



4K HDBaseT™ HDMI KVM Extender Set, 150 m



Manual
DS-55526

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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 , lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment

1. Introduction

The HDBaseT™ HDMI KVM Extender Set enables uncompressed, high-resolution AV signal transmission over large distances using a CAT6 (or higher) network cable. The maximum transmission distance is 150 m. Thanks to PoC, only one unit needs to be supplied with power by an external power adapter. The receiver unit features two USB 2.0 ports for connection of webcam, data carrier, mouse and keyboard, for example. The set also supports touch displays. Thanks to the touch panel back control, the signal source can also be controlled using finger gestures. Bi-directional IR transmission is also included as a feature.

2. Main Features

1. Supports HDBaseT™ 1.0 via CAT6/7/8 cable up to 150 m
2. Transmission distance - Full HD (1080p/60Hz): 150 m (max.)
3. Transmission distance - UHD (4K/60Hz): 120 m (max.)
4. Supports 4K2K/60Hz (4:4:4)
5. Video bandwidth: 18 Gbps
6. 2x USB 2.0 ports on receiver for connection of webcam, data carrier, touch panel, mouse and keyboard, for example.
7. Touch display support / Touch panel back control
8. PoC (Power over Cable) - Only the unit requires an external power adapter
9. EDID support (2 modes) - 1: Copy - HDMI output receiver / 2: Standard - 1080p, 2 channel
10. HDBaseT Mode: USB supports USB 2.0 transmission (support connecting with USB camera, USB flash drive and other devices); the audio & video signal transmission distance can be extended up to 328ft / 100m for 4K60
11. Bi-directional IR signal transmission
12. Long Reach Mode: USB only supports HID (Human Interface Device) device; the audio & video signal transmission distance can be extended up to 492ft / 150m for 1080P or 394ft / 120m for 4K60

3. Package Contents

- 1x Transmitter unit
- 1x Receiver unit
- 1x IR transmission cable (1.5 m)
- 1x IR receiver cable (1.5 m)
- 1x Power adapter (DC 24V/1A, 1.5 m)
- 1x USB connecting cable (1.5 m)
- 1x Mounting accessories
- 1x User manual



4. Product Specification

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18 Gbps
Video Resolution	Up to 4K2K@60Hz YUV 4:4:4
USB Compliance	USB 2.0
IR Level	5Vp-p
IR Frequency	Wideband 20K-60KHz
Transmission Distance	1080P@60--150m, 4K60 -- 120m
Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8-bit, 10-bit, 12-bit (1080P) 8-bit (4K60) 8-bit, 10-bit, 12-bit (4K24/30)
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
Audio Format	LPCM 7.1CH, Dolby True HD and DTS-HD Master
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Transmitter	Input: <ul style="list-style-type: none"> • 1 × HDMI IN [Type A, 19-pin female] • 1 × IR IN [3.5mm Stereo Mini-jack] • 1 × SERVICE [Micro-USB jack]

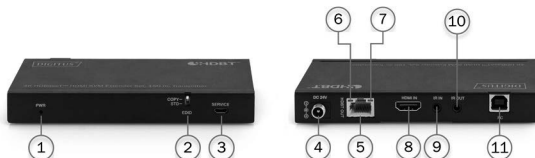
	<ul style="list-style-type: none"> • 1 × USB [USB-B, 4-pin female] <p>Output:</p> <ul style="list-style-type: none"> • 1 × HDBT OUT [RJ45] • 1 × IR OUT [3.5mm Stereo Mini-jack]
Receiver	<p>Input:</p> <ul style="list-style-type: none"> • 1×HDBT IN [RJ45 with light] • 1×IR IN [3.5mm Stereo Mini-jack] • 1×SERVICE [Micro-USB jack] <p>Output:</p> <ul style="list-style-type: none"> • 1×HDMI OUT [Type A, 19-pin female] • 1×IR OUT [3.5mm Stereo Mini-jack] • 2×USB 2.0 [USB-A, 4-pin female]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 140mm (W) × 65mm (D) × 18mm (H)
Weight	Transmitter: 245g, Receiver: 249g
Power Supply	DC 24V / 1A; Support bi-directional POC function
Power Consumption	13.2W (Max.)
Operating 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

