# DM NUX USB over Network Wall Plates with Routing



- Provide reliable, high-speed USB signal extension for most USB 1.1 or 2.0 devices<sup>1</sup>
- Compatible with Crestron® USB over Ethernet Extenders with Routing (DM-NUX-L2 and DM-NUX-R2)
- Supports Virtual Hub capabilities with up to five DM-NUX-R2-1G endpoints
- Allow simple, point-to-point USB extension up to 330 ft (100 m) over CAT5e (or better)<sup>2</sup>
- Power over Ethernet (PoE)<sup>3</sup>
- Enable USB signal routing under the control of a Crestron control system or DigitalMedia™ system<sup>4</sup>
- Mount in an unobstructed North American 1-gang electrical box (not included)
- Plug-and-play compatible with most types of USB 1.1 and 2.0 devices and hosts<sup>1</sup>
- No drivers required with Windows®, macOS®, or Linux® operating systems¹
- Transport USB over Ethernet or CAT5e at speeds up to 480 Mbps
- Mass Storage Acceleration maximizes USB 2.0 bulk transfer speeds
- Expandable using up to 4 USB hubs (not included)
- DM-NUX-R2-1G provides 4 USB Type A ports
- Expand upon the USB-HID routing capabilities of a DigitalMedia™ system without additional wiring
- Add USB host or device ports to any DM® transmitter, receiver, or switcher
- USB local (host) or remote (device) endpoint sold individually for maximum flexibility

The DM NUX USB over Network Wall Plates with Routing (DM-NUX-L2-1G and DM-NUX-R2-1G) deliver reliable, high-speed USB signal extension and routing for USB 1.0, 1.1, and 2.0 devices throughout a home, business, or campus for distances up to 330 ft (100 m). Featuring Virtual Hub capabilities, five DM-NUX-R2-1G endpoints may simultaneously be connected to a single DM-NUX-L2-1G endpoint. Creating this virtual hub allows numerous USB devices to control a single host device (such as a PC).¹ The USB signals are transported over the local network and managed through a Crestron control system.

As part of a Crestron DigitalMedia™ system, the USB endpoints provide seamless routing of USB signals alongside video and audio. From any room with a video display, you can switch between several computers, media servers, and game consoles anywhere in the building and control each one using your mouse and keyboard, game controller, or electronic whiteboard.¹ Sync your smartphone, upload photos, and share music and video files with a computer — all from clear across the building.

The USB endpoints expand on DigitalMedia's built-in USB HID routing abilities, adding enhanced USB connectivity to DM® transmitters, receivers, or switchers without requiring any additional wiring. Simply connect a USB endpoint to the LAN port of a DM transmitter or receiver, or to a port on the local area network.<sup>4</sup> Two types of wall plate USB endpoints are available:

- DM-NUX-R2-1G Provides connectivity for up to four USB devices (keyboards, whiteboards, mobile devices, etc.) at one location
- DM-NUX-L2-1G Provides connectivity for a single USB host (computer, media server, codec, etc.)

The USB endpoints may be used to provide simple, point-to-point USB signal extension, either over an Ethernet LAN or a dedicated CAT5e cable.<sup>2</sup> At least one remote (device) endpoint (DM-NUX-R2-1G) and one local (host) endpoint (DM-NUX-L2-1G) are required to form a working system. The endpoints are sold individually to accommodate any system configuration.

The DM-NUX-L2-1G and DM-NUX-R2-1G mount in an unobstructed North American 1-gang electrical box and are compatible with the DM-NUX-L2 and DM-NUX-R2 endpoints.

NOTE: The DM-NUX-L2-1G and DM-NUX-R2-1G route USB signals over an Ethernet network. For simple point-to-point USB signal extenders, please refer to the USB over Category Cable Extender Wall Plates (<u>USB-EXT-2-REMOTE-1G</u> and <u>USB-EXT-2-LOCAL-1G</u>) or the USB over Category Cable Extenders (<u>USB-EXT-2-KIT</u>).



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## **Specifications**

### Communications

Ethernet 100Base-T or 1000Base-T, Layer 2

LINK Speed Up to 480 Mbps, dependent upon network speed and quality

USB Device USB 1.0/1.1 and 2.0 with Hub compatible including isochronous devices<sup>1</sup>

USB Hub Any signal chain may include up to 4 USB Support hubs plus one DM-NUX-L2-1G and one

DM-NUX-R2-1G<sup>1</sup>

Maximum USB 30 USB devices, or 4 USB hubs with 26

**Devices** USB devices

Host Computer Windows®, macOS®, and Linux® operating

OS Support system

**USB Throughput** USB 2.0 up to 480 Mbps, USB 1.1 up to

12 Mbps

## Connectors - Local endpoint

CONFIG

24 V 0.75 A (1) 2-pin 3.5 mm detachable terminal

block;

24VDC power input<sup>3</sup>
For factory use only

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

Connects to an Ethernet network or directly to a Remote endpoint<sup>2</sup>

IEEE 802.3Af

**USB** (1) USB Type B connector, female

USB 2.0 device port for connection to the USB host computer, media server, game

console, annotator, codec, etc.

