

4x8 4K HDR Matrix Kit with 6 HDBaseT/2 HDMI Outputs

MXV-0408-H2A



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.



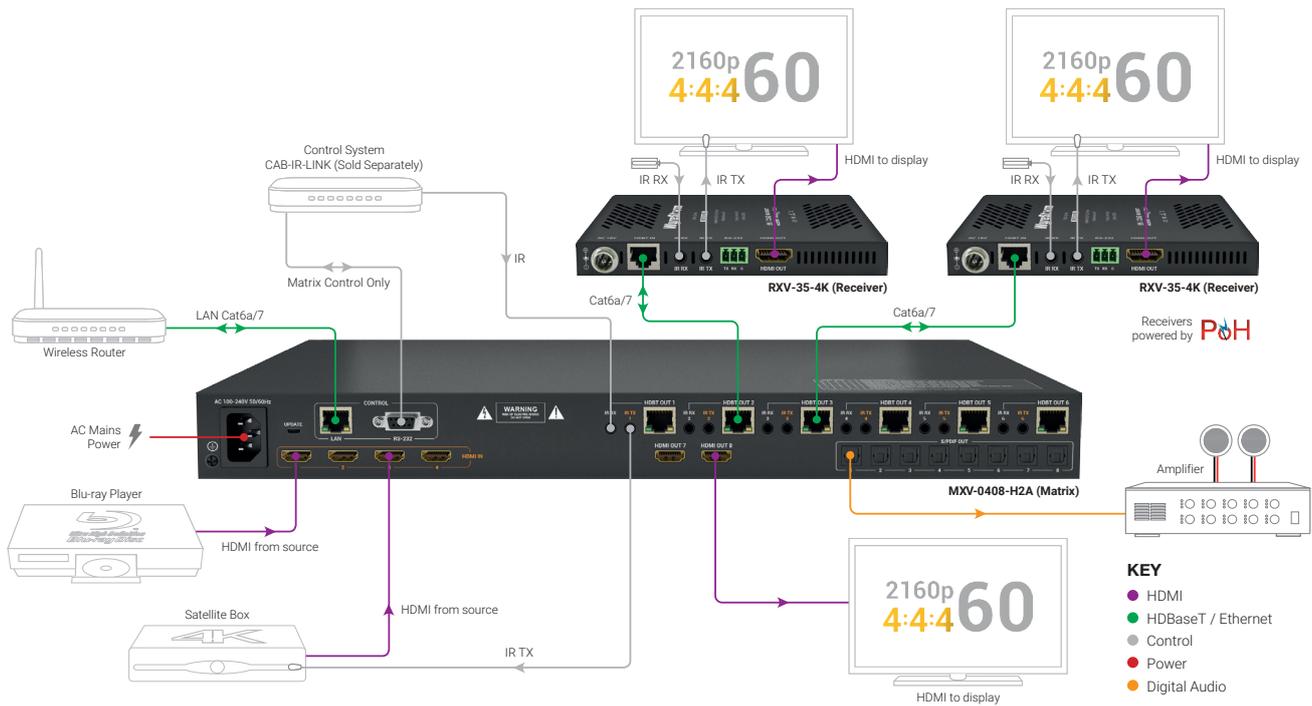
IMPORTANT! Installation Requirements

- Visit the product page to download the latest firmware, document 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 MXV-0408-H2A Matrix
- 1 x AC Power Cord with EU pins
- 1 x AC Power Cord with US pins
- 1 x AC Power Cord with UK pins
- 1 x AC Power Cord with AU pins
- 1x IR Remote
- 6x IR Emitter
- 6x IR Receiver
- 2x Matrix Mounting Brackets with screws
- 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.

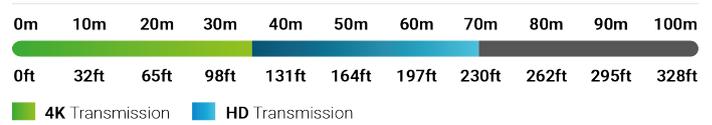
IR TX/RX Guidelines

- 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.

