HDMI 2.0 Over HDBaseT Extender

4KEX70-H2





User Manual

AV Access

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Introduction

Overview

This product is a slim HDBT transmitter receiver set. It supports resolutions up to 4K@60Hz 4:4:4 8bit and HDCP 2.2 compatibility, transmitting HDMI signals up to 40m/131ft at 4K and up to 70m/230ft at 1080P via a Cat 6a/7 cable. It also provides bi-directional PoE, enabling only one power adapter connected to either transmitter or receiver to power both units. Bi-directional IR pass-through allows you to control the source at the display side or control the display at the source side. It also features RS232 pass-through for serial communication.

The transmitter and receiver are easy to install. They are space saving and offering ideal solutions for homes, offices, digital entertainment centers, control centers, conference rooms, schools and corporate training environments.

Features

- Supports HDMI 2.0 with 4K@60Hz 4:4:4 8bit and HDCP 2.2.
- Supports HDR (High Dynamic Range) format.
- Via a Cat 6a/7 cable, transmitting 1080P signal up to 70m/230ft and 4K signal up to 40m/131ft.
- Via a Cat 5e/6 cable, transmitting 1080P signal up to 60m/197ft and 4K signal up to 35m/115ft.
- Bi-directional PoE, one power adapter is needed to be connected to either transmitter or receiver side to power both units.
- Bi-directional IR/RS232 pass through.
- Slim profile, space saving and easy-to-install.

Package Contents

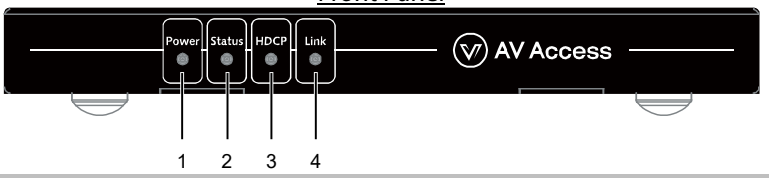
Before you start the installation of the product, please check the package contents:

- Transmitter x 1
- Receiver x1
- Power Adapter (DC 18V 1A) x 1
- IR Emitter x1
- Broadband IR Receiver (30-50 KHz) x 1
- Mounting Bracket (with Screws) x4
- Phoenix Male Connector (3.5mm, 3 Pins) x 2
- User Manual x1

Panel

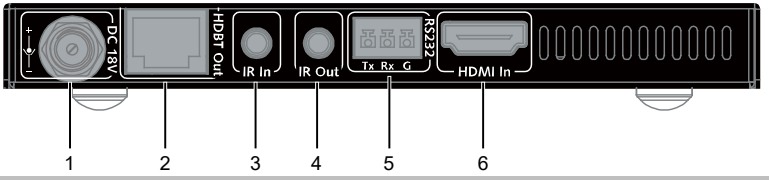
Transmitter

Front Panel



No.	Name	Description
1	Power LED	**On:** The device is powered on. **Off:** The device is powered off.
2	Status LED	**Blinking:** The device is working properly. **Off:** The device is not working properly.
3	HDCP LED	**On:** HDCP protected content is being transmitted. **Blinking:** Non-HDCP protected content is being transmitted. **Off:** No HDMI signal is being transmitted.
4	Link LED	**On:** HDBT link is normal. **Blinking/Off:** No link or link error.

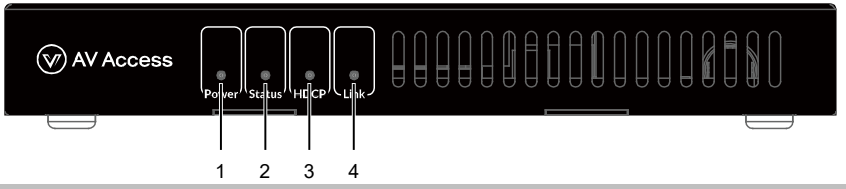
Rear Panel



No.	Name	Description
1	DC 18V	Connect to the DC 18V power adapter provided. **Note:** With bi-directional PoE function supported, one power adapter is needed to be connected to the transmitter or receiver to power both units.
2	HDBT Out	Connect to the receiver via a Cat 5e/6/6a/7 cable.
3	IR In	Connect to the provided IR receiver.
4	IR Out	Connect to the provided IR emitter.
5	RS232	Connect to a RS232 enabled device for RS232 pass-through.
6	HDMI In	Connect to an HDMI source device.

