINK® and 4 Coaxial) digital audio inputs, 8 stereo unbalanced analog RCA inputs, and 4 stereo balanced analog Phoenix connector inputs in parallel with RCA inputs 1-4
- Adjustable level compensation for each local input
- Interoperable with Dante® audio networking devices via AES67 compatibility
- Connects directly to a managed network to route to other DM NAX, DM NVX®, or AES67 compatible devices
- Streamlined setup and adjustment via the device's web interface
- Seamless Control system integration with Crestron Home™ and SIMPL Windows programming

The Crestron DM-NAX-16AIN is an Audio-over-IP (AoIP) encoder that provides 16 local stereo audio inputs to a DM NAX Crestron multiroom audio distribution network. It provides 8 digital inputs comprised of 4 SPDIF TOSLINK® connectors and 4 SPDIF coaxial connectors. Each digital input supports 2-channel PCM audio. The DM-NAX-16AIN also provides 8 analog stereo inputs. Inputs 1-4 offer balanced 5-pin terminal block connectors in parallel with unbalanced RCA connectors, and inputs 5-8 offer RCA connectors.

DM NAX™ is built on AES67 standards with additional ease of configuration via a web interface, SIMPL Windows, C#, and/or a RESTful API. It is compatible with DM-NVX® through the AES67 secondary audio stream and also with third-party AES67 solutions and Dante® via the compatibility mode enabled through Dante Controller.

Audio-over-IP

DM NAX takes audio distribution to a whole new level by putting it onto the network, and the scale of DM NAX far exceeds the capabilities of previous generations of Crestron distributed audio. DM NAX units integrate with DM NVX devices to pull audio from video feeds for rooms without displays.

Built-In Network Switch

The DM-NAX-16AIN has a built-in network switch, accessible via the two RJ-45 ports on the rear panel, labeled as **1** and **2**. The ports can be configured to either share network traffic (to support a courtesy port application or daisy-chaining of multiple NAX units) or to isolate control and AoIP traffic between the two ports. The managed switch supports Internet Group Management Protocol (IGMP) Snooping and Querying to manage connecting ports to your AVoIP network.

Specifications

Audio

Input Signal Types	8 stereo unbalanced analog (RCA) includes (4) 5-pin phoenix balanced connector; 8 digital SPDIF (4 TOSLINK® and 4 Coaxial)
Source Compensation	±10.0 dB per input
Input Monitoring	Source Signal Detect
THD	0.002%
S/N Ratio	110 dB digital in, 108 dB analog in
Frequency Response	20 Hz to 20 kHz (±0.6 dB)
Supported Sample Rates	Coaxial: Up to 192 kHz; Optical: 192 kHz

Communications

Ethernet	For control, AoIP, and or console, 100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP
USB	For configuration management

Connectors

ANALOG SOURCES L/R 1 – 8	(8) RCA female comprising (4) unbalanced stereo line-level audio inputs; (4) 5-pin phoenix balanced connector Input Impedance: 10k Ohms; Maximum Input Level: 2 Vrms
SPDIF SOURCES 9 – 12	(4) JIS F05 female (TOSLINK) optical fiber connector; S/PDIF optical digital audio input
SPDIF SOURCES 13 – 16	(4) RCA female; S/PDIF coaxial digital audio inputs; Input Impedance: 75 Ohms
Ethernet 1	(1) 8-wire RJ45 female; 100Base-T/1000Base-TX Ethernet port

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Ethernet 2	(1) 8-wire RJ45 female; 100Base-T/1000Base-TX Ethernet port
USB	(1) USB Type B connector, female; USB computer console port (cable included); For setup only
100-240V~50/60Hz Universal AC	(1) IEC 60320 C14 main power inlet, mates with removable power cord (included)
G	6-32 screw, chassis ground lug

Controls and Indicators

PWR	(1) LED. Amber indicates that the device is booting. White indicates that the device is switched on with audio passing. Red indicates that the device is in standby mode. Off indicates that there is no power from the power supply.
LAN	(1) LED. White indicates that the device is switched on and has a valid IP address. Off indicates that the device is not connected to a network or the IP address is invalid.
NAX	(1) LED. White indicates that AoIP is ready to pass and the unit's PTP clock is synced. Off indicates that no AoIP is passing to or from and/or PTP is not synced.
SOURCE 1-16	(16) LEDs. White indicates signal presence on the specified input/source. Red indicates there is a clipping on an analog input or a bitstream issue on a digital input. Off indicates that there is no signal detected on the specified input/source.
SETUP	(1) LED. Blinking red indicates that a network reset or factory restore has been initiated via the adjacent SETUP button.

Power

Power Consumption	20 Watts
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Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	70 BTU/hr

Construction

Chassis	Metal, black and silver finish, vented sides
Mounting	1 RU rack-mountable

Dimensions

Height	1.25 in. (32 mm)
Width	19 in. (483 mm); 17.28 in. (439 mm) without rack ears
Depth	14.46 in. (368 mm)

Weight

7.39 lb (3.35 kg)

Compliance

Regulatory Model: M201845005

FCC Part 15 Class B digital device, CE, ETL listed

Model

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This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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