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Product Manual

USB-EXT-3S

USB 3.2 Extenders over CAT 6a/7 Cable, Local and Remote

Crestron Electronics, Inc.

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Regulatory Model: M202444001 and M202444002

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Features

This section provides the following information:

- USB-EXT-3S SYSTEM Features
- USB-EXT-3S-LOCAL Features
- USB-EXT-3S-LOCAL-1G Features
- USB-EXT-3S-REMOTE Features
- USB-EXT-3S-REMOTE-1G Features

USB-EXT-3S SYSTEM Features

Key features include:

- Point-to-point connectivity for USB signal extension over CAT6a/CAT7 up to 330 ft (100 m)
- USB 3.2 Gen 1 data rate up to 5 Gbps
- USB Type-A and USB Type-C® connections supported
- Supports USB 3.2, 2.0, and 1.1 signals simultaneously
- Supports all USB transfer types: control, interrupt, isochronous (ISO), and bulk
- RS-232 serial pass-through port
- Plug-and-play functionality without the need for additional drivers
- Compatibility with Windows®, macOS®, Linux®, and Chrome OS™ operating systems
- TAA compliant
- Small form-factor, freestanding or surface mountable
- 20VDC power pack included



The Crestron USB-EXT-3S SYSTEM offers a versatile USB 3.2 extender to support USB peripherals such as UC soundbars and cameras. A standard USB 3.2 cable has a maximum length of 6 ft (1.8 m), which is not adequate for most integrated solutions used in conference rooms and other meeting spaces. The USB-EXT-3S SYSTEM provides a solution for the simultaneous extension of USB signals up to 330 ft (100 m) over CAT 6a/7 cable at speeds of up to 5 Gbps.[1]

The USB-EXT-3S SYSTEM fully supports USB 3.2 isochronous (ISO) transport, which offers enhanced support for UC cameras and video capture devices. ISO traffic is guaranteed a certain percentage of all USB bandwidth. Other connected USB devices, such as bulk storage devices, will not decrease the performance of the ISO stream, resulting in high-quality video performance.

The USB-EXT-3S SYSTEM consists of a USB-EXT-3S-LOCAL and a USB-EXT-3S-REMOTE endpoint, which are used with each other in point-to-point USB extender applications:

- The USB-EXT-3S-LOCAL provides connectivity for a single USB host such as a computer. The extender supports plug-and-play functionality with a USB host running Windows®, macOS®, Linux®, and Chrome OS™ operating systems. No additional driver installation is required.
- The USB-EXT-3S-REMOTE provides connectivity for up to one USB Type-C and three USB Type-A devices such as USB cameras and video capture devices at one location.[2]

An RS-232 pass-through port is included on each USB-EXT-3S endpoint to transmit serial data from a control system over the **LINK** connection.

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.

2. The USB extenders are engineered to deliver maximum compatibility with the widest possible range of USB hosts and devices. Crestron does not guarantee that all USB hosts or devices are compatible with the USB extenders. Certain USB hosts and devices may require additional driver installation if not directly supported by the operating system of the computer.

USB-EXT-3S-LOCAL Features

Key features include:

- Point-to-point connectivity for USB signal extension over CAT6a/CAT7 up to 330 ft (100 m)
- USB 3.2 Gen 1 data rate up to 5 Gbps
- USB Type-A and USB Type-C® connections supported
- Supports USB 3.2, 2.0, and 1.1 signals simultaneously
- Supports all USB transfer types: control, interrupt, isochronous (ISO), and bulk
- RS-232 serial pass-through port
- Plug-and-play functionality without the need for additional drivers
- Compatibility with Windows®, macOS®, Linux®, and Chrome OS™ operating systems
- TAA compliant
- Small form-factor, freestanding or surface mountable
- 20VDC power pack PW-2030DU (sold separately) required when paired with



The USB-EXT-3S-LOCAL is a USB3.2 Gen 1 extender with connectivity for a single USB host such as a computer. The extender supports plug-and-play functionality with hosts running Windows®, macOS®, Linux®, or Chrome OS™ operating systems. No additional driver installation is required.[1]

USB-EXT-3S endpoints fully support USB 3.2 isochronous (ISO) transport, which offers enhanced support for UC cameras and video capture devices. ISO traffic is guaranteed a certain percentage of all USB bandwidth. Other connected USB devices, such as bulk storage devices, will not decrease the performance of the ISO stream, resulting in high-quality video performance.

An RS-232 pass-through port is included on each USB-EXT-3S endpoint to transmit serial data from a control system over the **LINK** connection.

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.

USB-EXT-3S-LOCAL-1G Features

Key features include:

- Point-to-point connectivity for USB signal extension over CAT6a/CAT7 up to 330 ft (100 m)
- USB 3.2 Gen 1 data rate up to 5 Gbps
- USB Type-A and USB Type-C® connections supported
- Supports USB 3.2, 2.0, and 1.1 signals simultaneously
- Supports all USB transfer types: control, interrupt, isochronous (ISO), and bulk
- RS-232 serial pass-through port
- Plug-and-play functionality without the need for additional drivers
- Compatibility with Windows®, macOS®, Linux®, and Chrome OS™ operating systems
- TAA compliant
- Mountable in a standard US electrical box
- Swappable black and white front panels included
- Compatible with FP-G1 decorator-style face plates (sold separately)
- 20VDC power pack PW-2030DUL (sold separately) required when paired with USB-EXT-3S-REMOTE-1G



The USB-EXT-3S-LOCAL-1G is a USB3.2 Gen 1 extender wall plate with connectivity for a single USB host such as a computer. The extender supports plug-and-play functionality with hosts running Windows®, macOS®, Linux®, or Chrome OS™ operating systems. No additional driver installation is required.[1]

USB-EXT-3S endpoints fully support USB 3.2 isochronous (ISO) transport, which offers enhanced support for UC cameras and video capture devices. ISO traffic is guaranteed a certain percentage of all USB bandwidth. Other connected USB devices, such as bulk storage devices, will not decrease the performance of the ISO stream, resulting in high-quality video performance.

The wall plate ships with both a white and black front panel. The white panel is installed by default and can be swapped for the black panel during installation. FP-G1 decorator faceplates are sold separately to cover the electrical box and wall plate housing.[2]

An RS-232 pass-through port is included on each USB-EXT-3S endpoint to transmit serial data from a control system over the **LINK** connection.

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.
2. There is slight variance between the color of the swappable front panels and the FP-G1 series black and white face plates.

USB-EXT-3S-REMOTE Features

Key features include:

- Point-to-point connectivity for USB signal extension over CAT6a/CAT7 up to 330 ft (100 m)
- USB 3.2 Gen 1 data rate up to 5 Gbps
- USB Type-A and USB Type-C® connections supported
- Supports USB 3.2, 2.0, and 1.1 signals simultaneously
- Supports all USB transfer types: control, interrupt, isochronous (ISO), and bulk
- RS-232 serial pass-through port
- Plug-and-play functionality without the need for additional drivers
- Compatibility with Windows®, macOS®, Linux®, and Chrome OS™ operating systems
- TAA compliant
- Small form-factor, freestanding or surface mountable
- 20VDC power pack PW-2030DU (sold separately) required when paired with



The USB-EXT-3S-REMOTE is a USB3.2 Gen 1 extender with connectivity for up to four USB devices such as cameras or video capture devices at one location.[1] The extender is expandable to support additional USB devices with the connection of USB hubs (not included).

Three USB Type-A connectors and one USB Type-C® connector are provided. Each connector can supply power to a connected USB device, with the first two connectors supplying up to 1A and the last two connectors supplying up to 1.5A.

USB-EXT-3S endpoints fully support USB 3.2 isochronous (ISO) transport, which offers enhanced support for UC cameras and video capture devices. ISO traffic is guaranteed a certain percentage of all USB bandwidth. Other connected USB devices, such as bulk storage devices, will not decrease the performance of the ISO stream, resulting in high-quality video performance.

An RS-232 pass-through port is included on each USB-EXT-3S endpoint to transmit serial data from a control system over the **LINK** connection.

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.

USB-EXT-3S-REMOTE-1G Features

Key features include:

- Point-to-point connectivity for USB signal extension over CAT6a/CAT7 up to 330 ft (100 m)
- USB 3.2 Gen 1 data rate up to 5 Gbps
- USB Type-A and USB Type-C® connections supported
- Supports USB 3.2, 2.0, and 1.1 signals simultaneously
- Supports all USB transfer types: control, interrupt, isochronous (ISO), and bulk
- RS-232 serial pass-through port
- Plug-and-play functionality without the need for additional drivers
- Compatibility with Windows®, macOS®, Linux®, and Chrome OS™ operating systems
- TAA compliant
- Mountable in a standard US electrical box
- Swappable black and white front panels included
- Compatible with FP-G1 decorator-style face plates (sold separately)
- 20VDC power pack PW-2030DUL (sold separately) required when paired with USB-EXT-3S-LOCAL-1G



The USB-EXT-3S-REMOTE-1G is a USB3.2 Gen 1 extender wall plate with connectivity for up to four USB devices such as cameras or video capture devices at one location.[1] The extender is expandable to support additional USB devices with the connection of USB hubs (not included).

Three USB Type-A connectors and one USB Type-C® connector are provided. Each connector can supply power to a connected USB device, with the first three connectors supplying up to 1A and the last connector supplying up to 1.5A.

USB-EXT-3S endpoints fully support USB 3.2 isochronous (ISO) transport, which offers enhanced support for UC cameras and video capture devices. ISO traffic is guaranteed a certain percentage of all USB bandwidth. Other connected USB devices, such as bulk storage devices, will not decrease the performance of the ISO stream, resulting in high-quality video performance.

The wall plate ships with both a white and black front panel. The white panel is installed by default and can be swapped for the black panel during installation. FP-G1 decorator faceplates are sold separately to cover the electrical box and wall plate housing.[2]

An RS-232 pass-through port is included on each USB-EXT-3S endpoint to transmit serial data from a control system over the **LINK** connection.

