

# HD-RXU-4KZ-202

## DM Lite® 4K60 4:4:4 Receiver and 2x2 Auto-Switcher for HDMI® and USB 2.0 Signal Extension over CATx Cable



- DM Lite® receiver functionality designed to interoperate with a DM Lite HD-TXU-4KZ Series transmitter
- Point-to-point extension of an HDMI® AV signal and USB 2.0 data signals over a CAT5e or higher cable
- Two inputs with automatic switching:
  - One HDMI input with associated USB 2.0 USB-C® input
  - One DM Lite input
- DM Lite transmission distance up to 130 ft (40 m) for UHD and 4K signals or up to 230 ft (70 m) for 1080p, WUXGA, and 2K signals
- 4K60 4:4:4 capability
- HDR10, HDR10+, and Dolby Vision® video formats
- Enterprise-grade security
- Compliance with HDCP 2.3
- Integrated web server for device configuration and management
- Automatic display control using CEC (Consumer Electronics Control)
- EDID management
- Interoperability with a Crestron 3-Series® or later control system
- XiO Cloud® service support
- .AV Framework™ technology support
- Compact, surface-mountable design
- Power from 24VDC power pack (included) or from remote DM Lite transmitter (surface mountable only)

The HD-RXU-4KZ-202 is a DM Lite® 4K60 4:4:4 receiver designed to interoperate with a DM Lite HD-TXU-4KZ Series transmitter for the transmission of HDMI® and USB 2.0 signals. A CAT5e or higher twisted pair cable is used to connect the HD-RXU-4KZ-202 to the DM Lite transmitter. For 1080p, WUXGA, and 2K signals, a cable length of up to 230 ft (70 m) is supported. For UHD and 4K signals, a cable length of up to 130 ft (40 m) is supported.<sup>1</sup>

### Interoperability with a DM Lite HD-TXU-4KZ Series Transmitter

For interoperability between the HD-RXU-4KZ-202 and an HD-TXU-4KZ Series transmitter, the DM Lite input port of the HD-RXU-4KZ-202 must be connected to the DM Lite output port of the HD-TXU-4KZ Series transmitter. Examples of supported DM Lite transmitters are the HD-TXU-4KZ-211, HD-TXU-4KZ-111-E, and HD-TXU-4KZ-111-2G.

**NOTE:** If the HD-RXU-4KZ-202 is paired with a DM Lite transmitter other than an HD-TXU-4KZ Series transmitter or paired with a DMPS Lite™ HD-PS Series switcher, USB 2.0 data extension is not supported.

### 4K60 4:4:4 and HDR Support

The HD-RXU-4KZ-202 supports video resolutions up to 4K60 with 4:4:4 color sampling. HDR10, HDR10+, and Dolby Vision® video formats are also supported.<sup>2</sup>

### Integrated Web Server

The HD-RXU-4KZ-202 includes a web server that enables device configuration and management. The web server also enables device, network, and other types of status information to be viewed.

### Automatic Switching of Inputs

The web interface of the HD-RXU-4KZ-202 or control system programming can be used to configure the AV switching behavior of the HD-RXU-4KZ-202. Switching between the HDMI and DM Lite inputs can occur based on the last connected input or on the routing priority assigned to each input. In addition, input and output selection push buttons on the front of the HD-RXU-4KZ-202 enable the desired input and output be selected manually.

### USB 2.0 Data Extension

Two USB 2.0 host ports are provided on the HD-RXU-4KZ-202, enabling connection to USB 2.0 peripheral devices. Various types of USB peripheral devices are supported, including mice, keyboards, whiteboards, touch screens, game controllers, cameras, mobile devices, headsets, printers, flash drives, hard drives, and USB hubs.<sup>3</sup>

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### Compact, Surface-Mountable Design

Compact in design, the HD-RXU-4KZ-202 can be mounted onto a flat surface such as a wall behind a flat-panel display or a ceiling above a projector. It can also be attached to a single rack rail in the back of an equipment cabinet. The HD-RXU-4KZ-202 can receive power from the included power pack or from the remote DM Lite transmitter.<sup>4</sup>

### Specifications

#### Video

<b>Input Signal Types</b>	HDMI® (DVI and Dual-Mode DisplayPort™ interface compatible <sup>5</sup> ) and DM Lite® with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support
<b>Output Signal Type</b>	HDMI® (DVI compatible <sup>5</sup> ) with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support <sup>2</sup>
<b>Copy Protection</b>	HDCP 2.3
<b>Resolutions</b>	Common resolutions are listed in the following table.

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 DCI 4K & 3840x2160 4K UHD	24 Hz	4:4:4	12 bit
		30 Hz	4:4:4	12 bit
		60 Hz	4:2:2	12 bit
		60 Hz	4:4:4	8 bit
	2560x1600 WQXGA	60 Hz	4:4:4	8 bit
	1920x1080 FHD 1080p	60 Hz	4:4:4	12 bit
Interlaced (HDMI input only)	1920x1080 HD 1080i	30 Hz	4:4:4	12 bit

**NOTE:** The maximum supported resolution is 4K60 with 4:4:4 color sampling. Custom resolutions are supported at pixel clock rates up to 600 MHz.

