

4K60 HDMI over Fiber Extender Kit (10km/6.2mi)

Send Full 18Gbps 4K60 4:4:4 HDMI Miles Beyond HDBaseT, with HDR and Lossless Audio Pass-Through over LC Fiber



Carries 4K60 4:4:4 HDMI, with HDR and lossless multichannel audio, up to 10km (6.2mi) over a single-mode fiber run, far beyond the reach of copper extenders. The kit pairs a compact metal transmitter and receiver, each with a 10G SFP+ fiber port and a USB-C service port, and includes two 5V/1A power supplies. It is the right choice for campuses, venues and control rooms where distance and signal integrity matter more than KVM or control pass-through.

The transmitter takes one HDMI 2.0b source at up to 18Gbps with HDCP 2.2, any VESA resolution, and HDR10, HDR10+, Dolby Vision and HLG pass-through. Audio passes as LPCM 7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X, and the receiver outputs the same signal to one display. Over multi-mode OM4 fiber, through SFP modules, the same kit reaches up to 300m. Its differentiator is a dedicated point-to-point link: two units and a fiber run, with no network switch in the signal path. Fiber cable is not included.

Surge Protection Recommended — This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended.

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1. Features

- ✓ HDCP 2.2 compliant
- ✓ 18Gbps video bandwidth
- ✓ Video resolution up to 4K2K@50/60Hz 4:4:4, as specified in HDMI 2.0b
- ✓ Any VESA resolution supported
- ✓ HDR10, HDR10+, Dolby Vision and HLG pass-through
- ✓ LPCM 7.1CH, Dolby TrueHD and DTS-HD Master Audio support
- ✓ Transmission distance up to 10km over single-mode fiber; multi-mode fiber is supported in SFP modules, up to 300m over OM4
- ✓ Compact design for flexible installation

2. Package Contents

- ✓ 1x 4K60 HDMI over Fiber Extender (Transmitter)
- ✓ 1x 4K60 HDMI over Fiber Extender (Receiver)
- ✓ 2x 5V/1A power supply

3. Specifications

VIDEO	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Input & Output Video Resolution	4096x2160p60, 4096x2160p50, 3840x2160p60, 3840x2160p50, 3840x2160p30, 3840x2160p25, 1920x1200p60RB, 1920x1080p60, 1920x1080p50, 1360x768p60, 1280x800p60, 1280x720p60, 1280x720p50, 1024x768p60; any VESA resolution is supported
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
Color Depth	8-bit, 10-bit, 12-bit
HDR	HDR10, HDR10+, Dolby Vision, HLG
AUDIO	
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby TrueHD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X
CONNECTION	
Transmitter Input	1x IN [HDMI Type A, 19-pin female]; 1x SERVICE [USB-C, update port]
Transmitter Output	1x SFP+ OUT [LC female]
Receiver Input	1x SFP+ IN [LC female]; 1x SERVICE [USB-C, update port]
Receiver Output	1x OUT [HDMI Type A, 19-pin female]
FIBER	
Fiber Optic Module	10G SFP+ module
Transmission Distance	Up to 10km (6.2mi) over single-mode LC fiber cable; up to 300m (984ft) over multi-mode OM4 LC fiber cable
PROTECTION	
ESD Protection	IEC 61000-4-2: ±8kV (air-gap discharge) & ±4kV (contact discharge)
POWER	
Power Supply	Input: AC 100-240V 50/60Hz; Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	Transmitter: 3.05W (max); Receiver: 2.25W (max)
ENVIRONMENTAL	
Operating Temperature	32°F ~ 104°F / 0°C ~ 40°C
Storage Temperature	-4°F ~ 140°F / -20°C ~ 60°C
Operating Humidity	20%~80% RH, non-condensing
Storage Humidity	10%~90% RH, non-condensing



