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EXT3-21-XR-TR Quick Start Guide


This guide helps you install and use your EXT3-21-XR-TR for the first time.

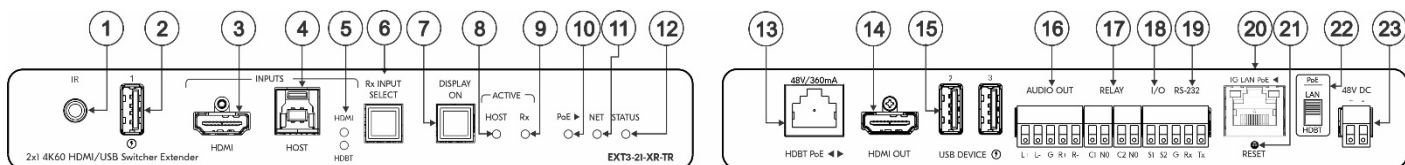
Go to www.kramerav.com/downloads/EXT3-21-XR-TR to download the latest user manual and check if firmware upgrades are available.


Step 1: Check what's in the box

- ✓ EXT3-21-XR-TR 4K60 USB/HDMI Switcher Extender
- ✓ 1 Bracket set
- ✓ 1 Quick start guide
- ✓ 1 Power adapter and cord
- ✓ 4 Rubber feet



Step 2: Get to know your EXT3-21-XR-TR

 Configuring the device as transmitter (Tx) or receiver (Rx, default) is done via the front panel button (or the embedded webpages settings).



#	Feature	Function										
1	IR 3.5mm Mini Jack Connector	Connect to an external IR emitter to control a local IR-controlled device from the remote extender (for example, EXT3-21-XR-TR). Connect to an IR sensor to control a remote IR-controlled device connected to the remote extender side (for example, EXT3-21-XR-TR).										
2	USB-A 3.2	Connect to a USB local peripheral device (for example, a USB camera, a soundbar, microphone and so on).										
3	HDMI IN Connector	Connect to an HDMI source.										
4	USB-B 3.2 HOST Connector	Connect to a USB host (for example, a laptop) to communicate with the USB peripheral devices (for example, a smart board) connected to USB device ports on either the transmitter or the receiver sides of the extender.										
5	HDMI and HDBT LEDs	Each input LED, lights green when a source is selected and active, blue when a source is selected but not active, and Off when a source is not selected. Note: On transmitter mode, HDBT LED is always Off.										
6	Rx INPUT SELECT Button	Press to select an input. Press and hold for a minimum of 10 seconds to switch between Rx↔Tx mode.  Switching between modes initiates Factory Reset.										
7	DISPLAY ON Button	Press to toggle turning the display on and off. Button LED lights ON after sending a DISPLAY ON message. Button LED lights OFF after sending a DISPLAY OFF message.										
8	ACTIVE HOST LED	Lights orange when local USB host is active.										
9	ACTIVE Rx LED	Lights blue on active receiver mode.										
10	PoE LED	Lights green when the device provides PoE to a connected device.										
11	NET LED	Indicates networking status: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>LED Color</th> <th>Indicates</th> </tr> </thead> <tbody> <tr> <td>Dark</td> <td>No IP address acquired.</td> </tr> <tr> <td>Lights green</td> <td>A valid IP address has been acquired.</td> </tr> <tr> <td>Flashes green for 60s</td> <td>A means to identify the device in a system, using command #IDV.</td> </tr> <tr> <td>Flashes red/green</td> <td>IP fallback address has been acquired.</td> </tr> </tbody> </table>	LED Color	Indicates	Dark	No IP address acquired.	Lights green	A valid IP address has been acquired.	Flashes green for 60s	A means to identify the device in a system, using command #IDV.	Flashes red/green	IP fallback address has been acquired.
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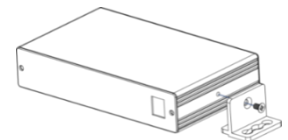
#	Feature	Function	
12	STATUS	Indicates device status:	
		LED Color	Indicates
		Off (Dark)	Device is powered and no active source connected.
		Blue	Device is powered, and an active source is connected.
	Green	Device is powered, an active source and acceptor are connected.	
13	HDBT PoE RJ-45 Connector	Connect to the HDBT RJ-45 connector on a paired receiver/transmitter device (for example, a second EXT3-21-XR-TR device) that receives or provides PoE.  HDBT provides PoE only when the device is PSU-powered.	
14	HDMI OUT Connector	Transmitter Mode: Connect to a local HDMI acceptor (for example, a preview monitor).	
		Receiver Mode: Connect to an HDMI acceptor.	
15	USB-A 3.2 (2 & 3) Connectors	Connect to the USB local peripheral devices (for example, a USB camera, a soundbar, microphone and so on).	
16	AUDIO OUT 5-pin Terminal Block Connector	Connect to a balanced stereo analog audio acceptor.	
17	RELAY (1 & 2) on a 4-pin Terminal Block Connector	Connect to relay-controlled devices (for example, a projector screen).	
18	I/O (1 & 2) on a 3-pin Terminal Block Connector (GND is common for I/O and RS-232).	Connect the general input and output ports to connect to I/O-controlled devices (for example, a sensor).	
19	RS-232 3-pin Terminal Block Connector	Connect to a serial-controlled device (for example, a projector).	
20	1G LAN PoE RJ-45 Connector	Connect to a PC via a LAN. Receives Power (when PoE powered).	
21	RESET Recessed Button	For restoring factory default settings, press the RESET button and connect power to device (keep pressing longer than 6sec after power connection)	
		 Set to Receiver mode by default.	
22	PoE LAN/HDBT Selection Switch	Select the PoE providing source, either the LAN (default) or the HDBT port.	
23	48V DC Power Connector	Connect to the power supply (when not PoE powered).	

