

DM® Essentials 4K60 4:4:4 Receiver for HDMI® and USB 2.0 Signal Extension over CATx Cable with Network Passthrough



- *Point-to-point extension of an HDMI® AV signal, USB 2.0 data signals, and Ethernet signals over CAT5e or higher cable*
- *DM® Essentials 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*
- *Ethernet pass-through capability*
- *Compliance with HDCP 2.3*
- *CEC (Consumer Electronics Control) pass-through capability*
- *EDID pass-through capability*
- *Compact, surface-mountable design*
- *Power from 24VDC power pack (included) or from remote DM Essentials transmitter*

The HD-RXU-4KZ-101-E is a DM® Essentials 4K60 4:4:4 receiver designed to interoperate with a DM Essentials HD-TXU-4KZ Series transmitter for the extension of HDMI® and USB 2.0 signals. 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 (Crestron [DM-CBL-8G](#) or [DM-CBL-ULTRA](#) sold separately) must be used to connect the HD-RXU-4KZ-101-E to the DM Essentials transmitter.¹

Interoperability with HD-TXU-4KZ Series Transmitters

For interoperability between the HD-RXU-4KZ-101-E and an HD-TXU-4KZ Series transmitter, the DM Essentials input port of the HD-RXU-4KZ-101-E must be connected to the DM Essentials output port of the HD-TXU-4KZ Series transmitter.

NOTE: USB 2.0 data extension is not supported if the HD-RXU-4KZ-101-E is paired with a DM Essentials transmitter other than an HD-TXU-4KZ Series transmitter or paired with a DMPS Essentials HD-PS Series switcher.

4K60 4:4:4 and HDR Support

The HD-RXU-4KZ-101-E supports video resolutions up to 4K60 with 4:4:4 color sampling. HDR10, HDR10+, and Dolby Vision® video formats are also supported.²

USB 2.0 Data Extension

Two USB 2.0 host ports are provided on the HD-RXU-4KZ-101-E, enabling connection to a wide variety of supported USB 2.0 peripheral devices.³

Ethernet Pass-Through Capability

The HD-RXU-4KZ-101-E is equipped with a 100/1000 Mbps LAN port that receives an Ethernet signal over the DM Essentials connection from the transmitting endpoint. The LAN port of one endpoint can be connected to an Ethernet network, while the LAN port of the other endpoint can be connected directly to an Ethernet-enabled device such as a PC.

Compact, Surface-Mountable Design

Compact in design, the HD-RXU-4KZ-101-E can be mounted onto a flat surface such as a wall behind a flat-panel display or the 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-101-E can receive power from the included power pack or from the remote DM Essentials transmitter or DMPS Essentials switcher.⁴

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Specifications

Video

Input Signal Type	DM® Essentials with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support ²
Output Signal Type	HDMI® 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	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 FHD 1080p	60 Hz	4:4:4	36 bit
Interlaced	1920x1080 HD 1080i	30 Hz	4:4:4	36 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	DM Essentials
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 pass-through
DM Essentials	HDCP 2.3, EDID pass-through; USB 2.0 up to 300 Mbps

USB

USB signal extension via USB 2.0 host ports;
USB host for one [TT-100](#) series cable caddy (sold separately) via SERVICE port

Connectors

HDMI OUTPUT	(1) HDMI Type A connector, female; HDMI digital video/audio output; DVI compatible ⁵
DM IN	(1) 8-pin RJ-45 yellow connector, female, shielded; DM Essentials input port for connection to the DM Essentials output port of a DM Essentials transmitter or DMPS Essentials switcher ¹
LAN	(1) 8-pin RJ-45 connector, female; 100BASE-TX/1000BASE-T Ethernet port
24V 1.3A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; PW-2420RU power pack included ⁴
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
SERVICE	(1) USB 2.0 Type-A connector, female; Used for firmware loading, configuration management, or as a USB host port for one TT-100 series cable caddy (sold separately); Can also provide up to 5V 500 mA power to a USB powered device
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.
OUTPUT	(1) Green, indicates that the device is transmitting an HDMI signal
DM IN	(2) LEDs on RJ 45 connector. Green indicates that a DM Essentials link is established. Flashing amber indicates non-HDCP video, and solid amber indicates HDCP video.

HD-RXU-4KZ-101-E



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Power

Power Pack (Included)	Input: 100-240VAC Output: 24VDC 1.3A Model: PW-2420RU4
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	1.2 in. (30 mm)
Width	4.19 in. (106 mm)
Depth	7.94 in. (202 mm)

Weight

19 oz (539 g)

Compliance

Regulatory Model: M202047006

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

HD-RXU-4KZ-101-E

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Available Accessories

For a list of available accessories, visit the [HD-RXU-4KZ-101-E](#) product page.

Notes:

- For DM Essentials 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.
- 4K60 4:4:4 performance and HDR support require the use of 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.
- The HD-RXU-4KZ-101-E 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-101-E.
- When a surface-mountable DM Essentials receiver is paired with a surface-mountable DM Essentials 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 Essentials receiver is paired with a wall plate DM Essentials transmitter, the power pack included with the receiver must be used to power both devices.
When a DM Essentials receiver is paired with an HD-PS622, HD-PS621, HD-PS402, or HD-PS401 DMPS Essentials switcher, the switcher provides power to the DM Essentials receiver. The DM Essentials receiver must not be connected to the included power pack.
- The HDMI output requires an appropriate adapter or interface cable to accommodate a DVI signal. [CBL-HD-DVI](#) interface cables are sold separately.
- The HD-RXU-4KZ-101-E does not provide power to DMPS Essentials switchers.

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.

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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HDMI

Specifications are subject to change without notice.

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