

USER MANUAL

MODEL:

EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter





P/N: 2900-301611 Rev 5 www.kramerav.com

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Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront the video, audio, presentation, and broadcasting professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment.
- Review the contents of this user manual.



Go to www.kramerav.com/downloads/EXT3-C-WP-XR-T to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

Achieving Best Performance

- Use only good quality connection cables (we recommend Kramer high-performance, high-resolution cables) to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables).
- Do not secure the cables in tight bundles or roll the slack into tight coils.
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality.
- Position your Kramer EXT3-C-WP-XR-T away from moisture, excessive sunlight and dust.

Safety Instructions



Caution:

- This equipment is to be used only inside a building. It may only be connected to other equipment that is installed inside a building.
- For products with relay terminals and GPI\O ports, please refer to the permitted rating for an external connection, located next to the terminal or in the User Manual.
- There are no operator serviceable parts inside the unit.



Warning:

- Use only the power cord that is supplied with the unit.
- Disconnect the power and unplug the unit from the wall before installing.
- Do not open the unit. High voltages can cause electrical shock! Servicing by qualified personnel only.
- To ensure continuous risk protection, replace fuses only according to the rating specified on the product label which is located on the bottom of the unit.

Recycling Kramer Products

The Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring it to be collected and recycled. To comply with the WEEE Directive, Kramer Electronics has made arrangements with the European Advanced Recycling Network (EARN) and will cover any costs of treatment, recycling and recovery of waste Kramer Electronics branded equipment on arrival at the EARN facility. For details of Kramer's recycling arrangements in your particular country go to our recycling pages at www.kramerav.com/il/quality/environment.

Overview

Congratulations on purchasing your Kramer WW (Worldwide) EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter.

EXT3-C-WP-XR-T USB-C transmitter is a high-performance, extended-reach HDBaseT 3.0 transmitter for 4K60Hz (4:4:4) HDMI, USB, Ethernet, RS-232, and IR signals over twisted pair. The **EXT3-C-WP-XR-T** transmitter converts all input signals into the transmitted HDBaseT 3.0 signal and extends it over HDBT to a compatible receiver. The **EXT3-C-WP-XR-T** transmitter accepts power over the copper extension cable from a PoE provider remote device.

EXT3-C-WP-XR-T and its compatible receiver can extend uncompressed video signals up to 100m (330ft) over CAT copper cables at 4K@60Hz (4:4:4) video resolution, providing exceptional quality, advanced and user-friendly operation, and flexible control.

Exceptional Quality

- Neat Room Integration Aesthetic and modern front panel look and design that
 integrates nicely with design of room and podium deployments, in addition with wallplate clean and convenient user interface, substantially increase customer and user
 quality of experience.
- High Performance Standard Extender Professional HDBaseT extenders for providing extended-reach signals over twisted-pair copper infrastructures. EXT3-C-WP-XR-T is a standard extender that can be connected to any market-available HDBaseT-compliant receiver. For optimum extension reach and performance, use recommended Kramer cables.
- HDMI Signal Extension Uncompressed 4K@60Hz (4:4:4) HDMI, HDCP 2.3, EDID and CEC signals are passed through from the source to the display.

- HDMI Support Support HDR10, deep color, x.v.Color™, HDMI uncompressed audio channels, Dolby TrueHD, DTS-HD, 2K, 4K, and 3D as specified in HDMI 2.0.
- I-EDIDPro™ Kramer Intelligent EDID Processing™ Intelligent EDID handling, processing, and pass-through algorithm that ensures Plug and Play operation for HDMI source and display systems.
- Multi-channel Audio Transmission Up to 32 channels of digital stereo uncompressed signals for supporting studio-grade surround sound.

Advanced and User-friendly Operation

- BYOD Ease and Convenience Connect any DP-Alt-Mode-capable USB-C device to the transmitter as an AV presentation source, while providing the connected device with USB 2.0 and Ethernet connection, and (if PD-2.0-capable) up to 60 watts of power, via a single USB-C cable connection only.
- HDMI Mirroring Transmitter-side extender mirrors input HDMI signal to loop output port for connecting a local monitor.
- Convenient Display Power On/Off Control Simply press the DISPLAY ON button on the EXT3-C-WP-XR-T to toggle on and off the power of the remote CEC-enabled display; button LED indicates the power on/off status of the remote display.

