DVDO

DVDO-Xtend-USBC-USB-EUWW-1

1-Host USB-C & USB 3.2 Gen 1 100m Extender over HDBaseT
(EU WP Tx to EU WP Rx)

User Manual

Version v1.0

Thank you for purchasing DVDO-Xtend-USBC-USB-EUWW-1

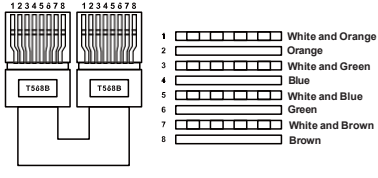
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Caution

The network cable connection method required for this product is direct connection. Please do not cross connect.



Direct Interconnection Method

Table of Contents

1. Introduction

DVDO-Xtend-USBC-USB-EUWW-1 is a USB extender that can transmit USB 3.2 Gen 1 signals to a distance up to 100m/328ft via a single CAT6a cable. The transmitter features one USB-C host port, one USB-C and two USB-A device ports. The receiver features two USB-C and two USB-A device ports. Bi-directional 24V PoC (Power over Cable) function allows user to only supply power to either the transmitter or the receiver.

It can be widely used for long distance USB signal transmission between USB sources and devices like webcams, PTZ cameras, keyboards, mouse devices, USB microphones, flash sticks, printers, scanners, touch panel displays and other USB devices.

2. Features

- ☆ Standard EU/UK compatible 2 GANG wall plate extender
- ☆ Extension of USB 3.2 Gen 1 up to 100m/328ft via CAT6a cable
- ☆ USB 3.2 Gen 1 connectivity with data transfer rate up to 5Gbps
- ☆ Backwards compatible with USB 2.0 and 1.1
- ☆ Hardware acceleration for isochronous and bulk transfer
- ☆ TX features 1x USB-C host port, 1x USB-C and 2x USB-A device ports
- ☆ RX features 2x USB-C (1x 5V@1A and 1x 5V@1.5A) and 2x USB-A device ports (1x 5V@1A and 1x 5V@1.5A)
- ☆ Support firmware upgrade via USB-C service port
- ☆ Support FSYNC GPIO pass-through for industry camera use
- ☆ Support bi-directional 24V PoC (Power over Cable), when TX or RX gets power, the other end does not need an external power supply
- ☆ Plug-and-play, with no driver download or software installation required

3. Package Contents

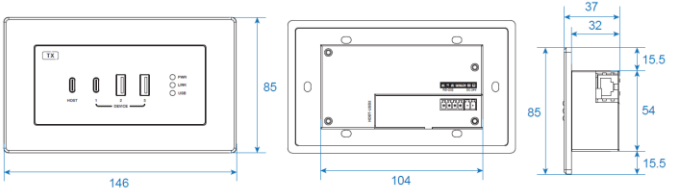
① 1× USB 3.2 Gen 1 Extender (Transmitter)
② 1× USB 3.2 Gen 1 Extender (Receiver)
③ 1× 24V/3.75A Power Supply
④ 1× User Manual

4. Specifications

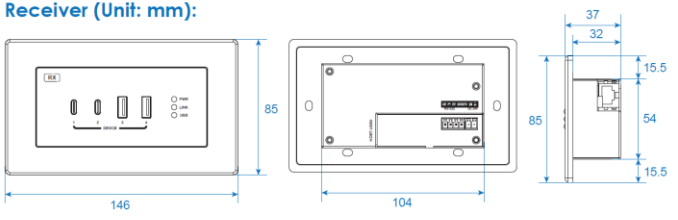
Technical	
USB Protocol	USB 3.2 Gen 1
Transmission Rate	Up to 5Gbps
Transmission Distance	100m/328ft via CAT6a (F/FTP) cable 1.5m/4.9ft via USB cable
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connections	
Transmitter	Input: 1× HOST [USB Type C, 24-pin female] Output: 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	White Panel + Silver Enclosure
Dimensions	TX / RX: 146mm [W] × 85mm [H] × 37mm [D]
Weight	TX: 340g; RX: 343g
Power Supply	Input: AC 100~240V 50/60Hz Output: DC 24V/3.75A
Power Consumption	TX: 27W (Max); RX: 33W (Max); TX+RX: 77W (including line loss)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% relative humidity, non-condensing
Storage Humidity	10%~90% relative humidity, non-condensing

5. Product Dimensions

Transmitter (Unit: mm):

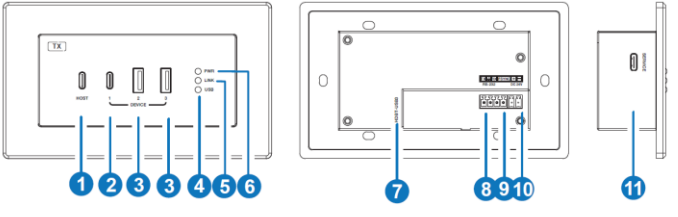


Receiver (Unit: mm):



