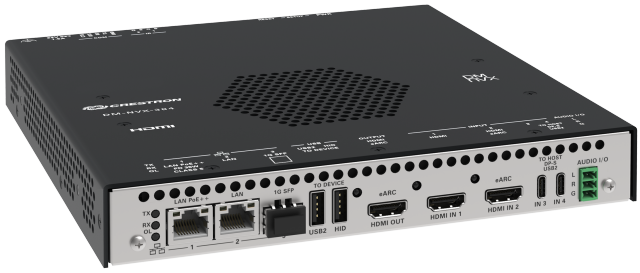
# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity



- *Two HDMI® and two USB-C® inputs*
- *4K60 4:4:4 video over standard Gigabit Ethernet, configurable as an encoder or decoder[1]*
- *Support for 5K Wide (16:9), Ultra-Wide (21:9), and Super-Wide (32:9) resolutions*
- *HDR10, HDR10+, and Dolby Vision® video support*
- *Real-time video performance over the network with Pixel Perfect Processing technology*
- *Enterprise-grade security including 802.1X, Active Directory® credential management, TLS, and AES-128*
- *One HDMI output with 4K60 4:4:4 scaler*
- *Video wall processing*
- *Dynamic text overlay capability*
- *7.1 surround sound audio support*
- *AES67 and analog audio embedding and de-embedding*
- *Copper or fiber Ethernet connectivity*
- *USB 2.0 and KVM signal extension and routing*
- *Device control via RS-232, IR, and CEC*
- *Automatic point-to-point connectivity*
- *Easy setup via built-in web interface*
- *Interoperability with a Crestron 3-Series® or later control system*
- *Streamlined management using DM NVX Director™ virtual switching appliances*
- *Crestron XiO Cloud™ service support*
- *Compact, surface- or rack-mountable design*
- *Powered via PoE++ or optional power pack (sold separately)*

The DM-NVX-384 is a compact DM NVX® AV-over-IP encoder/decoder designed to function as either a transmitter or receiver. Capable of handling a network AV installation of any size, the DM-NVX-384 includes features such as secure web-based control and management, a scaling HDMI output, video wall processing, an analog audio input or output, native AES67 transmit and receive capability, surround sound audio, support for copper and fiber-optic Ethernet connectivity, and USB 2.0 and KVM integration.[2, 3]

### HDMI® and USB-C® 4x1 Input Auto-Switching

The DM-NVX-384 includes two HDMI inputs and two USB-C inputs that comprise a 4x1 input switcher. When used as a decoder mounted behind a typical conference room display device, the HDMI input provides a convenient way to connect to a Crestron AirMedia® presentation gateway, video-conferencing codec, or small form factor computer. The USB-C inputs allow for a DisplayPort™ Alt Mode video connection to laptops that do not feature an HDMI connection. The USB-C inputs also pass USB 2.0 data back and forth from the connected host PC and other DM NVX or DM NUX endpoints.

Switching between the four inputs can be performed automatically using auto-switching mode, programmatically via a control system, or through the web interface.

### Real-Time 4K60 Video Distribution

Engineered for demanding conference room and classroom applications, DM NVX technology ensures real-time, full-motion 4K60 video performance for the presentation of multimedia, videoconferencing, and live camera images. Interactive functions such as gameplay and using a mouse are fluid and natural.

A DM NVX system also provides stability and reliability. Line-synchronized outputs ensure perfect synchronization of content across multiple displays for applications such as digital signage and video walls. Variable Multicast TTL (Time To Live) enables traversing multiple network routers for optimal flexibility.

### Support for 5K Resolutions

The DM-NVX-384 introduces support for 5K video resolutions including 5K Wide (5120×2880), 5K Ultra-Wide 5120 × 2160, and 5K Super-Wide 5120 × 1440, expanding the DM NVX product family's compatibility with the latest generation of computers, monitors, and displays.