Flexible Connectivity

- Flexible USB 2.0 Extension An active USB host is connected to the extender at either
 the transmitter or receiver sides. USB 2.0 signals are extended between the extender
 transmitter and receiver sides, enabling connection of the active USB host to both local
 and remote USB devices, such as camera and audio devices, or HID (Human Interface
 Devices) mouse or keyboard devices.
- Ethernet Extension Ethernet interface data flows in both directions, allowing extension of up to 1 Gbps Ethernet connectivity for LAN communication and device control.
- Bidirectional RS-232 Extension Serial interface data flows in both directions, allowing data transmission and device control.
- Infrared Extension IR interface data flows to output port, allowing remote control of peripheral devices located at the transmitter proximity.
- Remote Powering The transmitter can be powered by PoE (power over ethernet),
 reducing the need for power sources. The receiver can either deliver or receive PoE.
- Cost-effective Maintenance Status LED indicators for HDMI, Loop, HDBT, PoE and USB active host ports, facilitate easy local maintenance and troubleshooting.
- Easy and Elegant Installation Compactly fits into standard WW 2-gang in-wall box size, supporting decorative integration with room deployed user interfaces such as electrical switches. Wall–plate installation is fast and cost-effective via a single twisted pair cable, providing multiple signals and power connections.

Typical Applications

EXT3-C-WP-XR-T is ideal for the following typical applications:

- Corporate Hybrid and online meetings.
- Education Hybrid and online learning and training.
- Any AV, Ethernet and USB room extension applications such as conference rooms, boardrooms, and training facilities.

Defining EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter

Defining the EXT3-C-WP-XR-T Front and Rear Panels

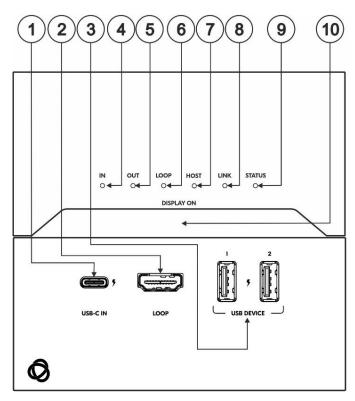


Figure 1: EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter Front Panel

#	Feature	Function
1	USB-C IN Connector	Connect to a USB-C AV source (that supports DisplayPort Alternate Mode) for AV input, USB host connection to local and remote connected USB devices. Charges sources (that support USB Power Delivery 2.0) up to 60W when the device is powered via the power adapter). While charging, the charging icon (to the right of the connector) becomes visible and lights orange.
2	LOOP HDMI Connector	Connect to a local acceptor to view the AV signal coming from the USB-C IN input.
3	USB A 2.0 Charging Connector 1	Connect to the USB local peripheral devices (for example, a USB camera, a soundbar, microphone and so on). When USB Host PC is disconnected, the USB signal and charging power for this port are inactive.
	USB A 2.0 Charging Connector 2	Connect to the USB local peripheral devices (for example, a keyboard & mouse). When USB Host PC is disconnected, the USB charging power for this port continues to be active.
4	IN LED	Lights blue when an active AV input signal is detected from the source device that is connected to the USB-C IN port.
(5)	OUT LED	Lights blue when an HDMI output device is detected on the receiver side.
6	LOOP LED	Lights blue when an active signal is transmitted on the HDMI LOOP port.
7	HOST LED	Lights orange when the USB host side is active (defined via DIP-switches, see <u>Defining the DIP-switches</u> on page <u>15</u>).
8	LINK LED	Lights green when the HDBT connection is active.

#	Feature	Function
9	STATUS LED	Lights green when PSU powered and orange when PoE powered.
10	DISPLAY ON Button	Press to toggle power on/off the remote CEC-enabled display that is connected to the receiver side. Button LED lights blue when remote display power is on.

