Product Manual

HD-EARC KIT

DM® Essentials 4K60 4:4:4 eARC Transmitter/Receiver Kit for HDMI®, RS-232, IR, and Optical Audio Signal Extension over CATx Cable

Contents

Overview

The HD-EARC KIT consists of a transmitter (HD-TXC-EARC) and receiver (HD-RXC-EARC), which enable the extension of HDMI® AV and eARC (Enhanced Audio Return Channel) or optical digital audio 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 greater twisted pair cable must be used to connect the transmitter and receiver.

> **NOTE:** Power is transmitted over the CATx cable that connects the transmitter to the receiver.

This section provides the following information:

- Features
- Physical Description

Features

Key features include:

- 4K video with 4:4:4 color sampling
- Transmitter and receiver for extension of an HDMI® AV signal and eARC or optical digital audio signals over a CAT5e or greater cable
- eARC support available on HDMI® connection to display - supports all Dolby® audio formats up to Dolby Atmos® and all DTS® formats up to DTS:X®
- Video, audio, and power extension over a CAT5e (or greater) cable
- Signal extension distance up to 330 ft (100 m) for resolutions up to 2K or up to 230 ft (70 m) for higher resolutions up to 4K
- HDCP 2.3 compliant
- RS-232, IR, EDID, and Consumer Electronics Control (CEC) pass-through capability
- Low-profile installation
- 100-240VAC power pack included

4K60 4:4:4 and HDR Support

The HD-EARC KIT supports video resolutions up to 4K60 with 4:4:4 color sampling. HDR10, HDR10+, and Dolby Vision® video formats are also supported[1].

eARC and S/PDIF Audio Extraction

The HDMI output of the HD-RXC-EARC receiver supports Enhanced Audio Return Channel (eARC) connectivity, allowing audio to be extracted from a connected display and transmitted back to the HDMI connector of the HD-TXC-EARC transmitter. Extracting audio from the display via the

eARC connection means only a single cable is required for video and bidirectional audio. An optical TOSLINK® S/PDIF input is also available on the receiver to extract 2-channel LPCM digital audio from the display. These connections allow local audio content from the display (such as smart TV streaming applications) to be sent back to the transmitter. The **HDMI/OPTICAL** switch on the transmitter determines which audio output connection on the HD-TXC-EARC is prioritized.

Compact, Surface-Mountable Design

Compact in design, the transmitter and receiver of the HD-EARC KIT can be mounted onto a flat surface such as a wall behind a flat-panel display or on a ceiling above a projector. They can each also be attached to a single rack rail in the back of an equipment cabinet. The power pack supplied with the HD-TXC-EARC transmitter powers both units in the kit.

Note:

1. For the DM CATx cable connection, use Crestron DM-CBL-8G, Crestron DM-CBL-ULTRA, or third-party CAT5e or greater cable. 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. Wire and cables are sold separately. The DM Essentials ports in this kit are not compatible with DigitalMedia 8G+®, HDBaseT®, PoE, or PoDM technology or any other type of CATx based interface or network.

Physical Description

The HD-EARC KIT provides the following connectors, controls, and indicators.

HD-TXC-EARC Front Panel

The following illustration shows the front of the HD-TXC-EARC:
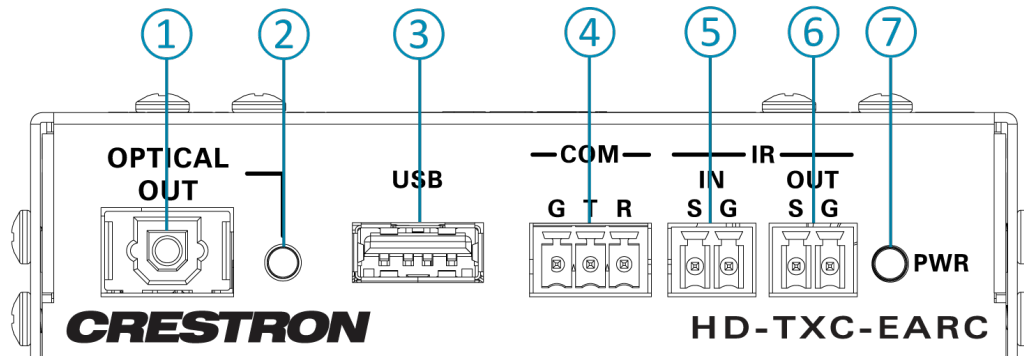
① **OPTICAL OUT:** S/PDIF TOSLINK® connector, outputs digital audio over an optical cable to an audio receiver device

② **OPTICAL OUT Indicator:** Green LED, indicates S/PDIF digital audio signal presence at the **OPTICAL OUT** connector

③ **USB:** USB Type-A female connector, for firmware loading procedures only

④ **COM:** 3-pin terminal block connector, connects to RS-232 device, bidirectional, passes RS-232 signal to and from the connected HD-RXC-EARC device's **COM** port

⑤ **IR IN:** 2-pin terminal block connector, receives IR serial signal from a Crestron IR control port or other IR control device and transmits it to the **IR OUT** port of the connected HD-RXC-EARC device

⑥ **IR OUT:** 2-pin terminal block connector, receives IR serial signal from the IR IN port of the connected HD-RXC-EARC device, connects to a Crestron IRP2 IR emitter (sold separately)

⑦ **PWR Indicator:** Green LED, indicates power is supplied to the device via the included power pack

HD-TXC-EARC Rear Panel

The following illustration shows the rear of the HD-TXC-EARC:
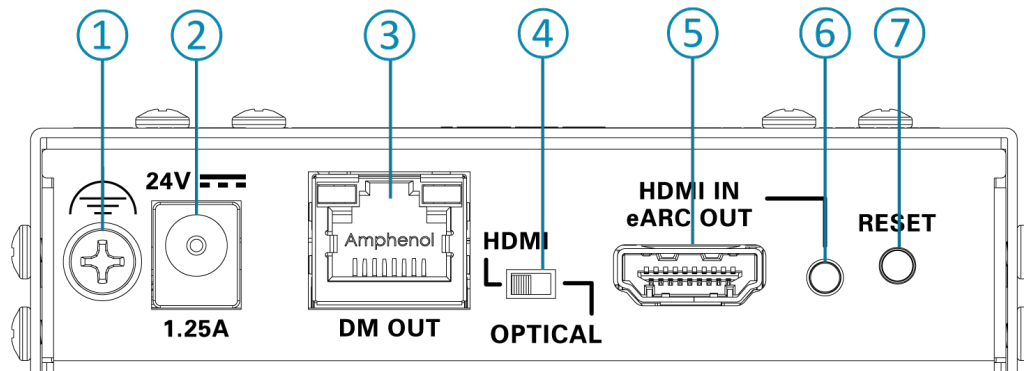
①   Ground screw

