EP960PT & EP960PR

HDMI to CAT5e/6/7 Extender

Operation Manual

DISCLAIMERS

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
RDV1	26/05/14	Preliminary Release

CONTENTS

NEXIS

1. INTRODUCTION

The HDBaseT-Lite™ HDMI over single CAT5e/6/7 with bidirectional IR, RS-232 & bidirectional PoC Transmitter and Receiver set can make your home or office set-up more efficient and easy to use. Uncompressed video and audio can be transmitted up to 60 meters with the PoC function and added benefit of controls through the built-in RS-232 and IR ports. This family design of HDBaseT™ technology allows a full usage of HDMI and controls over CAT5e/6/7 cable.

2. APPLICATIONS

- Household entertainment sharing and control
- Lecture room display and control
- Showroom display and control
- Meeting room presentation and control for projector
- Classroom display and control

3. PACKAGE CONTENTS

- HDMI to CAT5e/6/7 with IR/RS232 & PoC x 1
- CAT5e/6/7 to HDMI with IR/RS232 & PoC x 1
- IR Blaster x 1
- IR Extender x 1
- 3.5Ø to RS-232 female cable x 1
- 3.5Ø to RS-232 male cable x 1
- 24V 1.25A DC Power Adaptor x 1
- Operation Manual

4. SYSTEM REQUIREMENTS

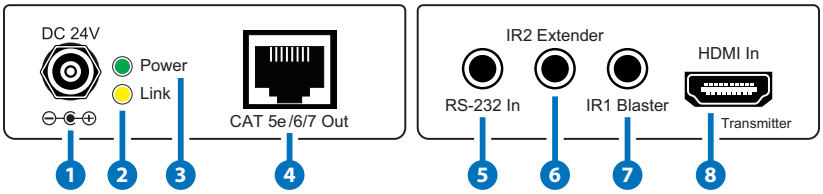
Input HDMI source equipment such as DVD/Blu-ray player/PC, output display with HDMI input jack and connection cables of HDMI and CAT5e/6/7.

5. FEATURES

- Compatible with HDCP and DVI
- Supports HDMI 3D and 4K x 2K features
- Supports HDBaseT-Lite Technology
- Supports HD resolutions up to 1080p@60Hz/36-bit
- Supports distance up to 60 meters through CAT5e/6/7 cable
- Supports bidirectional IR and PoC
- HDMI input/output up to 15 meters with 8bits resolution or 10 meters with 12bits resolution
- RS-232 with baud rate up to 115200/sec
- Supports wide range of IR frequency from 30~50kHz
- Supports HDCP repeater and CEC bypass
- Audio supports LPCM 7.1CH, Dolby TrueHD, Dolby digital Plus and DTS-HD Mater Audio transmission

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



1 DC 24V

Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet. Only 1 side of device require power supply when both Transmitter and Receiver obtain PoC function.

2 LINK LED

This LED will illuminate when the devices are connected with a CAT5e/6/7 cable from the Receiver side. When the data transmission accrue with error the LED will be blinking.

3 Power LED

This LED will illuminate when the devices are connected with power supply.

4 CAT5e/6 Out

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

5 RS232 In

Plug the 3.5Ø to D-Sub 9-pin female cable included in the package and connect to a PC or laptop for RS-232 commands transmission.

6 IR2 Extender

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

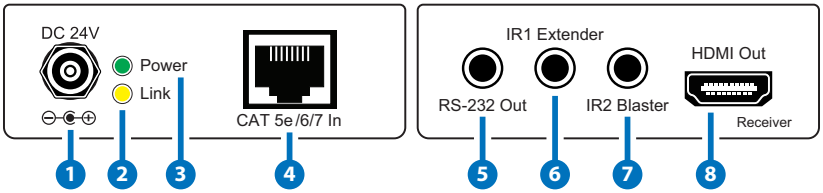
7 IR1 Blaster

Plug the IR Blaster included in the package for IR signal sending from the Receiver side.

8 HDMI In

Connect with source equipment such as DVD/Blu-ray player.

6.2 Receiver Front and Rear Panels



1 DC 24V

Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet. Only 1 side of device require power supply when both Transmitter and Receiver obtain PoC function.

2 LINK LED

This LED will illuminate when the devices are connected with a CAT5e/6/7 cable from the transmitter side. When the data Transmission accrue with error the LED will be blinking.

3 Power LED

This LED will illuminate when the device is connected from the transmitter with power supply.

