

# HD-TX3-C

## 4K HDMI® over HDBaseT® Transmitter

- > HDBaseT® Certified 4K Ultra HD signal extender
- > Extends uncompressed digital video and audio over a single CAT type twisted pair cable<sup>[1]</sup>
- > Supports cable lengths up to 330 ft (100 m) for all resolutions up to 4K and Ultra HD using DM® Ultra cable<sup>[1]</sup>
- > Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using DM 8G® cable or CAT5e<sup>[1]</sup>
- > Supports cable lengths up to 230 ft (70 m) for 4K and UHD using DM 8G cable, or 165 ft (50 m) using CAT5e<sup>[1]</sup>
- > Compatible with HDBaseT receivers and display devices<sup>[3]</sup>
- > Compatible with HDMI®, DVI, and DisplayPort Multimode sources<sup>[4]</sup>
- > Supports Dolby® TrueHD, DTS-HD®, and uncompressed 7.1 linear PCM audio
- > HDCP compliant
- > Passes CEC and EDID
- > Enables IR and RS-232 signal extension when paired with an HD-TX3-C<sup>[2,3]</sup>
- > 24VDC power pack included
- > Available in white or black
- > No programming or configuration required

The Crestron® 4K HDMI® over HDBaseT® Transmitter (HD-TX3-C) delivers a professional-grade digital HD AV signal extension solution for use in the home, classroom, auditorium, or corporate boardroom. Without any special setup or configuration, the HD-TX3-C connects directly to an HDBaseT display device or receiver, enabling the transmission of ultra high-definition digital video and audio over wire runs up to 330 feet (100 meters) using a single CAT type twisted pair cable.<sup>[1]</sup>

*NOTE: When paired with the [HD-RX3-C receiver](#)<sup>[2]</sup>, the HD-TX3-C provides a very simple point-to-point solution for extending HDMI along with RS-232 and IR control signals<sup>[3]</sup>. For applications using the HD-TX3-C and HD-RX3-C together, please refer to the [HD-EXT3-C](#).*

### 4K Ultra HD Signal Extension

Using HDBaseT technology, the HD-TX3-C allows for the extension of uncompressed HDMI signals over a single CAT type twisted pair cable. In addition to HDMI, it is also compatible with DVI and DisplayPort Multimode sources.<sup>[4]</sup> Without relying on signal-degrading compression or inferior HDMI signal boosting, HDBaseT reliably transports the full resolution signal from source to display — intact and uncompromised.

The HD-TX3-C handles uncompressed Full HD 1080p, Ultra HD, 2K, and 4K video signals with support for 3D, Deep Color, and HDCP. Audio capabilities include support for high-bitrate 7.1 audio formats like Dolby® TrueHD and DTS-HD Master Audio™ as well as uncompressed linear PCM. All signals are transported over a single CAT type cable, supporting 1080p, WUXGA, and 2K signals at distances up to 330 feet (100 m) using Crestron DM® Ultra or DM 8G® Cable, or third-party CAT5e. Higher resolutions up to UHD and 4K are supported at distances up to 330 feet (100 m) using DM Ultra Cable, 230 feet (70 m) using DM 8G Cable, or 165 feet (50 m) using CAT5e.<sup>[1]</sup>



Wallplate  
not included

### ...And Control Too!

When paired with an HD-RX3-C receiver, the HD-TX3-C provides for the extension of IR and bidirectional RS-232 control signals in addition to video and audio.<sup>[3]</sup>

### HDBaseT® Certified

Crestron HDMI over HDBaseT products are designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Via its HDBaseT output, the HD-TX3-C can be connected directly to an HDBaseT compliant display device without requiring a separate receiver.

### Uncompromised and Uncomplicated

Crestron HDMI over HDBaseT products afford a very dependable signal extension solution that's simple to implement. No special configuration or programming is required — just connect your source and display and enjoy high-quality video and audio from across the room — or the other end of the house.