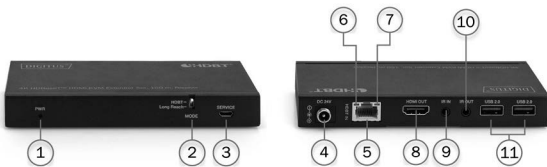
5.1 Transmitter Unit



No	Name	Description
1	PWR LED	The red LED is on when the Transmitter is powered on
2	EDID DIP switch	Used for audio EDID setting (dial to COPY by default). COPY: Copy the EDID of the HDMI OUT port of Receiver. STD: Default 1080P 2CH
3	SERVICE	Firmware update port
4	DC 24 V	DC 24V/1A power input port. Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 24V/1A power supply, the other doesn't need power supply
5	HDBT OUT	HDBT output port, connecting to the HDBT IN port of the Receiver with CAT6 cable.
6	Link Signal Indicator (Green)	<ul style="list-style-type: none"> • Illuminating: Transmitter and Receiver are in good connection status

		<ul style="list-style-type: none"> • Flashing: Transmitter and Receiver are in poor connection status • Dark: Transmitter and Receiver are not connected
7	Data Signal Indicator (Yellow)	<ul style="list-style-type: none"> • Illuminating: HDMI signal with HDCP • Flashing: HDMI signal without HDCP • Dark: No HDMI signal
8	HDMI IN	HDMI signal input port, connecting to HDMI source device such as DVD play or Set Top Box
9	IR IN	Connect to IR receiver cable, the IR receive signal will emit to the IR OUT port of the Receiver
10	IR OUT	Connect to IR blaster cable, the IR emit signal is from the IR IN port of the Receiver
11	PC	USB-B port, connecting to PC

5.2 Receiver Unit



No	Name	Description
1	Power LED	The power LED is on when the Receiver is powered on

2	MODE DIP switch	Used for Mode switching (dial to HDBT by default) HDBT: Switching to the HDBaseT Mode Long Reach: Switching to the Long Reach Mode
3	SERVICE	Firmware update port
4	DC 24 V	DC 24 / 1 A power input port <i>Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 24/ 1A power supply, the other doesn't need power supply</i>
5	HDBT IN	HDBT input port, connecting to the HDBT OUT port of the Transmitter with CAT6 cable
6	Link Signal Indicator (Green)	<ul style="list-style-type: none"> • Illuminating: Transmitter and Receiver are in good connection status • Flashing: Transmitter and Receiver are in poor connection status • Dark: Transmitter and Receiver are not connected
7	Data Signal Indicator (Yellow)	<ul style="list-style-type: none"> • Illuminate: HDMI signal with HDCP • Flash: HDMI signal without HDCP • Dark: No HDMI signal
8	HDMI OUT	HDMI signal output port, connecting to HDMI display device such as TV or monitor
9	IR IN	Connect to the IR receiver cable. The IR signal will send to the IR OUT port of the Transmitter

10	IR OUT	Connect to the IR blaster cable, the IR signal is from IR IN port of the Transmitter
11	USB 2.0 ports	Two USB-A ports, connecting to USB 2.0 devices. (The maximum output current of a single USB 2.0 port is 500mA, exceeding which it will not work)

5.3 IR Pin Definition

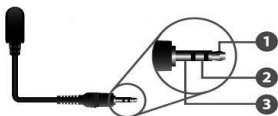
IR Receiver and Blaster pins definition as below:



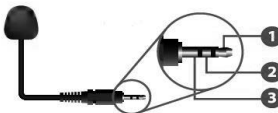
IR Receiver



IR Blaster



- 1.) IR Signal
- 2.) Power
- 3.) Grounding



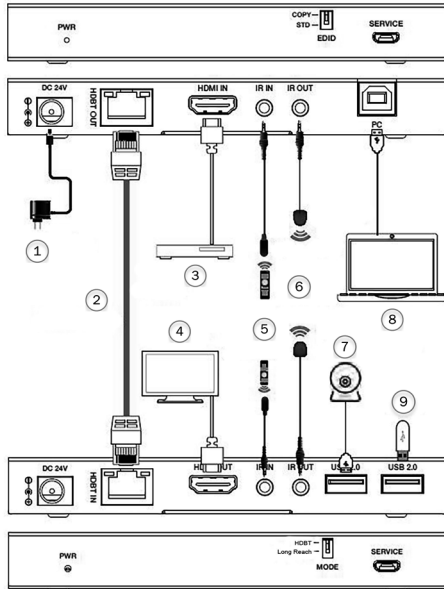
- 1.) IR Blaster Signal
- 2.) Power
- 3.) NC

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.

6. Application Example

Transmitter



Receiver

1.)	Power Supply
2.)	CAT6 Cable
3.)	DVD or Blu-ray Player
4.)	UHDTV
5.)	IR Receiver

6.)	IR Blaster
7.)	USB Camera
8.)	PC
9.)	USB

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