

HDBaseT HDMI over CAT5e/6/7 Extender with 48V PoE - # 15374



Operation Manual

Introduction

The HDMI over single CAT5e/6/7 Transmitter and Receiver set can send uncompressed audio/video and IP data over a single run of CAT5e/6/7 cable at a distance up to 100 meter. It has the added benefit of control through the built-in RS-232 and IR ports and a bi-directional LAN serving connection. The Receiver (PD) can be powered by the PoE 48V function of the Transmitter (PSE), allowing for greater flexibility in installations.

Applications

- 48V PoE from Transmitter (PSE) to Receiver (PD)
- Household entertainment sharing and control
- Lecture room display and control
- Showroom display and control
- Meeting room presentation and control
- Classroom display and control

Features

- HDMI with 3D, 4K2K support, HDMI & DVI Compliant
- Supports CEC bypass
- Simultaneous transmission of uncompressed data over a single 100m/328ft CAT5e/6/7 cable
- 5Play™ convergence: HDMI, LAN, PoE & Control (IR & RS-232)
- Supports resolution up to 4K2K@50/60 & YUV_420 and 21:9
- Supports standard 48V from Transmitter (PSE) to Receiver (PD)
- Installation Friendly
- Supports HDMI Input/Output cable distance up to 5m at 4K2K@50/60 & YUV_420

Note:

1. The standard 48V PoE function is designed for powering compatible Receiver units only---non-PoE Receivers will need their own power supply. Receivers of another brand may not be compatible.

2. Displaying HDMI 3D and 4K2K contents, equivalent source signal and HDMI cable are required in order to secure the quality

System

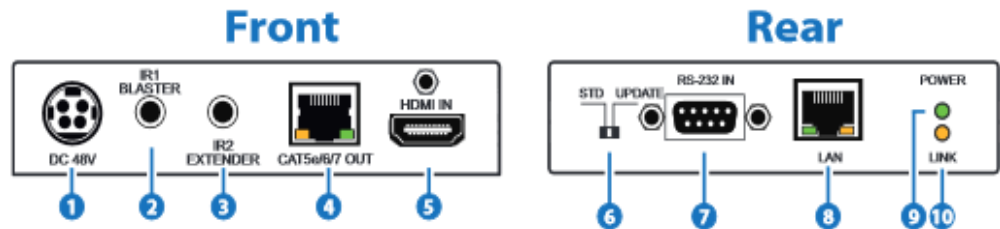
Requirements

Input source equipment such as PS3/Blu-ray player and output HD TV/display.



Operation Controls and Functions

Transmitter Front and Rear Panels



1. DC 48V:

Plug the 48V DC power supply into the unit and connect the adaptor to an AC outlet.

2. IR1 BLASTER:

Connect to the supplied IR Blaster cable for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.

3. IR2 EXTENDER:

Connect to the supplied IR Extender cables for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR Extender.

4. CAT5e/6/7 OUT:

Connect to the Receiver unit with a single CAT5e/6/7 cable for transmission of all data signals.

5. HDMI IN:

Connect to HDMI source equipment such as a DVD or Blu-ray player.

6. STD/UPDATE Switch:

This switch is reserved for factory use only.

7. RS-232 IN:

Connect to a PC or Laptop with D-Sub 9-pin male cable for the transmission of RS-232 commands.

8. LAN:

Connect to an internet or network system.

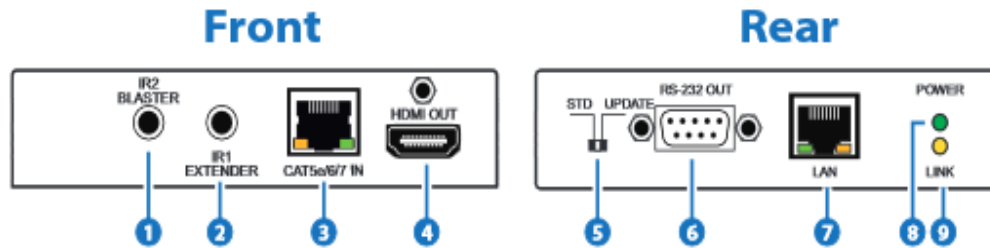
9. POWER LED:

This LED will illuminate when the device is connected to a power supply.

10. LINK LED:

This LED will illuminate when both the input source and output display signals are connected through CAT cable. When it blinks regularly it states the display is NOT sending signals to Receiver but the Transmitter and Receiver are linked and if it blinks irregularly it states an error has occurred

Receiver Front and Rear Panels



1. IR2 BLASTER:

Connect to the supplied IR Blaster cable for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.

2. IR1 EXTENDER:

Connect to the supplied IR Extender cables for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR Extender.

