DM-NVX-352

DM NVX® 4K60 4:4:4 HDR Network AV Encoder/Decoder with Dante® Audio

- *4K60 4:4:4 video over standard Gigabit Ethernet*
- *HDR10 video support*
- *Real-time video performance over the network*
- *Pixel Perfect Processing technology*
- *Enterprise-grade security including 802.1X, Active Directory® credential management, TLS, and AES-128*
- *HDCP 2.2 compliant*
- *Configurable as an encoder or decoder*
- *Two auto-switching HDMI® inputs*
- *One HDMI output with 4K60 4:4:4 scaler*
- *Video wall processing*
- *Dynamic text overlay capability*
- *Adaptive bit rate*
- *Analog audio embedding or de-embedding*
- *7.1 surround sound audio*
- *Dante® or AES67 audio embedding or de-embedding*
- *Breakaway audio*
- *USB 2.0 and KVM signal extension and routing*
- *Copper and fiber Ethernet connectivity*
- *Device control via RS-232, IR, and CEC*
- *Easy setup via built-in web pages*
- *Compatibility 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-mountable design*
- *Powered via UPOE or a local power pack (included)*

Crestron® DM NVX® technology transports ultra high-definition 4K60 4:4:4 video over standard Gigabit Ethernet with no perceptible latency or loss of quality. Using standard network switches and CAT5e UTP wiring, a DM NVX system delivers a high-performance virtual matrix routing solution that is economically advantageous and infinitely scalable for any enterprise or campus-wide 4K content distribution application. Professional onboard scaling, High Dynamic Range support (HDR10), and HDCP 2.2 compliance ensure the ultimate in picture quality and compatibility for all of today's varied media sources.[1, 2]

The DM-NVX-352 is a compact 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-352 includes features such as secure web-based control and management, auto-switching HDMI® inputs, a scaling HDMI output, video wall processing, an analog audio input or output, native Dante® or AES67 transmit and receive capability, USB 2.0 and KVM integration, and support for copper and fiber Ethernet connectivity.[2, 3]

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 the use of a mouse are fluid and natural.

A DM NVX system is engineered for 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.

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-352 can encode or decode a video signal to achieve imperceptible end-to-end latency of less than 1 frame. The image quality of the source is maintained across a 1-Gigabit network at any resolution up to 4K60 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.

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Encoder or Decoder Functionality

The DM-NVX-352 is configurable to operate as either a network AV encoder or decoder:

- As an encoder, the DM-NVX-352 allows the HDMI 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-352 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 locally connected HDMI sources.[1]

The DM-NVX-352 provides a versatile, 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 onboard Setup button.

Auto-Switching HDMI® Inputs

The DM-NVX-352 includes two HDMI inputs. Switching between the two inputs can be performed automatically using auto-switching mode, programmatically via a control system, manually using the onboard Input Select button, or through a computer using a web browser. When used as a decoder mounted behind a typical conference room display device, the HDMI inputs provide a convenient way to connect a Crestron AirMedia® presentation gateway, videoconferencing codec, or small form factor computer.[1]

HDMI Output with 4K60 4:4:4 Scaler

When the DM-NVX-352 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-352 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.

Adaptive Bit Rate

In DM NVX encoder mode, adaptive bit rate can be enabled or disabled using the web interface or a control system. Adaptive bit rate enables the encoder to automatically set the bit rate required for the input resolution of the stream; for example, the adaptive bit rate for a common resolution such as 1920x1080p@60Hz (1080p60) is automatically set to 400 Mbps. Adaptive bit rate makes better use of the available bandwidth.

Analog Audio Embedding or De-embedding

A balanced 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 either 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]

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-352 can receive both multichannel and 2-channel downmix signals from a 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.

Dante® or AES67 Audio Embedding and De-embedding

Dante and AES67 support allows the selected audio source to be transmitted as a 2-channel Dante or AES67 source while another Dante or AES67 2-channel audio stream is received from a Crestron DSP or other third-party device and combined with the video signal.

In DM NVX encoder mode, the Dante or AES67 received 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 Dante or AES67 received audio stream can be combined with the video and then output via the HDMI output and analog audio output.

> **NOTE:** An AES67 stream that is received by a DM NVX endpoint cannot be transmitted from that endpoint.

