

# USB over Twisted Pair Extender

- > Extends USB signals up to 100 meters (330 feet) over CAT5e twisted-pair cable<sup>[1]</sup>
- > Enables transparent point-to-point USB extension without any configuration or programming
- > Plug-and-play compatible with all types of USB 1.1 and 2.0 devices and hosts<sup>[2]</sup>
- > No drivers required with Windows®, macOS®, or Linux®<sup>[2]</sup>
- > Supports up to 480 Mbps throughput
- > Mass Storage Acceleration maximizes USB 2.0 bulk transfer speeds
- > Provides two USB Type A ports for USB devices
- > Supplies 1.5 Amps USB power across both ports (1 Amp maximum per port)
- > Expandable using up to four USB hubs (not included)
- > 100-240V AC power pack (included) can be connected at the host (local) or device (remote) end<sup>[3]</sup>



The Crestron® USB over Twisted Pair Extender (USB-EXT-2) delivers reliable USB signal extension for all types of USB 1.1 and 2.0 devices in a conference room, classroom, auditorium, command center, medical facility, public space, or residence. Without requiring any special configuration or drivers, the USB-EXT-2 enables wire runs up to 100 meters (330 feet) over a single CAT5e twisted-pair cable<sup>[1]</sup>.

The USB-EXT-2 is compatible with USB 1.1 and High-Speed USB 2.0, supporting virtually any USB device type including keyboards and mice, whiteboards, game controllers, cameras, audio devices, mobile devices, printers, flash drives, hard drives, and hubs. It is plug-and-play compatible with computers running Windows®, macOS®, and Linux® operating systems without requiring any additional drivers to be installed.<sup>[2]</sup>

The USB-EXT-2 is composed of two extender components. The “local” extender connects to your computer, conferencing system, media server, game console, or other USB host. The “remote” extender provides two USB ports for connecting USB devices (HID, cameras, microphones, mass storage, smartphones, etc.) at a remote location. Linking the two extender components requires just one run of CAT5e (or better) unshielded twisted-pair cable.<sup>[1]</sup> Both extender components are powered by a single 100-240V AC power pack, which can be connected at either end wherever an AC power receptacle is available.<sup>[3]</sup>

*Note: The USB-EXT-2 is a simple point-to-point USB signal extender. It does not switch or route USB signals, and does not connect to a network. For KVM and other applications routing USB signals over an Ethernet network, please refer to the [USB-EXT-DM-LOCAL](#) and [USB-EXT-DM-REMOTE](#).*

## SPECIFICATIONS

### Communications

**Link:** USB extension up to 100 m (330 ft) over solid-core CAT5e (or better) unshielded twisted pair (UTP) cable<sup>[1]</sup>

**USB Device Support:** USB 1.1 and 2.0 compatible including mass storage and isochronous devices<sup>[2]</sup>

**USB Hub Support:** Any signal chain may include up to 4 USB hubs plus one USB-EXT-2 system<sup>[2]</sup>

**Maximum USB Devices:** 30 USB devices, or 4 USB hubs with 26 USB devices

**Host Computer OS Support:** Windows, macOS, Linux

**USB Throughput:** USB 2.0 up to 480 Mbps, USB 1.1 up to 12 Mbps

### Connectors – Local Extender

**24V 1A:** (1) 2.1 x 5.5 mm DC power connector;  
24 Volt DC power input (power pack included)<sup>[3]</sup>

**Link:** (1) 8-pin RJ45 connector, female;  
Connects to Link port on the Remote Extender<sup>[1]</sup>

**USB:** (1) USB Type B connector, female (USB B to A cable included);  
USB 2.0 device port for connection to the USB host computer, media server, game console, annotator, codec, etc.

