



4K HDBaseT Set HDMI, USB, WP to Box EHB-250-W



User Manual Version 5.0

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

This HDBaseT transmitter extends HDMI over a single CAT5e/6/6A cable transmitting 18Gbps 4K2K@50/60Hz (4:4:4) up to 132ft/40m and 4K2K@50/60Hz (4:2:0) and 4K30Hz (4:4:4), or 1080P up to 230ft/70m. This product offers support for one independent analog audio, one way RS232 signal passthrough with HDMI and USB unidirectional signal transmission. This powerful product combo is perfect for classrooms and meeting room applications.

2. Features

- 🌀 HDMI 2.0b, HDCP 2.2 / HDCP 1.4
- 🌀 Supports 4K@60Hz up to 132ft (40m)
- 🌀 Supports 1080P@60Hz up to 328ft (100m)
- 🌀 1 HDMI input, 1 Gang US Decora Wall Plate
- 🌀 Supports USB 2.0 with USB-B input
- 🌀 Supports HDR and CEC pass-through

See the description 1 on page 4

- 🌀 24V POC (Power Over Cable) function is supported, either TX or RX is powered by 24V/1A power supply, the another does not need power supply from the DC jack. POC Power consumption is less than 12W.

See the description 2 on page 4

- 🌀 Transfer bi-directional RS-232 control signal together with the HDMI signal.

3. Package Contents

- | | |
|-------------------------------------|------------------------------|
| 🌀 HDMI Wall Plate Transmitter - 1PC | 🌀 24V/1A power adapter - 1PC |
| 🌀 HDBaseT Receiver - 1PC | 🌀 Cover plate - 1PC |
| 🌀 Phoenix connector (3 pins) - 1PC | 🌀 Rack ears - 2PCS |
| 🌀 Phoenix connector (2 pins) - 1PCS | 🌀 User Manual - 1PC |

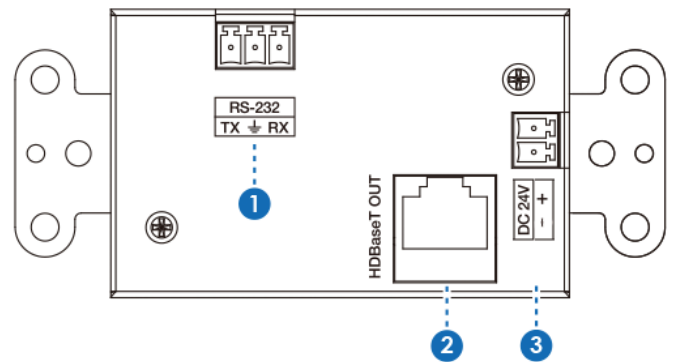
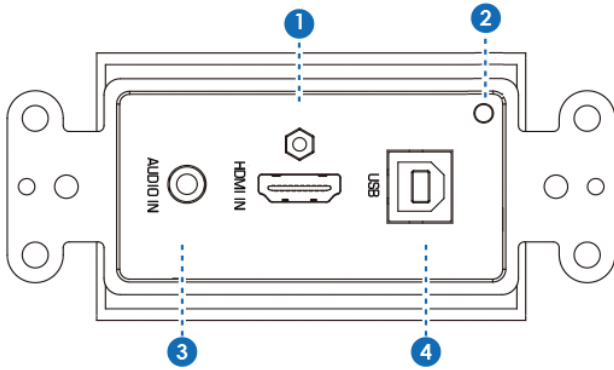
4. Technical Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolutions	4K2K@50/60Hz 4:4:4, 4K2K@30Hz 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] Output: 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	12W (Max)
Operation 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 & Functions

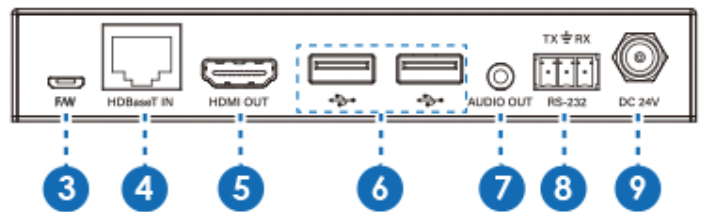
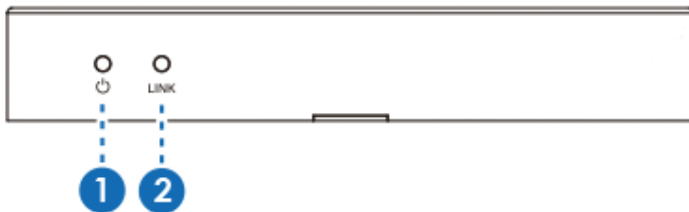


Front Panel Transmitter

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 has a signal input, the light is on. Otherwise, the light is off.
3. **AUDIO IN:** Analog audio input port.
4. **USB:** Connect to PC or other USB host.

Back Panel Transmitter

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 to connect power supply. (Reserved power supply).



