



4K HDBaseT™ HDMI Extender Set, 150 m



Manual
DS-55508

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1. Introduction

The HDBaseT™ HDMI Extender Set enables uncompressed, high-resolution signal transmission over large distances using a simple copper data cable. The maximum transmission distance is 150 m (Full HD). 4K signals can be extended to up to 120 m. Thanks to PoC, only one unit needs to be supplied with power by an external power adapter. RS232 and bi-directional IR transmission are also included as features. Thanks to an HDMI loop-out to the transmitter unit, a local monitor can be connected to control the output to the receiver.

2. Main Features

- Supports HDBaseT™ 1.0 via CAT6A/7/8 cable up to 100 m
- Supports 4K2K/60Hz (4:4:4)
- Maximum transmission distance (UHD 4K2K): 120 m
- Maximum transmission distance (Full HD 1080p): 150 m
- Video bandwidth: 18 Gbps
- HDMI loop-out to the transmitter unit
- PoC (Power over Cable) – Only the unit requires an external power adapter
- HDCP 2.2 / 1.4
- HDR, HDR10+, Dolby Vision, HLG
- R232 signal transmission

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)
- 2x 3-pin Phoenix connector
- 4x Mounting plate
- 1x User manual

4. Specification

Technical	
ESD Protection	Human body model ±8kV (Air-gap discharge) ±4kV (Contact discharge)

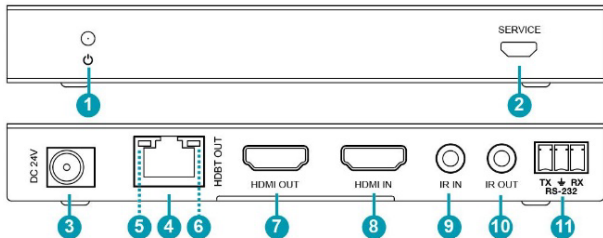
Connections	
Transmitter	<ul style="list-style-type: none"> • 1x HDMI input (4K/60Hz) – Connection signal source • 1x RJ45 (HDBaseT™) output – Connection CAT transmission cable • 1x HDMI loop-out / output – Connection of local monitor (source device) • 1x IR input to receive remote control signals • 1x IR output for control of the source device • 1x RS232 (3-pin Phoenix) for RS232 command transmission • 1x Power adapter input (DC 24V/1A), screw connector – Connection for external power adapter • 1x Micro USB input – Service/remote maintenance update
Receiver	<ul style="list-style-type: none"> • 1x HDMI output (4K/60Hz) – Connection output device • 1x RJ45 input (HDBaseT™) – Connection CAT transmission cable • 1x RS232 (3-pin Phoenix) for RS232 command transmission • 1x 3.5 mm stereo audio output • 1x IR input to receive remote control signals • 1x IR output for control of the output display • 1x Power adapter input (DC 24V/1A), screw connector – Connection for external power adapter • 1x Micro USB input – Service/remote maintenance update

Mechanical	
Housing	Metal
Color	Black
Dimensions (1 unit)	L 14 x W 6.5 x H 1.8 cm
Weight	Transmitter: 160g, Receiver: 155g
Power Consumption	approx. 9.36 W
Operating Temperature	0 - 40°C

Resolution / Cable Length	4K60 - Feet / Meters	4K30 - Feet / Meters	1080P60 - Feet / Meters
HDMI IN / OUT	16ft / 5M	32ft / 10M	50ft / 15M
The use of "Premium High-Speed HDMI" cable is highly recommended.			

5. Operating Controls and Functions

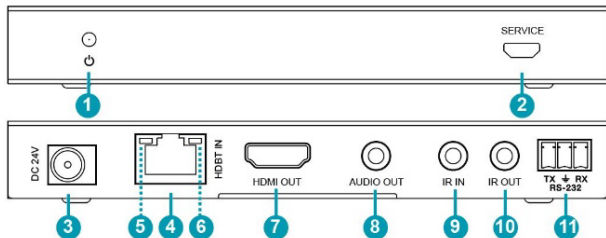
5.1 Transmitter Panel



No.	Name	Function description
1	Power LED	Red LED indicates that the transmitter is powered on
2	SERVICE port	Firmware update port
3	DC 24V	DC 24V/1A power supply input port. <i>Note that the extender supports PoC function, it means that either transmitter or receiver is powered on by 24V/1A power adapter, the other one doesn't need power supply</i>
4	HDBT OUT	RJ45 connector for connecting the HDBT IN port of receiver with a CAT 5e/6 cable
5	Connection Signal Indicator lamp	<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
6	Data Signal Indicator lamp	<ul style="list-style-type: none"> • Illuminating: HDMI signal with HDCP • Flashing: HDMI signal without HDCP • Dark: No HDMI signal
7	HDMI OUT	HDMI loop output for display
8	HDMI IN	HDMI source input
9	IR IN	IR input port for receiving the signal of IR remote
10	IR OUT	IR output port for control of source device. This IR output signal is from the IR IN port of receiver
11	RS-232	3-pin Phoenix connector for RS-232 command transmission.