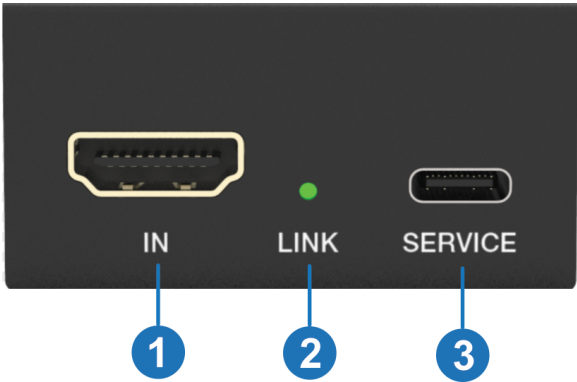
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MECHANICAL		
	Housing	Metal enclosure
	Color	Black
	Dimensions (each unit)	3.19" W × 1.93" D × 0.98" H (81 × 49 × 25mm)
	Weight (each unit)	0.30 lbs (138g)

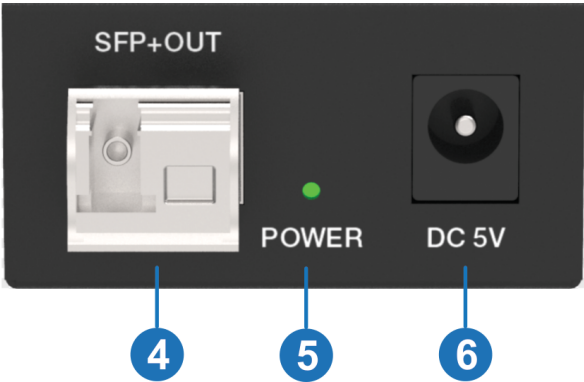
4. Introduction

This kit sends an HDMI signal up to 10 km (6.2 mi) over a single-mode fiber cable, at resolutions up to 4096x2160 at 50/60 Hz with 4:4:4 color. Fiber gives strong anti-interference performance and high safety, in a pair of small, light units, which is its advantage over copper for long-distance runs. The kit ships as a two-box set: one transmitter at the source and one receiver at the display.

5. Panel descriptions

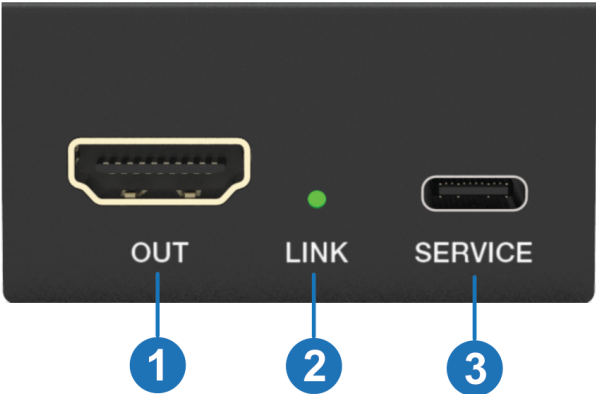


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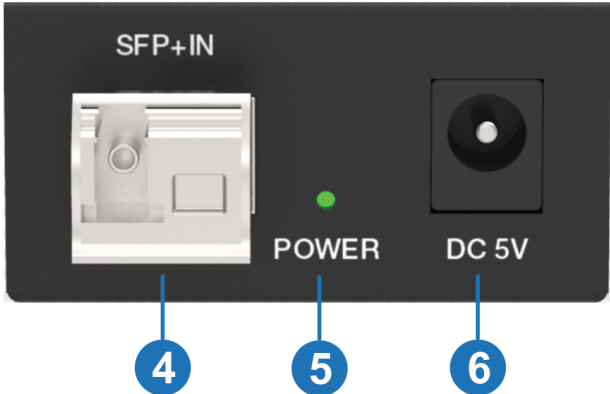


4 5 6

Transmitter panel



1 2 3



4 5 6

Receiver panel

Each unit has a front face and a rear face, and the connectors and controls are numbered 1 to 6. The front face carries 1 (HDMI), 2 (LINK LED) and 3 (SERVICE port); the rear face carries 4 (SFP+), 5 (POWER LED) and 6 (DC 5V). The numbers match the callouts on the panel artwork.



TRANSMITTER PANEL

No.	Name	Description
1	IN	HDMI signal input port, connected to an HDMI source device such as a DVD player or PC with an HDMI cable.
2	LINK LED	The green LED lights up when the Transmitter and Receiver have a connection with normal optical fiber signal.
3	SERVICE port	Used for firmware update (USB-C).
4	SFP+OUT	Fiber optic SFP port, connected to the SFP+IN port on the Receiver via LC fiber optic cable.
5	POWER LED	The green LED lights up when the Transmitter is powered on.
6	DC 5V	DC 5V/1A power input port.