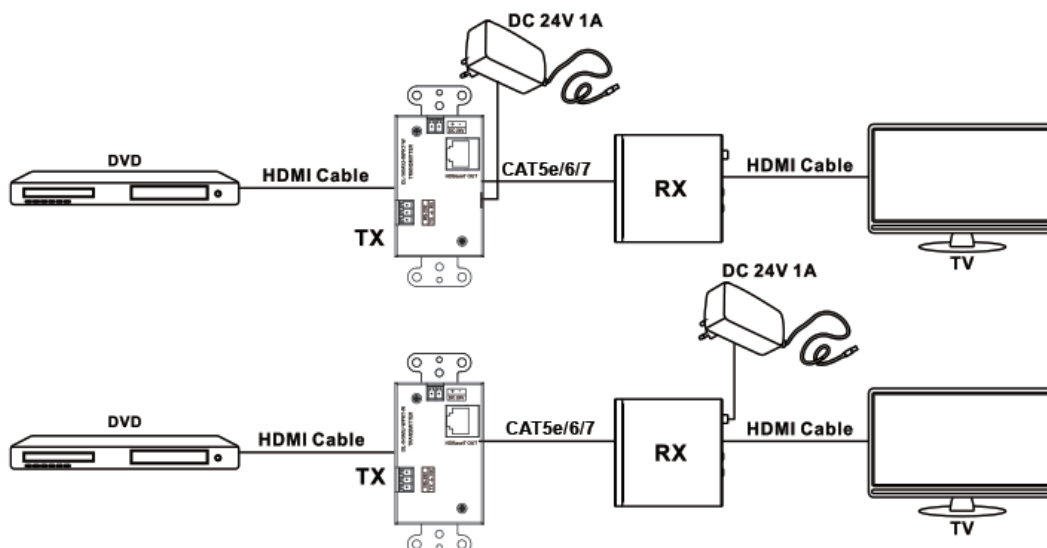
Receiver Panel

1. **Power LED:** When the power supply is normal, the indicator LED is on.
2. **LINK LED:** LINK LED indicator light.
3. **F/W:** Firmware update use.
4. **HDBaseT IN:** HDBaseT input port. Connect HDBaseT transmitter with an UTP cable.
5. **HDMI OUT:** HDMI output port. Connect to the display device such as TV or projector.
6. **USB:** Connect to USB device such as USB mouse or keyboard.
7. **AUDIO OUT:** Analog audio port.
8. **RS-232:** Use the phoenix jack to connect PC or control system to transmit RS-232 commands.
9. **DC 24V:** Connect 24V/1A adapter to AC wall outlet for power supply.

