

HDMI 4K 18Gbps HDBaseT Extender (100M)



User Manual

VER 1.0

Thank you for purchasing this product

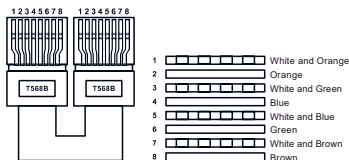
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

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

The HDMI 4K 18Gbps HDBaseT Extender is a perfect solution which can extend HDMI signal and bi-directional IR signal to a distance up to 230ft/70m (4K) or 328ft/100m (1080P) over a single CAT6 cable. It is designed to convert HDMI signal to standard HDBaseT signal transmitted by LAN cable. The video resolution is up to 4K2K@50/60Hz 4:4:4. The extender supports bidirectional IR signal control, allowing to control the source device or display device conveniently at the remote end. It also supports PoC function.

It is widely used in the video conferencing system, multimedia broadcasting and other HDMI signal extending fields.

2. Features

- ☆ HDMI 2.0b (18Gbps), HDCP 2.2 and DVI compliant
- ☆ Video resolutions up to 4K2K@50/60Hz (YUV 4:4:4)
- ☆ Extend HDMI signal up to a distance of 230ft/70m (4K) or 328ft/100m (1080P) over a single CAT6 cable
- ☆ 10bits HDR (High Dynamic Range) pass-through
- ☆ Supports HDMI HBR (High Bit Rate) audio pass-through
- ☆ Supports CEC bypass
- ☆ HDMI audio formats support LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
- ☆ PoC (Power over Cable) function is supported. Either TX or RX is powered by 24V@1A power supply, and the another does not need power supply from the DC jack. PoC power consumption is less than 10W
 - ※ For more details see the **Description 1**
- ☆ Transmit bidirectional IR control signal together with the HDMI signal
 - ※ For more details see the **Description 2**
- ☆ Transmit bidirectional RS-232 control signal together with the HDMI signal
 - ※ For more details see the **Description 3**

3. Package Contents

Qty	Item
1	HDMI 4K 18Gbps HDBaseT Transmitter
1	3pin-3.81mm Phoenix Connector
1	User Manual

or/
and

Qty	Item
1	HDMI 4K 18Gbps HDBaseT Receiver
1	3pin-3.81mm Phoenix Connector
1	User Manual

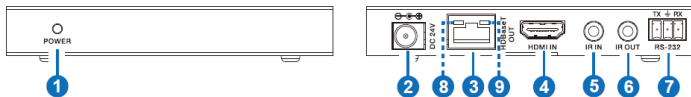
4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 and HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	Up to 4K2K@50/60Hz (YUV 4:4:4), 4K2K@30Hz, 1080P@120Hz and 3D1080P@60Hz
Color Depth	10bit, 12bit
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2
HDMI Audio Formats (Pass-through)	LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
Transmission Distance	230ft/70m--4K, 328ft/100m--1080P
ESD Protection	Human-body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Transmitter	Input: 1 × HDMI IN [Type A, 19-pin female] Output: 1 × HDBaseT OUT [RJ45] Control: 1 × IR IN [3.5mm Stereo Mini-jack] 1 × IR OUT [3.5mm Stereo Mini-jack] 1 × RS-232 [3pin-3.81mm Phoenix Connector]
Receiver	Input: 1 × HDBaseT IN [RJ45] Output: 1 × HDMI OUT [Type A, 19-pin female] Control: 1 × IR IN [3.5mm Stereo Mini-jack] 1 × IR OUT [3.5mm Stereo Mini-jack] 1 × RS-232 [3pin-3.81mm Phoenix Connector]

Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter/Receiver: 115mm (W) × 65mm (D) × 17mm (H)
Weight	Transmitter/Receiver: 405g
Power Supply	Input: AC 100~240V 50/60Hz, Output: DC 24V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	24W (Max)
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)

5. Operation Controls and Functions

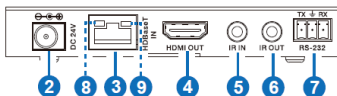
5.1 Transmitter Panel



No.	Name	Function Description
1	Power LED	When the device is powered on, the red power LED is on.
2	DC 24V	Connect 24V/1A adapter to AC wall outlet for power supply.
3	HDBaseT OUT	HDBaseT signal output port. Connect HDBaseT Receiver with CAT6 cable following the standard of direct interconnection method.
4	HDMI IN	Connect to HDMI source device such as Blu-ray or PS4 player.
5	IR IN	Connect with IR receiver cable.
6	IR OUT	Connect with IR blaster cable.
7	RS-232	Connect to a PC or control system to transmit RS-232 commands.

