

**4K HDR 4:4:4 60Hz HDBaseT™ Receiver with Scaling, HDR Conversion & 2ch/S/PDIF Audio Breakout & PoH (4K: 70m/230ft)**  
**RXV-70-G2-SCL**



**Quickstart Guide**

**!** WyreStorm recommends reading through this document in its entirety to become familiar with the product's features before beginning the installation process.



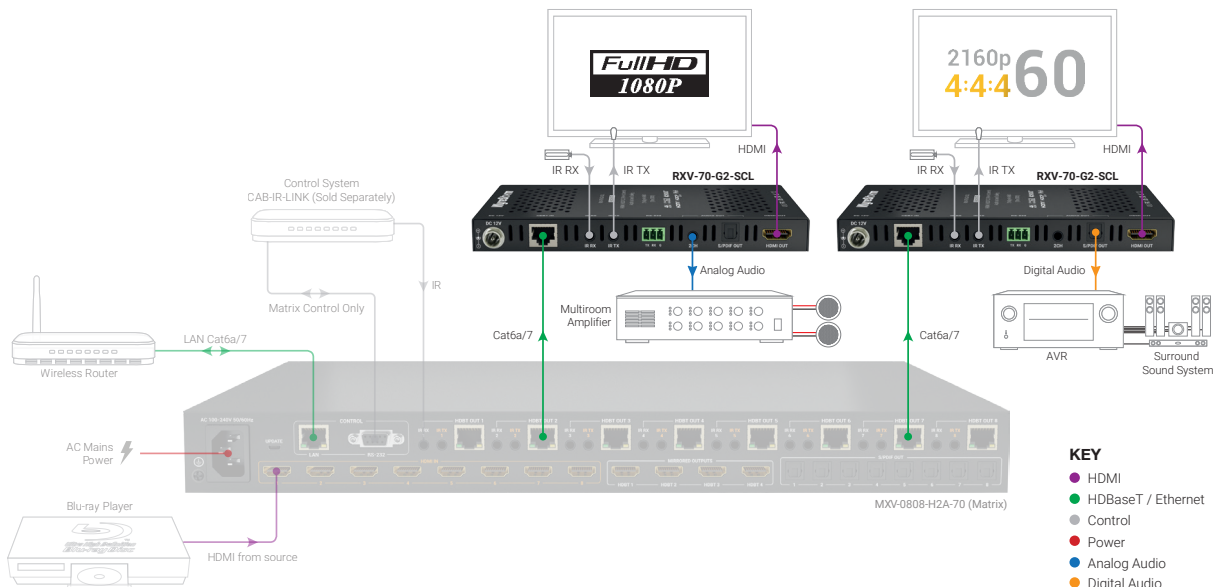
**! IMPORTANT! Installation Requirements**

- 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 RXV-70-G2-SCL Receiver
- 2x Mounting Brackets
- 1x IR Emitter
- 1x IR Receiver
- 1x 3-pin Terminal Block
- 12V DC 1A Power Supply (US/UK/EU/AU)
- 1x Quickstart Guide (this document)

**Basic Wiring Diagram**

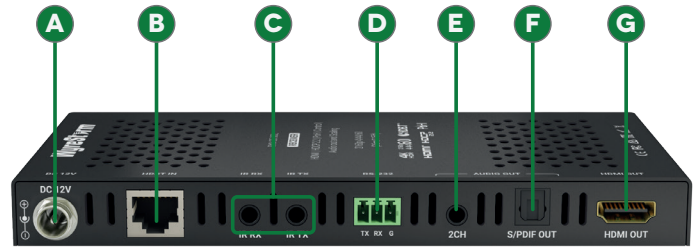


## Front Panel



<b>A</b> Power LED	<b>Solid:</b> The receiver is powered On <b>Off:</b> The receiver is powered Off
<b>B</b> Status LED	<b>Flashing:</b> The receiver is operating normally. <b>Off:</b> The receiver is Not operating normally.
<b>C</b> HDCP LED	<b>Solid:</b> HDCP content is present. <b>Flashing:</b> HDCP content is not present. <b>Off:</b> No signal.
<b>D</b> LINK LED	<b>Solid:</b> Link to receiver has been established. <b>Flashing:</b> Link to receiver has not been established.