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.
2. There is slight variance between the color of the swappable front panels and the FP-G1 series black and white face plates.

Specifications

This section provides the following information:

- USB-EXT-3S SYSTEM Specifications
- USB-EXT-3S-LOCAL Specifications
- USB-EXT-3S-LOCAL-1G Specifications
- USB-EXT-3S-REMOTE Specifications
- USB-EXT-3S-REMOTE-1G Specifications

USB-EXT-3S SYSTEM Specifications

Product specifications for the USB-EXT-3S SYSTEM are provided below.

Product Specifications

Communications

LINK	Proprietary link for point-to-point connection between USB-EXT-3S endpoints
USB Speeds	USB 3.2 Gen 1 up to 5 Gbps; USB 2.0 up to 480 Mbps; USB 1.1 up to 12 Mbps
RS-232	Bidirectional serial pass-through

Connectors - USB-EXT-3S-LOCAL

20V 3.0A	(1) locking DC power connector; 20VDC power input; PW-2030DU power supply included[4]
TO HOST USB3	(1) USB Type-C® connector, female; USB 3.2 Gen 1 host port for connection to computer, media server, game console, or other USB host;[1] Backward compatibility with USB 2.0 and USB 1.1
LINK	(1) 8-pin RJ-45 connector, female; Connects directly to **LINK** port on USB-EXT-3S-REMOTE;[3] Up to 330 ft (100 m) over CAT6a/7 cable;[1] If powered locally, supplies power to connected REMOTE endpoint; If not powered locally, receives power from connected REMOTE endpoint[4]
COM	(1) 4-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Up to 115.2k baud; Fourth pin (labeled **NC**) not used
SERVICE	For factory use only

Connectors - USB-EXT-3S-REMOTE

20V 3.0A	(1) locking DC power connector; 20VDC power input; PW-2030DU power supply included[4]
TO DEVICE USB3 1-2	(2) USB Type-A connectors, female; USB 3.2 Gen 1 device ports for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1A per USB port

TO DEVICE USB3 3	(1) USB Type-A connector, female; USB 3.2 Gen 1 device port for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1.5A
TO DEVICE USB3 4	(1) USB Type-C connector, female; USB 3.2 Gen 1 device port for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1.5A
LINK	(1) 8-pin RJ-45 connector, female; Connects directly to **LINK** port on USB-EXT-3S-REMOTE;[3] Up to 330 ft (100 m) over CAT6a/7 cable;[1] If powered locally, supplies power to connected LOCAL endpoint; If not powered locally, receives power from connected LOCAL endpoint[4]
COM	(1) 4-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Up to 115.2k baud; Fourth pin (labeled **NC**) not used
SERVICE	For factory use only

Indicators

PWR	(1) Green LED, indicates that power is being supplied from the included power pack or via the **LINK** connection
LINK	(1) Green LED, indicates that a link is established between the local and remote endpoints
USB	(1) Green LED; Solid indicates that only USB 3 (or greater) devices are connected and the link is active; Flashing green indicates that one or more USB 2 (or lower) devices are connected and the link is active; Off indicates that no USB devices are connected

Power

Power Pack (Included)[4]	Input: 100-240VAC, 50/60 Hz; Output: 3.0A @ 20VDC; Model PW-2030DU included
Power Consumption	31.28 W total between LOCAL and REMOTE; 25 W allocated to 4 USB devices

> **NOTE:** When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB power available to connected peripherals will be less than 17.5 W (3.5A).

Environmental

Temperature	Operating: 32° to 122°F (0° to 50°C) Storage: -4° to 158°F (-20° to 70°C)
Humidity	10% to 90% RH (noncondensing)

Construction

Construction	Metal, black finish, vented sides
Mounting	Freestanding or surface mountable (mounting hardware included)

Dimensions

Height	LOCAL: 0.89 in. (23 mm); REMOTE: 0.89 in. (23 mm)
Width	LOCAL: 5.12 in. (130 mm); REMOTE: 5.12 in. (130 mm)
Depth	LOCAL: 4.90 in. (125 mm); REMOTE: 4.90 in. (125 mm)

Weight

LOCAL: 12.32 oz (350 g);
REMOTE: 12 oz (340 g)

Compliance

Regulatory Model: M202444001

FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.

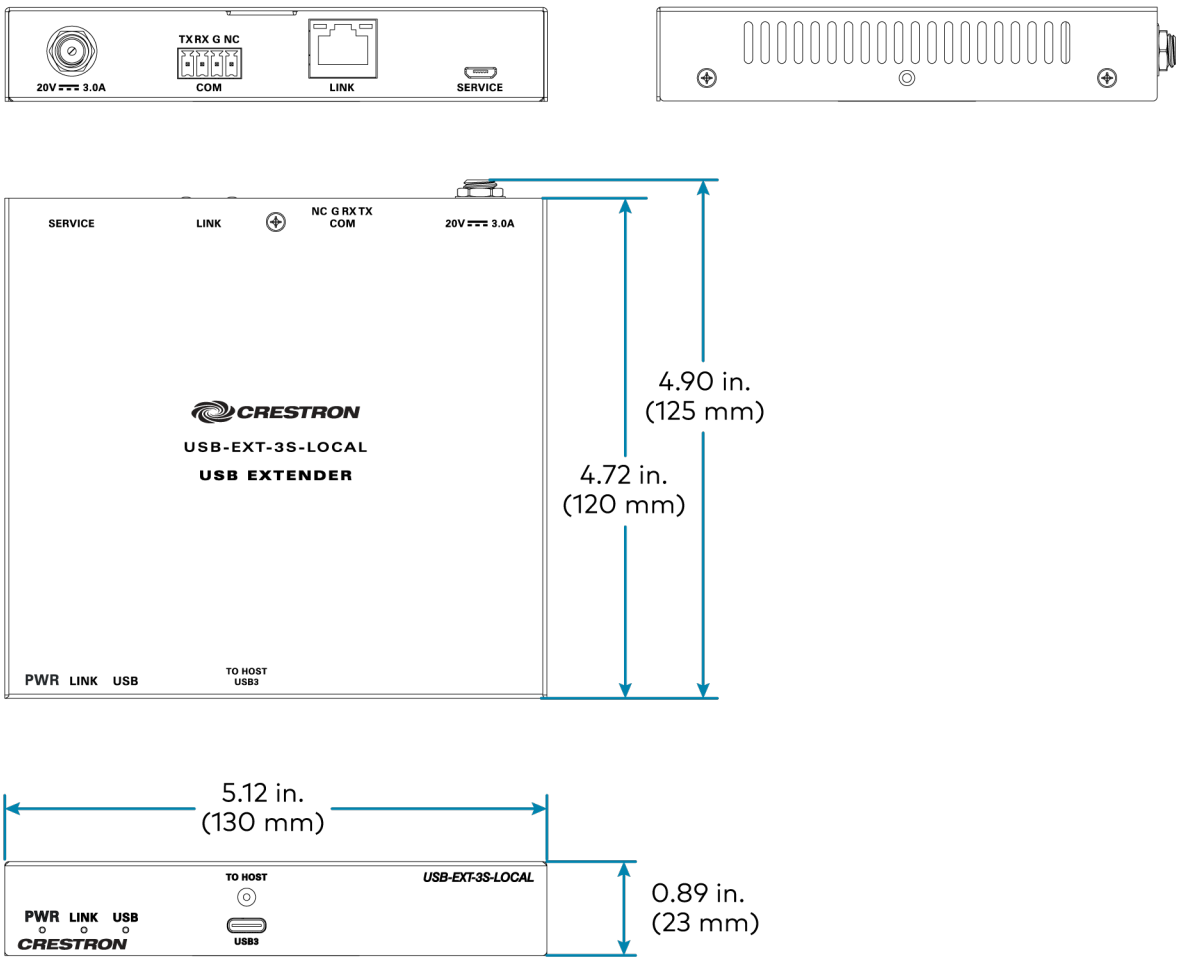
2. The USB extenders are engineered to deliver maximum compatibility with the widest possible range of USB hosts and devices. Crestron does not guarantee that all USB hosts or devices are compatible with the USB extenders. Certain USB hosts and devices may require additional driver installation if not directly supported by the operating system of the computer.

3. The **LINK** ports of the local and the remote endpoints must be connected to each other. Do not connect the **LINK** ports to any other device or to a network.

