User Manual

TPUH660

eARC Extender over HDBT3.0

Product Introduction

Thanks for choosing the HDBT3.0 eARC Extender, which consists of a transmitter and a receiver. It can extend 4K or 1080p video to distance up to 328 feet (100 meters) over a single CAT6A cable without compression. It supports eARC. It also supports bi-directional IR pass-through control. 24V PoC feature allows the transmitter and the receiver can be powered from each other and only one power adapter is needed in system.

Features

- 18Gbps high bandwidth, HDMI V2.0.
- HDMI video resolution up to 4K@60Hz 4:4:4, HDR10, Dolby Vision.
- Supports HDCP bypass and HDCP 2.2 compliant.
- HDBaseT 3.0 solution which supports extending signal without compression.
- Extends 4K or 1080p video signals to distances up to 328 feet (100 meters) over a single CAT6A cable.
- Bi-directional IR pass-through control.
- Supports bi-directional 24V PoC.
- Supports eARC (Enhanced Audio Return Channel).
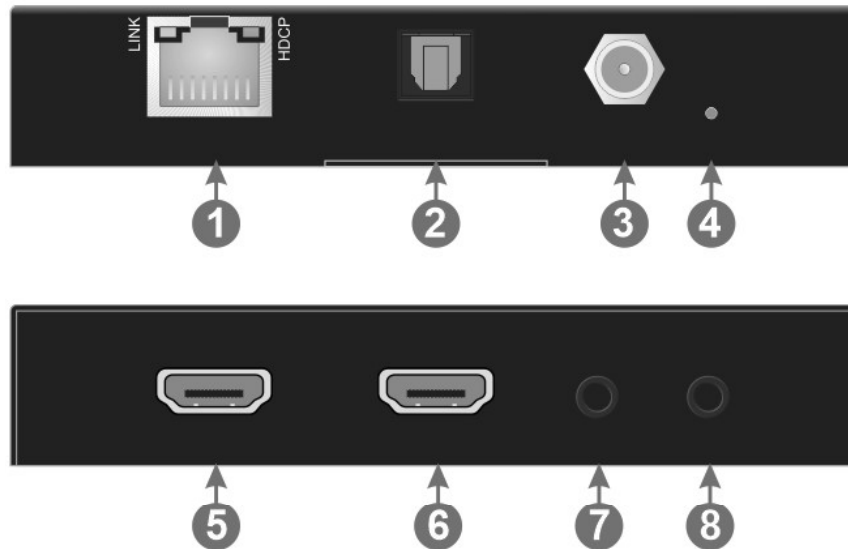- Provides HDMI loop out on transmitter.

Packing List

- 1x Transmitter
- 1x Receiver
- 4x Mounting Ears & 4 Screws
- 8x Plastic cushions
- 1x Power Adapter (24V DC 1.25A)
- 1x User Manual

Note: *Please contact your distributor immediately if any damage or defect in the components is found.*
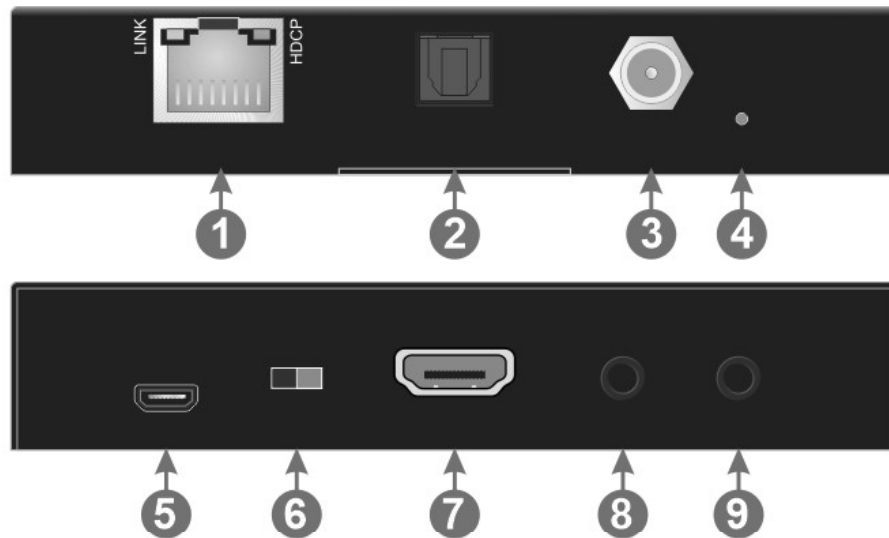
Panel Description

Transmitter

① **HDBT OUT:** RJ45 port to connect the HDBT input port of receiver by CAT6A Ethernet cable. The LINK LED illuminates when there is a valid HDBaseT link between the transmitter and the receiver. The HDCP LED illuminates when the video contains HDCP content.