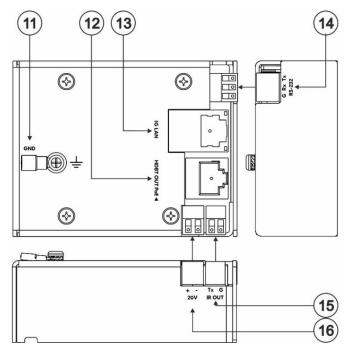


Figure 2: EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter Rear Panel

#	Feature	Function
11)	Ring Tongue Terminal Grounding Screw	Connected to grounding wire.
12	HDBT OUT PoE RJ-45 Connector	Connect to the HDBT IN RJ-45 connector on a receiver (for example, EXT3-POE-XR-R). Receives PoE (PD).
13	1G LAN RJ-45 Connector	Connect to a LAN to provide Network and Internet to the source device that is connected to the USB-C IN port and/or Ethernet extension to the receiver.
14)	RS-232 3-pin Terminal Block Connector	Connect to a controller device (for example, SL-240C) to control a remote device via serial connection (for example, the remotely connected PTZ USB camera).
15)	IR OUT 2-pin Terminal Block Connector	Outputs an extended IR signal from the receiver to a connected IR emitter.
16)	20V DC	+20V DC 6A connector for powering the unit and charging the connected input device to USB-C.

Defining the EXT3-C-WP-XR-T Front and Rear Panels EU/UK

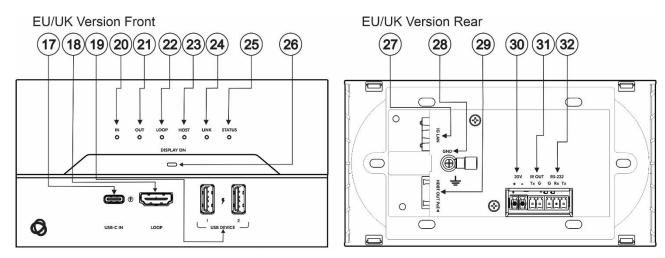


Figure 3: EXT3-C-WP-XR-T (EU/UK) 4K60 USB-C Wall Plate Transmitter Rear Panel

#	Feature	Function
17)	USB-C IN Connector	Connect to a USB-C AV source (that supports DisplayPort Alternate Mode) for AV input, USB host connection to local and remote connected USB devices. Charges sources (that support USB Power Delivery 2.0) up to 60W when the device is powered via the power adapter). While charging, the charging icon (to the right of the connector) becomes visible and lights orange.
18)	LOOP HDMI Connector	Connect to a local acceptor to view the AV signal coming from the USB-C IN input.
19	USB A 2.0 Charging Connector 1	Connect to the USB local peripheral devices (for example, a keyboard & mouse). When USB Host PC is disconnected, the USB signal and charging power for this port are inactive.
	USB A 2.0 Charging Connector 2	Connect to the USB local peripheral devices (for example, a USB camera, a soundbar, microphone and so on). When USB Host PC is disconnected, the USB charging power for this port continues to be active.
20	IN LED	Lights blue when an active AV input signal is detected from the source device that is connected to the USB-C IN port.
21)	OUT LED	Lights blue when an HDMI output device is detected on the receiver side.
22	LOOP LED	Lights blue when an active signal is transmitted on the HDMI LOOP port.
23	HOST LED	Lights orange when the USB is set to Host.
24)	LINK LED	Lights green when the HDBT connection is active.
25	STATUS LED	Lights green when PSU powered and orange when PoE powered.
26	DISPLAY ON Button	Press to toggle power on/off the remote CEC-enabled display that is connected to the receiver side. Button LED lights orange when remote display power is on.
27)	1G LAN RJ-45 Connector	Connect to a LAN to provide Network and Internet to the source device that is connected to the USB-C IN port and/or Ethernet extension to the receiver.
28	Ring Tongue Terminal Grounding Screw	Connected to grounding wire.
29	HDBT OUT PoE RJ-45 Connector	Connect to the HDBT IN RJ-45 connector on a receiver (for example, EXT3-POE-XR-R). Receives PoE (PD).
30)	20V DC	+20V DC 6A connector for powering the unit and charging the connected input device to USB-C.
31)	IR OUT 2-pin Terminal Block Connector	Outputs a received IR signal (from a controller) to a connected IR emitter.

