



**Comprehensive**<sup>®</sup>  
Connectivity Company

*The Pro's Connectivity Since 1974*

## **CHE-HDBTWP121K**

Pro AV/IT HDBaseT™ 4K 18G Single Gang HDMI, USB 2.0 and Audio Wall Plate Extender Kit up to 230ft



**User Manual**

# 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, 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

Comprehensive's CHE-HDBTWP121K Wall Plate Extender kit was designed to extend HDMI, analog audio and high speed USB 2.0 signals up to 230ft over Cat5e or Cat6 cables. Perfect for all commercial AV/IT installations that require HDMI and USB 2.0 and audio inputs.

## 2. Features

- Extends your 4K HDMI, Audio and USB 2.0 High Speed Signals over a single UTP cable up to 230ft
- HDMI 2.0, 18Gbps
- HDCP 2.2 & 1.4 Compliant
- HDMI input supports resolutions up to 4K2K@60Hz (4:4:4), 1080p@120Hz HDBaseT™ over a single CAT 6/6a/7 cable up to 230ft/70m distance to 1080p or 131/40m distance to 4K2K@60Hz (4:4:4).
- USB 2.0 High Speed port up to 190 Mbps
- 3.5mm Audio Port to independently transit analog audio signal from the Transmitter to the Receiver
- Supports HDR, CEC pass through
- 24V 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.
- Transfer Bidirectional RS-232 control signal together with the HDMI signal.
- 3 Year Warranty

## 3. Package Contents

- ① 1x 4K HDMI Wall Plate Transmitter
- ② 1x HDBaseT Receiver
- ③ 1x Phoenix connector (3 pins)
- ④ 1x Phoenix connector (2 pins)
- ⑤ 1x 24V/1A power adapter
- ⑥ 1x Cover plate
- ⑦ 2x Rack ears
- ⑧ 1x User Manual

## 4. Specifications

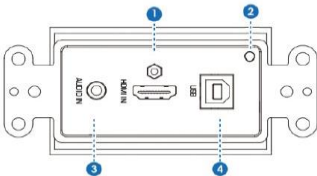
Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolution	4K2K@50/60Hz 4:2:0, 4K2K@60Hz 4:4:4 1080P@120Hz, and 1080P 3D@60Hz
Color Space	RGB/YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	8-bit, 10-bit, 12-bit
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Analog 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 AUDIO IN [3.5mm earphone] 1x USB [USB-B] 1x RS-232 [3-pin phoenix ] 1x DC 24V/GND [2-pin phoenix ] Outputs: 1x HDBaseT OUT [RJ45]
Receiver	Inputs: 1x HDBaseT IN [RJ45] 1x DC 24V [locking power ] Outputs: 1x HDMI Type A [19-pin female] 1x AUDIO OUT [3.5mm earphone] 1x RS-232 [3-pin phoenix] 2x USB [USB-A]
Mechanical	
Housing	Metal Enclosure
Color	TX: White-Front Panel, Black-Rear Case RX: Black
Dimensions	TX: 103.5mm [W] x 46mm [D] x 30mm [H] RX: 140mm [W] x 75mm [D] x 23mm [H]

Weight	TX: 163g, RX: 200g
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

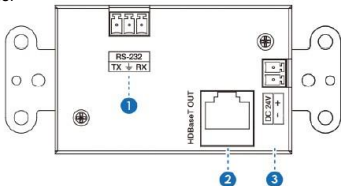
### 5.1 Transmitter Panel

#### ☆ Front Panel



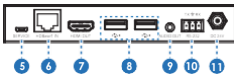
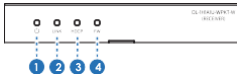
Number	Name	Function description
1	HDMI IN	Connect to HDMI source devices such as Blu-ray or PS4 player.
2	ACTIVE	Green LED input signal indicator. When the HDMI port have signal input, the light is on. Otherwise, the light is off.
3	AUDIO IN	Analog audio input port.
4	USB	USB hot port.

## ☆ Rear Panel



Number	Name	Function description
1	RS-232	Use the phoenix jack for connect PC or control system to transmit RS-232 commands.
2	HDBaseT OUT	HDBaseT output port. Connect HDBaseT receiver with an UTP cable.
3	DC 24V	Use the phoenix jack for connect power supply. (Reserved power supply )

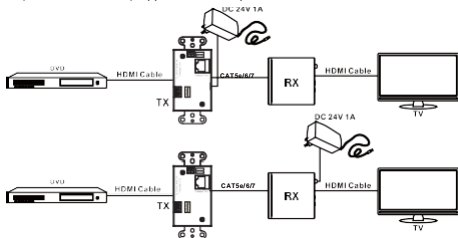
## 5.2 Receiver Panel



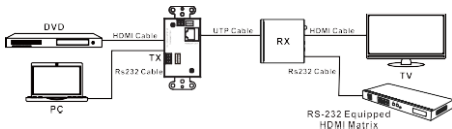
Number	Name	Function description
1	Power LED	When the power supply is normal, the indicator LED is on.
2	LINK LED	LINK LED indicator light.
3	HDCP LED	HDCP status indicator light.
4	FW LED	When the device is working, the LED light is on.
5	SERVICE	Firmware update use.
6	HDBaseT IN	HDBaseT input port. Connect HDBaseT transmitter with an UTP cable.

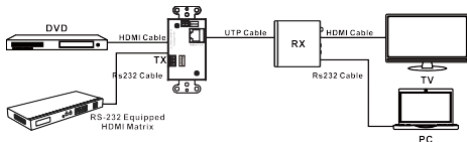
7	HDMI OUT	HDMI output port. Connect to the display device such as TV or projector
8	USB	Connect to USB device such as USB mouse or keyboard.
9	AUDIO OUT	Analog audio input port.
10	RS-232	Use the phoenix jack for connect PC or control system to transmit RS-232 commands.
11	DC 24V	Connect 24V/1A adaptor to AC wall outlet for power supply.

※ Description 1  
POC (Power over Cable) Application Example

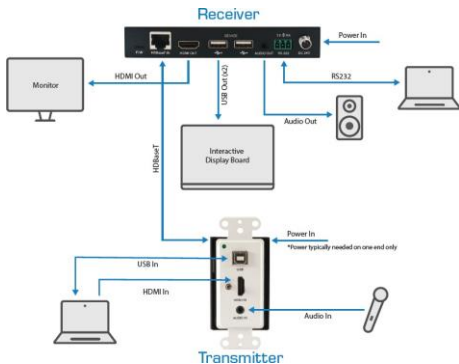


※ Description 2  
Bidirectional RS-232 control Application Example





## 6. Application Example



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