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

### Pixel Perfect Processing Technology

A DM NVX system incorporates Pixel Perfect Processing technology, which provides flawless video transport in all applications. Depending on the operating mode, the DM-NVX-384 can encode or decode a video signal to achieve imperceptible end-to-end latency of less than one frame. The image quality of the source is maintained across a 1-Gigabit network at resolutions up to 5K Wide 4:4:4.

### Enterprise-Grade Security

Using advanced security features and protocols such as 802.1X authentication, Active Directory® credential management, AES-128 content encryption, PKI authentication, TLS, SSH, and HTTPS, a DM NVX system delivers a true enterprise-grade network AV solution engineered to fulfill demanding IT policies.

### Encoder and Decoder Functionality

The DM-NVX-384 is configurable to operate as either a network AV encoder or decoder:

- As an encoder, the DM-NVX-384 allows the HDMI or USB-C signal of a laptop computer, camera, or other media source to be transmitted over the network to one or many decoders.[1]
- As a decoder, the DM-NVX-384 receives the signal from a DM NVX encoder and feeds it to a display device via the HDMI output. The decoder can quickly and easily switch between multiple encoders on the network alongside a locally connected HDMI or USB-C source.[1]

The DM-NVX-384 provides a versatile and cost-effective solution for applications that require encoder and decoder operating modes in a single device. The operating mode can be reconfigured dynamically in less than 1 minute via a control system or web browser or can be changed by using the **SETUP** button.

### HDMI Output with 4K60 4:4:4 Scaler

When the DM-NVX-384 is configured as a decoder, the HDMI output feeds the decoded signal to the HDMI input of a local display device, switcher, or other equipment. The built-in scaler ensures an optimal image, scaling the encoded source resolution up or down to match the native resolution of the display device. When the DM-NVX-384 is configured as an encoder, the HDMI output can be used to feed a local display, confidence monitor, or audio system.[1, 4]

### Video Wall Processing

A video wall composed of up to 64 individual displays can be configured using multiple DM NVX endpoints. Each endpoint provides fully adjustable zoom capability and bezel compensation to accommodate a range of video wall configurations and display types. One DM NVX endpoint is required per display, supporting configurations of up to eight wide by eight high.

### Text Overlay

The ability to display dynamic or fixed text on screen provides a means to label the video source or to display special instructions, schedules, announcements, alerts, and other messaging.

### 7.1 Surround Sound Audio

DM NVX technology supports the lossless transport of 7.1 surround sound audio signals, including Dolby® TrueHD, Dolby Atmos®, DTS HD®, DTS:X®, and uncompressed linear PCM. In decoder mode, the DM-NVX-384 can receive both multichannel and 2-channel downmix signals from a DM-NVX-363, DM-NVX-363C, DM-NVX-351, or DM-NVX-351C encoder, allowing either signal to be selected at the HDMI output while the 2-channel signal is automatically routed to the analog output.

### AES67 and DM NAX® Audio Embedding and De-embedding

AES67 support via native support for Crestron DM NAX® Audio-over-IP technology allows the selected audio source to be transmitted as a 2-channel AES67 source while another AES67 2-channel audio stream is received from a Crestron DM NAX device or other AES67 capable device and combined with the video signal.

In DM NVX encoder mode, the received AES67 audio stream can be output via the local HDMI output, primary AV stream, secondary audio stream, and analog audio output. In DM NVX decoder mode, the AES67 received audio stream can be combined with the video and then output via the HDMI output and analog audio output.

