HDBaseT Dual HDMI Output over Single CAT5e/6/7 Receiver - ID# 15317

Operation Manual

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Introduction

The HDMI over CAT5e/6/7 Receiver is designed to receive an HDBaseT™ signal from a compatible transmitter or matrix unit. It features full 5Play™ convergence allowing the transmission of video, Audio, Control (IR/RS-232), Power over Ethernet (PoE) and LAN serving over a single CAT5e/6/7 cable up to 100m.This unit features a simultaneous dual HDMI output allowing the connection of a second display in the same zone. Additionally, it has bi-directional Power over Ethernet (PoE) functionality that allows for greater flexibility in installations and LAN serving fuction that allows any connected device to share network/internet connectivity.

Features

- HDMI (with 3D format and 4K2K resolution support), HDCP and DVI compliant
- Dual simultaneous HDMI outputs
- Supports data rates from 250Mbps up to 3Gbps
- Supports a wide range of resolutions - PC from VGA to WUXGA and HDTV up to   4K2K (3840×2160@30Hz and 4096×2160@24Hz)
- Supports pass-through of high-definition audio formats - LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio
- Supports audio sampling rates from 32kHz to 192kHz
- Supports distances up to 100 meters through CAT5e/6/7 cables
- Supports Ethernet transmission rate up to 100Mbps
- Supports bi-directional IR pass-through
- Supports RS-232 control pass-through
- Supports bi-directional Power over Ethernet (PoE) with compatible transmitter

Note:
1. This system was tested with CAT6/23AWG cables, results may vary with cables of a different specification.
2. The PoE function is designed for powering compatible Transmitter units only—non-PoE units will need their own power supply.
Transmitters from other brands may not be compatible.
3. For playback of 4K × 2K HDMI source signals, a 4K × 2K capable display and High Speed HDMI cables are required.
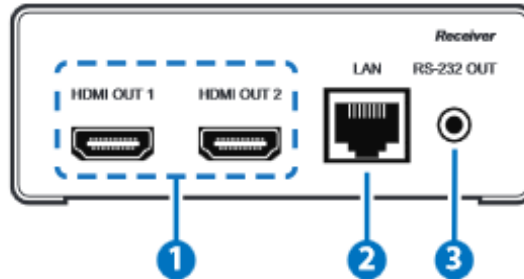
Applications

- Share a single HDBaseT output to 2 HDMI outputs
- Household entertainment sharing and control
- Showroom display and control
- Meeting room presentation and control
- Classroom display and control

System Requirements

HDMI source device such as a DVD/Blu-ray player and an HDMI equipped projector or display (TV or monitor).

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Front Panel

1. HDMI OUT 1/2:
Connect each of the HDMI outputs to an HDMI display for simultaneous HDMI distribution, or cascade the output to another transmitter to extend the operating distance.
The unit will read the EDID settings of the display device connected to HDMI OUT 1. If it detects a 4K2K capable EDID setting it will transmit the signal in that format to all outputs. If no 4K2K capable EDID is detected then the unit will output the best resolution that all displays can support.
Note: The unit will retain and use the EDID settings of the last device connected to the HDMI OUT 1 output if no device is connected to this output even after switching EDID modes or a power cycle of the Transmitter unit.

2. LAN:
Connect to an active network for LAN serving.
When the transmitter or any compatible LAN equipped transmitters are connected to a network, this allows the network access (including internet access if available) to be shared between the transmitter and connected receiver. Connect any Ethernet equipped device e.g. a Smart TV or games console to the LAN port of a receiver for that device to share the network/internet access.
Warning: DO NOT connect this LAN port to the CAT5e/6/7 port, doing so may trigger a power shut down and may damage the device.

3. RS-232 OUT:
Connect to a RS-232 enabled device (with supplied 3.5mm mini-jack to D-sub 9-pin male adaptor) for transmission of RS-232 commands.

