



1x2 4K30 HDMI CAT Extender/Splitter



G4-0143B

P/N: HD14Ext-2P

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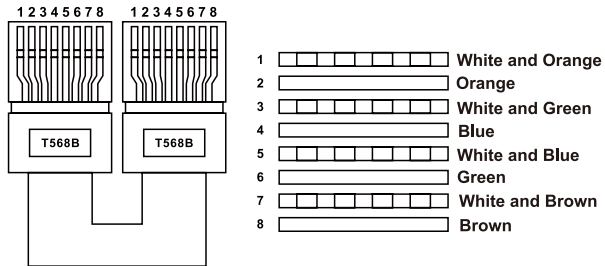
Important Safety Notices

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device.
- Do not expose this unit to rain, heavy moisture, or liquid.
- Do not put any items into the device or attempt to modify its operation.
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty.
- Keep the product in a well-ventilated location to avoid damage from overheating.
- Shut off power and make sure environment is safe before installation.
- Do not plug the HDMI cables and IR cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports.
- Use the included power adapters only. Make sure the specification matches if using 3rd-party DC power adapters.

Important Safety Notices (Continued)

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

The 1x2 4K30 HDMI CAT Splitter/Extender can distribute 1 HDMI source signal to any 2 display devices, with video resolution up to 4K @30Hz YUV 4:4:4 8-bit. It is designed with 1 HDMI loop output and 2 CAT outputs. The HDMI signal transmission distance can be extended up to 40m (131ft) at 4K @30Hz or 70m (230ft) at 1080p via a single CAT6/6a/7 cable. The product supports one-way IR control signal pass-through, 12V one-way POC function (only from transmitter to receiver) and advanced EDID management.

2. Features

- HDMI 1.4 and HDCP 1.4 compliant
- 10.2Gbps video bandwidth
- Video resolution up to 4K2K @30Hz 4:4:4
- Supports LPCM 7.1CH, Dolby True HD and DTS-HD Master Audio
- Extends HDMI signal transmission distance up to 40m (131ft) at 4K @30Hz, 70m (230ft) at 1080p via CAT6/6a/7 cables
- 1 HDMI input, 1 HDMI output (loopout) and 2 CAT outputs
- Supports one-way IR extension
- Advanced EDID management
- Supports one-way PoC (Power-over-Cable)

3. Package Contents

- 1x 1x2 4K30 HDMI CAT Splitter/Extender
- 2x CAT receivers
- 1x IR blaster cable (1.5 m)
- 2x IR receiver cables (1.5m, 20K-60KHz)
- 1x DC locking power adapter (12V/1A)
- 2x Mounting ears
- 4x Machine screws (KM3*4)
- 1x User manual

4. Product Layout

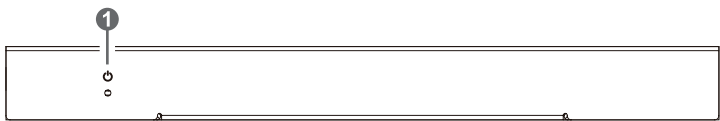


Figure 1: Transmitter Layout (Front)

NO.	Name	Function Description
1	POWER LED	When the Transmitter is powered on, the green power LED will be on

4. Product Layout (Continued)

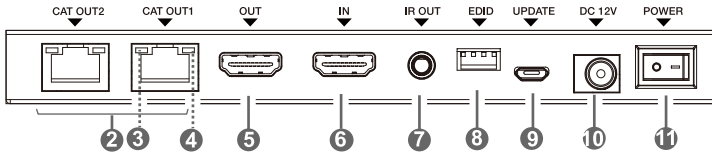


Figure 2: Transmitter Layout (Back)

