SECTION 27 41 16

INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT

GUIDE SPECIFICATION

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Specifier: Please see PART 4 for a listing of products specified in this Guide Specification.

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# GENERAL

NOT USED in this Guide Specification. Specifier shall Specify PART 1 administrative and procedural requirements as needed.

## Description: Single cable 4K HDMI transmitter

# PRODUCTS

## Transmitter Type 1

Specifier Note:

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.

### Basis of Design

#### Crestron HD-TX-4KZ-401

Specifier Note:

HD-TX-4KZ-401  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-401

### Device Architecture

#### Physical Form factor

##### Device enclosure to be made of black finished metal with vented sides

##### Device weight: 1.54 lb. (0.70 kg)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### The transmitter shall support input switching with the following options:

##### Automatic switching to active input

##### Manual switching via integrated selection buttons

#### Remote switching via control processor by same manufacturer when connected to receiver switching device by same manufacturer

This option requires a LAN connection at the compatible receiver device connected to a control processor by same manufacturer.

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating reception of HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### Four (4) HDMI inputs with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+ Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### 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

###### DVI-D with adaptor

###### EDID

###### CEC Pass-through

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 2.5 A power input

##### One (1) USB Type A connector with support for:

###### Firmware loading and configuration management

###### USB host port for compatible control connection interface by same manufacturer

###### 5 VDC, 500 mA power to USB powered device

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047002

## Transmitter Type 2

Specifier Note:

*The HD-TX-4KZ-211-2G is a DM Lite® 4K60 4:4:4 wall plate transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher. The HDMI® input of the HD-TX-4KZ-211-2G enables the transmission of an HDMI signal. The USB-C® input with DisplayPort™ Alt Mode capability enables the transmission of a DisplayPort AV signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-211-2G

Specifier Note:

HD-TX-4KZ-211-2G  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-211-2G-B

### Device Architecture

#### Physical Form factor

##### Device enclosure and bracket to be composed of metal with black polycarbonate front label overlay

##### Device weight: 7.33 oz (208 g)

#### Mounting Option

##### Wall mount device, mounts in a 2-gang (or larger) 2 inch (51 mm) deep U.S. electrical box or plaster ring (not included)

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

#### 

### Functions

#### The transmitter shall support input switching with the following options:

##### Automatic switching to active input

##### Manual switching via integrated selection button

##### Remote switching via control processor by same manufacturer when connected to receiver switching device by same manufacturer

This option requires a LAN connection at the compatible receiver device connected to a control processor by same manufacturer.

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling or disabling automatic switching of inputs

##### One (1) Green LED indicating automatic switching of inputs is enabled

##### One (1) Pushbutton for Ethernet setup (applicable only when device is used in conjunction with switcher from same manufacturer)

##### One (1) Red LED indicating that control described in 2.2.4.1.4 has been pressed

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) Pushbutton for manual input selection

##### One (1) LED indicating HDMI status with the following modes:

###### Green - HDMI input is routed to an output

###### Amber - Source is detected but not routed to an output

##### One (1) LED indicating USB-C DisplayPort status with the following modes:

###### Green - USB-C DisplayPort input is routed to an output

###### Amber - Source is detected but not routed to an output

##### One (1) Pushbutton for restoring the device to factory default settings

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+ Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### 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

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) USB-C connector for Digital video / audio input with support for the following:

###### DisplayPort Alt Mode with HDR10, HDR10+, Dolby Vision, Deep Color

###### HDCP 2.3 compliant

###### CEC Pass-through

###### EDID

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2-pin 3.5 mm detachable terminal block supporting the following characteristic:

###### 24 VDC 0.7 A power input

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202046004

## Transmitter Type 3

Specifier Note:

*The HD‑TX‑4KZ‑201 is a DM Lite® 4K60 4:4:4 transmitter and 2x1 HDMI Auto-Switcher designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher for the transmission of an HDMI® signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-201

Specifier Note:

HD-TX-4KZ-201  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-201

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented top, front, rear, and sides

##### Device weight: 1.54 lb. (0.70 kg)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

#### 

### Functions

#### The transmitter shall support input switching with the following options:

##### Automatic switching to active input

##### Manual switching via integrated selection buttons

##### Remote switching via control processor by same manufacturer when connected to receiver switching device by same manufacturer

This option requires a LAN connection at the compatible receiver device connected to a control processor by same manufacturer.