## Rear Panel



<b>A</b> Power Input	5.5mm Screw Down Barrel Jack Connect to the included 12V DC 1A power supply to the transmitter or receiver. A power supply is not required on the other end as it will be powered using PoH.
<b>B</b> HDBT In	8-pin RJ-45 female Connect the matrix <b>HDBT Out</b> to receivers <b>HDBT In</b> .
<b>C</b> IR TX IR RX	<b>IR TX</b> - 3.5mm (1/8in) Mono Jack: Connect to the supplied IR emitter to control a local device from the remote display location via HDBaseT <b>IR RX</b> - 3.5mm (1/8in) Stereo Jack: Connect to the supplied IR receiver to send IR to the remote display location via HDBaseT. See <a href="#">IR TX/RX Guidelines</a> for more information.
<b>D</b> RS-232	1x RS-232: 3-pin Phoenix
<b>E</b> 2ch Audio Output	3.5mm (1/8in) Stereo Jack: Outputs audio signal from source device
<b>F</b> S/PDIF Audio Output	TOSLink Digital Optical Outputs audio signal from source device
<b>G</b> HDMI Out	19-pin type A HDMI female Supports HDMI and DVI/D with adapter

## 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 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.

### 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. 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 WyreStorm Receiver 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.

### RS-232 Wiring

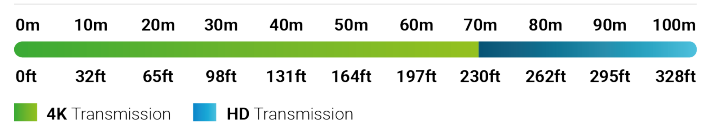
The RXV-70-G2-SCL uses a 3-pin RS-232 with no hardware flow control. Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionality to ensure that the correct connections can be made.

### Troubleshooting

#### No or Poor Quality Picture (snow or noisy image)

- Verify that power is being supplied to the transmission device and 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 3D or 4K, verify that the HDMI cables used are 3D or 4K rated.
- Verify that all source and HDBaseT connections are not loose and are functioning properly.

#### Cat6 Cable Performance Guide



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

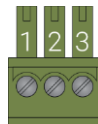
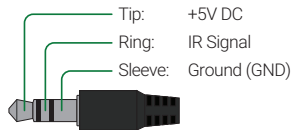
#### IR TX Port Pinout

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.



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)

#### No or Intermittent 3rd party Device Control

- Verify that the RS-232 cables are properly terminated.
- Verify that emitters/receivers are compatible with WyreStorm IR.
- If using an IR control system, verify that it is connected using the [CAB-IR-LINK](#) cable.

