

LINK



LINK EXT70-4KUHD-USB 70m 4K60 HDMI and USB 1.1 Extender

User Manual

Version: V1.0.0



Thank you for purchasing this product

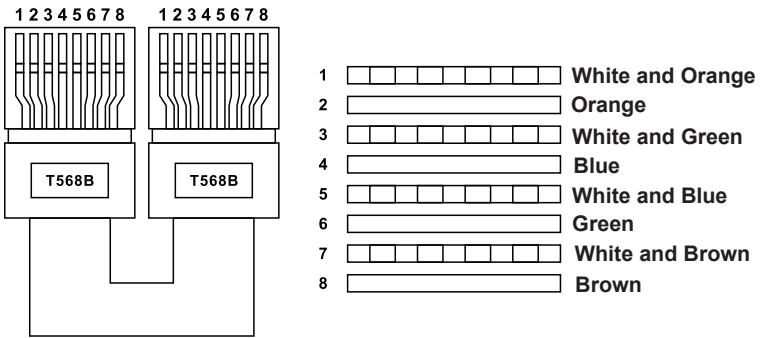
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

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.

Caution

The product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross connect.



Direct Interconnection Method

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Introduction

Overview

This 18Gbps HDMI Extender can extend HDMI HD signal to a distance up to 230ft/70m via a single CAT6/6a cable, which can achieve zero-delay, long-distance transmission between the transmitter and receiver. Video resolution is up to 4K@60Hz. The Extender supports KVM signal pass-through, which can remote control source device at display device. It supports EDID copy pass-through function between the source device and display device. It supports POC function.

This Extender can be widely used in multi-media conference halls, TV teaching and large-screen displays.

Features

- HDCP 2.2 compliant
- Support 18Gbps video bandwidth
- Support video resolution up to 4K@60Hz RGB/YCBCR 4:4:4
- The transmission distance can be extended up to 230ft/70m via a single CAT6/6a cable
- Support HDR, HDR10, HDR10+, Dolby Vision, HLG
- Audio formats: LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus(DD+)
- Support 3.5mm analog audio de-embedding, audio is output through the L/R OUT port on the receiver
- EDID copy pass-through function between the source device and display device
- Support bi-directional POC (Power over Cable) function
- With USB KVM pass-through function, USB 1.1 compliant, support remote-control by keyboard and mouse
- Compact design for easy and flexible installation

Package Contents

- 1× 18Gbps HDMI Extender (Transmitter)
- 1× 18Gbps HDMI Extender (Receiver)
- 1× USB-A to USB-B Cable (1.5 meters)
- 4× Mounting Ears
- 8× Machine Screws (KM3*4)
- 1× 12V/1A Locking Power Adapter
- 1× User Manual

Specifications

| Technical | |
|-----------------------|---|
| HDMI Compliance | HDMI 2.0b |
| HDCP Compliance | HDCP 2.2 |
| Video Bandwidth | 18Gbps |
| Video Resolution | Up to 4K@60Hz RGB/YCBCR 4:4:4 *All available resolutions are shown on page 4. |
| Transmission Distance | 70m/230ft for 4K@60Hz over CAT6 cable 50M @ 4K w/ CAT5e, 50M @ 1080p 70M @ 4K w/ CAT6/6a, 70M @ 1080p |
| Color Space | RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0 |
| Color Depth | 8/10/12-bit |
| HDR | HDR, HDR10, HDR10+, Dolby Vision, HLG |
| Audio Formats | HDMI Audio: LPCM 2.0 -7.1, Dolby Digital, Dolby Digital Plus ,Dolby TrueHD, Dolby Atmos, DTS, DTS-HD Master, DTS:X 3.5mm Analog Audio de-embedding: LPCM 2.0CH (sample rate 32~192kHz) |
| ESD Protection | IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge) |
| Connection | |
| Transmitter | Input: 1× IN [HDMI Type A, 19-pin female] Output: 1× OUT [HDMI Type A, 19-pin female] 1× CAT OUT [RJ45] Control: 1× SERVICE [USB Type C] 1× USB port [USB Type B] |
| Receiver | Input: 1× CAT IN [RJ45] Output: 1× OUT [HDMI Type A, 19-pin female] 1× AUDIO OUT [3.5mm stereo mini-jack] Control: 1× SERVICE [USB Type C] 2× USB port [USB Type A] |