②   **24V 1.25A:** DC power input, connects to the included power pack, supplies power to both the HD-TXC-EARC and connected HD-RXC-EARC

③   **DM OUT:** DM Essentials output port, connects to the HD-RXC-EARC receiver, passes digital A/V signal, power, COM, and IR signals over a CAT5e or greater cable

④   **HDMI/OPTICAL Switch:** 2-position slide switch, selects which audio output connector is prioritized; **HDMI** position prioritizes extracting audio via the **HDMI IN/eARC OUT** port; **OPTICAL** position prioritizes extracting audio via the **OPTICAL OUT** port

⑤   **HDMI IN/eARC OUT:** HDMI input and eARC output port, connects to an AV input source and/or an eARC digital audio receiver

⑥   **HDMI IN/eARC OUT Indicator:** Green LED, indicates HDMI input and/or eARC digital audio presence at the **HDMI IN/eARC OUT** port

⑦   **RESET:** Recessed red pushbutton, restarts the device

HD-RXC-EARC Front Panel

The following illustration shows the front of the HD-RXC-EARC:
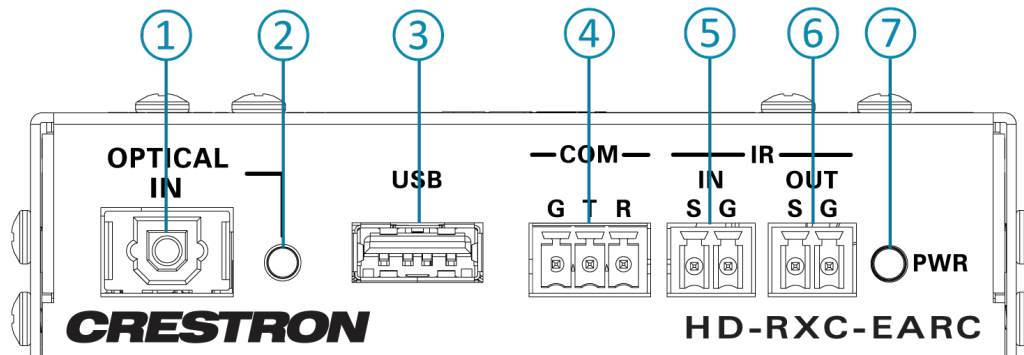
①   **OPTICAL IN:** S/PDIF TOSLINK® connector, receives digital audio over an optical cable from a connected display

②   **OPTICAL IN Indicator:** Green LED, indicates S/PDIF digital audio signal presence at the **OPTICAL IN** connector

③   **USB:** USB Type-A female connector, for firmware loading procedures only

④   **COM:** 3-pin terminal block connector, connects to RS-232 device, bidirectional, passes RS-232 signal to and from the connected HD-TXC-EARC device's **COM** port

⑤   **IR IN:** 2-pin terminal block connector, receives IR serial signal from a Crestron IR control port or other IR control device and transmits it to the **IR OUT** port of the connected HD-TXC-EARC device

⑥   **IR OUT:** 2-pin terminal block connector, receives IR serial signal from the IR IN port of the connected HD-TXC-EARC device, connects to a Crestron IRP2 IR emitter (sold separately)

⑦   **PWR Indicator:** Green LED, indicates power is supplied to the device via the DM Essentials connection to the HD-TXC-EARC

HD-RXC-EARC Rear Panel

The following illustration shows the rear of the HD-RXC-EARC:
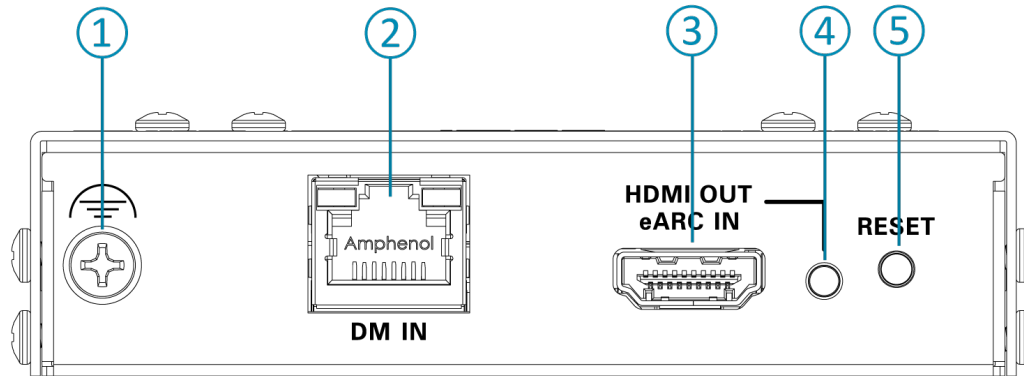
①   Ground screw

②   **DM IN:** DM Essentials input port, connects to the HD-TXC-EARC transmitter, receives digital A/V signal, power, COM, and IR signals over a CAT5e or greater cable, transmits digital audio and IR signals back to the transmitter

③   **HDMI OUT/eARC IN:** HDMI output and eARC input port, connects to an ARC (Audio Return Channel) or eARC-capable input of a display

④   **HDMI OUT/eARC IN Indicator:** Green LED, indicates HDMI and/or eARC digital audio presence at the **HDMI OUT/eARC IN** port

⑤   **RESET:** Recessed red pushbutton, restarts the device

Specifications

Product specifications for the HD-EARC KIT.

Product Specifications

Video

Input Signal Types	HDMI with Deep Color and 4K (DVI and Dual-Mode DisplayPort™ interface compatible2)
Output Signal Types	HDMI with Deep Color and 4K (DVI compatible3)
Copy Protection	HDCP 2.3 compliant
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-EARC KIT does not support interlaced video.