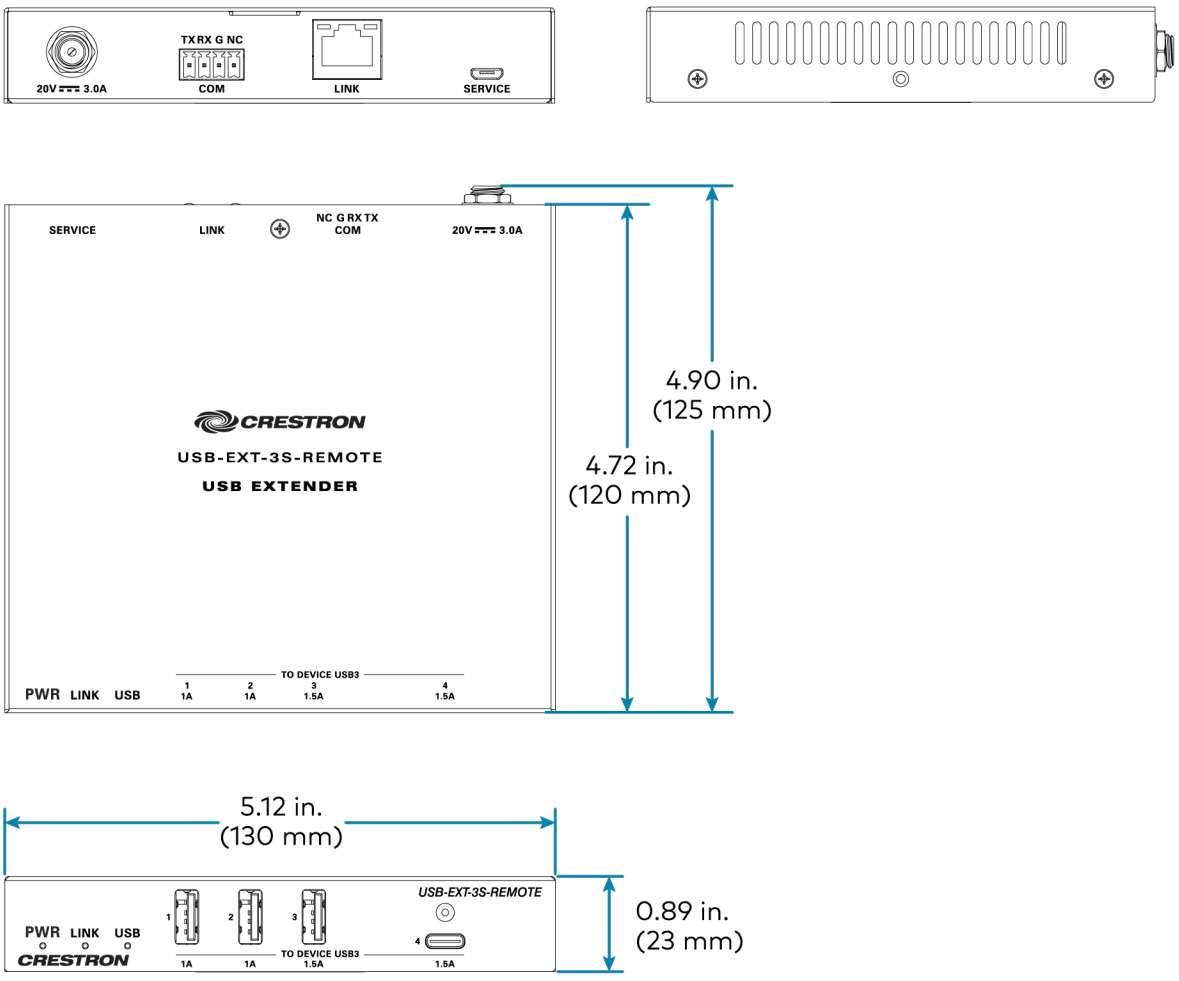
4. Only one endpoint should be connected to a local power supply. Either the local or remote endpoint can be powered locally. The other endpoint will receive power over the **LINK** connection. When the remote endpoint receives power over the **LINK** connection from the local endpoint, the total USB current available to connected peripherals will be less than 3.5A.

Dimension Drawings

USB-EXT-3S-LOCAL



USB-EXT-3S-REMOTE



USB-EXT-3S-LOCAL Specifications

Product specifications for the USB-EXT-3S-LOCAL are provided below.

Product Specifications

Communications

LINK	Proprietary link for point-to-point connection between USB-EXT-3S endpoints
USB Speeds	USB 3.2 Gen 1 up to 5 Gbps; USB 2.0 up to 480 Mbps; USB 1.1 up to 12 Mbps
RS-232	Bidirectional serial pass-through

Connectors

20V 3.0A	(1) locking DC power connector; 20VDC power input; PW-2030DU power supply sold separately[4]
TO HOST USB3	(1) USB Type-C® connector, female; USB 3.2 Gen 1 host port for connection to computer, media server, game console, or other USB host;[1] Backward compatibility with USB 2.0 and USB 1.1
LINK	(1) 8-pin RJ-45 connector, female; Connects directly to **LINK** port on USB-EXT-3S-REMOTE;[3] Up to 330 ft (100 m) over CAT6a/7 cable;[1] If powered locally, supplies power to connected REMOTE endpoint; If not powered locally, receives power from connected REMOTE endpoint[4]
COM	(1) 4-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Up to 115.2k baud; Fourth pin (labeled **NC**) not used
SERVICE	For factory use only

Indicators

PWR	(1) Green LED, indicates that power is being supplied from the included power pack or via the **LINK** connection
LINK	(1) Green LED, indicates that a link is established between the local and remote endpoints

USB	(1) Green LED; Solid indicates that only USB 3 (or greater) devices are connected and the link is active; Flashing green indicates that one or more USB 2 (or lower) devices are connected and the link is active; Off indicates that no USB devices are connected

Power

Power Pack (Included)[4]	Input: 100-240VAC, 50/60 Hz; Output: 3.0A @ 20VDC; Model PW-2030DU sold separately
Power Consumption	31.28 W total between LOCAL and REMOTE

> **NOTE:** When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB power available to connected peripherals will be less than 17.5 W (3.5A).

Environmental

Temperature	Operating: 32° to 122°F (0° to 50°C) Storage: -4° to 158°F (-20° to 70°C)
Humidity	10% to 90% RH (noncondensing)

Construction

Construction	Metal, black finish, vented sides
Mounting	Freestanding or surface mountable (mounting hardware included)

Dimensions

Height	0.89 in. (23 mm)
Width	5.12 in. (130 mm)
Depth	4.90 in. (125 mm)

Weight

12.32 oz (350 g)

Compliance

Regulatory Model: M202444001

FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

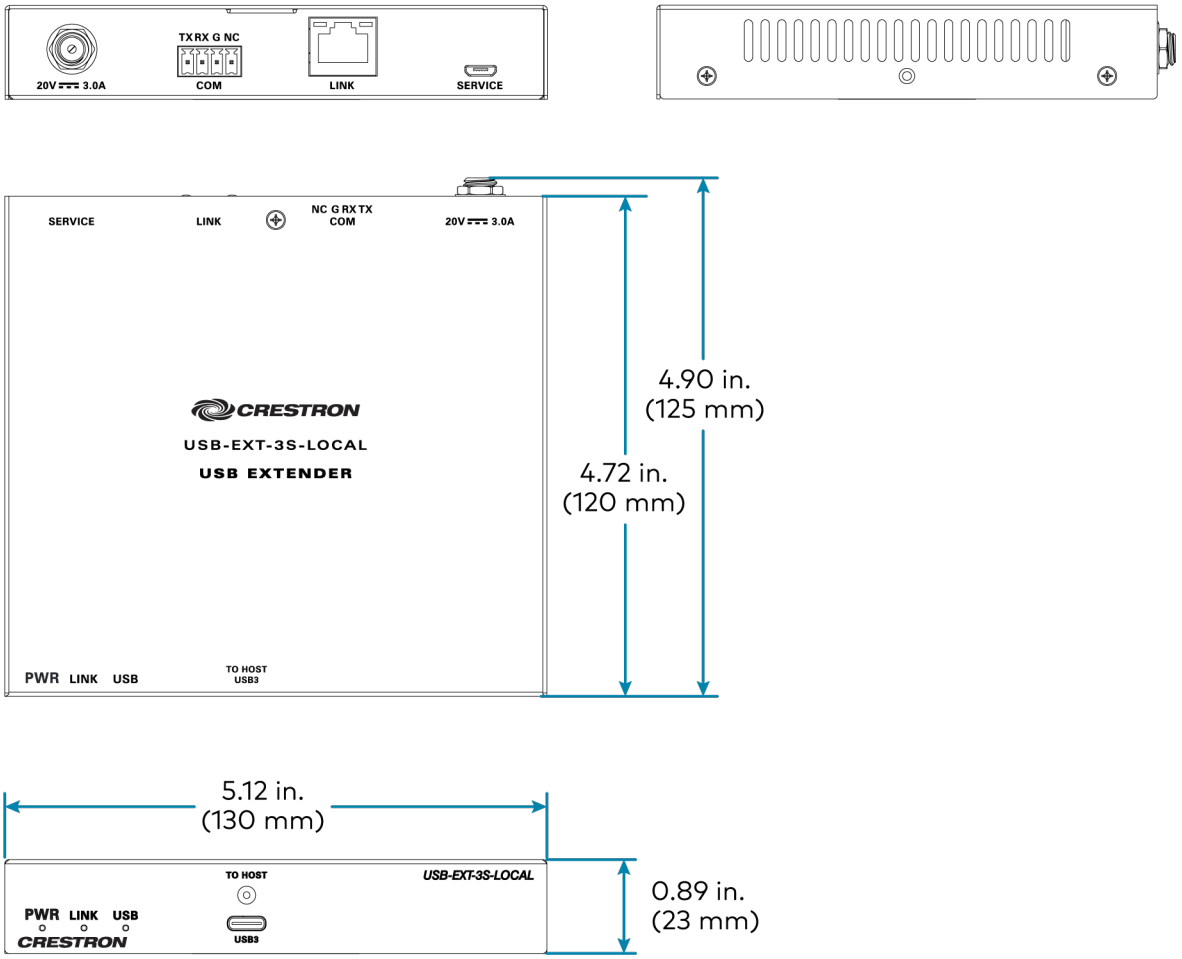
   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.

2. The USB extenders are engineered to deliver maximum compatibility with the widest possible range of USB hosts and devices. Crestron does not guarantee that all USB hosts or devices are compatible with the USB extenders. Certain USB hosts and devices may require additional driver installation if not directly supported by the operating system of the computer.

3. The **LINK** ports of the local and the remote endpoints must be connected to each other. Do not connect the **LINK** ports to any other device or to a network.

4. Only one endpoint should be connected to a local power supply. Either the local or remote endpoint can be powered locally. The other endpoint will receive power over the **LINK** connection. When the remote endpoint receives power over the **LINK** connection from the local endpoint, the total USB current available to connected peripherals will be less than 3.5A.

Dimension Drawings



USB-EXT-3S-LOCAL-1G Specifications

Product specifications for the USB-EXT-3S-LOCAL-1G are provided below.

