

USB 3.0 Extender Over Cat6 100M HDBaseT

5Gbps USB Extension to 328ft — RS-232, FSYNC & PoC for Pro AV and Industrial Installs

MPN: EXT-USB3100M



PRODUCT OVERVIEW

The KanexPro EXT-USB3100M extends USB 3.0 at full 5Gbps speeds up to 100 meters (328ft) over a single CAT6a cable using HDBaseT technology — delivering four USB-A ports at the remote end with bi-directional 24V Power over Cable, RS-232 pass-through, and FSYNC GPIO for synchronized industrial and broadcast camera deployments. No drivers required.

Designed for professional AV integrators centralizing rack infrastructure in corporate conference rooms, lecture halls, healthcare suites, and broadcast facilities, the EXT-USB3100M eliminates the 5-meter USB limit without sacrificing speed, control, or peripheral power. Backward compatible with USB 2.0 and 1.1, it integrates cleanly into mixed-device environments while delivering the industrial-grade reliability and 3-year warranty that project-based installs demand.

1 PRODUCT OVERVIEW

DESIGNED FOR

AV integrators and IT infrastructure managers deploying USB 3.0 peripherals — industrial cameras, USB storage, touch panels — in enterprise conference rooms, education, healthcare, broadcast, and manufacturing environments.

THE CHALLENGE

Standard USB tops out at 5m. Active repeaters degrade at speed or fail to pass isochronous transfer reliably. Facilities centralizing rack equipment need 5Gbps USB at 100m with RS-232 and FSYNC control for synchronized camera setups.

THE KANEXPRO ADVANTAGE

RS-232 + FSYNC GPIO pass-through for industrial camera sync. Bi-directional 24V PoC for single-supply installation. Tiered power output (1.5A / 1A). 5Gbps HDBaseT over CAT6a. 3-year KanexPro warranty with integrator channel support.

2 PRODUCT POSITIONING

The EXT-USB3100M is the USB 3.0 extension platform for AV integrators who need 5Gbps peripheral reach at 100m without compromising RS-232 or FSYNC control in camera-centric and industrial installs.

3 APPLICATIONS



Corporate Conference Rooms

Centralize rack infrastructure in an IT closet while extending USB 3.0 cameras and touch controllers to the conference table up to 328ft — full 5Gbps performance, no signal degradation.



Higher Education Lecture Halls

Run USB 3.0 capture cards, PTZ cameras, and document scanners from a central AV rack to the lectern, supporting hybrid learning builds over a single CAT6a cable.



Healthcare Imaging

Connect USB 3.0 medical imaging peripherals and patient data-capture devices to a remotely located workstation, meeting infection-control room layouts without signal loss.



Broadcast & Live Production

Synchronize multiple USB 3.0 industrial cameras using FSYNC GPIO pass-through and RS-232 control — enabling frame-accurate multi-camera setups over a single CAT6a run.



Industrial Automation

Extend USB 3.0 machine vision cameras and PLC-connected devices from a control room PC up to 100m on the factory floor, using PoC to eliminate remote power outlets.



Digital Signage & Kiosks

Feed USB 3.0 storage, touch controllers, and HID peripherals from a back-office server to front-of-house kiosk positions, reducing on-site hardware exposure and simplifying maintenance.

4 WHO THIS IS FOR

Corporate AV

Higher Education

Healthcare

Broadcast & Production

Industrial Automation

Digital Signage

Ideal User

AV integrator or IT infrastructure manager, 5–15 years experience, specifying rooms for enterprise or university clients.

Project Types

Corporate conference rooms, lecture halls, healthcare suites, broadcast facilities, industrial automation, retail kiosks

Typical Buyer

Systems integrator or IT director; procurement via purchase order through authorized distributor.

5 KANEXPRO PRODUCT COMPARISON

The EXT-USB3100M is KanexPro's 5Gbps USB-B workhorse for long-distance USB extension. Here's how it fits within the KanexPro USB Extender family:

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
EXT-USB3100M	Pro AV & Industrial USB 3.0 Installs	USB 3.0 / 5Gbps, 100m, RS-232, FSYNC, 4-port, PoC	This product — full industrial control pass-through
EXT-USB2100M	Standard USB 2.0 extension at 100m	USB 2.0 / 480Mbps, 100m, 2-port	Lower cost; no 5Gbps, no RS-232/FSYNC
EXT-USB250M	Short-run USB 2.0 installs up to 50m	USB 2.0 / 480Mbps, 50m, 2-port	Entry-level; limited distance and speed
EXT-USBC-100M	USB-C host environments at 100m	USB 3.2 Gen 1 / 5Gbps, USB-C host, PoC, RS-232, FSYNC	Next-gen USB-C host input

★ EXT-USB3100M: Best for any install requiring 5Gbps USB at 100m with RS-232, FSYNC, and 4-port distribution

Why not just use a long active USB cable or hub chain?

Active cables top out at ~10m; hub chains violate USB topology rules at 5Gbps. This is a single-tier HDBaseT solution maintaining full USB 3.0 integrity to 100m.

Why \$399.95 when similar-looking products exist for less?

KanexPro is integrator-grade with a 3-year warranty and direct technical support. For commercial installs requiring accountability, the price delta is a fraction of project labor costs.

Does this work with USB 2.0 devices?

Yes — fully backward compatible with USB 2.0 and USB 1.1 at native speeds. No configuration required.

What is FSYNC GPIO and do I need it?

FSYNC is a frame synchronization signal used by industrial and broadcast cameras. If you're not using synchronized multi-camera setups, FSYNC is unused — it adds no complexity.

Can I power it from just one end?

Yes — bi-directional 24V PoC means only one power adapter is needed, at either the TX or RX end.

How many USB devices can I connect at once?

Four USB-A devices on the receiver. Ports 1 & 2 deliver 5V/1.5A; ports 3 & 4 deliver 5V/1A. The 5Gbps bandwidth is shared across all four ports.

Will this work in a factory or EMI-heavy environment?

Yes — the metal enclosure provides shielding, and HDBaseT over CAT6a is engineered for environments with high electromagnetic interference.