



Comprehensive[®]
Connectivity Company

CHE-HDBTWP100K

Pro AV/IT HDBaseT 4K60 18G Single Gang HDMI Wall Plate Extender Kit up to 230ft



Operation Manual

Thank you for purchasing this product

For optimal 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.

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1. Introduction

The HDBaseT Wall-plate Transmitter can transmit up to 4K2K@60 (4:4:4) video over a single CAT6/6a/7 cable up to 130ft/40m or 1080p up to 230ft/70m. It supports Power over Cable (PoC) functionality that allows for greater flexibility in installations. It also supports two-way IR and RS-232.

2. Features

- HDMI 2.0b 18Gbps, HDCP 2.2 compliant
- Up to 4K2K@60Hz(4:4:4), 4K2K@30Hz, 1080p@120Hz
- Up to 7.1 channels HD audio
- HDBaseT™ over a single CAT 6/6a/7 cable up to 230ft/70m distance
- One HDMI input, 1 Gang US Decora Wall Plate
- Two-way IR and RS-232
- PWR/LINK/HDCP indicators
- POC (Power over Cable) function is supported, either TX or RX is powered by 24V1A power supply, the another does not need power supply from the DC jack. POC Power consumption is less than 10W.
 - ※ See the description 1
- Transfer Bidirectional Infrared control signal together with the HDMI signal.
 - ※ See the description 2.
- Transfer Bidirectional RS-232 control signal together with the HDMI signal.
 - ※ See the description 3.

3. Package Contents

- 1× 18G HDMI Wall Plate Transmitter
- 1× Wideband IR blaster cable
- 1× Wideband IR receiver cable
- 1× Phoenix connector (3-pin)
- 1× Phoenix connector (2-pin)
- 1× User Manual
- 1× HDMI 18Gbps HDBaseT™ Receiver
- 1× 24V/1A DC Power Adaptor

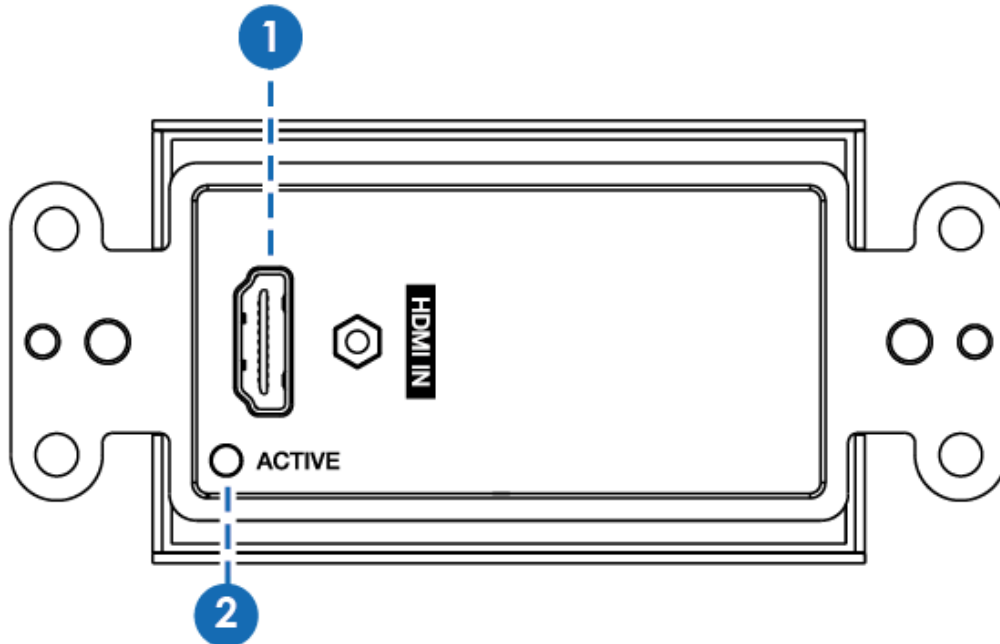
4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 1.4 and HDCP 2.2
Video Bandwidth	18 Gbps
Video Resolution	up to 4K2K@50/60Hz(YUV4:4:4),4K2K@30Hz,1080P@ 120Hz, and 1080P 3D@60Hz
Color Space	RGB/YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	10-bit, 12-bit
HDMI Audio Formats	LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X