No.	Name	Function Description
8	Connection Signal Indicator	On: The Transmitter and Receiver are in good connection status. Flashing: The Transmitter and Receiver are in poor connection status. Off: The Transmitter and Receiver are not connected.
9	Data Signal Indicator	On: The HDMI signal with HDCP. Flashing: The HDMI signal without HDCP. Off: No HDMI signal.

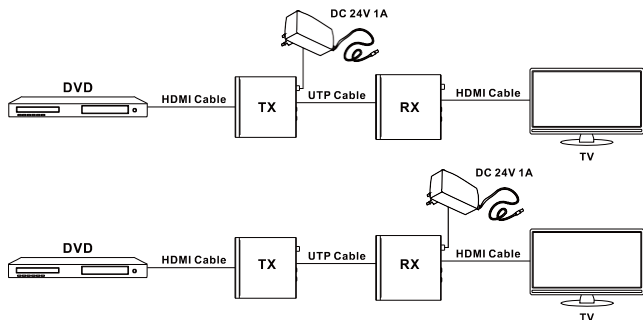
5.2 Receiver Panel



No.	Name	Function Description
1	Power LED	When the device is powered on, the red power LED is on.
2	DC 24V	Connect 24V/1A adapter to AC wall outlet for power supply.
3	HDBaseT IN	HDBaseT signal input port. Connect HDBaseT Transmitter with CAT6 cable following the standard of direct interconnection method.
4	HDMI OUT	Connect to HDMI display device such as HDTV or monitor.
5	IR IN	Connect with IR receiver cable.
6	IR OUT	Connect with IR blaster cable.
7	RS-232	Connect to a PC or control system to transmit RS-232 commands.
8	Connection Signal Indicator	On: The Transmitter and Receiver are in good connection status. Flashing: The Transmitter and Receiver are in poor connection status. Off: The Transmitter and Receiver are not connected.
9	Data Signal Indicator	On: The HDMI signal with HDCP. Flashing: The HDMI signal without HDCP. Off: No HDMI signal.

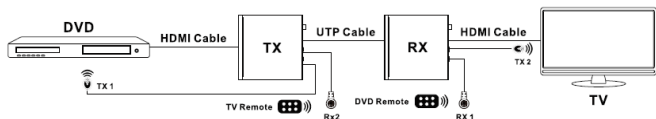
※ Description 1

PoC (Power over Cable) Application Example



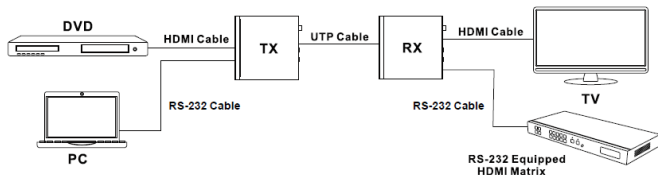
※ Description 2

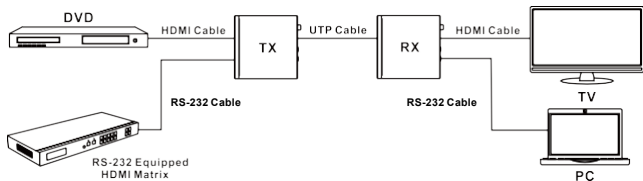
Bidirectional IR control Application Example



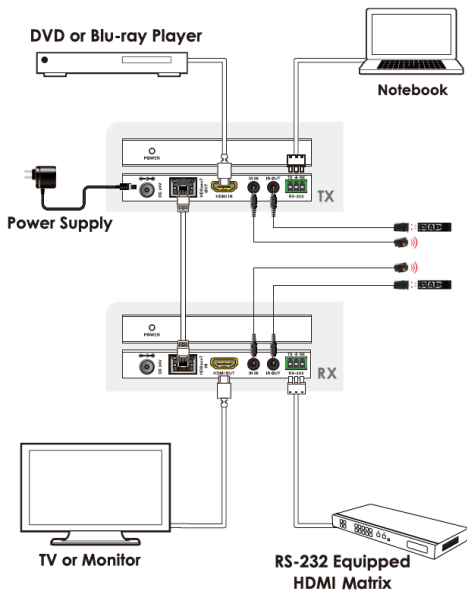
※ Description 3

Bidirectional RS-232 Control Application Example





6. Application Example



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HIGH-DEFINITION MULTIMEDIA INTERFACE

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