


1080p HDMI-over-UTP Extender with IR and PoC

EX-40-G3



Quickstart Guide

 WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.

HDMI® HDCP PoC

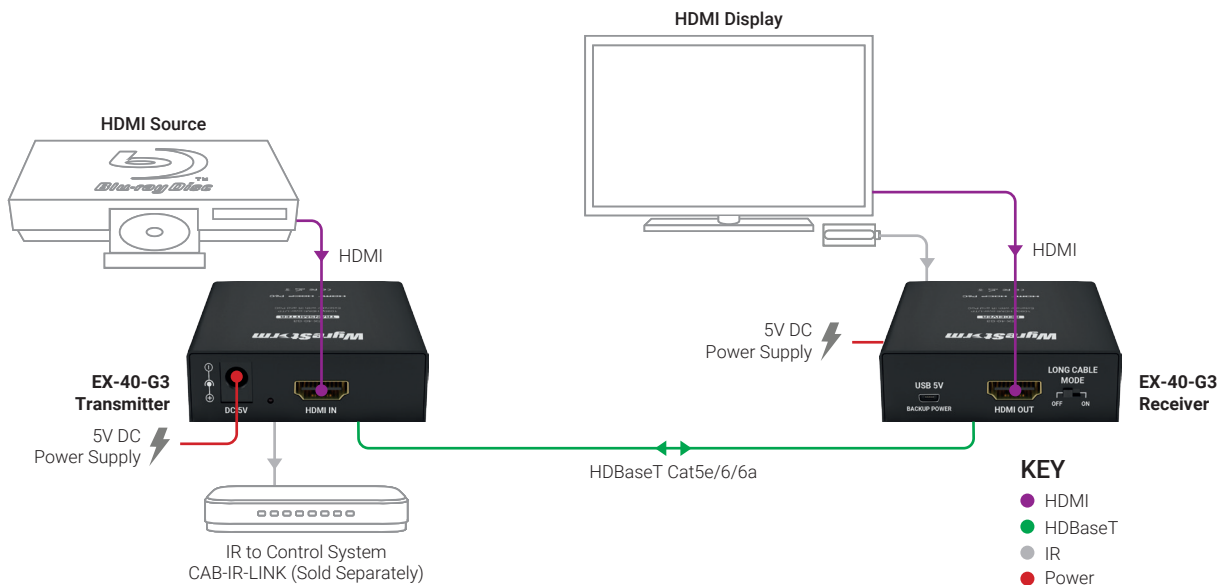
IMPORTANT! Installation Requirements

- Visit the product page to download the latest firmware, document version, additional documentation, and configuration tools.
- Read through the [Wiring and Connections](#) section for important wiring guidelines before creating or choosing premade cables.
- While this product supports CEC, WyreStorm cannot guarantee compatibility with all forms of CEC communication.

In the Box

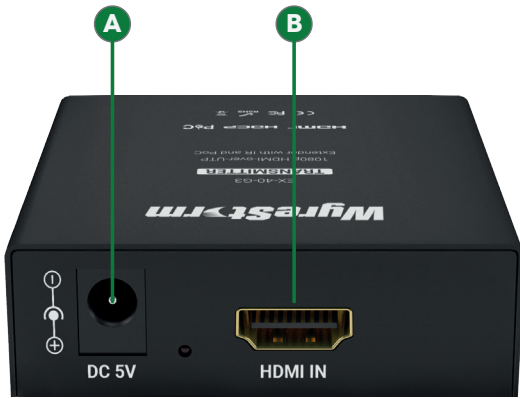
- 1x EX-40-G3 Transmitter
- 1x EX-40-G3 Receiver
- 1x 5V DC 1A Power Supply (US/UK/EU/AU)
- 1x USB-A to Micro-B RX Power Cable
- 1x IR Emitter
- 1x IR Receiver
- 4x Mounting Brackets (2x for TX | 2x for RX)
- 1x Quickstart Guide (this document)

Basic Wiring Diagram



Transmitter (TX)

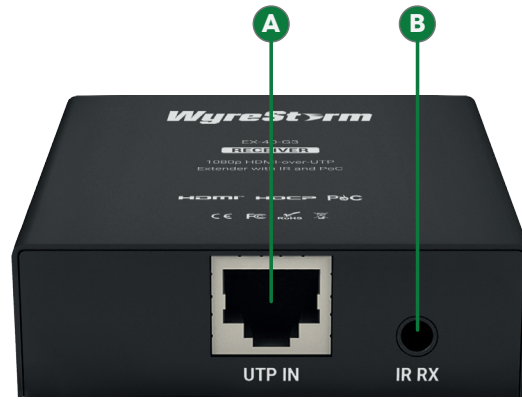
Front Panel



- | | |
|----------------------|---|
| A Power Input | 5.5mm Screw Down Barrel Jack
Connect to the included power supply. |
| B HDMI In | 19-pin type A HDMI female
Supports HDMI and DVI/D with adapter |

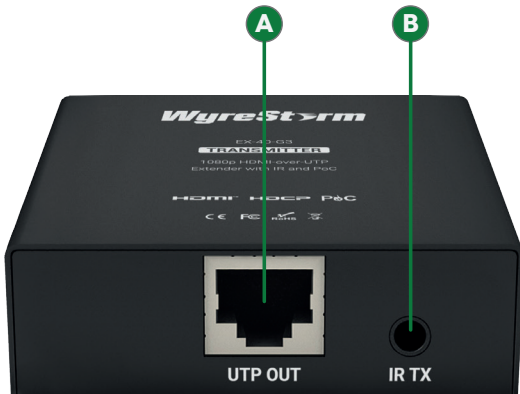
Receiver (RX)