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Step 3: Mount EXT3-21-XR-TR

Install **EXT3-21-XR-TR** using one of the following methods:

- Attach the rubber feet and place the unit on a flat surface.
- Fasten a bracket (included) on each side of the unit and attach it to a flat surface (see www.kramerav.com/downloads/EXT3-21-XR-TR).
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/EXT3-21-XR-TR).

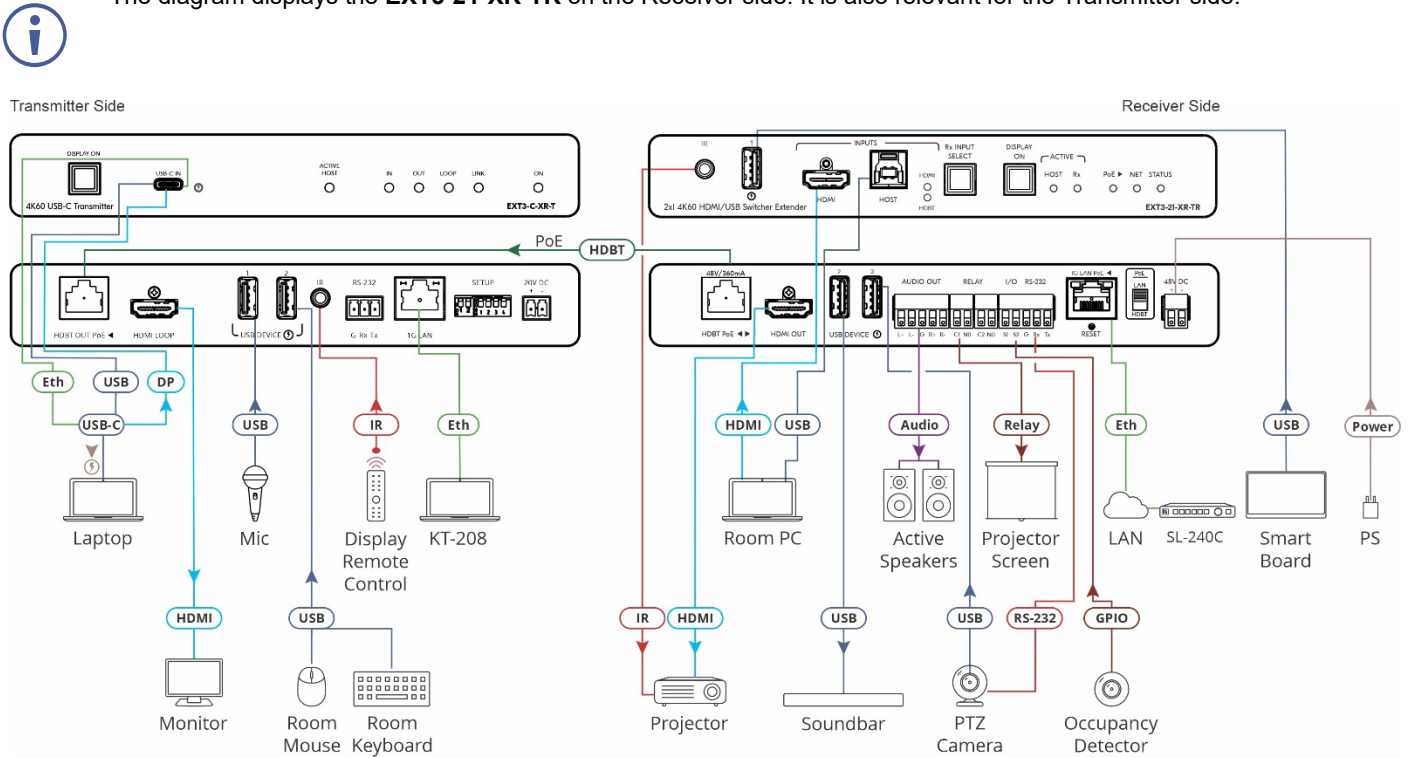


- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment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

Step 4: Connect inputs and outputs

Always switch OFF the power on before connecting it to your **EXT3-21-XR-TR**.

The diagram displays the **EXT3-21-XR-TR** on the Receiver side. It is also relevant for the Transmitter side.



Connecting the audio output

To a balanced stereo audio acceptor:



To an unbalanced stereo audio acceptor:



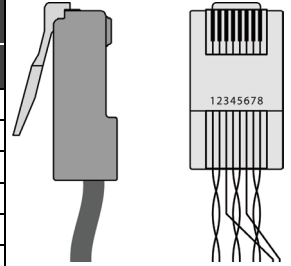
Wiring the RJ-45 Connectors

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



For HDBT cables, it is recommended that the cable ground shielding be connected/soldered to the connector shield.

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



To achieve specified extension distances, use the recommended Kramer cables available at www.kramerav.com/product/EXT3-21-XR-TR. Using third-party cables may cause damage!

Step 5: Connect power

Connect the power cord to **EXT3-21-XR-TR** and plug it into the mains electricity. Alternatively, receive power either from the HDBT port or the LAN port.



Safety Instructions (See www.kramerav.com for updated safety information)

Caution:

- For products with relay terminals and GPIO 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.

Step 6: Operate EXT3-21-XR-TR

Operate **Product** via:

- Front panel buttons
- RS-232 serial commands transmitted by a PC or a serial controller.
- Remotely, via LAN using device embedded web pages.

RS-232 Control / Protocol 3000			
Baud Rate:	115,200	Parity:	None
Data Bits:	8	Command Format:	ASCII
Stop Bits:	1		
Example: (flash LEDs on the front panel for 60 seconds): #IDV<CR>			
Default IP Parameters (by default, DHCP is ON)			
IP Address			
Fallback IP Address:	192.168.1.39	UDP Port #:	50000
Fallback Subnet Mask:	255.255.255.0	TCP Port #:	5000
Fallback Gateway:	0.0.0.0.		
Default Username:	admin	Default Password:	Admin