#	Feature	Function
32	RS-232 3-pin Terminal Block Connector	Connect to a controller device (for example, SL-240C) to control a remote device via serial connection (for example, the remotely connected PTZ USB camera).

Mounting EXT3-C-WP-XR-T

This section provides instructions for mounting the **EXT3-C-WP-XR-T** transmitter. Before installing, verify that the environment is within the recommended range:



- Operation temperature 0° to 40°C (32 to 104°F).
- Storage temperature -40° to $+70^{\circ}$ C (-40 to $+158^{\circ}$ F).
- Humidity 10% to 90%, RHL non-condensing.



Warning:

- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.
- Maximum mounting height for the device is 2 meters.

Mounting EXT3-C-WP-XR-T in a Wall Box

Insert the device into the in-wall box (note that first you need to connect the HDBT cable and power) and connect the parts as shown in the illustration below.



When installing the device, take care not to obstruct the upper and lower ventilation holes.

US-D Version



US model panel size is compatible with DECORA® design frame size.

DECORA® is a registered trademark of Leviton Manufacturing Co., Inc.

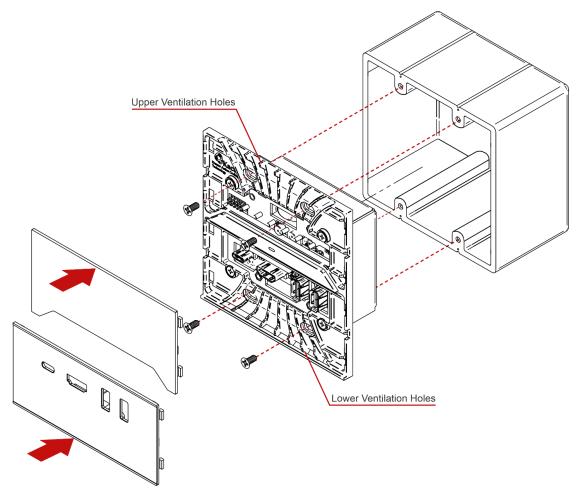


Figure 4: Mounting EXT3-C-WP-XR-T

We recommend that you use any 2 gang US electrical junction box:

Mounting EXT3-C-WP-XR-T (EU/UK) in a Wall Box

Insert the device into the in-wall box (note that first you need to connect the HDBT cable and power) and connect the parts as shown in the illustration below.



When installing the device, take care not to obstruct the upper and lower ventilation holes.

EU Version

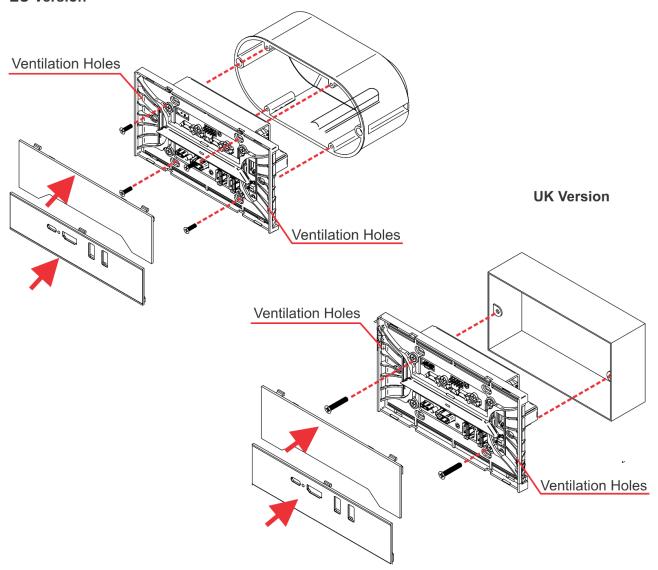


Figure 5: Mounting EXT3-C-WP-XR-T (EU/UK))

We recommend that you use any of the following standard 2 Gang in-wall junction boxes (or their equivalent):

- **EU**: 2 gang in-wall junction box, with a cut-hole diameter of 2x68mm and depth that can fit in both the device and the connected cables (DIN 49073).
- **UK**: 2 gang in-wall junction box (BS 4662), 135x75mm (W, H) and depth that can fit in both the device and the connected cables.