Audio

Input Signal Types	HDMI eARC, S/PDIF
Digital Formats, HDMI	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
Digital Formats, S/PDIF	Dolby Digital, Dolby Digital EX, DTS, DTS-ES, LPCM up to 6 channels

Communications

RS-232	Two way device control and monitoring up to 115.2k baud; Hardware and software handshaking
IR	One way device control via infrared up to 60 kHz
HDMI	HDCP 2.3, EDID, CEC
DM Essentials	HDCP 2.3, EDID

eARC	Enhanced audio return channel via HDMI; Supports all Dolby® audio formats up to Dolby Atmos® and all DTS® formats up to DTS:X®

Connectors - Transmitter (HD-TXC-EARC)

24V 1.25A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; PW-2420RU power pack included
DM OUT	(1) 8-pin RJ-45 connector, female, shielded; DM Essentials output port for connection to the receiver[1]
HDMI IN/EARC OUT	(1) HDMI Type A connector, female; HDMI digital video/audio input; DVI and Dual-Mode DisplayPort interface compatible[2]; Transmits eARC audio signal from the **HDMI OUT/EARC IN** port of the receiver
OPTICAL OUT	(1) TOSLINK® S/PDIF connector, female; Digital audio output; Transmits digital audio signal from the **OPTICAL IN** port of the receiver
USB	(1) USB Type-A connector, female; For firmware loading
COM	(1) 3-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Supports RS-232 up to 115.2k baud; Passes communications through to the **COM** port of the receiver
IR IN	(1) 2-pin 3.5 mm detachable terminal blocks; Comprises (1) IR input port; For connection from a Crestron IR control port or other IR signal source; Passes the IR input signal to the **IR OUT** port on the receiver; Supports IR up to 60 kHz
IR OUT	(1) 2-pin 3.5 mm detachable terminal blocks; Comprises (1) IR output port; For connection to an IR emitter (IRP2, sold separately); Transmits the IR signal from the **IR IN** port on the receiver; Supports IR up to 60 kHz

Connectors - Receiver (HD-RXC-EARC)

DM IN	(1) 8-pin RJ-45 connector, female, shielded; DM Essentials link port for connection to the transmitter[1]
HDMI OUT/EARC IN	(1) HDMI Type A connector, female; HDMI digital video/audio output; DVI and Dual-Mode DisplayPort interface compatible[3]; Receives eARC audio signal from the connected display and passes it through to the **HDMI IN/EARC OUT** port of the transmitter
OPTICAL IN	(1) TOSLINK® S/PDIF connector, female; Digital audio input; Receives digital audio signal from a connected source and passes it to the **OPTICAL OUT** port of the transmitter

USB	(1) USB Type-A connector, female; For firmware loading
COM	(1) 3-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Supports RS-232 up to 115.2k baud; Passes communications through to the **COM** port of the transmitter
IR IN	(1) 2-pin 3.5 mm detachable terminal blocks; Comprises (1) IR input port; For connection from a Crestron IR control port or other IR signal source; Passes the IR input signal to the **IR OUT** port on the transmitter; Supports IR up to 60 kHz
IR OUT	(1) 2-pin 3.5 mm detachable terminal blocks; Comprises (1) IR output port; For connection to an IR emitter (IRP2, sold separately); Transmits the IR signal from the **IR IN** port on the transmitter; Supports IR up to 60 kHz

Controls and Indicators - Transmitter

HDMI/OPTICAL	(1) 2-position slider switch; Selects which audio output connector to prioritize on the HD-TXC-EARC
PWR	(1) Green/amber bi-color LED; Amber indicates that the device is booting; Green indicates that the device is operational
DM OUT	(2) LEDs on RJ-45 connector, one green and one amber; Green indicates that DM Essentials link is established; Flashing amber indicates non-HDCP video; Solid amber indicates HDCP video
HDMI IN/EARC OUT	(1) Green LED, indicates that the device is receiving an HDMI signal and/or transmitting an eARC digital audio signal
OPTICAL OUT	(1) Green LED, indicates an S/PDIF digital audio signal is present at the **OPTICAL OUT** connector

Controls and Indicators - Receiver

PWR	(1) Green/amber bi-color LED; Amber indicates that the device is booting; Green indicates that the device is operational
DM IN	(2) LEDs on RJ-45 connector, one green and one amber; Green indicates that DM Essentials link is established; Flashing amber indicates non-HDCP video; Solid amber indicates HDCP video
HDMI OUT/EARC IN	(1) Green LED, indicates that the device is transmitting an HDMI signal and/or receiving an eARC digital audio signal
OPTICAL IN	(1) Green LED, indicates that the device is receiving a S/PDIF digital audio signal

Power

Power Pack (included with transmitter)	Input: 100-240VAC; Output: 24VDC 2.5A; Model: PW-2420RU
Power Consumption	30 W typical

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	**Transmitter:** 20% to 90% RH (noncondensing); **Receiver:** 20% to 90% RH (noncondensing)
Heat Dissipation	102 BTU/hr
Ambient Noise Level	N/A (fanless)

Construction

Chassis	Metal, black finish, vented sides, 2 mounting flanges
Mounting	Surface or rack rail mount

Dimensions - Transmitter

Height	4.13 in. (105 mm)
Width	4.18 in. (106 mm)
Depth	1.08 in. (27 mm)

Dimensions - Receiver

Height	4.13 in. (105 mm)
Width	4.18 in. (106 mm)
Depth	1.08 in. (27 mm)

Weight

|	
Transmitter	12.02 oz (341 g)
Receiver	11.95 oz (339 g)

Compliance

Regulatory Model: M202243001

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

Notes:

1. For the DM CATx cable connection, use Crestron DM-CBL-8G, Crestron DM-CBL-ULTRA, or third-party CAT5e or greater cable. 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. Wire and cables are sold separately. The DM Essentials ports in this kit are not compatible with DigitalMedia 8G+®, HDBaseT®, PoE, or PoDM technology or any other type of CATx based interface or network.

2. The HDMI input requires an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. CBL-HDI-DVI interface cables are available separately.

3. The HDMI output requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HDI-DVI interface cables are available separately.