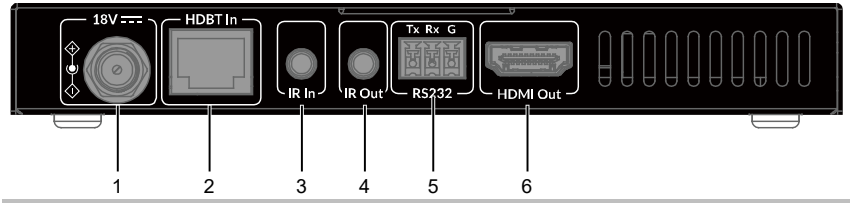
Receiver

Front Panel



No.	Name	Description
1	Power LED	**ON:** The device is powered on. **OFF:** The device is powered off.
2	Status LED	**Blinking:** The device is working properly. **OFF:** The device is not working properly.
3	HDCP LED	**ON:** HDCP protected content is being transmitted. **Blinking:** Non-HDCP protected content is being transmitted. **OFF:** No content is being transmitted.
4	Link LED	**ON**: HDBT link is normal. **OFF:** No HDBT link or link error.

Rear Panel



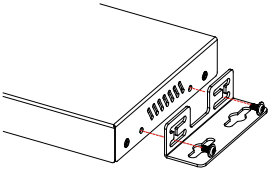
No.	Name	Description
1	DC 18V	Connect to a DC 18V 1A power adapter. **Note:** With bi-directional PoE function supported, one power adapter is needed to be connected to the transmitter or receiver to power both units.
2	HDBT In	Connect to the transmitter via a Cat5e/6/6a/7 cable.
3	IR In	Connect to the provided IR receiver.
4	IR Out	Connect to the provided IR emitter.
5	RS232	Connect to a RS232 enabled device for RS232 pass-through.
6	HDMI Out	Connect to an HDMI display.

Installation and Application

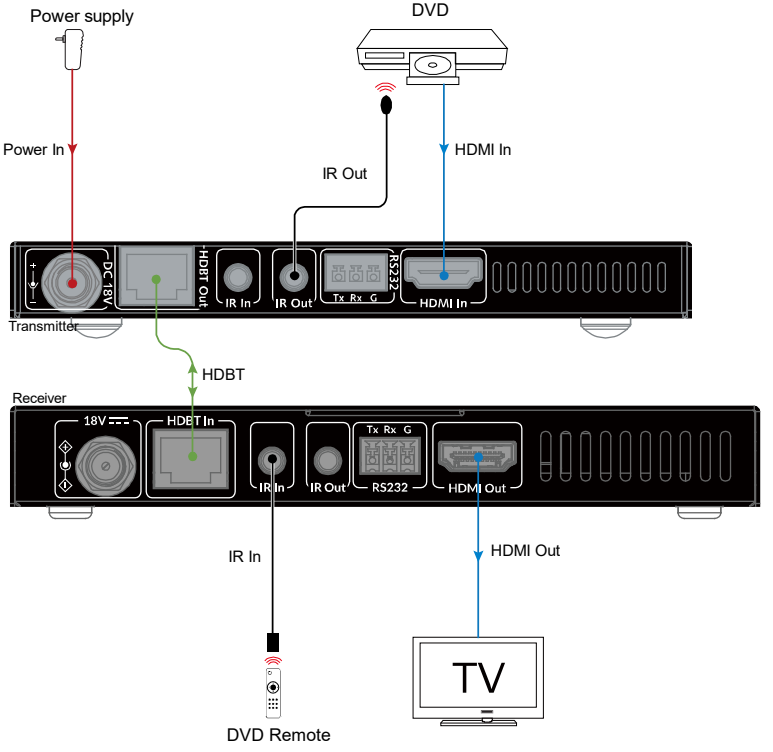
Brackets Installation

Note: Before installation, please ensure the device is disconnected from the power source.

1. Position and install the mounting brackets with the four mounting screws provided.
2. Mount and secure the transmitter/receiver to a surface or a suitable location with the mounting screws (not included in the package).