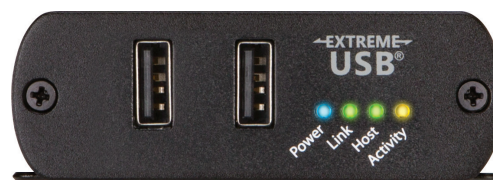
**Config (front):** (For factory use only)

### Connectors – Remote Extender

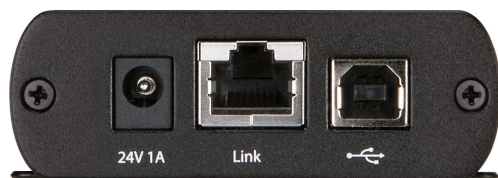
**24V 1A:** (1) 2.1 x 5.5 mm DC power connector;  
24 Volt DC power input (power pack included)<sup>[3]</sup>



**USB-EXT-2 Local Extender – Front View**



**USB-EXT-2 Remote Extender – Front View**



**USB-EXT-2 Local Extender – Rear View**



**USB-EXT-2 Remote Extender – Rear View**

**Link:** (1) 8-pin RJ45 connector, female;  
Connects to Link port on the Local Extender<sup>[1]</sup>

**Config (front):** (For factory use only)

**USB (front):** (2) USB Type A connectors, female;  
USB 2.0 host ports for connection of USB mice, keyboards, whiteboards, game controllers, cameras, audio devices, mobile devices, printers, flash drives, hard drives, hubs, and other USB devices<sup>[2]</sup>;  
Available USB Power: 1 Amp maximum per port, 1.5 Amps maximum total

## Indicators – Local Extender

**Mode:** (1) Recessed pushbutton (for factory use only)  
**Power:** (1) Blue LED, indicates operating power is supplied via the local power pack or via the Link connection<sup>[3]</sup>  
**Link:** (1) Green LED, indicates a valid Link connection to the Remote Extender  
**Host:** (1) Green LED, indicates a valid connection to the USB host  
**Activity:** (1) Amber LED, indicates data activity on the Link interface

## Indicators – Remote Extender

**Power:** (1) Blue LED, indicates operating power is supplied via the local power pack or via the Link connection<sup>[3]</sup>  
**Link:** (1) Green LED, indicates a valid Link connection to the Local Extender  
**Host:** (1) Green LED, indicates a valid connection to the USB host at the Local Extender  
**Activity:** (1) Amber LED, indicates data activity on the Link interface  
**Mode (rear):** (1) Recessed pushbutton (for factory use only)

## Power

**Power Pack (included)**<sup>[3]</sup>: Input: 100-240 Volts AC, 50/60 Hz;  
Output: 1 Amp @ 24 Volts DC

**Available USB Power:** Supplies 1 Amp maximum per each of two USB Type A ports, 1.5 Amps maximum total

## Environmental

**Temperature:** 32° to 122° F (0° to 50° C)  
**Humidity:** 20% to 80% RH (non-condensing)

## Construction (Typical per Unit)

**Housing:** Metal, black finish, adhesive rubber feet  
**Mounting:** Includes four slots for wire ties or other third-party mounting hardware

## Dimensions (Typical per Unit)

**Height:** 1.03 in (26 mm) without feet  
**Width:** 2.96 in (75 mm)  
**Depth:** 3.43 in (87 mm)

## Compliance

CE, IC, FCC Part 15 Class B digital device

## MODELS & ACCESSORIES

### Available Models

**USB-EXT-2:** USB over Twisted Pair Extender

### Notes:

1. For the "Link" connection between the Local Extender and Remote Extender units, use high quality, solid core CAT5e (or better) unshielded twisted pair (UTP) cable. If connecting either unit through a wall jack, a stranded patch cord may be used. The maximum aggregate cable length is 330 ft (100 m) between units. The minimum cable length is 6 ft (1.8 m). Do not connect the Link ports to an Ethernet LAN or any other network or device.
2. The USB-EXT-2 is engineered to deliver maximum compatibility with the widest possible range of devices. Crestron does not guarantee that all USB devices or hosts are compatible with the USB-EXT-2. Certain USB devices may require additional driver installation if not directly supported by the computer's operating system.
3. The power pack must be connected to either the Local Extender or Remote Extender unit, not both. Power is passed to the secondary device via the Link connection.

# USB-EXT-2 **AUDIO VIDEO SUPPLY** USB OVER TWISTED PAIR EXTENDER

Crestron and the Crestron logo are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. macOS is either a trademark or registered trademark of Apple Inc. in the United States and/or other countries. Extreme USB is either a trademark or registered trademark of Icron Technologies Corporation in the United States and/or other countries. Linux is either a trademark or registered trademark of Linus Torvalds in the United States and/or other countries. Windows is either a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. Specifications are subject to change without notice. ©2018 Crestron Electronics, Inc.

