HDMI Splitter 1x4 Over CAT5E/CAT6 50m

User manual
VER:1.0

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

1. Introduction

The Splitter is a product for splitting and extending your HDMI signal over long distances to a compatible display. It is designed to convert the HDMI signal and transmit by Internet cable. The splitter supports resolutions up to 1080p@60Hz, and supports smart EDID management.

2. Features

➢ Compliant with HDMI1.3, HDCP 1.2 and DVI 1.0.
➢ Full HD support: 1080p@60Hz@24 bit/pixels.
➢ Supports LPCM 7.1CH, Dolby True HD, and DTS-HD Master Audio.
➢ Operates for TMDS clock frequencies up to 148.5MHz.
➢ Support Power over cable function.
➢ Use single UTP LAN cable (CAT5E/6) to substitute HDMI cable to achieve long distances transmission.
➢ UTP cable termination follows the standard of IEEE-568B.
➢ Supports EDID control via EDID selector.

3. Package

➢ HDMI Splitter ---1PCS
➢ Receiver --4PCS
➢ 12V2.5A DC Power Supply adapter ----------------------------1PCS
➢ Wideband IR Tx cable---1PCS
➢ Wideband IR Rx cable---4PCS
➢ Operation Manual --1PCS
➢ Mounting ears--2pcs

4. **Specifications**

Maximum Pixel Clock	165 MHZ
Supports video resolutions up to	1080p@60Hz
HDMI Splitter:	
Input Ports	1x HDMI, 1xMini USB
Output Ports	1xHDMI, 4xRJ45, 1xIR out
Receiver :	
Input Ports	1xRJ45, 1x IR in
Output Ports	1x HDMI
Power Supply	DC 12V 2.5A
ESD Protection	± 8kV (air-gap discharge)
Human Body Model	± 4kV (contact discharge)
Dimensions (mm)	Transmitter : 210x83X17mm
	Receiver: 79x68x17mm
Weight	Transmitter: 415g
	Receiver: 4 x 131g
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (Non-condensing)
Power Consumption (Max)	8W

5. **Operation controls and Functions**
Splitter
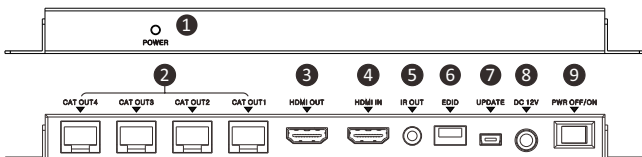
1. **POWER LED:** The red LED illuminates when the device is connected with power supply.
2. **CAT OUT1-OUT4:** Four RJ45 Jacks provide signal output.
3. **HDMI OUT:** Local HDMI loop output port.

4. **HDMI IN:** HDMI Input port. Connecting source with HDMI cable.
5. **IR OUT:** Connecting the IR Blaster cable included in the package for IR signal transmission. Pacing the IR blaster in direct line-of-sight of the equipment to be controlled.
6. **EDID Selector:** Selecting output signal format via EDID Selector. ※See the description 1
7. **UPDATE:** System software to update.
8. **DC IN:** Pluging the 12V2.5A DC power supply into the unit.
9. **POWER SWITCH:** Power ON\OFF Switch.

Receiver
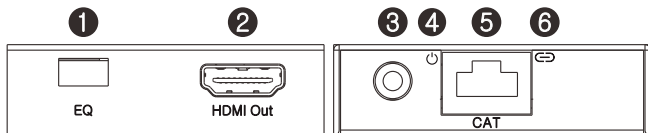
1. **EQ switcher:** HDMI Receiver equalizer switcher.
   ※See the description 2
2. **HDMI out:** The slot is to connect the HDMI input port of your display such as an HDTV.
3. **IR in:** Connecting to the IR Receiver for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR receiver.
4. **Power LED:** The LED will illuminate when the device is connected with power supply.
5. **CAT:** Connecting the CAT input of the receiver with the CAT output of the transmitter with CAT5E/6 cable.
6. **Lock LED:** The LED will illuminate when the HDMI signal from the transmitter is stable.

※See the description 1
EDID Control
Under normal circumstances, a source device (digital and analog) will require information about a connected device/display to assess what resolutions and features are available. The source can then cater its output to send only resolutions and features that are compatible with the attached device/display. This information is called EDID (Extended Display Information Data) and a source device can only accept and read one EDID from a connected device/display. Likewise, the source an only output one resolution for use by a connected device/display.

The EDID switch allows for EDID learning or to pre-set an EDID to encourage a "handshake" between the display and source.
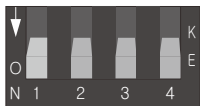

Manual EDID Learning Mode
When you switch to any number of "0-8" ,the Transmitter will set a fixed EDID to the source. The detail EDID description, please refer to the EDID table.

