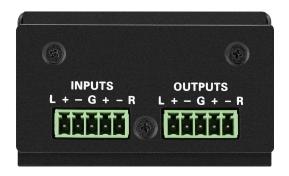
# DM NAX® Audio-over-IP Converter with Balanced/Unbalanced Line-Level Audio Input and Output



- Line-level, balanced/unbalanced analog audio input and output via detachable terminal block connectors
- Power over Ethernet (PoE) network powered
- Mountable in a standard US electrical box, under a table, or on a rack rail via included hardware
- Connects directly to a managed network to route to or from other DM NAX® and DM NVX® devices
- Interoperable with Dante® audio networking devices via AES67 compatibility
- Streamlined configuration through a web interface
- Seamless Crestron system integration with SIMPL Windows programming

The <u>DM-NAX-AUD-IO</u> is a DM NAX encoder and decoder with support for analog line-level audio input and output. The device is housed in a versatile form factor that can be mounted in a single-gang standard electrical box, under a table, or on a rack rail. An additional polycarbonate label is included with rotated text to make the front panel more legible in electrical box installations. The rear panel of the device features an Ethernet connection for PoE, Audio over IP (AoIP), and control.

DM NAX is built on the 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 on the network. The DM-NAX-AUD-IO sends and receives DM NAX and AES67 encoded audio over a standard IP network. A single DM NAX system can handle audio distribution between 32 DM NAX devices and supports up to 256 audio output zones. DM NAX devices can seamlessly pull and distribute the audio from DM NVX sources.

#### Digital Signal Processing (DSP)

DSP capabilities such as bass and treble boost and cut, loudness, adjustable delay, tone profiles, and a full 10-band EQ per output are available on each output channel of the DM-NAX-AUD-IO.

#### **Encoder and Decoder Functionality**

The DM-NAX-AUD-IO can operate as a network AV encoder and decoder. The local input sources on the adapter can be sent as AoIP streams to DM NAX, Dante, or AES67 capable devices. Simultaneously, the DM-NAX-AUD-IO can receive AoIP streams from these same devices and decode them for local output.

### **Specifications**

### Audio

Source

Input Signal	Balanced/unbalanced stereo analog line-
Types	level;
	DM NAX/AES67 audio-over-IP

Output Signal	Balanced/unbalanced stereo analog line-
Types	level:

±10.0 dB per input

DM NAX/AES67 audio-over-IP

Compensation
Input Source Signal Detect

Monitoring
Frequency 20 Hz to 20 kHz ±0.5 dB

Response (at line-level output)

THD+N (at line- 0.005% @ 1 kHz, max output level output)

S/N Ratio (at From line-level input: 110 dB, 20 Hz to line-level 20 kHz, A-weighted;

**output)** From digital input: 113 dB, 20 Hz to 20 kHz, A-weighted

Balance Control Left/right adjustable

**EQ Filter Types** EQ, High Pass, Low Pass, Treble Shelf,

Bass Shelf, Notch

**EQ Center** 10 to 20,000 Hz per band **Frequency** 

**EQ Gain** +20/-40 dB per band

**EQ Bandwidth** 0.1 to 4.0 octaves per band



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#### Communications

Ethernet For control and PoE, AoIP, and/or console, 100/1000 Mbps, auto-switching, auto-

negotiating, auto-discovery, full/half duplex,

DHCP

Connectors

**INPUTS** (1) 5-pin 3.5 mm detachable terminal block;

Balanced/unbalanced line-level audio

inputs;

Maximum Input Level: +21 dBu (8.7Vrms);

Input Impedance:  $10 \text{ k}\Omega$ 

**OUTPUTS** (1) 5-pin 3.5 mm detachable terminal block;

Balanced/unbalanced line-level audio

outputs;

Maximum Output Level: +21 dBu (8.7Vrms);

Channel separation: 100 dB @ 1 kHz;

Output Impedance:  $400 \Omega$ 

**G** (1) 6-32 screw;

Chassis ground lug

ETHERNET (1) 8-pin RJ-45 connector, female;

PoE 100BASE-TX/1000BASE-T Ethernet port;

**Controls and Indicators** 

**ETHERNET** Left amber LED indicates 1000 Mb link

PoE statu

Left green LED indicates 100 Mb link status;

Flashing right amber LED indicates

Ethernet activity

**SETUP** (1) Push button: Used for factory reset

procedures;

(1) LED, illuminates red when the button is pressed, flashes red when reset has been

initiated

Power

PoE IEEE 802.3af Class 0 (12.95 W) compliant;

Compatible with IEEE 802.3af compliant

Ethernet switch or third-party PoE

compliant PSE

Power 5 W

Consumption

**Environmental** 

**Temperature**  $32^{\circ}$  to  $104^{\circ}$  F (0° to  $40^{\circ}$  C)

Humidity 10% to 95% RH (noncondensing)

**Heat** 17 BTU/hr

Dissipation

### Construction

Chassis Metal, black and silver finish

**Mounting** Mountable on the following via included

hardware:

1-gang U.S. electrical box or plaster ring (not included), 3.5 in. (26 mm) electrical box

depth recommended;

Rack rail;

Surface mount

**Dimensions** 

 Height
 1.59 in. (41 mm)

 Width
 2.60 in. (66 mm)

**Depth** 2.11 in. (54 mm)

Weight

7 oz. (199 g)

Compliance

Regulatory Model: M202050001

IC, FCC Part 15 Class B digital device

Model

DM-NAX-AUD-IO

DM NAX® Audio-over-IP Converter with Balanced/Unbalanced

Line-Level Audio Input and Output

**Available Accessories** 

For a list of available accessories, visit the  $\underline{\text{DM-NAX-AUD-IO}}$ 

product page.

# DM NAX® Audio-over-IP Converter with Balanced/Unbalanced Line-Level Audio Input and Output

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 <a href="https://www.crestron.com/How-To-Buy/Find-a-Representative">www.crestron.com/How-To-Buy/Find-a-Representative</a> 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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