Dimension Drawings

HD-TXC-EARC
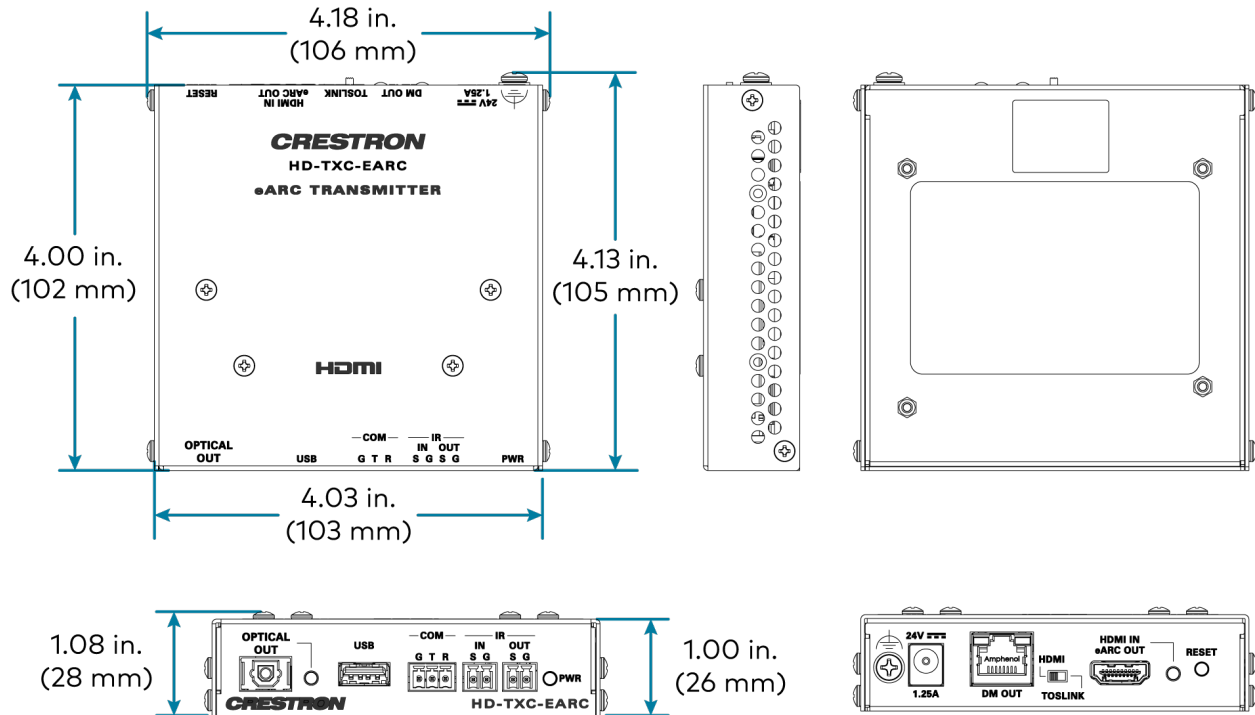
HD-RXC-EARC
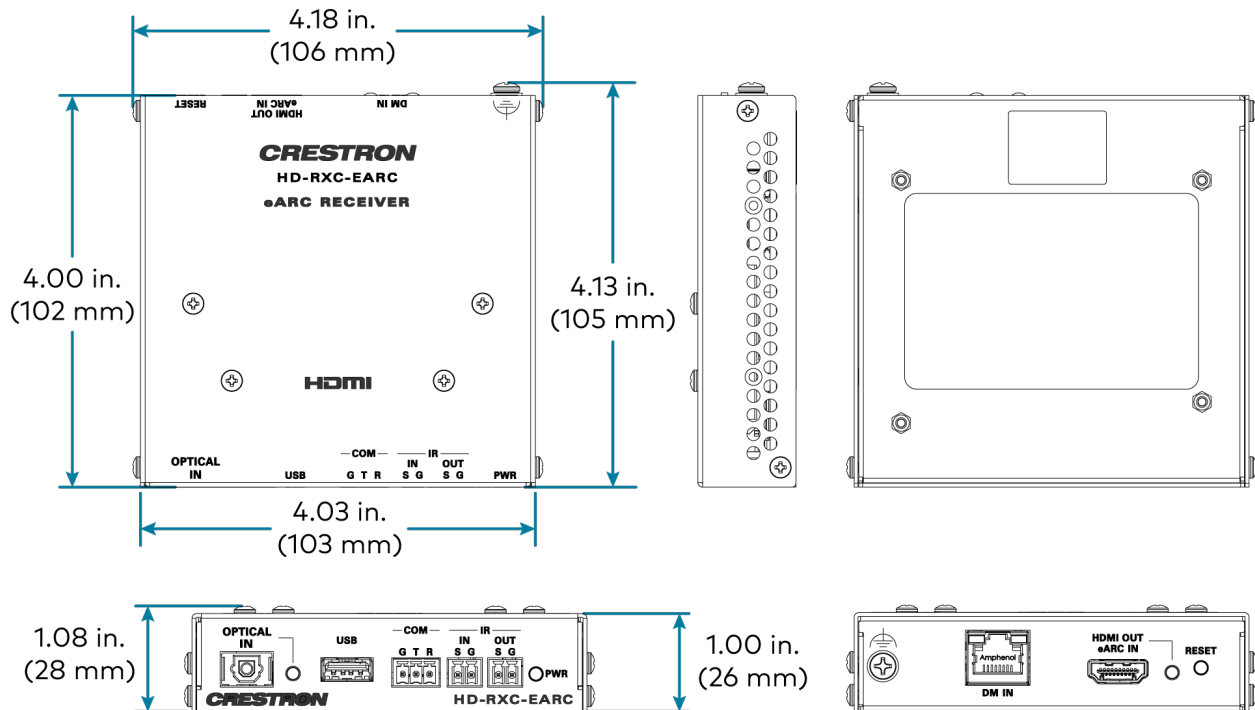
Installation

Use the following procedures to install the HD-EARC KIT.

In the Box

Qty.	Description
1	HD-TXC-EARC, DM® Essentials 4K60 4:4:4 eARC Transmitter for HDMI®, RS-232, IR, and Analog Audio Signal Extension over CATx Cable
1	HD-RXC-EARC, DM® Essentials 4K60 4:4:4 eARC Receiver for HDMI®, RS-232, IR, and Analog Audio Signal Extension over CATx Cable
	Additional Items
	HD-TXC-EARC Contents
2	Connector, 2-pin (2003574)
1	Connector, 3-pin (2003575)
4	Screw, 06-32, 3/4 in. Pan Head, Phillips, Steel (2007247)
2	Mounting Bracket, Galvannealed Metal (2057072)
4	Screw, 04-40, 1/4 in., Pan Head, Phillips, Black Oxide-Coated Metal (2007158)
4	Wall Anchor, Plastic, #6 x 1- 5/16 (2043585)
1	Power Pack, Desktop, 24VDC, 2.5A, Model PW-2420RU (2045873)
1	Power Cord, 6 ft (2042043)
	HD-RXC-EARC Contents
2	Connector, 2-pin (2003574)
1	Connector, 3-pin (2003575)
4	Screw, 06-32, 3/4 in. Pan Head, Phillips, Steel (2007247)
2	Mounting Bracket, Galvannealed Metal (2057072)
4	Screw, 04-40, 1/4 in., Pan Head, Phillips, Black Oxide-Coated Metal (2007158)
4	Wall Anchor, Plastic, #6 x 1- 5/16 (2043585)

Installation Guidelines

Before installing the device, be aware of the following information regarding DM Essentials cabling, HDMI cabling, and the power connection to the device.

