



Pro AV/IT Integrator GX Series™ 7 Port SuperSpeed USB 5Gbps Extender Kit up to 330ft Over Cat6A with USB-C & USB-A Data Ports, USB Host Switching, RS232, FSYNC GPIO

Optimized USB 3.2 Hub Extension up to 5Gbps

The Comprehensive USB5GX-520K is a seven (7) port USB 3.2 super speed 5Gbps extension solution. The USB5GX-520K USB Extender allows you to extend a USB 3.2 (5Gbps) signal up to 330ft (100m) using a single CAT6A cable. The transmitter has two input options: one (1) USB-C port and one (1) USB-B port, which you can switch between. The receiver provides one (1) USB-C port and three (3) USB-A ports for connecting devices. With its bi-directional 24V PoC (Power over Cable) feature, you only need to power either the transmitter or the receiver.



The USB5GX-520K is ideal for transmitting USB signals over long distances, making it useful for devices such as webcams, PTZ cameras, video bars, keyboards, mice, USB microphones, flash drives, printers, scanners, touchscreens, VR headsets, USB capture cards and more.

USB Switching Made Easy

The USB5GX-520K not only extends USB but it also features USB switching capabilities on the transmitter which allows you to share several USB peripherals between two (2) computers without constantly swapping cables and setting up software, which protects devices, saves desk space, time, and money.

Isochronous (ISO) Data Transfer

The Comprehensive USB5GX-520K is specifically designed with enhanced hardware for video applications requiring perfect isochronous (ISO) data transactions up to 3.1 including cameras up to 4K.

Long Range USB Extension

The Comprehensive USB5GX-520K powered USB Range Extender supports Super-speed USB3.2 (Up to 5Gbps) over single Cat6/Cat6A cable up to 330ft (100m); Supports all operating systems (Windows®, macOS™, Linux® and Chrome OS™); High compatibility with USB 1.1 and USB 2.0 peripheral devices.

4-Port USB 3.2 Hub

The USB5GX-520K is equipped with seven (7) USB ports on the Receiver end which can extend and connect to four (4) USB devices simultaneously such as a PTZ camera, Webcam, Mic, speakerphone, sound bar, touch screens, capture cards, and VR headsets which all can take advantage of the ability to be extended from your host PC between your USB devices. The USB5GX-520K also features three (3) USB 3.2 ports on the transmitter end for local USB connectivity.

A Must Have Device for Every AV Space

The USB5GX-520K is ideal for use in court rooms, classrooms, conference rooms and anywhere USB 3.2 5Gbps devices can be extended from a local to remote location in any room or building such as cameras, whiteboards, storage drives, and other high-bandwidth USB devices.

Peace of Mind in Every Connection and Quality You Can Count On

Since 1974, Comprehensive has been a trusted manufacturer of top-notch commercial-grade solutions for AV and IT professionals. This product upholds that longstanding tradition with its use of premium materials, components, and rigorous quality control measures, guaranteeing years of reliable and hassle-free usage. Additionally, all components are supported by Comprehensive's 3-Year Warranty, providing you with the confidence that this product will continue to perform flawlessly for many years ahead.

EXTENDERS

USB5GX-520K



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What is this product used for? (primary use):

- Extends SuperSpeed USB 3.2 5Gbps: Extends USB 3.2 devices such as webcams, touch boards, video bars, Capture cards and VR headsets up to 330ft over a single Cat6A cable.
- USB 3.2 Hub: Provides a 7-Port USB Hub to connect USB-A and USB-C devices.
- Extends RS232 & FSYNC GPIO: Extends RS232 & FSYNC GPIO signals which is used to control switchers, control systems, industrial cameras, TVs, and audio equipment.
- USB 3.2 Sharing: Allows 2x PCs to share and take advantage of a room's Webcam, Video bar, mouse, keyboard and also supports BYOM applications.