### Analog Audio Embedding or De-embedding

An unbalanced stereo analog audio port is included, which can be configured as either an input or output. As an input, the port allows a stereo audio source to be connected and combined with the video signal from the HDMI input or the incoming network video stream. As an output, the port can provide a stereo line-level signal to feed a local sound system or soundbar. The output volume is adjustable via a control system or web browser.[5]

### Breakaway Audio

A DM NVX decoder can select and combine separate video and audio signals from two different inputs or even two different encoders. Combining signals from two separate encoders is limited to 2-channel stereo audio.[6]

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

### Copper or Fiber Ethernet Connectivity

The DM-NVX-384 includes two RJ-45 1000BASE-T ports (Ethernet ports 1 and 2) and one SFP port (Ethernet port 3). Any Ethernet port can be used to transport video over a Gigabit Ethernet network. When not used to transport network video, ports 1 and 2 can provide network connections for an AirMedia gateway, display device, or other local device. The ports can also be used to daisy-chain multiple endpoints feeding a single-source video wall or individual displays that show the same video image. Port 1 is also capable of receiving power from a POE++ compliant Ethernet switch or third-party IEEE 802.3at compliant PSE (power sourcing equipment).[2, 7]

The SFP port enables connection to a fiber-optic network with the use of the appropriate Crestron SFP-1G Series transceiver module (sold separately). A selection of modules is offered to accommodate various multimode and single-mode fiber types.[3]

A DM NVX system can be deployed on an existing corporate or campus network or on a dedicated network. For information about network requirements and guidelines, refer to the DM NVX AV-over-IP System Design Guide.

### USB 2.0 and KVM Integration

DM NVX technology supports the extension of USB signals, which can be switched and routed alongside the AV signal or separately via a control system. USB 2.0 **TO HOST** and **TO DEVICE** ports are provided on the DM-NVX-384, allowing a USB mouse, keyboard, or other peripheral device to be connected to a remote endpoint and routed to a computer or other host at the local endpoint. In addition to KVM switch functionality, various types of USB peripherals are supported, including whiteboards, touch screens, game controllers, cameras, mobile devices, headsets, and flash drives.[8]

USB 2.0 data transport can be configured for Layer 2 or Layer 3. Layer 2 supports USB signal extension in point-to-point and multipoint applications. USB signals can be routed from the **TO DEVICE** ports of up to seven remote DM NVX endpoints to the **TO HOST** port of a single local DM NVX endpoint. Layer 2 also supports Crestron USB-over-Ethernet devices (DM-NUX-L2 or DM-NUX-R2, sold separately), which can be used in locations that do not include DM NVX endpoints. USB signals can be routed between DM NVX and DM NUX devices under the management of a control system.

USB 2.0 Layer 3 data transport supports USB signal extension in DM NVX point-to-point applications across VLANs.

### Device Control

The DM-NVX-384 includes built-in **COM** (RS-232) and **IR** ports for control of the connected display, camera, or other devices by a control system. Additional control capability is provided by CEC (Consumer Electronics Control) over the HDMI connection, potentially eliminating the need for dedicated serial cables or IR emitters.

The **COM** port and CEC over the HDMI output can also enable the display device to be turned on or off automatically without the use of a control system.

### Web-Based Setup

Setup of the DM-NVX-384 is accomplished by using a web browser. Full control and monitoring of the device is enabled through integration with a control system or with a DM NVX Director® virtual switching appliance.

### Streamlined Management Using DM NVX Director® Virtual Switching Appliances

Use of a DM NVX Director® virtual switching appliance (DM-NVX-DIR-80, DM-NVX-DIR-160, or DM-NVX-DIR-ENT) streamlines the entire configuration and control process. A DM NVX Director appliance provides a central point of management and enables the creation of multiple virtual matrix switchers through one easy-to-use web-based portal.

### Crestron XiO Cloud® Service Support

The DM-NVX-384 is compatible with the Crestron XiO Cloud® service, which is a platform for remotely provisioning, monitoring, and managing Crestron devices across an enterprise or an entire client base. The service enables installers and IT managers to deploy and manage thousands of devices simultaneously. Refer to crestron.com/xiocloud for more information.

### Low-Profile Installation

The DM-NVX-384 mounts conveniently to a flat surface or rack rail, and fits easily behind a flat panel display, above a ceiling-mounted projector, beneath a tabletop, or inside a lectern, AV cart, or equipment cabinet. All connectors and LED indicators are positioned on the front and rear of the device, offering optimal access and visibility for a clean, serviceable installation. Power is provided using POE++ or the optional Crestron PW-2420RU power pack (sold separately).[7]

Refer to the DM NVX feature page for additional design tools and reference documents.

