4K30 HDMI™ Extender (100m) over CAT6 Cable with PoC

User Manual

VER 1.0

Thank you for purchasing this product

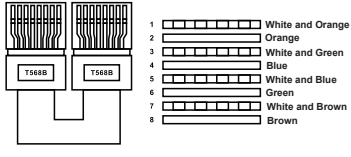
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

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.

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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1. Introduction

This 4K30 HDMI Extender can extend HDMI high-definition signal up to 100m/328ft over CAT6/6a cable, achieving zero-delay, uncompressed long-distance transmission between the signal sources and display devices. Video resolution is up to 4K@30Hz, and audio format is up to LPCM/Dolby/DTS 5.1CH. It supports HDMI 3D video. PoC (Power over Cable) function and EDID copy pass-through between the signal sources and display devices are also supported.

This multi-functional product can be widely applied in scenarios of demonstration, video conference, multimedia teaching and other occassions.

2. Features

☆ Compliant with HDCP 1.4
☆ Video bandwidth is 10.2Gbps
☆ Video resolution is up to 4K@30Hz, 1080P@60Hz, 1920x1200@60Hz
☆ Transmission distance can be up to 100m/328ft over CAT6/6a cable
☆ Support bi-directional PoC function and IR pass-through
☆ Audio formats is up to LPCM 2.0, Dolby 5.1, DD+7.1, DTS 5.1
☆ EDID copy pass-through between the signal sources and display devices

3. Package Contents

① 1× 4K30 HDMI Extender (TX)
② 1× 4K30 HDMI Extender (RX)
③ 1× IR Blaster Cable (1.5m)
④ 1× IR Wideband Receiver Cable (1.5m)
⑤ 1× 12V/1A Multinational Locking Power Supply
⑥ 1× User Manual

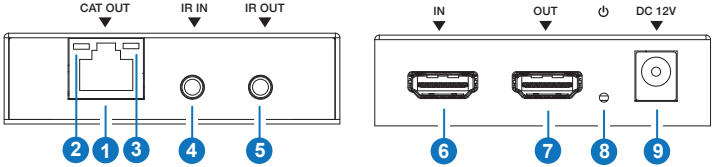
4. Specifications

Technical	
HDMI Compliance	HDMI 1.4b
HDCP Compliance	HDCP 1.4
Video Bandwidth	10.2Gbps
Video Resolution (Input & Output)	480i60, 576i50, 480p60, 576p50, 720p50/60, 1080i50/60, 1080p24/25/30/50/60, 3840x2160@24/25/30, 4096x2160@24/25/30; 640x480@60, 1024x768@60, 1280x768@60, 1280x800@60, 1280x1024@60, 1360x768@60, 1440x900@60, 1680x1050@60, 1920x1200@60RB
Color Space	RGB_4:4:4, YCbCr_4:4:4, YCbCr_4:2:2
Color Depth	8/10/12-bit
Audio Formats	LPCM 2.0, Dolby 5.1, DD+7.1, DTS 5.1
IR Level	5Vp-p
IR Frequency	Wideband 20K-60KHz
Transmission Distance	100m/328ft for 4K@30Hz via CAT6/6a cable
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Transmitter	Input: 1× HDMI IN [Type A, 19-pin female] 1× IR IN [3.5mm audio jack] Output: 1× HDMI OUT [Type A, 19-pin female] 1× IR OUT [3.5mm audio jack] 1× CAT OUT [RJ45]
Receiver	Input: 1× CAT IN [RJ45] 1× IR IN [3.5mm audio jack] Output: 1× HDMI OUT [Type A, 19-pin female] 1× IR OUT [3.5mm audio jack]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 74mm [W] × 68mm [D] × 20mm [H]
Weight	Transmitter: 162g; Receiver: 159g

Power Supply	DC 12V/1A
Power Consumption	3.24W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% relative humidity, non-condensing
Storage Humidity	10%~90% relative humidity, non-condensing

