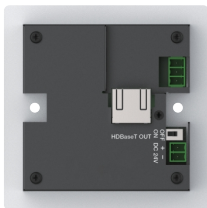# HDMI Wall-plate (86x86) with IR and RS-232

User Manual

VER 1.1

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, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect andextend the life of your equipment.

Table of Contents

1. Introduction

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, Reciver supports audio de-embedding. The product supports two-way IR and RS-232 signal control, EDID management and 24V POC function. It can be directly connected with an HDBT projector via a 70m CAT cable.

2. Features

☆ HDMI 2.0b and HDCP 2.2 compliant
☆ Support 18Gbps video bandwidth
☆ Support video resolution up to 4K@60Hz 4:4:4
☆ 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
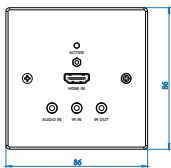☆ POC 24V or local DC 24V power supply

3. Package Contents

① 1 × HDMI Wall-plate Transmitter
② 1 × 2pin-3.81mm Phoenix Connector (male)
③ 1 × 3pin-3.81mm Phoenix Connector (male)
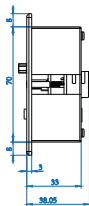④ 2 × Machine Screws (M3.5*12)
⑤ 1 × User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
HDMI Video Bandwidth	18Gbps
HDMI Video Resolution	Up to 4K@60Hz 4:4:4
Video Compression Standard	HDBT
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 Formats	**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	1080P--70m, 4K --40m (CAT6/6a)
ESD Protection	Human body model：±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connections	
Transmitter	Input: 1×HDMI IN [Type A, 19-pin female] 　　　1×AUDIO IN [3.5mm Stereo Mini-jack] Output:1×HDBaseT OUT [RJ45] Control:1×RS-232 [Phoenix jack] 　　　　1×IR IN [3.5mm Stereo Mini-jack] 　　　　1×IR OUT [3.5mm Stereo Mini-jack] 　　　　1×SERVICE [Micro-USB jack]

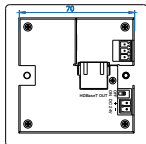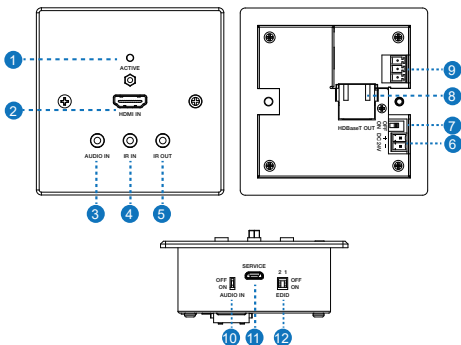| Mechanical	
Housing	Aluminium Enclosure — Front Panel Metal Enclosure — Rear Panel
Color	White — Front Panel Black — Rear Panel
Dimensions	86mm[W] x 86mm[D] x 38mm[H]
Weight	185g
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 24V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	9W (POC)
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

5. Product Dimensions

Front

Side

Back

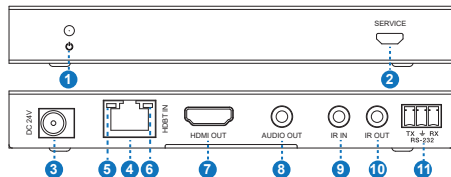Unit: mm

6. Operation Controls and Functions

6.1 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.

No.	Name	Function Description
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

6.2 Receiver Panel

No.	Name	Function Description
1	Power LED	Red LED indicates that the receiver is powered on.
2	SERVICE	MCU update port.
3	DC 24V	DC 24V/1A power supply input port. *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.*
4	HDBT IN	RJ45 connector for connecting the HDBT OUT port of transmitter with a CAT 5e/6 cable.
5	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.
6	Data Signal Indicator	• Illuminating: HDMI signal with HDCP. • Flashing: HDMI signal without HDCP. • Dark: No HDMI signal.
7	HDMI OUT	HDMI signal output port.
8	AUDIO OUT	3.5mm stereo connector for analog audio output.
9	IR IN	IR input port for receiving the signal of IR remote.
10	IR OUT	IR output port for control of display device. This IR output signal is from the IR IN port of transmitter.
11	RS-232	3-pin Phoenix connector for RS-232 command transmission. The RS-232 command will pass-through between the transmitter andreceiver.

7. Application Example

DVD or Blu-ray Player

Notebook

Transmitter

HDMI IN

AUDIO IN IR IN IR OUT

HDBaseT OUT

PC

IR Blaster

CAT6/6a Cable

IR Receiver

Receiver

DC 5V   HDBT IN   HDMI   AUDIO OUT IR IN IR OUT   TX & RX

Power Adapter

Speakers

IR Receiver

IR Blaster

TV or Monitor

HDMI Matrix with RS-232 function