



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 in order to control the output to the receiver.

2. Main Features

- Supports HDBaseT™ 1.0 via CAT5e/6/7/8 cable up to 150 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, 1.45 m)
- 2x 3-pin Phoenix connector
- 4x Mounting plate
- 1x User manual

4. Specification

Technical	
HDCP Compliance	HDCP 2.2 / HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	4K2K 50/60Hz 4:4:4 4K2K 50/60Hz 4:2:2 4K2K 50/60Hz 4:2:0 4K2K 30Hz 4:4:4 1080p, 1080i, 720p, 720i, 480p, 480i All HDMI 3D TV formats All PC resolutions including 1920 x 1200
Color Space	RGB / YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8/10/12-bit (1080P60Hz, 4K30Hz, 4K60Hz, YCbCr 4:2:2/4:2:0) 8-bit (4K60Hz 4:4:4)
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus (DD+), DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X
L/R Audio Formats	PCM 2.0
ESD Protection	Human body model ±8kV (Air-gap discharge) ±4kV (Contact discharge)

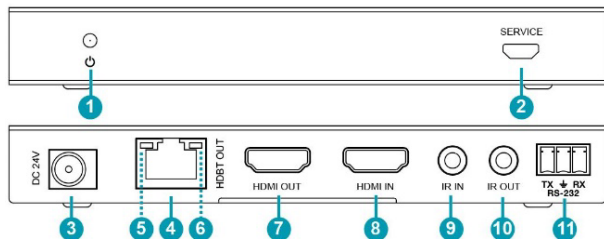
Connections	
Transmitter	Inputs: 1x HDMI Type A [19-pin female] Outputs: 1x HDMI Type A [19-pin female] 1x HDBT OUT [RJ45, 8-pin female] Control: 1x IR IN [3.5mm Stereo Mini-jack] 1x IR OUT [3.5mm Stereo Mini-jack] 1x RS-232 [Phoenix jack] 1x SERVICE [Mini-USB, Update port]
Receiver	Inputs: 1x HDBT IN [RJ45, 8-pin female] Outputs: 1x HDMI Type A [19-pin female] 1x AUDIO OUT [3.5mm Stereo Mini-jack] Control: 1x IR IN [3.5mm Stereo Mini-jack] 1x IR OUT [3.5mm Stereo Mini-jack] 1x RS-232 [Phoenix jack] 1x SERVICE [Mini-USB, Update port]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	67mm (W) × 91.5mm (D) × 17.5mm (H)
Weight	Transmitter: 160g, Receiver: 155g
Power Supply	Input: AC 100 - 240V 50/60Hz Output: DC 24V/1A (Locking connector)
Power Consumption	9.36 W
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20~90% RH (non-condensing)

Resolution / Distance	
4K2K	394ft / 120M
1080P	492ft / 150M

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

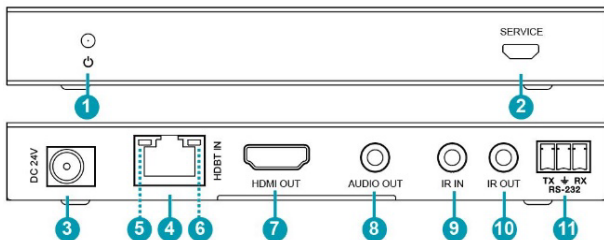
5.1 Transmitter Panel



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	• 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	• 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 pass-through from transmitter to receiver or from receiver to transmitter