② **SPDIF OUT:** Connects to audio player (e.g. amplifier) for ARC audio output.

③ **DC 24V:** DC connector for the power adapter connection.

④ **POWER LED:** Illuminates green when power is applied, or blinks when in firmware upgrade mode.

⑤ **HDMI IN(eARC):**Type-A female HDMI input port to connect an HDMI source device.

⑥ **LOOP OUT:** Connects to HDMI display device.

⑦ **IR IN:** Connects to the IR receiver for IR pass-through.

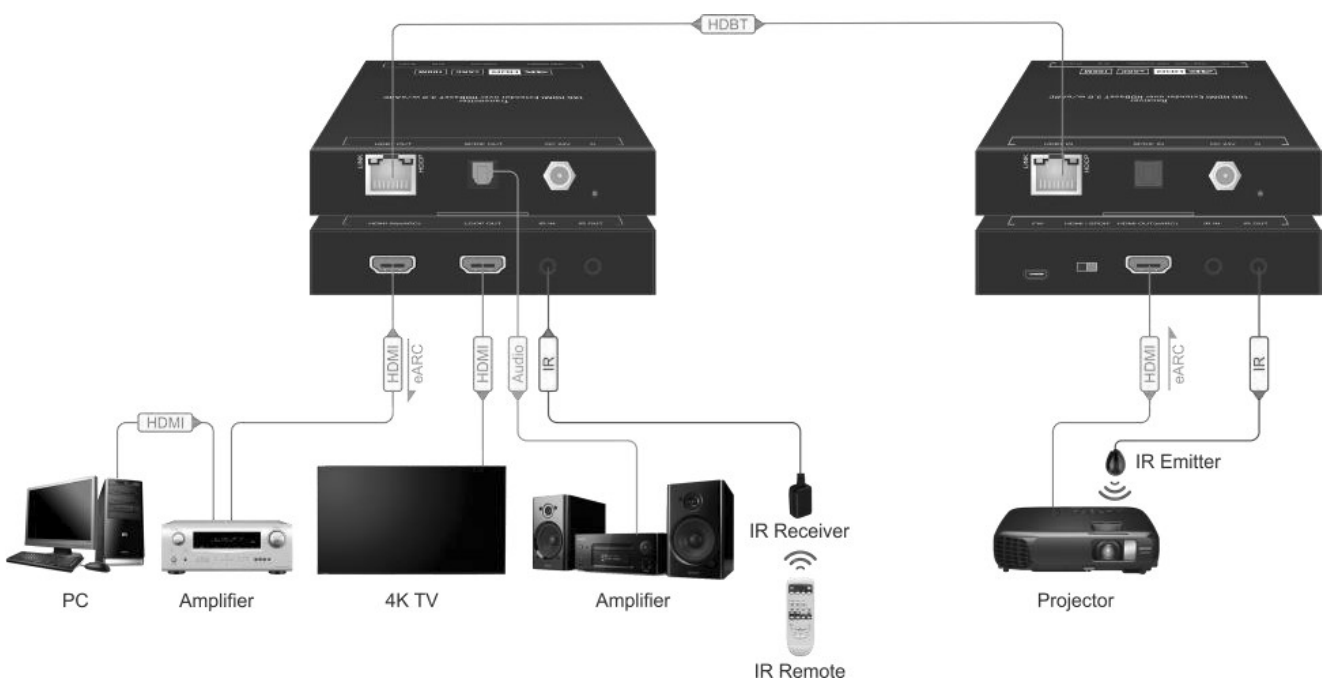⑧ **IR OUT:** Connects to the IR emitter for IR pass-through.

Receiver

① **HDBT IN:** RJ45 port to connect the HDBT output port of transmitter by CAT6A Ethernet cable. The LINK LED illuminates when there is a valid HDBaseT link between the transmitter and the receiver. The HDCP LED illuminates when the video contains HDCP content.

② **SPDIF IN:** Connects to ARC audio source device (e.g.TV).

③ **DC 24V:** DC connector for the power adapter connection.

④ **POWER LED:** Illuminates green when power is applied, or blinks when in firmware upgrade mode.

⑤ **FW:** Micro-USB port for firmware upgrade

⑥ **HDMI/SPDIF:** DIP switch for ARC/eARC mode selection.

