



Pro AV/IT Integrator GX Series™ 6 Port USB 3.2 5Gbps Extender with Dual HDMI 4K Outputs up to 330ft Over Cat6A

Reliable USB 3.2 5Gbps Hub Extension

Comprehensive's USB5GX-550K USB 3.2 GX Series™ Extender can extend USB 5 Gbps gen1 signals up to 330ft/100m via a single CAT6A cable. The transmitter features two USB-C selectable host ports with charging, one (1) USB-C and two (2) USB-A device ports. The receiver features one (1) USB-C and two (2) USB-A device ports, and two (2) HDMI output ports. This extender supports auto and manual switching for the two host ports. Bi-directional 24V PoC (Power over Cable) allows users to provide power supply to the transmitter side or the receiver side. It can be widely used for long distance USB and video signal transmission between USB sources and devices like webcams, PTZ cameras, keyboards, mouse devices, USB microphones, flash sticks, printers, scanners, touch panel displays and other USB devices.

The USB5GX-550K is specially designed and enhanced for better performance with USB 3.0 & USB 3.2 cameras and video capture devices, offering support for higher frame rates and resolution support. The USB5GX-550K is easy to install; simply plug and play (no software drivers required) and it works with all major operating systems: Windows®, macOS™, Linux® and Chrome OS™.

Full Featured USB Type-C Connectivity

The USB5GX-550K takes full advantage of USB-C connections, allowing 4K video, audio, USB data, and up to 100W of power to all travel through a single cable. This all-in-one setup means laptops do not need separate connections for power or data, making it easier for users with just one cable.

Long Range USB 3.2 Extension

The Comprehensive USB5GX-550K USB 3.2 Extender supports Super-Speed USB 3.2 gen1 (Up to 5 Gbps) over a single 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.

Dual HDMI 4K Video Output with MST & SST Support

The Comprehensive USB5GX-550K USB 3.2 Extender supports Multi-Stream Transport (MST) and Single-Stream Transport technology that allows you to extend audio & video contents across multiple monitors/ HDMI displays. This allows you to send your computer screen to additional monitors or stream independent content to each individual monitor display.

BYOM Convenience

Bring Your Own Meeting (BYOM) rooms provide collaborative spaces for both in-person and remote participants without needing complex setups with dedicated computers, switchers, or control systems. In BYOM rooms, users can bring their own laptops and connect to USB cameras and microphones in the room. The USB5GX-550K built in switcher enables USB devices to work with traditional AV equipment, allowing users to switch between laptops or other sources and access USB-connected devices in the room easily.

USB Switching Made Easy

The USB5GX-550K 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.

Six (6) Port USB 3.2 HUB

The USB5GX-550K is equipped with six (6) USB ports which allows you to connect up to six (6) USB devices simultaneously such as a PTZ camera, webcam, mic, speakerphone, sound bar, touch screens, capture cards, and VR headsets which can all take advantage of the ability to be extended from your host PC between your USB devices.

Charge your Laptop, Tablet or Phone While Connected

With the convenient USB-C input on the USB5GX-550K, you can effortlessly connect your device without the worry of battery depletion. Say goodbye to the hassle of carrying chargers or running out of power during important presentations or video conferences. This versatile switcher supports impressive charging capabilities of up to 100W, ensuring that your devices, be it a smartphone or a laptop, receive a reliable power supply while you focus on delivering your content or engaging in virtual meetings. Whether you're presenting in a professional setting or participating in remote collaborations, the USB5GX-550K keeps your devices charged and ready to perform, providing you with uninterrupted productivity and peace of mind.



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USB5GX-550K



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Bi-Directional PoC (Power over Cable) Provides Added Installation Flexibility

The USB5GX-550K USB 3.2 Extender kit also supports bi-directional power over cable (PoC) functionality that allows for greater flexibility in installation environments powered from either the Tx or Rx end making this product extremely versatile and a great solution for your next installation.

USB Device Power Management

The Comprehensive USB5GX-550K USB 3.2 Extender supports USB device power management which provides up to 5V 1.5A for power hungry USB devices such as some PTZ camera and webcams.

Isochronous (ISO) Data Transfer

Comprehensive's USB5GX-550K USB 3.2 Extender is specifically designed to enhance hardware for video applications requiring Isochronous (ISO) data transfer.

Easy to Install Discreetly

The USB5GX-550K USB 3.2 Extender can be easily installed on a wall, in furniture, under a table or hidden within a floor box. The slim and compact design with mounting brackets can be easily concealed behind a wall-mounted display or above a projector.

