USB-C 3.2 Gen1 4-Port Extender Kit, 100m

User Manual

500534

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1 Safety Precautions

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

- Follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burns.
- Do not open or remove the housing of the device as you may be exposed to dangerous voltage or other hazards.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture and do not install this product near water. Keep the product 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 the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Using supplies or parts not meeting the product specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- Install the device in a place with adequate ventilation to avoid damage caused by overheat.
- Unplug the power when left unused for a long period of time.
- Information on disposal of devices: do not burn or mix with general household waste, please treat them as normal electrical waste.

2 Introduction

The USB-C 3.2 Gen1 4-Port Extender Kit, 100m (model: 500534) enables USB 3.2 Gen1 connectivity at data rates up to 5Gbps & extends true USB up to 100m (328ft) over standard Cat6a UTP. Transmitter features with one USB-C 3.2 Gen1, three local input (One USB-C and two USB-A), one FSYSNC GPIO input and one RS-232 pass-through. Receiver features with four USB 3.2 Gen1 outputs (Two USB-C and Two USB-A), one FSYSNC GPIO output and one RS-232 pass-through. The device also supports 24V Bi-directional PoC.
The USB-C 3.2 Gen1 4-Port Extender Kit, 100m is true plug and play, requires no additional software drivers, and is compatible with all major operating systems. The unit supports a wide variety of USB extension applications including security, industrial control, digital signage, scientific data acquisition and other implementations of USB standards.

3 Features

- Extension of USB 3.2 Gen1 up to 100m/328ft over CAT6a cable
- USB 3.2 Gen1 connectivity with data transfer rate up to 5Gbps
- Backwards compatible with USB 2.0 and USB 1.1
- Hardware acceleration for isochronous and bulk transfer
- USB-C and USB-A Ports supports 5VDC up to 1.5A and 1A on the Receiver
- Support RS-232 pass-through and FSYNC GPIO pass-through (for industry camera use)
- Support bi-directional 24VDC PoC
- Simple plug and play, no driver and setting installation required

4 Package Contents

- One (1) USB-C 3.2 Gen1 Extender (Transmitter)
- One (1) USB-C 3.2 Gen1 Extender (Receiver)
- One (1) 24VDC/3.75A Locking Power Supply
- Two (2) 4pin-3.5mm Phoenix Connector (Male)
- Four (4) Mounting Ear
- Eight (8) Screw (KM3*4)
- One (1) User manual (available via download)

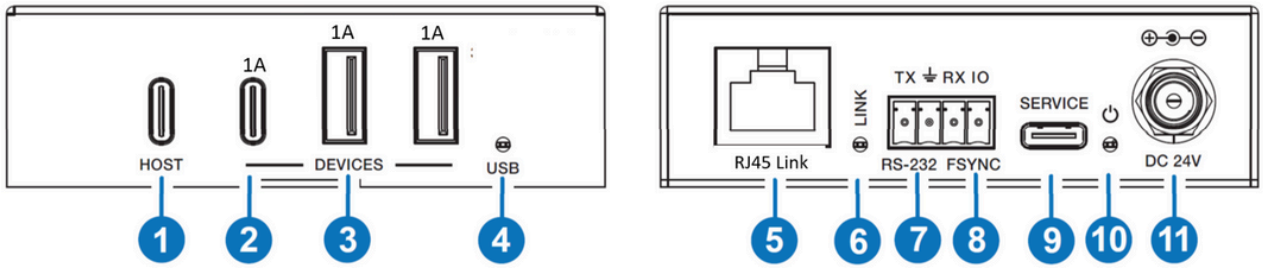
Notes: Confirm that the product and accessories are all included. If not, please contact the supplier from which you purchased the unit.