Connecting EXT3-C-WP-XR-T

This section provides instructions for connecting the **EXT3-C-WP-XR-T** transmitter to a compatible receiver (for example, Kramer **EXT3-POE-XR-R**).



Switch off and disconnect the power to each device before connecting them. After connecting your devices, connect their power and power-up each device.

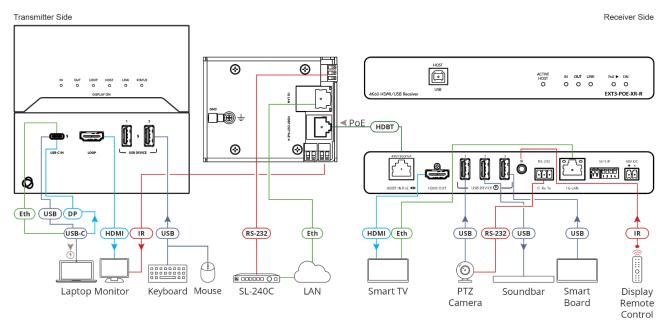


Figure 6: Connecting EXT3-C-WP-XR-T to EXT3-POE-XR-R



In the example in <u>Figure 6</u>, the connected USB devices, such as the mic or soundbar, are hosted via the transmitter's USB-C port 1. In this configuration, the receiver's host USB-B port is inactive.

To connect EXT3-C-WP-XR-T to EXT3-POE-XR-R as illustrated in the example in Figure 6:

- 1. If required, set to active HOST via DIP-switch 2 (see <u>Defining the DIP-switches</u> on page 15).
 - By default, **EXT3-C-WP-XR-T** USB-C port is set active Host.
 - Either the EXT3-C-WP-XR-T or its compatible receiver (but not both) must be defined as the active USB host.
- 2. Connect the HDBT OUT port 12 on the **EXT3-C-WP-XR-T** transmitter side to the HDBT IN port on the **EXT3-POE-XR-R** receiver side.
- 3. On the EXT3-C-WP-XR-T transmitter side:
 - Connect a USB-C source (for example, a laptop that supports Display Port Alternate Mode) to the USB-C IN connector (1).
 - Connect an HDMI LOOP connector (2) to an HDMI acceptor.
- 5. On the **EXT3-POE-XR-R** receiver side, connect the HDMI OUT connector to an HDMI acceptor (for example, a smart TV).

- 6. Connect the USB DEVICE ports:
 - On the transmitter side, ports (3), to USB devices (for example, USB 2 to the room mouse, and keyboard).
 - On the receiver side, ports to USB devices (for example, a smart board, soundbar and camera).



USB devices can be connected to both the transmitter and receiver sides, as necessary, while considering the needed auto-disconnection behavior.

For example, we recommend connecting a keyboard and mouse to the USB 2 port ③ on the EXT3-C-WP-XR-T, as they remain connected when the HOST port is disconnected.

- 7. To control the Monitor via the OUT IR port, connect the following:
 - On the EXT3-C-WP-XR-T transmitter side, connect an IR emitter cable to the IR 3.5mm mini jack (15).and attach the emitter side to the IR sensor of the monitor.
 - On the EXT3-POE-XR-R receiver side, connect the IR 3.5mm mini jack 30 to an IR sensor cable and point the monitor IR remote control to that sensor to carry out IR commands.
- 8. To Control the smart TV via Ethernet, connect the following:
 - On the EXT3-C-WP-XR-T transmitter side, connect a room controller (for example, the Kramer SL-240C with Kramer Control) via LAN to the 1G LAN RJ-45 port (13).
 - On the EXT3-POE-XR-R receiver side, connect the Ethernet RJ-45 port to the smart TV.

