4K HDBT HDMI KVM Extender with USB 2.0

4KEX100-KVM



User Manual

AV Access

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Introduction

Overview

4KEX100-KVM is a 4K HDBaseT 2.0 extender set, which offers extension of uncompressed 4K@60Hz UHD video, analog Stereo, power, RS232 and USB 2.0 up to 100m/330ft over a single Cat 6 or above cable.

With USB 2.0 pass-through and USB Host connector in TX, and USB Device connectors in RX, it provides remote source PC control with keyboard and mouse, interactive display operation, data transmission and USB streaming over distances up to 100m. Additional features include bi-directional 3.5mm stereo pass through and one-way PoH.

Features

- Via Cat 6/6a/7 cables, 4Kx2K@60Hz output up to 100m/330ft, 1080P@60Hz up to 100m/330ft.
- Via Cat 5e cable, 4Kx2K@60Hz output up to 90m/300ft, 1080P@60Hz up to 100m/330ft.
- HDMI 1.4 with 4K@60Hz (chroma sub-sampling 4:2:0 8-bit only) and HDBT 2.0 compliance.
- One-way POH, TX (PSE) with PSU to power both TX and RX (PD).
- USB 2.0 pass through, USB-Host connector built in TX and 4 x USB-Device connector built in RX.
- High-speed USB 2.0, up to 480Mbps, pass through over HDBaseT up to 100m/330ft.
- Bi-directional analog stereo and RS232 pass-through over HDBaseT.
- Independent DIP switch for EDID management.

Package Contents

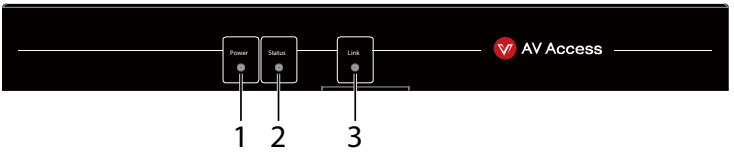
Before you start the installation of the product, please check the package contents:

- Transmitter 4KEX100-KVM x 1
- Receiver 4KEX100-KVM x 1
- DC12V 2A Power Adapter x 1
- Phoenix Male Connector (3.5 mm, 3 Pins) x 2
- USB 2.0 Type-B to Type-A Cable (L=1.5m) x 1
- Mounting Brackets (with Screws) x 4
- User Manual x 1

Panel

Front Panel

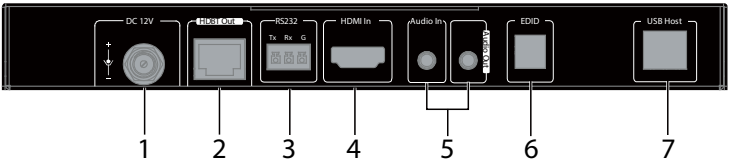
Transmitter/Receiver



No.	Name	Description
1	Power LED	• On: The device is powered on. • Off: The device is powered off.
2	Status LED	• Blinking slowly: The device is working properly. • Off: The device is not working properly.
3	Link LED	• On: HDBT Link is normal. • Off: No HDBT Link.

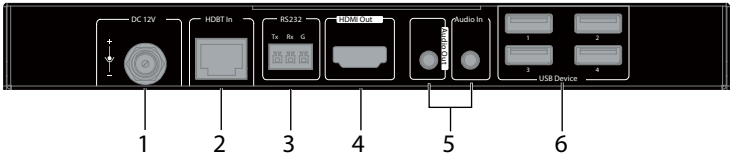
Rear Panel

Transmitter



No.	Name	Description
1	DC 12V	12V DC power input, threaded port for standard or locking connection.
2	HDBT OUT	Connect to HDBT IN port of receiver.
3	RS232	RS232 pass through.
4	HDMI IN	Connect to an HDMI source.
5	AUDIO	• Audio In: Connect to an audio source. • Audio Out: Connect to an audio receiver.
6	EDID	DIP Switch for EDID Management.
7	USB HOST	Connect to USB-HOST device, such as PC.

Receiver



No.	Name	Description
1	DC 12V	12V DC power input, threaded port for standard or locking connection.
2	HDBT IN	Connect to HDBT OUT port of transmitter.
3	RS232	RS232 pass through.
4	HDMI OUT	Connect to an HDMI display.
5	AUDIO	• Audio In: Connect to an audio source. • Audio Out: Connect to an audio receiver.
6	USB DEVICE	Connect to USB devices (e.g. keyboard, mouse, USB camera).

