

HDMI Wallplate HDBaseT Extender 70M User Operation Guide



WHBT-HD11-70M
TX



WHBT-HD11-70M
RX

Model:
WHBT-HD11-70M

rev.2024.03Mar.13

User Operation Guide

OVERVIEW

This HDMI Wall-plate supports one HDMI input and analog audio input within a standard 86mm×86mm wall box. The HDBaseT port over a single CAT6/6a cable can extend transmission distance up to 230ft / 70m for 1080P signal or 131ft / 40m for 4K signal. The video resolution is up to 4K@60Hz 4:4:4.

Transmitter supports audio embedding and receiver supports audio de-embedding.

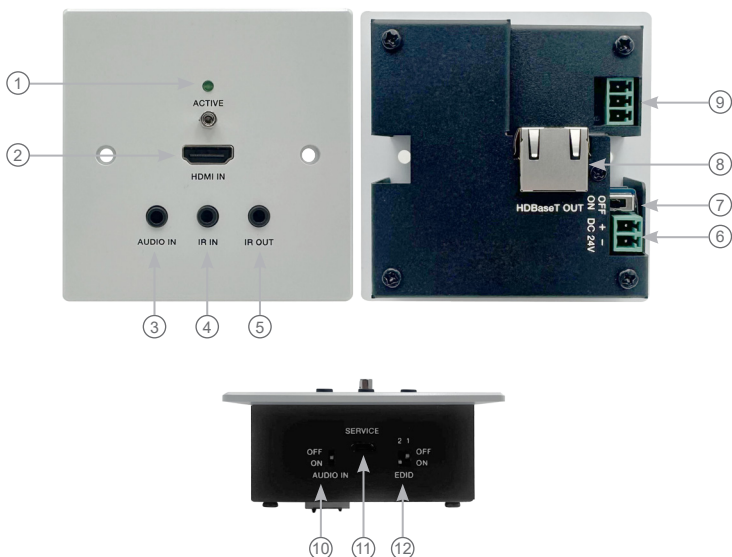
The product supports two-way IR and RS-232 signal control, EDID management and POC function.

PRODUCT FEATURES

- HDMI 2.0b and HDCP 2.2 compliant
- Support video resolution up to 4K2K@60Hz (4:4:4), 18Gbps video bandwidth
- Transmission distance can be extended up to 230ft / 70m for 1080P signal or 131ft / 40m for 4K signal via a single CAT6/6a cable
- Transmitter supports audio embedding, Receiver supports audio de-embedding
- Support two-way IR and RS-232 control
- Standard 86mm×86mm wall box
- Built-in POC switches, when POC switches of TX turned on, the Extender supports bidirectional 24V POC function, either TX or RX can be powered by 24V1A power supply.

PANEL DESCRIPTIONS

Transmitter Panel



PANEL DESCRIPTIONS

Transmitter Panel

No.	Name	Function Description
1	ACTIVE LED (Green)	▪ Light on: Transmitting HDMI signal / HDBT connection is normal; ▪ Light off: No HDMI signal / HDBT connection is abnormal.
2	HDMI IN port	HDMI signal input port, connecting to HDMI source device with HDMI cable.
3	AUDIO IN	3.5mm analog audio signal input port.
4	IR IN	IR input port for receiving the signal of IR remote.
5	IR OUT	IR output port for control of source device. This IR output signal is from the IR IN port of receiver.
6	DC 24V	DV 24V power input port.
7	POC switch	Use the switch to turn on/off POC function.
8	HDBaseT OUT	HDBaseT signal output port. Connect to HDBaseT receiver with a UTP cable.
9	RS-232	Use the phoenix jack for connecting with PC or control system to transmit RS-232 serial port commands.
10	AUDIO IN switch	Use the switch to select the audio. ▪ Switch to "ON": Analog audio; ▪ Switch to "OFF": HDMI embedding audio.
11	SERVICE	MCU update port.
12	EDID DIP switch	Use the DIP switch to set EDID. 00- Copy display's EDID (as factory default) 01- 4K30 4:4:4 2CH 10- 1080p60 4:4:4 2CH 11- 1200p60 4:4:4 2CH

