

# DM-NAX-AUD-USB

## DM NAX® Audio-over-IP Converter with USB-C® Audio Input and Output



- USB Audio Class 1 (UAC1) device with bidirectional stereo USB audio support
- Power over Ethernet (PoE) network powered
- Line-level, unbalanced analog audio input and output via 1/8 in. (3.5 mm) TRS connectors
- 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 [DM-NAX-AUD-USB](#) is a DM NAX encoder and decoder with support for USB audio and 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. Two 1/8 in. (3.5 mm) TRS connectors for analog line-level audio input and output are also included on the front panel. 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.

### USB Audio

A USB-C® connector is built-in to the front panel of the DM-NAX-AUD-USB, allowing for bidirectional stereo USB audio transfer at rates up to 24-bit/48 kHz. This stereo

signal can be output as a DM NAX AoIP stream onto the network or as an unbalanced line-level analog signal from the local 1/8 in. (3.5 mm) audio output connector.

### Audio-over-IP

DM NAX takes audio distribution to a whole new level by putting it on the network. The DM-NAX-AUD-USB 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-USB.

### Encoder and Decoder Functionality

The DM-NAX-AUD-USB 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-USB can receive AoIP streams from these same devices and decode them for local output.

## Specifications

### Audio

<b>Input Signal Types</b>	USB stereo; Unbalanced stereo analog line-level; DM NAX/AES67 audio-over-IP
<b>Output Signal Types</b>	USB stereo; Unbalanced stereo analog line-level; DM NAX/AES67 audio-over-IP
<b>Source Compensation</b>	±10.0 dB per input
<b>Input Monitoring</b>	Source Signal Detect
<b>Frequency Response (at line-level output)</b>	20 Hz to 20 kHz ±0.5 dB
<b>THD+N (at line-level output)</b>	0.005% @ 1 kHz, max output
<b>S/N Ratio (at line-level output)</b>	From line-level input: 108 dB, 20 Hz to 20 kHz, A-weighted; From digital input: 111 dB, 20 Hz to 20 kHz, A-weighted

# DM-NAX-AUD-USB

## DM NAX® Audio-over-IP Converter with USB-C® Audio Input and Output

<b>Balance Control</b>	Left/right adjustable
<b>EQ Filter Types</b>	EQ, High Pass, Low Pass, Treble Shelf, Bass Shelf, Notch
<b>EQ Center Frequency</b>	10 to 20,000 Hz per band
<b>EQ Gain</b>	+20/-40 dB per band
<b>EQ Bandwidth</b>	0.1 to 4.0 octaves per band

### Communications

<b>Ethernet</b>	For control and PoE, AoIP, and/or console, 100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP
<b>USB</b>	Bidirectional USB Audio Class 1 (UAC1) device connection, up to 24-bit/48 kHz stereo audio transfer

### Connectors

<b>USB</b>	(1) USB Type-C connector, female; UAC1 audio support; Enumerates as a Non-AEC Enabled Speakerphone
<b>INPUT</b>	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input; Maximum input level: 2V <sub>rms</sub> ; Input Impedance: 10 k $\Omega$
<b>OUTPUT</b>	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio output; Maximum output level: 2V <sub>rms</sub> ; Channel separation: 100 dB @ 1 kHz; Output impedance: 100 $\Omega$
<b>G</b>	(1) 6-32 screw; Chassis ground lug
<b>ETHERNET PoE</b>	(1) 8-pin RJ-45 connector, female; 100BASE-TX/1000BASE-T Ethernet port

### Controls and Indicators

<b>ETHERNET PoE</b>	Left amber LED indicates 1000 Mb link status; Left green LED indicates 100 Mb link status; Flashing right amber LED indicates Ethernet activity
<b>SETUP</b>	(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

<b>PoE</b>	IEEE 802.3af Class 0 (12.95 W) compliant; Compatible with IEEE 802.3af compliant Ethernet switch or third-party PoE compliant PSE
<b>Power Consumption</b>	5 W

### Environmental

<b>Temperature</b>	32° to 104° F (0° to 40° C)
<b>Humidity</b>	10% to 95% RH (noncondensing)
<b>Heat Dissipation</b>	17 BTU/hr

### Construction

<b>Chassis</b>	Metal, black and silver finish
<b>Mounting</b>	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

<b>Height</b>	1.59 in. (41 mm)
<b>Width</b>	2.60 in. (66 mm)
<b>Depth</b>	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-USB**  
DM NAX® Audio-over-IP Converter with USB-C® Audio Input and Output

### Available Accessories

For a list of available accessories, visit the [DM-NAX-AUD-USB](#) product page.

# DM-NAX-AUD-USB

## DM NAX® Audio-over-IP Converter with USB-C® 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 [www.crestron.com/How-To-Buy/Find-a-Representative](http://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](http://www.crestron.com/warranty) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

Crestron, the Crestron logo, DM NAX are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. USB-C is either a trademark or registered trademark of USB Implementers Forum, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

Specifications are subject to change without notice.

©2024 Crestron Electronics, Inc.

Rev 03/27/24

# DM-NAX-AUD-USB

## DM NAX® Audio-over-IP Converter with USB-C® Audio Input and Output