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling or disabling automatic switching of inputs

##### One (1) Green LED indicating automatic switching of inputs is enabled

##### One (1) Pushbutton for Ethernet setup (applicable only when device is used in conjunction with switcher from same manufacturer)

##### One (1) Red LED indicating that control described in 2.3.4.1.4 has been pressed

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### Two (2) Pushbuttons for manual input selection

##### Two (2) LEDs indicating HDMI status with the following modes:

###### Green - HDMI input is routed to an output

###### Amber - Source is detected but not routed to an output

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### Two (2) HDMI inputs with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+ Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### 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

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 2.5 A power input

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202046002

## Transmitter Type 4

Specifier Note:

*The HD‑TX‑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 an HDMI® signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-101

Specifier Note:

HD-TX-4KZ-101  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-101

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented sides

##### Device weight: 11.92 oz (338 g)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with Deep Color and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 1.25 A power input

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047002

## Transmitter Type 5

Specifier Note:

*The HD‑TXC‑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®, RS-232, and IR signals.*

### Basis of Design

#### Crestron HD-TXC-4KZ-101

Specifier Note:

HD-TXC-4KZ-101   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TXC-4KZ-101

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented sides

##### Device weight: 11.92 oz (338 g)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+, Dolby Vision, Deep Color and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K60 4:4:4

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 1.25 A power input

##### One (1) 4-pin 3.5 mm detachable terminal block IR input/output control port supporting the following characteristics:

###### IR input connects to IR signal source and transmits signal to IR out port on receiver device from same manufacturer

###### IR output connects to IR emitter and transmits IR signal from source connected to receiver device from same manufacturer

###### IR up to 60 kHz

##### One (1) 3-pin 3.5 mm detachable terminal block Serial control port supporting the following characteristics:

###### Bidirectional RS-232 up to 115.2k baud

###### Passes RS-232 TD/RD data to/from RS-232 port on receiver device from same manufacturer

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047002

## Transmitter Type 6

Specifier Note:

*The HD‑TXC‑4KZ‑101‑1G is a DM Lite® 4K60 4:4:4 wall plate transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher for the transmission of HDMI®, RS-232, and IR signals.*

### Basis of Design

#### Crestron HD-TXC-4KZ-101-1G

Specifier Note:

HD-TXC-4KZ-101-1G   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TXC-4KZ-101-1G-B

### Device Architecture

#### Physical Form factor

##### Device enclosure and bracket to be composed of metal with black polycarbonate front label overlay

##### Device enclosure to be composed of black finish metal with vented sides

##### Device weight: 5.54 oz (157 g)

#### Mounting Option

##### Wall mount device, mounts in a 1-gang (or larger) 2-1/4 inch (57 mm) deep U.S. electrical box or plaster ring (not included)

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2-pin 3.5 mm detachable terminal block supporting the following characteristic:

###### 24 VDC 0.75 A power input

##### One (1) 4-pin 3.5 mm detachable terminal block IR input/output control port supporting the following characteristics:

###### IR input connects to IR signal source and transmits signal to IR out port on receiver device from same manufacturer

###### IR output connects to IR emitter and transmits IR signal from source connected to receiver device from same manufacturer

###### IR up to 60 kHz

##### One (1) 3-pin 3.5 mm detachable terminal block Serial control port supporting the following characteristics:

###### Bidirectional RS-232 up to 115.2k baud

###### Passes RS-232 TD/RD data to/from RS-232 port on receiver device from same manufacturer

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202045001

## Transmitter Type 7

Specifier Note:

*The HD‑TX‑4KZ‑111 is a DM Lite® 4K60 4:4:4 transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher. The HD‑TX‑4KZ‑111 includes a USB-C® input with DisplayPort™ Alt Mode capability, enabling the transmission of a DisplayPort AV signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-111

Specifier Note:

HD-TX-4KZ-111   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-111

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented sides

##### Device weight: 11.96 oz (339 g)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating device is receiving a DisplayPort over USB-C input signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) USB-C connector for Digital video / audio input with support for the following:

###### DisplayPort Alt Mode with HDR10, HDR10+, Dolby Vision, Deep Color

###### HDCP 2.3 compliant

###### CEC Pass-through

###### EDID

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 1.25 A power input

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047002

## Transmitter Type 8

Specifier Note:

*The HD-TX-4KZ-111-1G is a DM Lite® 4K60 4:4:4 wall plate transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher. The HD‑TX‑4KZ‑111-1G includes a USB-C® input with DisplayPort™ Alt Mode capability, enabling the transmission of a DisplayPort AV signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-111-1G

Specifier Note:

HD-TX-4KZ-111-1G   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-111-1G-B

### Device Architecture

#### Physical Form factor

##### Device enclosure and bracket to be composed of metal with black polycarbonate front label overlay

##### Device weight: 5.33 oz (152 g)

#### Mounting Option

##### Wall mount device, mounts in a 1-gang (or larger) 2-1/4 inch (57 mm) deep U.S. electrical box or plaster ring (not included)

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating device is receiving a DisplayPort over USB-C input signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) USB-C connector for Digital video / audio input with support for the following:

###### DisplayPort Alt Mode with HDR10, HDR10+, Dolby Vision, Deep Color

###### HDCP 2.3 compliant

###### CEC Pass-through

###### EDID

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2-pin 3.5 mm detachable terminal block supporting the following characteristic:

###### 24 VDC 0.75 A power input

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202045001

## Transmitter Type 9

Specifier Note:

*The HD-TX-4KZ-101-1G is a DM Lite® 4K60 4:4:4 wall plate transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher for the transmission of an HDMI® signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-101-1G

Specifier Note:

HD-TX-4KZ-101-1G   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-101-1G-B

### Device Architecture

#### Physical Form factor

##### Device enclosure and bracket to be composed of metal with black polycarbonate front label overlay

##### Device weight: 5.33 oz (152 g)

#### Mounting Option

##### Wall mount device, mounts in a 1-gang (or larger) 2-1/4 inch (57 mm) deep U.S. electrical box or plaster ring (not included)

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+, Dolby Vision, Deep Color and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2-pin 3.5 mm detachable terminal block supporting the following characteristic:

###### 24 VDC 0.75 A power input

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202045001

## Transmitter Type 10

Specifier Note:

*The HD‑TXCA‑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®, RS-232, IR, and analog audio signals.*

### Basis of Design

#### Crestron HD-TXCA-4KZ-101

Specifier Note:

HD-TXCA-4KZ-101   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TXCA-4KZ-101

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented sides

##### Device weight: 11.92 oz (338 g)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling selection of HDMI or analog audio

##### One (1) Green LED indicating selection of HDMI audio

##### One (1) Green LED indicating selection of analog audio

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 1.25 A power input

##### One (1) 4-pin 3.5 mm detachable terminal block IR input/output control port supporting the following characteristics:

###### IR input connects to IR signal source and transmits signal to IR out port on receiver device from same manufacturer

###### IR output connects to IR emitter and transmits IR signal from source connected to receiver device from same manufacturer

###### IR up to 60 kHz

##### One (1) 3-pin 3.5 mm detachable terminal block Serial control port supporting the following characteristics:

###### Bidirectional RS-232 up to 115.2k baud

###### Passes RS-232 TD/RD data to/from RS-232 port on receiver device from same manufacturer

##### One (1) 5-pin 3.5 mm detachable terminal block balanced/unbalanced Stereo line-level audio input supporting the following characteristics:

###### Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced

###### Input Impedance: 24 kΩ balanced/unbalanced

##### S/PDIF Optical Digital Audio Output

###### Supports Dolby Digital, Dolby Digital EX, DTS, DTS-ES, LPCM up to 6 channels

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047002

## Transmitter Type 11

Specifier Note:

*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.*

### Basis of Design

#### Crestron HD-TXA-4KZ-101

Specifier Note:

HD-TXA-4KZ-101   
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TXA-4KZ-101

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented sides

##### Device weight: 11.96 oz (339 g)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling selection of HDMI or analog audio

##### One (1) Green LED indicating selection of HDMI audio

##### One (1) Green LED indicating selection of analog audio

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.1 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 1.25 A power input

##### One (1) 5-pin 3.5 mm detachable terminal block balanced/unbalanced Stereo line-level audio input supporting the following characteristics:

###### Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced

###### Input Impedance: 24 kΩ balanced/unbalanced

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047002

## Transmitter Type 12

Specifier Note:

*The HD-TX-4KZ-211-CHGR is a DM Lite® 4K60 4:4:4 transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher. The HDMI® input of the HD-TX-4KZ-211-CHGR enables the transmission of an HDMI signal. The USB-C® input with DisplayPort™ Alt Mode capability enables the transmission of a DisplayPort AV signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-211-CHGR

Specifier Note:

HD-TX-4KZ-211-CHGR  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-211-CHGR

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented top, front, rear, and sides

##### Device weight: 1.67 lb. (0.76 kg)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### The transmitter shall support input switching with the following options:

##### Automatic switching to active input

##### Manual switching via integrated selection button

##### Remote switching via control processor by same manufacturer when connected to receiver switching device by same manufacturer

This option requires a LAN connection at the compatible receiver device connected to a control processor by same manufacturer.

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling or disabling automatic switching of inputs

##### One (1) Green LED indicating automatic switching of inputs is enabled

##### One (1) Pushbutton for Ethernet setup (applicable only when device is used in conjunction with switcher from same manufacturer)

##### One (1) Red LED indicating that control described in 2.12.4.1.4 has been pressed

##### Two (2) Pushbuttons for manual input selection

##### Two (2) LEDs indicating input status corresponding to Pushbuttons in 2.12.4.1.6 with the following modes:

###### Green - Input is routed to an output

###### Amber - Source is detected but not routed to an output

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+ Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### 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

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) USB-C connector for Digital video / audio input with support for the following:

###### DisplayPort Alt Mode with HDR10, HDR10+, Dolby Vision, Deep Color

###### 60 W Power Delivery

###### HDCP 2.3 compliant

###### CEC Pass-through

###### EDID

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.5 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 7.5 A power input

##### One (1) USB Type A connector with support for:

###### Firmware loading and configuration management

###### USB host port for compatible control connection interface by same manufacturer

###### 5 VDC, 500 mA power to USB powered device

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202046003

## Transmitter Type 13

Specifier Note:

*The HD-TX-4KZ-421-CHGR is a DM Lite® 4K60 4:4:4 transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher. The HDMI® inputs of the HD-TX-4KZ-421-CHGR enable the transmission of an HDMI signal. The USB-C® inputs with DisplayPort™ Alt Mode capability enable the transmission of a DisplayPort AV signal.*

### Basis of Design

#### Crestron HD-TX-4KZ-421-CHGR

Specifier Note:

HD-TX-4KZ-211-CHGR  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TX-4KZ-421-CHGR

### Device Architecture

#### Physical Form factor

##### Device enclosure to be composed of black finish metal with vented top, front, rear, and sides

##### Device weight: 1.69 lb. (0.77 kg)

#### Mounting Options

##### Freestanding

##### Surface mount via attachable mounting bracket

##### Attachment to single rack rail

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### The transmitter shall support input switching with the following options:

##### Automatic switching to active input

##### Manual switching via integrated selection button

##### Remote switching via control processor by same manufacturer when connected to receiver switching device by same manufacturer

This option requires a LAN connection at the compatible receiver device connected to a control processor by same manufacturer.

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling or disabling automatic switching of inputs

##### One (1) Green LED indicating automatic switching of inputs is enabled

##### One (1) Pushbutton for Ethernet setup (applicable only when device is used in conjunction with switcher from same manufacturer)

##### One (1) Red LED indicating that control described in 2.12.4.1.4 has been pressed

##### Four (4) Pushbuttons for manual input selection

##### Four (4) LEDs indicating input status corresponding to Pushbuttons in 2.12.4.1.6 with the following modes:

###### Green - Input is routed to an output

###### Amber - Source is detected but not routed to an output

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### Two (2) HDMI inputs with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+ Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### 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

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### Two (2) USB-C connectors for Digital video / audio input with support for the following:

###### DisplayPort Alt Mode with HDR10, HDR10+, Dolby Vision, Deep Color

###### 60 W Power Delivery

###### HDCP 2.3 compliant

###### CEC Pass-through

###### EDID

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

##### One (1) 2.5 x 5.5 mm DC power connector supporting the following characteristic:

###### 24 VDC 7.5 A power input

##### One (1) USB Type A connector with support for:

###### Firmware loading and configuration management

###### USB host port for compatible control connection interface by same manufacturer

###### 5 VDC, 500 mA power to USB powered device

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202046003

## Transmitter Type 14

Specifier Note:

*The HD‑TXA‑4KZ‑101-1G is a DM Lite® 4K60 4:4:4 wall plate transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher for the transmission of HDMI® and analog audio signals.*

### Basis of Design

#### Crestron HD-TXA-4KZ-101-1G

Specifier Note:

HD-TXA-4KZ-101-1G  
https://www.crestron.com/Products/Video/HDMI-Solutions/HDMI-Extenders/HD-TXA-4KZ-101-1G-B

### Device Architecture

#### Physical Form factor

##### Device enclosure and bracket to be composed of metal with black polycarbonate front label overlay

##### Wall mount device, mounts in a 1-gang (or larger) 2-1/4 inch (57 mm) deep U.S. electrical box

##### Device weight: 5.39 oz (153 g)

#### Mounting Option

##### Wall mount device, mounts in a 1-gang (or larger) 2-1/4 inch (57 mm) deep U.S. electrical box or plaster ring (not included)

#### Environmental Operating Conditions

##### 32° to 104° F (0° to 40° C)

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

### Functions

#### Single UTP/STP cable transmission

##### Signal transmission up to 230 feet.

##### Minimum cable type supported: UTP/STP CAT5e

### Controls and Indicators

#### The device shall include the following indicators:

##### One (1) Green LED indicating a valid link to device by same manufacturer

##### One (1) LED indicating that power is provided to device with the following modes:

###### Green - device is operational

###### Amber - device is booting

##### One (1) Pushbutton for enabling selection of HDMI or analog audio

##### One (1) Green LED indicating selection of HDMI audio

##### One (1) Green LED indicating selection of analog audio

##### One (1) Green LED indicating device is receiving HDMI signal

##### Two (2) LEDs on RJ-45 connector with the following modes:

###### Green - Connection established to device by same manufacturer

###### Flashing Amber - non-HDCP video

###### Amber - HDCP video

### Connectors

#### The device shall include the following connectors:

##### One (1) HDMI input with support for the following:

###### CEC Pass-through

###### HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4

###### HDCP 2.3 compliant

###### DisplayPort Dual-Mode

###### Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby True HD, Dolby Atmos DTS, DTS-ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

###### DVI-D with adaptor

###### EDID

###### Common resolutions: 1920x1080 30Hz to 4096x2160 DCI 4K 4:4:4 60Hz

###### Custom resolutions: pixel clock rates up to 600 MHz

##### One (1) RJ45 shielded female connector with support for the following:

###### Link port for connection to compatible transmission device by same manufacturer

###### Power sharing option for connected remote transmission device

#### One (1) 2-pin 3.5 mm detachable terminal block supporting the following characteristic:

###### 24 VDC 0.75 A power input

##### One (1) 5-pin 3.5 mm detachable terminal block balanced/unbalanced Stereo line-level audio input supporting the following characteristics:

###### Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced

###### Input Impedance: 24 kΩ balanced/unbalanced

##### One (1) Chassis grounding lug

### Power

#### Power supply

##### Power supply shall support device and connected equipment

#### Power supply modes

##### Local or remote DC power source

###### Remote power supplied by opposite end of TX/RX pair.

### Compliance

#### UL Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Regulatory Model M202047003

# EXECUTION

NOT USED in this Guide Specification. Specifier shall Specify PART 3 On-Site work as needed.

# APPENDICES

## SPECIFIED PRODUCTS

### Crestron HD-TX-4KZ-401

### Crestron HD-TX-4KZ-211-2G

### Crestron HD-TX-4KZ-201

### Crestron HD-TX-4KZ-101

### Crestron HD-TXC-4KZ-101

### Crestron HD-TXC-4KZ-101-1G

### Crestron HD-TX-4KZ-111

### Crestron HD-TX-4KZ-111-1G

### Crestron HD-TX-4KZ-101-1G

### Crestron HD-TXCA-4KZ-101

### Crestron HD-TXA-4KZ-101

### Crestron HD-TX-4KZ-211-CHGR

### Crestron HD-TX-4KZ-421-CHGR

### Crestron HD-TXA-4KZ-101-1G