Product Specifications

Communications

LINK	Proprietary link for point-to-point connection between USB-EXT-3S endpoints
USB Speeds	USB 3.2 Gen 1 up to 5 Gbps; USB 2.0 up to 480 Mbps; USB 1.1 up to 12 Mbps
RS-232	Bidirectional serial pass-through

Connectors

20V 3.0A	(1) 2-pin DC power connector; 20VDC power input; PW-2030DUL power supply sold separately[5]
TO HOST USB3	(1) USB Type-C® connector, female; USB 3.2 Gen 1 host port for connection to computer, media server, game console, or other USB host;[1] Backward compatibility with USB 2.0 and USB 1.1
LINK	(1) 8-pin RJ-45 connector, female; Connects directly to **LINK** port on USB-EXT-3S-REMOTE;[4] Up to 330 ft (100 m) over CAT6a/7 cable;[1] If not powered locally, receives power from connected REMOTE endpoint[5]
COM	(1) 4-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Up to 115.2k baud; Fourth pin (labeled **NC**) not used
SERVICE	For factory use only

Indicators

PWR	(1) Green LED, indicates that power is being supplied from the included power pack or via the **LINK** connection
LINK	(1) Green LED, indicates that a link is established between the local and remote endpoints

USB	(1) Green LED; Solid indicates that only USB 3 (or greater) devices are connected and the link is active; Flashing green indicates that one or more USB 2 (or lower) devices are connected and the link is active; Off indicates that no USB devices are connected

Power

Power Pack (Included)[5]	Input: 100-240VAC, 50/60 Hz; Output: 3.0A @ 20VDC; Model PW-2030DUL sold separately
Power Consumption	31.28 W total between LOCAL and REMOTE

> **NOTE:** When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB power available to connected peripherals will be less than 17.5 W (3.5A).

Environmental

Temperature	Operating: 32° to 122°F (0° to 50°C) Storage: -4° to 158°F (-20° to 70°C)
Humidity	10% to 90% RH (noncondensing)

Construction

Construction	Metal housing with detachable white and black plastic face plates included
Mounting	Mounts in an unobstructed North American 1-gang electrical box (not included); Minimum mounting depth of 3.5 in. (89 mm) required; FP-G1 series decorator style face plate (not included)[2]

Dimensions

Height	4.16 in. (106 mm)
Width	1.77 in. (45 mm)
Depth	2.36 in. (60 mm)

Weight

6.61 oz (187 g)

Compliance

Regulatory Model: M202444002

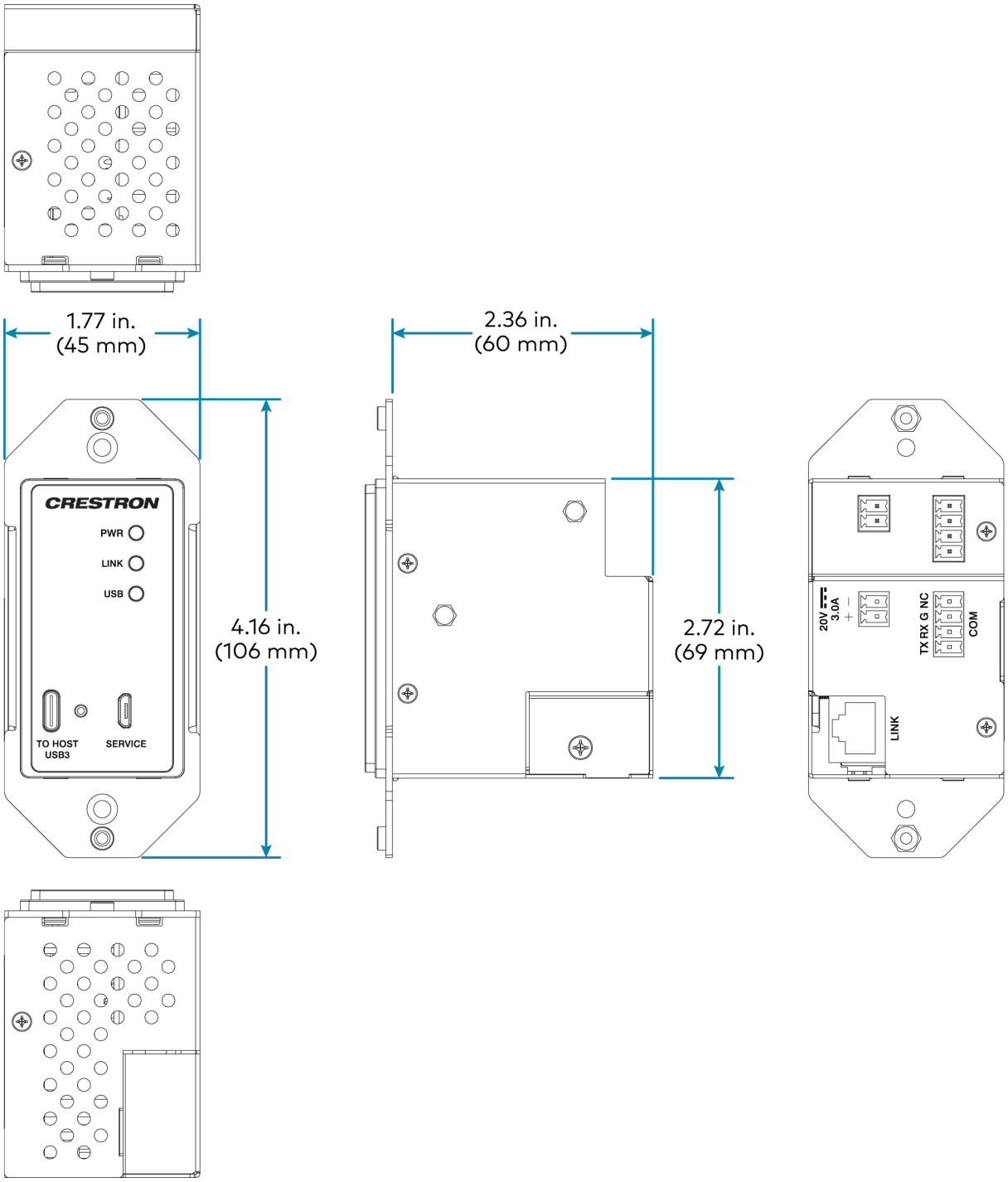
FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.
2. There is slight variance between the color of the swappable front panel covers and the FP-G1 series black and white face plates.
3. The USB extenders are engineered to deliver maximum compatibility with the widest possible range of USB hosts and devices. Crestron does not guarantee that all USB hosts or devices are compatible with the USB extenders. Certain USB hosts and devices may require additional driver installation if not directly supported by the operating system of the computer.
4. The **LINK** ports of the local and the remote endpoints must be connected to each other. Do not connect the **LINK** ports to any other device or to a network.
5. If a USB-EXT-3S-LOCAL-1G is connected to a USB-EXT-3S-REMOTE-1G, both devices must be connected to a local power supply. If a wall plate endpoint is connected to a room box endpoint (USB-EXT-3S-LOCAL or USB-EXT-3S-REMOTE), it can receive power over the **LINK** connection. When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB current available to connected peripherals will be less than 3.5A.

Dimension Drawings



USB-EXT-3S-REMOTE Specifications

Product specifications for the USB-EXT-3S-REMOTE are provided below.

Product Specifications

Communications

LINK	Proprietary link for point-to-point connection between USB-EXT-3S endpoints
USB Speeds	USB 3.2 Gen 1 up to 5 Gbps; USB 2.0 up to 480 Mbps; USB 1.1 up to 12 Mbps
RS-232	Bidirectional serial pass-through

Connectors

20V 3.0A	(1) locking DC power connector; 20VDC power input; PW-2030DU power supply sold separately[4]
TO DEVICE USB3 1-2	(2) USB Type-A connectors, female; USB 3.2 Gen 1 device ports for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1A per USB port
TO DEVICE USB3 3	(1) USB Type-A connector, female; USB 3.2 Gen 1 device port for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1.5A
TO DEVICE USB3 4	(1) USB Type-C connector, female; USB 3.2 Gen 1 device port for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1.5A
LINK	(1) 8-pin RJ-45 connector, female; Connects directly to **LINK** port on USB-EXT-3S-REMOTE;[3] Up to 330 ft (100 m) over CAT6a/7 cable;[1] If powered locally, supplies power to connected LOCAL endpoint; If not powered locally, receives power from connected LOCAL endpoint[4]
COM	(1) 4-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Up to 115.2k baud; Fourth pin (labeled **NC**) not used

SERVICE	For factory use only

Indicators

PWR	(1) Green LED, indicates that power is being supplied from the included power pack or via the **LINK** connection
LINK	(1) Green LED, indicates that a link is established between the local and remote endpoints
USB	(1) Green LED; Solid indicates that only USB 3 (or greater) devices are connected and the link is active; Flashing green indicates that one or more USB 2 (or lower) devices are connected and the link is active; Off indicates that no USB devices are connected

Power

Power Pack (Included)[4]	Input: 100-240VAC, 50/60 Hz; Output: 3.0A @ 20VDC; Model PW-2030DU sold separately
Power Consumption	31.28 W total between LOCAL and REMOTE; 25 W allocated to 4 USB devices

> **NOTE:** When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB power available to connected peripherals will be less than 17.5 W (3.5A).