NO.	Name	Function Description
2	CAT OUT port (1~2)	Connect to the CAT port of the Receiver with a CAT6 cable
3	Power LED (Green)	Transmitter supports one-way POC function. When it supplies power to the Receiver through a CAT cable, the Power LED will be on
4	Data Signal Indicator (Yellow)	Illuminating: HDMI signal with HDCP Flashing: HDMI signal without HDCP Dark: No HDMI signal
5	OUT	HDMI signal loop output port, connect to the HDMI display device such as TV or Monitor with an HDMI cable
6	IN	HDMI signal input port, connect to HDMI source device such as DVD or set-top box with an HDMI cable
7	IR OUT	IR signal output port. Connect to IR blaster cable, the IR signal is from "IR IN" port of the Receiver
8	EDID DIP Switch	Used to set EDID mode. Please refer to Section "8. EDID Modes" for details
9	UPDATE	Mini USB update port. Connect to PC for firmware updating
10	DC 12V	DC 12V Power input port
11	POWER Switch	Press the switch to power on/off the device ("-" for on, "o" for off)

4. Product Layout (Continued)

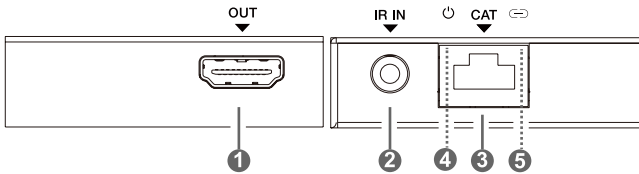


Figure 3: Receiver Layout

NO.	Name	Function Description
1	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	CAT	CAT input port. Connect to the CAT output port of the transmitter with a CAT6 cable
4	Power LED (Green)	When the Receiver is powered on, the LED will be on. The device supports POC function, so the Receiver is powered by the Transmitter through a CAT cable
5	Data Signal Indicator (Yellow)	Illuminating: HDMI signal with HDCP Flashing: HDMI signal without HDCP Dark: No HDMI signal

5. Specifications

Technical	
HDMI Compliance	HDMI 1.4
HDCP Compliance	HDCP 1.4
Video Bandwidth	297MHz/10.2Gbps
Video Resolution	480i ~1080p50/60Hz, 4Kx2K@30Hz (4:4:4)
Color Depth	8-bit, 10-bit, 12-bit (1080p@60Hz); 8-bit (4K30Hz)
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
HDR	HDR10, HDR10+, HLG, Dolby Vision
Audio Formats	LPCM 7.1CH, Dolby True HD and DTS-HD Master Audio
ESD Protection	IEC 61000-4-2: $\pm 8\text{kV}$ (Air-gap discharge) & $\pm 4\text{kV}$ (Contact discharge)

5. Specifications (Continued)

Connection (Transmitter)	
Input	1x HDMI IN [Type A, 19-pin female]
Output	1x HDMI LOOP OUT [Type A, 19-pin female] 2x CAT OUTPUT [RJ45, 8-pin female]
Control	1x SERVICE [Micro USB, Update port] 1x IR OUT [3.5mm Stereo Mini-jack] 1x EDID DIP switch [4-pin]

Connection (Receiver)	
Input	1x CAT IN [RJ45, 8-pin female] 1x IR IN [3.5mm Stereo Mini-jack]
Output	1x HDMI OUT [Type A, 19-pin female]

5. Specifications (Continued)

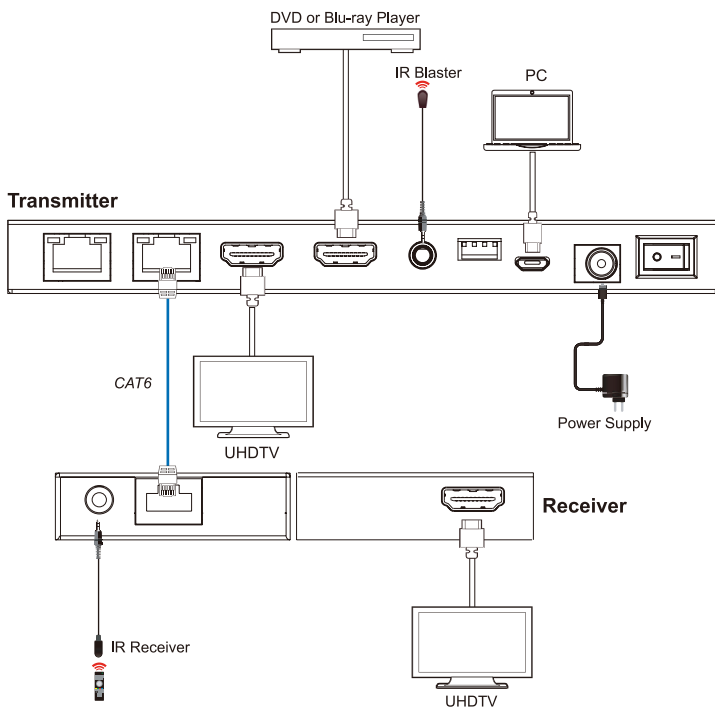
Mechanical	
Housing	Metal Enclosure
Silkscreen Color	Black
Dimensions	Transmitter: 175mm (W) × 82mm (D) × 18mm (H) Receiver: 79.5mm (W) × 69mm (D) × 16.5mm (H)
Weight	Transmitter: 366g / Receiver:130g
Power Supply	12V/1A DC Locking Power (US/EU standards, CE/FCC/RoHs certificated)
Power Consumption	5.4W
Operation 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)

