

# UCS 504

## FOUR INPUT 4K/60 COLLABORATION SWITCHER AND SCALING RECEIVER WITH EXTENSION



4K UHD

18 Gbps  
4K/60 4:4:4

EVERLAST  
POWER SUPPLIES

21.6 Gbps  
DP Alt Mode

10Gbps USB

60W  
USB

The **UCS 504** is a powerful collaboration switcher and receiver kit with twisted pair extension designed to meet the unique needs of unified communications meeting spaces where AV equipment needs to mount in furniture and behind a display. The transmitter and receiver's four inputs include three HDMI inputs with USB and one USB-C input, which provides video/audio, USB data, and 60W of power. Six USB peripheral connections support USB cameras and microphones at data rates up to USB 10 Gbps.

- ▶ Switches USB devices between USB-C & three HDMI inputs with extension to a remote display
- ▶ Uses a single CATx cable to extend the video and High Speed (USB 2) signals up to 330 feet (100 meters)
- ▶ Supports computer and video resolutions up to 4K/60 @ 4:4:4
- ▶ Provides USB device connections up to USB 10 Gbps
- ▶ Auto-switching and automation capabilities
- ▶ Provides up to 60 watts of power to a USB-C source
- ▶ Display control options including RS-232, IR, and CEC over HDMI

Extron

## DESCRIPTION

The **UCS 504** is a 4K collaboration switcher and receiver kit that combines AV and USB switching with signal extension. The transmitter supports USB-C, and dual HDMI with USB inputs for BYOM laptop connections. The scaling receiver provides an additional HDMI with USB input for a dedicated UC computer and an HDMI output to the room display. Six USB device connections support cameras or mics at up to USB 10 Gbps and HDMI outputs enable resolutions up to 4K/60. The system supports auto switching and automation capabilities including CEC, RS-232 or IR control to a display. The compact half-rack width transmitter can mount under a table or desk while the 1" (2.5cm) high receiver easily mounts behind a display. The UCS 504 makes it easy to integrate AV sources and USB cameras for Teams® and Zoom™ meetings, into conference and collaboration spaces.

### AV Extension Makes it Easy

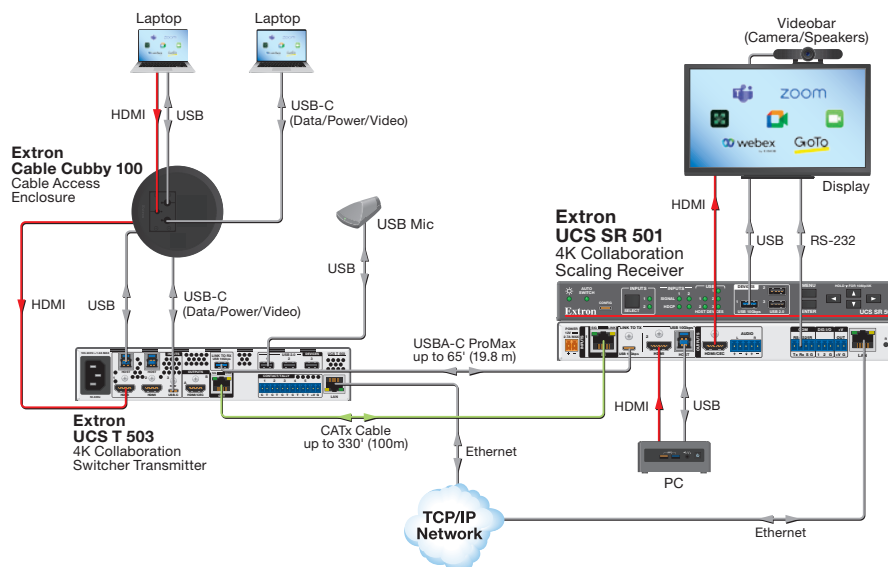
Many meeting spaces need to extend connections to send the AV and USB signals between the presenter location at a table, lectern, or other furniture to a display at the front of the room where other equipment such as a dedicated computer or USB camera may be mounted. The UCS 504 uses a single CATx cable to extend the video and High Speed (USB 2) signals up to 330 feet (100 meters) between the transmitter and receiver for easy room installation of signals over a single cable. For applications that include a USB camera with rates up to USB 10 Gbps (USB 3), the switching transmitter and receiver can be linked using an optional USB extension cable, available in 65 feet (19.8 meters). The UCS 504 provides flexible signal extension to fit your installation needs when you need to mount the AV and computer equipment in multiple locations within a space.