Send IP commands via the room controller to the smart TV via LAN.

- 9. To control the PTZ camera, connect the following:
 - On EXT3-C-WP-XR-T transmitter side connect a controller (for example, SL-240C room controller) to the RS-232 port (14) (and to the ETHERNET RJ-45 port (13)).
 - On **EXT3-POE-XR-R** receiver side connect the RS-232 port to a PTZ camera.

Send serial commands from **SL-240C** to the camera via RS-232.

10. Connect the power adapter to **EXT3-C-WP-XR-T** and to the mains electricity (not shown in Figure 6).



To charge the device that is connected to the USB-C port, you need to use a power adapter for powering the **EXT3-C-WP-XR-T** transmitter.

11. Connect the power adapter to **EXT3-POE-XR-R** and to the mains electricity (not shown in Figure 6).

EXT3-C-WP-XR-T and EXT3-POE-XR-R are connected.

Connecting EXT3-C-WP-XR-T (EU/UK)

This section provides instructions for connecting the **EXT3-C-WP-XR-T (EU/UK)** transmitter to a compatible receiver (for example, Kramer **EXT3-POE-XR-R**).

(i)

Switch off and disconnect the power to each device before connecting them. After connecting your devices, connect their power and power-up each device.

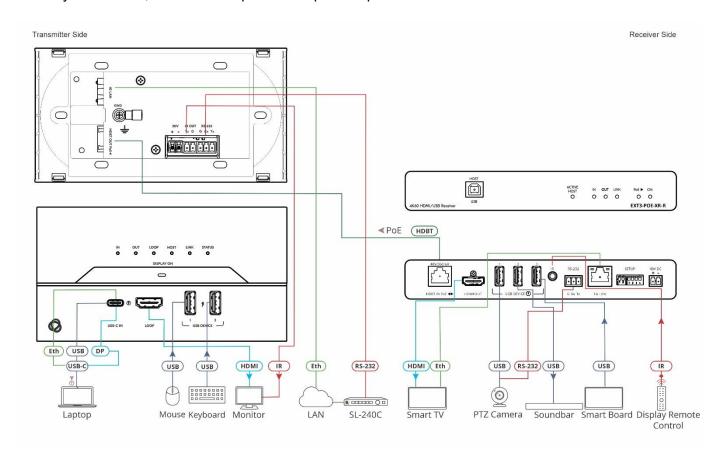


Figure 7: Connecting EXT3-C-WP-XR-T (EU/UK) to EXT3-POE-XR-R

To connect EXT3-C-WP-XR-T (EU/UK) to EXT3-POE-XR-R as illustrated in the example in Figure 6:

- 1. If required, set to active HOST via DIP-switch 2 (see <u>Defining the DIP-switches</u> on page <u>15</u>).
 - By default, EXT3-C-WP-XR-T USB-C port is set active Host.
 - Either the EXT3-C-WP-XR-T or its compatible receiver (but not both) must be defined as the active USB host.
- 2. Connect the HDBT OUT port ② on the EXT3-C-WP-XR-T transmitter side to the HDBT IN port on the EXT3-POE-XR-R receiver side.
- 3. On the EXT3-C-WP-XR-T transmitter side:

Defining the DIP-switches

EXT3-C-WP-XR-T US & **EXT3-C-WP-XR-T** (**EU/UK**) Setup DIP-switches are located behind the top front panel of the device. To access the DIP-switches, simply remove the top front panel.

