



# HDMI CAT Extender 4K120 - 40M

## User's Guide



P/N: HDExt4K120

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## **Important Safety Notices**

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device
- Do not expose this unit to rain, heavy moisture, or liquid
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty
- Keep the product in a well-ventilated location to avoid damage from overheating

- Shut off power and make sure environment is safe before installation
- Do not plug the HDMI cables and IR cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports
- Use the included DC12V power adapters only. Make sure the specification matches if using 3rd-party DC power adapters

## **Introduction**

The HDMI CAT Extender 4K120 - 40M extends HDMI transmission up to 130ft at 4K@120Hz over CAT6/7.

## **Package Contents**

- HDMI CAT Extender 4K120 - 40M (1 Transmitter & 1 Receiver)
- 1 IR Blaster cable and 1 IR Receiver cable
- 2 Power adapters (12VDC)
- User's guide

## **Installation Requirements**

- HDMI source
- HDMI display(s)
- HDMI cables
- UTP CAT6/7 cable following IEEE-T568B wiring standard

## **Features**

- Supports up to 4K @120Hz YUV 4:4:4. HDR, HDCP 2.3/2.2/1.4 compliant
- Supports Digital Stream Conversion (DSC) and compatible with DSC 1.2
- EDID switch: Built-in EDID or EDID bypass
- Audio: Uncompressed LPCM and compressed DTS and Dolby Digital audio (including DTS-HD Master and Dolby TrueHD)
- Compact surface mountable metal enclosure, Dual IR extension, and low latency

# Product Layout

## Transmitter (TX) Front and Rear Panel

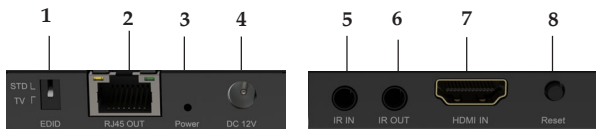


Figure 1: Transmitter Front and Rear Panel Layout

1. **EDID:** EDID selector switch
  - **STD:** Slide the switch up for 4K @120Hz mode
  - **TV:** Slide the switch down to copy the EDID from the display
2. **RJ45 Out:** Connect to the Receiver's **RJ45 In** using a CAT cable
3. **Power LED:** On when the TX is powered on
4. **Power Jack:** Connect to the included power adapter
5. **IR In:** Connect to the IR Receiver cable. See IR Application on page 9 for proper cable connection.
6. **IR Out:** Connect to the IR Blaster cable. Point the IR eye at the source device's IR window. See IR Application on page 9 for proper cable connection.

7. **HDMI In:** Connect to your HDMI source
8. **Reset:** Press to reset the transmitter

## Receiver (RX) Front and Rear Panel

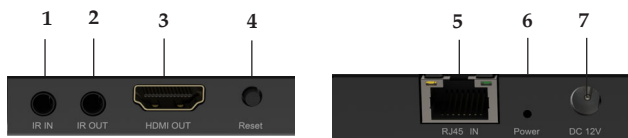


Figure 2: Receiver Front and Rear Panel Layout

1. **IR In:** Connect to the IR Receiver cable. See IR Application on page 9 for proper cable connection.
2. **IR Out:** Connect to the IR Blaster cable. Point the IR eye at the display device's IR window. See IR Application on page 9 for proper cable connection.
3. **HDMI Out:** Connect to an HDMI display
4. **Reset:** Press to reset the receiver
5. **RJ45 In:** Connect to the Transmitter's **RJ45 Out** using a CAT cable
6. **Power LED:** On when the RX is powered on
7. **Power Jack:** Connect to the included power adapter

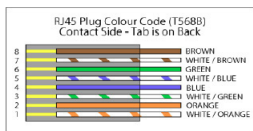
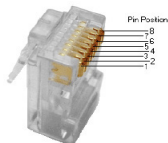
## Hardware Installation

1. Power off all devices including your HDMI source and HDMI display.
2. Connect your HDMI source device to the Transmitter's HDMI In connector with an HDMI cable (HDMI cable not included).
3. Optional: Connect the IR cable to the Transmitter's IR port. See IR Application on page 9 for proper cable connection.
4. Plug a CAT6/7 cable between the Transmitter's RJ45 Out and Receiver's RJ45 In.
5. Connect your HDMI display to the Receiver's HDMI Out connector with an HDMI cable (HDMI cable not included).
6. Optional: Connect the IR cable to the Receiver's IR port. See IR Application on page 9 for proper cable connection.
7. Plug the included power adapters into the Transmitter's and Receiver's power jacks, then plug the power adapters into a reliable power source.
8. Power on all connected devices.
9. The HDMI extender is ready for use.

# CAT Cable Wiring

We suggest both RJ45 connectors be wired identically using T568B wiring standard for the best performance and compatibility.

Both connectors must be wired identically, to T568B standard.



**Note:** You may use cat5e, cat6 UTP (cat6 preferred) in conjunction with the RJ45 output; however for best performance use cat6a or cat7 (particularly in electrically noisy environments). The maximum distances & transmission performance for HDMI and USB may be compromised by cable quality, patch panels, poor termination, wall plates, cable kinks and electrical interferences. Generally ensure the cat cable is solid copper core of 23AWG (avoid CCA type), in one straight run (avoid/minimise patches) and avoid close proximity to any noisy electrical sources.



## **IR Application**

### HDMI Source Device Control from RX Location

1. Connect the IR Blaster cable to the TX's IR Out port. Face the eye towards your HDMI source device's IR Window.
2. Connect the IR Receiver cable to the RX's IR In port.

### Display Device Control from the TX Location

1. Connect the IR Blaster cable to the RX's IR Out port. Face the eye towards your display device's IR window.
2. Connect the IR Receiver cable to the TX's IR In port.

## Connection Diagram

The connection diagram shows the most typical input and output devices used with the HDMI CAT Extender.

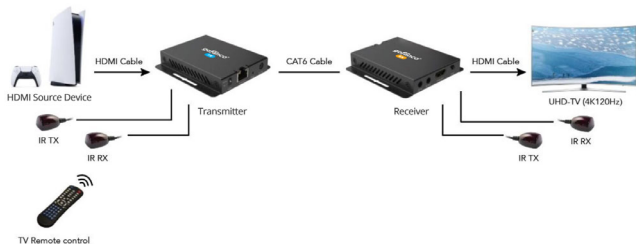


Figure 3: Connection Diagram with IR

# Specifications

<b>Input Ports</b>	HDMI x1, RJ45 x1, 3.5mm IR x2
<b>Output Ports</b>	HDMI x1, RJ45 x1, 3.5mm IR x2
<b>Transmission Distance</b>	130ft (40m) at 4K@120Hz
<b>Resolution</b>	480i@50/60Hz, 480p@50/60Hz, 576i@50/60Hz, 576p@50/60Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz, 4K@60Hz, 4K@120Hz
<b>IR Frequency Range</b>	20-60KHz
<b>Power Consumption (Max)</b>	TX: 4W, RX: 3.5W
<b>Operating Temperature</b>	32° to 122° F (0° - 50° C)
<b>Storage Humidity</b>	5% to 90% RH non-condensing
<b>Dimensions (L x W x H)</b>	3.3" x 2.5" x 0.6" (84 x 64 x 14.5 mm)
<b>Weight</b>	TX & RX: 0.26 lbs (120g)

## **Disclaimer**

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