4K@60Hz USB 2.0 KVM Extender (40m)

4KEX40-KVM



User Manual

AV Access

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Introduction

Overview

This product is a slim and cost-effective HDMI 2.0 extender kit with HDCP 2.3 compliance. It supports resolutions up to 4K@60Hz 4:4:4 and extends HDMI and USB 2.0 signals up to 131ft (40m) over a Cat 6/6A/7 cable or 115ft (35m) over a Cat 5e cable. The kit also supports bidirectional RS-232 passthrough, bidirectional PoC, and de-embedded analog audio output.

Features

- Supports HDMI 2.0 with resolutions up to 4K@60Hz 4:4:4.
- HDCP 2.3 compliant.
- Transmits signals up to 131ft (40m) over a single Cat 6/6A/7 cable and up to 115ft (35m) over a Cat 5e cable.
- Supports USB 2.0 data transmission up to 480Mbps.
- Supports bidirectional RS-232 passthrough.
- Provides de-embedded analog audio output.
- Supports bidirectional PoC (Power over Cable), enabling a single power adapter at the transmitter or receiver to power both units.

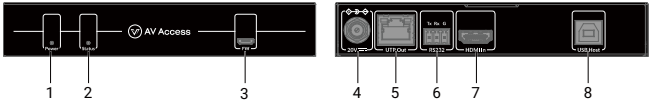
Package Contents

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

- Transmitter and Receiver Kit x 1
- Power Adapter (DC 20V 2A) x 1
- 3.5mm 3-pin Phoenix Male Connectors x 2
- 3.5mm 5-pin Phoenix Male Connector x 1
- USB 2.0 Type-A to Type-B Cable (1.5m) x 1
- Mounting Brackets (with Screws) x 8
- User Manual x 1

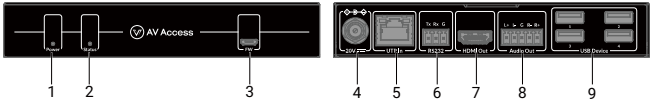
Panel

Transmitter



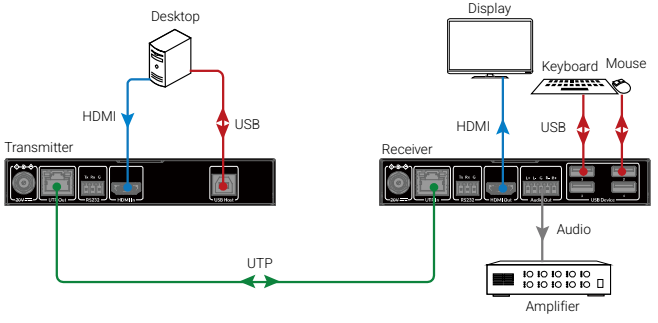
#	Name	Description
1	Power LED	• **On:** The device is powered on. • **Off:** The device is powered off.
2	Status LED	• **On:** Valid video signal is detected. • **Off:** No valid video signal is detected.
3	FW	Micro USB port. Connect to a PC for firmware upgrades.
4	20V	Connect to the included DC 20V 2A adapter. Note: Connecting the power adapter to the transmitter or receiver powers both units.
5	UTP Out	Connect to the UTP In port of the receiver via a Cat 5e or higher cable.
6	RS232	Connect to an RS-232 device for bidirectional RS-232 data passthrough.
7	HDMI In	Connect to an HDMI source device.
8	USB Host	USB 2.0 Type-B port. Connect to a USB host (e.g., PC).