Application

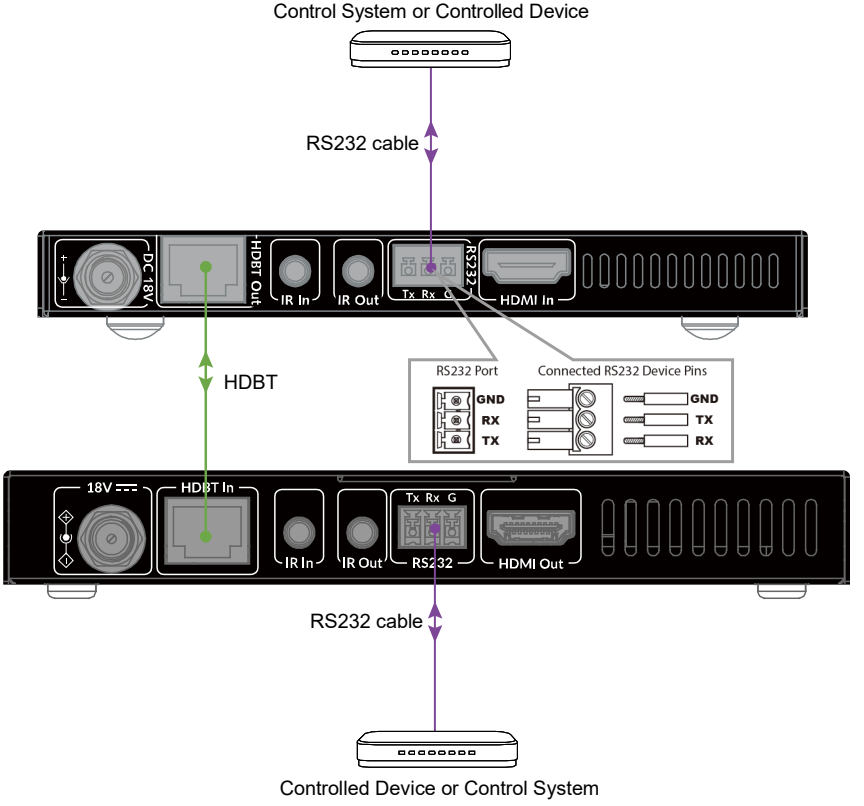


Note:

- Ensure the Cat x cable's length is within the maximum transmission distance (Detail information, please refer to "Specification" section).
- With bi-directional PoE function supported, one power adapter is needed to be connected to the transmitter or receiver to power both units.

Operate with RS232

According to the bi-direction RS232 pass through function, users can use RS232 control system and RS232 controlled device for serial communication by connecting to the devices via serial cables.



Specification

Technical	
Video Signal Type	HDMI 2.0 with 4K@60Hz 4:4:4 8bit, HDCP 2.2
Input/Output Resolution Supported	SMPTE: 1280x720P[1,2,3,4,5,6,7,8],1920x1080I[6,8], 1920x1080P[1,2,3,4,5,6,7,8], 3840x2160[2,3,5,6,8], 4096x2160[2,3,5,6,8] VESA: 800x600[8], 1024x768[8], 1280x768[8], 1280x800[8], 1280x960[8], 1280x1024[8], 1360x768[8], 1366x768[8], 1400x1050[8], 1440x900[8], 1600x900[8], 1600x1200[8], 1680x1050[8], 1920x1200[8] 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz
Audio Format Supported	Stereo, PCM 2.0/5.1/7.1, Dolby True HD and DTS HD Master Audio
Maximum Data Rate	18Gbps

General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	±8kV (Air-gap discharge)/ ±4kV (Contact discharge)
Surge Protection	Voltage: ±1 kV
Power Consumption (Max)	12.8W (Pair)
Device Dimension (W x H x D)	Transmitter: 136.4 mm ×15.2 mm × 74.2 mm/5.37'' x 0.60'' x 2.92'' Receiver: 150mm x 20mm x 74.2mm/5.90” x 0.79” x 2.92”
Product Weight	Transmitter: 0.24kg/0.53lb Receiver: 0.36kg/0.79lb

Transmission Distance

Note: We recommend the use of T568B straight-through category cables.

Cable Type	Range	Supported Video
Cat 5e/6	60m/197ft	1080P@60Hz 36bpp
	35m/115ft	1080P@60Hz 48bpp 1080P@60Hz 3D 4K@60 Hz 4:4:4 with HDR
Cat 6a/7	70m/230ft	1080P@60Hz 36bpp
	40m/131ft	1080P@60Hz 48bpp 1080P@60Hz 3D 4K@60Hz 4:4:4 with HDR
HDMI	Input/Output: 15m/49ft	1080P@60Hz
	Input/Output:10m/33ft	4K@30Hz
	Input: 3m/10ft Output: 5m/16ft	4K@60Hz

Warranty

Products are backed by a limited 1-year parts and labor warranty. For the following cases AV Access Technology Limited shall charge for the service(s) claimed for the product if the product is still remediable and the warranty card becomes unenforceable or inapplicable.

1. The original serial number (specified by AV Access Technology Limited) labeled on the product has been removed, erased, replaced, defaced or is illegible.
2. The warranty has expired.
3. The defects are caused by the fact that the product is repaired, dismantled or altered by anyone that is not from an AV Access Technology Limited authorized service partner. The defects are caused by the fact that the product is used or handled improperly, roughly or not as instructed in the applicable User Guide.
4. The defects are caused by any force majeure including but not limited to accidents, fire, earthquake, lightning, tsunami and war.
5. The service, configuration and gifts promised by salesman only but not covered by normal contract.
6. AV Access Technology Limited preserves the right for interpretation of these cases above and to make changes to them at any time without notice.

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