Optical Audio Formats	LPCM 2CH, LPCM 5.1, Dolby Digital 2/5.1CH, DTS 2/5.1CH
ESD Protection	Human body model—±8kV (Air-gap discharge) &±4kV (Contact discharge)
Connections	
Transmitter	Inputs: 1x HDMI Type A [19-pin female] 1x IR INPUT [Phoenix jack] 1x RS-232 [Phoenix jack] Outputs: 1x HDBaseT Out [RJ45] 1x IR OUTPUT [Phoenix jack] 1x RS-232 [Phoenix jack]
Mechanical	
Housing	Plastic-Front Panel, Metal-Rear Case
Color	White-Front Panel, Black-Rear Case
Dimensions	103.5mm [W] x 46mm [D] x 30mm [H]
Weight	163g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 24V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	9W (Max)
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

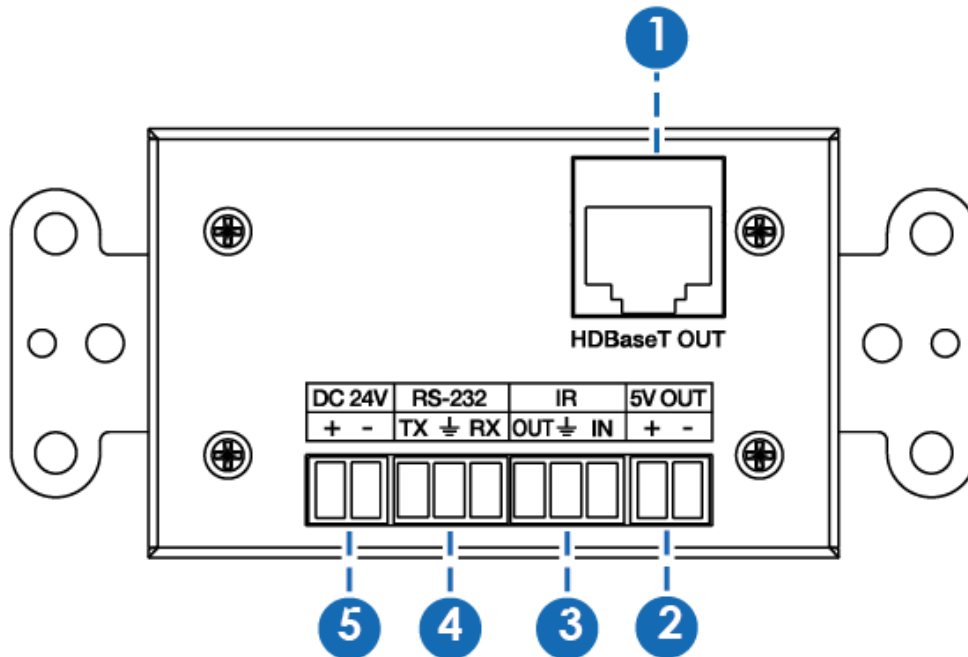
5. Operation Controls and Functions

5.1 Wallplate Front panel



Number	Name	Function description
1	HDMI IN	Connect to HDMI source devices such as Blu-ray or PS4 player.
2	ACTIVE	Green LED input signal indicator.

