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AV Access 4KEX100-DP-KVM 4K HDBT DP KVM Extender User Manual

4K HDBT DP KVM Extender with USB 2.0
4KEX100-DP-KVM

User Manual

Contents

Introduction Overview

This product is a 100m 4K DisplayPort over HDBT extender with USB 2.0 and audio pass-through. It offers the distribution of uncompressed 4K@30Hz UHD video, audio, power, RS232 and USB 2.0 together up to 100m/330ft over a single Cat X cable.

With USB 2.0 pass-through, it allows users to control or monitor a remote server from a harsh environment, or operate a physically inaccessible PC, server or workstation remotely. Bi-directional audio pass-through allows for audio distribution in both directions. With 48V PoE integrated inside, a single power adapter connected to the transmitter powers both units. Its 12V power adapter is secured with a screw-on connector to prevent the power being accidentally disconnected. LED indicators for power supply to units and signal status show established connection between connected devices.

Features

- Slim appearance and space saving.
- One-way PoE, transmitter supplies the power for receiver.
- Via Cat 6a/7 cable, 4Kx2K@30Hz or 1080P@60Hz output up to 100m.
- Via Cat 5e/6 cable, 4Kx2K@30Hz output up to 90m, 1080P@60Hz up to 100m.
- DP 1.2 supported, up to 4k@30Hz and HDCP 1.4 compliance.
- Supports Bi-directional stereo audio, RS232 and EDID pass through over HDBaseT.
- USB 2.0 pass through over HDBaseT, with USB-HOST built in transmitter and USB-DEVICE built in receiver.
- All connectors in one side for easy installation.
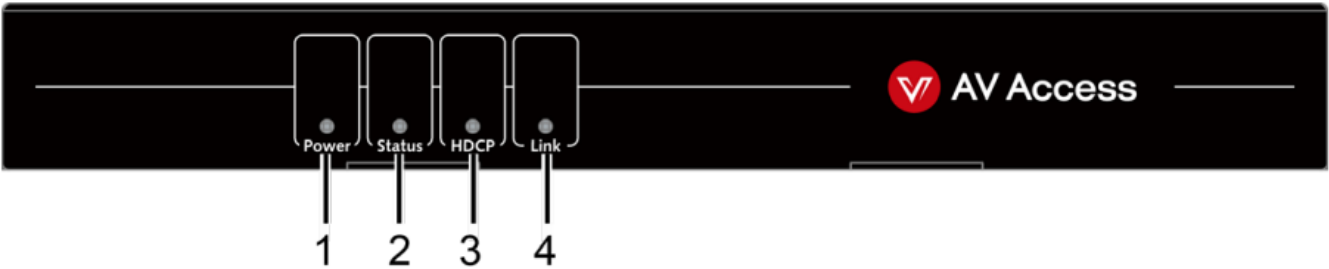
Package Contents

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

- Transmitter x 1
- Receiver x 1
- Power Adapter (DC 12V 2A) x 1
- Phoenix Male Connector (3.5mm 3 Pin) x 2
- USB 2.0 Type-B to Type-A Cable (L=1.5m) x 1
- Mounting Bracket (with Mounting Screws) x 4
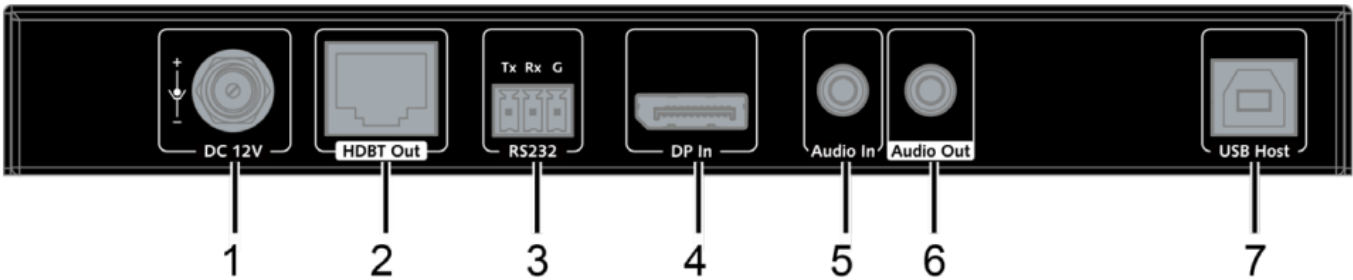- User Manual x 1

