Native USB-C DisplayPort Alt Mode 4K60 Extender over Fiber — 10G SFP+, up to 10km

Extend a USB-C Source Without Dongling to HDMI - Full 4:4:4, HDR Pass-Through, EDID from Receiver

Carries a native USB-C 4K60 display signal up to 10km over single-mode fiber, with no dongle at the source and no 100m copper ceiling. The transmitter and receiver are a matched pair of compact black metal endpoints — 3.19" × 1.93" × 0.98" each, powered by their own 5V/1A supplies at 2.7W and 2.5W — that take a USB-C source running DisplayPort Alt Mode straight onto 10G SFP+ fiber and back to native USB-C at the display. It is the right choice for multi-building campuses, transport hubs, stadiums, control rooms and broadcast installs where reach across a fiber backbone and full signal integrity matter more than carrying keyboard-and-mouse peripherals.

The link holds 4K at 60Hz in full 4:4:4 color with HDR10, HDR10+, Dolby Vision and HLG pass-through, and lossless audio up to Dolby Atmos and DTS:X — the same at 300m or at 10km — while EDID passes back from the receiver so the source always reads the remote display. SFP+ modularity is the single strongest differentiator: the same TX/RX pair serves a 10km single-mode run or a 300m OM4 multi-mode run by swapping the optic, so the fiber plant you already own decides the module, not the extender. SFP+ modules and fiber are selected to match the run and sold separately.

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

- ✓ Compliant with USB Type-C DisplayPort Alternate Mode
- ✓ Compliant with HDCP 2.2 / 2.3 and 1.x
- ✓ Supports HBR3, HBR2, HBR and RBR (8.1 / 5.4 / 2.7 / 1.62 Gbps)
- ✓ Video resolution up to 4K2K@50/60Hz 4:4:4
- ✓ Supports any VESA-standard resolution transmission
- ✓ HDR10, HDR10+, Dolby Vision and HLG pass-through
- ✓ Supports LPCM 7.1CH, Dolby 5.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X
- ✓ Transmission distance up to 10km over single-mode fiber; up to 300m over OM4 multi-mode fiber via the SFP modules
- ✓ EDID transmission from the receiver back to the transmitter
- ✓ Compact metal enclosure for easy and flexible installation

2. Package Contents

- ✓ 1× 4K60 USB-C over Fiber Extender (Transmitter)
- ✓ 1× 4K60 USB-C over Fiber Extender (Receiver)
- ✓ 2× 5V/1A multinational power supply

3. Specifications

TECHNICAL	
HDCP Compliance	HDCP 2.3 / 2.2 / 1.x
USB-C Compliance	USB Type-C 1.1, DisplayPort Alt Mode
Video Bandwidth	32.4 Gbps (8.1 / 5.4 / 2.7 / 1.62 Gbps)
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 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
Video Resolution	Up to 4096×2160p60/50, 3840×2160p60/50/30/25, 1920×1200p60RB, 1920×1080p60/50, 1280×720p60/50 and any VESA-standard resolution
ESD Protection	IEC 61000-4-2: ±8kV (air discharge), ±4kV (contact discharge)
CONNECTIONS	
Transmitter — Input	1× IN [USB-C, 24-pin female]; 1× SERVICE [USB-C, update port]
Transmitter — Output	1× SFP+ OUT [LC female]
Receiver — Input	1× SFP+ IN [LC female]; 1× SERVICE [USB-C, update port]
Receiver — Output	1× OUT [USB-C, 24-pin female]
Transmission Distance	Up to 10km over single-mode fiber; up to 300m over OM4 multi-mode fiber
Fiber-Optic Module	10G SFP+ module
POWER	
Power Supply	Input: AC 100–240V, 50/60Hz; Output: DC 5V/1A
Power Consumption	Transmitter: 2.7W (max); Receiver: 2.5W (max)
ENVIRONMENTAL	

continued

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
PHYSICAL	
Dimensions (each unit)	3.19 × 1.93 × 0.98 in (81 × 49 × 25 mm) [W × D × H]
Weight (each unit)	0.30 lbs (138 g)
Housing	Black metal enclosure
CERTIFICATIONS	
Certifications	CE, FCC, UL

4. Introduction

This is a fiber-optic extender kit — a transmitter and a receiver — that carries a 4K60 USB-C (DisplayPort Alt Mode) video and audio signal over a single fiber link. It extends the signal up to 10km over single-mode fiber. KanexPro notes the product offers strong anti-interference performance, small size and light weight, which give it a strong advantage over copper for long-distance runs.

The manual also carries a safety note you should keep in the collateral: the unit contains sensitive electrical components that can be damaged by spikes, surges, shock or lightning, and a surge-protection device is highly recommended to protect and extend the life of the equipment.

5. Panel descriptions

Transmitter panel

Receiver panel

Both the transmitter and the receiver are numbered **1–6** in the artwork, and each panel has its own six-row table.

