

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

MPN: EXT-USBC4KFIB-10KM



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.

1 PRODUCT OVERVIEW

DESIGNED FOR

This is for the long-haul display runs copper cannot make: multi-building campuses and corporate parks, hospitals and medical centers, transport hubs and airports, stadiums and large venues, broadcast and government installs, utility and process-control rooms, and high-end estates or vessels with a structured fiber backbone. Wherever a USB-C source — a laptop, mini-PC, media player or capture feed — has to drive a 4K display hundreds of meters to kilometers away over fiber you can pull and terminate, this is the endpoint that lands on standard LC.

THE CHALLENGE

A USB-C source outputs DisplayPort Alt Mode video that dies within a few meters of native cabling, and passive USB-C-to-fiber AOC cables are fixed-length and fragile. Category-cable extenders top out near 100m and never reach a second building. Fixed HDMI or DisplayPort fiber extenders solve distance only by forcing you to dangle the source down first — adding a failure point, an EDID handoff and a dependency on the source's Alt Mode behavior — and fixed-optic units lock you to one fiber type and one distance, with no way to change the module when the run turns out longer than the drawing said.

THE KANEXPRO ADVANTAGE

- Takes native USB-C DisplayPort Alt Mode straight onto fiber, so there is no source-side dongle and no HDMI handoff to fail.
- Holds full 4K60 4:4:4 with HDR10, HDR10+, Dolby Vision and HLG across the full distance, with no fallback to a lower color format.
- Reaches up to 10km over single-mode fiber, far past the 100m ceiling of any copper category-cable extender.
- Uses 10G SFP+ modules on LC, so one TX/RX pair serves a 10km single-mode or a 300m OM4 run by swapping the optic to the plant you have.
- Passes EDID back from the receiver so the source always reads the remote display's capabilities across the link.

2 PRODUCT POSITIONING

The USB-C fiber display extender for AV integrators who need native USB-C 4K60 4:4:4 with HDR carried up to 10km over single-mode fiber — without dongling the source to HDMI or accepting a 100m copper ceiling.

3 APPLICATIONS



1. Multi-building campus digital signage

A university pushes a 4K60 wayfinding and event feed from a USB-C media player in the central AV headend to displays in a lecture hall 2km away across the fibre backbone. Copper extension is impossible at that distance; a single-mode SFP+ link carries the native USB-C signal end to end at full 4:4:4 with no source-side dangle, and EDID passback keeps the player matched to the remote panel.



2. Hospital operations and imaging display

A clinical control room drives a high-resolution reference display in a distant reading room from a USB-C workstation. HDR10/HDR10+ pass-through preserves the source's tone mapping, the metal-enclosed endpoints tolerate a rack or plenum location, and the fibre run keeps the AV link electrically isolated between buildings — useful where copper ground loops are a concern.



3. Stadium and large-venue scoreboard/feed transport

A USB-C capture or playout device at a broadcast position sends 4K60 4:4:4 to a control position or display cluster across the bowl. The 10km single-mode reach covers the longest cable paths in a large venue in a single hop, and the SFP+ modularity lets the integrator match the exact fibre already pulled.



4. Utility / process control room

A SCADA or operations mini-PC with USB-C output feeds a wall display in a control centre fed from a plant fibre plant. Lossless audio formats (LPCM 7.1, Atmos, DTS:X) are largely irrelevant here, but the guaranteed 4:4:4 video integrity for dense text and schematic detail — where 4:2:0 competitors would blur — is the deciding factor.



5. Corporate campus boardroom-to-overflow

A USB-C laptop in a main boardroom mirrors 4K content to an overflow room in an adjacent building. The link removes the HDMI dangle from the presenter's laptop path, and the OM4 multi-mode mode (up to 300m) suits the shorter in-building runs while single-mode covers the cross-building leg on the same TX/RX pair.



6. High-end residential estate / marine

A large property or vessel with a structured fibre backbone extends a USB-C source — a media server or dedicated player — to a theatre or salon display hundreds of metres away. Dolby Vision and Dolby Atmos pass-through preserve the full cinema chain, and the compact endpoints hide behind the display and in the rack without a bulky, fixed-length AOC cable.

4 WHO THIS IS FOR

Higher education and corporate campuses

Healthcare

Transport/airports

Stadiums/large venues

Broadcast

Government/defence

Utilities/control rooms

Niche high-end residential (estates)

Ideal User

commercial AV system engineer / design engineer at an integration firm, specifying signal transport for a multi-building or long-run project. Reads spec sheets, checks 4:4:4 vs 4:2:0, cares about SFP wavelength and fibre type.

Project Types

higher education and corporate campuses, healthcare, transport/airports, stadiums/large venues, broadcast, government/defence, utilities/control rooms; niche high-end residential (estates, marine, campus homes).

Typical Buyer

the integrator's engineering lead recommends the part; the PM/purchasing agent buys it against a BOM; on public/education/government jobs a consultant's spec or an approved-vendor list governs the choice.

5 FREQUENTLY ASKED QUESTIONS

Q: How far can this actually run, and on what fiber?

Up to 10km (about 6.2 miles) over single-mode fiber, or up to 300m over OM4 multi-mode. It uses standard 10G SFP+ modules with LC connectors, so the same transmitter and receiver serve either fiber type — you match the optic to the plant you have.

Q: My source is a USB-C laptop, not HDMI. Do I need an adapter?

No. The input is native USB-C running DisplayPort Alt Mode, so a USB-C source connects directly. That removes the HDMI/DisplayPort dongle that most fiber extenders in this class require, and one failure point with it.

Q: Will it hold full 4K quality, or does it drop to a lower color format at distance?

It carries 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 whether the run is 300m or 10km. Some competing long-haul units fall back to 4:2:0; this one does not.

Q: Is this the same as your 100m USB-C extenders?

No. The 100m models run over CAT6a copper and are built for USB data extension. This model is a fiber product for one job — carrying a USB-C 4K60 display signal far beyond what copper can reach, up to 10km. Choose this when the run crosses buildings or exceeds 100m.

Q: Does it also extend my keyboard, mouse and USB devices?

This is a USB-C display link — it extends the 4K video and audio from a USB-C source. It is not a USB-3 peripheral or KVM extender. If you need keyboard/mouse and hub extension, that is a different product class; ask and we will point you to the right part.

Q: What comes in the box?

The transmitter, the receiver, and two multinational 5V/1A power supplies. SFP+ fiber modules and the fiber itself are selected to match your run and are not included. The full manual is digital — scan the QR code on the box.

Q: There's an identical-looking unit online for much less. Why this one?

The specifications may look similar, but this ships as a KanexPro product with US-based support, warranty and established distribution through KanexPro authorised channels — the things that matter when a link is buried in a 10km fiber run on a live project. Confirm current pricing with your KanexPro rep or authorised reseller.