Auto EDID Learning Mode.
When you switch to "9",the Transmitter will copy the HDMI LOOP OUT port display EDID to source.

Attention: Please confirm the extender is work normally, when you want modify the new EDID to source, toggle the EDID switcher to the corresponding number first, then plug the Transmitter power again. The extender will send the new EDID to source.

EDID TABLE:

Position	EDID Description
0	1080p, 2CH AUDIO
1	1080p, DOLBY/DTS 5.1
2	1080p, HD AUDIO
3	1080i, 2CH AUDIO
4	1080i, DOLBY/DTS 5.1
5	1080i, HD AUDIO
6	3D,1080p, 2CH AUDIO
7	3D, 1080p,DOLBY/DTS 5.1
8	3D,1080p, HD AUDIO
9	Copy EDID from the Transmitter HDMI loop out
A	1080p, 2CH AUDIO
B	1080p, 2CH AUDIO

C	1080i, 2CH AUDIO
D	1080i, 2CH AUDIO
E	1080i, 2CH AUDIO
F	1080i, 2CH AUDIO

※ See the description 2

RX Equalizer distance adjust

If you see flickering or blinking image on the display, adjust the EQ switch to improve the cable skew. MAX stands for the strongest HDMI signal level for the longest possible transmission length while MIN stands for the weakest HDMI signal level for short transmission length. Adjust the signal level from MIN to MAX until desired video quality is displayed.

Recommended EQ setting	
Position	Cable Length
0 1	under 15m (49.5ft)
2 3	15-30m (49.5 ft - 99ft)
4 5	30-40m (99ft - 132ft)
6 7	40-50m(132ft – 164ft)

Wideband IR(30KHz---60KHz) introduction

IR RECEIVER   **IR BLASTER**

IR Cable Pin Assignment

IR Blaster

1. IR Blaster Signal
2. Power
3. NC

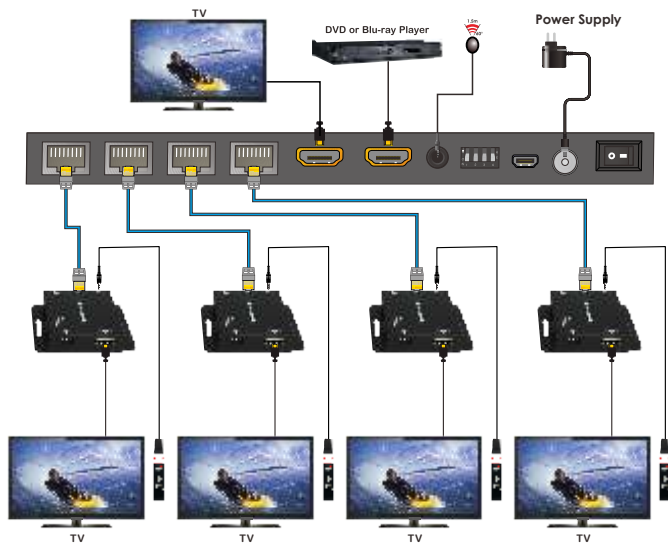IR Receiver

1. IR Signal
2. Power
3. Grounding
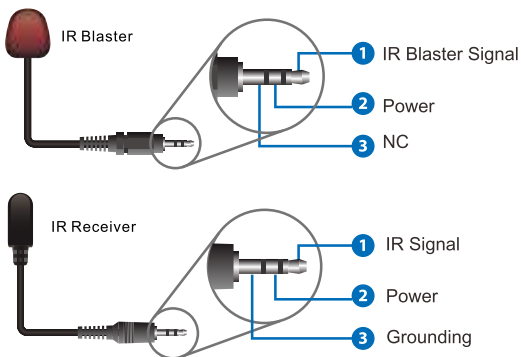
   Control local device (Blu-ray player or DVD player, etc) from remote: The IR Receiver is connected to the receiver IR in port. The CAT output connector on the HDMI Splitter is connected via CAT6 cable to an HDMI receiver. The IR Transmitter is connected to the HDMI Splitter IR OUT port.
IR remote can be used to control local source device from remote.

6. Application Example

1. Connect a source such as a Blu-Ray Player, game console, A/V Receiver, Cable or Satellite Receiver, etc. to the HDMI input on the Transmitting unit.
2. Connect a display such as an HDTV or HD Projector to the HDMI output on the Receiving unit.
3. Connect a single Cat5e/6 up to 164ft/50m to the output of the Transmitting unit, and the other end to the input of the Receiving unit.
4. Connect the DC 12V Locking power supply to the power receptacle on the splitter
5. Connect the power supply to an available electrical outlet.