HD-TXU-4KZ-111-2G

DM® Essentials 4K60 4:4:4 Transmitter for USB-C® DisplayPort™ and USB 2.0 Signal Extension over CATx Cable, Wall Plate

- *DM® Essentials transmitter functionality designed to interoperate with a DM Essentials HD-RXU-4KZ Series receiver*
- *Point-to-point extension of a USB-C® DisplayPort™ AV signal and USB 2.0 data signals over CAT5e or higher cable*
- *USB-C® input with DisplayPort™ Alt Mode capability and USB 2.0 support*
- *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*
- *Compliance with HDCP 2.3*
- *CEC (Consumer Electronics Control) pass-through capability*
- *EDID pass-through capability*
- *Two-gang wall plate design available in black or white finish*
- *Decorator style faceplate required (FP-G2-DM Series sold separately)*
- *Power from the remote DM Essentials receiver (surface mountable only)*

The HD-TXU-4KZ-111-2G is a DM® Essentials 4K60 4:4:4 transmitter designed to interoperate with a DM Essentials HD-RXU-4KZ Series receiver. 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-TXU-4KZ-111-2G to the DM Essentials receiver[1].

The HD-TXU-4KZ-111-2G is available in two models: HD-TXU-4KZ-111-2G-B (black) and HD-TXU-4KZ-111-2G-W (white).

Interoperability with HD-RXU-4KZ Series Receivers

For interoperability between the HD-TXU-4KZ-111-2G and an HD-RXU-4KZ Series receiver, the DM Essentials output port of the HD-TXU-4KZ-111-2G must be connected to the DM Essentials input port of the HD-RXU-4KZ Series receiver.

NOTE: USB 2.0 data extension is not supported if the HD-TXU-4KZ-111-2G is paired with a DM Essentials receiver other than an HD-RXU-4KZ Series receiver or paired with a DMPS Essentials switcher.

4K60 4:4:4 and HDR Support

The HD-TXU-4KZ-111-2G 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-TXU-4KZ-111-2G, enabling connection to a wide variety of supported USB 2.0 peripheral devices.[3]

USB 2.0 data from peripheral devices connected to the host ports of the HD-TXU-4KZ-111-2G is routed to a computer connected to the USB-C input of the HD-TXU-4KZ-111-2G. In addition, USB 2.0 data from peripheral devices connected to the host ports of DM Essentials HD-RXU-4KZ Series receivers is also routed to the computer connected to the USB-C input of the HD-TXU-4KZ-111-2G.

No switching of peripheral devices is required for the HD-TXU-4KZ-111-2G transmitter and HD-RXU-4KZ Series receivers.

Two-Gang Wall Plate Design

The HD-TXU-4KZ-111-2G is designed to mount into a 2-gang U.S. electrical box or plaster ring (not included). The HD-TXU-4KZ-111-2G can receive power from the remote DM Essentials receiver (surface mountable only) or DMPS Essentials switcher.[4]

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Specifications

Video

Input Signal Type	DisplayPort™ over USB-C® (DisplayPort Alt Mode) with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support[2]
Output Signal Type	DM® Essentials 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

NOTES:

- The maximum supported resolution is 4K60 with 4:4:4 color sampling. Custom resolutions are supported at pixel clock rates up to 600 MHz.
- The HD-TXU-4KZ-111-2G does not support interlaced video.

Audio

Input Signal Type	DisplayPort over USB-C (DisplayPort Alt Mode)
Output Signal Type	DM Essentials
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

USB-C	HDCP 2.3, EDID, CEC 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
DM Essentials	HDCP 2.3, EDID pass-through; USB 2.0 up to 300 Mbps

Connectors

USB IN	(1) USB Type-C® connector, female; Digital video/audio input using DisplayPort Alt Mode[5]; USB 2.0 data support
DM OUT	(1) 8-pin RJ-45 yellow connector, female, shielded; DM Essentials output port for connection to a DM Essentials receiver or DMPS Essentials switcher[1]
24V 0.5A	(1) 2-pin 3.5 mm detachable terminal block; 24VDC power input; Power pack sold separately, required only if the HD-TXU-4KZ-111-2G is paired with a wall plate receiver[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
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
USB IN	(1) Green LED, indicates that the device is receiving a DisplayPort over USB-C (DisplayPort Alt Mode) input signal
LINK	(1) Green LED, indicates that a DM Essentials link is established
RESET	(1) Push button, restores factory default settings

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DM OUT	(2) LEDs on RJ-45 connector; Green indicates that a DM Essentials link is established; Flashing amber indicates non-HDCP video; Solid amber indicates HDCP video

Power

Power Pack	Input: 100-240VAC Output: 24VDC 0.75A Model: PW-2407WUL (sold separately, required only if the HD-TXU-4KZ-111-2G is paired with a wall plate receiver)[4]

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	20% to 90% RH (non-condensing)

Enclosure

Composition	Metal housing and bracket with black or white polycarbonate front label overlay
Mounting	Mounts into a 2-gang (or larger) 2 in. (51 mm)deep U.S. electrical box or plaster ring (not included)
Faceplate	Requires a decorator style faceplate (FP-G2-DM series, sold separately)

Dimensions

Height	4.12 in. (105 mm)
Width	3.57 in. (91 mm)
Depth	1.70 in. (43 mm)

Weight

7.25 oz (206 g)

Compliance

Regulatory Model: M202047004

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.

Models

HD-TXU-4KZ-111-2G-B
DM® Essentials 4K60 4:4:4 Transmitter for USB-C® DisplayPort™ and USB 2.0 Signal Extension over CATx Cable, Wall Plate, Black

HD-TXU-4KZ-111-2G-W
DM® Essentials 4K60 4:4:4 Transmitter for USB-C® DisplayPort™ and USB 2.0 Signal Extension over CATx Cable, Wall Plate, White

Available Accessories

For a list of available accessories, visit the HD-TXU-4KZ-111-2G-B or HD-TXU-4KZ-111-2G-W product page.

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Notes:

1. 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.

2. 4K60 4:4:4 performance and HDR support require the use of USB-C 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-TXU-4KZ-111-2G 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-TXU-4KZ-111-2G.

4. When a DM Essentials wall plate transmitter is paired with a DM Essentials surface-mountable receiver, the power pack included with the receiver is used to power both devices.

   If a DM Essentials wall plate transmitter is paired with a DM Essentials wall plate receiver, the devices must be powered independently by a PW-2407WUL power pack (sold separately) for each device. A wall plate transmitter and wall plate receiver cannot provide power to the remote device with which it is paired.

5. In order for USB-C DisplayPort input to charge the connected AV source, the HD-TXU-4KZ-111-2G must be powered by the included power pack. If the HD-TXU-4KZ-111-2G is powered by a remote DM Essentials receiver or DMPS Essentials switcher, no charging capability is provided by USB-C input.

   CBL-USB3G1-C-C-6 and CBL-USB3G2-C-C-3 cables are sold separately.

6. The HD-TXU-4KZ-111-2G 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.

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2.78 in.
(70 mm)

3.57 in.
(91 mm)

4.12 in.
(105 mm)

1.70 in.
(43 mm)

0.16 in.
(4 mm)

0.09 in.
(2 mm)

DM OUT

+ 24 V
0.5A

Amphenol

PWR

HOST

LINK

RESET

USB IN

CRESTRON