

Liberty

INT-USB3-HWP & INT-USB3-CWP USB 3.2 Gen 1 Extender over HDBaseT



User Manual

Thank you for purchasing this product

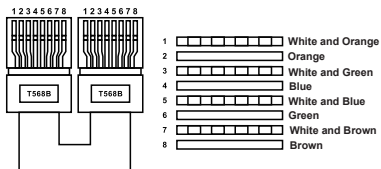
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

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

Connection

Please connect in direct interconnection method and do not cross connect.



Direct Interconnection Method

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1. Introduction

This USB 3.2 Extender based on HDBaseT VS6320, can extend USB signal to a distance up to 100m/328ft via a single CAT6a cable. Host/Local device features one USB 3.2 Type B host port, two USB 3.2 Type A client ports, one FSYSNC and RS-232 pass-through. Client/Remote device features one USB 3.2 Type C, and two USB 3.2 Type A client ports, one FSYSNC, and RS-232 pass-through. Bi-directional 24V PoC is also supported.

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. Host & Client devices are sold separately, and are fully compatible with box and wall plate style INT-USB3 devices

2. Features

- ☆ Extension of USB 3.2 up to 100m/328ft over 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
- ☆ Each USB-A or USB-C port supports power output up to 5V/1500mA
- ☆ Plug-and-play with no drivers, downloads, or software required
- ☆ Support RS-232 pass-through and FSYNC GPIO pass-through (for industry camera use)
- ☆ Support bi-directional 24V PoC (Power over Cable).

3. Package Contents

Item	Qty	Item	Qty
USB 3.2 Extender Wall Plate (TX)	1	USB 3.2 Extender Wall Plate (RX)	1
24V/2.7A Power Supply	2	AC Power Cord (1.5m)	2
USB-C to USB-A cable (2m)	1	USB-C to USB-B cable (2m)	1
USB-A to USB-A cable (2m)	1	USB-A to USB-B cable (2m)	1
Machine Screw (6#-32*3/4)	4	Machine Screw (KM3*4)	4
4pin-3.5mm Phoenix Connector	2	2pin-3.5mm Phoenix Connector	1
Customized Top Panel	2	User Manual	1

4. Specifications

Technical	
USB Protocol	USB 3.2 Gen 1
Transmission Rate	Up to 5Gbps
Transmission Distance	Up to 100m/328ft @CAT6A (U/FTP) cable
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connections	
Transmitter	Input: 1× USB HOST [USB Type B, 9-pin female] Output: 2× USB-A DEVICE [USB Type A, 9-pin female] 1× HDBT OUT [RJ45 connector, 24V PoC] Control: 1× RS-232 [3pin-3.5mm phoenix connector] 1× FSYNC [1pin-3.5mm phoenix connector] 1× F/W [USB Type C, firmware update port]
Receiver	Input: 1× HDBT IN [RJ45 connector, 24V PoC] Output: 2× USB-A DEVICE [USB Type A, 9-pin female] 1× 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× F/W [USB Type C, firmware update port]
Mechanical	
Housing	Plastic Front Panel + Metal Enclosure
Color	White + Black
Dimensions	Transmitter / Receiver: 45mm [W] × 42mm [D] × 105mm [H]
Weight	Transmitter: 106g / Receiver: 120g
Power Supply	Input: AC 100~240V 50/60Hz Output: DC 24V/2.7A
Power Consumption	PoC Power Supply: 47W (Max)
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)
Country of Origin	Taiwan (TAA Compliant)

4.1 Supported Cable Length

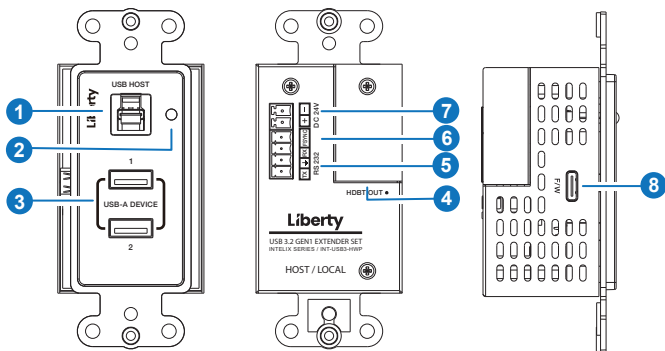
The firmware version V1.0.10 includes improvements and optimizations in the link performance to support longer cable lengths. Tested and verified over CAT 6A U/FTP from different vendors:

- **Up to 90 meters with patches:** 80 meter of infrastructure cable + 2 X 5 meter patch cable
- **Up to 100 meter straight cable** (without patches)
- **Cable length with Semi-crossover and crossover: up to 60 meter** (50 meter infrastructure + 2 X 5 meter patch cable)

** Important note. "EZ" or other types of pass-through RJ45 connectors are not supported. Please use quality shielded RJ45 connectors that properly pair with the Cat6a or above cable being used