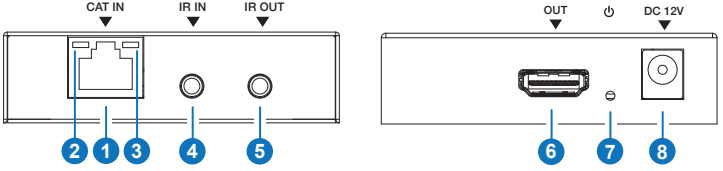
5. Operation Controls and Functions

5.1 Transmitter Panel



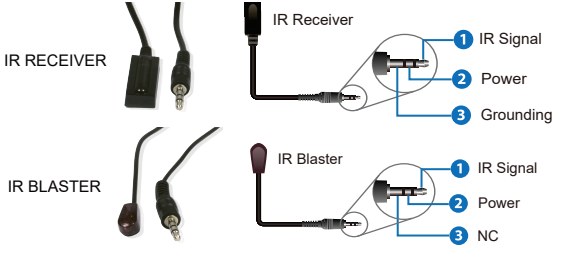
No.	Name	Function Description
1	CAT OUT	Connects to the CAT IN port on Receiver with CAT cable.
2	HDMI Signal Indicator (Green)	The green LED will be on when HDMI input signal is detected.
3	Connection Signal Indicator (Yellow)	▪ When TX and RX are connected and signal is transmitted, the yellow LED will flash quickly. ▪ When TX and RX are connected but no signal is transmitted, the yellow LED will flash slowly.
4	IR IN	IR signal input port, connected to 5V IR wideband receiver.
5	IR OUT	IR signal output port, connected to 5V IR blaster.
6	HDMI IN	HDMI signal input port, connected to an HDMI source device such as DVD or computer host with HDMI cable.
7	HDMI OUT	HDMI signal loop output port, connected to an HDMI display device such as TV or monitor with HDMI cable.
8	Power LED	The green LED will be on when Transmitter is powered on.
9	DC 12V	DC 12V/1A power input port.

5.2 Receiver Panel

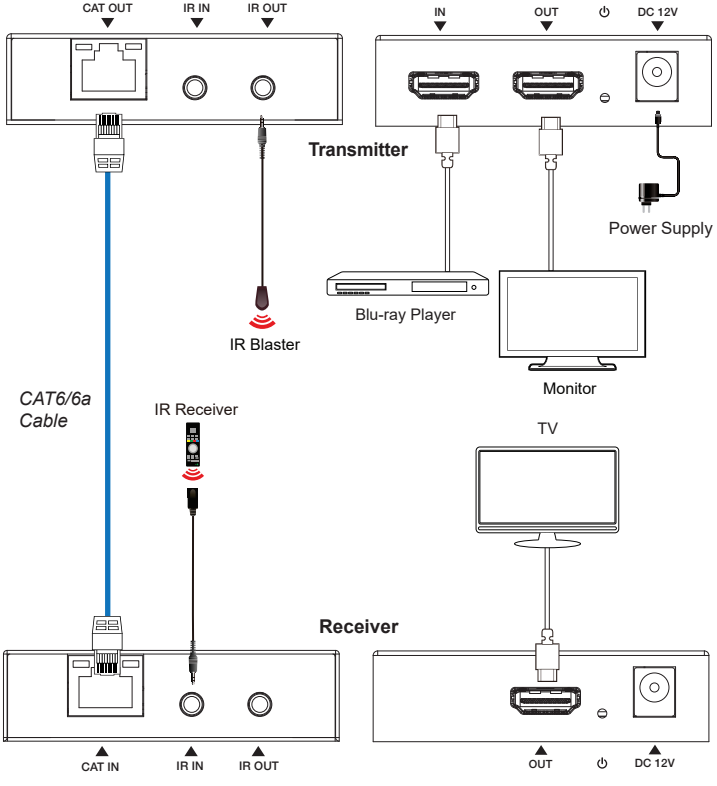


No.	Name	Function Description
1	CAT IN	Connects to the CAT OUT port on Transmitter with CAT cable.
2	HDMI Signal Indicator (Green)	The green LED will be on when HDMI input signal is detected.
3	Connection Signal Indicator (Yellow)	▪ When TX and RX are connected and signal is transmitted, the yellow LED will flash quickly. ▪ When TX and RX are connected but no signal is transmitted, the yellow LED will flash slowly.
4	IR IN	IR signal input port, connected to 5V IR wideband receiver.
5	IR OUT	IR signal output port, connected to 5V IR blaster.
6	HDMI OUT	HDMI signal output port, connected to an HDMI display device such as TV or monitor with HDMI cable.
7	Power LED	The green LED will be on when Receiver is powered on.
8	DC 12V	DC 12V/1A power input port.

6. IR Pin Definition



7. Application Example



HIGH-DEFINITION MULTIMEDIA INTERFACE

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