		The RS-232 command will be pass-through from transmitter to receiver or from receiver to transmitter
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5.2 Receiver Panel

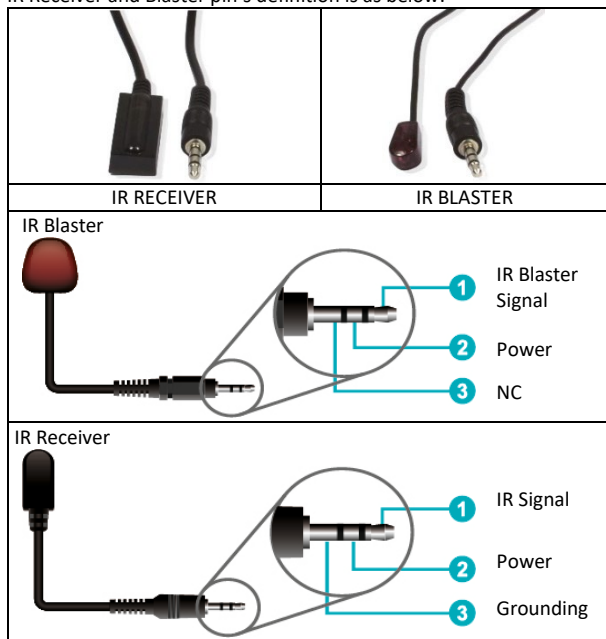


No.	Name	Function description
1	Power LED	Red LED indicates that the receiver is powered on
2	SERVICE port	Firmware update port
3	DC 24V	DC 24V/1A power supply input port. <i>Note that the extender supports PoC function, it means that either transmitter or receiver is powered on by 24V/1A power adapter, the other one doesn't need power supply</i>
4	HDBT IN	RJ45 connector for connecting the HDBT OUT port of transmitter with a CAT 5e/6 cable
5	Connection	<ul style="list-style-type: none"> • Illuminating: Transmitter and Receiver are in good connection status

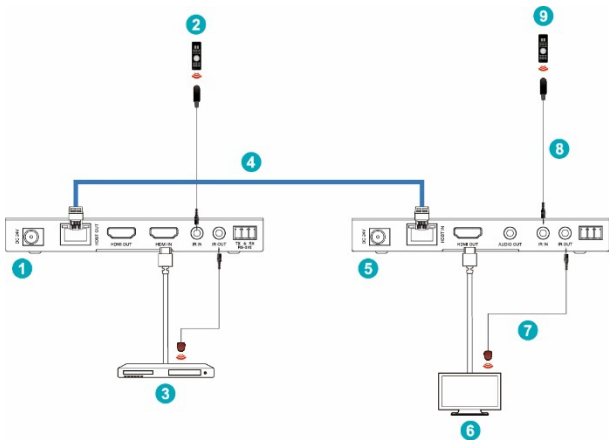
	Signal Indicator lamp	<ul style="list-style-type: none"> • Flashing: Transmitter and Receiver are in poor connection status • Dark: Transmitter and Receiver are not connected
6	Data Signal Indicator	<ul style="list-style-type: none"> • Illuminating: HDMI signal with HDCP • Flashing: HDMI signal without HDCP • Dark: No HDMI signal
7	HDMI OUT	HDMI output for display
8	AUDIO OUT	3.5mm stereo connector for analog audio output
9	IR IN	IR input port for receiving the signal of IR remote
10	IR OUT	IR output port for control of display device. This IR output signal is from the IR IN port of transmitter
11	RS-232	3-pin Phoenix connector for RS-232 command transmission. The RS-232 command will be pass-through from transmitter to receiver or from receiver to transmitter

5.3 IR Pin Definition

IR Receiver and Blaster pin's definition is as below:



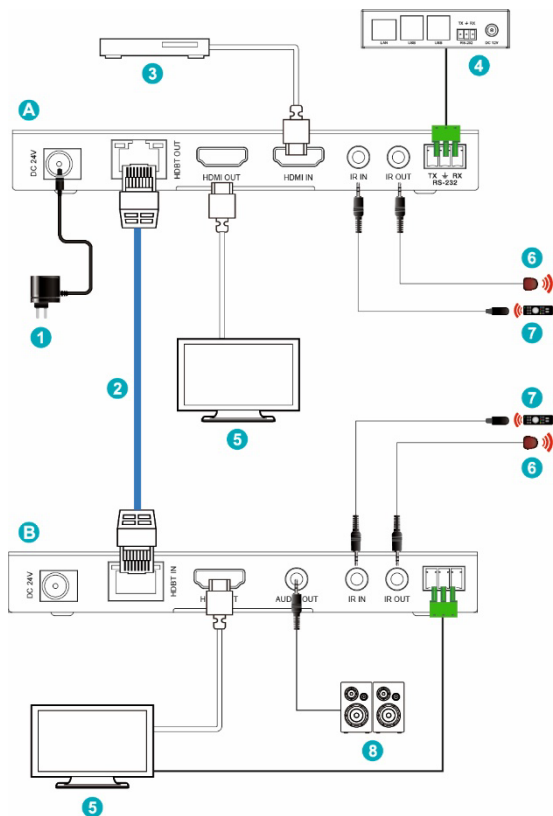
The following is IR system diagram about IR cable use method.



1	Transmitter	6	TV
2	TV remote	7	IR Blaster cable
3	DVD	8	IR Receiver cable
4	CAT 5e/6 cable	9	DVD remote
5	Receiver		

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



A	Transmitter	4	Controller
B	Receiver	5	UHDTV
1	Power Supply	6	IR Blaster
2	CAT 5e/6 cable	7	IR Receiver
3	DVD or Blu-ray Player	8	2.0 Speaker

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