- **HDMI:** Select the audio source of the HDMI port of the Receiver and send it back to the SPDIF OUT and HDMI IN of the Transmitter

- **SPDIF:** Select the audio source of the SPDIF port of the Receiver and send it back to the SPDIF OUT and HDMI IN of the Transmitter.

⑦ **HDMI OUT(eARC):** Connects to HDMI display device.

⑧ **IR IN:** Connects to the IR receiver for IR pass-through.

⑨ **IR OUT:** Connects to the IR emitter for IR pass-through.

System Connection

1) When DIP switch is selected to HDMI, and the TV supports eARC, the TV audio can be transmitted back to the transmitter via HDMI output port of receiver, and then it will be output by the **HDMI IN(eARC)** port of transmitter.

2) When DIP switch is selected to SPDIF, the ARC audio can be transmitted back to the transmitter via SPDIF IN port of receiver, and then it will be output by the **SPDIF OUT & HDMI IN(eARC)** port of transmitter.
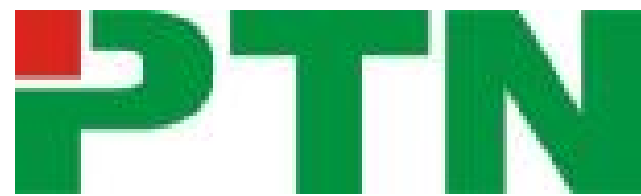

Note: *Please try to restart the extender if eARC function works abnormally.*

Technical Specification

	Transmitter	Receiver
Video		
Input	(1) HDMI IN	(1) HDBT IN
Input Connector	(1) Type-A female HDMI	(1) RJ45
Input Resolution	Up to 4K@60Hz 4:4:4	
Output	(1) HDBT OUT, (1) LOOP OUT	(1) HDMI OUT
Output Connector	(1) RJ45, (1) Type-A female HDMI	(1) Type-A female HDMI
Output Resolution	Up to 4K@60Hz 4:4:4	Up to 4K@60Hz 4:4:4
Audio		
Input	-	(1) SPDIF IN
Input Connector	-	(1) Toslink Connector
Output	(1) SPDIF OUT	-
Output Connector	(1) Toslink connector	-
Audio Format	Toslink (eARC): PCM, Dolby Digital, DTS 5.1CH	
Frequency Response	20Hz ~ 20KHz, ±3dB	
Max Output Level	$\pm$0.05dBFS	
THD+N	< 0.05% (-80 dB), 20 Hz – 20 kHz bandwidth, 1 kHz sine at 0 dBFS level (or max level)	
SNR	> 90dB, 20Hz-20 kHz bandwidth	
Crosstalk Isolation	<-120 dB, 10 kHz sine at 0 dBFS level	
Stereo Channel Separation	< -120dB @ 1 kHz	
Control		
Control Part	(1) IR IN, (1) IR OUT	(1) eARC Switch (1) IR IN, (1) IR OUT
Control Connector	(2) 3.5mm Jacks,	(1) 2-pin DIP Switch, (2) 3.5mm Jacks,
General		
Bandwidth	18Gbps	
HDMI Standard	2.0	
HDCP Version	Input: HDCP 2.2, HDCP 1.4 compliant Output：	

RX OUT / TX IN	HDCP 2.2	HDCP 1.4	NO HDCP
HDCP 2.2	HDCP 2.2	NO IMAGE	NO IMAGE

		HDCP 1.4	HDCP 2.2	HDCP 1.4	NO IMAGE	
		NO HDCP	NO HDCP	NO HDCP	NO HDCP	
Bi-directional PoC		Supported				
HDMI V2.0 Cable Length		4K@60Hz 4:4:4 ≤ 5m, 4K@60Hz 4:2:0 ≤ 15m, 1080P ≤ 20m				
Transmission Standard		HDBaseT3.0				
Transmission Distance		4K/1080p ≤ 328 feet (100 meters)				
Operation Temperature		-5 to +55℃ (+23° to +131°F)				
Storage Temperature		-25 to +70℃ (-13° to +158°F)				
Relative Humidity		10% to 90%, Non-condensing				
Power Supply		Input:100V~240V AC; Output:24V DC 1.25A				
Power Consumption		16W(Max)				
Dimension (W*H*D)		TX:115mm x 21.7mm x 115mm RX:115mm x 21.7mm x 115mm				
Net Weight		TX:300g RX:305g				

Note: *Please use high-qualified HDMI cable fully compliant with HDMI V2.0 for reliable transmission and connection.*

Distributed by U.T.E

www.PTN-Electronics.de