Receiver



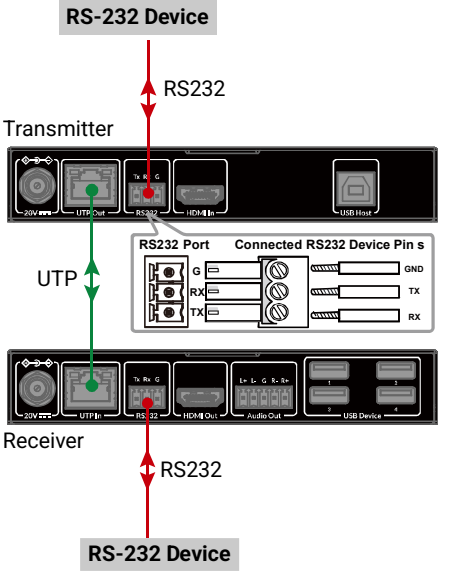
#	Name	Description
1	Power LED	• **On:** The device is powered on. • **Off:** The device is powered off.
2	Status LED	• **On**: Valid video signal is transmitted. • **Off**: No valid video signal is transmitted.
3	FW	Micro USB port. Connect to a PC for firmware upgrades.
4	20V	Connect to the included DC 20V 2A adapter. **Note:** Connecting the power adapter to the transmitter or receiver powers both units.
5	UTP In	Connect to the UTP Out port of the transmitter via a Cat 5e or higher cable.
6	RS232	Connect to an RS-232 device for bidirectional RS-232 data passthrough.
7	HDMI Out	Connect to an HDMI display device.
8	Audio Out	Connect to an audio receiver for de-embedded balanced analog audio output.
9	USB Device	4 x USB 2.0 Type-A ports. Ports 1–2 and ports 3–4 each share a maximum current of 1.5A. Connect to USB peripherals.

Application



RS-232 Operation

The RS232 ports support bidirectional passthrough, allowing RS232 data to transfer between the transmitter and the receiver.



Specifications

Technical	
Input/Output Signal Type	HDMI 2.0, HDCP 2.3
Input/Output Resolutions	**CEA:** 4096 x 2160P[1,2,3,4], 3840 x 2160P[1,2,3,4,5], 1920 x 1080P[1,2,3,4,5,6,7,8,9,10], 1280 x 720P[4,5,6,7] **VESA:** 5120 x 2160[3], 5120 x 1440[5], 3840 x 1080[5,6,7], 2560 x 1440[5], 2048 x 1152[5], 1920 x 1200[5], 1680 x 1050[5], 1600 x 1200[5], 1600 x 900[5], 1440 x 900[5], 1400 x 1050[5], 1366 x 768[5], 1360 x 768[5], 1280 x 1024[5], 1280 x 960[5], 1280 x 800[5], 1280 x 768[5], 1024 x 768[5], 800 x 600[5], 640 x 480[5] 1 = 24Hz, 2 = 25Hz, 3 = 30Hz, 4 = 50Hz, 5 = 60Hz, 6 = 100Hz, 7 = 120Hz, 8 = 144Hz, 9 = 165Hz, 10 = 240Hz
Maximum Data Rate	HDMI: 18Gbps; USB 2.0: 480Mbps
Audio Formats	- **HDMI IN/OUT**: Supports multichannel audio up to PCM 7.1, including PCM 2.0/5.1/7.1ch, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS-HD Master Audio and DTS:X - **Audio Out**: PCM 2ch

General	
Operating Temperature & RH	0–45°C (32–113°F), 10%–90% RH, non-condensing
Storage Temperature & RH	-20–70°C (-4–158°F), 10%–90% RH, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) / ±4kV (Contact discharge)
Power Supply	DC 20V 2A; PoC
Power (Max)	24.4W per pair (via PoC)
Dimensions (W × H × D)	5.71" × 0.98" × 3.55" (145.0mm × 25mm × 90.2mm) per unit
Net Weight	0.77lb (0.35kg) per unit

Transmission Distance

Note: A T568B straight-through Category cable is recommended.

Cable Type	Range	Supported Video
Cat 6/6A/7	131ft (40m)	4K@60Hz 4:4:4
Cat 5e	115ft (35m)	4K@60Hz 4:4:4
HDMI	Input/Output: 33ft (10m)	4K@30Hz, 1080P@60Hz
	Input/Output: 16ft (5m)	4K@60Hz 4:4:4

Troubleshooting

1. **Why is there no power to the device?**
   - Use the power adapter included in the package.
   - Ensure the power adapter is securely connected to both the device and the power outlet.

2. **Why is there no picture, or is the video flickering?**
   - Make sure all devices are powered on and all cables are properly connected and of good quality.
   - Check that cable lengths are within the recommended range (refer to the *Specifications* chapter).
   - Verify that all LED indicators are functioning normally.
   - Connect the source directly to the display to verify that both are functioning properly.
   - Confirm that the input resolution is supported by the device.

Warranty

Products are backed by a limited 1-year parts and labor warranty. For the following cases AV Access 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) 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 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 preserves the right for interpretation of these cases above and to make changes to them at any time without notice.

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Customer/Technical Support: support@avaccess.com



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