5 Specifications

Technical	
USB Protocol	USB-C 3.2 Gen 1
Transmission Rate	Up to 5Gbps
Transmission Distance	100m/328ft via CAT6a (F/FTP) cable 1.5m/4.9ft via USB cable
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Transmitter	Input: 1 × HOST [USB Type C, 24-pinfemale] Output: 1 × USB-C DEVICE[USB Type C, 24-pin female] 2 × USB-A DEVICE [USB Type A, 9-pin female] 1 × HDBT-USB3 [RJ45 connector, 24V PoC] Control: 1 × RS-232 [3pin-3.5mm phoenix connector] 1 × FSYNC [1pin-3.5mm phoenix connector] 1 × SERVICE [USB Type C, firmware update port]
Receiver	Input: 1 × HDBT-USB3 [RJ45 connector, 24V PoC] Output: 2× USB-A DEVICE [USB Type A, 9-pin female] 2× USB-C DEVICE [USB Type C, 24-pin female] Control: 1 × RS-232 [3pin-3.5mm phoenix connector] 1 × FSYNC [1pin-3.5mm phoenix connector] 1 × SERVICE [USB Type C, firmware update port]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 100mm [W] × 85mm [D] × 25.5mm [H]
Weight	Transmitter: 265g, Receiver: 275g
Power Supply	Input: 100~240VAC 50/60Hz Output: 24VDC/3.75A
Power Consumption	TX: 23W (Max); RX: 35W (Max); TX+RX: 68W (Max, including line loss)
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)
Generic Specification	
Warranty	2 years
Order Information	500534 USB-C 3.2 Gen 1 4-Port Extender Kit, 100m (UPC: 627699005347)