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Back Panel
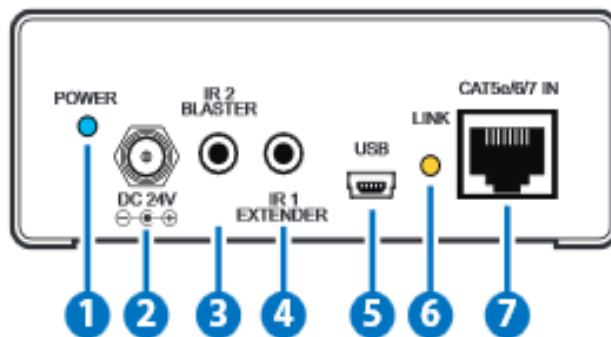
1. POWER LED:
This LED will illuminate when the device is connected to a power supply.

2. DC 24V:
Connect the 24V DC power supply to the receiver and plug the adaptor into an AC outlet. This unit can also supply power to a compatible transmitter unit

Note: The power supply is not required when using Power over Ethernet (PoE) from a compatible transmitter.
The PoE function is designed for powering compatible Transmitter units only—non-PoE units will need their own power supply.
Transmitters from other brands may not be compatible.

3. IR 2 BLASTER:
Connect an IR Blaster cable for IR signal transmission. IR signals received by an IR extender connected to the transmitter unit will be transmitted by this blaster. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.

4. IR 1 EXTENDER:
Connect an IR Extender cable for IR signal reception. Signals received will be transmitted from any IR blaster connected to the transmitter unit.
Ensure that the remote being used is within the direct line-of-sight of the IR Extender.

5. USB:
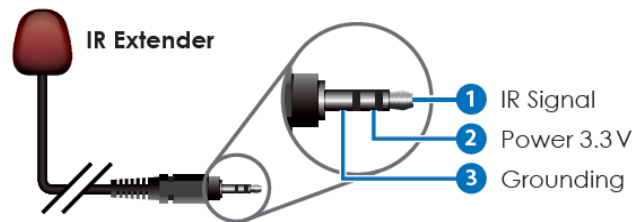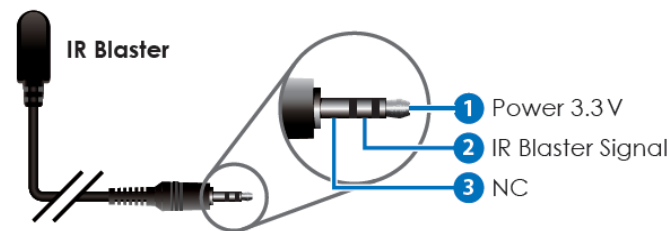This port is reserved for firmware update only.

6. LINK LED:
This LED will illuminate when both the source is connected to the
Transmitter *and the display is connected to the Receiver.*
Note: When the LED blinks regularly it states the Source is NOT sending signals while the Transmitter and Receiver are linked; when the LED blinks irregularly it states a link error has occurred; and when the LED is off there is no link between Transmitter and Receiver. Please check the connection.

