


4K/60 4:2:0 HDR Extender with USB 2.0, Audio Passthrough & PoH

EX-100-H2

WyreStorm

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.



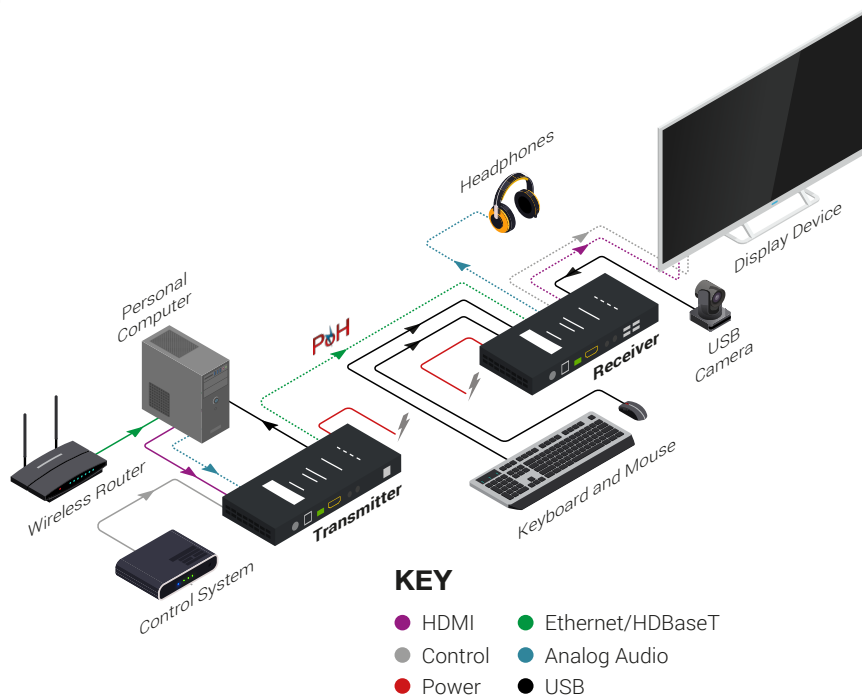
IMPORTANT! Installation Requirements

- 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-H2 Transmitter
- 1x EX-100-H2 Receiver
- 1x 12V DC 2A Power Supply (US/UK/EU/AU)
- 4x Mounting Brackets with screws
- 2x 3-pin Terminal Blocks
- 1x QuickStart Guide (this document)

Basic Wiring Diagram



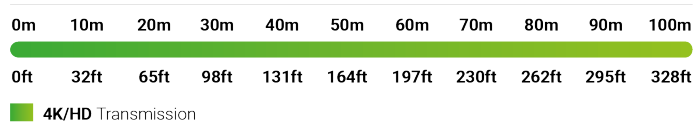
Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in it's 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 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.

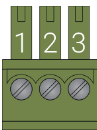
Cat6 Cable Performance Guide



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

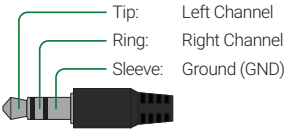
RS-232 Wiring

The EX-100-H2 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.



WyreStorm 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)

Audio Connections



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.

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.



Specifications

Audio and Video				
	Transmitter		Receiver	
Inputs	1x HDMI In: 19-pin type A 1x Audio In: 3.5mm (1/8in) TRS Stereo		1x HDBT In: 8-pin RJ-45 Female 1x Audio In: 3.5mm (1/8in) TRS Stereo	
Outputs	1x HDBT Out: 8-pin RJ-45 Female 1x Audio Out: 3.5mm (1/8in) TRS Stereo		1x HDMI Out: 19-pin type A 1x Audio Out: 3.5mm (1/8in) TRS Stereo	
Output Video Encoding	HDBaseT Class C			
Encoding Data Rate	10.2Gbps			
End to End Latency	10μs (micro seconds)			
Audio Formats	2ch Analog/PCM Multichannel: LPCM up to DTS-X and Dolby Atmos			
Video Resolutions (Max)	Video Resolution	HDMI	Cat6	Cat6a/7
	1920x1080p @60Hz 12bit	7m/23ft	70m/230ft	100m/328ft
	3840x2160p @30Hz 8bit 4:4:4	15m/49ft	70m/230ft	100m/328ft
	3840x2160p @30Hz 12bit 4:2:2 HDR	5m/16ft	70m/230ft	100m/328ft
	3840x2160p @60Hz 8bit 4:2:0 HDR	7m/23ft	70m/230ft	100m/328ft
	Note: WyreStorm recommends the use of shielded category cable to minimize signal noise and interference.			
Supported Standards	DCI RGB HDR HDR10 Dolby Vision up to 30Hz HLG BT.2020 BT.2100			
Maximum Pixel Clock	340MHz			
Communication and Control				
HDMI	HDMI HDCP 2.2 EDID CEC Pass-through DVI/D supported with adapter (not included)			
HDBaseT	HDMI HDCP 2.2 EDID Line Audio 1-way PoH (TX powers RX) Bidirectional RS-232 CEC			
RS-232	1x RS-232: 3-pin Phoenix (Transmitter and Receiver)			
USB	1x Type B (host) 4x Type A (device) Maximum uplink speed: 190Mbps			
Power				
Power Supply	12V DC 2A			
Max Power Consumption	12W			
Environmental				
Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) 10% ~ 90%, non-condensing			
Storage Temperature	-4°F to ~ 158°F (-20°C ~ +70°C) 10% ~ 90%, non-condensing			
Maximum BTU	41 BTU/hr			
Dimensions and Weight				
Rack Units Wall Box	<1U			
Height	21mm/0.83in			
Width	250mm/9.84in			
Depth	90.2mm/3.55in			
Weight	0.9kg/1.98lbs			
Regulatory				
Safety and Emission	CE FCC RCM EAC RoHS			

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