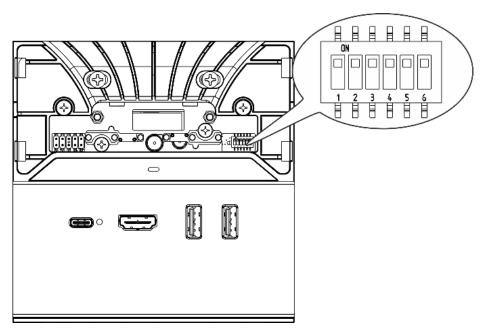


Figure 8: EXT3-C-WP-XR-T (US) DIP-Switches

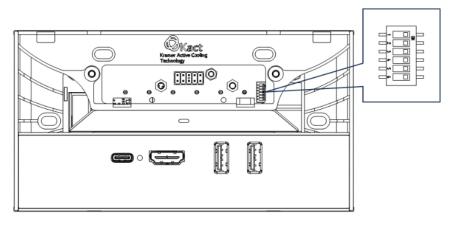


Figure 9: EXT3-C-WP-XR-T (EU/UK) DIP-Switches



By default, DIP-Switch 2 is set to **ON** (up), while all the other DIP-switches are set to **OFF** (down) by default.



Setting EXT3-C-WP-XR-T to active USB host requires device reset (disconnecting and then reconnecting the power).

We recommend that you set the device to active USB host (if required) before mounting.

The following table describes the DIP-switch optional setups.

DIP#	Feature	DIP-switch Settings	
1	Eth connection	OFF (down) - ETH is connected	
		ON (up) - ETH is disconnected	
2	Fan FW upgrade	OFF (down) – For factory use only	
		ON (up) – Mandatory for normal operation (default).	
3	Eth FW upgrade	OFF (down) – Mandatory for normal operation (default).	
		ON (up) – For factory use only.	
4	Active USB Host	OFF (down) – USB-C is activated as a HOST for the connected	
		USB devices (default).	
		ON (up) – USB-C is activated as a USB device.	
5	IR Modulation	OFF (down) – IR pass-thru is enabled (default).	
		On – IR pass-thru is disabled (add a 38KHz modulation to the IR	
		output signal).	
6	RS-232 Extension	Off (down) – Mandatory for serial extension (default).	
		On (up) – For factory use only.	

Connecting to EXT3-C-WP-XR-T via RS-232

You can connect via an RS-232 connection (14) or (31) using, for example, a controller.

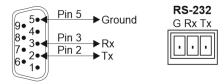
EXT3-C-WP-XR-T features an RS-232 3-pin terminal block connector to extend RS-232 signals via the **EXT3-C-WP-XR-T** transmitter to the connected receiver.

Connect the RS-232 terminal block on the rear panel to a device, as follows:

From the RS-232 9-pin D-sub serial port connect:

- Pin 2 to the TX pin on the RS-232 terminal block
- Pin 3 to the RX pin on the RS-232 terminal block
- Pin 5 to the G pin on the RS-232 terminal block

RS-232 Device EXT3-C-WP-XR-T



Wiring RJ-45 Connectors

This section defines the HDBT pinout, using a straight pin-to-pin cable with RJ-45 connectors.

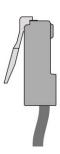


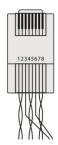
It is recommended that the cable ground shielding be connected/soldered to the connector shield.



To achieve specified extension distances, use the recommended Kramer cables available at www.kramerav.com/product/EXT3-C-WP-XR-T. Using third-party cables may cause damage!

EIA / TIA 568B		
PIN	Wire Color	
1	Orange / White	
2	Orange	
3	Green / White	
4	Blue	
5	Blue / White	
6	Green	
7	Brown / White	
8	Brown	





Principles of Operation

The EXT3-C-WP-XR-T USB-C port is actually a dock for passing a number of signals therefore you can use one cable to pass full AV, USB, and Eth signals as well as power and presentation content monitor.

This section describes the following actions:

- Controlling Display Power On/Off on page 18.
- Connecting EXT3-C-WP-XR-T to Other HDBaseT-Compatible Devices on page 18.

Controlling Display Power On/Off

EXT3-C-WP-XR-T communicates with the remote HDMI display that is connected to the HDBaseT receiver, via the pass-through CEC channel.

Use the DISPLAY ON button (1) on the **EXT3-C-WP-XR-T** to turn on or off the power of the display that is connected to the receiver. The DISPLAY ON button LED lights blue when display on the receiver side is powered on.



EXT3-C-WP-XR-T supports CEC functionality and has been tested and verified with a large number of display models. However, Kramer cannot guarantee CEC compatibility with all CEC displays due to command variations and proprietary commands implemented by some manufacturers in some of their displays.