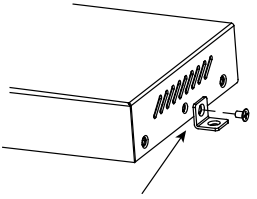
Installation and Application

Bracket Installation

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

Steps to install the device in a suitable location:

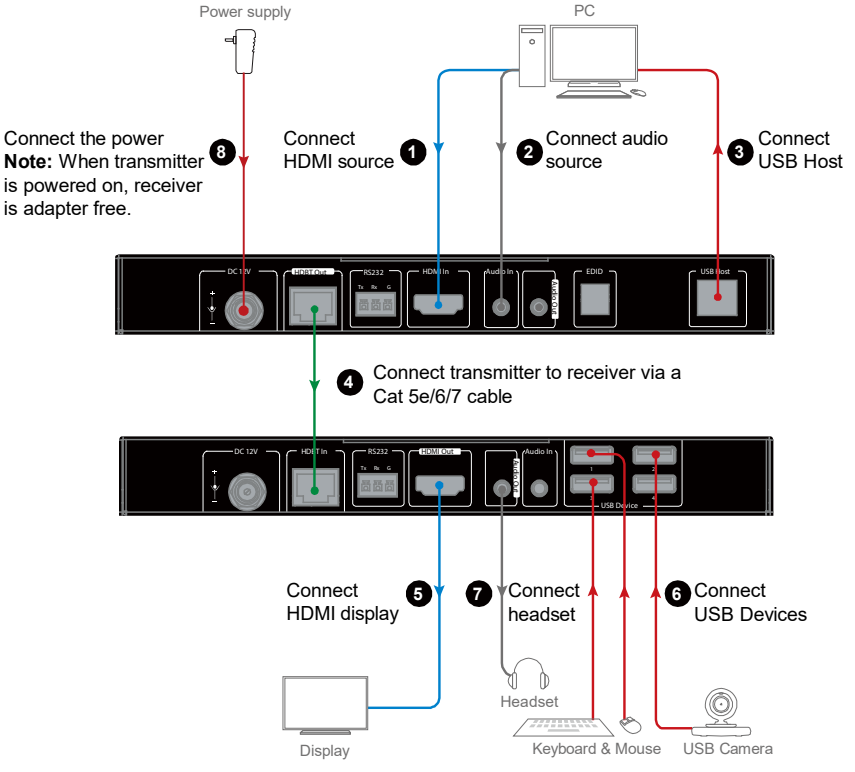
1. Attach the bracket to the enclosure using the screws provided. The bracket is attached to the enclosure as shown.
2. Repeat step 1 for the other side of the device.
3. Mount the device on a flat and solid surface with screws (screws are not included in the package).



Application

Note:

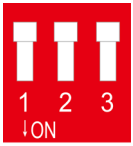
- Disconnect all power supplies of all devices before installation.
- During the installation, connect or disconnect the cables gently.



EDID Management

Please use the DIP Switch for EDID management:

DIP Switch	Position 1	Position 2	Position 3
EDID Copy (Default)	DOWN	DOWN	Reserved
3840 x 2160P@30Hz 2CH	DOWN	UP	
1920 x 1080P@60Hz 2CH	UP	DOWN	
1920 x 1200@60Hz 2CH	UP	UP	



Note: If EDID copy fails, the device will use 1080p/2ch as input EDID.

Specification

Transmitter

Video	
Input Signal Type	HDMI 1.4 with 4K
Output Signal Type	HDBT 2.0
Input/Output Resolution Support	4096x2160@24/25/30/50/60Hz, 3840x2160@24/25/30/50/60Hz, 1920x1080/120Hz, 1080P, 1080I, 720P, 576p, 576i, 480p
Maximum Pixel Clock	297MHz

Audio	
Audio Input/Output	3.5mm Mini jack, stereo

Control	
Control method	1x RS232, 1x USB-Host

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	Human-body Model: ±8kV (Air-gap discharge)/±4kV (Contact discharge)
Power Supply	DC 12V 2A
Power Consumption (Max)	≤12 W (pair)
Dimensions (W x H x D)	210mm x 25mm x 90.2mm / 8.27'' x 0.98'' x 3.55''
Product Weight	0.44kg/0.97lb

Receiver

Video	
Input Signal Type	HDBT 2.0
Output Signal Type	HDMI 1.4 with 4K

Video	
Input/Output Resolutions Support	4096x2160@24/25/30/50/60Hz, 3840x2160@24/25/30/50/60Hz, 1920x1080/120Hz, 1080P, 1080I, 720P, 576p, 576i, 480p
Maximum Pixel Clock	297MHz

Audio	
Audio Input/Output	3.5mm Mini jack, stereo

Control	
Control method	1x RS232, 4 x USB Device

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	Human-body Model: ±8kV (Air-gap discharge)/±4kV (Contact discharge)
Power Supply	DC 12V 2A
Power Consumption (Max)	≤12 W (pair)
Dimensions (W x H x D)	210mm x 25mm x 90.2mm / 8.27'' x 0.98'' x 3.55''
Product Weight	0.46kg/1.01lbs

Transmission Distance

Note: AV Access recommends use of straight-through Category cables wired to T568B standard.

Cable Type	Range	Supported Video
Cat 5e	100m/330ft	1080p@60Hz
	90m/300ft	1080p@60Hz, 1080p@60Hz 3D, 4K@30Hz 4:4:4 8bit, 4K@60Hz 4:2:0 8bit
Cat 6/6a/7	100m/330ft	
HDMI	Input/Output: 15m/50ft	1080P@60Hz
	Input: 10m/33ft Output: 15m/50ft	4K@30Hz 4:4:4 8bit, 4K@60Hz 4:2:0 8bit

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.

Thank you for choosing products from AV Access.

If you have any question, please contact us via the following emails:
General Enquiry: info@avaccess.com
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