## Specifications

Audio and Video																																	
<b>Inputs</b>	1x HDBT In: 8-pin RJ-45 Female																																
<b>Outputs</b>	1x HDMI Out: 19-pin type A																																
<b>Output Video Encoding</b>	HDBaseT Class A																																
<b>Encoding Data Rate</b>	9.2Gbps																																
<b>End to End Latency (Max)</b>	10µs (micro seconds)																																
<b>Audio Formats</b>	Analog: 2ch Analog S/PDIF: 2ch LPCM   Dolby Digital/DTS up to 5.1ch HDMI: 2ch LPCM   Multichannel up to Dolby Atmos and DTS-X																																
<b>Video Resolutions (Max)</b>	<table border="1"> <thead> <tr> <th>Video Resolution</th> <th>HDMI</th> <th>Cat6</th> <th>Cat6a/7</th> </tr> </thead> <tbody> <tr> <td>1920x1080p @60Hz 12bit</td> <td>15m/49ft</td> <td>100m/328ft</td> <td>100m/328ft</td> </tr> <tr> <td>1920x1080p @60Hz 16bit</td> <td>7m/22ft</td> <td>100m/328ft</td> <td>100m/328ft</td> </tr> <tr> <td>3840x2160p @24Hz 10bit 4:2:0 HDR</td> <td>3m/10ft</td> <td>70m/230ft</td> <td>100m/328ft</td> </tr> <tr> <td>3840x2160p @30Hz 8bit 4:4:4</td> <td>7m/23ft Input 15m/49ft Output</td> <td>70m/230ft</td> <td>100m/328ft</td> </tr> <tr> <td>3840x2160p @60Hz 10bit 4:2:0 HDR</td> <td>3m/10ft</td> <td>70m/230ft</td> <td>100m/328ft</td> </tr> <tr> <td>4096x2160p @60Hz 8bit 4:2:0</td> <td>7m/22ft</td> <td>70m/230ft</td> <td>100m/328ft</td> </tr> <tr> <td>4096x2160p @60Hz 8bit 4:4:4</td> <td>3m/10ft</td> <td>70m/230ft</td> <td>100m/328ft</td> </tr> </tbody> </table>	Video Resolution	HDMI	Cat6	Cat6a/7	1920x1080p @60Hz 12bit	15m/49ft	100m/328ft	100m/328ft	1920x1080p @60Hz 16bit	7m/22ft	100m/328ft	100m/328ft	3840x2160p @24Hz 10bit 4:2:0 HDR	3m/10ft	70m/230ft	100m/328ft	3840x2160p @30Hz 8bit 4:4:4	7m/23ft Input 15m/49ft Output	70m/230ft	100m/328ft	3840x2160p @60Hz 10bit 4:2:0 HDR	3m/10ft	70m/230ft	100m/328ft	4096x2160p @60Hz 8bit 4:2:0	7m/22ft	70m/230ft	100m/328ft	4096x2160p @60Hz 8bit 4:4:4	3m/10ft	70m/230ft	100m/328ft
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<b>Supported Standards</b>	DCI   RGB   HDR   HDR10   Dolby Vision up to 30Hz   HLG   BT.2020   BT.2100																																
<b>Maximum Pixel Clock</b>	HDMI: 600MHz   HDBaseT: 297MHz																																
Communication and Control																																	
<b>HDMI</b>	HDMI 2.0   HDCP 2.2   EDID   CEC   DVI/D supported with adapter (not included)																																
<b>HDBaseT</b>	HDMI 2.0   HDCP 2.2   EDID   CEC   1-way PoH   Bidirectional IR																																
<b>CEC</b>	CEC power triggering for connected screens – Requires CEC compatibility																																
<b>IR</b>	1x IR TX: 3.5mm (1/8in) TS Mono   1x IR RX: 3.5mm (1/8in) TRS Stereo   Bidirectional over HDBaseT																																
<b>RS-232</b>	1x RS-232: 3-pin Terminal Block - 3.5mm																																
Power																																	
<b>Power Supply</b>	12V DC 1A (Optional)																																
<b>PoH</b>	1-way Matrix to Receiver																																
<b>Max Power Consumption</b>	12.42W																																
Environmental																																	
<b>Operating Temperature</b>	0 ~ +45°C (32 ~ +113 °F), 10% ~ 90%, non-condensing																																
<b>Storage Temperature</b>	-20 ~ +70°C (-4 ~ +158 °F), 10% ~ 90%, non-condensing																																
<b>Maximum BTU/hr</b>	43 BTU/hr																																
Dimensions and Weight																																	
<b>Rack Units/Wall Box</b>	<1U																																
<b>Height</b>	18mm/0.7in																																
<b>Width</b>	180mm/7.08in																																
<b>Depth</b>	80mm/3.14in																																
<b>Weight</b>	0.36kg/0.79lbs																																
Regulatory																																	
<b>Safety and Emission</b>	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

This product is covered by a 5-year limited parts and labor warranty. During this period there will be no charge for unit repair, component replacement or complete product replacement in the event of malfunction. The decision to repair or replace will be made by the manufacturer. This limited warranty only covers defects in materials or workmanship and excludes normal wear and tear or cosmetic damage.

Visit the product page located at [wyrestorm.com](http://wyrestorm.com) for additional information on this product including important technical information not provided in this document and warranty terms & conditions.