6. Hardware Installation

1. Power off all devices including your HDMI source and HDMI display(s).
2. Connect your HDMI source device to the Transmitter's HDMI In connector with an HDMI cable (HDMI cable not included).
3. Connect your CAT cables between the Transmitter and CAT6/7 receivers.
4. Optional: Connect an HDMI display to the HDMI Out connector of the transmitter using an HDMI cable (HDMI cable not included). This connection is needed only if you require local monitoring of the HDMI signal.
5. Connect an HDMI display to each CAT6/7 receiver's HDMI Out connector with an HDMI cable (HDMI cables not included).
6. Optional: Connect the IR Receiver cables and the IR Emitter cable to the IR interface ports. This connection is needed only if you need to control your HDMI devices from the remote location. See IR Control on page 16 for more information.
7. Plug the included 12V/1A power adapter into the transmitter's Power Jack. ***Note:** Power-over-Cable (PoC) technology allows one power supply to power the receiver through the CAT cable.
8. Power on your HDMI source device and HDMI display(s). The Splitter/Extender is ready for use.

7. Connection Diagram

The application diagram shows the most typical input and output devices used with the Extender/Splitter.

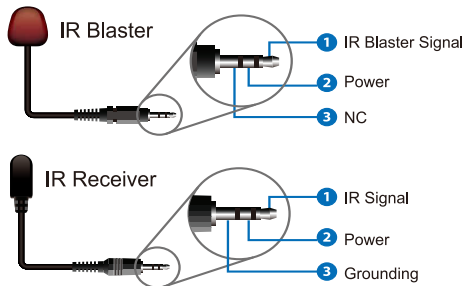


8. EDID Modes

The defined EDID setting list of the product is shown as below:

EDID Mode	EDID Description
0000	1080P, 2CH AUDIO
0001	1080P, Dolby/DTS 5.1
0010	1080P, HD Audio
0011	1080I, 2CH AUDIO
0100	1080I, Dolby/DTS 5.1
0101	1080I, HD Audio
0110	1080P 3D, 2CH AUDIO
0111	1080P 3D, Dolby/DTS 5.1
1000	1080P 3D, HD Audio
1001	4K30, 2CH AUDIO
1010	4K30, DOLBY/DTS5.1
1011	4K30, HD AUDIO
1100	Copy Loop Out
1101	720p, 2CH AUDIO
1110	720p, DOLBY/DTS5.1
1111	720p, HD AUDIO

9. IR Control



Note: When the angle between the IR receiver and the remote control is $\pm 45^\circ$, the transmission distance is 0-5 meters; when the angle between the IR receiver and the remote control is $\pm 90^\circ$, the transmission distance is 0-8 meters.

Controlling the Source Device

1. Connect the IR Blaster cable to the IR Out port of the transmitter.
2. Point the IR Blaster cable's IR eye in line with the source device's IR window.
3. Connect an IR Receiver cable to the IR In port on each CAT receiver.

Note:

The transmitter's IR Out connector will output the IR signals received from any of the CAT 6/7 receivers, so as to allow control of a source from any of the remote CAT6/7 receivers.

10. Disclaimer

The product name and brand name may be registered trademarks of related manufacturers. TM and ® may be omitted on the user's guide. The pictures on the user's guide are just for reference, and there may be some slight differences with the actual products. We reserve the right to make changes without prior notice to a product or system described herein to improve reliability, function, or design.

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