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)*

The HD-RXU-4KZ-202 is a DM Lite® 4K60 4:4:4 receiver designed to pair with a DM Lite HD-TXU-4KZ Series transmitter. The paired transmitter and receiver enable the extension of an HDMI® AV signal along with USB 2.0 data. This is useful in applications where an AV source is located remotely from its destination, such as a display, projector, or codec solution. A CAT5e or higher twisted pair cable must be used to connect the HD-RXU-4KZ-202 to the DM Lite transmitter.[1]

Interoperability with HD-TXU-4KZ Series Transmitters

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.

> **NOTE:** USB 2.0 data extension is not supported 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.

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.[2]

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 AV switching behavior. Switching between the HDMI and DM Lite inputs occurs 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 a wide variety of supported USB 2.0 peripheral devices.[3]

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 receives power from the included power pack.[4]

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Specifications

Video

Input Signal Types	HDMI® (DVI and Dual-Mode DisplayPort™ interface compatible[5]) and DM Lite® with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support[2]
Output Signal Type	HDMI® (DVI compatible[5]) with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support[2]
Copy Protection	HDCP 2.3
Resolutions	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

Input Signal Type	HDMI, DM Lite
Output Signal Type	HDMI
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

Communications

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

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
24V 1.9A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; PW-2420RU power pack included[4]
HDMI OUTPUT 1-2	(2) HDMI Type A connectors, female; HDMI digital video/audio output; DVI compatible[5]
HDMI INPUT 1	(1) HDMI Type A connector, female; HDMI digital video/audio input; DVI and Dual-Mode DisplayPort interface compatible[5]
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[3]
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;[3] Available Power: 500 mA @ 5VDC per port
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[1]

LAN	(1) 8-pin RJ-45 connector, female; 100BASE-TX/1000BASE-T Ethernet port for device configuration and management
Ground	(1) Chassis ground lug

Controls and Indicators

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.
AUTO	(1) Push button for enabling or disabling automatic switching of inputs; (1) LED, green indicates that automatic switching of inputs is enabled
SETUP	(1) Push button for Ethernet setup; (1) LED, red indicates that the SETUP push button is pressed
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
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
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.
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.
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.

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[4]

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.

   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.

2. 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.

3. 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.

4. The HD-RXU-4KZ-202 is powered by the included power pack. The HD-RXU-4KZ-202 cannot receive power from a remote DM Lite transmitter.

5. 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.

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.

Specifications are subject to change without notice.

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Rev 11/27/23

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8.52 in.
(216 mm)

8.36 in.
(212 mm)

6.28 in.
(160 mm)

6.48 in.
(165 mm)

1.20 in.
(30 mm)

1.12 in.
(28 mm)

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