5.2 Wallplate Rear panel

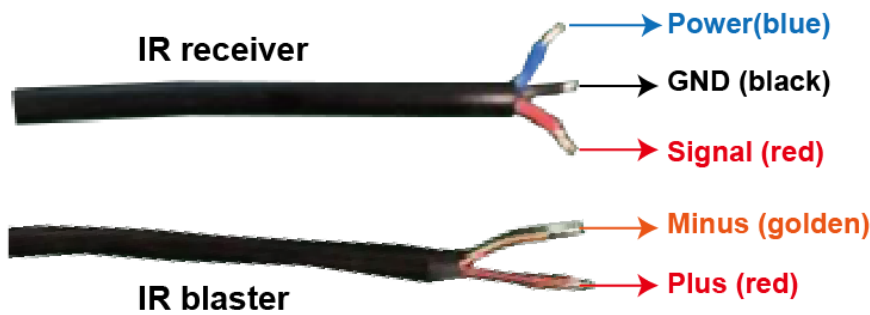


Number	Name	Function description
1	HDBaseT OUT	HDBaseT output port. Connect HDBaseT receiver with a UTP cable.
2	5V OUT	Supply 5V power for external IR emitter.
3	IR IN/OUT	Use the phoenix jack for connect IR input or output.
4	RS-232	Use the phoenix jack for connect PC or control system to transmit RS-232 commands.
5	DC 24V	Use the phoenix jack for connect power supply.

5.3 IR Connections

The product supports IR control. If you need to use IR function of the product, you have to use the IR blaster cable and the IR receiver cable to phoenix connectors. Please see the following instructions :

Step 1: For the IR Receiver, use a cutting tool to cut out the 3.5mm connector and split out the cable to three color wires – Power (Blue), Ground (Black) and Signal (Red). For the IR Blaster, use a cutting tool to cut out and split out the cable to two color wires – Minus (Gold) and Plus (Red) – See *Picture 1*



[Picture 1]

Step 2: Wire the cables to the provided Phoenix connectors - See *Picture 2*



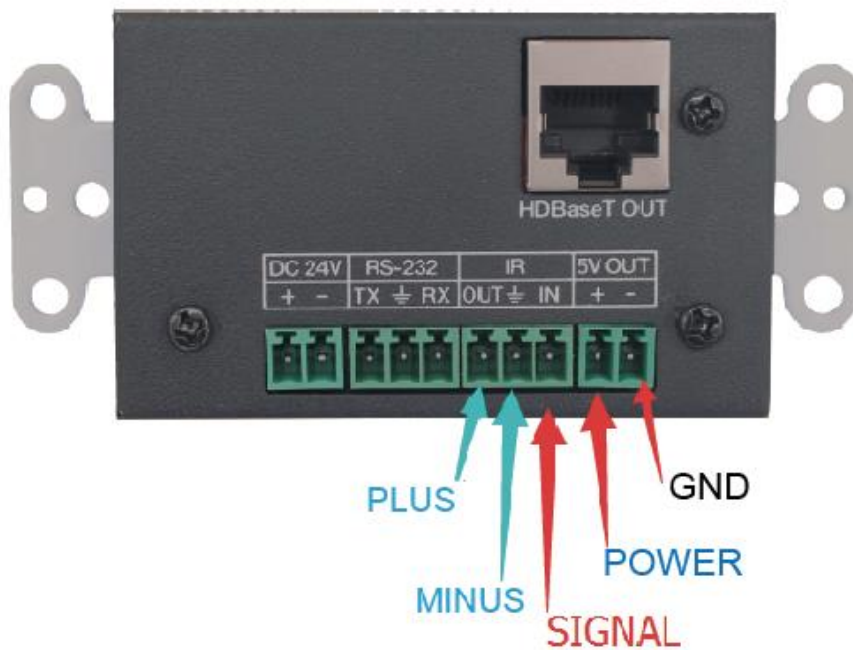
[Picture 2]

Step 3: The wired IR cables should look as the follows - See *Picture 3*



[Picture 3]

Step 4: Below is the pin-out diagram for the IR Blaster and Receiver - See *Picture 4*



[Picture 4]