Front Panel



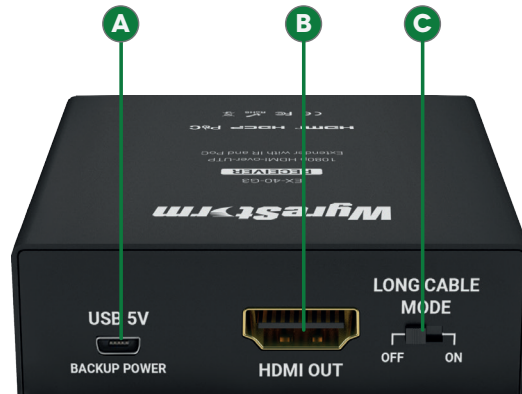
- | | |
|-----------------|--|
| A UTP In | 8-pin RJ-45 female
Connect the UTP Out on the receiver (RX) |
|-----------------|--|

Rear Panel



- | | |
|------------------|---|
| A UTP Out | 8-pin RJ-45 female
Connect the UTP In on the receiver (RX) |
|------------------|---|

Rear Panel



- | | |
|------------------------------|---|
| A USB 5V BackUp Power | USB Micro. Connect to USB power when PoC cannot be used |
| B HDMI Out | 19-pin type A HDMI female
Supports HDMI and DVI/D with adapter |
| C Long Cable Mode | Extends the distance of the AV transmission past the normal operating distance of 30m/98ft. Refer to Long Cable Mode section for more details |

Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that power is being supplied to the transmitter and receiving device.
- Verify that all HDMI and UTP connections are not loose and are functioning properly.
- Verify that the HDBaseT cable is properly terminated following EIA568B standard.
- Verify that the output resolution of the source and display is supported by this extender.
- If transmitting 3D or 4K, verify that the HDMI cables used are 3D or 4K rated.

No or Intermittent 3rd party Device Control

- Verify that the IR and RS-232 cables are properly terminated following the [Wiring and Connections](#) section.

💡 Troubleshooting Tips:

- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.

Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in its entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

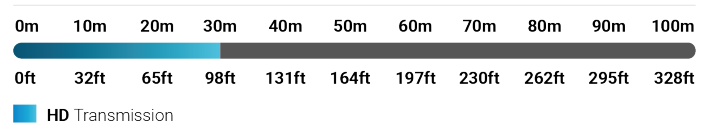
IMPORTANT! Wiring Guidelines

- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.
- WyreStorm recommends using pre-terminated HDMI cables due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.

IR TX/RX Guidelines

- Using WyreStorm infrared emitters and receivers is the best way to ensure that most IR coding formats are transmitted and received by the NetworkHD system. Other 3rd party emitters and receivers can be used; however, these devices must operate in the same manner as the WyreStorm devices.
- Due to differences in IR across 3rd party control systems their IR ports should never be connected directly to a NetworkHD system as an incompatibility may exist. WyreStorm offers a cable that compensates for voltage differences as well adjusts for differences in the pins used within the port. Refer to the [CAB-IR-LINK](#) product page for more information.

Cat6 Cable Performance Guide



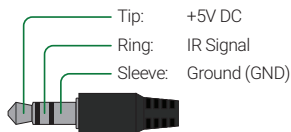
IR TX Port Pinout

Connection for IR TX (transmit) uses a 3.5mm (1/8in) mono plug.



IR RX Port Pinout

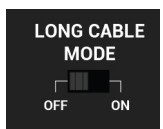
Connection for IR RX (receive) uses a 3.5mm (1/8in) stereo jack that outputs +5V DC to power the included IR receiver.



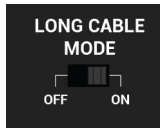
Long Cable Mode

This extender contains an option Long Cable Mode to extend the distance of the AV transmission past the normal operating distance. Under normal operation when using distances of 30m/98ft or less this feature should be turned Off.

Set the switch to **Off** when the cable distance from the TX to the RX is 30m/98ft or less.



Set the switch to **On** to extend the cable distance from the TX to the RX up to 40m/131ft



Specifications

Audio and Video					
	Transmitter		Receiver		
Inputs	1x HDMI In: 19-pin type A		1x UTP In: 8-pin RJ-45 Female		
Outputs	1x UTP Out: 8-pin RJ-45 Female		1x HDMI Out: 19-pin type A		
Output Video Encoding	TMDS over UTP				
Encoding Data Rate	6.75Gb/s				
Audio Formats	2ch PCM				
Video Resolutions (Max)	Video Resolution	HDMI	Cat6	Cat6a/7	Cat6/6a/7 Long Cable Mode
	1920x1080p @60Hz 8bit	15m/49ft	30m/98ft	30m/98ft	40m/131ft
Supported Standards	DCI				
Maximum Pixel Clock	225MHz				
Communication and Control					
HDMI	HDMI 1.3b HDCP 1.4 EDID DVI/D supported with adapter (not included)				
UTP	HDMI HDCP 1.4 EDID IR RX-TX 1-way PoC Transmitter to Receiver				
IR	Transmitter: 1x IR TX: 3.5mm (1/8in) TRS Mono Receiver: 1x IR RX: 3.5mm (1/8in) TRS Stereo				
Power					
Power Supply	5V DC 1A (Optional for Receiver)				
PoC	1-way Transmitter to Receiver				
Max Power Consumption	2.5W (TX/RX Pair)				
Environmental					
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing				
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing				
Maximum BTU	8.6 BTU/hr (TX/RX Pair)				
Dimensions and Weight					
Rack Units/Wall Box	<1U				
Height	21mm/0.83in				
Width	70mm/2.76in				
Depth	70.2mm/2.77in				
Weight	0.2kg/0.44lbs				
Regulatory					
Safety and Emission	CE FCC RoHS RCM				

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information

WyreStorm Technologies LLC warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.