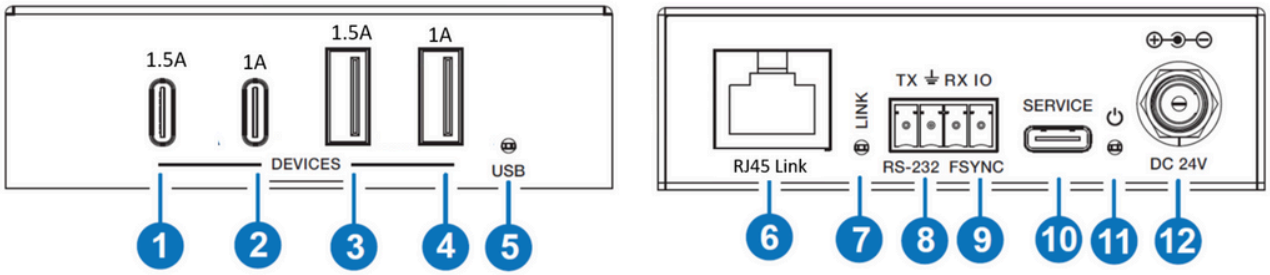
6 Operation Controls and Functions

6.1 Transmitter Panel



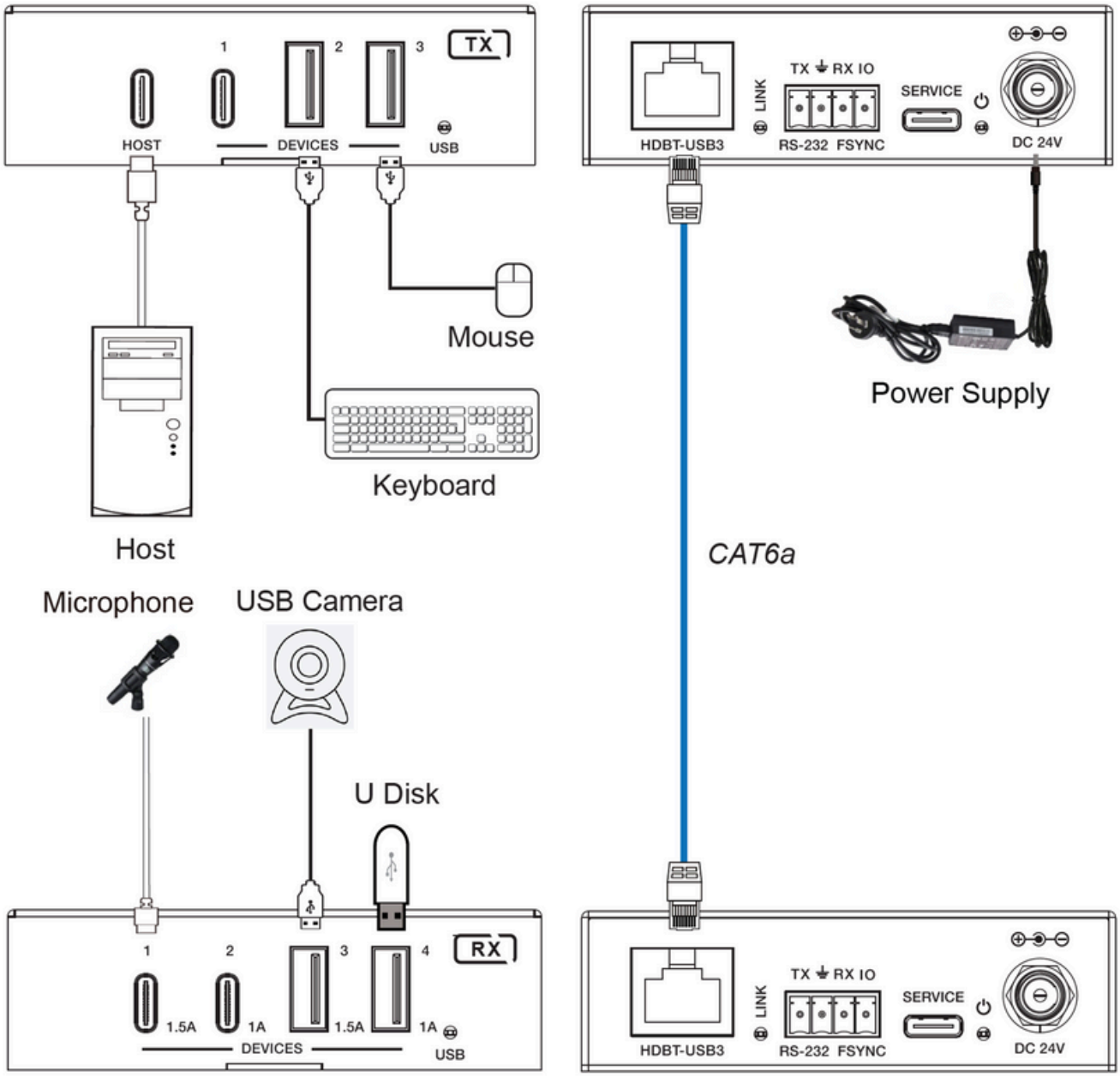
No	Name	Function Description
1	HOST	Uplink USB-C port, connected to PC or host. It can be used for HUB firmware update.
2	USB DEVICES (1)	Downlink USB-C port, connected to USB devices such as U disk or hard disk. Its output power is up to 5V/1A.
3	USB DEVICES (2~3)	Downlink USB-A port, connected to USB devices such as U disk or hard disk. Its output power is up to 5V/1A.
4	USB LED	USB signal indicator. ▪ On: USB 3.0 signal is detected. ▪ Blinking: USB 2.0 signal is detected. ▪ Off: USB signal is not detected.
5	HDBT-USB3	Connects to the HDBT-USB3 port on Receiver with CAT6a cable. It can also be used for 24V PoC power supply.
6	LINK LED	Connection signal indicator. ▪ On: Transmitter and Receiver are connected and linked. ▪ Off: Transmitter and Receiver are not connected.
7	RS-232	3pin phoenix connector, connected to a PC or control system for RS-232 command pass-through.
8	FSYNC	FSYNC port, the level pass through from Transmitter to Receiver, to synchronize the external devices. Default level range is 0~5V.
9	SERVICE	USB-C port for firmware update, supporting USB 2.0.
10	Power LED	The LED will be on when the transmitter is powered on.
11	24VDC	24VDC/3.75A power input port.

6.2 Receiver Panel



No	Name	Function Description
1	USB DEVICES 1	Downlink USB-C port, connected to USB devices such as U disk or hard disk. Its output power is up to 5V/1.5A.
2	USB DEVICES 2	Downlink USB-C port, connected to USB devices such as U disk or hard disk. Its output power is up to 5V/1A.
3	USB DEVICES 3	Downlink USB-A port, connected to USB devices such as U disk or hard disk. Its output power is up to 5V/1.5A.
4	USB DEVICES 4	Downlink USB-A port, connected to USB devices such as U disk or hard disk. Its output power is up to 5V/1A.
5	USB LED	USB signal indicator. ▪ On: USB 3.0 signal is detected. ▪ Blinking: USB 2.0 signal is detected. ▪ Off: USB signal is not detected.
6	HDBT-USB3	Connects to the HDBT-USB3 port on Transmitter with CAT6a cable. It can also be used for 24V PoC power supply.
7	LINK LED	Connection signal indicator. ▪ On: Transmitter and Receiver are connected and linked. ▪ Off: Transmitter and Receiver are not connected.
8	RS-232	3pin phoenix connector, connected to a PC or control system for RS-232 command pass-through.
9	FSYNC	FSYNC port, the level pass through from Transmitter to Receiver, to synchronize the external devices. Default level range is 0~5V.
10	SERVICE	USB-C port for firmware update, supporting USB 2.0.
11	Power LED	The LED will be on when the receiver is powered on.
12	24VDC	24VDC/3.75A power input port.

7 Application Example



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