



CH-735TX

USB 3.2 over Category Cable Transmitter with PoE
and USB PD



Operation Manual

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
 - To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
 - Never spill liquid of any kind on or into this product.
 - Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
 - Do not attach the power supply cabling to building surfaces.
 - Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
 - Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
 - To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.
 - Please completely disconnect the power when the unit is not in use to avoid wasting electricity.
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VERSION HISTORY

REV.	DATE	SUMMARY OF CHANGE
Ver 1.00	2026/4/29	Initial Release
Ver 1.01	2026/6/16	Updates package contents



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1. INTRODUCTION

This USB 3.2 Gen1 extender is designed to extend signal from one USB host to multiple USB devices for up to 100 meters (328 feet) when paired with receiver from the homologous series.

This transmitter enables the extension from the USB-C host to 3 local USB devices and USB devices on the receiver. USB-C can function as either a host or device, enhancing the flexibility of any installation and also provide USB Power Delivery (PD) up to 60W. Additionally, the transmitter supports 802.3at Power over Ethernet (PoE) PSE, delivering up to 30W of power. The unit also features a hotkey for convenient firmware update.

2. APPLICATIONS

- Remote USB extension
- Security and monitoring
- Smart classroom and device integration
- Industrial control
- Conference room and boardroom comprehensive USB over IP functionality extension

3. PACKAGE CONTENTS

- 1× USB 3.2 over Category Cable Transmitter with PoE and USB PD
- 1× 24V/6.25A DC Power Adapter
- 1× Power Cord
- 1× Terminal Block (2-pin)
- 1× Operation Manual

4. SYSTEM REQUIREMENTS

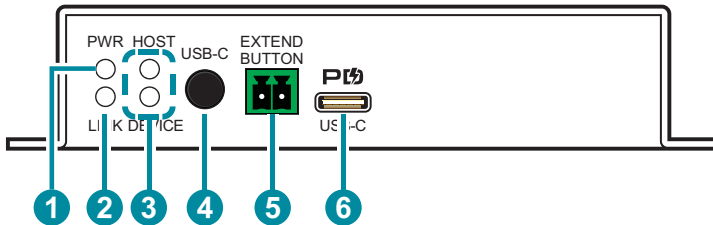
- The use of industry standard Cat.6, Cat.6A or Cat.7 cable is highly recommended
- The use of host computer with an available USB 3.2 Gen 1 Type-C port is highly recommended

5. FEATURES

- Support 4 USB 3.2 Gen1 device ports (include USB-C)
- Support Point-to-Point transmission
- Transmission up to 100 meters (328 feet)
- 3 USB-A ports provide 5V/0.9A of power respectively
- USB-C supports USB-PD up to 60W (PD3.0 compliance) to connected device
- Support 802.3at PoE PSE up to 30W to power paired receiver
- Configurable USB-C port as host or device
- The host can control multiple USB devices on transmitter side and receiver side
- Support hotkey for easy firmware updates

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel

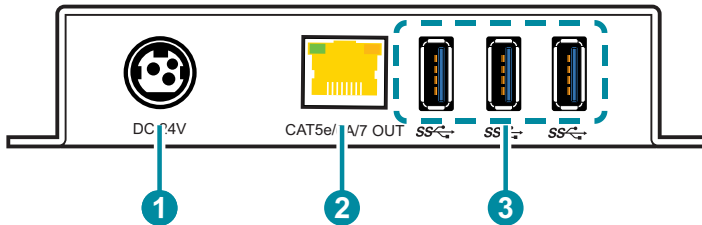


- 1 POWER LED:** This LED will illuminate to indicate the unit is on and receiving power.
Note: When the firmware update is active the LED will blink.
- 2 LINK LED:** This LED will illuminate solidly when a live connection with a compatible receiver is active.
- 3 HOST & DEVICE LEDs:** The illuminated LED indicates which USB Mode is currently active.
- 4 USB-C Button:** Press and hold the button for 5 seconds to toggle the USB-C port between HOST and DEVICE Mode.
- 5 EXTEND Button:** This terminal block is used for direct USB host mode selection. Short the 2 pins for 5 seconds to make the USB-C port toggle between HOST and DEVICE Mode.
Note: The EXTEND Button and the USB-C button operate independently and can be used at any time.
- 6 USB 3.2 Port (Type-C):** In Host mode, connect directly to a USB host such as a PC or laptop to extend their USB functionality to devices connected to the USB ports on the currently connected receiver. In Device mode, connect directly to a standard USB device such as a mouse, keyboard or flash drive to extend their USB functionality to the host currently connected to the receiver's USB-C port. Firmware update is also available on this port.

Note1: 60W of power can be provided to connected USB-C devices, but only when the unit is powered locally.

Note2: When connected to a compatible receiver, this unit can optionally transmit video signals to receiver's HDMI port. Due to its support of full USB 3.2 data transfer speeds, video bandwidth is limited to 4K30.

6.2 Rear Panel



- 1 DC 24V Port:** Plug the 24V DC power adapter into this port and connect it to an AC wall outlet for power.
- 2 CAT 5e/6A/7 OUT Port:** Connect to a compatible receiver with a single cable for transmission and reception of all data signals.
- 3 USB 3.2 Device Ports (Type-A):** Connect directly to a standard USB device such as a mouse, keyboard or flash drive to extend their USB functionality to the host currently connected to the transmitter or receiver's USB-C port.

Note: Type-A port can provide up to 5V/0.9A (4.5W) power.