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

## Specifications

### Encoding/Decoding

| | |
|---|---|
| **Video Codec** | Encoder: Pixel Perfect Processing (default) or DM-NVX-D10/D20/D200 Series[11]; Decoder: Pixel Perfect Processing or DM-NVX-E10/E20 Series[11] |
| **Video Resolutions** | Up to 5120x2880 @30 Hz (5K Wide) or 5120x1440 @60 Hz (5K Super-Wide); 4:4:4 color sampling; HDR10, HDR10+, Dolby Vision, and Deep Color support |
| **Audio Formats** | Primary multichannel (up to 8-channel LPCM or encoded HBR 7.1 surround sound), secondary 2-channel LPCM[12] |
| **Bit Rates** | 200 to 950 Mbps[10] |
| **Streaming Protocols** | RTP, SDP |
| **Container** | MPEG-2 transport stream (.ts) |
| **Session Initiation** | Multicast via secure RTSP |
| **Copy Protection** | HDCP 2.3, AES-128, PKI |

### Video

| | |
|---|---|
| **Input Signal Types** | HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support[1, 12] (Dual-Mode DisplayPort™ interface and DVI compatible[13])<br>DisplayPort over USB-C (DisplayPort Alt Mode) with HDR10, HDR10+, and 4K60 4:4:4 support |
| **Output Signal Types** | HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support[1] (DVI compatible[13]) |
| **Switcher** | 4x1 in encoder mode (Two HDMI, Two USB-C), manual or auto-switching, breakaway audio,[6] Crestron QuickSwitch HD™ technology<br>5x1 in decoder mode (HDMI, Stream), manual or auto-switching, breakaway audio,[6] Crestron QuickSwitch HD™ technology |
| **Scaler (Decoder Mode Only)** | 4K60 4:4:4 video scaler with motion-adaptive deinterlacing, intelligent frame rate conversion, Deep Color support, HDR10, HDR10+, and Dolby Vision support, widescreen format selection (zoom, stretch, maintain aspect ratio, or 1:1), video wall processing up to 8 wide x 8 high, static or dynamic text overlay |
| **Copy Protection** | HDCP 2.3 |
| **Maximum Resolutions** | Common resolutions are shown in the table below. Custom resolutions are supported at pixel clock rates up to 600 MHz. |

| Scan Type | Resolution | Frame Rate | Color Sampling | Color Depth |
|---|---|---|---|---|
| Progressive | 5120×2880 5K Wide | 30 Hz | 4:4:4 | 24 bit |
| | 5120×2160 5K Ultra-Wide | 30 Hz | 4:4:4 | 24 bit |
| | 5120x2160 5K Ultra-Wide* | 60 Hz | 4:2:0 | 24 bit |
| | 5120×1440 5K Super-Wide | 60 Hz | 4:4:4 | 24 bit |
| | 4096x2160 DCI 4K and 3840x2160 4K UHD | 24 Hz | 4:4:4 | 36 bit |
| | | 30 Hz | 4:4:4 | 36 bit |
| | | 60 Hz | 4:2:2 | 36 bit |
| | | 60 Hz | 4:4:4 | 24 bit |
| | 2560x1600 WQXGA | 60 Hz | 4:4:4 | 36 bit |
| | 1920x1080 HD 1080p | 60 Hz | 4:4:4 | 36 bit |
| Interlaced (Input Only) | 1920x1080 HD 1080i | 60 Hz | 4:4:4 | 36 bit |

*5K Ultra-Wide @60Hz 4:2:0 is supported as an unscaled pass-through resolution only.