Simplified Control at Your Fingertips

Controlling the Comprehensive USB5GX-550K is a breeze, thanks to its versatile range of control methods. You can easily manage the device using the push buttons located on the front panel, the IR remote control, or hotkeys control. Furthermore, the USB5GX-550K offers an API that allows for seamless integration with third-party control systems through RS232 control or IP control. With these flexible control options, you have the freedom to conveniently select sources for each display according to your specific preferences.

A Must Have Device for Every AV Space

The USB5GX-550K is ideal for use in court rooms, classrooms, conference rooms and anywhere USB devices can be extended from a local to remote location in any room or building.

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

Since 1974, Comprehensive has been the 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.

Features

- Extension of USB 3.2 Gen1 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 two USB-C input ports sharing up to 100W charging (1x 100W or 2x 50W)
- TX supports auto and manual switching for the two (2) upstream host ports, via switch button or API commands
- RX features two HDMI™ outputs for dual screen extension display, with resolution up to 4K@60Hz
- RX supports audio de-embedding to balanced/unbalanced audio output
- RS-232 pass through API control
- Firmware upgrade via USB-C service port
- FSYNC GPIO pass-through for industry camera use
- Bi-directional 24V PoC (power over cable), when TX or RX gets power, the other end does not need an external power supply
- Supports all major operating systems: Windows®, macOS™, Linux® and Chrome OS™
- 3 Year Worry-Free Warranty
- Note: 100W USB-C charging is supported only when the TX is powered to the power supply.

USB5GX-550K



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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.
- 4K Video Extensions: Converts and extends USB-C signals to two HDMI 4K displays up to 330ft over a single Cat6A cable.
- USB 3.2 Hub: Provides a 6-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 Device Sharing: Allows 2x PCs to share and take advantage of a room's Webcam, Video bar, mouse, keyboard and also supports BYOM applications.

Applications

- USB Extension
- Industrial Control
- KVM Extension
- Professional Audio-Visual
- Digital Signage
- Security and monitoring
- Medical Device Connectivity
- Security: web camera, access control
- Conferencing Cameras
- Conference Rooms
- Workspaces
- Courtrooms
- VR & Gaming Setups
- Entertainment Room
- Home Theater Systems
- Show Room / Demo Room
- Public commercial displays

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Specifications

I/O Connections

Transmitter
Input:
2x USB-C HOST [USB Type C, 24-pin female]
Output:
2x USB-A DEVICE [USB Type A, 9-pin female]
1x USB-C DEVICE [USB Type C, 24-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:
2x USB-A DEVICE [USB Type A, 9-pin female]
1x USB-C DEVICE [USB Type C, 24-pin female]
2x HDMI™ OUT [Type A, 19-pin female]
1x AUDIO OUT [5pin-3.5mm phoenix connector]
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 Transmission Rate: Up to 5 Gbps
USB Version: USB 3.2 Gen1
HDBaseT Compliance: HDBT v3.0
HDCP Compliance: HDCP 2.2
HDMI™ Compliance: HDMI™ 2.0b
HDMI™ Video Bandwidth: 18 Gbps
HDMI™ Video Resolution: Up to 4K @60Hz
Color Depth: 8/10/12-bit
Color Space: RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Audio Format: HDMI™ Audio: Up to LPCM 2.0/5.1CH
Analog Audio De-embedding: LPCM 2CH (sample rate 32~192kHz)
ESD Protection: IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Max Distance: 100m/328ft via CAT6A (F/FTP) cable
1.5m/4.9ft via USB cable, 3m/9.8ft via HDMI™ passive cable

Power & Regulatory

Power Supply
Input: AC 100~240V 50/60Hz;
Output: DC 24V/7.5A
(US/EU standards, CE/FCC/UL certified)
Power Consumption
Transmitter: 120W (Including PD 100W, Max);
Receiver: 19.44W (Max)
Regulatory: US/EU standards, CE/FCC/UL certified
Prop 65 Compliant: No

Chassis and Environmental

Construction: Metal (Black)
Dimensions (W x D x H)
Transmitter: 180mm [W] x 95mm [D] x 23mm [H]
Receiver: 180mm [W] x 95mm [D] x 23mm [H]
Operating Temperature: 0°C ~ 45°C / 32°F ~ 113°F
Operating Humidity: 20%~80% relative humidity, non-condensing
Storage Temperature: -40°C ~ 60°C / -40°F ~ 140°F
Storage Humidity: 10%~90% relative humidity, non-condensing

Package Contents

1x USB5GX-550K (USB 3.2 Tx & Rx extender kit)
1x 24V/7.5A DC power adapter (Locking Power Supply)
4x Mounting ears
8x Mounting screws (KM3*4)
1x 5pin-3.5mm Phoenix Connector
2x 4pin-3.5mm Phoenix Connector
1x Operation manual

Weight

2.5lbs

Warranty

3 Years

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