The HD-TX3-C can be mounted in a single-gang wall box, or attached to any flat surface or inside an equipment rack. Linking the HD-TX3-C to an HDBaseT display, or to the HD-RX3-C receiver<sup>[2]</sup>, requires just one CAT type cable.<sup>[1]</sup> Crestron offers the cable and connectors for a complete, easy, and reliable wiring solution. A range of professional AV interface cables is also available to complement the HD-TX3-C for a total custom installation solution.

# HD-TX3-C 4K HDMI® over HDBaseT® Transmitter



HD-TX3-C-B – Front & Rear View



HD-TX3-C-B – With Mounting Bracket



HD-TX3-C-B – Attached to Rack Rail

## SPECIFICATIONS

### Maximum HDBaseT® Cable Lengths

Cable Type:	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	CAT5e (or better) UTP or STP <sup>[1]</sup>
Resolution:			
1080p60 Full HD	330 ft (100 m)	330 ft (100 m)	330 ft (100 m)
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 2K DCI		230 ft (70 m)	165 ft (50 m)
2560x1440 WQHD			
2560x1600 WQXGA			
3840x2160 Ultra HD			
4096x2160 4K DCI			

### Video

**Input Signal Types:** HDMI®, DVI<sup>[4]</sup>, DisplayPort Multimode<sup>[4]</sup>

**Output Signal Types:** HDBaseT

**Formats:** HDMI & HDBaseT w/Deep Color, 3D, & 4K; DVI; HDCP content protection support

**Maximum Resolutions:**

Scan Type	Maximum Resolution	Frame Rate	Color Sampling
Progressive	4096x2160 4K DCI	Up to 24 Hz	4:4:4
Progressive	3840x2160 Ultra HD	Up to 30 Hz	4:4:4
Progressive	2560x1600 WQXGA	Up to 60 Hz	4:4:4
Progressive	4096x2160 4K DCI	Up to 60 Hz	4:2:0
Progressive	3840x2160 Ultra HD	Up to 60 Hz	4:2:0
Interlaced	1920x1080 1080i30	Up to 30 Hz	4:4:4

NOTE: Common resolutions are shown; other custom resolutions are supported at pixel clock rates up to 300 MHz

### Audio

**Input Signal Types:** HDMI, DisplayPort Multimode<sup>[4]</sup>

**Output Signal Types:** HDBaseT

**Formats:** Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, up to 8ch PCM

### Communications

**RS-232:** Extends 2-way serial device control signals up to 115.2k baud<sup>[3]</sup>

**IR:** Extends 1-way IR device control signals up to 455 kHz<sup>[3]</sup>

**HDBaseT:** Passes HDCP, EDID, & CEC

**HDMI:** Passes HDCP, EDID, & CEC

### Connectors

**HDMI IN:** (1) 19-pin Type A HDMI female;

HDMI digital video/audio input;

Also supports DVI or Displayport Multimode<sup>[4]</sup>

**IR IN:** (1) 2-pin 3.5mm detachable terminal block;

IR repeater input port<sup>[3]</sup>;

IR signal input up to 455 kHz

**COM:** (1) 3-pin 3.5mm detachable terminal block;

Bidirectional RS-232 port<sup>[3]</sup>;

Up to 115.2k baud, software handshaking support

**24VDC 0.75A (rear):** (1) 2.1 x 5.5 mm DC power connector;

24 Volt DC power input (PW-2407WU power pack included)<sup>[5]</sup>

**Ground (rear):** (1) Flying lead, chassis ground connection

**HDBaseT OUT (rear):** (1) 8-pin RJ45 female, shielded;

Connects to the HDBaseT IN port of an HD-RX3-C receiver or other HDBaseT device via CAT5e, Crestron DM-CBL-8G, or Crestron DM-CBL-ULTRA cable<sup>[1]</sup>