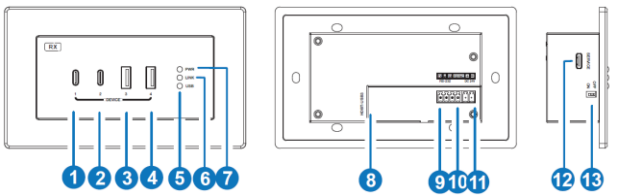
6. Operation Controls and Functions

6.1 Transmitter Panel



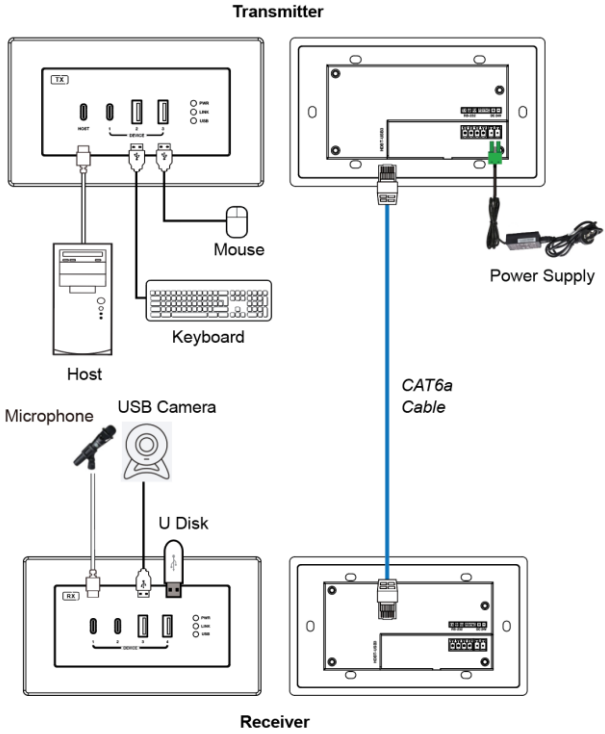
No.	Name	Function Description
1	HOST	Upstream USB-C port, connected to PC or host. It can be used for HUB firmware update.
2	USB DEVICE 1	Downstream USB-C port, with output power up to 5V/1.5A. Connects to USB device such as U disk or hard disk.
3	USB DEVICE 2/3	Downstream USB-A ports, with output power up to 5V/1.5A. Connect to USB devices such as U disk or hard disk.
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	LINK LED	Connection signal indicator. ▪ **On:** Transmitter and Receiver are connected and linked. ▪ **Off:** Transmitter and Receiver are not connected.
6	Power LED	The LED will be on when the transmitter is powered on.
7	HDBT-USB3	Connects to the HDBT-USB3 port on Receiver with CAT6a cable. It can also be used for 24V PoC power supply.
8	RS-232	3pin 3.5mm 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	DC 24V	2pin 3.5mm phoenix connector, used for DC 24V power input.
11	SERVICE	USB-C port, supporting USB 2.0. Used for software upgrade of HUB and HDBT-USB3 chip.

6.2 Receiver Panel



No.	Name	Function Description
1	USB DEVICE 1	Downstream USB-C port, with output power up to 5V/1.5A. Connects to USB device such as U disk or hard disk.
2	USB DEVICE 2	Downstream USB-C port, with output power up to 5V/1A. Connects to USB device such as U disk or hard disk.
3	USB DEVICE 3	Downstream USB-A port, with output power up to 5V/1.5A. Connects to USB device such as U disk or hard disk.
4	USB DEVICE 4	Downstream USB-A port, with output power up to 5V/1A. Connects to USB device such as U disk or hard disk.
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	LINK LED	Connection signal indicator. ▪ **On:** Transmitter and Receiver are connected and linked. ▪ **Off:** Transmitter and Receiver are not connected.
7	Power LED	The LED will be on when the receiver is powered on.
8	HDBT-USB3	Connects to the HDBT-USB3 port on Transmitter with CAT6a cable. It can also be used for 24V PoC power supply.
9	RS-232	3pin 3.5mm phoenix connector, connected to a PC or control system for RS-232 command pass-through.
10	FSYNC	FSYNC port, the level pass through from Transmitter to Receiver, to synchronize the external devices. Default level range is 0~5V.
11	DC 24V	2pin 3.5mm phoenix connector, used for DC 24V power input.
12	SERVICE	USB-C port, supporting USB 2.0. Used for software upgrade of HUB and HDBT-USB3 chip.
13	Dial Switch	Used to switch SERVICE channels. ▪ **ON:** Switch to HUB chip channel to update. ▪ **OFF:** Switch to HDBT-USB3 chip channel to update and check signal quality. (Default)

7. Application Example



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