

Dual-Host USB 3.2 Gen 1 Extender over CAT6a — USB-C & USB-B Inputs, 100m/328ft

TX/RX Kit with Selectable Host Switching, FSYNC GPIO, RS-232 & Bi-Directional 24V PoC

MPN: EXT-USBC2XI-100M



1 PRODUCT OVERVIEW

DESIGNED FOR

AV/IT integrators and industrial system integrators specifying USB extension for mixed USB-C/USB-B environments including factory automation, medical deployments, security systems, and institutional retrofits.

THE CHALLENGE

Most USB extenders support only USB-C or USB-A/B hosts — forcing integrators to either use adapters (which fail in industrial environments) or deploy two separate extenders to serve both modern USB-C controllers and legacy USB-B equipment.

THE KANEXPRO ADVANTAGE

The only standard form-factor USB 3.2 Gen 1 HDBaseT extender with both USB-C and USB-B host inputs at 100m, with auto/manual switching, FSYNC GPIO, RS-232, bidirectional PoC, and in-field firmware via SERVICE ports.

2 PRODUCT POSITIONING

EXT-USBC2XI-100M is the dual-host USB 3.2 extender for integrators who need to serve both modern USB-C and legacy USB-B controllers over a single CAT6a run — with auto/manual switching and industrial-grade FSYNC GPIO support.

3 APPLICATIONS



Industrial Vision

Connect both a modern USB-C controller and a legacy USB-B PLC to the TX; FSYNC GPIO synchronizes multi-camera vision arrays at the RX over 100m of shielded CAT6a.



Medical Deployments

USB-C clinical workstations and legacy USB-B medical instruments share the same extension link to a remote device cluster — no adapters, no separate extenders.



Security Workstations

Deploy USB-C and USB-B access control readers, biometric devices, and cameras at a remote station with auto-failover to the available host.



Legacy Integration

Retrofit environments where USB-B controllers (older PCs, industrial equipment) must be extended alongside new USB-C hosts without rewiring.



Dual-Host Redundancy

Auto switching between USB-C and USB-B provides fail-over capability for 24/7 unmanned deployments where host continuity is critical.



Control Systems

RS-232 pass-through integrates serial control devices and automation controllers across the full 100m extension link.

4 WHO THIS IS FOR

AV/IT Integrators

Corporate AV

Education

Industrial

Healthcare

Security

Ideal User

Industrial systems integrator, medical IT specialist, or enterprise AV/IT integrator deploying USB extension in mixed-generation controller environments.

Project Types

Industrial automation/machine vision, medical facilities, security/access control, institutional retrofits, factory environments.

Typical Buyer

Industrial/AV integrator (specifier); IT director, facilities manager, or plant engineer (approver).

5 KANEXPRO PRODUCT COMPARISON

EXT-USBC2XI-100M is the dual-host legacy-compatible extension product in the KanexPro USB family:

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
EXT-USBC2XI-100M	This product	USB-C + USB-B dual host, 5Gbps, 100m, FSYNC, RS-232, PoC	Dual-host legacy compatibility — only option for USB-C + USB-B at 100m
EXT-USBC-100M	Same family	USB-C host only, 5Gbps, 100m, FSYNC, RS-232, PoC	USB-C-only environments; simpler procurement
EXT-USBCPD4K-70M	Same family	USB-C + 4K60 video + 100W PD, 70m	Adds 4K display and charging; single host; 70m max
EXT-USBCPD2X4K-100M	Same family	Dual USB-C host, dual 4K HDMI, 100W PD, audio, 100m	Dual USB-C (not USB-B) with full AV output at 100m

► EXT-USBC2XI-100M is the right choice when both USB-C and USB-B hosts must be served from the same extension link at 100m.

6 FREQUENTLY ASKED QUESTIONS

Q: Can both hosts be connected simultaneously?

Yes. Both USB-C and USB-B host ports are connected, with switching determining which is active. Auto mode switches to the available host; manual mode is operator-controlled.

Q: What happens in auto switching mode if both hosts are active?

In auto mode, the USB-C host takes priority when both are active. The system switches to USB-B if the USB-C host disconnects or becomes unavailable.

Q: Is FSYNC GPIO bidirectional?

FSYNC pass-through enables synchronized camera triggering across the full link. The GPIO default level range is 0–5V.

Q: What device ports are available at the receiver?

3× USB-A (9-pin female) + 1× USB-C (24-pin female) — four ports total at the RX for connected USB 3.2 Gen 1 or USB 2.0/1.1 devices.

Q: Is the SERVICE port for USB signal pass-through?

No. The USB-C SERVICE port on both TX and RX is for in-field firmware updates only — it does not extend USB signal to a host.

Q: What cable is required?

CAT6a (F/FTP) shielded, up to 100m. Standard CAT6 or CAT5e is not supported for Gen 1 5Gbps performance.

Q: Is it plug-and-play on industrial controllers?

Yes — no drivers required. Compatible with Windows, macOS, Linux, and most industrial controller environments.

7 SALES ANALYSIS

Channel Fit	Industrial distribution; specialty AV/IT resellers; medical equipment integrators; enterprise IT direct.
Deal Size	2–20 units per industrial or institutional project. Often sold in multi-unit lots for factory-floor or medical-bay deployments.
Sales Cycle	4–10 weeks for industrial/medical specification. Pilot units often requested before full deployment.
Key Objections	"We can just use a USB-B to USB-C adapter" (answer: adapter fails in industrial EMI environments; no FSYNC, no PoC, 5m max). "Is it certified for medical use?" (answer: FCC/CE; for medical device certification consult the system integrator).
Win / Loss Themes	Win on: unique USB-C + USB-B dual-host at 100m, FSYNC GPIO, auto/manual switching, in-field firmware. Lose on: no video output; no USB 3.2 Gen 2.
Top Use Cases	1. Industrial multi-camera FSYNC deployment with mixed-generation controllers; 2. Medical cart USB-B legacy instrument + USB-C workstation dual-host.