6.3 System Control

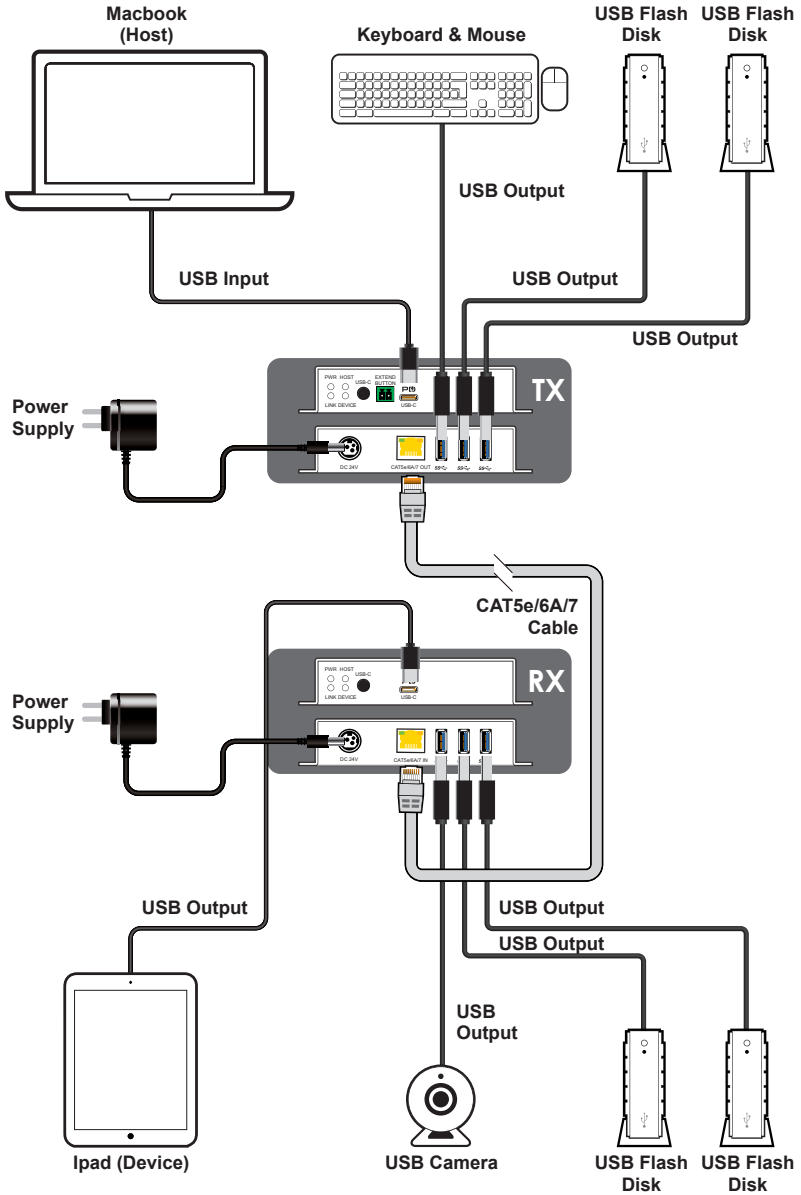
6.3.1 Firmware Update

To update the firmware via USB, connect your PC to the Type-C port and do the following steps. After the upgrade is complete, the unit will reboot automatically.

Note: Do not disconnect the USB-C cable or remove power while the POWER LED is blinking. Interrupting the update process may corrupt the firmware.

- Connect your PC to USB-C port.
- Press and hold the “USB-C” button while power up the unit. A virtual USB drive (labeled “USB Drive” or similar) will appear on the host computer.
- Open the virtual USB drive and copy the compatible and properly named (UsbcT_2140_CYP_Vx.xx.bin) firmware file into it.
- After the file is copied, the folder window will close automatically. During the update process, the unit will be flashing the POWER LED on the front of the unit.
- Wait for the POWER LED to return to a steady solid green state. After the upgrade is complete, the unit will reboot automatically.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

USB-C Bandwidth	5Gbps
HDBaseT Bandwidth	6/6 Gbps
Output Ports	1×Cat.5e/6A/7 (RJ-45) 3×USB 3.2 (Type-A)
Bi-directional Port	1×USB 3.2 (Type-C)
Power Supply	24V/6.25A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection (HBM)	±12kV (Air Discharge) ±8kV (Contact Discharge)
Dimensions (W×H×D)	128mm×25mm×108mm [Case Only] 128mm×25mm×112.5mm [All Inclusive]
Weight	214g
Chassis Material	Metal (Aluminum)
Chassis Color	Black
Operating Temperature	0°C – 40°C/32°F – 104°F
Storage Temperature	-20°C – 60°C/-4°F – 140°F
Relative Humidity	20 – 90% RH (Non-condensing)
Power Consumption	98.2W(full load)

8.2 Cable Specifications

Cable Length	USB 3.2
	5Gbps
Ethernet Cable	
Cat.5e	50m
Cat.6	70m
Cat.6A/7	100 m (straight) 90 m (with patches)

8.3 HDBaseT Features

HDBaseT Feature Set	Transmitter
Video & Audio Extension	Supported
LAN Extension	Unsupported
Send power to Receiver	Supported(PoE)
Accept power from Receiver	Unsupported
IR Extension	Unsupported
RS-232 Extension	Unsupported
USB 3.2 Extension	Supported

9. ACRONYMS

ACRONYM	COMPLETE TERM
Cat.5e	Enhanced Category 5 cable
Cat.6	Category 6 cable
Cat.6A	Augmented Category 6 cable
Cat.7	Category 7 cable
Mbps	Megabits per second
Gbps	Gigabits per second
PD	Powered Device
PoE	Power over Ethernet
PSE	Power Sourcing Equipment
UAC	USB Audio Class
USB	Universal Serial Bus
UVC	USB Video Class



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