3. CAT5e/6/7:

Connect to the Transmitter unit with a single CAT5e/6/7 cable for transmission of all data signals.

4. HDMI OUT:

Connect to a HDMI equipped TV/monitor for display of the HDMI input source signal.

5. STD/UPDATE Switch:

This switch is reserved for factory use only.

6. RS-232 OUT:

Connect to the device that is to be controlled (via D-Sub 9-pin female cable) by RS-232 commands.

7. LAN:

Connect to a PC or Laptop to utilize the Internet or network function.

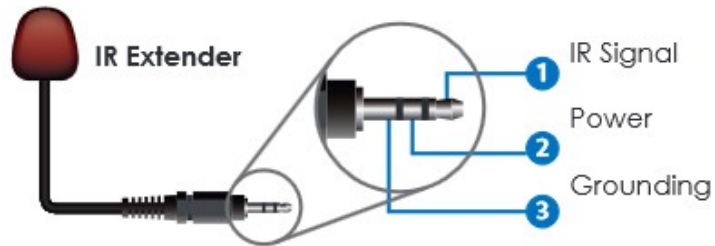
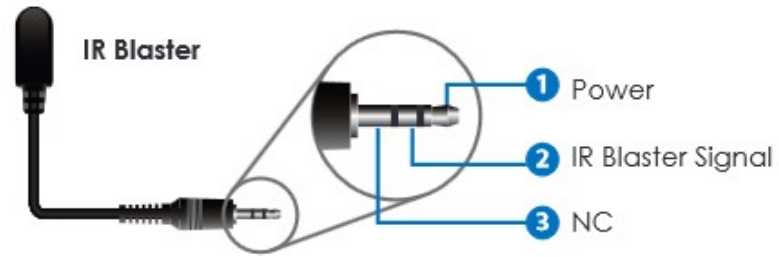
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IR Pin Cable Assignment



D-Sub 9 Pin Definitions

PIN	DEFINE TX/RX
1	N/C
2	TxD/RxD
3	RxD/TxD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C

Specifications

Video Bandwidth	340MHz / 10.2Gbps
Transmitter	
Inputs	1 x HDMI 1 x IR Extender 1 x RS-232 1 x LAN
Outputs	1 x CAT5e/6/7 1 x IR Blaster
Receiver	
Inputs	1 x CAT5e/6/7, 1 x IR Extender
Outputs	1 x HDMI, 1 x RS-232, 1 X IR Blaster, 1 x LAN
HDMI I/O Resolution	HD: 480i~4K2K@24/25/30/50/60 & YUV_420 PC: VGA ~ WUXGA (RB)
HDMI I/O Cable Distance	In: 10m/1080p@8-bit or 12-bit and 5m@4K2K Out: 10m/1080p@8-bit, 5m/1080p@12-bit and 5m@4K2K
CAT5e/6/7 I/O Cable Distance	Up to 100m
IR Frequency	30~50kHz
ESD Protection	Human Body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Power Supply	48 V/0.83 A DC (US/EU Standards, CE/FCC/UL certified)
Dimensions	108mm (W) x 108mm (D) x 25mm (H) 108mm (W) x 116mm (D) x 29mm (H)
Weight	370g/TX, 366g/RX
Chassis Material	Metal
Silkscreen Color	Black
Power Consumption	15w (Max)
Operating Temperature	0 °C~40 °C/32 °F ~104 °F
Storage Temperature	-20 °C~60 °C/-4 °F~140 °F
Relative Humidity	20~90% RH (non-condensing)

**CAT5e/6/7
Cable Specs**

Cable Type	Range	Pixel Clock Rate	Video Data Rate	Supported Video
CAT5e/6/7	100 m	<=225 MHz	<=5.3 Gbps (HD Video)	Up to 1080p, 60 Hz, 36 bits, 3D (data rates lower than 5.3 Gbps or below 225 MHz TMDS clock).
	70 m/ CAT5e/6 100 m/CAT7	>225 MHz	> 5.3 Gbps (Ultra HD Video)	4K2K, 30Hz video formats

**Timing Support
Chart**

	INPUT	OUTPUT
640x480@60/72/75/85	V	V
800x600@56/60/72/75/85	V	V
1024x768@60/70/75/85	V	V
1280x720@60	V	V
1280x1024@60	V	V
1600x1200@60	V	V
1920x1200@60RB	V	V
3840x2160p@24/25/30	V	V
4096x2160p@24	V	V
4096x2160p@50/60(YUV_420)	V	V
480I/576I	V	V
480P/576P	V	V
720P@50/60	V	V
1080I@50/60	V	V
1080P@50/60	V	V
1080P@24/25/30	V	V

Connection Diagram