Numbering confirmed against the manual's own numbered diagrams (5.1 Transmitter Panel, 5.2 Receiver Panel) — the PDF text extraction had scrambled the No./Name pairing (POWER and LINK swapped on both panels; SFP+ IN/OUT and OUT swapped with their neighbours on the Receiver). Corrected by hand, not inferred.

TRANSMITTER PANEL

No.	Name	Description
1	**IN**	USB-C input port. Connect this to your source device (for example a PC) with a USB cable.
2	**LINK indicator**	The green LED stays lit when the transmitter and receiver have a good optical-fiber connection.
3	**SERVICE port**	USB-C service port, used for firmware updates.
4	**SFP+ OUT**	Fiber-optic SFP port. Connect it to the SFP+ IN port on the receiver with an LC fiber-optic cable.
5	**POWER indicator**	The green LED stays lit whenever the transmitter is powered on.
6	**DC 5V**	DC 5V/1A power input.

RECEIVER PANEL

No.	Name	Description
1	**OUT**	USB-C output port. Connect this to your display device (for example a monitor) with a USB cable.
2	**LINK indicator**	The green LED stays lit when the transmitter and receiver have a good optical-fiber connection.
3	**SERVICE**	USB-C service port, used for firmware updates.
4	**SFP+ IN**	Fiber-optic SFP port. Connect it to the SFP+ OUT port on the transmitter with a fiber-optic cable.

continued

No.	Name	Description
5	POWER indicator	The green LED stays lit whenever the receiver is powered on.
6	DC 5V	DC 5V/1A power input.

6. Application Example

TYPICAL SETUP

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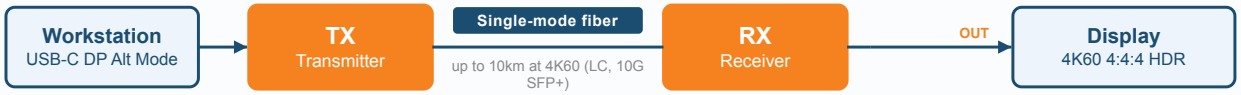

How it works: The link holds 4K at 60Hz in full 4:4:4 color with HDR10, HDR10+, Dolby Vision and HLG pass-through, and lossless audio up to Dolby Atmos and DTS:X — the same at 300m or at 10km — while EDID passes back from the receiver so the source always reads the remote display. SFP+ modularity is the single strongest differentiator: the same TX/RX pair serves a 10km single-mode run or a 300m OM4 multi-mode run by swapping the optic, so the fiber plant you already own decides the module, not the extender. SFP+ modules and fiber are selected to match the run and sold separately.

7. Troubleshooting

Q: No image on the display. What do I check first?
A: Confirm the green POWER LED is lit on both the transmitter and the receiver, which shows each is powered on. Then check that the source USB-C is in the transmitter IN port and the display is on the receiver OUT port.

Q: The LINK indicator is not lit green. What does that mean and what should I check?
A: The green LINK LED stays lit only when the transmitter and receiver have a good optical-fiber connection, so if it is off, check the LC fiber between the transmitter SFP+ OUT and the receiver SFP+ IN. Confirm the run is within 10km on single-mode fiber, or within 300m on OM4 multi-mode fiber.

Q: The picture is up but the resolution looks wrong. What should I confirm?
A: EDID passes from the receiver back to the transmitter so the source can read the display, so confirm the receiver is powered on with its POWER LED lit and the display is connected to the receiver OUT port. With that path intact the source can read the display's capabilities across the link.

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: What plugs into what for a basic point-to-point run?
A: Connect the source USB-C output 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 port to the display. Each unit uses a 24-pin USB-C connector at IN and OUT.

Q: What kind of fiber and module does the link need, and how far does each reach?
A: The link uses a 10G SFP+ module with LC connectors. It runs up to 10km over single-mode fiber, or up to 300m over OM4 multi-mode fiber.

Q: How is each unit powered?
A: Each end has its own DC 5V/1A power input, fed by the included multinational supply rated AC 100-240V, 50/60Hz. Transmitter draws 2.7W maximum and the receiver 2.5W maximum.

Q: Is any surge protection recommended for the install?
A: Yes. The units contain sensitive electrical components that can be damaged by spikes, surges, shock or lightning, and a surge-protection device is highly recommended to protect and extend the life of the equipment.

9. Integration FAQ

Q: How does the display's EDID reach the source across the link?
A: EDID passes from the receiver back to the transmitter, so the source reads the connected display's capabilities across the fiber run.

Q: How are firmware updates applied to the transmitter and receiver?
A: Each unit has a SERVICE port, a USB-C update port used for firmware updates.

Q: What source and display devices does this pair with?
A: It pairs a USB Type-C DisplayPort Alt Mode source, such as a PC, at the transmitter IN port with a USB-C display, such as a monitor, at the receiver OUT port. The transmitter and receiver work together as a point-to-point pair.