Environmental

Temperature	Operating: 32° to 122°F (0° to 50°C) Storage: -4° to 158°F (-20° to 70°C)
Humidity	10% to 90% RH (noncondensing)

Construction

Construction	Metal, black finish, vented sides
Mounting	Freestanding or surface mountable (mounting hardware included)

Dimensions

Height	0.89 in. (23 mm)
Width	5.12 in. (130 mm)
Depth	4.90 in. (125 mm)

Weight

12 oz (340 g)

Compliance

Regulatory Model: M202444001

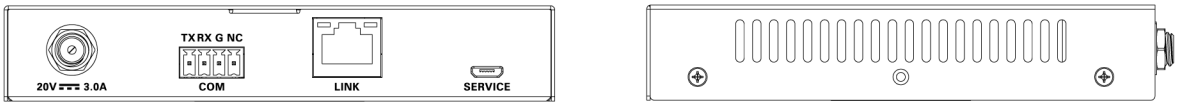
FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

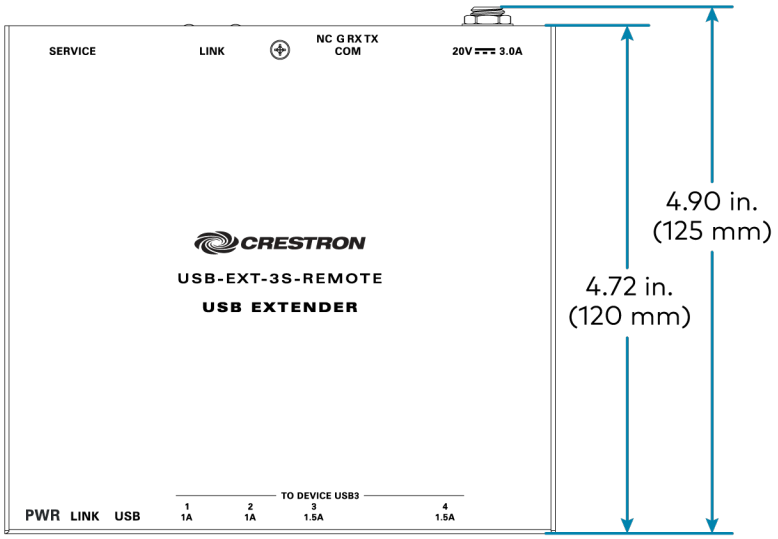
Notes:

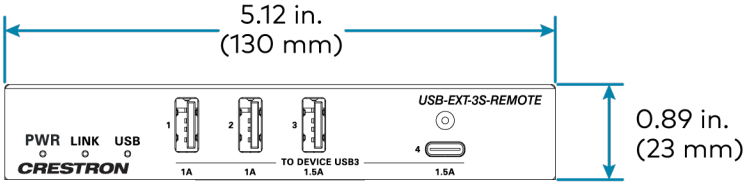
1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.
2. There is slight variance between the color of the swappable front panel covers and the FP-G1 series black and white face plates.
3. The USB extenders are engineered to deliver maximum compatibility with the widest possible range of USB hosts and devices. Crestron does not guarantee that all USB hosts or devices are compatible with the USB extenders. Certain USB hosts and devices may require additional driver installation if not directly supported by the operating system of the computer.
4. The **LINK** ports of the local and the remote endpoints must be connected to each other. Do not connect the **LINK** ports to any other device or to a network.
5. Only one endpoint should be connected to a local power supply. Either the local or remote endpoint can be powered locally. The other endpoint will receive power over the **LINK** connection. When the remote endpoint receives power over the **LINK** connection from the local endpoint, the total USB current available to connected peripherals will be less than 3.5A.
6. If a USB-EXT-3S-LOCAL-1G is connected to a USB-EXT-3S-REMOTE-1G, both devices must be connected to a local power supply. If a wall plate endpoint is connected to a room box endpoint (USB-EXT-3S-LOCAL or USB-EXT-3S-REMOTE), it can receive power over the **LINK** connection. When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB current available to connected peripherals will be less than 3.5A.

Dimension Drawings







USB-EXT-3S-REMOTE-1G Specifications

Product specifications for the USB-EXT-3S-REMOTE-1G are provided below.

Product Specifications

Communications

LINK	Proprietary link for point-to-point connection between USB-EXT-3S endpoints
USB Speeds	USB 3.2 Gen 1 up to 5 Gbps; USB 2.0 up to 480 Mbps; USB 1.1 up to 12 Mbps
RS-232	Bidirectional serial pass-through

Connectors

20V 3.0A	(1) 2-pin DC power connector; 20VDC power input; PW-2030DUL power supply sold separately[5]
TO DEVICE USB3 1-3	(3) USB Type-A connectors, female; USB 3.2 Gen 1 device ports for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[3] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1A per USB port
TO DEVICE USB3 4	(1) USB Type-C connector, female; USB 3.2 Gen 1 device port for connection to USB cameras, video capture devices, flash drives, keyboards, mice, hubs, or other USB devices;[2] Backward compatibility with USB 2.0 and USB 1.1; Available Power: 1.5A
LINK	(1) 8-pin RJ-45 connector, female; Connects directly to **LINK** port on USB-EXT-3S-REMOTE;[4] Up to 330 ft (100 m) over CAT6a/7 cable;[1] If not powered locally, receives power from connected LOCAL endpoint[5]
COM	(1) 4-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Up to 115.2k baud; Fourth pin (labeled **NC**) not used
SERVICE	For factory use only

Indicators

PWR	(1) Green LED, indicates that power is being supplied from the included power pack or via the **LINK** connection

LINK	(1) Green LED, indicates that a link is established between the local and remote endpoints
USB	(1) Green LED; Solid indicates that only USB 3 (or greater) devices are connected and the link is active; Flashing green indicates that one or more USB 2 (or lower) devices are connected and the link is active; Off indicates that no USB devices are connected

Power

Power Pack (Included)[5]	Input: 100-240VAC, 50/60 Hz; Output: 3.0A @ 20VDC; Model PW-2030DUL sold separately
Power Consumption	31.28 W total between LOCAL and REMOTE; 25 W allocated to 4 USB devices

> **NOTE:** When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB power available to connected peripherals will be less than 17.5 W (3.5A).

Environmental

Temperature	Operating: 32° to 122°F (0° to 50°C) Storage: -4° to 158°F (-20° to 70°C)
Humidity	10% to 90% RH (noncondensing)

Construction

Construction	Metal housing with detachable white and black plastic face plates included
Mounting	Mounts in an unobstructed North American 1-gang electrical box (not included); Minimum mounting depth of 3.5 in. (89 mm) required; FP-G1 series decorator style face plate (not included)[2]

Dimensions

Height	4.16 in. (106 mm)
Width	1.77 in. (45 mm)
Depth	2.36 in. (60 mm)

Weight

8.29 oz (235 g)

Compliance

Regulatory Model: M202444002

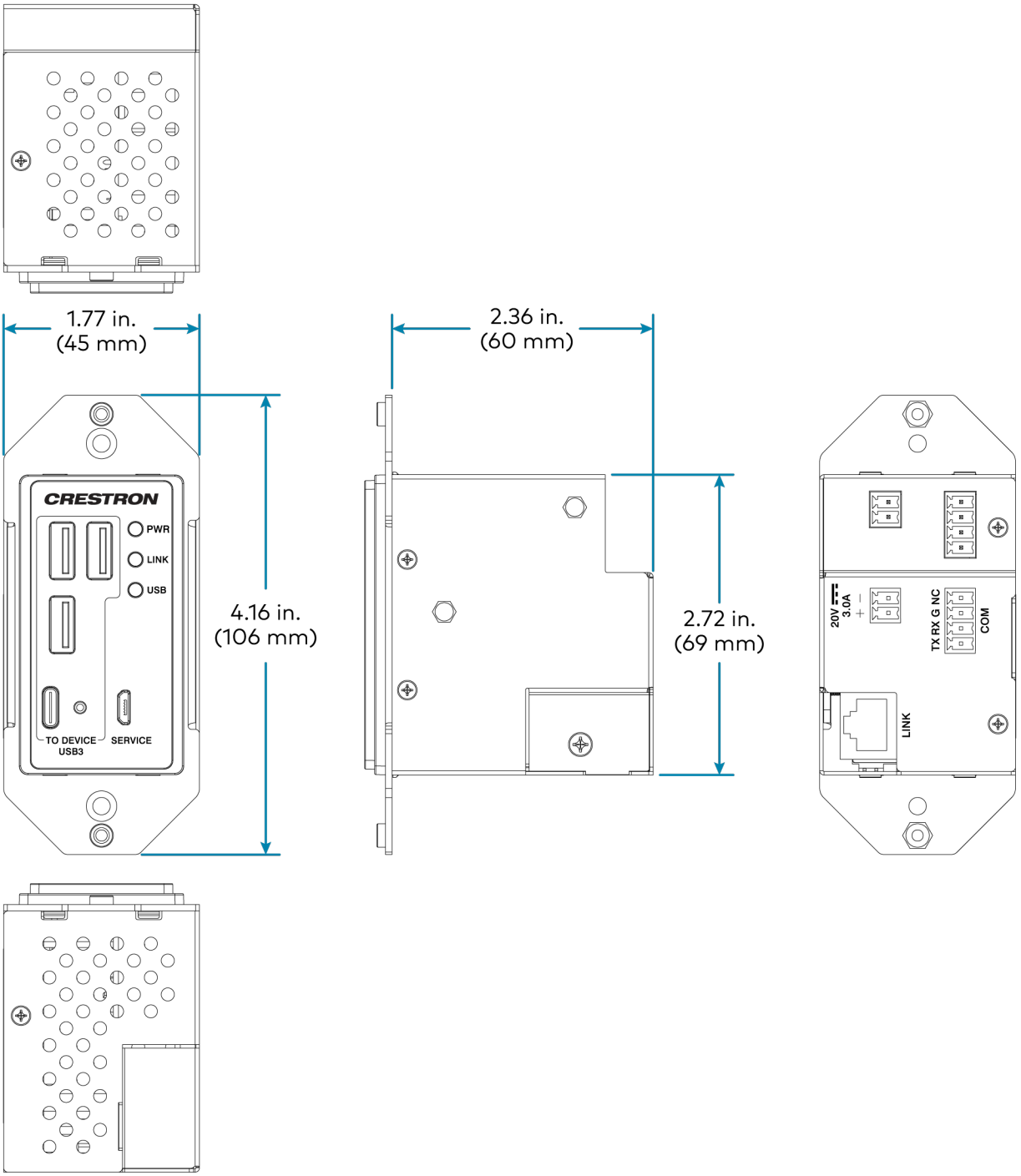
FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

Notes:

1. For the **LINK** connection between the local and remote extenders, use CAT6a/7 UTP (unshielded twisted pair), FTP (foiled twisted pair), or STP (shielded twisted pair) as determined by the specific installation requirements. The maximum cable length is 330 ft (100 m).