#### Audio

<b>Input Signal Type</b>	HDMI, DM Lite
<b>Output Signal Type</b>	HDMI
<b>Digital Formats</b>	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

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Communications		Ground	(1) Chassis ground lug
HDMI	HDCP 2.3, EDID, CEC		
DM Lite	HDCP 2.3, EDID; USB 2.0 up to 300 Mbps		
USB	USB signal extension via USB 2.0 host and device ports		
Ethernet	100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, Web browser setup and control, Crestron control system integration, IEEE 802.1X, Secure CIP, Authentication, SSH/SSL, TLS		
Connectors		Controls and Indicators	
SERVICE	(1) USB 2.0 Type-A connector, female; Used for firmware loading and configuration management; Can also provide up to 5V 500 mA power to a USB powered device	PWR	(1) LED, indicates that power is being applied to the device. Amber indicates that the device is booting. Green indicates that the device is operational.
24V 1.9A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; <a href="#">PW-2420RU</a> power pack included <sup>4</sup>	AUTO	(1) Push button for enabling or disabling automatic switching of inputs; (1) LED, green indicates that automatic switching of inputs is enabled
HDMI OUTPUT 1-2	(2) HDMI Type A connectors, female; HDMI digital video/audio output; DVI compatible <sup>5</sup>	SETUP	(1) Push button for Ethernet setup; (1) LED, red indicates that the SETUP push button is pressed
HDMI INPUT 1	(1) HDMI Type A connector, female; HDMI digital video/audio input; DVI and Dual-Mode DisplayPort interface compatible <sup>5</sup>	INPUT 1	(1) Push button for manual selection of HDMI input; (1) LED, green indicates that the HDMI input is routed to an output, and amber indicates that a source is detected but is not routed to an output
DEVICE INPUT 1	(1) USB Type-C® connector, female; USB 2.0 device port associated with HDMI input for AV sources that require USB 2.0 support; USB signal extender port for connection to a computer or other USB 2.0 host <sup>3</sup>	INPUT 2	(1) Push button for manual selection of DM Lite input; (1) LED, green indicates that the DM Lite input is routed to an output, and amber indicates that a source is detected but is not routed to an output
HOST	(2) USB Type-A connectors, female; USB 2.0 host ports; USB signal extender ports for connection to USB mice, keyboards, or other USB 2.0 peripheral devices; <sup>3</sup> Available Power: 500 mA @ 5VDC per port	OUTPUT 1	(1) Push button for manual selection of HDMI output 1; (1) Green LED, indicates that a display or other destination device is detected and HDMI output 1 is transmitting video. Amber indicates that a display or other destination device is detected but no video is routed to the output.
DM LITE IN 2	(1) 8-pin RJ-45 yellow connector, female, shielded; DM Lite input port for connection to the DM Lite output port of a DM Lite HD-TXU-4KZ Series transmitter <sup>1,6</sup>	OUTPUT 2	(1) Push button for manual selection of HDMI output 2; (1) Green LED, indicates that a display or other destination device is detected and HDMI output 2 is transmitting video. Amber indicates that a display or other destination device is detected but no video is routed to the output.
LAN	(1) 8-pin RJ-45 connector, female; 100BASE-TX/1000BASE-T Ethernet port for device configuration and management	DM LITE IN 2	(2) LEDs on RJ-45 connector. Green indicates that a DM Lite link is established. Flashing amber indicates non-HDCP video, and solid amber indicates HDCP video.

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### LAN

(2) LEDs on RJ-45 connector.  
Green indicates that a 100 Mbps link is established.  
Solid amber indicates that a 1000 Mbps link is established.  
Flashing amber indicates 1000 Mbps Ethernet activity.

### Power

#### Power Pack (Included)

Input: 100-240VAC  
Output: 24VDC 2.5A  
Model: [PW-2420RU<sup>4</sup>](#)

### Environmental

Temperature 32° to 104°F (0° to 40°C)

Humidity 20% to 90% RH (non-condensing)

### Enclosure

Chassis Metal, black finish, vented top and sides, 2 mounting brackets included

Mounting Freestanding, surface mountable, or attachment to a single rack rail

### Dimensions

Height 1.20 in. (30 mm)

Width 8.52 in. (216 mm)

Depth 6.48 in. (165 mm)

### Weight

1.95 lb (0.88 kg)

### Compliance

#### Regulatory Model: M202047008

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

To search for product certificates, refer to [support.crestron.com/app/certificates](#).

### Model

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### Included Accessory

#### PW-2420RU

Desktop Power Pack, 24VDC, 2.5A, 2.1 mm

### Available Accessories

For a list of available accessories, visit the [HD-RXU-4KZ-202](#) product page.

Notes:

1. For DM Lite connections, use Crestron DM-CBL-8G, Crestron DM-CBL-ULTRA, or third-party CAT5e or higher cable. For information about the maximum transmission distance for each cable type, refer to [Online Help Answer ID 1001567](#).
2. To safeguard against unpredictable environmental electrical noise that may impact performance at resolutions above 1080p, shielded cable and connectors are recommended for all applications and are required when bundling multiple cables in a wire run. Cables are sold separately.
3. 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.
4. The HD-RXU-4KZ-202 is engineered to deliver maximum compatibility with the widest possible range of USB devices. Crestron does not guarantee that all USB devices are compatible with the HD-RXU-4KZ-202.
5. When a surface-mountable DM Lite receiver is paired with a surface-mountable DM Lite transmitter, either the power pack included with the receiver or the transmitter can be used to power both devices. A power pack must not be connected to both devices simultaneously. When a surface-mountable DM Lite receiver is paired with a wall plate DM Lite transmitter, the power pack included with the receiver must be used to power both devices.
6. The HDMI input requires an appropriate adapter or interface cable to accommodate a Dual-Mode DisplayPort or DVI signal. The HDMI output requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HD-DVI interface cables are sold separately.
7. Examples of supported DM Lite transmitters are the HD-TXU-4KZ-211, HD-TXU-4KZ-111-E, and HD-TXU-4KZ-111-2G.

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 [patents.crestron.com](#).

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

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**HDMI**

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