Features

- Extension of USB 3.2 5Gbps up to 100m/328ft via a CAT6a cable
- USB 3.2 Gen 1 connectivity with data transfer rates up to 5Gbps
- Backwards compatible with USB 2.0 and 1.1
- Hardware acceleration for isochronous and bulk transfer
- TX features 1x USB-B and 1x USB-C selectable input ports
- Supports auto switching and manual switching modes
- RX features 1x USB-C and 3x USB-A output ports (2x 5V@1A and 2x 5V@1.5A)
- Supports RS-232 pass-through and API control
- Supports firmware upgrade via USB-C service port
- Supports FSYNC GPIO pass-through for industry camera use
- Supports bi-directional 24V PoC (Power over Cable), when TX or RX gets power, the other end does not need an external power supply
- Plug-and-play with no drivers, downloads, or software required
- Supports all USB transfer types (Control, Interrupt, Isochronous and Bulk)
- Optimized for cameras and video capture devices & touch screens
- Works with all major operating systems: Windows®, macOS™, Linux® and Chrome OS™
- 3 Year Warranty

Applications

- Industrial Control
- KVM Extension
- Professional Audio-Visual
- Digital Signage
- Security and monitoring
- Medical Device Connectivity
- Security: web camera, access control
- Conferencing Cameras

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Specifications

I/O Connections

Transmitter

Input:

1x HOST 1 [USB Type C, 24-pin female]

1x HOST 2 [USB Type B, 9-pin female]

Output:

1x USB-C DEVICE [USB Type C, 24-pin female]

2x USB-A DEVICE [USB Type A, 9-pin female]

1x HDBT-USB3 [RJ45 connector, 24V PoC]

Control:

1x RS-232 [3pin-3.5mm phoenix connector]

1x FSYNC [1pin-3.5mm phoenix connector]

1x SERVICE [USB Type C, firmware update port]

Receiver

Input:

1x HDBT-USB3 [RJ45 connector, 24V PoC]

Output:

3x USB-A DEVICE [USB Type A, 9-pin female]

1x USB-C DEVICE [USB Type C, 24-pin female]

Control:

1x RS-232 [3pin-3.5mm phoenix connector]

1x FSYNC [1pin-3.5mm phoenix connector]

1x SERVICE [USB Type C, firmware update port]

Technical

USB Protocol: SuperSpeed USB 3.2 Gen 1

Transmission Rate: Up to 5Gbps

USB Transfer Types: Isochronous, Bulk, Control, Interrupt, Asynchronous

Max Distance:

5Gbps = Cat 5e/6 70m (230ft)

5Gbps = Cat 6A/7 100m (330ft)

5Gbps = USB cable 1.5m (4.9ft) Also supports active USB cables

Cat Cable Requirements: Cat6A cable is recommended for optimal performance

Power & Regulatory

Power Input:

Input: AC 100~240V 50/60Hz

Output: DC 24V/3.75A

USB-C Output Power: 1x 5V 1A (5W)

USB-A Output Power: 4x 5V 1A (5W) , 2x 5V 1.5A (7.5W)

Power Consumption: Transmitter: 23W (Max); Receiver: 35W (Max)

Regulatory: US/EU standards, CE/FCC/UL certified

Prop 65 Compliant: No

Chassis and Environmental

Construction: Metal (Black)

Dimensions:

Transmitter/Receiver: 140mm [W] × 75mm [D] × 23mm [H]

Operating Temperature: 0°C ~ 40°C / 32°F ~ 104°F

Operating Humidity: 20%~80% relative humidity, non-condensing

Storage Temperature: -20°C - 60°C / -4°F - 140°F

ESD Protection: IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)

Weight: 3lbs

Package Contents

1x USB5GX-520K (Tx & Rx Kit)

1x 24V/3.75A DC Power Adapter with locking connector

4x Mounting Ear

8x Machine Screw (KM3*4)

2x 4pin-3.5mm Phoenix Connector (Male)

1x Operation Manual

Warranty

3 Years

EXTENDERS

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