Panel

Front Panel

Transmitter/Receiver

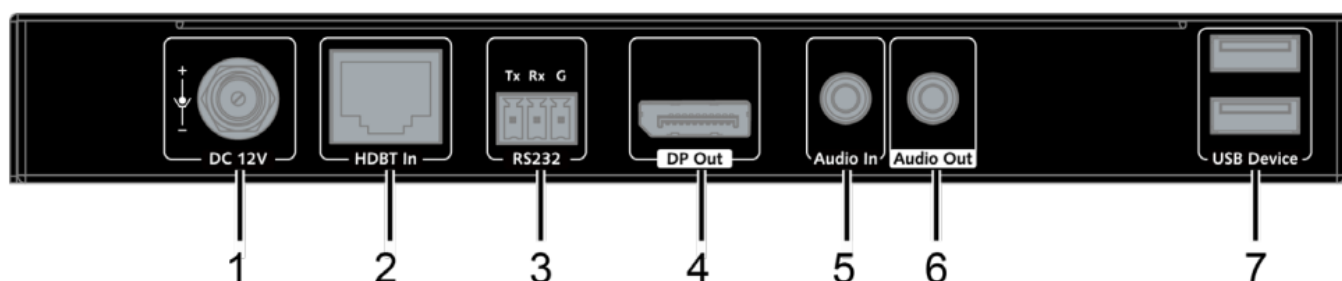| No.	Name	Description
1	Power LED	On: The device is powered on. Off: The device is powered off.
2	Status LED	Blinking: The device is working properly. Off: The device is not working properly.
3	HDCP LED	On: HDCP protected content is being transmitted. Blinking: Non-HDCP protected content is being transmitted.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

Rear Panel

Transmitter

No.	Name	Description
1	DC 12V	Connect to the DC 12V power adapter provided. Note: Only one power adapter is needed at transmitter side.
2	HDBT Out	Connect to the receiver via a Cat X cable.
3	RS232	RS232 pass-through.
4	DP In	Connect to a DisplayPort source.
5	Audio In	Connect to an audio source device such as PC.
6	Audio Out	Connect to an audio device such as earphone, amplifier.
7	USB Host	Connect to device to be controlled such as server, computer etc.

Receiver

No.	Name	Description
1	DC 12V	Connect to the DC 12V power adapter provided. **Note:** Only one power adapter is needed at transmitter side.
2	HDBT In	Connect to the transmitter via a Cat X cable.
3	RS232	RS232 pass-through.
4	DP Out	Connect to a DisplayPort display.
5	Audio In	Connect to an audio source such as PC.
6	Audio Out	Connect to an audio device such as earphone, amplifier.
7	USB Device	Connect to USB devices such as mouse, keyboard, USB disk etc.

Installation and Application

Brackets Installation
Note: Before installation, please ensure the device is disconnected from the power source.
In order to keep elegant appearance, we design to share screws with the product chassis, please refer to the below steps to install.

