



4K 60Hz Single Gang Wall Plate THBD-220-W



User Manual

Version 2.0

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 and extend the life of your equipment.

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1. Introduction

The THBD-220-W wall-plate transmitter can transmit HDMI 4K 60Hz 4:4:4 signals up to 130ft (40m) and 1080p 120Hz 4:4:4 up to 230ft (70m) over a single Cat 6/6a cable. It supports Power over Cable (PoC) functionality allowing for greater flexibility in installations. Bi-directional IR and RS-232 is also supported.



2. Features

- ⌘ HDCP 2.2 compliant
- ⌘ Video bandwidth up to 18 Gbps
- ⌘ Video resolutions up to 4K 60Hz 4:4:4 and 1080p 120Hz
- ⌘ HD audio up to 7.1 channels
- ⌘ Transmission distances up to 230ft (70m) over a single Cat 6/6a cable
- ⌘ One HDMI input, 1 gang US decora wall plate
- ⌘ Bi-directional IR and RS-232 pass-through
- ⌘ Supports Power over Cable (PoC) (Only either Tx or Rx needs power)
- ⌘ Transfer a bi-directional infrared control signal together with the HDMI signal
- ⌘ Transfer a bi-directional RS-232 control signal together with the HDMI signal

3. Package Contents

🌀 4K 60Hz HDBaseT Wall Plate.....	(1 piece)
🌀 24V/1A Power Supply with US Conversion Plug.....	(1 piece)
🌀 Top Panel.....	(1 piece)
🌀 3-pin 3.81mm Phoenix Connector.....	(2 piece)
🌀 2-pin 3.81mm Phoenix Connector.....	(2 piece)
🌀 Rubber Gasket.....	(2 piece)
🌀 Machine Screw (4x12).....	(2 piece)
🌀 Machine Screw (6#-32).....	(2 piece)
🌀 User Manual.....	(1 piece)

4. Specifications

Technical

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2/1.4
Video Bandwidth	18 Gbps
Video Resolution	Up to 4K 60Hz (4:4:4), 1080p 120Hz (4:4:4)
Color Depth	10-bit, 12-bit
Color Space	RGB 4:4:4, YCbCR 4:4:4, YCbCr 4:2:2
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
Transmission Distance	4K 60Hz 130ft (40m), 1080p 120Hz 230ft (70m)
ESD Protection	IEC 61000-4-2: ±8kV (Air-Gap Discharge), ±4kV (Contact Discharge)

4. Specifications

Connection

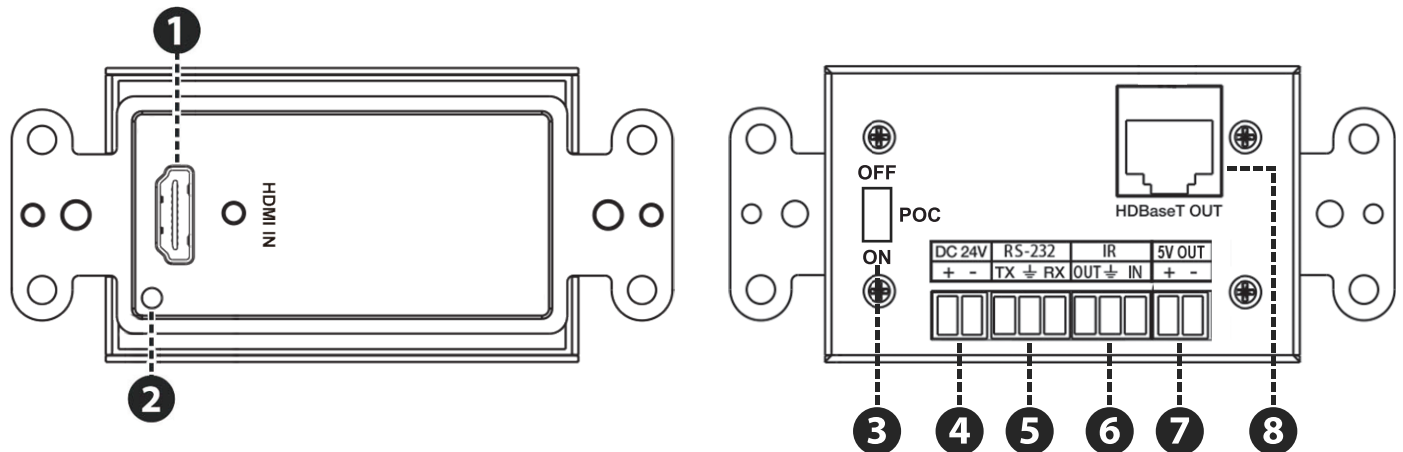
Input.....1x HDMI Type A, 1x IR Input, 1x RS-232
Output.....1x HDBaseT OUT, 1x IR OUT, 1x RS-232