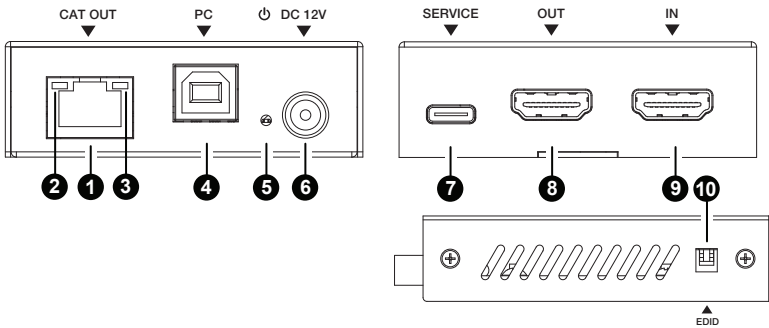
| Mechanical | |
|-----------------------|--|
| Housing | Metal Enclosure |
| Color | Black |
| Dimensions | Transmitter / Receiver: 90mm (W)×68mm (D)×22mm (H) |
| Weight | Transmitter: 170g, Receiver: 170g |
| Power Supply | DC 12V/1A; Support bi-directional POC function |
| Power Consumption | 4.2 W (Max) |
| Operating Temperature | 0°C ~ 40°C / 32°F ~ 104°F |
| Storage Temperature | -20°C ~ 60°C / -4°F ~ 140°F |
| Operating Humidity | 20% ~ 90% (relative humidity, non-condensing) |
| Storage Humidity | 10% ~ 90% (relative humidity, non-condensing) |

***All available input/output resolutions:**

640x480p60Hz, 800x600p60Hz, 1024x768p60Hz,
1280x1024p60Hz, 1360x768p60Hz, 1440x900p60Hz,
1440x1050p60Hz, 1600x1200p60Hz, 720x480i59.94Hz(480i59),
720x480p59.94Hz(480p59), 720x576i50Hz(576i50),
720x576p50Hz(576p50), 1280x720p50Hz(720p50),
1280x720p59.94Hz(720p59), 1280x720p60Hz(720p60),
1920x1080i50Hz(1080i50), 1920x1080i59.94Hz(1080i59),
1920x1080i60Hz(1080i60), 1920x1080p23.98Hz(1080p23),
1920x1080p24Hz(1080p24), 1920x1080p25Hz(1080p25),
1920x1080p29.97Hz(1080p29), 1920x1080p30Hz(1080p30),
1920x1080p50Hz(1080p50), 1920x1080p59.94Hz(1080p59),
1920x1080p60Hz(1080p60), 3840x2160p23.98Hz(2160p23),
3840x2160p24Hz(2160p24), 1840x2160p25Hz(2160p25),
3840x2160p29.97Hz(2160p29), 3840x2160p30Hz(2160p30),
1840x2160p50Hz(2160p50), 3840x2160p59.94Hz(2160p59),
3840x2160p60Hz(2160p60)