## KEY FEATURES

- ▶ **Switches USB devices between USB-C and three HDMI inputs with twisted pair extension to a remote display**
- ▶ **Single connection for video, USB data, and power for USB-C source devices**
- ▶ **Supports computer and video resolutions up to 4K/60 @ 4:4:4**
  - Resolutions up to 4096x2160/60 with 4:4:4 chroma sampling at 8 bits of color.
- ▶ **Provides USB device connections up to USB 10 Gbps** – For use with USB cameras or microphones.
- ▶ **Provides up to 60 watts of power to a USB-C source** – Supports USB Power Delivery to charge a laptop or other USB-C connected device.
- ▶ **Auto-switching** – Automatically switches to the highest-numbered input with an active video signal or to an active input based on a configured priority.
- ▶ **Compatible with CATx shielded twisted pair cable** – The UCS 504 fully supports a maximum transmission distance of 330 feet (100 meters) for all compatible resolutions and USB data rates up to High Speed (USB 2).
- ▶ **Display control options including RS-232, IR, and CEC over HDMI connection**
- ▶ **Ethernet monitoring and control** – Enables control and proactive monitoring over a LAN or WAN.
- ▶ **1U (Transmitter) and 1" (2.5 cm) high (Receiver), half rack width metal enclosures** – Compact, low-profile enclosures allow for discreet installation.
- ▶ **Extron Everlast™ power supply** – Provides worldwide power compatibility, with high-demonstrated reliability and low power consumption for reduced operating cost.

## BYOM CONFERENCE ROOM

In this Bring Your Own Meeting (BYOM) application, a USB-C laptop and HDMI with USB laptop connect at the Cable Cubby 100 enclosure to the transmitter mounted below the table. A dedicated computer running the Teams or Zoom meeting connects to the receiver's HDMI with USB input. The UCS 504 auto switches the active computer to the room display while switching the room's videobar camera and speakers or the table microphone to the active laptop or computer.



# OVERVIEW

## Compact Enclosure

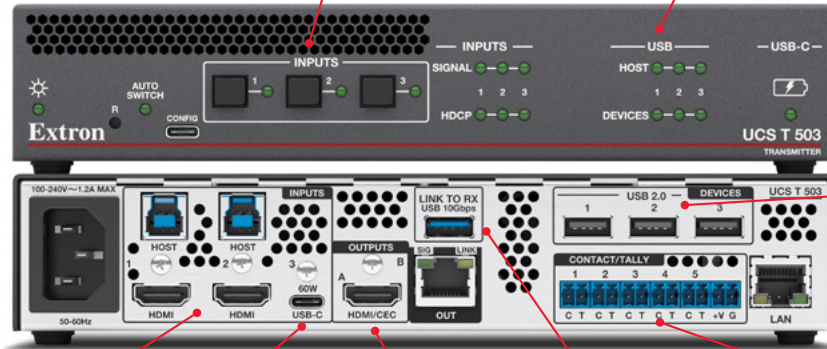
One RU half-rack width enclosure can be discreetly installed in furniture or rack mounted

## Multiple Control Options

Auto and manual switching capability

## Status LEDs

Input and USB status LEDs provide visual indication of activity for attached computers and peripherals



## Peripheral Device Ports

Three support rates up to High Speed (USB 2) for connection to table microphones or other devices

## Contact & Tally Control Ports

Enable operation by optional Show Me cables, a button panel, or an occupancy sensor

## Dual HDMI Inputs

4K capable with USB 10 Gbps data connections

## USB-C Input

4K video/audio, USB 10 Gbps data, and 60 W of power in a single connection

## HDMI Output

Supports computer and video resolutions up to 4K/60 for a local confidence monitor or display

## Receiver Connections

CATx connection up to 330 feet (100 meters) to the receiver mounted at the display or other remote location. Optional USB-A to USB-C connection to the receiver supports USB devices with rates of USB 5 Gbps and USB 10 Gbps at distances up to 65 feet (19.8 meters) using an Extron USBA-C Pro Max cable.

## Compact Enclosure

1" (2.5 cm) high half-rack width enclosure can be discreetly installed behind a display or rack mounted

## Multiple Control Options

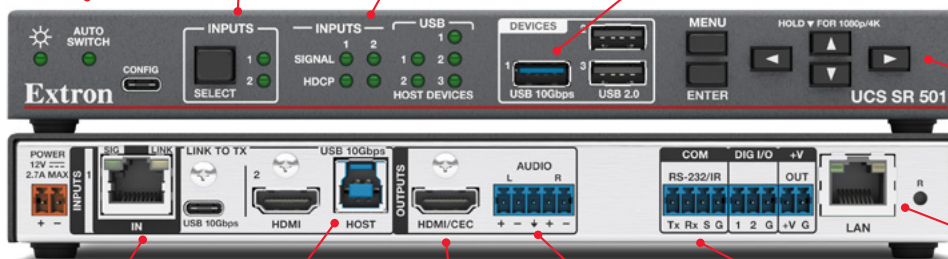
Auto and manual switching capability

## Status LEDs

Input and USB status LEDs provide visual indication of activity for attached computers and peripherals

## Peripheral Device Ports

One supports rates up to USB 10 Gbps and two support rates up to USB High Speed (USB 2)



## Setup Buttons

Control buttons for easy On-Screen Display setup of the scaling receiver

## Gigabit Ethernet Control

Provides control for external control system

## Transmitter Connections

CATx connection up to 330 feet (100 meters) to the transmitter mounted at the table or other remote location. Optional USB-A to USB-C connection to the transmitter supports USB devices with rates of USB 5 Gbps and USB 10 Gbps at distances up to 65 feet (19.8 meters) using an Extron USBA-C Pro Max cable.

