

USB-C To USB-C/HDMI HDBaseT Extender 100M w USB2.0 User Operation Guide



HDBT-UUB12H-100M
TX



HDBT-UUB12H-100M
RX

Model:

HDBT-UUB12H-100M

rev.2026.06June.04

User Operation Guide

OVERVIEW

The ABtUS HDBT-UUB12H-100M is an extender that delivers crystal-clear video transmission with USB-C input supporting resolutions up to 4K@60Hz 4:4:4 or 1080p video signals over distances up to 100 meters, ensuring reliable performance across long cable runs. The system supports two-way 24V Power over Cable (PoC), simplifying installation by allowing power to be supplied from either end. Additionally, the USB-C input benefits from PD charging, keeping connected devices powered during use. An extra USB-A port enables KVM control, marking it ideal for interactive workspaces and remote desktop applications.

PRODUCT FEATURES

- USB-C video up to 4K@60Hz 4:4:4.
- Transmit 4K@60Hz 4:4:4 or 1080p up to 100m.
- Supports two-way 24V PoC.
- Provide PD charging for USB-C IN.
- Extra USB-A for KVM control.

PANEL DESCRIPTIONS

Transmitter Panel



- 1) USB-C IN: Connects to the USB-C video source.
- 2) POWER: Connects to an USB-C power adapter, and pass the power to USB-C IN.
- 3) DEVICE: One USB 2.0 Type-A port, connects to mouse, keyboard, etc.
- 4) HDBT OUT: Connects to the HDBT IN on receiver. The LINK LED (green LED) illuminates when there is a valid HDBaseT link between the transmitter and the receiver. The HDCP LED (yellow LED) illuminates when the video contains HDCP content, and the HDCP LED flashes when there is no HDCP.
- 5) FW: To upgrade Valens chipsets on transmitter or receiver.
- 6) DC 24V: DC power connector. If the receiver is already connected to a power adapter, leave this port disconnected.
- 7) POWER LED: Illuminates green when power is applied.

Receiver Panel



- 1) USB-C OUT: Connects to a USB-C display, touch screen, or VR glasses.
- 2) VIDEO OUT: Connects to a display. It copies the image of the USB-C OUT
- 3) HDBT IN: Connects to the HDBT IN on receiver. The LINK LED (green LED) illuminates when there is a valid HDBaseT link between the transmitter and the receiver. The HDCP LED (yellow LED) illuminates when the video contains HDCP content, and the HDCP LED flashes when there is no HDCP.
- 4) FW: To upgrade Valens chipsets on transmitter or receiver, or the MCU on receiver.
- 5) DC 24V: DC power connector. If the receiver is already connected to a power adapter, leave this port disconnected.
- 6) Power LED: Illuminates green when power is supplied

SYSTEM OPERATIONS

EDID Management

- When only the USB-C OUT or VIDEO OUT is connected to a display, the EDID from that display will be passed to the source device.
 - When both USB-C OUT and VIDEO OUT are connected to two displays simultaneously, only the EDID from the display connected to USB-C OUT will be passed to the source.
- If the display connected to the HDMI port supports a lower resolution than the one connected to the USB-C port, the video output to the HDMI display will automatically be downscaled to match its supported resolution.

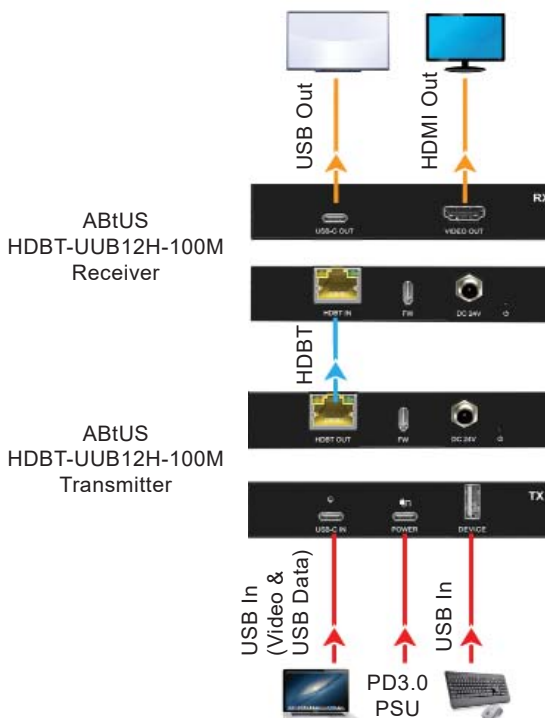
Upgrade the MCU

Please follow below instructions to upgrade the MCU:

1. Connect your PC to the RX via an USB-C cable.
2. Plug the power adapter into the RX.
3. Then a virtual USB drive – BOOTLOADER - will be available on your PC.
4. Prepare the firmware file (*.APP), and rename it to '08009000.APP'.
5. Copy that paste the '08009000.APP' to the root directory of the virtual USB drive – BOOTLOADER. And upgrading will automatically be started.
6. Wait a couple of seconds, until you see a file named 'SUCCESS' is created, that means it finishes upgrading the MCU.
7. Unplug the USB cable, re-plug in the power adapter.

Note, MCU is on the RX only, the TX does NOT have the MCU

DIAGRAM



TECHNICAL SPECIFICATIONS

	TX	RX
Input:	1 x USB-C, DP Alt Mode 1x USB-C, PD Charging	1 x RJ-45 for HDBaseT IN
Output:	1 x RJ-45 for HDBaseT OUT	1 x USB-C, DP Alt Mode Provide up to 5V/0.5A
USB-A	1 x USB 2.0 Type-A	
PD Standard	PD 3.0, Up to 100W	
Video Resolution	Up to 4K@60Hz 4:4:4	Up to 4K@60Hz 4:4:4
HDCP Version	Input: HDCP2.2, HDCP 1.4 compliant Output:	

Display Source	HDCP 2.2	HDCP 1.4	NO HDCP
HDCP 2.2	HDCP 2.2	NO SIGNAL	NO SIGNAL
HDCP 1.4	HDCP 1.4	HDCP 1.4	NO SIGNAL
NO HDCP	NO HDCP	NO HDCP	NO HDCP

General

Control	1 x USB-C, For transmitting motion commands from the USB-C touch screen. 1 x USB-A, For keyboard and mouse	
HDBT Standard	HDBaseT 3.0	
HDBT Transmission Distance	4K@60Hz 4:4:4 or 1080p → 100m	
HDMI Cable Length	4K@60Hz 4:4:4 → 5m 4K@30Hz 4:4:4 → 10m 1080p → 15m"	
Operation Temperature	-10°C ~ +55°C	
Storage Temperature	-25°C ~ +70°C	
Relative Humidity	10%-90%	
Power	DC 24V/1.25A	
Power Consumption	23.1W	
Dimension (W x H x D)	210 x 110 x 12.5mm	210 x 110 x 12.5mm
Net Weight	335g	335g