6. Descriptions

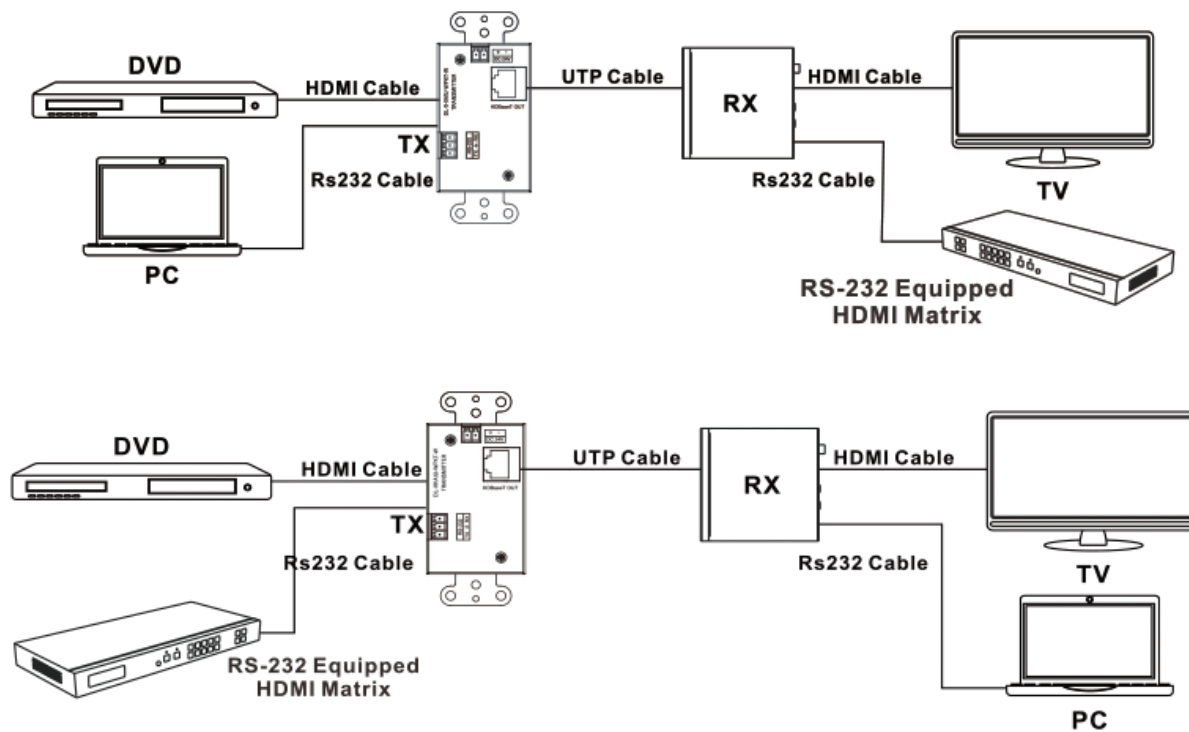
Description 1

POC (Power Over Cable) Application Example

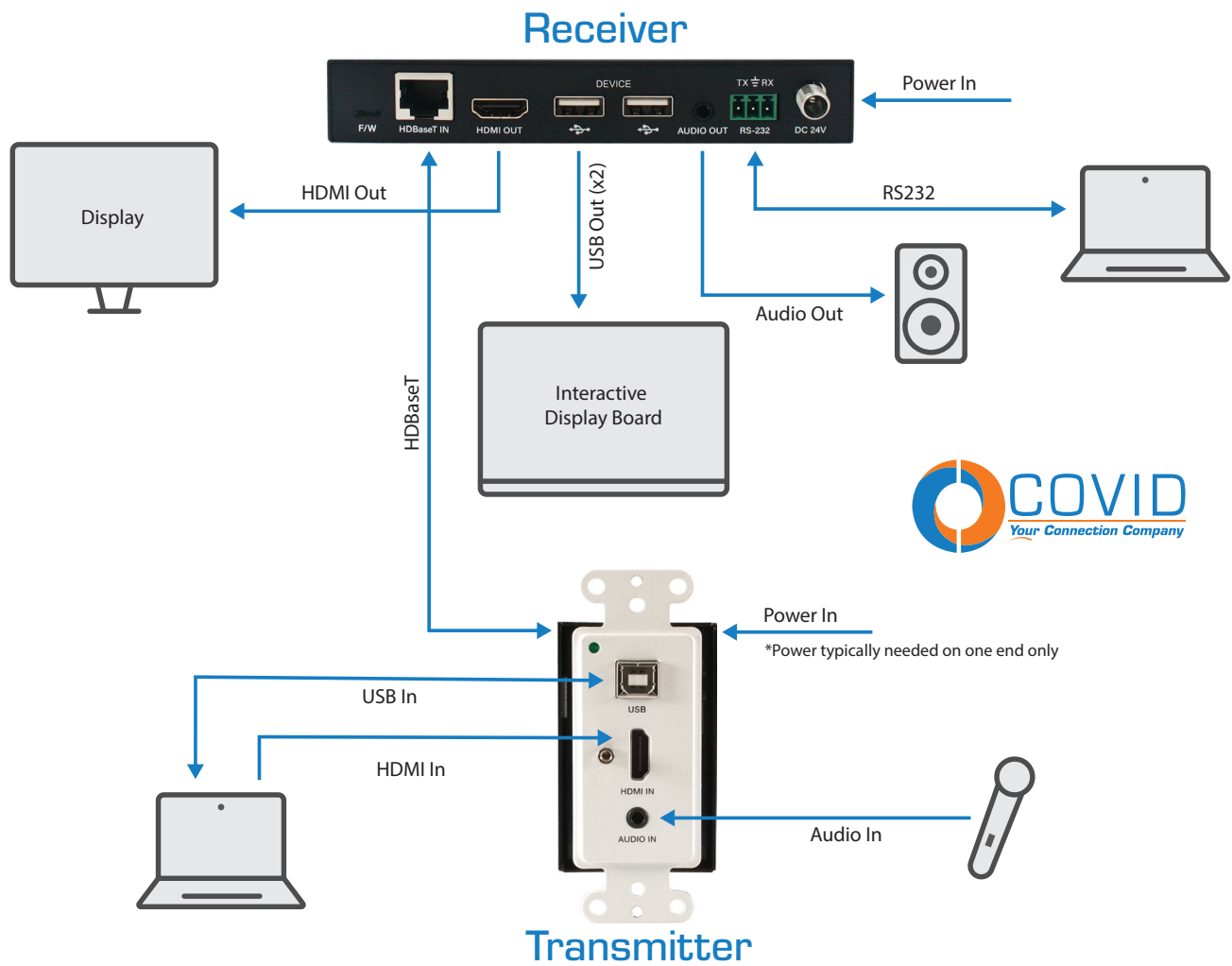


Description 2

Bidirectional RS-232 Control Application Example



7. Application Example



8. Warranty

Parts and labor warranty time is three year and from the date of original shipment. This warranty shall be void if a serial number has been removed from the product.

Upon determination of a legitimate defect covered by this warranty and at Covid's sole discretion, user should bear the transport cost during the warranty.

If product is out of warranty then repair charge is required. Out of warranty repairs will only be made after cost has been approved by Customers and proper financial arrangements are made. Customer must cover round trip shipment expenses.

9. Safety Information

To reduce the risk of electric shock, do not expose this product to rain or moisture.

Do not modify the wall plug. Doing so will void the warranty and safety features.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.