4K HDBaseT Extender Set with Bi-directional PoC, IR, RS232

EX-100-G2





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





/ IMPORTANT! Installation

- Visit the product page to download the latest firmware, document versions, 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-100-G2 Transmitter Unit

1x EX-100-G2 Receiver Unit

1x 18V/1A Power Supply (US/EU/UK/AU)

2x 3.5mm 3-pin Male Phoenix Connector

1x IR Emitter

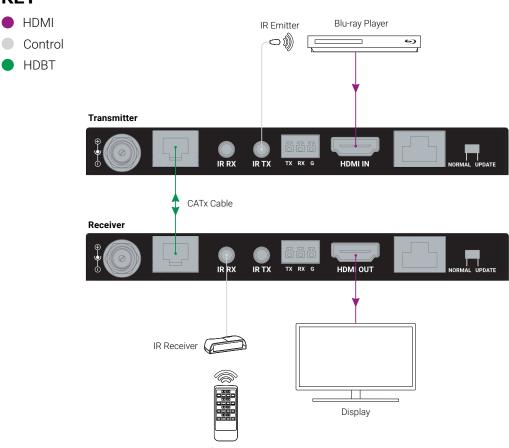
1x IR Receiver

4x Mounting Brackets (2x TX | 2x RX)

1x Quickstart Guide (this document)

Basic Wiring Diagram

KEY

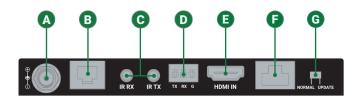


EX-100-G2 Transmitter (Front)



A Power LED B Status LED		Solid: The unit is powered On Off: The unit is powered Off		
		Blinking: Transmitter/Receiver working properly Off: Transmitter/Receiver not working properly		
G	Link LED	On: Transmitter and Receiver are linked Blinking: Connection exception Off: No link		
D	HDCP LED	On: HDCP video is being transmitted Blinking: Non-HDCP video is being transmitted Off: No HDMI signal		

EX-100-G2 Transmitter (Rear)



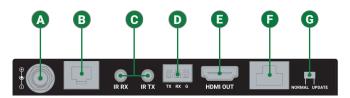
A	Power	Connect to the power adapter provided					
B	HDBT Output	put Connect to the Twisted Pair port of the receiver					
C	IR IN/OUT	3.5mm jack: Bidirectional IR Connect to the IR emitter/receiver provided					
D	RS-232	Connect to RS-232 enabled device for RS232 pass-through or upgrading					
(3	HDMI Input	Connect to an HDMI source					
3	Ethernet	Connect to a network access point or a network terminal device					
G Mode		NORMAL: RS-232 signals can be transmitted Transmitter cannot be updated UPDATE: RS-232 signals cannot be transmitted Transmitter can be updated					

EX-100-G2 Receiver (Front)



A	Solid: The unit is powered On Off: The unit is powered Off		
B	Status LED	Blinking: Transmitter/Receiver working properly Off: Transmitter/Receiver not working properly	
G	Link LED	On: Transmitter and Receiver are linked Blinking: Connection exception Off: No link	
D	HDCP LED	On: HDCP video is being transmitted Blinking: Non-HDCP video is being transmitted Off: No HDMI signal	

EX-100-G2 Receiver (Rear)



