



SCT-USB34-C100

USB3.2/ 2/ 1 Extender/ two way PoH+



User Manual

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Version: SCT-USB34-C100_2024 V1.0.2

Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till June, 2021. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.



SAFETY PRECAUTIONS

To ensure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

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1. Introduction

1.1. Overview

This product is a new generation of USB 3.2 & USB 3.0 extender. It supports USB 3.2 Gen 1 standard with up to 5Gbit/s USB data transmission rate, and is backward compatible with USB 3.0, USB 2.0 and USB1.1 specifications.

This USB extender can extend the USB 3.2 & USB 3.0 data up to 100m/330ft via a single Cat 6A/7 F/FTP or U/FTP cable. It has a built-in 4-port USB hub in the receiver, which can be connected with multiple USB devices. Pure hardware architecture is compatible with Control / Bulk / Interrupt / Isochronous transmission protocols. For multiple USB device scenarios, this extender can also be used with an external USB 3.2 & 3.0 hub.

With two-way PoH + function, the extender can only need one power supply to be connected to the transmitter or receiver to power both units, which is especially suitable for scenarios where the receiver can't be connected to a power supply (such as in outdoor monitoring scenario).

1.2. Features

- Supports USB 3.2 Gen 1 standard, and backward compatible with USB 3.0, USB 2.0, and USB 1.1 standards.
- Supports up to 5Gbit/s data transmission rate.
- Supports transmitting USB signal up to 100m/330ft via a signal Cat 6A/7 F/FTP or U/FTP cable.
- Pure hardware architecture is compatible with Control / Bulk / Interrupt / Isochronous transmission protocols.
- Provides four USB 3.2 & 3.0 device ports on the receiver, includes one 1.5A port for connecting high-power USB devices.
- Occupies two USB hub tiers and supports connecting additional USB hub devices.

- Supports RS232 and FSYNC GPIO pass-through for industrial camera control.
- Plug and play, no driver is required, and compatible with multiple operating systems.
- Support firmware upgrading via micro-USB port.
- Built-in PoH + module, only one power adapter is needed to be connected to either side.

1.3. Package Contents

- 1 x Transmitter
- 1 x Receiver
- 1 x Power Adapter (DC 20V 3A) with US Pins
- 1 x USB 3.0 Type-A to USB Type-B cable
- 2 x Phoenix Male Connector (3.5mm, 4-Pin)
- 4 x Mounting Bracket (with Screws)
- 1 x User Manual

1.4. Specifications

Technical	
Input/Output Port	Transmitter: 1 x USB HOST (USB Type-B); 1 x RS232 & FSYNC (3.5mm, 4-Pin Phoenix Connector); 1 X USB3-LINK (RJ45); 1 x POWER; 1 x FW (Micro-USB) Receiver: 4 x USB DEVICE (USB Type-A); 1 x RS232 & FSYNC (3.5mm, 4-Pin Phoenix Connector); 1 X USB3-LINK (RJ45); 1 x POWER; 1 x FW (Micro-USB)
USB Standard	USB 3.2 Gen1, and backward compatible with USB 3.0, USB 2.0, and USB 1.1 standards
Data Rate	Up to 5Gbit/s

General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/ ±4kV (Contact discharge)

General	
Power Supply	20V/3A
Power Consumption (Max)	31.28W (Pair, USB fully loaded)
Device Dimension (W x H x D)	Transmitter/Receiver: 150mm x 20.5mm x 100mm / 5.9" x 0.81" x 3.94"
Product Weight	Transmitter: 0.35kg/0.77lb Receiver: 0.34kg/0.75lb

Transmission Distance

Note:

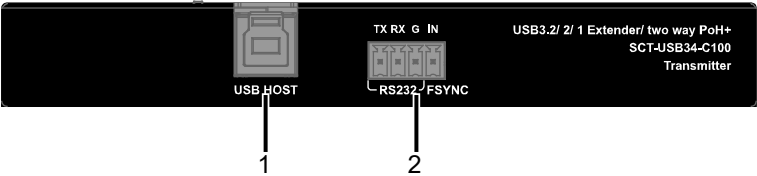
- T568B straight-through category cable is recommended.
- Please use F/FTP or U/FTP cable, and don't use UTP, F/UTP, or U/UTP cables.

