

## DM Lite® 4K60 4:4:4 Transmitter and 4x1 Auto-Switcher for HDMI® Signal Extension over CATx Cable



- *Interoperability with a DM Lite® receiver or DMPS Lite™ switcher*
- *Point-to-point extension of an HDMI® signal over a CAT5e or higher cable*
- *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*
- *Compliance with HDCP 2.3*
- *Automatic switching of HDMI inputs*
- *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 Lite receiver or DMPS Lite switcher*

The HD-TX-4KZ-401 is a DM Lite® 4K60 4:4:4 transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher for the transmission of an HDMI® signal. A CAT5e or higher twisted pair cable is used to connect the HD-TX-4KZ-401 to the DM Lite receiver or DMPS Lite switcher. 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 Receiver or DMPS Lite Switcher

The DM Lite output port of the HD-TX-4KZ-401 must be connected to a DM Lite input port of a DM Lite receiver or DMPS Lite switcher. Examples of supported DM Lite 4K60 4:4:4 receivers are the HD-RX-4KZ-101, HD-RXA-4KZ-101, HD-RXC-4KZ-101, and HD-RXCA-4KZ-101. Supported DM Lite 4K60 4:2:0 receivers are the HD-RX-101-C-E, HD-RXC-101-C-E, HD-RX-201-C-E, HD-RX-101-C-1G-E, and HD-RXC-101-C-1G-E. Supported DMPS Lite switchers are the HD-PS622, HD-PS621, HD-PS402, HD-PS401, and HD-RX-4K-210-C-E(-POE).

The HD-TX-4KZ-401 can be configured and controlled only when it is used with a DMPS Lite switcher. The web interface of the switcher can be used to configure the HD-TX-4KZ-401. In addition, control system programming and .AV Framework™ software support of the HD-TX-4KZ-401 is hosted by the switcher.

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

The HD-TX-4KZ-401 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>

### Automatic Switching of Inputs

When the HD-TX-4KZ-401 is used with a DMPS Lite switcher, the web interface of the switcher or control system programming hosted by the switcher can be used to configure the switching behavior of the HD-TX-4KZ-401. Switching among the four HDMI inputs can occur based on the last connected input or on the routing priority assigned to each input. In addition, input selection push buttons on the front panel of the HD-TX-4KZ-401 enable the desired input to be selected manually.

### Compact, Surface-Mountable Design

Compact in design, the HD-TX-4KZ-401 can be mounted onto a flat surface such as the underside of a table, behind a credenza, or inside a podium. It can also be attached to a single rack rail in the back of an equipment cabinet. The HD-TX-4KZ-401 can receive power from the included power pack or from the remote DM Lite receiver or DMPS Lite switcher.<sup>3</sup>

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### Specifications

#### Video

|                           |  |
|---------------------------|--|
| <b>Input Signal Type</b>  | HDMI® with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support <sup>2</sup> (DVI and Dual-Mode DisplayPort™ interface compatible <sup>4</sup> ) |
| <b>Output Signal Type</b> | DM Lite® 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       |
| Progressive | 2560x1600 WQXGA                     | 60 Hz               | 4:4:4          | 8 bit       |
|             |                                     | 1920x1080 FHD 1080p | 60 Hz          | 4:4:4       |
| Interlaced  | 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   |
| <b>Output Signal Type</b> | DM Lite  |
| <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 |

#### Communications

|                |  |
|----------------|--|
| <b>HDMI</b>    | HDCP 2.3, EDID, CEC pass-through   |
| <b>DM Lite</b> | HDCP 2.3, EDID pass-through  |
| <b>USB</b>     | USB host for one <a href="#">TT-100</a> series cable caddy (sold separately) |

#### Connectors

|                       |  |
|-----------------------|--|
| <b>HDMI INPUT 1-4</b> | (4) HDMI Type A connectors, female; HDMI digital video/audio inputs; DVI and Dual-Mode DisplayPort™ interface compatible <sup>4</sup>  |
| <b>DM LITE OUT</b>    | (1) 8-pin RJ-45 yellow connector, female, shielded; DM Lite output port for connection to a DM Lite receiver or DMPS Lite™ switcher <sup>1,5</sup>   |
| <b>24V 2.5A</b>       | (1) 2.1 x 5.5 mm DC power connector; 24VDC power input; <a href="#">PW-2420RU</a> power pack included <sup>3</sup>   |
| <b>SERVICE</b>        | (1) USB 2.0 Type-A connector, female; Used for firmware loading, configuration management, or as a USB host port for one <a href="#">TT-100</a> series cable caddy (sold separately); Can also provide up to 5V 500 mA power to a USB powered device |
| <b>Ground</b>         | (1) Chassis ground lug   |