   If using on-premise cabling, up to 33 ft (10 m) of CAT6a/7 patch cord can be used for each extender, ensuring that the total cable length does not exceed 330 ft (100 m). The remaining 264 ft (80 m) distance must consist of solid-core premise cabling.
2. There is slight variance between the color of the swappable front panel covers and the FP-G1 series black and white face plates.
3. The USB extenders are engineered to deliver maximum compatibility with the widest possible range of USB hosts and devices. Crestron does not guarantee that all USB hosts or devices are compatible with the USB extenders. Certain USB hosts and devices may require additional driver installation if not directly supported by the operating system of the computer.
4. The **LINK** ports of the local and the remote endpoints must be connected to each other. Do not connect the **LINK** ports to any other device or to a network.
5. If a USB-EXT-3S-LOCAL-1G is connected to a USB-EXT-3S-REMOTE-1G, both devices must be connected to a local power supply. If a wall plate endpoint is connected to a room box endpoint (USB-EXT-3S-LOCAL or USB-EXT-3S-REMOTE), it can receive power over the **LINK** connection. When a remote endpoint receives power over the **LINK** connection from a local endpoint, the total USB current available to connected peripherals will be less than 3.5A.

Dimension Drawings



Installation

This section provides the following information:

- USB-EXT-3S SYSTEM (LOCAL and REMOTE) Installation
- USB-EXT-3S-LOCAL-1G and -REMOTE-1G Installation

USB-EXT-3S SYSTEM (LOCAL and REMOTE) Installation

Use the following procedures to install the USB-EXT-3S SYSTEM or individual USB-EXT-3S-LOCAL and USB-EXT-3S-REMOTE endpoints.

- In the Box on page 38
- Mount the Device on page 39
- Connect the Device on page 40
- Observe the Indicators on page 42

CAUTION: Heavy-duty degreasers should not be used to clean the USB-EXT-3S device. Doing so can remove the silkscreen labeling from the housing. A 75% alcohol cleaning solution should be used to remove surface oils such as fingerprints.

In the Box

Qty.	Description
1	USB-EXT-3S-LOCAL, USB 3.2 Extender over CAT 6a/7 Cable, Local
1	USB-EXT-3S-REMOTE, USB 3.2 Extender over CAT 6a/7 Cable, Remote
	SYSTEM Only
1	PW-2030DU Universal Power Pack, 20VDC, 3.0A (6514475)[1]
	LOCAL and REMOTE (each)
2	Mounting Bracket, Plastic (2065993)
2	Screw, M2.5 x 5 mm, Black, Pan Head, Philips (2065994)
1	Connector, 4-pin (2065995)

1. When sold individually, the USB-EXT-3S-LOCAL and USB-EXT-3S-REMOTE do not include a power supply. One PW-2030DU power supply must be purchased separately for each pair of endpoints. When sold together as the USB-EXT-3S SYSTEM, one PW-2030DU power supply is included. Connect the power supply to one endpoint - the other endpoint will receive power over its **LINK** connection.

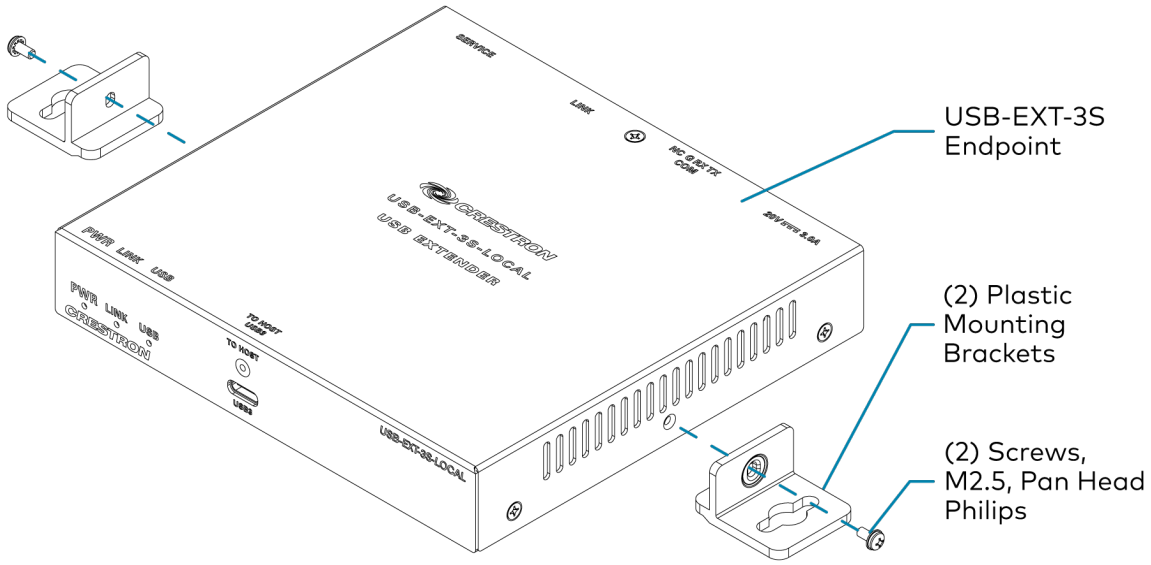
Mount the Device

The USB-EXT-3S-LOCAL and USB-EXT-3S-REMOTE endpoints can be placed or mounted on a flat surface.

To mount the device to a surface:

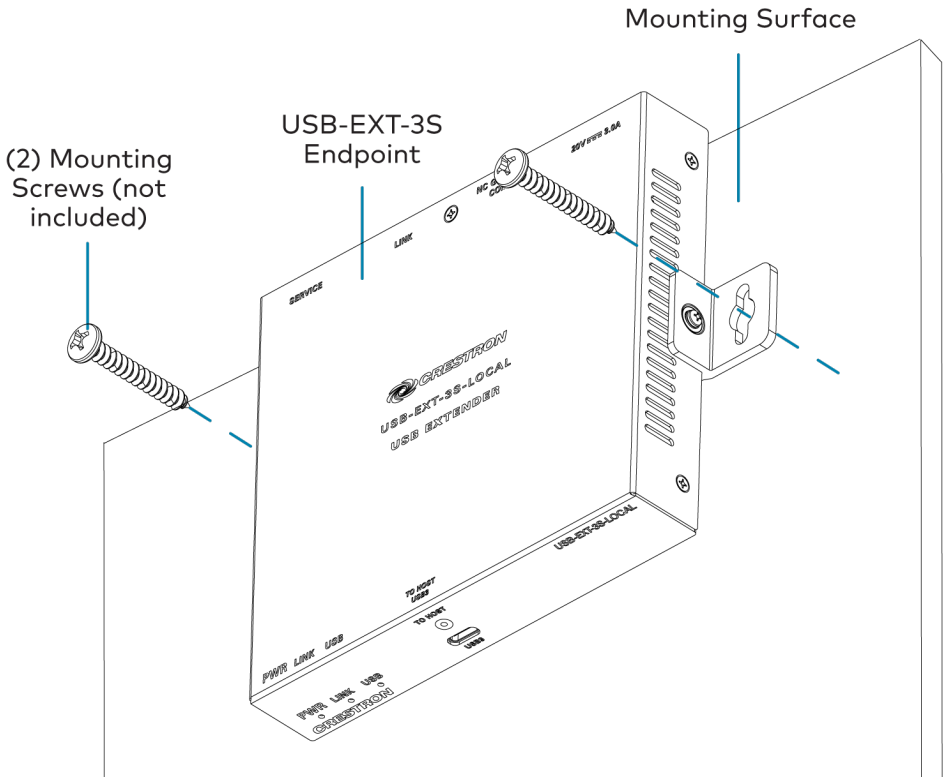
1. Attach the two included plastic mounting brackets to the side panels of the endpoint using the two included M2.5 screws and a Philips screwdriver (not included).

   Attach Mounting Brackets - USB-EXT-3S-LOCAL Shown



2. Mount the brackets to the wall using two surface appropriate mounting screws (not included).

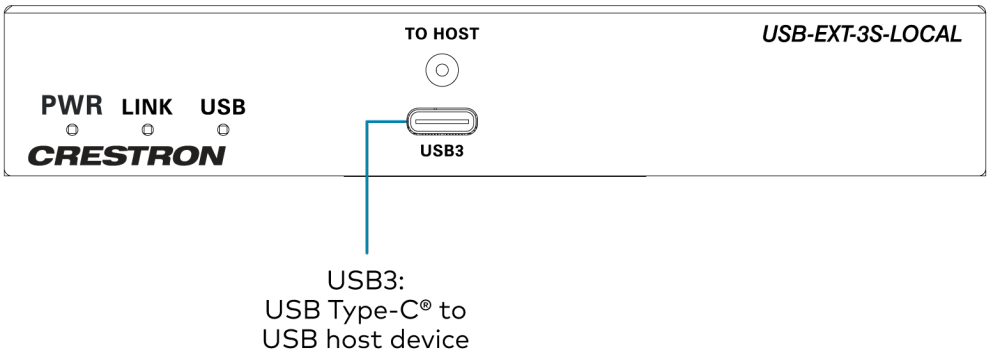
Mount Brackets - USB-EXT-3S-LOCAL Shown



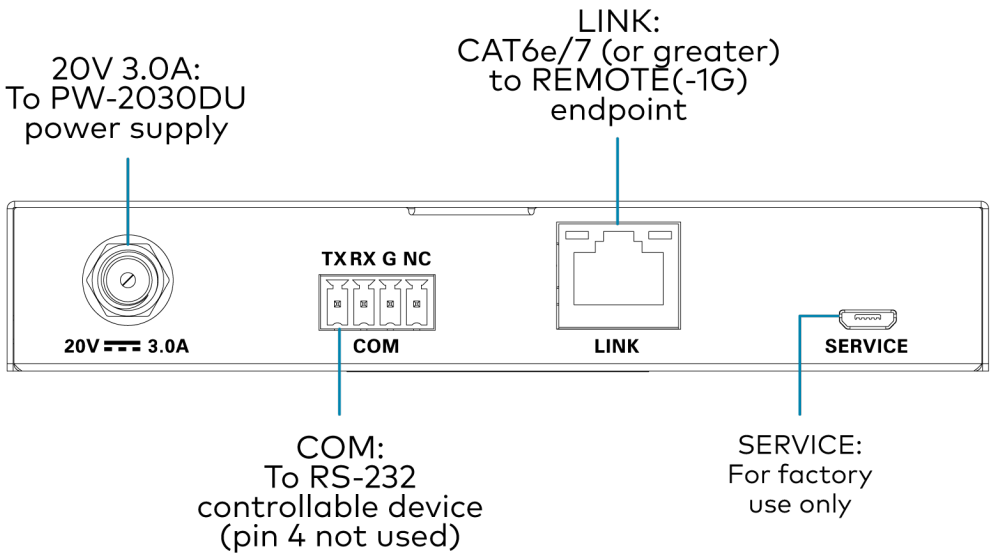
Connect the Device

Make the necessary connections as shown in the following illustrations. Connect power last.