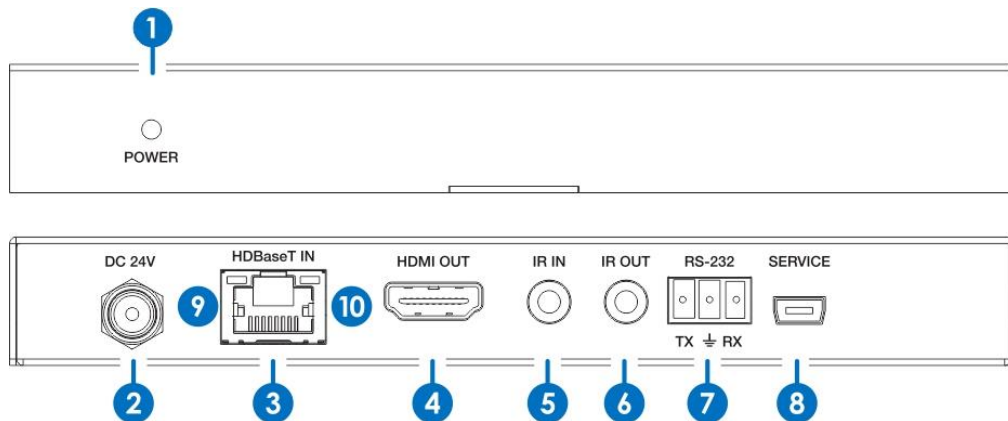
Step 5: Plug in both the IR Blaster and IR Receiver to the Phoenix jack. - See

Picture 5



[Picture 5]

5.4 Receiver panel



- 1** **Power LED:** System power indicator.
- 2** **DC 24V:** Connect 24V/1A adaptor to AC wall outlet for power supply.
- 3** **HD BaseT In:** Standard HD BaseT signal input port. Connect HD BaseT Transmitter with a UTP cable following the standard of direct interconnection method
- 4** **HDMI Out:** HDMI output port. This slot is where you connect the HDTV or monitor with HDMI cable.
- 5** **IR In:** Channel 1 IR Receiver. Connect with Wideband IR Rx
- 6** **IR Out:** Channel 2 IR Transmitter. Connect with Wideband IR Tx.
- 7** **RS-232:** Phoenix jack provide Serial port control signal from receiver or to receiver.
- 8** **Service:** Manufacturer use only.
- 9** **Connection Signal Indicator Lamp**

※Illuminate: The Transmitter and Receiver are in good connections status.

※Flashing: The Transmitter and Receiver are in poor connections status.

※Dark: The Transmitter and Receiver are not connected.

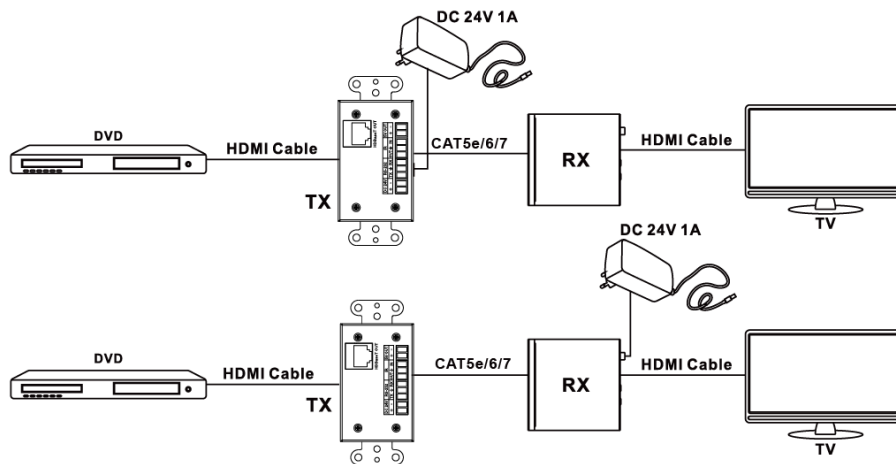
10 Data Signal Indicator Lamp

※Illuminate: The HDMI signal with HDCP.

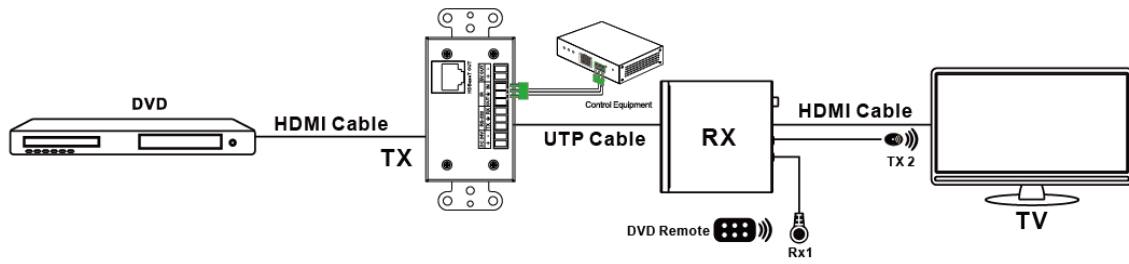
※Flashing: The HDMI signal without HDCP.