#### Controls and Indicators

|                       |   |
|-----------------------|---|
| <b>PWR</b>            | (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.   |
| <b>AUTO</b>           | (1) Push button for enabling or disabling automatic switching of inputs; (1) LED, green indicates that automatic switching of inputs is enabled   |
| <b>SETUP</b>          | (1) Push button for Ethernet setup (applicable only when used with a DMPS Lite switcher); (1) LED, red indicates that the SETUP push button is pressed  |
| <b>HDMI INPUT 1-4</b> | (4) Push buttons for manual input selection; (4) LEDs, green indicates that the corresponding input is routed to an output, and amber indicates that a source is detected but is not routed to an output. |
| <b>DM LITE OUT</b>    | (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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### Power

|                              |  |
|------------------------------|--|
| <b>Power Pack (Included)</b> | Input: 100-240VAC<br>Output: 24VDC 2.5A<br>Model: <a href="#">PW-2420RU</a> <sup>3</sup> |
|------------------------------|--|

### Environmental

|                    |                                |
|--------------------|--------------------------------|
| <b>Temperature</b> | 32° to 104°F (0° to 40°C)      |
| <b>Humidity</b>    | 20% to 90% RH (non-condensing) |

### Enclosure

|                 |   |
|-----------------|---|
| <b>Chassis</b>  | Metal, black finish, vented top, front, rear, and sides, 2 mounting brackets included |
| <b>Mounting</b> | Freestanding, surface mountable, or attachment to a single rack rail                  |

### Dimensions

|               |                   |
|---------------|-------------------|
| <b>Height</b> | 1.20 in. (30 mm)  |
| <b>Width</b>  | 8.52 in. (216 mm) |
| <b>Depth</b>  | 5.23 in. (133 mm) |

### Weight

1.54 lb (0.70 kg)

### Compliance

**Regulatory Model: M202046002**

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

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

### Model

**HD-TX-4KZ-401**  
DM Lite® 4K60 4:4:4 Transmitter and 4x1 Auto-Switcher for HDMI® Signal Extension over CATx Cable

### Included Accessories

**PW-2420RU**  
Desktop Power Pack, 24 VDC, 2.5 A, 2.1 mm

### Available Accessories

For a list of available accessories, visit the [HD-TX-4KZ-401](#) product page.

### Notes:

- 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.
- 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.
- When a surface-mountable DM Lite transmitter is paired with a surface-mountable DM Lite receiver, either the power pack included with the transmitter or the receiver can be used to power both devices. A power pack must not be connected to both devices simultaneously.  
When a surface-mountable DM Lite transmitter is paired with a wall plate DM Lite receiver, the power pack included with the transmitter is used to power both devices.  
When a DM Lite transmitter is paired with a DMPS Lite switcher, the switcher provides power to the DM Lite transmitter. The DM Lite transmitter must not be connected to the included power pack.
- The HDMI input requires an appropriate adapter or interface cable to accommodate a Dual-Mode DisplayPort or DVI signal. CBL-HDI-DVI interface cables are sold separately.
- Examples of supported DM Lite 4K60 4:4:4 receivers are the HD-RX-4KZ-101, HD-RXA-4KZ-101, HD-RXC-4KZ-101, and HD-RXCA-4KZ-101. Supported DM Lite 4K60 4:2:0 receivers are the HD-RX-101-C-E, HD-RXC-101-C-E, HD-RX-201-C-E, HD-RX-101-C-1G-E, and HD-RXC-101-C-1G-E. Supported DMPS Lite switchers are the HD-PS622, HD-PS621, HD-PS402, HD-PS401, and HD-RX-4K-210-C-E (-POE).

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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](http://www.crestron.com/How-To-Buy/Find-a-Representative) or contact us for additional information by visiting [www.crestron.com/contact/our-locations](http://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](http://www.crestron.com/warranty) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](http://patents.crestron.com).

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

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## HDMI

Specifications are subject to change without notice.

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