Cable Type	Range
Cat 6A/7 (F/FTP or U/FTP) Cable	100m/330ft

1.5. Panel Descriptions

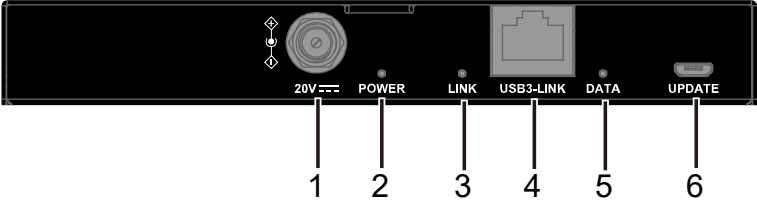
1.5.1. Transmitter

Front Panel



ID	Name	Description
1	USB HOST	Connect to a host device such as a PC.
2	RS232 & FSYNC (IN)	RS232 pass through. FSYNC GPIO input, 3.3V.

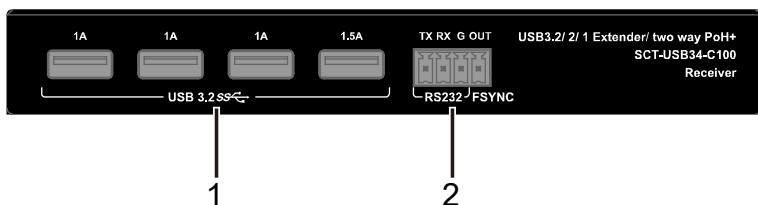
Rear Panel



ID	Name	Description
1	20V	Connect to the power adapter provided. With two-way PoH+, one power adapter is needed to be connected to the transmitter or receiver to power both units.
2	POWER LED	On: The device is powered on. Off: The device is powered off.
3	LINK LED	On: The HDBT link is normal. Blinking/Off: No HDBT link or link error.
4	USB3-LINK	Connect to the USB3-LINK port of the receiver.
5	DATA LED	On: The USB data is being transmitted. Off: There's no USB data being transmitted.
6	UPDATE	Micro-USB port, for firmware upgrade.

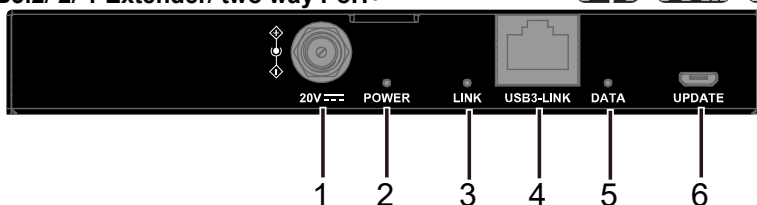
1.5.2. Receiver

Front Panel



ID	Name	Description
1	USB 3.0	Connect to USB devices. Note: One 1.5A USB port can be used to connect with high-power USB devices such as USB camera.
2	RS232 & FSYNC (OUT)	RS232 pass-through. FSYNC GPIO output, 3.3V.

Rear Panel



ID	Name	Description
1	20V	Connect to the power adapter provided. With two-way PoH+, one power adapter is needed to be connected to the transmitter or receiver to power both units.
2	POWER LED	On: The device is powered on. Off: The device is powered off.
3	LINK LED	On: The HDBT link is normal. Blinking/Off: No HDBT link or link error.
4	USB3-LINK	Connect to the USB3-LINK port of the transmitter.
5	DATA LED	On: The USB data is being transmitted. Off: There's no USB data being transmitted.
6	UPDATE	Micro-USB port, for firmware upgrade.

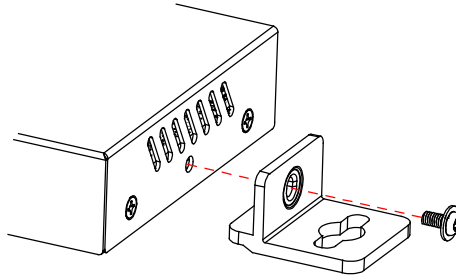
2. Installation and Wiring

2.1. Installation

Note: Before installation, please ensure the device is disconnected from the power source.

