

# WyreStorm EXP-EX-80-KVM 80m KVM UTP HDMI Extender **Over Ethernet User Guide**

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WyreStorm EXP-EX-80-KVM 80m KVM UTP HDMI Extender Over Ethernet



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

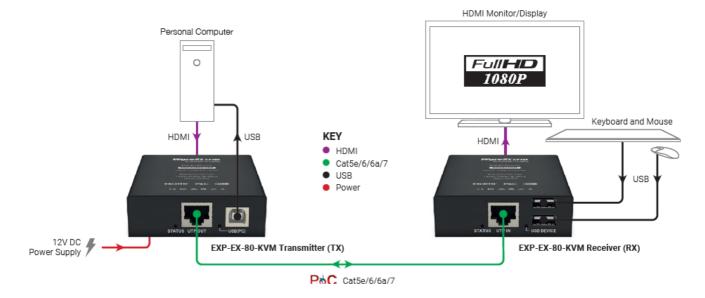
# **IMPORTANT! Installation Requirements**

- 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.

## In the Box

- 1x EXP-EX-80-KVM Transmitter
- 1x EXP-EX-80-KVM Receiver
- 1x 12V DC 2A Power Supply (US/UK/EU/AU)
- 1x USB Type B to Type A Cable
- 4x Mounting Brackets

# **Basic Wiring Diagram**



# Transmitter (Front/Rear)



| A        | HDMI Out   | 19-pin type A HDMI female<br>Supports HDMI and DVI/D with adapter  |  |  |
|----------|------------|--|--|--|
| B        | Power LED  | Solid: The unit is powered On Off: The unit is powered Off   |  |  |
| G        | Power In   | 5.5mm Screw Down Barrel Jack Connect to the included 12V DC 2A power supply to the transmitter. A power supply is not required on the other end as it will be powered using PoC. |  |  |
| D        | Status LED | <b>Flashing:</b> The receiver is operating normally. <b>Off:</b> The receiver is Not operating normally.   |  |  |
| <b>3</b> | UTP In     | 8-pin RJ-45 female Connect the transmitters <b>UTP OUT</b> to receivers <b>UTP IN.</b>   |  |  |
| <b>3</b> | USB LED    | Solid: USB linked Flashing: USB data transmitting Off: No USB device connected   |  |  |
| G        | USB Device | 2x USB Type A female<br>Connection of USB devices such as<br>keyboards and mice.   |  |  |





| A         | HDMI In       | 19-pin type A HDMI female<br>Supports HDMI and DVI/D with adapter  |  |  |
|-----------|---------------|--|--|--|
| B         | Power LED     | Solid: The unit is powered On Off: The unit is powered Off   |  |  |
| O         | Power In      | 5.5mm Screw Down Barrel Jack Connect to the included 12V DC 2A power supply to the transmitter. A power supply is not required on the other end as it will be powered using PoC. |  |  |
| O         | Status LED    | <b>Flashing:</b> The receiver is operating normally. <b>Off:</b> The receiver is Not operating normally.   |  |  |
| <b>3</b>  | UTP Out       | 8-pin RJ-45 female Connect the transmitters <b>UTP OUT</b> to receivers <b>UTP IN.</b>   |  |  |
| <b>(3</b> | USB LED       | Solid: USB linked Flashing: USB data transmitting Off: No USB device connected   |  |  |
| G         | USB (PC) Host | USB Type B female<br>Connection of USB Host device   |  |  |
|           |               |  |  |  |

# 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



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

## **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 UTP connections are not loose and are functioning properly
- Verify that the UTP cable is properly terminated following EIA568B standard
- Verify that the output resolution of the source and display is supported by this extender

#### Failed USB Connection or Slow Transmission rate

Ensure the category cable length is within the range of requirement, USB HID device is within 80m/260ft, USB storage device is within 60m/200ft.

#### **Troubleshooting Tips:**

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

# **Specifications**

|  | Transmitter   |                     | Receiver                                       |           |  |  |  |  |
|--|---|---------------------|--|-----------|--|--|--|--|
| Audio and Video  |   |                     |  |           |  |  |  |  |
| Inputs   | 1x HDMI In: 19-pin type A<br>1x USB Type B  |                     | 1x UTP In: 8-pin RJ-45 Female<br>2x USB Type A |           |  |  |  |  |
| Outputs  | 1x UTP Out: 8-pin RJ-45 Female  | 1x HDMI Out: 19-pin | 1x HDMI Out: 19-pin type A                     |           |  |  |  |  |
| Output Video Encoding  | UTP   |                     |  |           |  |  |  |  |
| Encoding Data Rate   | 6.75Gbps  |                     |  |           |  |  |  |  |
| End to End Latency (Max)   | 10μs (micro seconds)  |                     |  |           |  |  |  |  |
| Audio Formats  | 2ch PCM   Multichannel up to DTS-X and Dolby Atmos  |                     |  |           |  |  |  |  |
|  | Video Resolution  | НОМІ                | Cat6   | Cat6a/7   |  |  |  |  |
| Video Resolutions (Max)  | 1920x1080p @60Hz 12bit  | 15m/49ft            | 80m/262ft                                      | 80m/262ft |  |  |  |  |
|  | Note: WyreStorm recommends the use of shielded category cable to minimize signal noise and interference |                     |  |           |  |  |  |  |
| Supported Standards  | DCI   RGB   |                     |  |           |  |  |  |  |
| Maximum Pixel Clock  | num Pixel Clock 225MHz  |                     |  |           |  |  |  |  |
| Communication and Control  | Communication and Control   |                     |  |           |  |  |  |  |
| HDMI   | HDMI 1.3b   HDCP 1.4   EDID   DVI/D supported with adapter (not included)                               |                     |  |           |  |  |  |  |
| UTP  | HDMI 1.3b   HDCP 1.4   EDID   2-way PoC   |                     |  |           |  |  |  |  |
| USB  |   |                     |  |           |  |  |  |  |
| Power  |   |                     |  |           |  |  |  |  |
| Power Supply   |   |                     |  |           |  |  |  |  |
| PoC  | IEEE 802.3af 48V 15.4W Max   2-way  |                     |  |           |  |  |  |  |
| Max Power Consumption  | 3.6W (per unit)   |                     |  |           |  |  |  |  |
| 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  | aximum BTU 12.28 BTU/hr   |                     |  |           |  |  |  |  |
| Dimensions and Weight  |   |                     |  |           |  |  |  |  |
| Rack Units/Wall Box  | <10   |                     |  |           |  |  |  |  |
| Height   | 23mm/0.9in  |                     |  |           |  |  |  |  |
| <b>Width</b> 75mm/2.95276in  |   |                     |  |           |  |  |  |  |
| Depth  | 98.2mm/3.87in   |                     |  |           |  |  |  |  |
| Weight   | 0.22kg/0.48lb (each)  |                     |  |           |  |  |  |  |
| Regulatory   |   |                     |  |           |  |  |  |  |
| Safety and Emission  | CE FCC RoHS RCM EAC   |                     |  |           |  |  |  |  |

**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 two (2) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.

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# **Documents / Resources**



<u>WyreStorm EXP-EX-80-KVM 80m KVM UTP HDMI Extender Over Ethernet</u> [pdf] User Guide EXP-EX-80-KVM, 80m KVM UTP HDMI Extender Over Ethernet, HDMI Extender Over Ethernet, 80m KVM UTP Over Ethernet, Over Ethernet, Ethernet

# References

• <u>WyreStorm - Professional Audio Visual Solution Provider</u>

Manuals+,