



# **4K HDBaseT™ HDMI KVM Extender Set, 70 m**



**Quick Installation Guide**  
**DS-55512**

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## 1. Introduction

The HDBaseT™ HDMI KVM Extender Set enables signal transmission over large distances using a simple copper data cable. The maximum transmission distance is 70 m (Full HD). 4K signals can be extended to up to 40 m. Thanks to PoC, only one unit needs to be supplied with power by an external power adapter. Bi-directional IR transmission and KVM functionality (USB 1.1) for connection to mouse and keyboard are also included as features.

## 2. Main Features

- Extends the maximum length for HDMI cables to up to 70 m (Full HD, 1080p/60Hz) or 40 m (UHD, 4K/30Hz) via a simple network cable
- KVM functionality (USB 1.1) for connection to mouse and keyboard
- PoC (Power over Cable) - Only the unit requires an external power adapter
- Supports Cat5e, CAT 6, CAT 6A, CAT 7, CAT 8 network cable
- Video bandwidth: 10.2 Gbps
- Supports HDBaseT™ 1.0
- HDCP 2.2, 1.4
- IR transmission (bi-directional)
- Compact design for easy and flexible installation
- Sturdy metal housing

## 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 12V/1A, 1.45 m)
- 1x USB-B-A cable (1.5 m)
- 4x Mounting plate
- 1x User manual

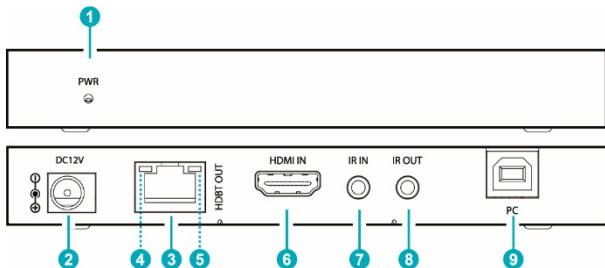
## 4. Specification

Technical	
HDMI Compliance	HDMI 1.4b
HDCP	HDCP 2.2/1.4
USB Version	USB 1.1
Video Bandwidth	340MHz/10.2Gbps
Video Resolution	480i ~1080p50/60Hz, 4Kx2K@24/30Hz
Color Depth	8/10/12-bit (1080P@60Hz) 8-bit (4K2K@30Hz)
Color Space	RGB, YCbCr 4:4:4/4:2:2. YUV 4:2:0
Audio Format	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Transmission Distance	Max. distance (1080P@60Hz): 230ft / 70m over CAT 5e/6 Max. distance (4K2K@30Hz): 131ft / 40m over CAT 5e/6
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

<b>Connection</b>	
Transmitter	Inputs: 1× HDMI IN [TypeA, 19-pin female] 1× USB [USB-B, female] Output: 1× HDBaseT OUT [RJ45] Controls: 1× IR IN [3.5mm Stereo Mini-jack] 1× IR OUT [3.5mm Stereo Mini-jack]
Receiver	Input: 1× HDBaseT IN [RJ45] Outputs: 1× HDMI OUT [TypeA, 19-pin female] 2× USB [USB-A, female] Controls: 1× IR IN [3.5mm Stereo Mini-jack] 1× IR OUT [3.5mm Stereo Mini-jack]
<b>Mechanical</b>	
Housing	Plastic Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 140mm (W) × 65mm (D) × 18mm (H)
Weight	Transmitter: 224g; Receiver: 227g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 12V/1A (US/EU standards, CE/FCC/UL certificated)
Power Consumption	6.6W (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

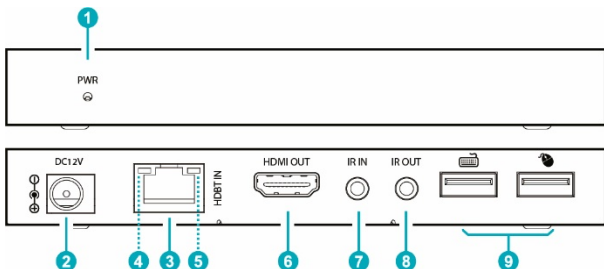
### 5.1. Transmitter Panel



No.	Name	Function Description
1	Power LED	The red LED is on when the Transmitter is powered on.
2	DC 12V	DC 12V/1A power input port. <i>Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 12V/1A power supply, the other doesn't need power supply.</i>
3	HDBT OUT	RJ45 connector for connecting the HDBT IN port of the Receiver with CAT 5e/6 cable.
4	Connection Signal Indicator (Green)	<ul style="list-style-type: none"><li>• Illuminating: Transmitter and Receiver are in good connection status.</li><li>• Flashing: Transmitter and Receiver are in poor connection status.</li><li>• Dark: Transmitter and Receiver are not connected</li></ul>

5	Data Signal Indicator (Yellow)	<ul style="list-style-type: none"> <li>• Illuminating: HDMI signal with HDCP.</li> <li>• Flashing: HDMI signal without HDCP.</li> <li>• Dark: No HDMI signal</li> </ul>
6	HDMI IN	HDMI signal input port. Connect to HDMI source device such as DVD or PC
7	IR IN	Connect to IR receiver cable for receiving the signal from the IR remote
8	IR OUT	Connect to IR blaster cable to control the source device. This IR output signal is from IR IN port of Receiver.
9	PC	USB type B port, connect to PC.

