

# HDMI Extender (70m) with IR Control

CS-HDC6EXT4K



User Manual



ethereal

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## 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.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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## 1. Introduction

This HDMI Extender can extend high definition video/audio signal and IR control signal up to 230ft/70m for 1080p resolution, and 131ft/40m for 4K30 resolution via a single CAT6 cable, which can achieve zero-delay, uncompressed long-distance transmission between the transmitter and receiver. This extender with HDMI loop output can be cascaded to the next extender, supporting resolution up to 4K@30Hz. It supports EDID copy function (you can choose local or remote EDID). It supports audio formats up to PCM7.1, Dolby True HD, DTS HD. This product can be widely used in multi-media conference halls, TV teaching and large-screen displays.

## 2. Features

- ☆ HDMI 1.4, HDCP 1.4 and DVI 1.0 compliant
- ☆ Support video resolution up to 4k2k@30Hz YUV 4:4:4
- ☆ The maximum transmission distance via a single CAT6/5E cable is as follows:
  - CAT6: 230ft/70m for 1080p, 131ft/40m for 4K30
  - CAT5E: 197ft/60m for 1080p, 115ft/35m for 4K30
- ☆ Support copying EDID from receiver display or loop out display
- ☆ Allow for cascading via additional HDMI loop out port
- ☆ Support one-way POC functionality (from transmitter to receiver)
- ☆ One-way IR signal transmission
- ☆ Compact design for easy and flexible installation

### 3. Package Contents

- ① 1 × HDMI Transmitter
- ② 1 × HDMI Receiver
- ③ 1 × IR Blaster Cable (1.5 meters)
- ④ 1 × IR Receiver Cable (1.5 meters)
- ⑤ 1 × 12V/1A DC Power Adapter
- ⑥ 1 × User Manual

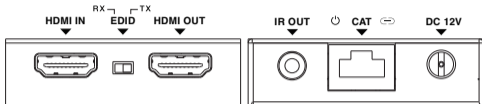
### 4. Specifications

| <b>Technical</b>  |   |
|-------------------|---|
| HDMI Compliance   | HDMI 1.4  |
| HDCP Compliance   | HDCP 1.4  |
| Video Bandwidth   | 10.2Gbps  |
| Video Resolution  | Up to 4K@30Hz   |
| Audio Support     | Up to 7.1CH HD audio  |
| Input TMDS Signal | 3.3 volts   |
| Input DDC Signal  | 5.0 volts/P-P   |
| ESD Protection    | Human Body model:<br>+/- 8 kV (air-gap discharge)<br>+/- 4 kV (contact discharge) |

| <b>Connection</b>     |   |
|-----------------------|---|
| Transmitter           | Input: 1 x HDMI Type A [19-pin female]<br>Outputs: 1 x HDMI Type A [19-pin female]<br>1 x IR OUT [3.5mm Stereo Mini-jack]<br>1 x CAT OUT [RJ45, 8-pin female] |
| Receiver              | Inputs: 1x IR IN [3.5mm Stereo Mini-jack]<br>1x CAT IN [RJ45, 8-pin female]<br>Output: 1x HDMI Type A [19-pin female]   |
| <b>Mechanical</b>     |   |
| Housing               | Metal Enclosure   |
| Color                 | Black   |
| Dimensions            | 79.5mm[W] x 69mm[D] x 16.5mm[H]   |
| Weight                | Transmitter: 132g, Receiver: 130g   |
| Power Supply          | 12V/1A DC   |
| Power Consumption     | Transmitter: 1.86W, Receiver: 0.87W   |
| Operation Temperature | 32 - 104°F / 0 - 40°C   |
| Storage temperature   | -4 - 140°F / -20 - 60°C   |
| Relative Humidity     | 20 - 90% RH (no condensation)   |

## 5. Operation Controls and Functions

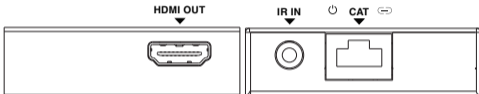
### 5.1 Transmitter Panel



| No. | Name            | Function Description   |
|-----|-----------------|--|
| 1   | HDMI IN         | HDMI signal input port. Connect to HDMI source device such as DVD or Set-top box.  |
| 2   | EDID DIP switch | The switch is used for selecting EDID: Switch to the right position, the extender will copy HDMI loop out display EDID information to signal source; Switch to the left position, the extender will copy Receiver display EDID to signal source. |
| 3   | HDMI OUT        | HDMI signal loop out port. Connect to HDMI display device such as HDTV.  |
| 4   | IR OUT          | Connect to IR blaster cable, the IR signal is from the IR IN port of the receiver.   |
| 5   | Power LED       | When the transmitter is powered on, the LED will be on.  |
| 6   | CAT             | CAT output port. Connect to the CAT input port of the receiver with CAT5E/6 cable.   |

|   |                                |   |
|---|--------------------------------|---|
| 7 | Digital signal indicator light | <ul style="list-style-type: none"> <li>▪ Light on: HDMI signal with HDCP.</li> <li>▪ Light flashing: HDMI signal without HDCP.</li> <li>▪ Light off: No HDMI signal.</li> </ul> |
| 8 | DC 12V                         | DC 12V power supply port.   |

## 5.2 Receiver Panel



| No. | Name                           | Function Description  |
|-----|--------------------------------|---|
| 1   | HDMI OUT                       | HDMI signal output port. Connect to HDMI display device such as HDTV.   |
| 2   | IR IN                          | Connect to IR receiver cable, the IR signal will emit to the IR OUT port of the transmitter.  |
| 3   | Power LED                      | When the receiver is powered on, the LED will be on.  |
| 4   | CAT                            | CAT input port. Connect to the CAT output port of the transmitter with CAT5E/6 cable.   |
| 5   | Digital signal indicator light | <ul style="list-style-type: none"> <li>▪ Light on: HDMI signal with HDCP.</li> <li>▪ Light flashing: HDMI signal without HDCP.</li> <li>▪ Light off: No HDMI signal.</li> </ul> |

## 5.3 IR Pin Definition

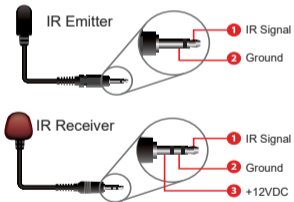
IR Receiver and Blaster pin's definition is as below:



IR RECEIVER

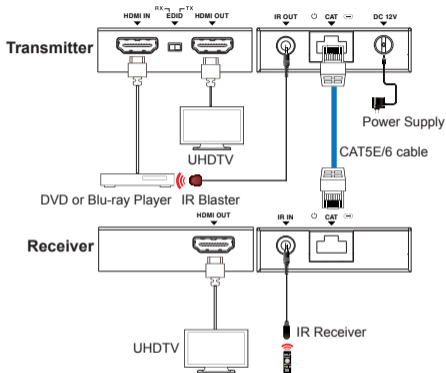


IR EMITTER





## 6. Application Example



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HIGH DEFINITION MULTIMEDIA INTERFACE

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