4. Specifications

Mechanical

Housing.....Plastic Front Panel, Metal Rear Case
Color.....White Front Panel, Black Rear Case
Dimensions.....4.07in (103.5mm) **W**, 1.81in (46mm) **D**, 1.18in (30mm) **H**
Weight.....5.75oz (163g)
Power Supply.....**Input:** AC 100~240V 50/60Hz, **Output:** DC 24V/1A
(US/EU Standards, CE/FCC/UL Certified)
Power Consumption.....9W (Max)
Operation Temperature.....0°C ~ 40°C / 32°F ~ 104°F
Sotrage Temperature.....-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity.....20% ~ 80% Relative Humidity, Non-Condensing
Storage Humidity.....10% ~ 90% Relative Humidity, Non-Condensing

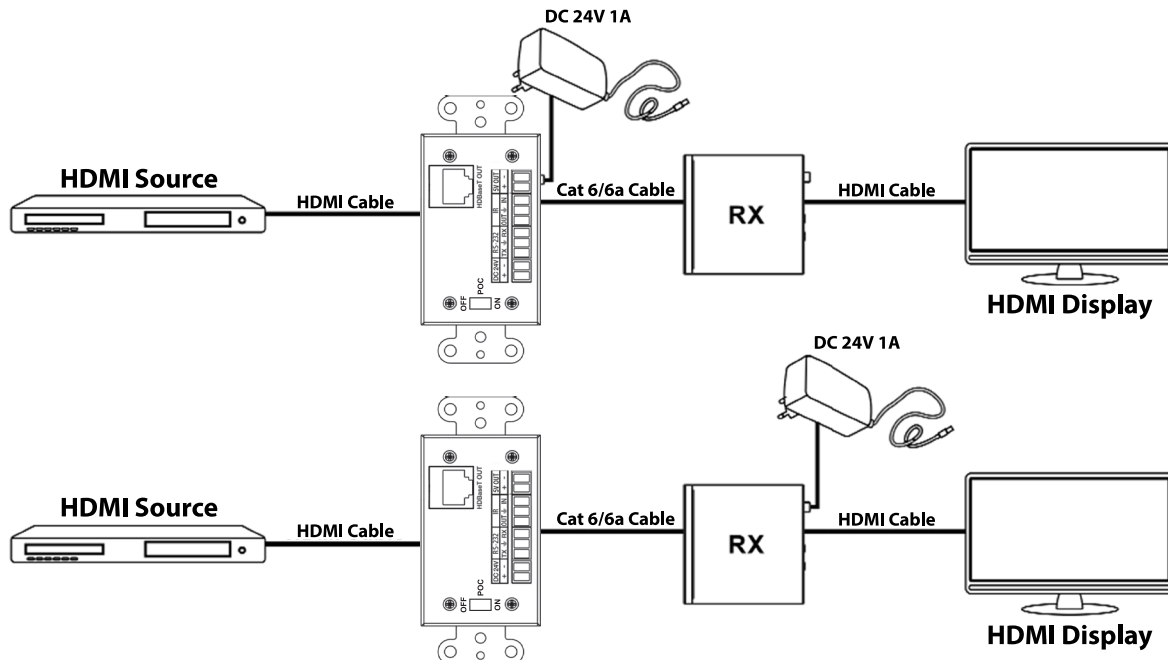
5. Operation Controls and Functions



1. **HDMI IN**.....HDMI signal input port, connected to HDMI source device
2. **Active LED**.....The green LED will be on when an input signal is detected
3. **PoC Switch**.....Use to turn on or turn off PoC function
4. **DC 24V**.....2-pin phoenix connector, used for 24V/1A power supply
5. **RS-232**.....3-pin phoenix connector, connected to control system to transmit RS-232 commands
6. **IR IN/OUT**.....3-pin phoenix connector, connected to IR input/output
7. **5V OUT**.....5V power output for external IR receiver
8. **HDBaseT OUT**.....HDBaseT output port, connected to HDBaseT receiver with a UTP cable

6. Application Examples

Power Over Cable Application Example



Bi-Directional RS-232 Control