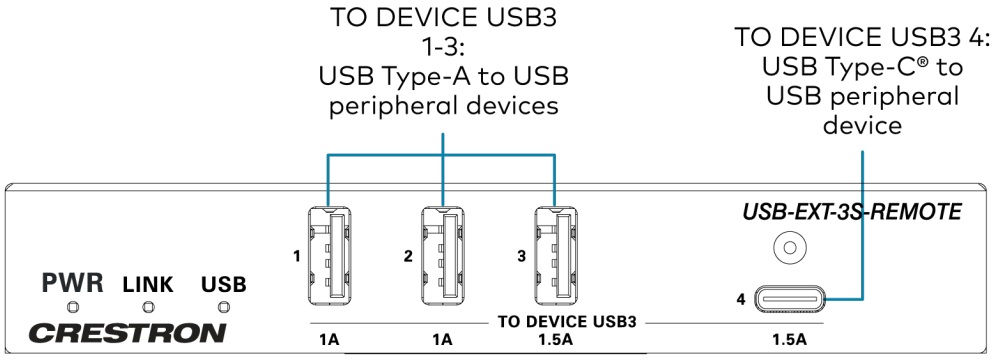
USB-EXT-3S-LOCAL - Front Panel



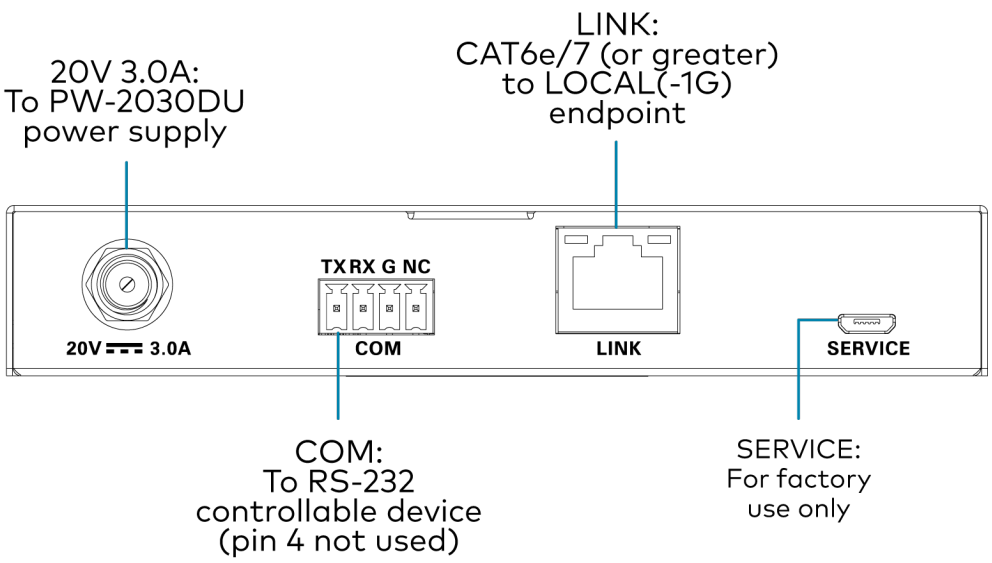
USB-EXT-3S-LOCAL - Rear Panel



USB-EXT-3S-REMOTE - Front Panel



USB-EXT-3S-REMOTE - Rear Panel



Observe the Indicators

Refer to the following table for information about the LED indicators on the device.

Indicator	Status	Meaning
PWR	Green, solid	The device is powered on.
LINK	Green, solid	A link is established between the LOCAL and REMOTE endpoints.
USB	Green, solid	Only USB 3 (or greater) devices are connected and the link is active.
	Green, flashing	One or more USB 2 devices are connected and the link is active.
	Off	No USB devices are connected.

USB-EXT-3S-LOCAL-1G and -REMOTE-1G Installation

Use the following procedures to install the USB-EXT-3S-LOCAL-1G and USB-EXT-3S-REMOTE-1G wall plate endpoints.

- In the Box on page 43
- Mount the Device on page 44
- Connect the Device on page 46
- Observe the Indicators on page 48

CAUTION: Alcohol-based cleaning solutions should not be used to clean the front panel cover of the USB-EXT-3S device. Doing so can remove the silkscreen labeling from the cover. A 75% alcohol cleaning solution should be used to remove surface oils such as fingerprints.

In the Box

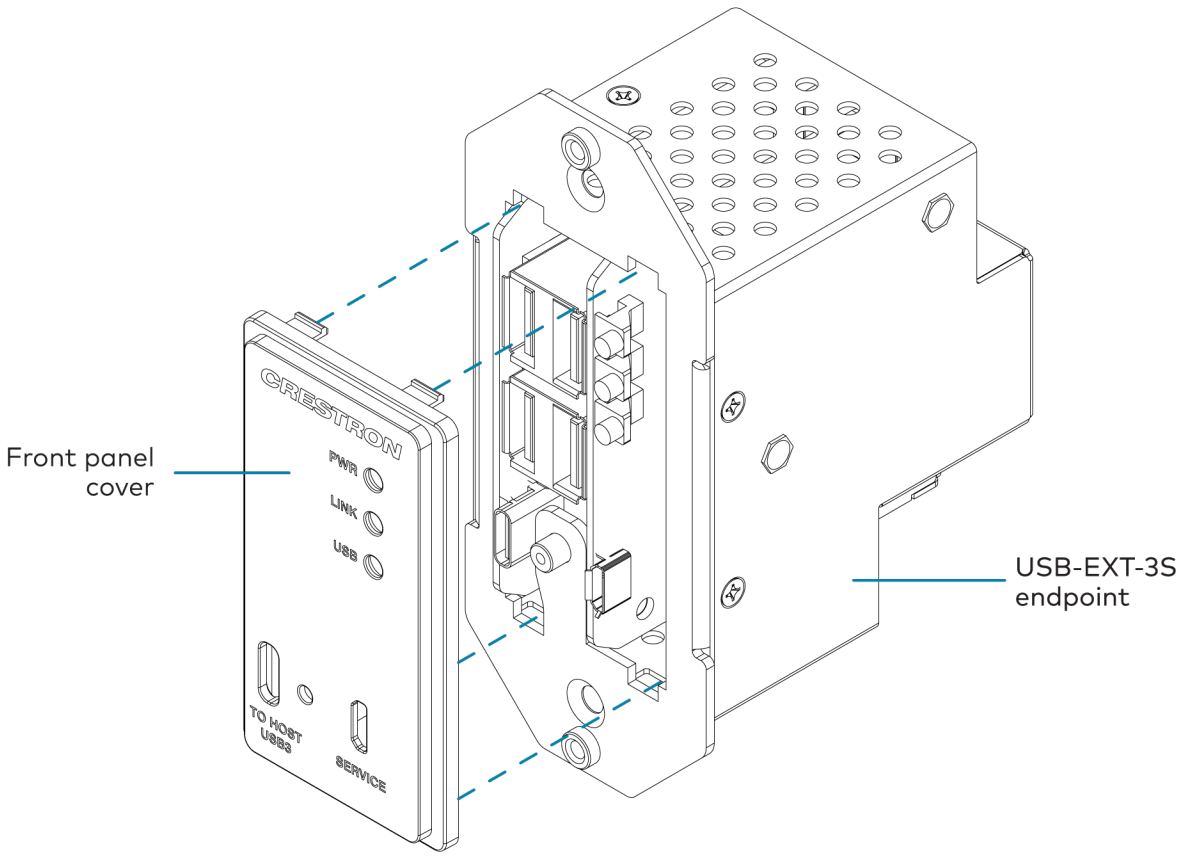
Qty.	Description
1	USB-EXT-3S-LOCAL-1G, USB 3.2 Extender over CAT 6a/7 Cable, Local, 1-Gang; OR USB-EXT-3S-REMOTE-1G, USB 3.2 Extender over CAT 6a/7 Cable, Remote, 1-Gang
	LOCAL-1G Only
1	Connector, 2-pin (2066006)
1	Connector, 4-pin (2065995)
2	Screw, 6-32 x 20 mm, Flat Head, Philips (2065994)
1	Front Panel Cover, White Plastic, Local (4539736)
1	Front Panel Cover, Black Plastic, Local (4539737)
	REMOTE-1G Only
1	Connector, 2-pin (2066006)
1	Connector, 4-pin (2065995)
2	Screw, 6-32 x 20 mm, Flat Head, Philips (2065994)
1	Front Panel Cover, White Plastic, Remote (4539738)
1	Front Panel Cover, Black Plastic, Remote (4539739)

Mount the Device

To mount the endpoint into a single-gang electrical box:

1. Run the network, serial, and power cables to the electrical box (not included, 3.5 in. [89 mm] minimum depth).
2. Attach the desired front panel cover to the chassis. Push the cover into the chassis until the four tabs snap into place.