Steps to install the device:

1. Attach the installation bracket to the enclosure using the screws provided in the package separately.
2. The bracket is attached to the enclosure as shown.

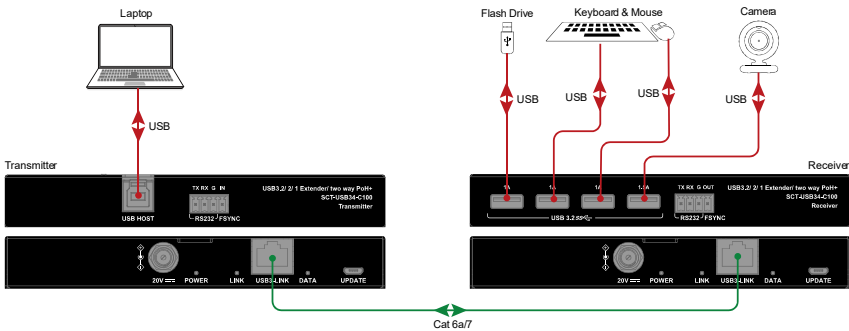


3. Repeat the steps from 1 to 2 for the other side of the unit.
4. Attach the brackets to the surface you want to hold the unit against using the screws (provided by others).
5. Repeat the steps from 1 to 4 to install the receiver.

2.2. Wiring

Warnings:

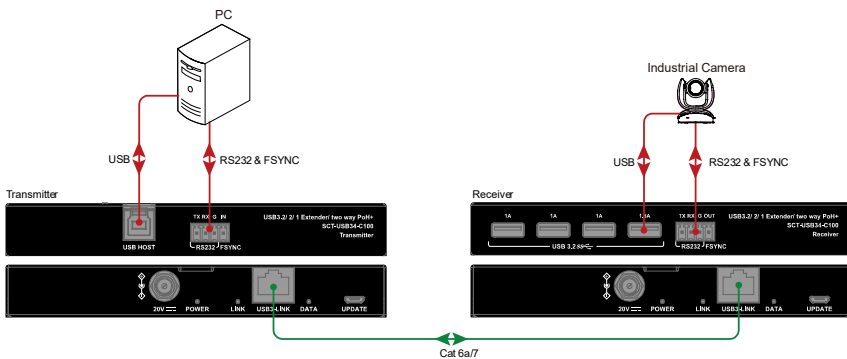
- Before wiring, disconnect the power from all devices.
- During wiring, connect and disconnect the cables gently.



3. RS232 & FSYNC

The transmitter and receiver feature a RS232 & FSYNC (IN) port and a RS232 & FSYNC (OUT) port respectively, which are used for industrial camera control.

- RS232 & FSYNC (IN): FSYNC (IN), GPIO digital in port, supports 3.3V voltage input. Connect to a PC.
- RS232 & FSYNC (OUT): FSYNC (OUT), GPIO digital out port, supply for 3.3V voltage output. Connect to an industrial camera.



4. Customer Service

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. There terms and conditions may be changed without prior notice.

4.1. Warranty

The limited warranty period of the product is fixed three years.

4.2. Scope

These terms and conditions of Customer Service apply to the customer service provided for the products or any other items sold by authorized distributor only.

4.3. Warranty Exclusion:

- Warranty expiration.
- Factory applied serial number has been altered or removed from the product.
- Damage, deterioration or malfunction caused by:
 - ✓ Normal wear and tear.
 - ✓ Use of supplies or parts not meeting our specifications.
 - ✓ No certificate or invoice as the proof of warranty.
 - ✓ The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
 - ✓ Damage caused by force majeure.
 - ✓ Servicing not authorized by distributor.
 - ✓ Any other causes which does not relate to a product defect.
- Shipping fees, installation or labor charges for installation or setup of the product.

4.4. Documentation:

Customer Service will accept defective product(s) in the scope of warranty coverage at the sole condition that the defeat has been clearly defined, and upon reception of the documents or copy of invoice, indicating the date of purchase, the type of product, the serial number, and the name of distributor. Remarks: Please contact your local distributor for further assistance or solutions.



syscomtec Distribution AG

Keltenring 11

D-82041 Oberhaching (bei München)

Tel.: +49 89 666 109 330

Email: post@syscomtec.com

<https://www.syscomtec.com>