# HD-TX3-C 4K HDMI® over HDBaseT® Transmitter

## Controls & Indicators

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**PWR/LINK:** (1) dual-color amber/green LED, indicates operating power supplied via local power pack or HD-RX3-C, and indicates HDBaseT link status and HDMI input signal presence

**HDBaseT OUT (rear):** (2) LEDs, green LED indicates link status, amber LED indicates video and HDCP signal presence

**SW1 (side):** (1) slide switch, enables hot plug detect

## Power Requirements

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**Power Pack:** 0.75 Amp @ 24 Volts DC;  
100-240 Volts AC, 50/60 Hz power pack, model PW-2407WU, included <sup>[5]</sup>

## Environmental

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**Temperature:** 32° to 104°F (0° to 40°C)

**Humidity:** 10% to 90% RH (non-condensing)

**Heat Dissipation:** 2 BTU/hr

## Enclosure

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**Construction:** Metal, black finish with white or black polycarbonate label overlay

**Flush Wall Mount:** 1-gang mountable in an extra-deep electrical box (2-1/2 inch deep minimum), requires decorator style faceplate (not included)

**Surface Mount:** Surface mount bracket included

**Rack Mount:** Attachable to a single 19-inch EIA rack rail

## Dimensions

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**Height:** 4.12 in (105 mm)

**Width:** 1.72 in (44 mm)

**Depth:** 2.35 in (60 mm)

## Weight

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5.8 oz (165 g)

## MODELS & ACCESSORIES

### Available Models

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**HD-TX3-C-B:** 4K HDMI® over HDBaseT® Transmitter, Black

**HD-TX3-C-W:** 4K HDMI® over HDBaseT® Transmitter, White

### Included Accessories

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**PW-2407WU:** Wall Mount Power Pack 24VDC, 0.75A, Universal (Qty. 1 included)

### Available Accessories

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**HD-RX3-C:** 4K HDMI® over HDBaseT® Receiver

**DM-CBL-ULTRA-NP:** DigitalMedia™ Ultra Cable, Non-Plenum Type CMR

**DM-CBL-ULTRA-P:** DigitalMedia™ Ultra Cable, Plenum Type CMP

**DM-CBL-ULTRA-LSZH:** DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen

**DM-CONN:** Connector for DM-CBL-ULTRA

**DM-CBL-8G-NP:** DigitalMedia 8G™ Cable, non-plenum

**DM-CBL-8G-P:** DigitalMedia 8G™ Cable, plenum

**DM-8G-CONN-WG:** Connector with Wire Guide for DM-CBL-8G

**DM-8G-CRIMP-WG:** Crimping Tool for DM-8G-CONN-WG

**DM-8G-CONN:** Connector for DM-CBL-8G

**DM-8G-CRIMP:** Crimping Tool for DM-8G-CONN

**CNSP-112:** 2-pin to Mini-phone Cable

**CNSP-XX:** Custom Serial Interface Cable

**CBL Series:** Crestron® Certified Interface Cables

Notes:

1. The maximum cable length for HDBaseT is dependent upon the type of cable and resolution of the video signal. Refer to the "Maximum HDBaseT Cable Lengths" table for a detailed overview. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. All wire and cables are sold separately.
2. HD-RX3-C sold separately or as part of the [HD-EXT3-C](#) 4K HDMI over HDBaseT Extender package.
3. IR and RS-232 control signals are only supported when paired with an HD-RX3-C receiver.
4. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. [CBL-HD-DVI](#) interface cables are available separately.
5. When the HD-TX3-C transmitter is connected to a HD-RX3-C receiver, only one power pack should be connected to either the transmitter or the receiver, not both. Power is supplied to the secondary device over the HDBaseT connection. Please note, the HD-TX3-C and HD-RX3-C are not PoH compatible. They cannot be powered by, or supply power to, another HDBaseT device. They may however be connected to such devices without risk of malfunction.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/salesreps](http://www.crestron.com/salesreps) or by calling 800-237-2041.

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