RS-232 Wiring

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.

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.



Matrix RS-232 Port



| WyreStorm Connector | | 3rd Party Device |
|---------------------|---------------|----------------------------|
| Pin 2 | TX (Transmit) | ---> To ---> RX (Receive) |
| Pin 3 | RX (Receive) | ---> To ---> TX (Transmit) |
| Pin 5 | G (Ground) | ---> To ---> G (Ground) |

Setup and Configuration

Setup for this matrix including EDID is performed within the Web UI. Refer to [Accessing the Web UI](#) for details.

Accessing the Web UI

This matrix is set to a default static IP Address (192.168.11.143). In order to communicate with it initially the PC must be set to a 192.168.11.xxx address with a subnet of 255.255.0.0. This can be changed back once a static IP is set within a different range.

1. Connect the matrix to the same network as a PC.
2. Open a web browser and enter the IP Address of the matrix.
Default: 192.168.11.143 | Password: admin

Note: The installer password and general password are the same by default. WyreStorm recommends changing the password for installer login to avoid any unwanted changes being made to the matrix configuration.

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 HDBaseT 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 matrix and receiver.
- 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.

Specifications

| Audio and Video | | | | |
|---|---|-------------|-------------|----------------|
| Inputs | 4x HDMI In: 19-pin type A | | | |
| Outputs | 6x HDBT Out: 8-pin RJ-45 Female 8x S/PDIF Out: Toslink (Digital Optical) 2x HDMI Out: 19-pin type A | | | |
| Output Video Encoding | HDBaseT Class B | | | |
| Encoding Data Rate | 9.2Gbps | | | |
| End to End Latency (Max) | 10µs (micro seconds) | | | |
| Audio Formats | 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 | | | |
| Video Resolutions (Max) | Video Resolution | HDMI | Cat6 | Cat6a/7 |
| | 1920x1080p @60Hz 12bit | 15m/49ft | 60m/197ft | 70m/230ft |
| | 1920x1080p @60Hz 16bit | 7m/23ft | 35m/115ft | 40m/131ft |
| | 3840x2160p @24Hz 10bit 4:2:0 HDR | 3m/10ft | 35m/115ft | 40m/131ft |
| | 3840x2160p @30Hz 8bit 4:4:4 | 7m/23ft | 35m/115ft | 35m/115ft |
| | 3840x2160p @60Hz 10bit 4:2:0 HDR | 3m/10ft | 35m/115ft | 40m/131ft |
| | 4096x2160p @60Hz 8bit 4:2:0 | 7m/23ft | 35m/115ft | 40m/131ft |
| | 4096x2160p @60Hz 8bit 4:4:4 | 7m/23ft | 35m/115ft | 40m/131ft |
| 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 | HDMI: 600MHz HDBaseT: 297MHz | | | |
| Communication and Control | | | | |
| HDMI | HDMI 2.0 HDCP 2.2 EDID CEC DVI/D supported with adapter (not included) | | | |
| HDBaseT | HDMI 2.0 HDCP 2.2 EDID CEC 1-way PoH Bidirectional IR | | | |
| CEC | CEC power triggering Requires CEC compatibility HDMI outputs only | | | |
| IR | 6x IR RX: 3.5mm (1/8in) TRS Stereo 6x IR TX: 3.5mm (1/8in) TS Mono Bidirectional over HDBaseT | | | |
| RS-232 | 1x RS-232: 9-pin DB9 Female | | | |
| Ethernet | 1x LAN: 8-pin RJ-45 Female | | | |
| Power | | | | |
| Power Supply | 100~240V AC 50/60Hz | | | |
| Max Power Consumption | 124W | | | |
| 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 | 424 BTU/hr | | | |
| Dimensions and Weight | | | | |
| Rack Units/Wall Box | 1U | | | |
| Height | 43.5mm/1.72in | | | |
| Width | 440mm/17.33in | | | |
| Depth | 300mm/11.82in | | | |
| Weight | 5.34kg/11.75lbs | | | |
| 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.