Breakaway Audio

A DM NVX decoder can select and combine separate video and audio signals from two different inputs—even two different encoders.[6]

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Copper and Fiber Ethernet Connectivity

The DM-NVX-352 includes one RJ-45 1000BASE-T LAN port (Ethernet port 1) and one SFP port (Ethernet port 2). 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]

Ethernet port 1 or 2 can be used to transport video over a Gigabit Ethernet network. Ethernet port 1 can also be used to provide a network connection for an AirMedia gateway, display device, or other local device. In addition, the port can 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 Crestron power injector (DM-PSU-ULTRA-MIDSPAN), UPOE compliant Ethernet switch, or third-party IEEE 802.3bt compliant PSE.[2, 7]

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, Doc. 7977.

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 HOST and DEVICE ports are provided on the DM-NVX-352, 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 HOST port of up to seven remote DM NVX endpoints to the DEVICE port of a single local DM NVX endpoint. Layer 2 also supports Crestron USB over Ethernet Extender Modules (USB-EXT-DM-LOCAL or USB-EXT-DM-REMOTE), which can be used in locations that do not include DM NVX endpoints. USB signals can be routed between DM NVX and USB-EXT-DM devices under the management of a control system.[9]

USB 2.0 Layer 3 data transport supports USB signal extension in DM NVX point-to-point applications across VLANs. USB-EXT-DM devices do not support Layer 3.

Device Control

The DM-NVX-352 includes built-in COM (RS-232) and IR ports for control of the connected display, camera, or other devices under the management of a control system. Additional control capability is provided by CEC (Consumer Electronics Control) over the HDMI connections. Under the management of a control system, the DM-NVX-352 can control the display and source devices, potentially eliminating the need for dedicated serial cables or IR emitters.

The COM port, IR 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-352 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

For applications that are small to moderate in size, a network of DM NVX endpoints can be configured and controlled with the use of a control system. For larger enterprise and campus-wide signal routing applications, adding a DM NVX Director virtual switching appliance (DM-NVX-DIR-80, DM-NVX-DIR-160, or DM-NVX-DIR-ENT) enhances and 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-352 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 in the amount of time it previously took to manage a single device. For more information, visit www.crestron.com/xiocloud.

Low-Profile Installation

The DM-NVX-352 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 UPOE or the included 100-240 V universal power pack.[7]

For additional design tools and reference documents, refer to the DM NVX web page at https://www.crestron.com/nvx.

Specifications

Encoding/Decoding

Video Codec: Pixel Perfect Processing

Video Resolutions: Up to 4096x2160@60Hz (DCI 4K60), 4:4:4 color sampling, HDR10 and Deep Color support

Audio Formats: Primary multichannel (up to 8-channel LPCM or encoded HBR 7.1 surround sound), secondary 2-channel LPCM[10]

Bit Rates: 200 to 950 Mbps[11]

Streaming Protocols: RTP, SDP

Container: MPEG-2 transport stream (.ts)

Session Initiation: Multicast via secure RTSP

Copy Protection: HDCP 2.2, AES-128, PKI

Video

Input Signal Types: HDMI with HDR10, Deep Color, and 4K60 4:4:4 support[1, 12] (Dual-Mode DisplayPort™ interface and DVI compatible[13])

Output Signal Types: HDMI with HDR10, Deep Color, and 4K60 4:4:4 support[1] (DVI compatible[13])

Switcher: 3x1 in decoder mode (HDMI 1, HDMI 2, Stream), 2x1 in encoder mode, manual or auto-switching, breakaway audio[6], Crestron QuickSwitch HD™ technology

Scaler: 4K60 4:4:4 video scaler with motion-adaptive deinterlacing, intelligent frame rate conversion, Deep Color support, HDR10 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 2.2

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	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	30 Hz	4:4:4	36 bit

Audio

Input Signal Types: HDMI (Dual-Mode DisplayPort interface compatible[13]), analog stereo[5]

Output Signal Types: HDMI, analog stereo[5]

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

Digital-To-Analog Conversion: 24-bit 48 kHz

Dante or AES67: 24-bit 48 kHz

Analog Performance:

Frequency Response: 20 Hz to 20 kHz ±0.5 dB
S/N Ratio: >95 dB 20 Hz to 20 kHz A-weighted
THD+N: <0.005% @ 1 kHz
Stereo Separation: >90 dB

