



HDMI over HDBaseT Extender

# User Manual

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Model : HE02EIP

4K HDMI & IR/PoH CAT5e Extender 70M



## Introduction

HE02EIP is a 4K HDMI over HDBaseT™ extender that can use an Ethernet cable to send uncompressed HDMI and IR signals with resolution up to 4K@60Hz 4:2:0 and transmission distance up to 70M. The extender also supports PoH (Power over HDBaseT), designed to provide power from one side (TX/ RX) to another.

## Features

- Resolution up to 4K@60Hz 4:2:0.
- Signal extension up to 70M over one CAT5e/6 cable.
- Supports PoH (Power over HDBaseT™), no power required for RX unit.
- Supports bi-directional IR transmission, EDID and CEC pass through.

## Installation view



## LED Indication

Power: Green ON/OFF

HDMI:

Blue ON: With HDMI signal  
Flash: HDMI signal without HDCP  
OFF: No HDMI signal

HDBaseT:

Blue ON: HDBaseT link  
Flash: Low power mode  
OFF: HDBaseT unlink

IR receive/emit LED:

Blue Flash: IR signal transmission  
OFF: No IR signal

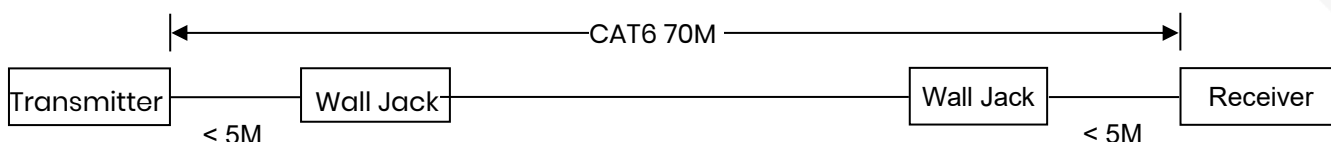
## Cable

Link cable recommend use high quality Cat.5e 、Cat.6 、Cat.6a 、Cat.7 UTP / STP or FTP cable. Poor quality cable or network connection or improper construction will cause unstable connection, video or sound disruptions, picture noise appears.

## HDBaseT Distance Chart by Different Cable

| Cable Type     | Range | Pixel Clock Rate     | Video Data Rate                       | Supported Video               |
|----------------|-------|----------------------|---------------------------------------|-------------------------------|
| CAT.5e / CAT.6 | 70 M  | $\leq 225\text{MHz}$ | $\leq 5.3\text{Gbps}$ (Full HD Video) | 1080p 60Hz 36 bit             |
| CAT.5e / CAT.6 | 35 M  | $> 225\text{MHz}$    | $> 5.3\text{Gbps}$ (Ultra HD Video)   | 1080p 60Hz 48 bit             |
| CAT.6a / CAT.7 | 40 M  |                      |                                       | 1080p 60Hz 3D<br>4K x 2K 24Hz |

If connection through the wall socket, the cable length must less 5 meters between HDMI extender and wall jack, as below drawing:



## Panel View

HE02EIPT



HE02EIPR



## Low-power Mode

When there is no HDMI video signal input or TV is not connected or power off, this product will enter a low-power mode to save power consumption; under a low power mode still provides IR and CEC of signal transmission.

## RJ45 Define

Video Link (TIA/EIA-568-B)

|                 |         |
|-----------------|---------|
| 1. Orange-white | DATA0 + |
| 2. Orange       | DATA0 - |
| 3. Green-white  | DATA1 + |
| 4. Blue         | DATA2 + |
| 5. Blue-white   | DATA2 - |
| 6. Green        | DATA1 - |
| 7. Brown-white  | DATA3 + |
| 8. Brown        | DATA3 - |

## Caution

1. The wiring must away from any equipment with electromagnetic wave, i.e.: mobile phone, microwave, radio equipment, fluorescent lamp, high voltage power lines.
2. The cable must pull in straight to avoid any crosstalk interference and the transmission stability.
3. This device HDBaseT port is not general Ethernet signal; do not connect with Network devices to avoid damage.
4. IR transmitter do not put near from receiver to avoid mutual interference.
5. The receiver unit working temperature is higher which is in normal condition.

## HE02EIP Package Include

HE02EIPT HDM Transmitter x 1 pcs  
HE02EIPR HDMI Receiver x 1 pcs  
IR Emitter Cable x 2 pcs  
IR Receiver Cable x 2 pcs  
Mounting Screw pack x 1 bags  
DC12V 1Amp Power Adapter x 1 pcs

**Specification**

| Comparison                 |                                         |                                    |
|----------------------------|-----------------------------------------|------------------------------------|
| ITEM NO.                   | HE02EIPT                                | HE02EIPR                           |
| Support                    |                                         |                                    |
| Compliance                 | HDMI 1.4, HDCP, 3D                      |                                    |
| Max. Video Resolution      | 4K@24Hz                                 |                                    |
| Max. Transmission Distance | 70M at 1080p, 40M at 4K                 |                                    |
| Video Bandwidth            | 10.2 Gbps                               |                                    |
| Audio Format               | LPCM 7.1 192KHz, Dolby Trued, DTS-HD MA |                                    |
| IR Support                 | 30-60Khz, ±15°, 5M, Bi-directional      | 30-60Khz, ±55°, 5M, Bi-directional |
| Ports & Interfaces         |                                         |                                    |
| Video Input                | 1 x HDMI Type A                         | 1 x HDBaseT                        |
| Video Output               | 1 x HDBaseT                             | 1 x HDMI Type A                    |
| Power                      |                                         |                                    |
| Power Supply               | DC 24V 1.25A                            |                                    |
| Power Consumption          | 11.4W (Max), 1.8W(Low Power)            |                                    |
| Ambient Temperature        |                                         |                                    |
| Operation                  | 0 to 55°C                               |                                    |
| Storage                    | -20 to 85°C                             |                                    |
| Humidity                   | up to 95%                               |                                    |
| Physical Characteristics   |                                         |                                    |
| Dimensions                 | 67 x 95 x 27mm                          | 67 x 95 x 27mm                     |
| Weight                     | 155g                                    | 165g                               |