RECEIVER PANEL

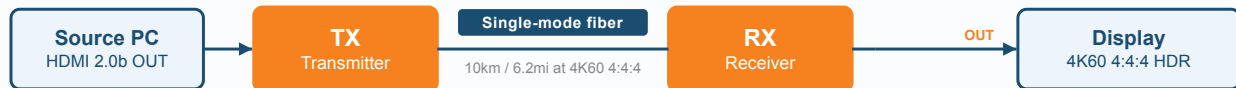
No.	Name	Description
1	OUT	HDMI signal output port, connected to a display device such as a TV or monitor with an HDMI cable.
2	LINK LED	The green LED lights up when the Transmitter and Receiver have a connection with normal optical fiber signal.
3	SERVICE port	Used for firmware update (USB-C).
4	SFP+IN	Fiber optic SFP port, connected to the SFP+OUT port on the Transmitter via LC fiber optic cable.
5	POWER LED	The green LED lights up when the Receiver is powered on.
6	DC 5V	DC 5V/1A power input port.



6. Application Example

TYPICAL SETUP

4K60 HDMI over Fiber Extender Kit (10km/6.2mi)



How it works: The transmitter takes one HDMI 2.0b source at up to 18Gbps with HDCP 2.2, any VESA resolution, and HDR10, HDR10+, Dolby Vision and HLG pass-through. Audio passes as LPCM 7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X, and the receiver outputs the same signal to one display. Over multi-mode OM4 fiber, through SFP modules, the same kit reaches up to 300m. Its differentiator is a dedicated point-to-point link: two units and a fiber run, with no network switch in the signal path. Fiber cable is not included.

7. Troubleshooting

Q: I have no picture at the display. What do I check first?

A: First confirm the green POWER LED is lit on both the transmitter and the receiver, which shows each unit is powered on. Then confirm the green LINK LED is lit on both units, which shows a normal optical fiber signal, and finally confirm the HDMI cables are seated at the source IN and the display OUT.

Q: The LINK LED is not lit. What does that mean?

A: The LINK LED lights green only when the transmitter and receiver have a connection with a normal optical fiber signal, so an unlit LED points to the fiber run. Verify the LC fiber goes from the transmitter SFP+OUT to the receiver SFP+IN, and that the distance is within 10km on single-mode or 300m on OM4 multi-mode.

Q: The POWER LED on one unit is off. What should I do?

A: The POWER LED lights green when that unit is powered on, so check the DC 5V/1A power input on the unit and confirm its 5V/1A supply is connected to a working AC outlet.

Need help? — For additional support, contact KanexPro technical support at support@kanexpro.com or 888.975.1368, or scan the QR code below for the product page.

8. Installation FAQ

Q: How do I connect the kit from source to display?

A: Connect the HDMI source to the transmitter IN port, run an LC fiber cable from the transmitter SFP+OUT to the receiver SFP+IN, and connect the receiver OUT to the display. Each unit uses an HDMI Type A 19-pin female connector, and the SFP+ ports use LC female connectors.

Q: What fiber cable does the link require?

A: Use single-mode LC fiber for runs up to 10km (6.2mi), or multi-mode OM4 LC fiber for runs up to 300m (984ft).

Q: Should I add surge protection?

A: It is recommended. The units contain sensitive electrical components that can be damaged by electrical spikes, surges, electric shock and lightning strikes, so a surge-protection device helps protect and extend the life of the equipment.

Q: What power input do the units accept?

A: Each unit is fed by its own supply rated DC 5V/1A, with an AC input of 100-240V at 50/60Hz.



Scan for product page
kanexpro.com/item/EXT-HD4KFIB-10KM

9. Integration FAQ

Q: What system topology does this kit support?

A: It is a point-to-point link: one HDMI source connects to the transmitter, the transmitter reaches the receiver over a single LC fiber run, and the receiver drives one display. It is built for one-source-to-one-display deployment over a single fiber link.

Q: What sources and displays can I pair with it?

A: The transmitter takes any HDMI source such as a PC or DVD player, and the receiver drives any display such as a TV or monitor.

Q: Does it need a matrix or control system to work?

A: No. It is a transparent point-to-point extender, so the source connects straight through to the display and passes HDCP 2.2 protected content over the fiber link.