### Audio

| | |
|---|---|
| **Input Signal Types** | HDMI (Dual-Mode DisplayPort interface compatible[13]), DisplayPort over USB-C (DisplayPort Alt Mode), analog stereo[5] |
| **Output Signal Types** | HDMI (multichannel pass-through), analog stereo (2-channel) |
| **Digital Formats** | Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS®, DTS ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels |
| **Analog Formats** | Stereo 2-channel |
| **Analog-to-Digital Conversion** | 24-bit, 48 kHz |

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

| | |
|---|---|
| **Digital-to-Analog Conversion** | 24-bit, 48 kHz |
| **AES67 or DM NAX Audio-over-IP** | 24-bit, 48 kHz |
| **Analog Performance** | Frequency Response: 20 Hz to 20 kHz ±0.5 dB;<br>S/N Ratio: >95 dB 20 Hz to 20 kHz A-weighted;<br>THD+N: <0.005% @ 1 kHz;<br>Stereo Separation: >90 dB |
| **Analog Output Volume Adjustment** | -80 to +20 dB |

### Communications

| | |
|---|---|
| **Ethernet** | Auto-switching, auto-negotiating, autodiscovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, IPv4, Active Directory authentication, variable Multicast TTL, HTTPS web browser setup and control, Crestron 3-Series or later control system integration |
| **USB** | USB 2.0 host or device signal extension and routing, Layer 2 or Layer 3 |
| **RS-232** | 2-way device control and monitoring up to 115.2k baud with hardware and software handshaking (via control system) |
| **IR/Serial** | 1-way device control via infrared up to 1.1 MHz or serial TTL (0-5 V) up to 19.2k baud (via control system) |
| **HDMI** | HDCP 2.3, EDID, CEC |
| **USB-C (DisplayPort Alt Mode)** | HDCP 2.3, EDID, CEC, USB 2.0 |
| **DM NVX (via Ethernet)** | HDCP 2.3, AES-128 AV content encryption with PKI authentication, RTP, secure RTSP, SDP, ONVIF, IGMPv2, IGMPv3, SMPTE 2022, FEC (Forward Error Correction) |

### Connectors

| | |
|---|---|
| **USB2 TO DEVICE** | (1) USB Type-A connector, female;<br>USB 2.0 device port;<br>USB signal extender port for connection to a mouse, keyboard, or other USB 2.0 device;[8]<br>Available Power: 500mA at 5 VDC[14] |
| **HID TO DEVICE** | (1) USB Type-A connector, female;<br>USB 2.0 device port;<br>USB signal extender port for connection to a USB HID compliant mouse, keyboard, or other USB HID compliant device;<br>Available Power: 500mA at 5VDC[14] |
| **Ethernet 1 (LAN PoE++)** | (1) 8-pin 8P8C connector, female;<br>100BASE-TX/1000BASE-T Ethernet port;[2]<br>PoE++ PD (powered device) port, IEEE 802.3bt Type 3 Class 5 (60 W) compliant[7, 15] |
| **Ethernet 2 (LAN)** | (1) 8-pin 8P8C connector, female;<br>100BASE-TX/1000BASE-T Ethernet port[2] |
| **Ethernet 3 (1G SFP)** | (1) SFP port;<br>Accepts one Crestron SFP-1G Series transceiver module[3] |
| **HDMI OUT (eARC)** | (1) HDMI Type A connector, female;<br>HDMI digital video/audio output[1] (DVI compatible[13])<br><br>**NOTE:** eARC connectivity will be enabled in a future firmware update. |
| **HDMI IN 1** | (1) HDMI Type A connector, female;<br>HDMI digital video/audio input;[1]<br>(DVI and Dual-Mode DisplayPort interface compatible[13]) |
| **HDMI IN 2 (eARC)** | (1) HDMI Type A connector, female;<br>HDMI digital video/audio input;[1]<br>(DVI and Dual-Mode DisplayPort interface compatible[13])<br><br>**NOTE:** eARC connectivity will be enabled in a future firmware update. |
| **TO HOST DP-S USB2 (IN 3-4)** | (2) USB Type-C® connectors, female;<br>USB 2.0 host ports;<br>USB signal extender ports for connection to a computer or other USB 2.0 host;<br>DisplayPort single stream video inputs |
| **AUDIO I/O** | (1) 3-pin 3.5 mm detachable terminal block;<br>Unbalanced stereo line-level audio input or output;[6]<br>Input Impedance: 24 kΩ;<br>Maximum Input Level: 2Vrms;<br>Output Impedance: 100 Ω;<br>Maximum Output Level: 2Vrms |
| **IR 1-2** | (1) 4-pin 3.5 mm detachable terminal block;<br>Comprises (2) IR/Serial ports;<br>IR output up to 1.1 MHz;<br>1-way serial TTL (0-5 V) up to 19200 baud;<br>IRP2 emitter sold separately |