## HDMI Input

4K capable with USB 10 Gbps data connections

## HDMI Output

Supports computer and video resolutions up to 4K/60

## Stereo Audio Output

Provides connection to room audio system

## RS-232, IR, & I/O Display Control

Provides local display control without external control system

# SPECIFICATIONS

TRUE 4K SPECIFICATION		
Max 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz 4096 x 2160 at 30 Hz 3840 x 2160 at 30 Hz	4:4:4	8 bit
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz		12 bit
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:2:0	
Frame rate <sup>1</sup>	24, 25, 30, 50, or 60 fps	
Chroma sampling <sup>1</sup>	4:4:4 or 4:2:0	
Color bit depth <sup>1</sup>	8, 10, or 12 bits per color	
Signal Type	HDMI 2.0b, HDCP 2.3	
Max. video data rate	18 Gbps (6 Gbps per color)	
NOTE: <sup>1</sup> Subject to the maximum data rate limit. Use our calculator at <a href="http://www.extron.com/8Kdata">www.extron.com/8Kdata</a> to determine video parameters supported by this data rate.		

VIDEO	
<b>HDMI</b>	
Maximum data rate	18 Gbps (6 Gbps per color)
Resolution range	Up to 1080p @ 120 Hz or 4K @ 60 Hz (4:4:4 chroma subsampling)
<b>VIDEO INPUT – UCS T 503 TRANSMITTER</b>	
Connectors	2 female HDMI type A 1 female USB type C
Horizontal frequency range	15 kHz to 270 kHz for resolutions up to 18 Gbps
Vertical frequency range	24 Hz to 240 Hz for resolutions up to 18 Gbps
<b>VIDEO INPUT – UCS SR 501 RECEIVER</b>	
Connectors	1 female RJ-45 jack 1 female HDMI type A
<b>VIDEO OUTPUT – UCS T 503 TRANSMITTER</b>	
Connectors	1 female RJ-45 jack 1 female HDMI type A
<b>VIDEO OUTPUT – UCS SR 501 RECEIVER</b>	
Connector	1 female HDMI type A
<b>AUDIO OUTPUT</b>	
Connectors	
Analog stereo	(1) 3.5 mm captive screw connector, 5 pole, 3 pole
<b>USB</b>	
USB data rates	Low speed (1.5 Mbps), full speed (12 Mbps), high speed (480 Mbps), USB 5 Gbps, USB 10 Gbps
<b>UCS T 503 TRANSMITTER</b>	
<b>USB host</b>	
Connectors	2 female USB 3.2 type B 1 female USB-C
<b>USB device</b>	
Connectors	1 female USB 3.2 type A 3 USB 2.0/1.x type A

UCS SR 501 – RECEIVER		
<b>USB host</b>		
Connectors	1 female USB-C 1 female USB 3.2 type B	
<b>USB device</b>		
Connectors	(1) 3.2 type A (2) 2.0 type A	
<b>INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER</b>		
Connectors	1 female RJ-45 1 USB-A to USB-C	
Signal transmission distance	RJ-45: 330' (100 m) USB: Up to 100' (30 m)	
NOTE: For USB 10 Gbps extension support a USB-A-C cable supporting 10 Gbps of USB data should be used.		
<b>COMMUNICATIONS</b>		
<b>Transmitter</b>		
Contact/tally ports	5 sets (2 pins each) of contact and tally ports 1 set (1 pin each) of +V and G Tally output power +5 VDC, 0.2 A	
<b>Receiver</b>		
Serial		
Serial control port	1 bidirectional RS-232	
IR/serial		
Connectors	(1) 3.5 mm captive screw connector, 2 pole	
Digital I/O		
Connector	(1) 3.5 mm captive screw connector, 3 pole	
<b>GENERAL</b>		
<b>Power supply</b>		
Transmitter	Internal â Input: 100 - 240 VAC, 50 - 60 Hz	
Receiver	External (included) Input: 100 - 240 VAC, 50 - 60 Hz Output: 12 VDC, 4.2 A, 50 watts	
Cooling	Convection, vents on top and sides	
<b>Mounting</b>		
Rack mount	Yes, with optional 1U rack shelf	
Furniture mount	Yes, with optional under-desk mounting kit	
<b>Enclosure dimensions</b>		
Transmitter	1.75" H x 8.75" W x 8.5" D (1U high, half rack wide) (44 mm H x 222 mm W x 216 mm D) (Depth includes connectors.)	
Receiver	1.0" H x 8.75" W x 8.5" D (1 inch high, half rack wide) (25 mm H x 222 mm W x 216 mm D) (Depth includes connectors.)	
Regulatory compliance	CE, C-tick, c-UL, UL, FCC Class A, ICES, VCCI, RoHS, WEEE	
Product warranty	3 years parts and labor	
Everlast power supply warranty	7 years parts and labor	
<b>Model</b>	<b>Version Description</b>	<b>Part number</b>
UCS 504	4x2 4K Collaboration Switcher & Scaling Receiver	42-361-01

For complete specifications, please go to [www.extron.com](http://www.extron.com)  
Specifications are subject to change without notice.

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