



4K HDMI USB CAT Extender with KVM - 70m



G4-0160A

P/N: KVMHD20Ext-LT

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For technical support, email us at **support@gofanco.com**.
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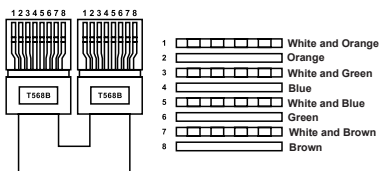
Important Safety Notices

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device.
- Do not expose this unit to rain, heavy moisture, or liquid.
- Do not put any items into the device or attempt to modify its operation.
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty.
- Keep the product in a well-ventilated location to avoid damage from overheating.
- Shut off power and make sure environment is safe before installation.
- Do not plug the HDMI cables and IR cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports.
- Use the included power adapters only. Make sure the specification matches if using 3rd-party DC power adapters.

Important Safety Notices (Continued)

- This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.
- The product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross connect.



Direct Interconnection Method

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1. Introduction

The 4K HDMI USB CAT Extender with KVM - 70m extends HDMI and USB signals up to 70 meters (230ft) over a single CAT6/7 cable.

2. Features

- Extends HDMI and USB signals up to 70m (230ft) over a single CAT6/7 cable
- Supports video resolution up to 4K @60Hz YUV 4:4:4 with 18Gbps video bandwidth
- KVM Extension with 2 USB 1.1 keyboard/mouse
- HDCP 2.2 compliant
- Supports HDR, HDR10, HDR10+, Dolby Vision, HLG
- Audio formats: LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital™, Dolby Digital Plus (DD+)
- Supports 3.5mm analog audio extraction on the receiver's Stereo output
- EDID copy pass-through function between the source device and display
- Supports bi-directional POC (Power over Cable) function
- HDMI loopout on Transmitter (TX) for a local display
- Compact design, surface mountable for easy and flexible installation

3. Package Contents

- 1x Transmitter (TX)
- 1x Receiver (RX)
- 1x USB-A to USB-B Cable (1.5 meters)
- 4x Mounting ears
- 8x Machine screws (KM3*4)
- 1x 12V/1A Locking Power Adapter
- 1x User Manual

4. Product Layout

4.1 Transmitter Layout

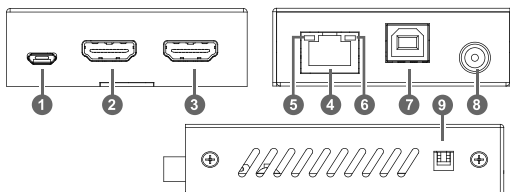


Figure 1: Transmitter Layout

Transmitter Layout (Continued)

No.	Name	Function Description
1	SERVICE	Firmware update port.
2	HDMI OUT	HDMI signal loop output port, connected to HDMI display device with HDMI cable.
3	HDMI IN	HDMI signal input port, connected to HDMI source device with HDMI cable.
4	CAT OUT	RJ45 connector for connecting the CAT IN port of the Receiver with CAT6/6a cable.
5	Link Signal Indicator (Green)	• Light on: Transmitter and Receiver are in good connection status. • Light flashing: Transmitter and Receiver are in poor connection status. • Light off: Transmitter and Receiver are not connected.
6	Data Signal Indicator (Yellow)	• Light on: There is HDMI signal transmission with HDCP encryption. • Light flashing: There is HDMI signal transmission without HDCP encryption. • Light off: There is no HDMI signal transmission.
7	PC	Connect to PC. The computer can be accessed and controlled remotely through the USB port of the receiver (KVM function).
8	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>
9	EDID DIP switch	Use the DIP switch to set EDID. (Switching to the upper end indicates 1; switching to the lower end indicates 0.) 11 - EDID information is copied from the display at the RX. 10 - EDID is preset to 4K@60Hz 2.0CH 01 - EDID is preset to 1080p 2.0CH 00 - EDID information is copied from the HDMI OUT at the TX.

4.2 Receiver Layout

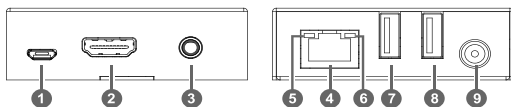


Figure 2: Receiver Layout

No.	Name	Function Description
1	SERVICE	Firmware update port.
2	HDMI OUT	HDMI signal output port, connected to HDMI display device with HDMI cable.
3	L/R OUT	Analog audio output port, used for audio de-embedding output.
4	CAT IN	RJ45 connector for connecting the CAT OUT port of the Transmitter with CAT6/6a cable.
5	Link Signal Indicator (Green)	• Light on: Transmitter and Receiver are in good connection status. • Light flashing: Transmitter and Receiver are in poor connection status. • Light off: Transmitter and Receiver are not connected.
6	Data Signal Indicator (Yellow)	• Light on: There is HDMI signal transmission with HDCP encryption. • Light flashing: There is HDMI signal transmission without HDCP encryption. • Light off: There is no HDMI signal transmission.
7	Keyboard port	Connect to the keyboard.
8	Mouse port	Connect to the mouse.
9	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>

5. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolution	Up to 4K2K@60Hz RGB/YCBCR 4:4:4
Transmission Distance	4K2K@60Hz 4:4:4 - 70m, 1080P - 70m (CAT6 cable)
Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8/10/12bit
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby Digital Plus (DD+)

Specifications (Continued)

Connection	
Transmitter	Input: 1x HDMI In [Type A, 19-pin female] Output: 1x HDMI Out [Type A, 19-pin female] 1x CAT Out [RJ45] Control: 1x Service [Micro-USB jack] 1x USB Port [USB Type B]
Receiver	Input: 1x CAT In [RJ45] Output: 1x HDMI Out [Type A, 19-pin female] 1x L/R Out [3.5mm Stereo Mini jack] Control: 1x Service [Micro-USB jack] 2x USB Ports [USB Type A]

Specifications (Continued)

Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 90mm (W)×68mm (D)×22mm (H)
Weight	Transmitter: 170g, Receiver: 169g
Power Supply	DC 12V/1A; Supports bi-directional POC function
Power Consumption	4.2 W (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)

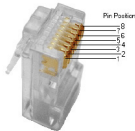
6. Hardware Installation

1. Power off all devices including your PC and HDMI display(s).
2. Connect your PC's HDMI output to the Transmitter's HDMI input connector with an HDMI cable (HDMI cable not included).
3. Connect the Transmitter's USB port to the PC's USB port using the included USB Type-B to Type-A cable.
4. Optional: Connect an HDMI display to the Transmitter's HDMI output connector with an HDMI cable (HDMI cable not included) for local monitoring of the HDMI signal.
5. Plug your CAT cable between the Transmitter's RJ45 output and Receiver's RJ45 input.
6. Connect your HDMI display to the Receiver's HDMI output connector with an HDMI cable (HDMI cable not included).
7. Plug your keyboard and mouse into the USB ports of the receiver (RX) unit.
8. Plug the included power adapter into the Transmitter's or Receiver's power jack, then plug the power adapter into a reliable power source.
9. Power on all connected devices.
10. The extender is ready for use.

7. CAT Cable Wiring

We suggest both RJ-45 connectors be wired identically using T568B wiring standard for the best performance and compatibility.

Both connectors must be wired identically, to T568B standard.



RJ45 Plug Colour Code (T568B)	
Contact Side - Tab is on Back	
8	BROWN
7	WHITE / BROWN
6	GREEN
5	WHITE / BLUE
4	BLUE
3	WHITE / GREEN
2	ORANGE
1	WHITE / ORANGE

Note: You may use CAT5e, CAT6 wiring, however, for best performance CAT6a or CAT7 (particularly in electrically noisy environments) is recommended. The maximum transmission distance and video quality may be compromised by cable quality, patch cables, poor termination, wall plates, cable kinks, and electrical interference. We recommend using 100% copper 23AWG (avoid CCA type) CAT cable, in one straight run (avoid/minimize patches) and avoid close proximity to electrical sources.

8. Application Diagram

The application diagram shows the most typical input and output devices used with the HDMI KVM Extender.

Transmitter

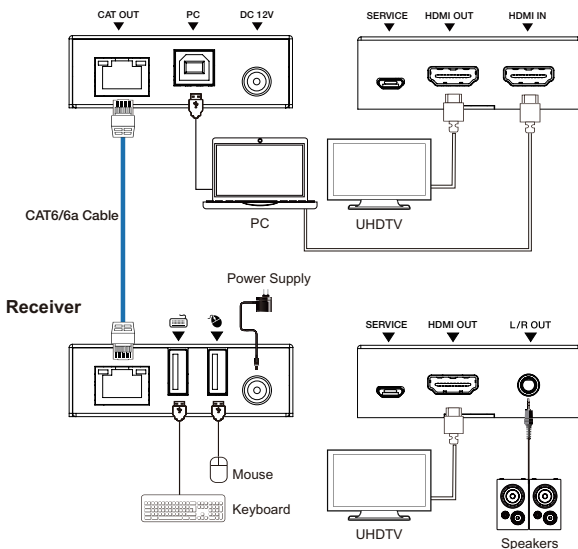


Figure 3: Application Diagram

9. FAQ & Troubleshooting

Q1: Poor video quality or no video signal on display:

A1: Check whether the HDMI cables are connected properly and are in good working condition.

A2: Make sure the display's resolution is compatible with the HDMI KVM Extender's supported resolutions.

Q2: Snowy or fuzzy screen on the displays:

A1: Cause by damaged or low quality HDMI cables. Change to a higher quality HDMI cable. Make sure the cable length is less than or equal to 5 meters.

A2: Try another CAT cable and make sure the cable length is within the specified range.

10. Disclaimer

The product name and brand name may be registered trademarks of related manufacturers. TM and ® may be omitted on the user's guide. The pictures on the user's guide are just for reference, and there may be some slight differences with the actual products. We reserve the right to make changes without prior notice to a product or system described herein to improve reliability, function, or design.



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