DM Essentials Cabling

The DM Essentials output port (**DM OUT**) of the HD-TXC-EARC transmitter must be connected to the DM Essentials input port (**DM IN**) of the HD-RXC-EARC. For DM Essentials connections, use Crestron DM-CBL-8G, Crestron DM-CBL-ULTRA, or third-party CAT5e or higher cable (Crestron DM-CBL Series cables are sold separately).

> **NOTE:** Cables that can be used for DM Essentials connections are designed for intrabuilding use only.

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.

The following table provides information about the maximum transmission distance for each cable type.

Maximum DM Essentials Transmission Distance

Resolution	Frame Rate (Hz)	Color Sampling	Color Depth	Cable Type	
				DM-CBL-ULTRA Cable	DM-CBL-8G Cable or CAT5e (UTP) or Higher
1920x1080 FHD 1080p	60	4:4:4	8, 12 bit		
1600x1200 UXGA	60	4:4:4	8, 12 bit		
2048x1080 DCI 2K	60	4:4:4	8, 12 bit		
1920x1200 WUXGA	60	4:4:4	8, 12 bit		
2048x1152 QWXGA	60	4:4:4	8, 12 bit		
2560x1080 UWFHD	60	4:4:4	8 bit		
2560x1440 WQHD Reduced Blanking	60	4:4:4	8 bit	230 ft (70 m)	195 ft (60 m)
2560x1600 WQXGA Reduced Blanking	60	4:4:4	8 bit		
2048x1152 QWXGA	60	4:4:4	12 bit		
3840x2160 4K UHD and 4096x2160 DCI 4K	30	4:2:2	12 bit		
	30	4:4:4	8 bit		
	60	4:2:0	8 bit		

| Resolution | Frame Rate (Hz) | Color Sampling | Color Depth | Cable Type | |
				DM-CBL-ULTRA Cable	DM-CBL-8G Cable or CAT5e (UTP) or Higher
3840x2160 4K UHD and 4096x2160 DCI 4K	30	4:4:4	12 bit	130 ft (40 m)	100 ft (30 m)
	60	4:2:0	12 bit		
	60	4:2:2	12 bit		
	60	4:4:4	8 bit		

NOTE: The HD-EARC KIT does not support interlaced video.

HDMI Cabling

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 can be used. Bandwidth loss is cumulative; therefore, performance may be reduced when inserting multiple cables and couplers inline.

An HDMI input requires an appropriate adapter or interface cable to accommodate a Dual-Mode DisplayPort™ or DVI signal. An HDMI output requires an appropriate adapter or interface cable to accommodate a DVI signal. Crestron CBL-HD-DVI interface cables are sold separately.

Power Connection

A 24VDC power pack is included with the HD-TXC-EARC transmitter. This power pack supplies power to both devices in the HD-EARC KIT via the DM Essentials connection.

Install the Device

Each component of the HD-EARC KIT may be mounted onto a flat surface, under a table, or onto a single rack rail.

Rack Mounting

To mount the transmitter or receiver to a single rack rail:

1. Using the four included 4-40 x 1/4 in. Phillips pan head screws, attach one of the included mounting brackets to the left or right side panel of the device.
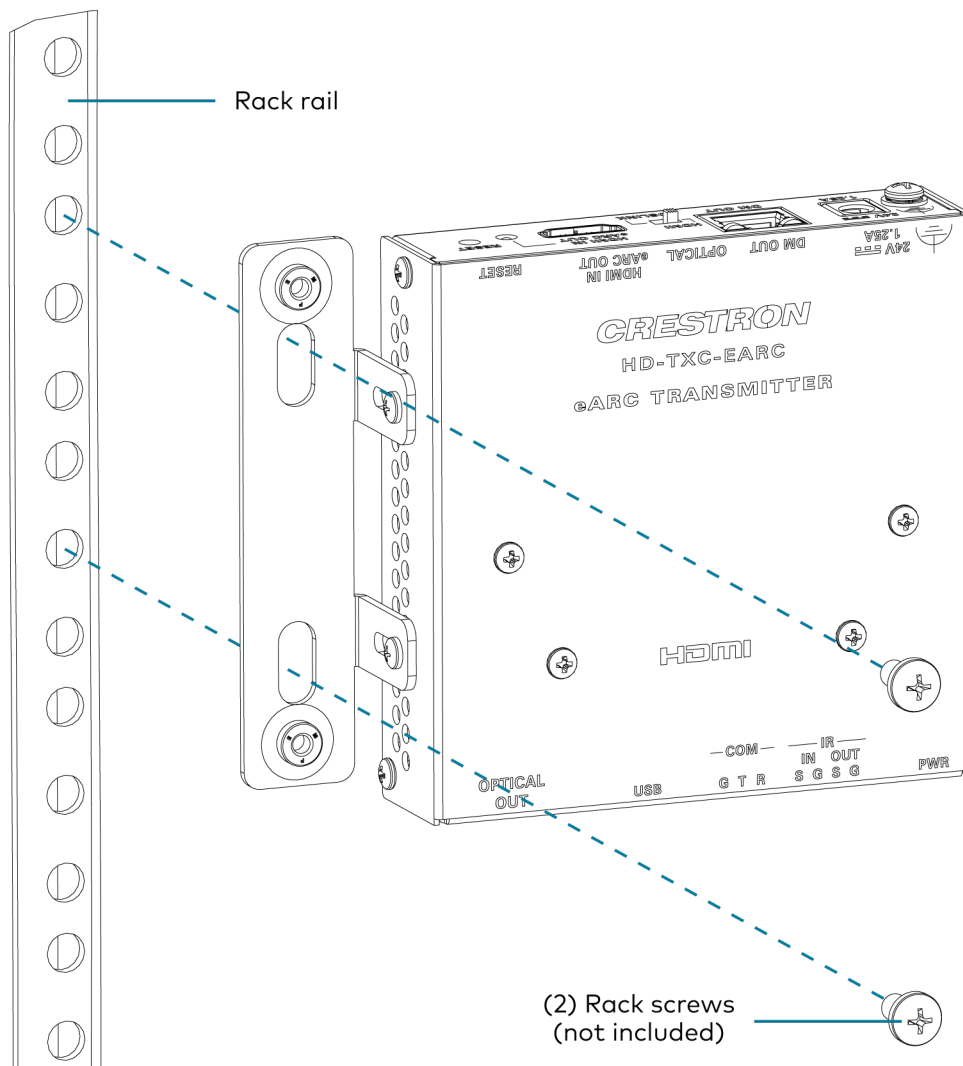
Attach the Mounting Brackets (HD-TXC-EARC Shown)
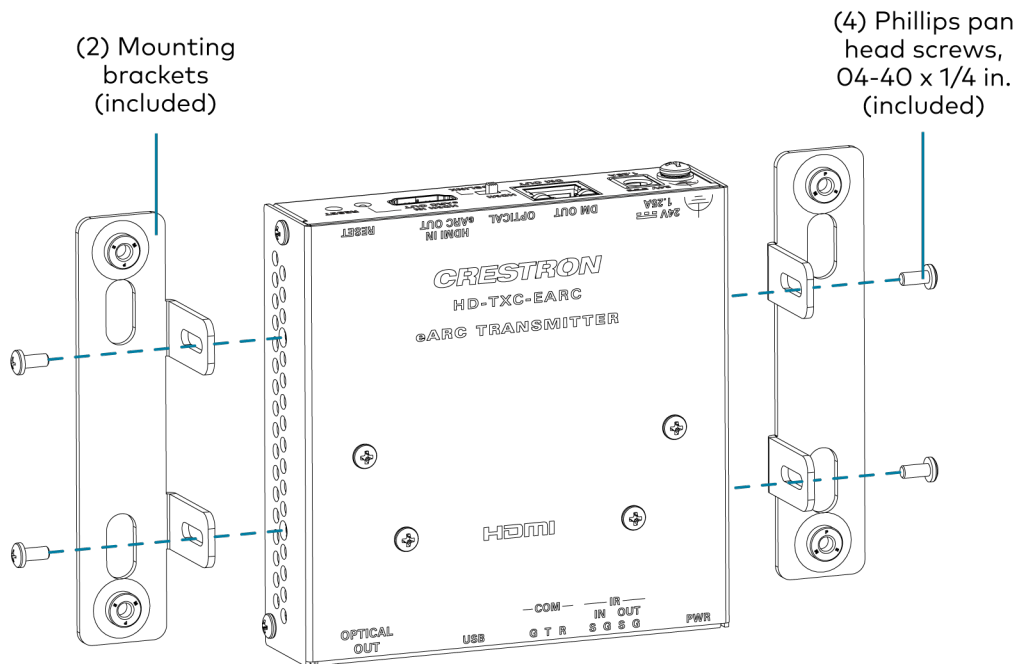
2. Position one of the mounting brackets so that the holes align with the holes in the rack rail.

3. Secure the device to the rack rail using two rack mount screws (not included).

Mount to a Rack Rail (HD-TXC-EARC Shown)

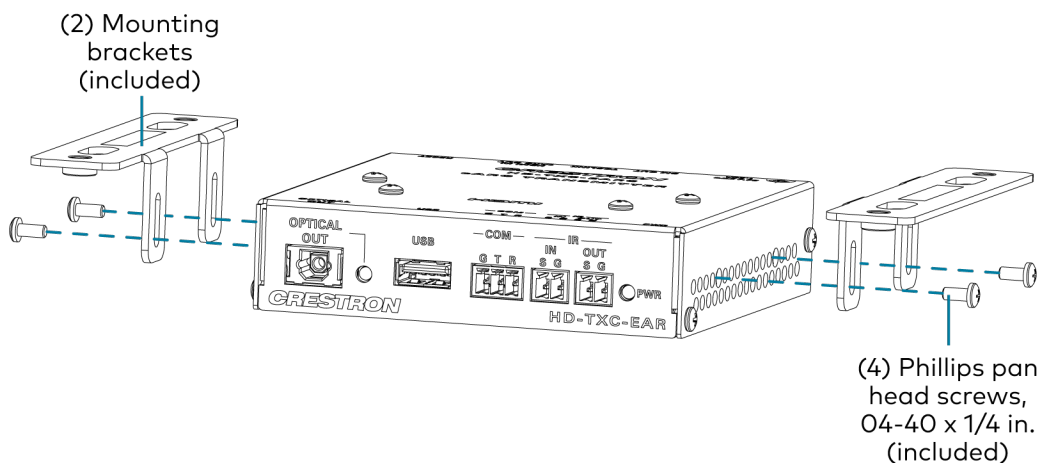Rack rail

(2) Rack screws
(not included)

Mounting Under a Table

To mount the transmitter or receiver to the underside of a table:

1. Using the four included 4-40 x 1/4 in. Phillips pan head screws, attach the two included mounting brackets to the left and right side panels of the device.

   Attach the Mounting Brackets (HD-TXC-EARC Shown)

   (2) Mounting brackets (included)

   (4) Phillips pan head screws, 04-40 x 1/4 in. (included)

2. Using four mounting screws (not included), attach the device to the underside of a table.

   Mount Under a Table (HD-TXC-EARC Shown)

   Table

   (4) Mounting screws (not included)