4 CAT5e/6 In

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

5 RS232 Out

Plug the 3.5Ø to D-Sub 9-pin male cable included in the package and connect to the device that is to be controlled by RS-232 commands

6 IR1 Extender

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

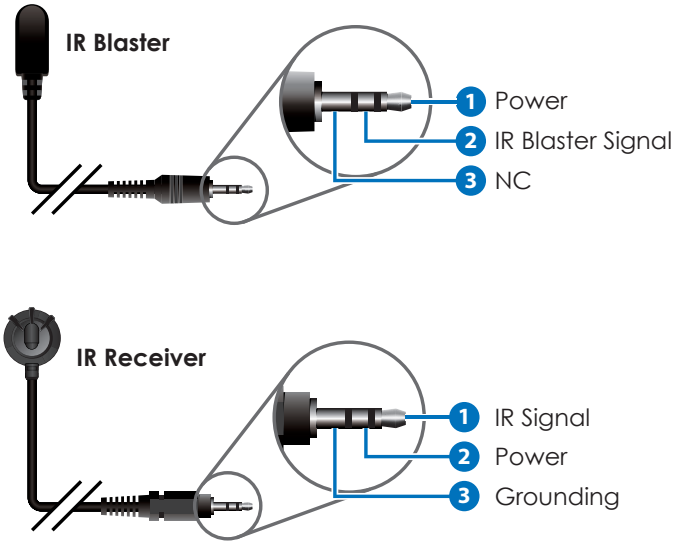
7 IR2 Blaster

Plug the IR Blaster included in the package for IR signal sending from the Receiver side.

8 HDMI Out

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

6.3 IR Pin Assignment



6.4 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
9	NC

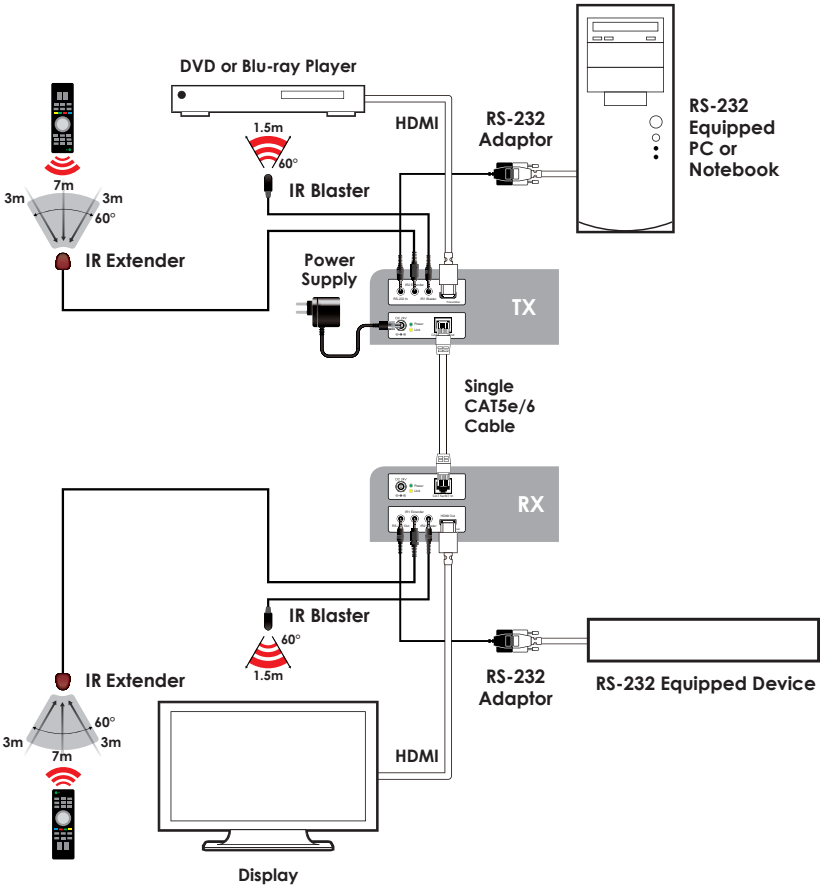
7. SPECIFICATIONS

Video Bandwidth	340MHz/10.2Gbps
Transmitter	
Inputs	1 x HDMI, 1 x IR Extender, 1 x RS-232
Outputs	1 x RJ45, 1 x IR Blaster
Receiver	
Inputs	1 x RJ45, 1 x IR Extender
Outputs	1 x HDMI, 1 x IR Blaster, 1 x RS-232
ESD Protection	Human Body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Power Supply	24V/1.25A DC for Transmitter and Receiver (US/EU standards, CE/FCC/UL certified)
Dimensions	74 mm(W) x 81.5 mm(D) x 29 mm(H)/each 74 mm(W) x 72 mm(D) x 29 mm(H)/each
Weight	206 g/TX, 192 g/RX
Chassis Material	Metal
Silkscreen Color	Black
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)
Power Consumption	3W/TX, 6.93W/RX

CAT5e/6/7 Cable Specification

Cable Type	Range	Pixel clock rate	Video Data Rate	Supported Video
CAT5e/6/7	60 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).
	35 m	>225 MHz	> 5.3 Gbps (Ultra HD Video)	4K2K, 30Hz video formats

8. CONNECTION AND INSTALLATION



9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT5e	Category 5 Cable
CAT6	Category 6 Cable
CAT7	Category 7 Cable
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition multimedia Interface
IR	Infrared

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