Connecting EXT3-C-WP-XR-T to Other HDBaseT-Compatible Devices

You can connect **EXT3-C-WP-XR-T** to other HDBaseT-compatible devices that support HDBaseT 3.0 release or lower.

When **EXT3-C-WP-XR-T** is paired to devices with a HDBaseT 3.0 release or lower, the features of the lower release device apply.

For example, you can connect:

• EXT3-C-WP-XR-T to the Kramer TP-590R receiver.

For these paired sets:

- The maximum resolution that is supported is that of the highest common resolution.
 The TP-590R maximum resolution is 4K60 4:2:0 only, therefore the paired TP-590R defines the maximum supported resolution.
- A shorter reach and USB extension are supported by each pair, therefore available per TP-590R capabilities.
- PoE powering and Ethernet are not supported by TP-590R so when paired with EXT3-C-WP-XR-T, are not available.

Technical Specifications

Inputs	1 DP Alt Mode & PD 3.0 USB-C	On a USB-C female connector
Outputs	1 HDBT	On a female RJ-45 connector
•	1 LOOP	On a female HDMI connector
	1 IR	On a 3.5mm mini jack for IR link extension
Ports	2 USB 2.0	On USB device type-A female connectors
	1 RS-232	On a 3-pin terminal block for serial link extension
	1 Gbps LAN	On an RJ-45 female connector
Extension Line	Reach	Up to 90m (295ft), when using Kramer HDBaseT cables
	Standards Compliance	HDBaseT 3.0
Video	Max Data Rate	18Gbps bandwidth (6Gbps per graphic channel)
	Max Resolution	4K@60Hz (4:4:4) 24bpp resolution
	Content Protection	HDCP 2.3
	HDMI Support	4K as specified in HDMI 2.0b
Extended USB	Data Rate	Up to 480Mbps
	Transmitted Data Bandwidth	Up to 300Mbps
	Standards Compliance	1.1 and 2.0 USB
Extended Ethernet	Max Data Rate	1Gbps
Extended RS-232	Baud Rate	300 to 115200
Power	Power Adapter	Source: 20V DC, 6A
	·	Consumption: 20V DC, 4.35A Max. Power: 88W
	PoE	Consumption: 410mA Max. Power: 19.7W
	USB-C Charging	Max Power: 60W Compliance: PD 3.0
	USB Device Charging	Max. Total Current: 2A
Environmental	Operating Temperature	0° to +40°C (32° to 104°F)
Conditions	Storage Temperature	-40° to +70°C (-40° to 158°F)
	Humidity	10% to 90%, RHL non-condensing
Regulatory	Safety	CE
Compliance	Environmental	RoHs, WEEE
Enclosure	Size	WW 2 Gang Decora-compatible
	Material	Aluminum, ABS PC
	Cooling	Fan Ventilation
General	Net Dimensions (W, D, H)	US: 12.1cm x 4.7cm x 12.1cm (4.8" x 1.85" x 4.8") UK: 15.1cm x 8.6cm x 4cm
		(5.9" x 3.38" X 1.5") EU: 15.1cm x 8cm x 4cm (5.9" x 3.14" X 1.5")
	Shipping Dimensions (W, D, H)	US: 11.5cm x 4.7cm x 7cm (4.5" x 1.85" x 2.7") UK/EU: 29.1 cm x 24cm x 8cm
	Net Weight	(11.4" x 9.44" x 3.14") US: 0.097kg (0.21lbs) UK: 0.28kg (0.61lbs) EU: 0.264kg (0.58lbs)

	Shipping Weight	U.S: 0.666kg (1.47lbs) approx. UK: 1.14kg (2.5lbs) approx. EU: 1.22kg (2.68lbs) approx.
Accessories	Included	Power adapter and cord, 1 Multi signal USB-C cable (1m)
Specifications are subject to change without notice at www.kramerav.com		









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SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

For the latest information on our products and a list of Kramer distributors, visit our website where updates to this user manual may be found.

We welcome your questions, comments, and feedback.

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