HDMI (HDBaseT) CAT5 Extender Series

ITEM NO.: HE02 HDMI CAT5 Extender With RS232 & IR over Single CAT5 cable

HE02 HDMI CAT5 Extender is using only one cost effective CAT5E/6 cable to extend your HDTV display up to 100 meters at 1080p. With Bi-directional RS232 and IR function to delivers significant value to the entire home and commercial entertainment system.

HE02 HDMI CAT5 Extender With RS232 & IR over Single CAT5 cable
Features:
- Extends HDMI with control signal over one CAT5/5e/6 cables.
- Controls signals including RS232 and IR remote control.
- Uncompressed high definition video up to 1080p@60Hz@48bits and 3D and 4K*2K capable.
- Max. Data Rate- 10.2 Gbps.
- HDMI 1.4 and HDCP compliance.
- Bi-Directional IR function.
- Bi-Directional RS232 interface – commands and data can flow in both directions via RS232, allowing status requests and control of the destination unit.
- Audio transmission support Dolby TrueHD, DTS-HD MA.
- Transmission range up to 100 meters at 1080p resolution.

Installation view:
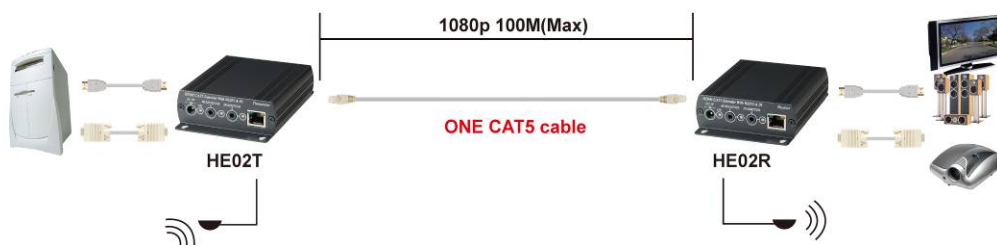
Cable:

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
CAT5e / CAT6	100m	<=225Mhz	<=5.3Gbps (HD Video)	Up to 1080p 60Hz 36 bits
	70m	>225Mhz	>5.3Gbps (Ultra HD Video)	1080p 60Hz 48bits 1080p 60Hz 3D, 4K x 2K 30Hz
CAT6a / CAT7	100m			

If connection through the wall socket, the cable length must less 5 meters between HDMI extender and wall jack, as below drawing:
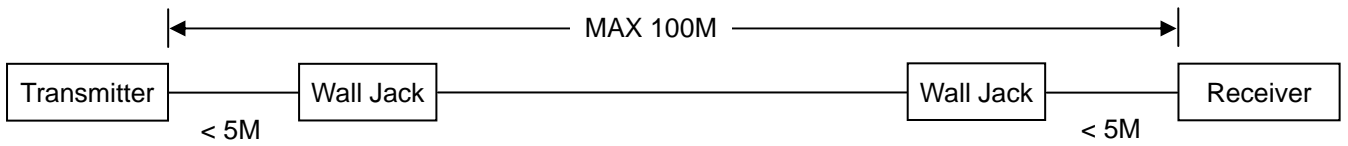
10/100Mbps network connection using general CAT5e cable and working distance up to 100M.

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 Ethernet, RS-232(Max. 9600bps), IR, 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 -**

HE02 LED Indication：

ON	GREEN	Power
IR	BLUE	IR Receive
IR	RED	IR Transmit

RJ45 LED Indication：

VIDEO	GREEN	ON：HDBaseT linking
		FLash：Low Power Mode

Panel view:

HE02T
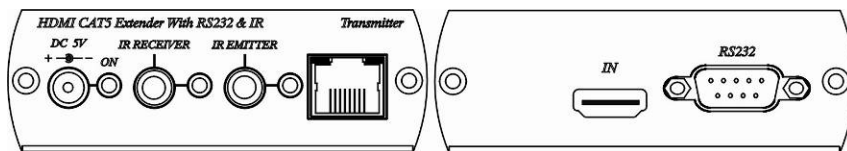
HE02R
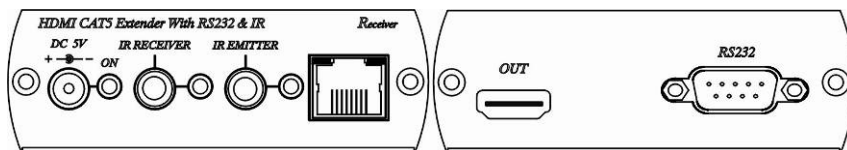
Caution:

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.

Package Include:

HE02T HDM Transmitter x 1 pcs
HE02R HDMI Receiver x 1 pcs
IR Emitter Cable x 2 pcs
IR Receiver Cable x 2 pcs
Mounting Screw pack x 2 bags
Power Adapter x 2 pcs

Specification:

ITEM	HE02T	HE02R
HDMI Connector	1080p / 60Hz / 48 bits，3D，4K x 2K	
HDMI Video	7.1 LPCM 192KHz，Dolby TrueHD，DTS-HD MA	
Distance	100M (Max)	
HDMI Connector	HDMI Type A	
RS-232 Connector	DB9 Female	DB9 Male
HDBaseT Connector	RJ45 x 1	
RS-232 Baud Rate	Up to 115200 bps / Full Duplex	
IR Carrier	30~60KHz , T：±15°, R：±55°, 5M / Bi-directional	
Power Supply	DC 5V 2AMP	
Power Consumption	Max 3W，Low Power 0.8W	Max 6W，Low Power 1W
Temperature	Operation: 0 to 55℃, Storage: -20 TO 85℃, Humidity: up to 95%	
Dimensions	88 x 130 x 30	
Weight	255	270

RoHS CE FC C

Rev. C