1. Remove the screws on the side panel of the transmitter/receiver (See Figure 1).
2. Position and install the mounting bracket using the screws provided (see Figure 2).
3. Mounting to a surface or any right place by using the mounting screws to affix the units.
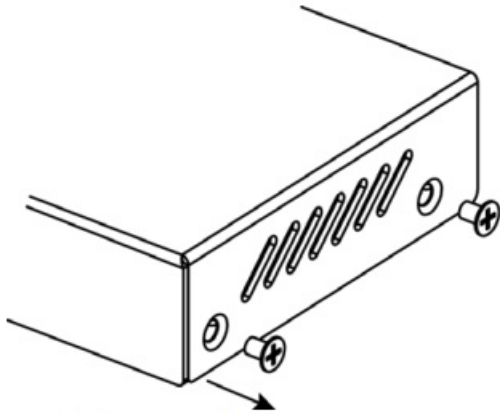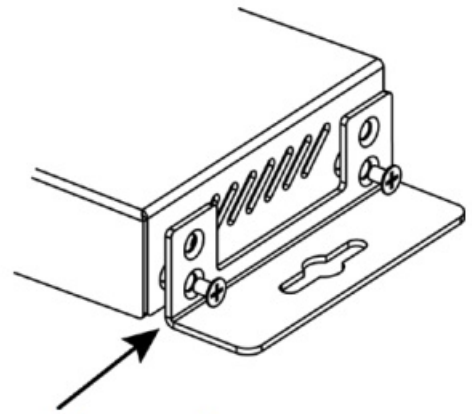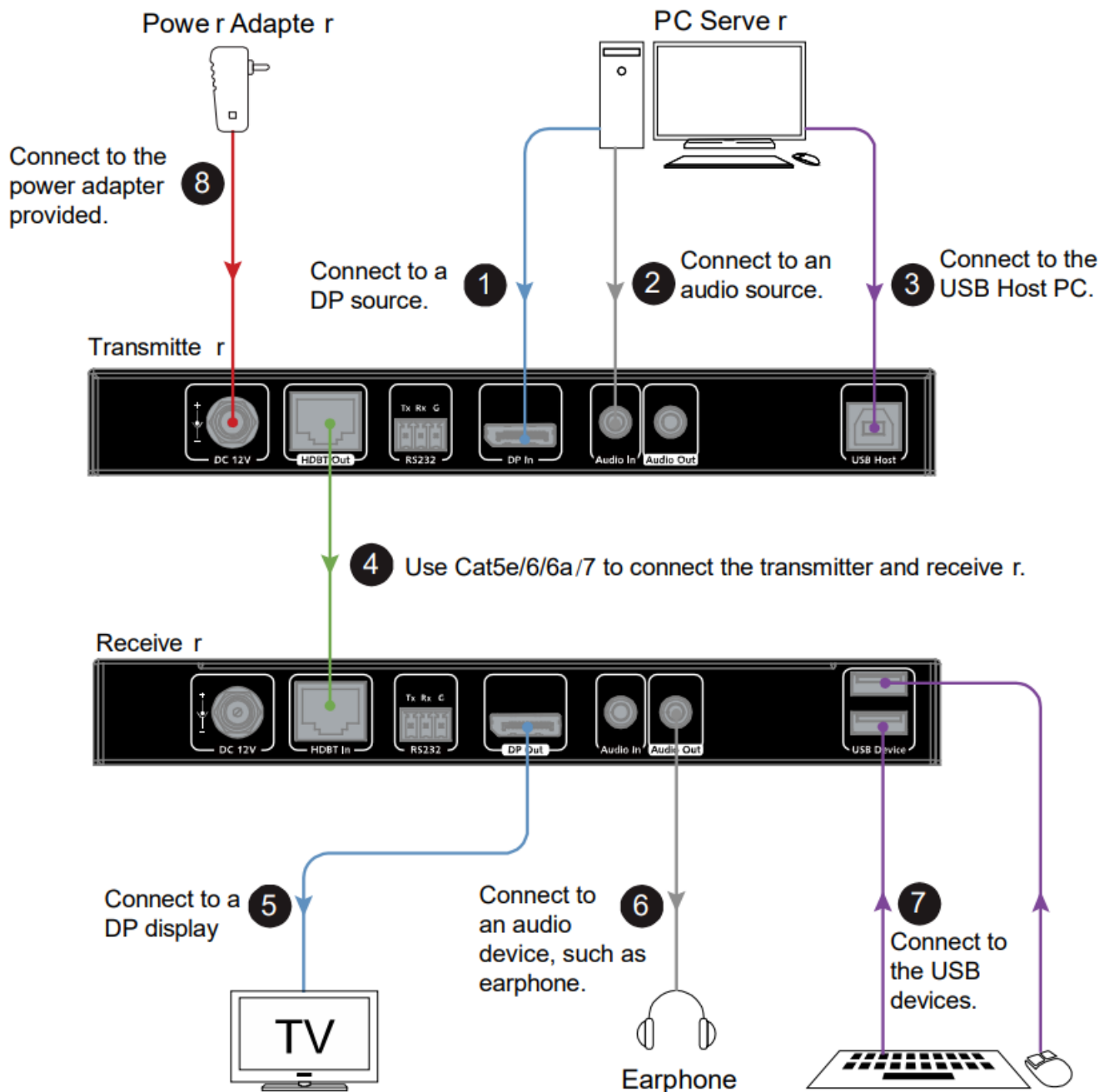

Figure 1

Figure 2

Application

Note:

- With one-way PoE, one power adapter is needed to be connected to the transmitter to power both units.
- Make sure the connected Cat x cable is no less than the maximum transmission distance (refer to "Specification" section).

Specification

Technical	
Video Signal Type	DP1.2 with HDCP1.4
Audio Format	L/R channel PCM 2.0
Input/Output Resolution Support	640×4808, 800×6008, 1024×7688, 1280×7208, 1280×7688, 1280×8008, 1280×9608, 1280×10248, 1360×7688, 1366×7688, 1440×9008, 1600×9008, 1600×12008, 1680×10508, 1920×12008, 1920×12008, 2560×14408, 2560×16008, 3840x2160P5, 1920×10809 5 = at 30 Hz, 8 = at 60 Hz, 9 = 120Hz

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 (Maximum)	≤14.2W (Pair)
DP Cable length	5m (Max)
Device Dimensions (W x H x D)	200 mm × 25 mm ×100 mm 7.91" x 0.99" x 3.95"
Product Weight	Transmitter: 0.5kg/1.10lb Receiver: 0.5kg/1.10lb

Transmission Distance
Note: AV Access recommends the use of T568B straight-through Category cables.

Cable Type	Range	Supported Video
CAT5e/CAT6	100m/328ft	1080p@60Hz 36bpp
	90m/295ft	1080p@60Hz 48bpp 1080p@60Hz 3D 3840 x 2160@30Hz 4:4:4
CAT6a/CAT7	100m/328ft	1080p@60Hz 48bit 1080p@60Hz 3D 3840 x 2160@30Hz 4:4:4

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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General Enquiry: **info@avaccess.com**
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4KEX100-DP-KVM 4K HDBT DP KVM Extender, 4KEX100-DP-KVM, 4K HDBT DP KVM Extender, HDBT DP KVM Extender, DP KVM Extender, KVM Extender, Extender

References

- **AV Access | Quality & Budget Assured Pro AV Product Manufacturer**