5.2 Receiver Panel

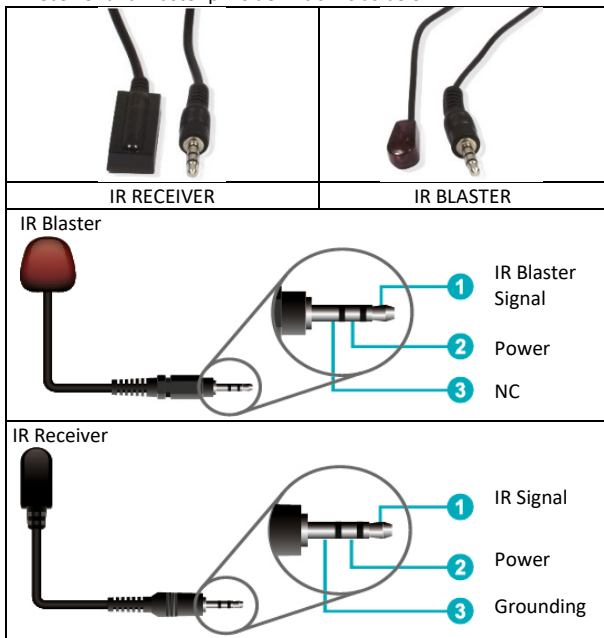


No.	Name	Function description
1	Power LED	Red LED indicates that the receiver is powered on
2	SERVICE port	Firmware update port
3	DC 24V	DC 24V/1A power supply input port. <i>Note that the extender supports PoC function, it means that either transmitter or receiver is powered on by 24V/1A power adapter, 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 Signal Indicator lamp	• 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	• Illuminating: HDMI signal with HDCP • Flashing: HDMI signal without HDCP • Dark: No HDMI signal

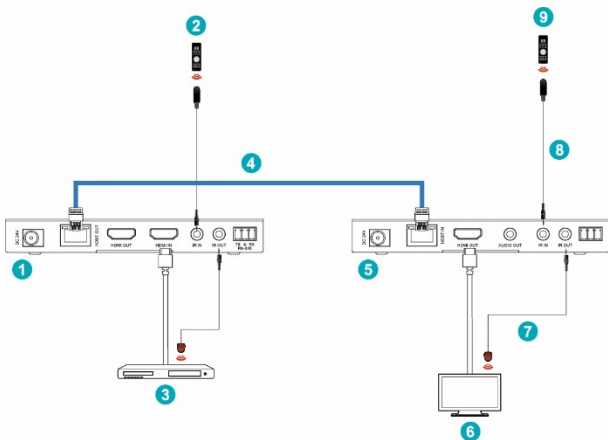
7	HDMI OUT	HDMI output for display
8	AUDIO OUT	3.5mm stereo connector for analog audio output

5.3 IR Pin Definition

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



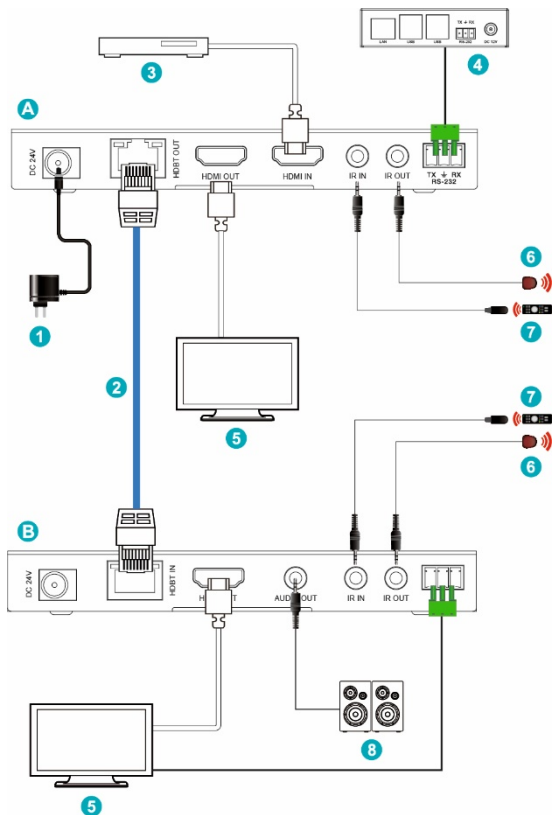
The following is IR system diagram about IR cable use method.



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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Assmann Electronic GmbH
Auf dem Schüffel 3
58513 Lüdenscheid
Germany