Surface Mounting
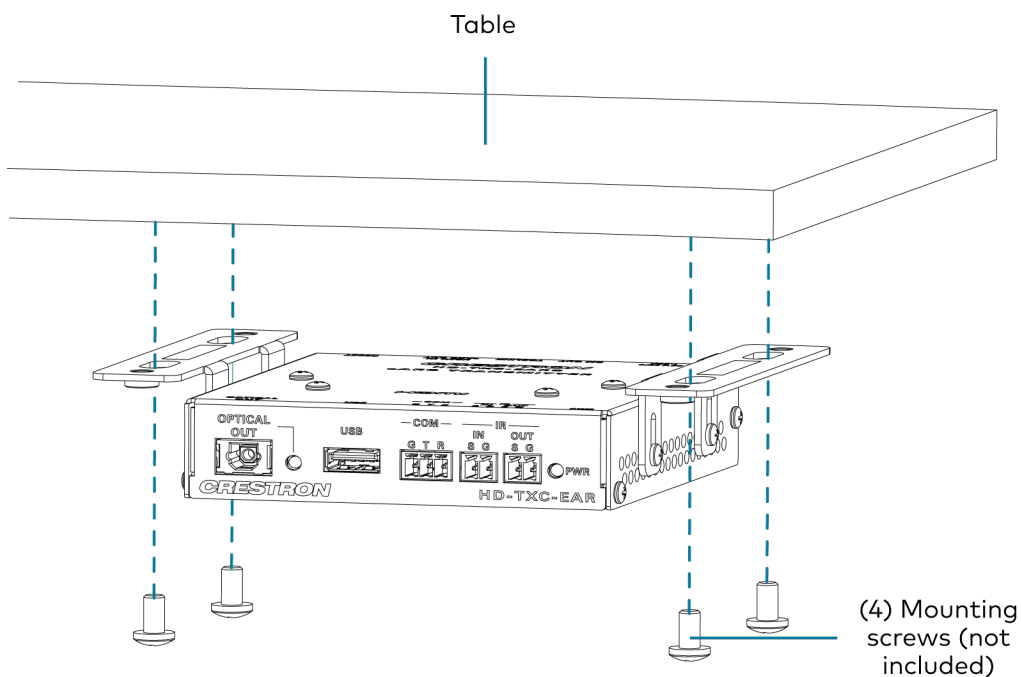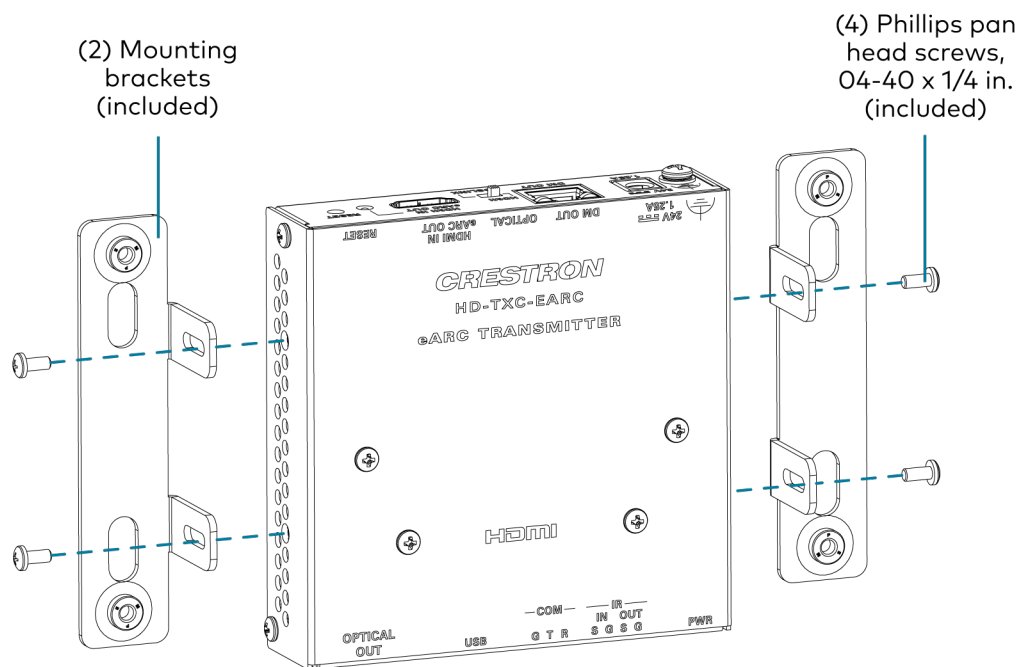
To mount the transmitter or receiver to a flat surface:

1. Using the four included 4-40 x 1/4 in. Phillips pan head screws, attach the two included mounting brackets to the left and right side panels of the device.

   Attach the Mounting Brackets (HD-TXC-EARC Shown)

2. Using four # 6 Type B washers (not included), four plastic wall anchors (included), and four 6-32 x 3/4 in. Phillips pan head screws (included), secure the device to the surface.
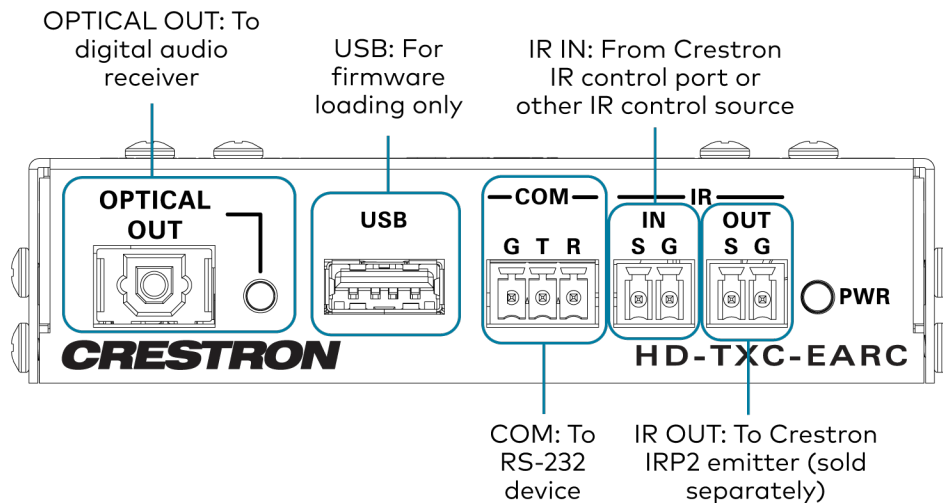
Mount to a Surface (HD-TXC-EARC Shown)
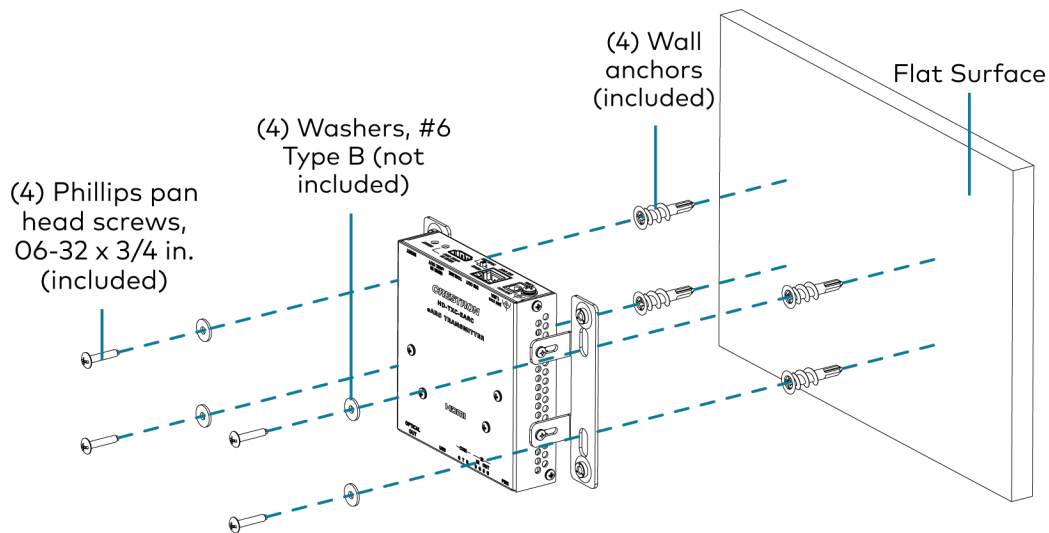
Connect the Device