A Power Connect to the power adapter provided B HDBT Input Connect to the Twisted Pair port of the transmitter C IR IN/OUT 3.5mm jack: Bidirectional IR Connect to the IR emitter/receiver provided D RS-232 Connect to RS-232 enabled device for RS232 pass-through or upgrading E HDMI Output Connect to an HDMI display F Ethernet Connect to a network access point or a network terminal device NORMAL: RS-232 signals can be transmitted Receiver cannot be updated UPDATE: RS-232 signals cannot be transmitted Receiver can be updated							
transmitter G IR IN/OUT 3.5mm jack: Bidirectional IR Connect to the IR emitter/receiver provided D RS-232 Connect to RS-232 enabled device for RS232 pass-through or upgrading E HDMI Output Connect to an HDMI display Connect to a network access point or a network terminal device NORMAL: RS-232 signals can be transmitted Receiver cannot be updated UPDATE: RS-232 signals cannot be transmitted	A	Power	Connect to the power adapter provided				
Connect to the IR emitter/receiver provided D RS-232 Connect to RS-232 enabled device for RS232 pass-through or upgrading E HDMI Output Connect to an HDMI display Connect to a network access point or a network terminal device NORMAL: RS-232 signals can be transmitted Receiver cannot be updated UPDATE: RS-232 signals cannot be transmitted	B	HDBT Input	•				
pass-through or upgrading E HDMI Output Connect to an HDMI display Connect to a network access point or a network terminal device NORMAL: RS-232 signals can be transmitted Receiver cannot be updated UPDATE: RS-232 signals cannot be transmitted	G	IR IN/OUT					
Connect to a network access point or a network terminal device NORMAL: RS-232 signals can be transmitted Receiver cannot be updated UPDATE: RS-232 signals cannot be transmitted	D	RS-232					
network terminal device NORMAL: RS-232 signals can be transmitted Receiver cannot be updated UPDATE: RS-232 signals cannot be transmitted	E HDMI Output		Connect to an HDMI display				
• RS-232 signals can be transmitted • Receiver cannot be updated UPDATE: • RS-232 signals cannot be transmitted	3	Ethernet					
UPDATE:RS-232 signals cannot be transmitted	<u> </u>	Mada	RS-232 signals can be transmitted				
	G	Mode	RS-232 signals cannot be transmitted				

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 any wires to ensure proper operation and to avoid damaging the 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 the use of shielded category cable to minimize signal noise and interference.
- 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.

Cat6a/7 Cable Performance Guide

0m	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
0ft	32ft	65ft	98ft	131ft	164ft	197ft	230ft	262ft	295ft	328ft
4	K/HD Tra	nsmissic	on							

WyreStorm recommends the use of shielded cable to minimize signal noise and interference



WyreS	torm Connector		3rd Party Device
Pin 1	TX (Transmit)	> To>	RX (Receive)
Pin 2	RX (Receive)	> To>	TX (Transmit)
Pin 3	G (Ground)	> To>	G (Ground)

RS-232 Wiring

The EX-100-G2 uses a 3-pin RS-232 with no hardware flow control. Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionally to ensure that the correct connections can be made. Refer to RS-232 Mode Settings for details on setting RS-232 modes.

Audio



Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that power is being supplied to the transmitter and receiver.
- 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 4K, verify that the HDMI cables used are 4K rated.
- Verify that all source and HDBaseT connections are not loose and are functioning properly.

No or Intermittent 3rd party Device Control

- Verify that the IR and RS-232 cables are properly terminated following the Wiring and Connections section.
- Verify that RS-232 modes are properly selected for the desired operation. Refer to RS-232 Mode Settings for details.



Troubleshooting Tips:

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

Specifications

Technical					
Video Signal Type	HDMI 1.4 with 4K2K				
Input/Output Resolution Support	4K@60 4:2:0 8bit 4K@30Hz/1080P/1080i/720P/576P/480P/576i/480i				
Audio Format Supported	Supports multichannel audio up to PCM 7.1, Dolby True HD, DTS HD Master Audio, Dolby Atmos and DTS:X				
Max Data Rate	6.75 Gbps				
Transmission Distance	Cat 5e/6 100m/330ft 1080p@60Hz 70m/230ft 4K@30Hz 4:4:4, 24bpp 4K@60Hz 4:2:0, 24bpp Cat 6A/7: 100m/330ft 4K@30Hz 4:4:4, 24bpp 4K@60Hz 4:2:0, 24bpp				
Power	4ν(ωουπ2 4.2.0, 24υμμ				
Power Consumption	13W (TX and RX are powered separately) TX: 5.5W RX: 7.6W				
Environmental					
Operating Temperature	0 to + 45°C (32 to + 113 °F), 20% to 90%, non-condensing				
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 20% to 90%, non-condensing				
Dimensions					
Height	leight 14.9 mm / 0.59in				
Width	/idth 135mm / 5.31in				
Depth	74.2mm / 2.92in				
Weight	Transmitter/Receiver: 0.24kg/0.53lb				
Regulatory					
Safety and Emission	CE FCC RoHS RCM EAC UKCA				

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 ProAV Corporation 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.