Analog Output Volume Adjustment: -80 to +20 dB

Communications

Ethernet: 100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, 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; USB 2.0 computer console (for setup)

RS-232: 2-way device control and monitoring up to 115.2k baud with hardware and software handshaking (via control system); computer console (for setup)

IR/Serial: 1-way device control via infrared up to 1.1 MHz or serial TTL/RS-232 (0-5 V) up to 19.2k baud (via control system)

HDMI: HDCP 2.2, EDID, CEC

DM NVX (via Ethernet): HDCP 2.2, AES-128 AV content encryption with PKI authentication, RTP, secure RTSP, SDP, ONVIF, IGMPv2, IGMPv3, SMPTE 2022, FEC (Forward Error Correction)

Connectors

USB DEVICE: (1) USB Type-B connector, female;
USB 2.0 device port;
USB signal extender port for connection to a computer or other USB 2.0 host[8]

USB HOST: (1) USB Type-A connector, female;
USB 2.0 host port;
USB signal extender port for connection to a mouse, keyboard, or other USB 2.0 device;[8]
Available Power: 500 mA at 5 VDC

ETHERNET 1: (1) 8-pin RJ-45 connector, female;
100BASE-TX/1000BASE-T Ethernet port;[2]
PD (powered device) port;
IEEE 802.3bt Type 3 Class 5 (60 W/4 pair) compliant;
Compatible with Crestron DM-PSU-ULTRA-MIDSPAN, UPOE compliant Ethernet switch, or approved third-party PSE[7]

ETHERNET 2: (1) SFP port;
Accepts one Crestron SFP-1G Series transceiver module[3]

HDMI OUTPUT: (1) HDMI Type A connector, female;
HDMI digital video/audio output[1] (DVI compatible[13])

HDMI INPUT 1 – 2: (2) HDMI Type A connectors, female;
HDMI digital video/audio inputs;[1]
(DVI and Dual-Mode DisplayPort interface compatible[13])

AUDIO I/O: (1) 5-pin 3.5 mm detachable terminal block;
Balanced/unbalanced stereo line-level audio input or output;[5]
Input Impedance: 24k Ohms balanced/unbalanced;
Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced;
Output Impedance: 200 Ohms balanced, 100 Ohms unbalanced;
Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

CONSOLE, SERIAL: (1) 8-pin RJ-45 connector, female;
RS-232 computer console port (for setup)

CONSOLE, USB: (1) USB Type B connector, female;
USB 2.0 computer console port (for setup)

IR 1 – 2: (1) 4-pin 3.5 mm detachable terminal block;
Comprises (2) IR/Serial ports;
IR output up to 1.1 MHz;
1-way serial TTL/RS-232 (0-5 V) up to 19200 baud;
IRP2 emitter sold separately

COM: (1) 5-pin 3.5 mm detachable terminal block;
Bidirectional RS-232 port;
Up to 115.2k baud, hardware and software handshaking support

24VDC 2.0A: (1) 2.1 x 5.5 mm DC power connector;
24 VDC power input;
PW-2420RU power pack included

G: (1) 6-32 screw;
Chassis ground lug

Controls and Indicators

TX: (1) Green LED, indicates unit is in encoder (transmitter) mode

RX: (1) Green LED, indicates unit is in decoder (receiver) mode

OL: (1) Green LED, indicates an online connection to a control system via Ethernet

Ethernet 1: (2) LEDs, green indicates Ethernet link status, amber indicates Ethernet activity

Ethernet 2 LNK: (1) Green LED, indicates Ethernet link status

Ethernet 2 ACT: (1) Green LED, indicates Ethernet activity

HDMI OUTPUT: (1) Green LED, indicates video signal transmission at the HDMI output

HDMI INPUT 1 – 2: (2) Green LEDs, each indicates sync detection at the corresponding HDMI input

PWR: (1) Bi-color green/amber LED, indicates operating power supplied via the power pack, UPOE compliant Ethernet switch, or injector/PSE, illuminates amber while booting and green when operating

SETUP: (1) Red LED and (1) pushbutton for onscreen IP address display and to change between TX and RX modes

RESET: (1) Recessed pushbutton for hardware reset

INPUT SEL: (1) Pushbutton for manual input selection and (2) bi-color green/amber LEDs to indicate the current active input and signal presence at each corresponding input