Make all necessary connections to the HD-EARC KIT as shown in the following diagrams:

HD-TXC-EARC Front Panel Connections

HD-TXC-EARC Rear Panel Connections

24V 1.25A: Power from included power pack

DM OUT: DM Essentials connection to HD-RXC-EARC

HDMI IN / eARC OUT: From video source and/or audio receiver

24V ▬▬▬

Amphenol

HDMI

HDMI IN eARC OUT

RESET

1.25A

DM OUT

OPTICAL

Ground Screw

HD-RXC-EARC Front Panel Connections

OPTICAL IN: Digital audio from display

USB: For firmware loading only

IR IN: From Crestron IR control port or other IR control source

OPTICAL IN

USB

COM
G T R

IR
IN
S G

OUT
S G

PWR

CRESTRON

HD-RXC-EARC

COM: To RS-232 device

IR OUT: To Crestron IRP2 emitter (sold separately)

DM IN: DM
Essentials
connection from
HD-TXC-EARC

HDMI OUT / eARC IN:
To display

HDMI OUT
eARC IN

RESET

Amphenol

DM IN

Ground
Screw

Set the HDMI/OPTICAL Switch

The HD-TXC-EARC transmitter features a two-position **HDMI/OPTICAL** slide switch on its rear panel. This switch determines which audio output of the transmitter to prioritize. If this switch is not set properly, certain combinations of audio input at the HD-RXC-EARC and audio output at the HD-TXC-EARC will prevent audio from passing.

Set the **HDMI/OPTICAL** switch to **HDMI** to prioritize the **HDMI IN/eARC OUT** port of the HD-TXC-EARC as the audio output. With this position selected:

* An eARC audio signal connected to the HD-RXC-EARC will be available only from the **HDMI IN/eARC OUT** port of the HD-TXC-EARC. This signal will not be available from the **OPTICAL OUT** port of the HD-TXC-EARC.
* An ARC audio signal connected to the HD-RXC-EARC will be available from both the **HDMI IN/eARC OUT** and **OPTICAL OUT** ports of the HD-TXC-EARC.
* An S/PDIF audio signal connected to the HD-RXC-EARC will not be available from either the **HDMI IN/eARC OUT** or **OPTICAL OUT** ports of the HD-TXC-EARC. No audio will pass from either connector in this configuration.

Set the **HDMI/OPTICAL** switch to **OPTICAL** to prioritize the **OPTICAL OUT** port of the HD-TXC-EARC as the audio output. With this position selected:

* An ARC or eARC audio signal connected to the HD-RXC-EARC will be available from both the **HDMI IN/eARC OUT** and **OPTICAL OUT** ports of the HD-TXC-EARC.
* An S/PDIF audio signal connected to the HD-RXC-EARC will be available from the **OPTICAL OUT** port of the HD-TXC-EARC. This signal will not be available from the **HDMI IN/eARC OUT** port of the HD-TXC-EARC.

Press the **RESET** button on the HD-TXC-EARC once the switch is set to the desired position. The new setting will take effect after the device has rebooted.

Observe the LED Indicators

Refer to the following table for information about the LED indicators on the HD-TXC-EARC:

LED Indicator	Color	Meaning
PWR	Green	The device is powered on and fully booted.
	Amber	The device is receiving power and is booting up.
	Off	The device is not receiving power.
OPTICAL OUT	Green	An S/PDIF digital audio output signal is detected at the **OPTICAL OUT** connector.
	Off	No audio signal is detected at the **OPTICAL OUT** connector.
HDMI IN/eARC OUT	Green	The device is receiving an HDMI signal and/or transmitting an eARC digital audio signal at the **HDMI IN/eARC OUT** connector.
	Off	No AV signals are detected at the **HDMI IN/eARC OUT** connector.

Refer to the following table for information about the LED indicators on the HD-RXC-EARC:

LED Indicator	Color	Meaning
PWR	Green	The device is powered on and fully booted.
	Amber	The device is receiving power and is booting up.
	Off	The device is not receiving power.
OPTICAL IN	Green	An S/PDIF digital audio input signal is detected at the **OPTICAL IN** connector.
	Off	No audio signal is detected at the **OPTICAL IN** connector.
HDMI OUT/eARC IN	Green	The device is transmitting an HDMI signal and/or receiving an eARC digital audio signal at the **HDMI OUT/eARC IN** connector.
	Off	No AV signals are detected at the **HDMI OUT/eARC IN** connector.

Resources

The following resources are provided for the HD-EARC KIT.

> **NOTE:** You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

Crestron Support and Training

- [Crestron True Blue Support](#)
- [Crestron Resource Library](#)
- [Crestron Online Help (OLH)](#)
- [Crestron Training Institute (CTI) Portal](#)

Programmer and Developer Resources

- [help.crestron.com](#): Provides help files for Crestron programming tools such as SIMPL, SIMPL#, and Crestron Toolbox™ software
- [developer.crestron.com](#): Provides developer documentation for Crestron APIs, SDKs, and other development tools

Product Certificates

To search for product certificates, refer to the [Product Certificates](#) section of the Crestron Resource Library.