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

| | |
|---|---|
| **COM** | (1) 5-pin 3.5 mm detachable terminal block;<br>Bidirectional RS-232 port;<br>Up to 115.2k baud, hardware and software handshaking support |
| **24VDC 1.5A** | (1) 2.1 x 5.5 mm DC power connector;<br>24VDC power input;<br>PW-2420RU power pack (sold separately) |
| **G** | (1) 6-32 screw;<br>Chassis ground lug |

### Controls and Indicators

| | |
|---|---|
| **PWR** | (1) Bicolor green/amber LED, indicates operating power is being supplied;<br>Amber indicates device is booting;<br>Green indicates device is operational |
| **SETUP** | (1) Red LED and (1) push-button for onscreen IP address display and changing operating modes (TX or RX) |
| **RESET** | (1) Recessed push-button for hardware reset |
| **OL** | (1) Green LED, indicates an online connection to a control system via Ethernet |
| **TX** | (1) Green LED, indicates unit is in encoder (transmitter) mode |
| **RX** | (1) Green LED, indicates unit is in decoder (receiver) mode |
| **Ethernet 1-3** | (2) LEDs per port;<br>Green indicates Ethernet link status;<br>Amber indicates Ethernet activity |
| **HDMI OUT** | (1) Green LED, indicates video signal transmission at the HDMI output |
| **HDMI IN 1-2** | (2) Green LEDs, indicates sync detection at the HDMI inputs |

### Power

| | |
|---|---|
| **PoE++** | IEEE 802.bt Type 3 Class 5 (60 W) compliant;<br>Compatible with PoE++ compliant Ethernet switch or third-party IEEE 802.3bt compliant PSE[15] |
| **Power Pack (Optional)** | Input: 1.5 A maximum @ 100-240 VAC, 50/60 Hz;<br>Output: 2.5 A @ 24 VDC;<br>Model: PW-2420RU (sold separately) |

### Environmental

| | |
|---|---|
| **Temperature** | 32° to 104°F (0° to 40°C) |
| **Humidity** | 10% to 90% RH (noncondensing) |

### Construction

| | |
|---|---|
| **Chassis** | Metal, black finish, integral mounting flanges, fan cooled;<br>Vented top, front, rear, and sides |
| **Mounting** | Freestanding, surface mount, or attachment to a single rack rail |

### Dimensions

| | |
|---|---|
| **Height** | 8.21 in. (209 mm) |
| **Width** | 8.21 in. (209 mm) |
| **Depth** | 1.22 in. (31 mm) |

### Weight

2.0 lb (0.91 kg)

### Compliance

**Regulatory Model: M202234002**

FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

## Model

**DM-NVX-384**
DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

## Available Accessories

For a list of available accessories, visit the DM-NVX-384 product page.