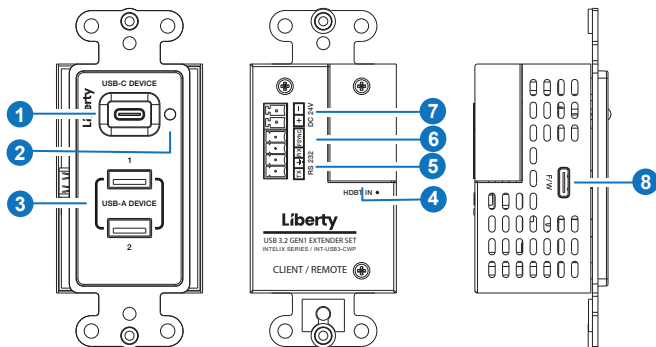
5. Operation Controls and Functions

5.1 Transmitter Panel



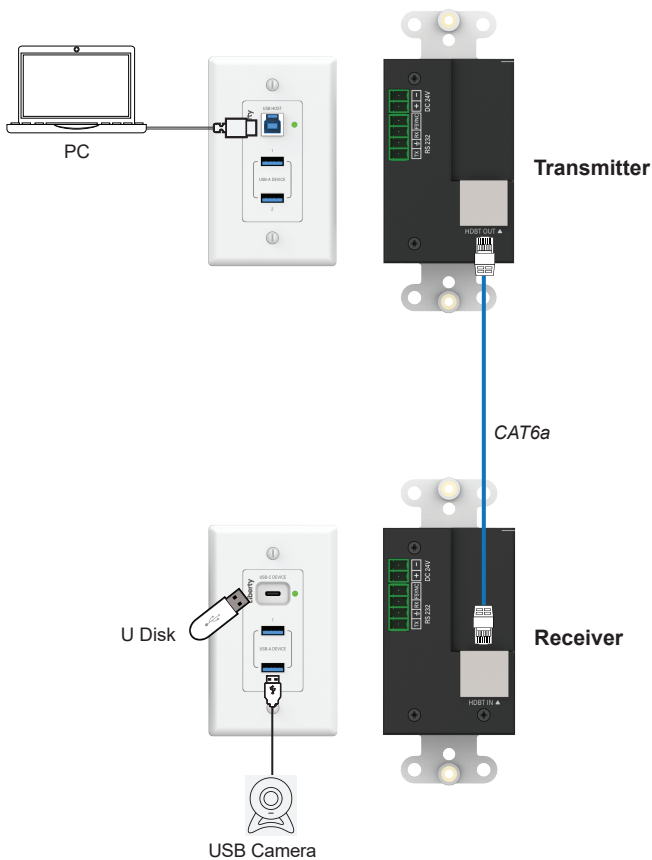
No.	Name	Function Description
1	USB-HOST	USB host port supporting USB 3.2 Gen1, connected to a PC or host.
2	LED	<ul style="list-style-type: none">▪ Red: The unit is powered on (Transmitter and Receiver are not connected).▪ Green: Transmitter and Receiver are connected and linked.▪ Off: The unit is not powered on.
3	USB-A DEVICE (1~2)	USB device ports, connected to USB devices such as U disk, keyboard or mouse. Its output power is up to 5V/1.5A.
4	HDBT OUT	Connects to the HDBT IN port on Receiver with CAT cable.
5	RS-232	3pin phoenix connector, connected to a PC or control system for RS-232 command pass-through.
6	FSYNC	FSYNC port, the level pass through from Transmitter to Receiver, to synchronize the external devices. Default level range is 0~5V.
7	DC 24V	DC 24V/2.7A power input port.
8	F/W	Firmware update port.

5.2 Receiver Panel



No.	Name	Function Description
1	USB-C DEVICE	USB device port supporting USB 3.2 Gen1, connected to a USB device. Its output power is up to 5V/1.5A.
2	LED	<ul style="list-style-type: none"> ▪ Red: The unit is powered on (Transmitter and Receiver are not connected). ▪ Green: Transmitter and Receiver are connected and linked. ▪ Off: The unit is not powered on.
3	USB-A DEVICE (1~2)	USB device ports supporting USB 3.2 Gen1, connected to USB devices. Its output power is up to 5V/1.5A.
4	HDBT IN	Connects to the HDBT OUT port on Transmitter with CAT cable.
5	RS-232	3pin phoenix connector, connected to a PC or control system for RS-232 command pass-through.
6	FSYNC	FSYNC port, outputting the level from Transmitter to synchronize the external devices. Default level range is 0~5V.
7	DC 24V	DC 24V/2.7A power input port.
8	F/W	Firmware update port.

6. Application Example



Thank you for your purchase.

For Technical Support please call our toll free number at 800-530-8998 or email us at supportlibav@libav.com

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