7. CAT5e/6/7 IN:
Connect to the transmitter unit with a single CAT5e/6/7 cable (up to 100m/328ft) for transmission of all data signals
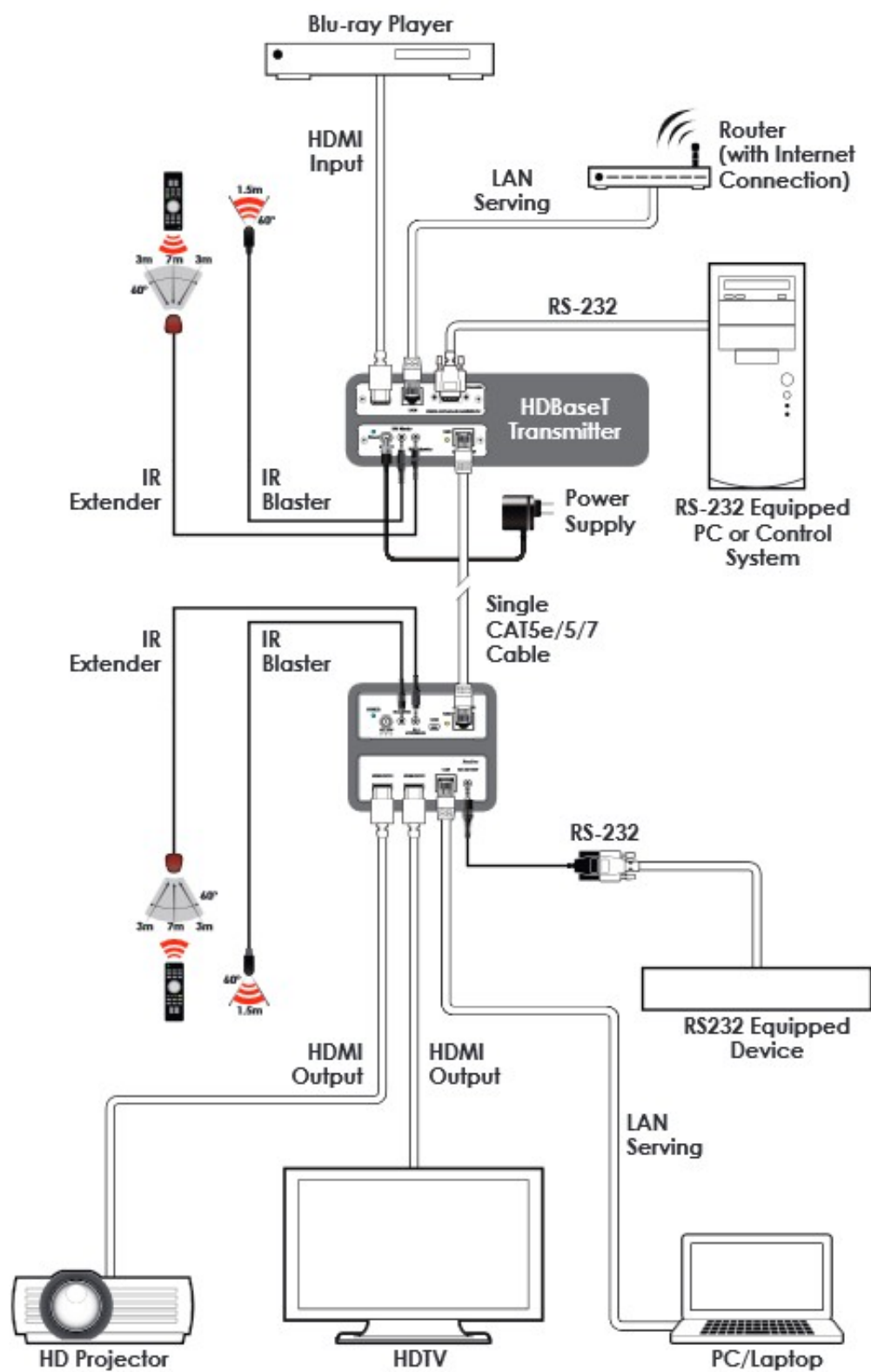
IR Pin Assignment

IR Blaster

1. Power 3.3 V
2. IR Blaster Signal
3. NC

IR Extender

1. IR Signal
2. Power 3.3 V
3. Grounding

RS-232 Cable Pin Definitions

PIN	DEFINITION
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

Connection Diagram

Specifications

Video Bandwidth	340Mbps/10.2Gbps
Input Ports	1×CAT5e/6/7, 1×LAN, 1×IR Extender, 1×USB
	Mini-B (Service only)
Output Ports	2×HDMI, 1×IR Blaster, 1×RS-232
CAT5e/6/7 Cable Distances	Up to 100 meters
HDMI Cable Distances	Up to 10 meters@1080p/8-bit or 12-bit
HDMI Resolutions	Up to 4K2K (3840×2160@30Hz/4096×2160@24Hz)
IR Frequency	30~50kHz
Power Supply	24V/1.25A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human-body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Dimensions	100mm (W)×92mm (D)×35mm (H)/Jacks Excluded 100mm (W)×112mm (D)×38mm (H)/Jacks Included
Weight	282g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0℃~40℃/32℉~104℉
Storage Temperature	−20℃~60℃/−4℉~140℉
Relative Humidity	20~90 % RH (non-condensing)
Power Consumption	10W