## Management Tools

**DM-NVX-DIR-80**
DM NVX® Director® Virtual Switching Appliance for 80 Endpoints

**DM-NVX-DIR-160**
DM NVX® Director® Virtual Switching Appliance for 160 Endpoints

**DM-NVX-DIR-ENT**
DM NVX® Director® Virtual Switching Appliance for 1000 Endpoints

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity

Notes:

1. 4K60 4:4:4 performance and HDR support require the use of HDMI cables and couplers with a minimum TMDS bandwidth of 18 Gbps. If 4K60 4:2:0 or 4K30 4:4:4 performance is acceptable, cables and couplers with a minimum bandwidth of 10.2 Gbps may be used. Bandwidth loss is cumulative; therefore, performance may be reduced when inserting multiple cables and couplers inline.
2. The minimum cable required for DM NVX over 1000BASE-T Ethernet (copper) is unshielded CAT5e. All Ethernet ports on the DM-NVX-384 are for connection to an Ethernet network or device. The Ethernet ports cannot be connected to the DM® ports of other Crestron DigitalMedia™ devices.
3. Use of the SFP port requires the purchase of a Crestron SFP-1G Series transceiver module (sold separately). All Ethernet ports on the DM-NVX-384 are for connection to an Ethernet network or device. The Ethernet ports cannot be connected to the DM® ports of other Crestron DigitalMedia™ devices.
4. When the DM-NVX-384 is in encoder mode, the HDMI output resolution is matched to the resolution of the encoded source.
5. The analog audio port can function as an input or output, not both.
6. Combining audio from one encoder with video from another encoder is possible using the secondary 2-channel audio stream only. Multichannel audio from one encoder cannot be combined with video from another encoder.
7. Refer to the "Power" section for powering options.
8. The DM-NVX-384 can be configured to accept the connection of a USB device or a USB host, not both. Crestron DM NVX products are engineered to deliver maximum compatibility with the widest possible range of USB products. Crestron does not guarantee that all USB products are compatible with DM NVX products. Consult the DM NVX AV-over-IP System Design Guide for USB bandwidth considerations.
9. As an encoder, the DM-NVX-384 transmits audio via the secondary 2-channel stream when it receives a 2-channel stereo input signal via the HDMI or analog input.
10. The minimum bit rate for 4K60 video is 350 Mbps. A bit rate below 350 Mbps may display a black screen.
11. In encoder mode, the stream type of the DM-NVX-384 must be set by using the web interface or a control system. The default setting is Pixel Perfect Processing for interoperability with DM NVX 4K60 4:4:4 decoders. For interoperability with a DM-NVX-D10, DM-NVX-D20, or DM-NVX-D200 decoder, the stream type of the DM-NVX-384 encoder must be set to DM-NVX-D10/D20/D200 Series. In addition, the resolution of the encoder must be set so that it does not exceed the maximum resolution of the DM-NVX-D10, DM-NVX-D20, or DM-NVX-D200 decoder.

    In decoder mode, the proper stream type of the DM-NVX-384 is automatically used. For interoperability with DM NVX 4K60 4:4:4 encoders, Pixel Perfect Processing is automatically used as the stream type of the DM-NVX-384 decoder. For interoperability with DM-NVX-E10/E20 Series encoders, DM-NVX-E10/E20 Series is automatically used as the stream type of the DM-NVX-384 decoder.
12. 3D formats are not supported.
13. HDMI connections require an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. CBL-HD-DVI interface cables are available separately.
14. When PoE++ is used to power the DM-NVX-384, a maximum of 500mA is available to power both the USB TO DEVICE and USB HID ports. To prevent possible instability issues, it is recommended that a PW-2420RU power pack (sold separately) be used.
15. In order for Ethernet port 1 to receive PoE++, the port requires connection to a PoE++ compliant Ethernet switch or other equipment that has a PoE++ PSE port. Cabling that connects to a PoE++ PSE port is designed for intrabuilding use only.

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 contact us for additional information by visiting www.crestron.com/contact/our-locations for your local contact.

The original language version of this document is U.S. English.
All other languages are a translation of the original document.

The product warranty can be found at www.crestron.com/warranty.

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

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



HDMI

Specifications are subject to change without notice.