   Attach Cover - USB-EXT-3S-LOCAL-1G Shown

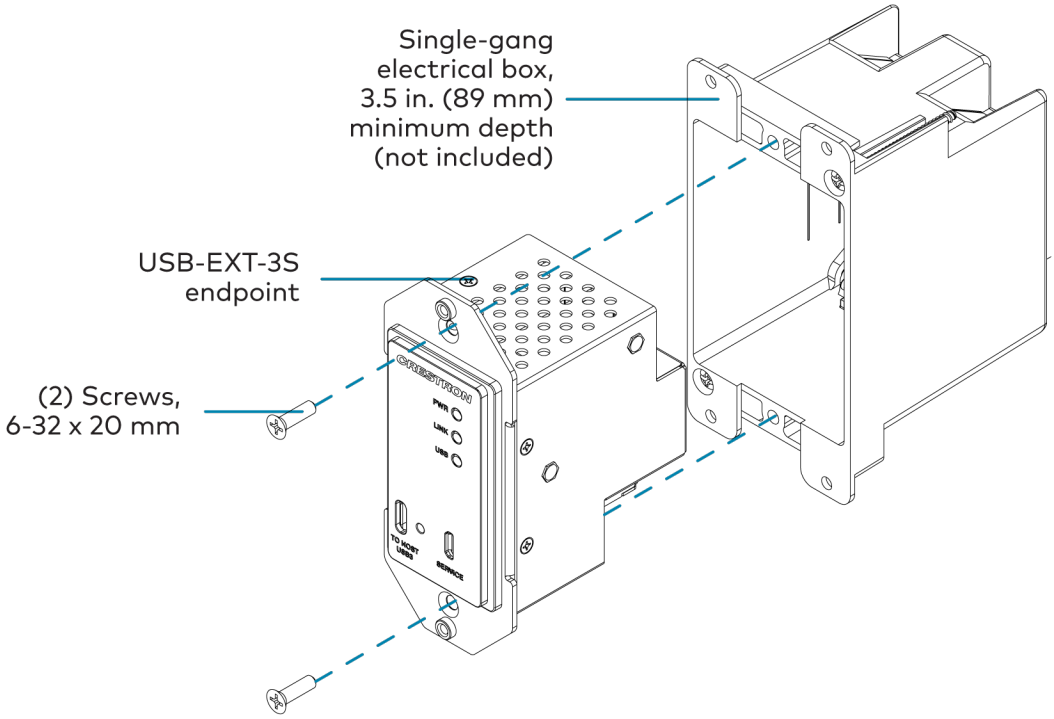


> **NOTE:** The white cover is attached out of the box. To change the cover, slide a small flat head screwdriver (not included) in between the cover and chassis and gently pry it up to remove it.

3. Make the rear panel connections as described in Connect the Device on page 46.

4. Attach the wall plate to the electrical box using the two included 6-32 x 20 mm screws and a Phillips screwdriver (not included).

Mount to Electrical Box - USB-EXT-3S-LOCAL-1G Shown



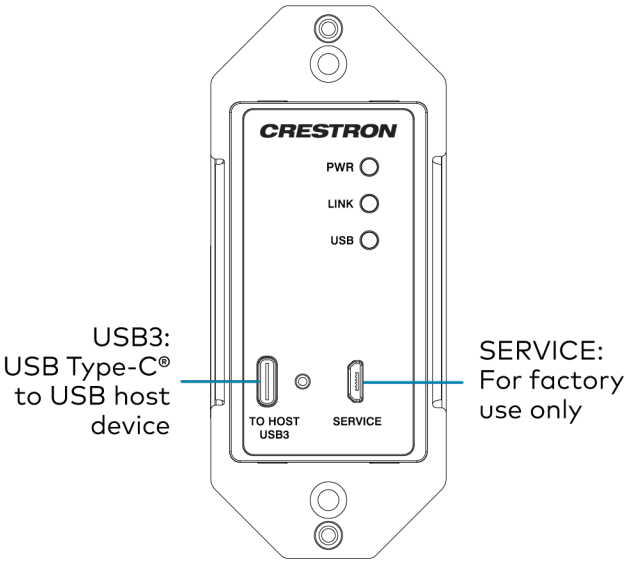
5. Attach a FP-G1 decorator style faceplate (sold separately) to the wall plate. Refer to the FP-G1 Installation Guide for instructions.

> **NOTE:** There is slight variance between the color of the swappable front panel covers and the FP-G1 series black and white face plates.

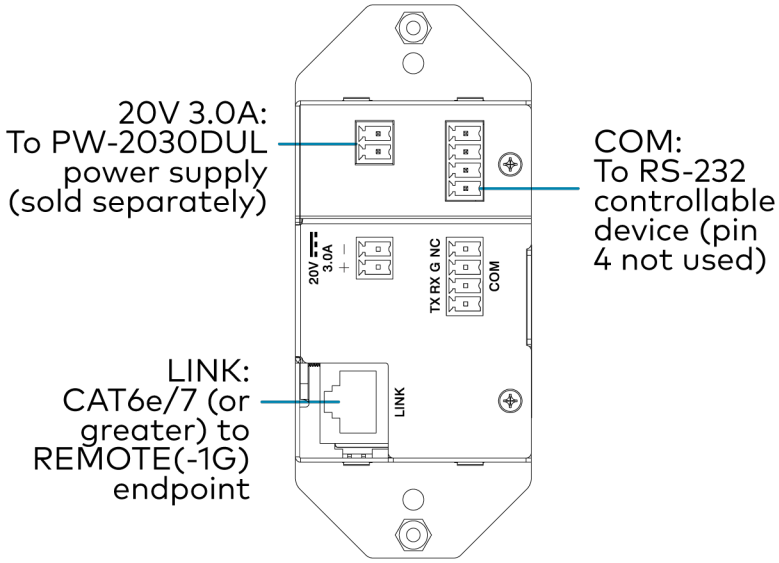
Connect the Device

Make the necessary connections as shown in the following illustrations.

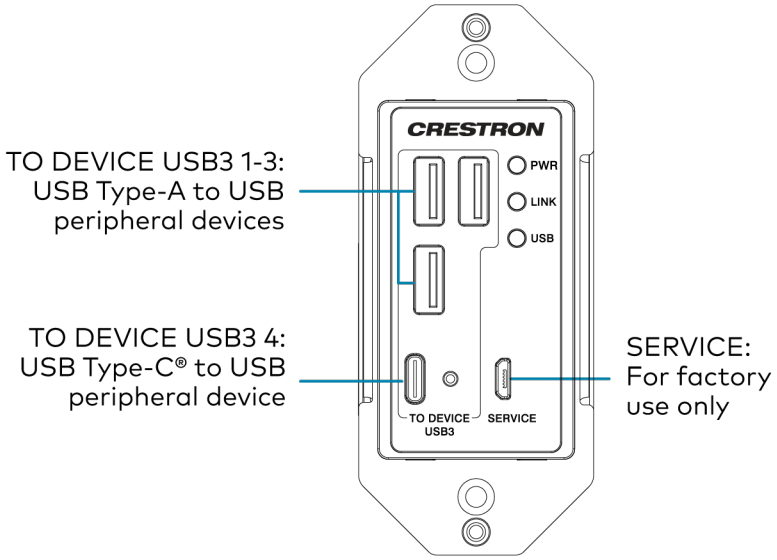
USB-EXT-3S-LOCAL-1G Front Panel



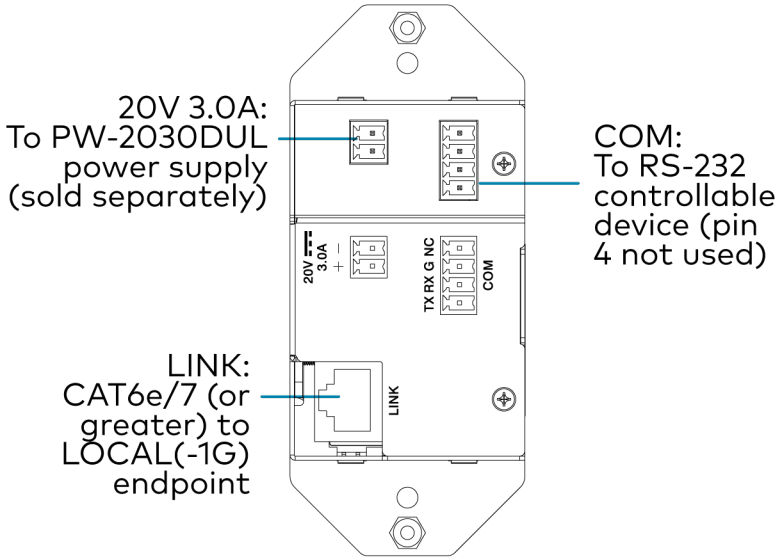
USB-EXT-3S-LOCAL-1G Rear Panel



USB-EXT-3S-REMOTE-1G Front Panel



USB-EXT-3S-REMOTE-1G Rear Panel



Observe the Indicators

Refer to the following table for information about the LED indicators on the device.

Indicator	Status	Meaning
PWR	Green, solid	The device is powered on.
LINK	Green, solid	A link is established between the LOCAL and REMOTE endpoints.
USB	Green, solid	Only USB 3 (or greater) devices are connected and the link is active.
	Green, flashing	One or more USB 2 devices are connected and the link is active.
	Off	No USB devices are connected.

Resources

The following resources are provided for the USB-EXT-3S.

> **NOTE:** You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

Crestron Support and Training

- Crestron True Blue Support
- Crestron Resource Library
- Crestron Online Help (OLH)
- Crestron Technical Institute (CTI) Portal

Programmer and Developer Resources

- help.crestron.com: Provides help files for Crestron programming tools such as SIMPL, SIMPL#, and Crestron Toolbox™ software
- developer.crestron.com: Provides developer documentation for Crestron APIs, SDKs, and other development tools

Product Certificates

To search for product certificates, refer to the Product Certificates section of the Crestron Resource Library.

Related Documentation

- Crestron Technical Documentation

Crestron Electronics, Inc.
15 Volvo Drive, Rockleigh, NJ 07647
Tel: 888.CRESTRON
Fax: 201.767.7656
www.crestron.com

Product Manual — Doc. 9576A
07/24/26
Specifications subject to
change without notice.