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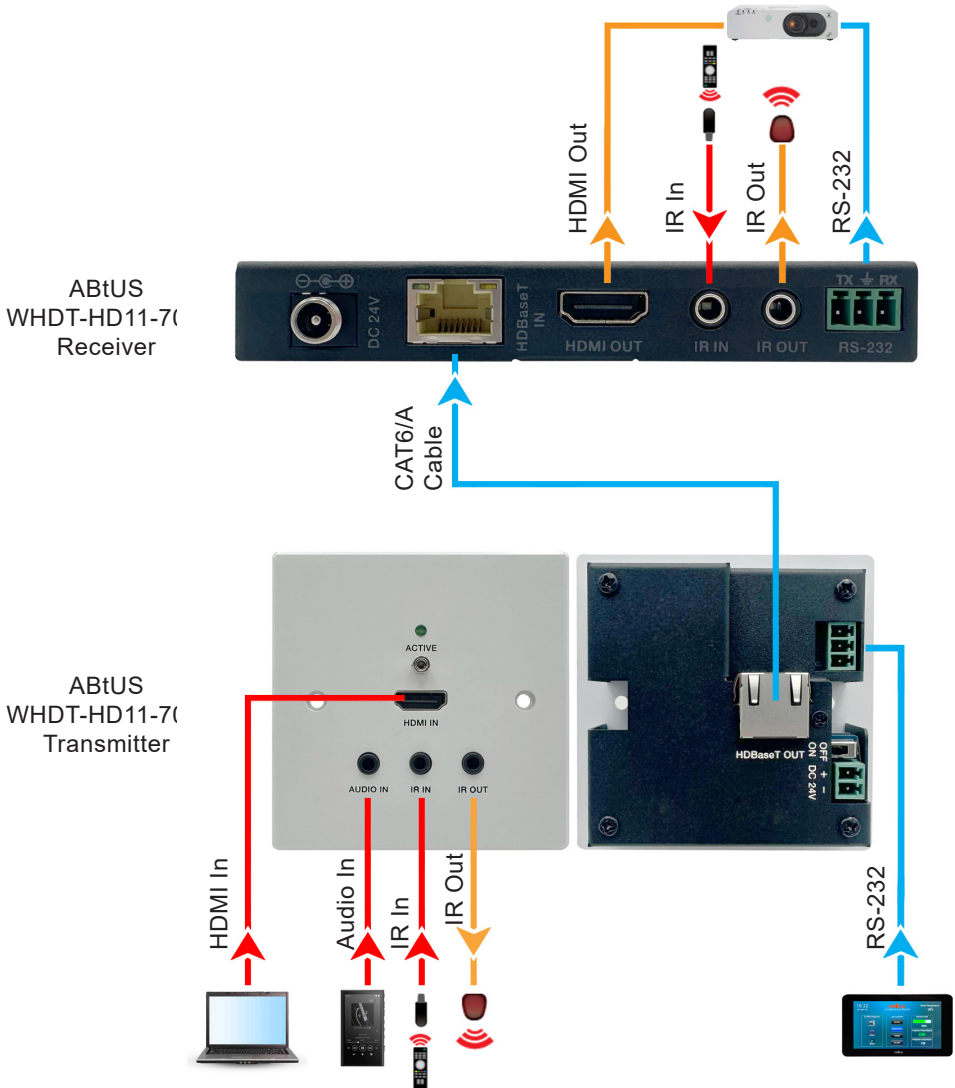
PANEL DESCRIPTIONS

Receiver Panel



No.	Name	Function Description
1	Power LED	Red LED indicates that the receiver is powered on.
2	DC 24V	DC 24V/1A power supply input port. <i>Note: Both the transmitter and receiver support POC function, it means that either transmitter or receiver is powered on by 24V/1A power adapter, the other one doesn't need power supply.</i>
3	HDBaseT IN	RJ45 connector for connecting the HDBaseT OUT port of transmitter with a CAT 5e/6 cable.
4	Link Signal Indicator	▪ Illuminating: Transmitter and Receiver are in good connection status. ▪ Flashing: Transmitter and Receiver are in poor connection status. ▪ Dark: Transmitter and Receiver are not connected.
5	Data Signal Indicator	▪ Illuminating: HDMI signal with HDCP. ▪ Flashing: HDMI signal without HDCP. ▪ Dark: No HDMI signal.
6	HDMI OUT	HDMI signal output port.
7	IR IN	IR input port for receiving the signal of IR remote.
8	IR OUT	IR output port for control of display device. This IR output signal is from the IR IN port of transmitter.
9	RS-232	3-pin Phoenix connector for RS-232 command transmission. The RS-232 command will pass-through between the transmitter and receiver.

DIAGRAM



TECHNICAL SPECIFICATIONS

	TX	RX
Input:	1 x HDMI [Type A, 19-pin female] 1 x Audio [3.5mm Stereo Mini-jack]	1 x HDBT IN [RJ45]
Output:	1 x HDBT [RJ45] 1 x HDMI Out [Type A, 19-pin female] 1 x AUDIO Out [3.5mm Stereo Mini-jack]	
Control:	1 x RS-232 [3pin-3.5mm Phoenix connector] 1 x IR In [3.5mm Stereo Mini-jack] 1 x IR Out [3.5mm Stereo Mini-jack] 1 x Service [Micro USB]	1 x RS-232 [3pin-3.5mm Phoenix connector] 1 x IR In [3.5mm Stereo Mini-jack] 1 x IR Out [3.5mm Stereo Mini-jack] 1 x Service [Micro USB]
HDMI Compliance:	HDMI 2.0b	
HDCP Compliance:	HDCP 2.2	
HDMI Video Bandwidth:	18Gbps	
HDMI Video Resolution:	Up to 4K@60Hz 4:4:4	
Color Space:	RGB, YCbCr 4:4:4 / 4:2:2, YCbCr 4:2:0	
Color Depth:	8/10/12bit	
HDR:	HDR, HDR10, HDR10+, Dolby Vision, HLG	
IR Level:	5Vp-p	
IR Frequency:	Wideband 20K-60KHz	
Audio Format:	HDMI: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD Analog: PCM 2.0	
Transmission Distance:	1080P--70m, 4K --40m (CAT6/6a)	
ESD Protection:	Human body model: ±8kV (Air-gap discharge) & ±4kV (Contact disc charge)	
Housing:	Aluminium Enclosure — Front Panel Metal Enclosure Metal Enclosure — Rear Panel	
Power Supply:	Input: AC100 - 240V 50/60Hz,	
Output:	DC 24V/1A	
Power Consumption:	9W	
Operating Temperature:	32 - 104°F / 0 - 40°C	
Storage Temperature:	-4 - 140°F / -20 - 60°C	
Relative Humidity:	20 - 90% RH (no condensation)	
Dimension(W*D*H):	86mm x 38mm x 86mm	115.5mm x 65.5mm x 17.3mm
Weight:	185g	202g