DM Lite® 4K60 4:4:4 Transmitter for HDMI® and Analog Audio Signal Extension over CATx Cable



- Interoperability with a DM Lite® receiver or DMPS Lite™ switcher
- Point-to-point extension of HDMI and analog audio signals 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
- Analog audio embedding
- 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-TXA-4KZ-101 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 HDMI® and analog audio signals. A CAT5e or higher twisted pair cable is used to connect the HD-TXA-4KZ-101 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.¹

Interoperability with a DM Lite Receiver or DMPS Lite Switcher

The DM Lite output port of the HD-TXA-4KZ-101 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-TXA-4KZ-101 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-TXA-4KZ-101. In addition, control system programming and .AV Framework™ software support of the HD-TXA-4KZ-101 is hosted by the switcher.

4K60 4:4:4 and HDR Support

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

Analoa Audio Embeddina

The analog audio input port of the HD-TXA-4KZ-101 enables a balanced/unbalanced stereo audio source to be embedded with the video signal from the HDMI input. An audio selection push button is provided to switch between analog and HDMI audio inputs as desired. The audio selection push button is functional only when the HD-TXA-4KZ-101 is used with a DM Lite 4K60 4:4:4 receiver or a DMPS Lite HD-PS Series switcher.

Compact, Surface-Mountable Design

Compact in design, the HD-TXA-4KZ-101 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-TXA-4KZ-101 can receive power from the included power pack or from the remote DM Lite receiver or DMPS Lite switcher.³



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Specifications

Video

Input Signal Type

HDMI® with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support² (DVI and

Dual-Mode DisplayPort™ interface

compatible⁴)

Output Signal Type DM Lite® with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support²

Сору **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	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, analog stereo

DM Lite

Output Signal

Type

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

Analog Format

Analog-to-Digital

Conversion

Stereo 2-channel 24-bit 48 kHz

Analoa Performance Frequency Response: 20 Hz to 20 kHz

±0.5 dB;

S/N Ratio: >95 dB 20 Hz to 20 kHz

A-weighted;

THD+N: <0.005% @ 1 kHz; Stereo Separation: ≤80 dB

Communications

HDMI HDCP 2.3, EDID, CEC pass-through DM Lite HDCP 2.3, EDID pass-through

Connectors

HDMI IN (1) HDMI Type A connector, female;

> HDMI digital video/audio input; DVI and Dual-Mode DisplayPort™

interface compatible⁴

DM LITE OUT (1) 8-pin RJ-45 yellow connector, female,

shielded:

DM Lite output port for connection to a

DM Lite receiver or DMPS Lite™

switcher^{1, 5}

24V 1.25A (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

PW-2420RU power pack included³

(1) 5-pin 3.5 mm detachable terminal **AUDIO IN**

block;

Balanced/unbalanced stereo line-level

audio input;

Input Impedance: 24k Ohms balanced/unbalanced;

Maximum Input Level: 4 Vrms balanced,

2 Vrms unbalanced

Ground (1) Chassis ground lug

Controls and Indicators

LINK (1) Green LED, indicates that a DM Lite

link is established.

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.

(1) Push button, enables selection of **AUDIO SELECT**

HDMI or analog audio

AUDIO, HDMI IN (1) Green LED, indicates that HDMI audio

is selected

AUDIO IN (1) Green LED, indicates that analog

audio is selected

(1) Green LED, indicates that the device is **HDMI IN**

receiving an HDMI signal



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DM LITE OUT (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.

Power

Power Pack Input: 100-240VAC (Included) Output: 24VDC 2.5A

Model: PW-2420RU³

Environmental

Temperature 32° to 104°F (0° to 40°C)

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

Enclosure

Chassis Metal, black finish, vented sides,

2 mounting brackets included

Mounting Freestanding, surface mountable, or

attachment to a single rack rail

Dimensions

Height 4.13 in. (105 mm)

 Width
 4.18 in. (106 mm)

 Depth
 1.08 in. (27 mm)

Weight

11.96 oz (339 g)

Compliance

Regulatory Model: M202047002

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-TXA-4KZ-101

DM Lite® 4K60 4:4:4 Transmitter for HDMI® and Analog Audio Signal Extension over CATx Cable

Included Accessories

PW-2420RU

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

Available Accessories

For a list of available accessories, visit the <u>HD-TXA-4KZ-101</u> 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.

- 4. The HDMI input requires an appropriate adapter or interface cable to accommodate a Dual-Mode DisplayPort or DVI signal. CBL-HD-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 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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Rev 06/15/22



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