### Connectors - Remote endpoint

24 V 0.75 A (1) 2-pin 3.5 mm detachable terminal

block;

24VDC power input

**CONFIG** For factory use only

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

Connects to Link port on the Local

endpoint<sup>2</sup> IEEE 802.3Af

**USB** (4) USB Type A connectors, female;

USB 2.0 host ports for connection of USB

devices such as mice, keyboards, and

other USB devices<sup>1</sup>

## Indicators - Local endpoint

ACT	(1) Amber LED, indicates data activity over the LINK connection
HOST	(1) Green LED, indicates a valid connection to the USB host
LINK	(1) Green LED, indicates a valid LINK connection to the Remote endpoint
PAIR	(1) Pushbutton, used to establish a connection with a Remote endpoint
PWR	(1) Blue LED, indicates operating power is supplied via the USB host

## Indicators – Remote endpoint

ACT	(1) Amber LED, indicates data activity over the LINK connection
HOST	(1) Green LED, indicates a valid connection to the USB host at the Local endpoint
LINK	(1) Green LED, indicates a valid LINK connection to the Local endpoint
PAIR	(1) Pushbutton, used to establish a connection with a Local endpoint
PWR	(1) Blue LED, indicates operating power is supplied via the power supply

### Power

**DM-NUX-L2-1G** USB powered via the USB host interface;

IEEE 802.3Af Powered device;

An optional ferrite bead is provided to reduce or prevent EMI (electromagnetic

interference).3

**DM-NUX-R2-1G** Input: 100-240VAC, 50/60 Hz;

Output: 0.75A @ 24VDC

IEEE 802.3Af Powered device

An optional ferrite bead is provided to reduce or prevent EMI (electromagnetic

interference).3

### **Environmental**

Temperature 32° to 122°F (0° to 50°C)

Humidity 20% to 80% RH (non-condensing)

### **Enclosure**

Construction Metal, black finish with white or black

polycarbonate label overlay

Flush Wall Mount Mounts in an unobstructed North

American 1-gang electrical box (not

included);

FP-G1 series decorator style faceplate

(not included)



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#### **Dimensions**

 Height
 4.12 in. (105 mm)

 Width
 1.72 in. (44 mm)

 Depth
 1.95 in. (50 mm)

## Compliance

IC, FCC Part 15 Class B digital device

## Models

### DM-NUX-L2-1G-W

DM NUX USB over Network Wall Plate with Routing, Local, White

### DM-NUX-L2-1G-B

DM NUX USB over Network Wall Plate with Routing, Local, Black

#### DM-NUX-R2-1G-W

DM NUX USB over Network Wall Plate with Routing, Remote, White

#### DM-NUX-R2-1G-B

DM NUX USB over Network Wall Plate with Routing, Remote, Black

#### Notes:

- 1. The USB endpoint is engineered to deliver maximum compatibility with the widest possible range of devices. Crestron does not guarantee that all USB devices or hosts are compatible with the USB endpoint. Certain USB devices may require additional driver installation if not directly supported by the computer's operating system. A web camera may not be used when five or more DM-NUX-R2-1G endpoints are paired. Video from two cameras connected to a DM-NUX-R2-1G may not be viewed on different applications simultaneously. Any 1.0/1.1 devices need a USB hub.
- 2. For a direct link connection (not on a network) between the Local and Remote endpoints, as a minimum, use high quality, solid core CAT5e (or better) unshielded twisted pair (UTP) cable. To comply with the European Directive (CE), Crestron recommends using high-quality, solid core CAT5e (or better) shielded twisted pair (STP) cable. If connecting either endpoint through a wall jack, a stranded patch cord may be used. The maximum aggregate cable length is 330 ft (100 m) between units. The minimum cable length is 6 ft (1.8 m). Do not connect the LINK ports to any other USB extender, including the USB-EXT-2, USB-EXT-2-LOCAL-1G, and USB-EXT-2-REMOTE-1G
- A ferrite bead is provided to reduce or prevent EMI (electromagnetic interference). When using a power source other than PoE, Crestron recommends installing this ferrite bead on the power supply cable close to the device.
- 4. All USB endpoints must be on the same layer 2 domain as the control system or DigitalMedia system. Follow accepted guidelines for proper installation and configuration of the local area network to ensure optimum performance.

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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