※Dark: No HDMI signal.

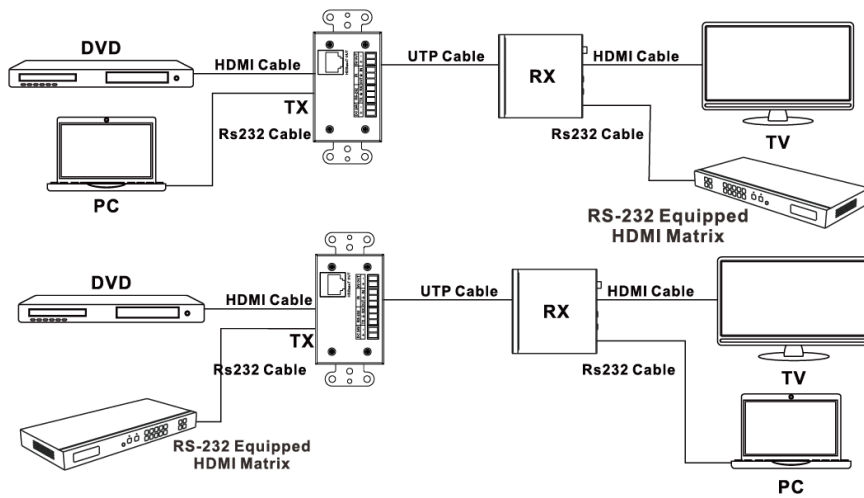
Application Diagram (A) - POC (Power over Cable) Example



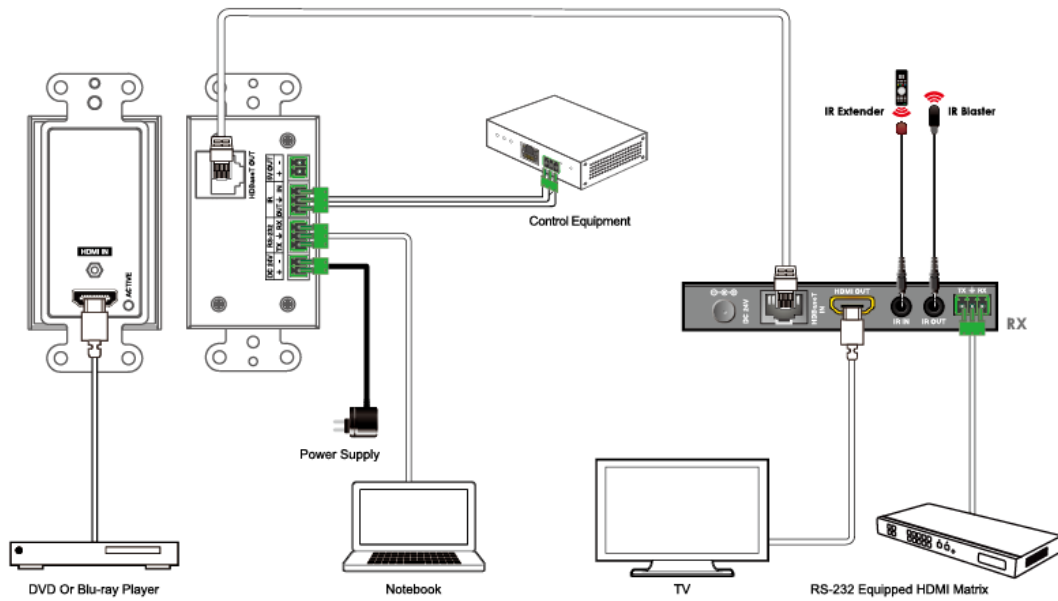
Application Diagram (B) - Bidirectional Infrared control Example



Application Diagram (C) - Bidirectional RS-232 control Example



7. Application Example



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