Power

Power Pack (Included):

> Input: 1.5 A maximum @ 100-240 VAC, 50/60 Hz
> Output: 2.5 A @ 24 VDC
> Model: PW-2420RU

Power Over LAN: IEEE 802.3bt Type 3 Class 5 (60 W/4 pair) compliant;

Compatible with the following PSEs:

- Crestron DM-PSU-ULTRA-MIDSPAN for 2 DM NVX endpoints
- Microsemi® PD-9500G Family Gigabit EEPoE Midspans as follows:
  - PD-9506G for 6 DM NVX endpoints
  - PD-9512G for 10 DM NVX endpoints
  - PD-9524G for 20 DM NVX endpoints

Power Consumption: 26 W typical

Environmental

Temperature: 32° to 104° F (0° to 40° C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 85 BTU/hr

Acoustic Noise: 33 dBA typical

Enclosure

Chassis: Metal, black finish, integral mounting flanges, fan cooled; vented top, front, bottom, and sides

Mounting: Freestanding, surface mount, or attach to a single rack rail

Dimensions

Height: 8.61 in. (219 mm)

Width: 9.27 in. (236 mm)

Depth: 1.50 in. (39 mm)

Weight

2.0 lb (0.91 kg)

Compliance

UL® Listed for US and Canada, CE, IC, FCC Part 15 Class B digital device

Models and Accessories

Model

DM-NVX-352: DM NVX 4K60 4:4:4 HDR Network AV Encoder/Decoder with Dante® Audio

Included Accessories

PW-2420RU: Desktop Power Pack, 24 VDC, 2.5 A, 2.1 mm, Universal (Qty. 1 Included)

Available Accessories

SFP-1G-SX: SFP Transceiver Module for DM NVX Encoders/Decoders, Duplex Multimode Fiber, 850 nm

SFP-1G-LX: SFP Transceiver Module for DM NVX Encoders/Decoders, Duplex Single-Mode Fiber, 1310 nm

SFP-1G-BX-U: SFP Transceiver Module for DM NVX Encoders/Decoders, Simplex Single-Mode Fiber, 1310/1490 nm, Uplink

SFP-1G-BX-D: SFP Transceiver Module for DM NVX Encoders/Decoders, Simplex Single-Mode Fiber, 1490/1310 nm, Downlink

DM-PSU-ULTRA-MIDSPAN: Power Injector

IRP2: IR Emitter with Terminal Block Connector

USB-EXT-DM-LOCAL: USB over Ethernet Extender with Routing, Host Module

USB-EXT-DM-REMOTE: USB over Ethernet Extender with Routing, 4-Port Device Module

CBL-HD-6: Crestron Certified HDMI Interface Cable, 18 Gbps, 6 ft (1.8 m)

DM-CBL-ULTRA-PC-10: DigitalMedia™ Ultra Patch Cable, 10 ft (3 m)

DM-CONN-ULTRA-RECP-20: DigitalMedia Ultra Keystone RJ-45 Jack, 20-Pack with Termination Tool

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

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-352 are for connection to an Ethernet network or device; they cannot be connected to the DM® ports of other Crestron devices.
3. The use of a fiber-optic Ethernet port requires the purchase of a Crestron SFP-1G Series transceiver module (sold separately). All Ethernet ports on the DM-NVX-352 are for connection to an Ethernet network or device; they cannot be connected to the DM ports of other Crestron devices.
4. When the DM-NVX-352 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. Analog audio output is only functional when the DM-NVX-352 is receiving a 2-channel stereo input signal. A 2-channel downmix signal from a multichannel surround sound source requires the use of a Crestron DM-NVX-351 or DM-NVX-351C.
6. Audio from one onboard HDMI input cannot be combined with video from the other onboard HDMI input. 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" specifications section for approved powering options.
8. The DM-NVX-352 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, Doc. 7977, for USB bandwidth considerations.
9. The DM-NVX-352 is not compatible with the USB HID signal extender technology found in other Crestron DM products.
10. As an encoder, the DM-NVX-352 does not transmit audio via the secondary 2-channel stream except when it is receiving a 2-channel stereo input signal via the HDMI or analog inputs.

11. The minimum bit rate for 4K60 video is 350 Mbps. A bit rate below 350 Mbps may display a black screen.

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.

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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(219 mm)

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