## 5.2. Receiver Panel

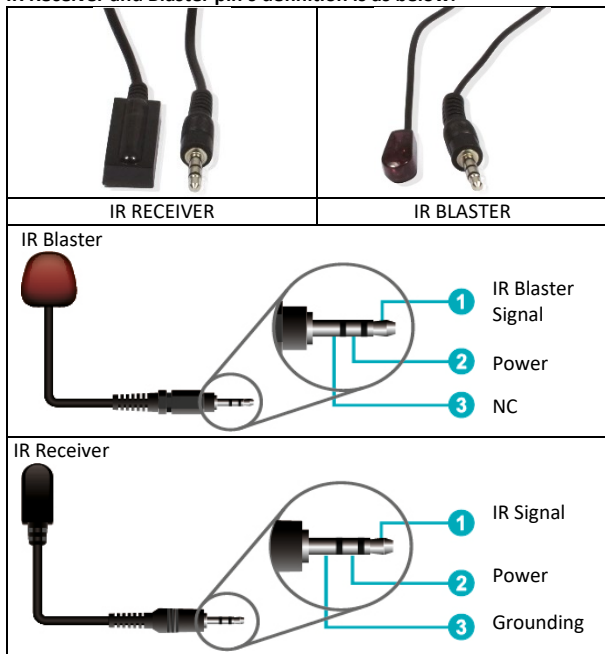


No.	Name	Function Description
1	Power LED	The red LED is on when the Transmitter is powered on.
2	DC 12V	DC 12V/1A power input port. <i>Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 12V/1A power supply, the other doesn't need power supply.</i>
3	HDBT IN	RJ45 connector for connecting the HDBT OUT port of Transmitter with CAT 5e/6 cable.
4	Connection Signal Indicator (Green)	<ul style="list-style-type: none"> <li>• Illuminating: Transmitter and Receiver are in good connection status.</li> <li>• Flashing: Transmitter and Receiver are in poor connection status.</li> <li>• Dark: Transmitter and Receiver are not connected</li> </ul>
5	Data Signal Indicator (Yellow)	<ul style="list-style-type: none"> <li>• Illuminating: HDMI signal with HDCP.</li> <li>• Flashing: HDMI signal without HDCP.</li> <li>• Dark: No HDMI signal</li> </ul>
6	HDMI OUT	HDMI signal output port. Connect to an HDMI display device with HDMI cable.
7	IR IN	Connect to IR receiver cable for receiving the signal from the IR remote.
8	IR OUT	Connect to IR blaster cable to control the source device. This IR output signal is from IR IN port of Receiver.
9	USB	USB type A ports, connect to keyboard or mouse for KVM function



### 5.3. IR Pin Definition

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



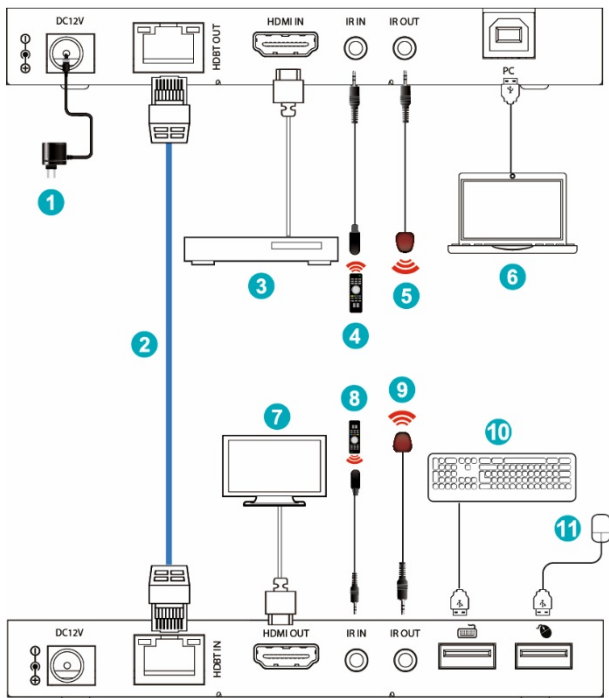
**Note:**

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 Adapter	7	UHDTV
2	CAT 5e/6 cable	8	IR Receiver
3	DVD or Blu-ray Player	9	IR Blaster
4	IR Receiver	10	Keyboard
5	IR Blaster	11	Mouse
6	PC		

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