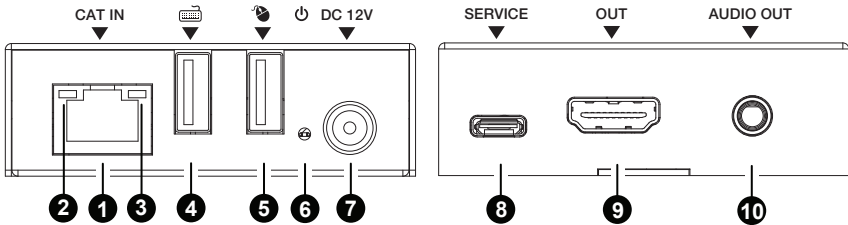
Operation Controls and Functions

Transmitter Panel



| No. | Name | Function Description |
|-----|--------------------------------|--|
| 1 | CAT OUT | RJ45 connector for connecting the CAT IN port of the Receiver with CAT6/6a cable. |
| 2 | Link Status Indicator (Green) | <ul style="list-style-type: none"> Light on: Transmitter and Receiver are connected normally. Light off: Transmitter and Receiver are not connected. |
| 3 | HDCP Signal Indicator (Yellow) | <ul style="list-style-type: none"> Light on: HDMI signal with HDCP. Light flashing: HDMI signal without HDCP. Light off: No HDMI signal. |
| 4 | PC | Connect to PC. The computer can be accessed and controlled remotely through the USB port of the receiver (KVM function). |
| 5 | Power LED | The green LED will be on when the transmitter is powered on. |
| 6 | DC 12V | DC 12V/1A power input port. <i>Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 12V/1A power supply, the other doesn't need power supply</i> |
| 7 | SERVICE | USB-C port, used for firmware upgrade. |
| 8 | OUT | HDMI signal loop output port, connected to HDMI display device with HDMI cable. |
| 9 | IN | HDMI signal input port, connected to HDMI source device with HDMI cable. |
| 10 | EDID DIP switch | Use the DIP switch to set EDID. (Up is 1 and down is 0.) [DIP]=11: Copy Receiver HDMI (output Sink EDID) [DIP]=10: 4K60(4:4:4)_SDR,2.0CH [DIP]=01: 1080P(4:4:4)_SDR,2.0CH [DIP]=00: Copy Transmitter HDMI loop out Sink EDID |

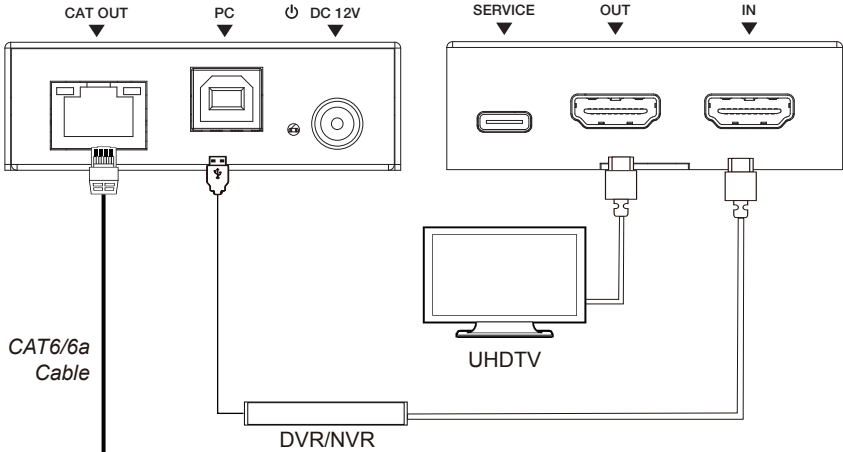
Receiver Panel



| No. | Name | Function Description |
|-----|--------------------------------|--|
| 1 | CAT IN | RJ45 connector for connecting the CAT OUT port of the Transmitter with CAT6/6a cable. |
| 2 | Link Status Indicator (Green) | <ul style="list-style-type: none"> Light on: Transmitter and Receiver are connected normally. Light flashing: Transmitter and Receiver are not connected. |
| 3 | HDCP Signal Indicator (Yellow) | <ul style="list-style-type: none"> Light on: There is HDMI signal with HDCP is detected. Light flashing: There is HDMI signal without HDCP is detected. Light off: There is no HDMI signal. |
| 4 | Keyboard port | USB-A port, connected to the keyboard. |
| 5 | Mouse port | USB-A port, connected to the mouse. |
| 6 | Power LED | The green LED will be on when the receiver is powered on. |
| 7 | DC 12V | DC 12V/1A power input port. <i>Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 12V/1A power supply, the other doesn't need power supply.</i> |
| 8 | SERVICE | USB-C port, used for firmware upgrade. |
| 9 | OUT | HDMI signal loop output port, connected to HDMI display device with HDMI cable. |
| 10 | AUDIO OUT | Analog audio output port, used for audio de-embedding output. |

Application Example

Transmitter



Receiver



Warranty

All LINK products come with a 2-year limited liability warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified, or disassembled. Warranty items only by authorized resellers. Warranty not eligible for products purchased through non-authorized online sellers.

A product that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the date of reshipment to the buyer. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number. The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed. Proof of sale may be required in order to claim warranty.

