4K HDR 4:2:0 60Hz HDBaseT2.0 Receiver with USB Device Inputs, Ethernet & PoH (4K: 35m/115ft)

RX-500

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.
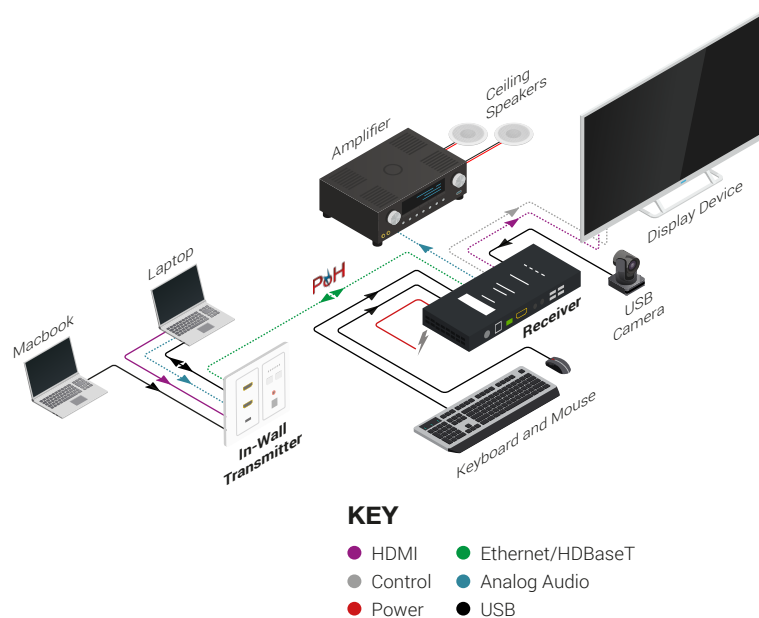
4K HDR | **2160p 4:4:4 60** | **HDBT** | **HDMI** | **HDCP 2.2** | **PoH**

⚠️ **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 RX-500 Receiver
1x 12V DC 2A Power Supply (US/UK/EU/AU)
2x Mounting Brackets with Screws
1x 3-pin Terminal Block
1x Quickstart Guide (This Document)

Basic Wiring Diagram

KEY

- 🟣 HDMI
- 🟢 Ethernet/HDBaseT
- ⚪ Control
- 🔵 Analog Audio
- 🔴 Power
- ⚫ USB

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.
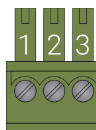
Cat6 Cable Performance Guide

0m	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m

0ft	32ft	65ft	98ft	131ft	164ft	197ft	230ft	262ft	295ft	328ft

🟩 **4K** Transmission   🟦 **HD** Transmission

WyreStorm recommends the use of shielded cable to minimize signal noise and interference
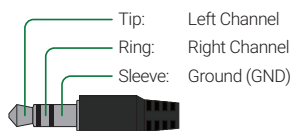
RS-232 Wiring

The RX-500 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.

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

Tip:	Left Channel
Ring:	Right Channel
Sleeve:	Ground (GND)

Troubleshooting

No or Poor Quality Picture (snow or noisy image)
- Verify that power is being supplied to the 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 receiver.
- 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	
Inputs	1x HDBT In: 8-pin RJ-45 Female 4x USB Type A (Device)
Outputs	1x HDMI Out: 19-pin type A 2x Audio Out/De-embed: 3.5mm (1/8in) TRS Stereo
Output Video Encoding	HDBaseT Class B
Encoding Data Rate	10.2Gbps
End to End Latency	10µs (micro seconds)
Audio Formats	HDMI Out: 2ch Analog/PCM	Multichannel: LPCM up to DTS-X and Dolby Atmos Audio Out/De-embed: 2ch Analog/PCM

Video Resolutions (Max)	Video Resolution	HDMI	Cat6	Cat6a/7
	1920x1080p @60Hz 12bit	15m/49ft	70m/230ft	70m/230ft
	3840x2160p @30Hz 8bit 4:4:4	7m/49ft	35m/115ft	35m/115ft
	3840x2160p @60Hz 8bit 4:2:0	7m/49ft	35m/115ft	35m/115ft
	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	297MHz

Communication and Control	
HDMI	HDMI	HDCP 2.2	EDID	CEC Pass-through	DVI/D supported with adapter (not included)
HDBaseT	HDMI	USB	HDCP 2.2	EDID	1-way PoH (RX powers TX)	Bidirectional RS-232	CEC
RS-232	1x RS-232: 3-pin Phoenix
USB	4x Type A (device) USB hub compatible	Maximum: 7 devices, 23 endpoints Maximum uplink speed: 190Mbps

Power	
Power Supply	12V DC 2A
Avg. Power Consumption	8W

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
Avg. BTU	27 BTU/hr

Dimensions and Weight	
**Rack Units	Wall Box**	<1U
Height	25mm/0.98in
Width	210mm/8.26in
Depth	90.2mm/3.55in
Weight	0.46kg/1.01lbs

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.