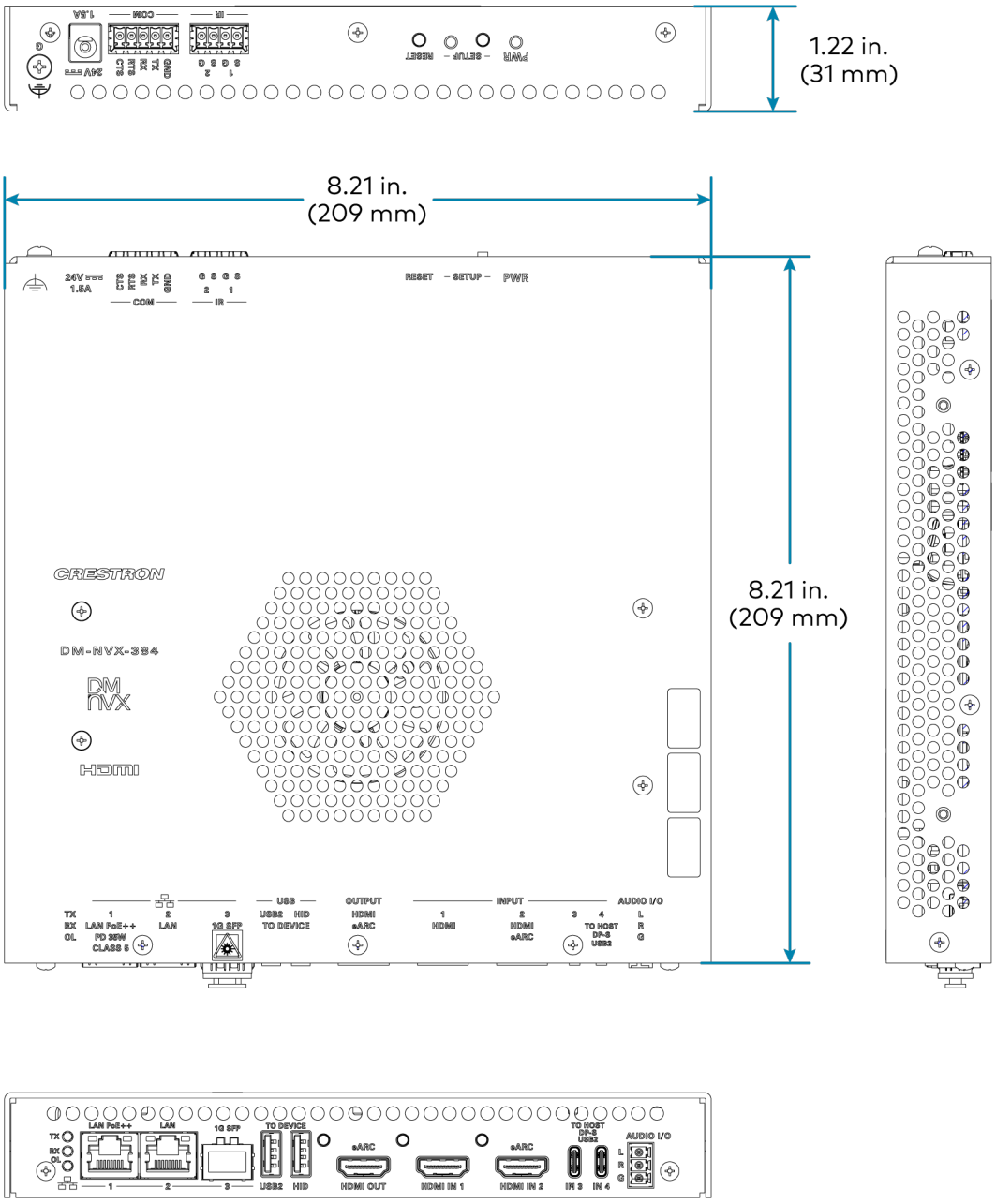


Rev 10/30/24

**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

# DM-NVX-384

## DM NVX® 5K 4x1 AV-over-IP Switcher with HDMI® and USB-C® Connectivity




**Crestron Electronics Inc.**
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041