



PU-607BD-TX

HDMI over Single CAT5e/6/7 HDBaseT™ - Bi-Directional PoE
Transmitter (Full 5Play™ & Single LAN up to 100m)

OPERATION MANUAL

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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	SUMMARY OF CHANGE
v1.00	11/02/2014	First release

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1. INTRODUCTION

The PU-607BD-TX Transmitter allows uncompressed HDMI signals and IP data to be transmitted over a Single CAT5e/6/7 cable. This solution has the added features of RS-232 and 2-way IR control functionality over the same CAT5e/6/7 cable. These combined HDMI and control signals can be transmitted up to lengths of 100 metres. This Transmitter is designed to be used with the PU-607BD-RX and PU-607BDWP-RX Receivers only, which enables Bi-Directional Power over Ethernet (PoE) functionality.

2. APPLICATIONS

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

3. PACKAGE CONTENTS

- /// 1×PU-607BD-TX Transmitter
- /// 1×IR Blaster
- /// 1×IR Receiver
- /// 1×24V/1.25 A DC Power Adaptor
- /// Operation Manual

4. SYSTEM REQUIREMENTS

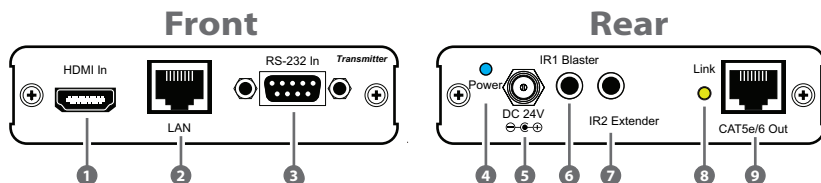
Input HDMI source equipment such as DVD/Blu-ray player and HDMI equipped output display (TV or monitor).

5. FEATURES

- /// Supports all v1.4 HDMI resolutions including 4K.
 - /// Supports uncompressed video/audio up to 10.2Gbps
 - /// Common supported resolutions: HDTV: 480p, 576p, 720p, 1080i, 1080p, 1080p24; PC: VGA, SVGA, XGA, WXGA, SXGA, UXGA, WUXGA.
 - /// HDMI, HDCP, & DVI compliant
 - /// Supports HDCP repeating and CEC functions
 - /// Uncompressed data transfer over single CAT cable (100m - CAT6/7; 80m - CAT5e)
 - /// Uncompressed video 1080p, 60Hz, 48bits
 - /// Audio support up to 7.1CH & Dolby TrueHD, DTS-HD
 - /// 5Play™ convergence: HDMI, LAN, Bi-Directional POE & Control (IR & RS232)
 - /// Supports 3D signals
 - /// Supports Bi-Directional Power over Ethernet (PoE)
- Note: Only compatible with PU-607BD-RX & PU-607BDWP-RX Receivers*

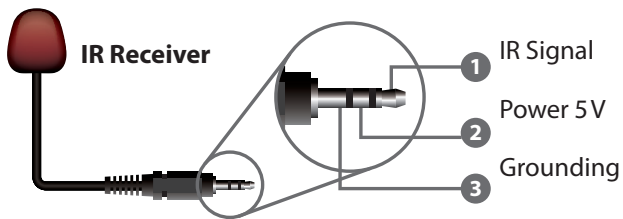
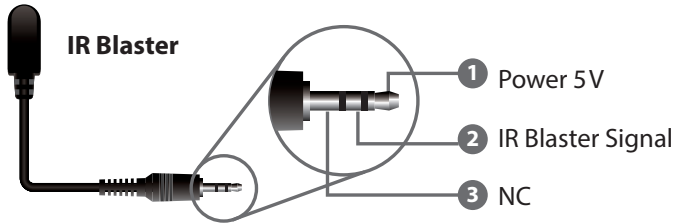
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



- 1 **HDMI In:** Connect to HDMI source equipment such as a DVD or Blu-ray player.
- 2 **LAN:** Connect to an internet or network connection.
- 3 **RS-232 In:** Connect to a PC or laptop with D-Sub 9 pin male cable for the transmission of RS-232 commands.
- 4 **Power LED:** This blue LED will illuminate when the device is connected to a power supply.
- 5 **DC 24V:** Plug the 24 V DC power supply into the unit and connect the adaptor to an AC outlet. Only one side of power needs to be connected to activate both transmitter and receiver.
- 6 **IR 1 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.
- 7 **IR 2 Extender:** Connect to the supplied IR receiver cables for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR extender.
- 8 **Link LED:** The yellow LED will illuminate when both the input and output signals are connected.
- 9 **CAT5e/6 Out:** Connect to the receiver unit with a Single CAT5e/6 cable for transmission of all data signals.

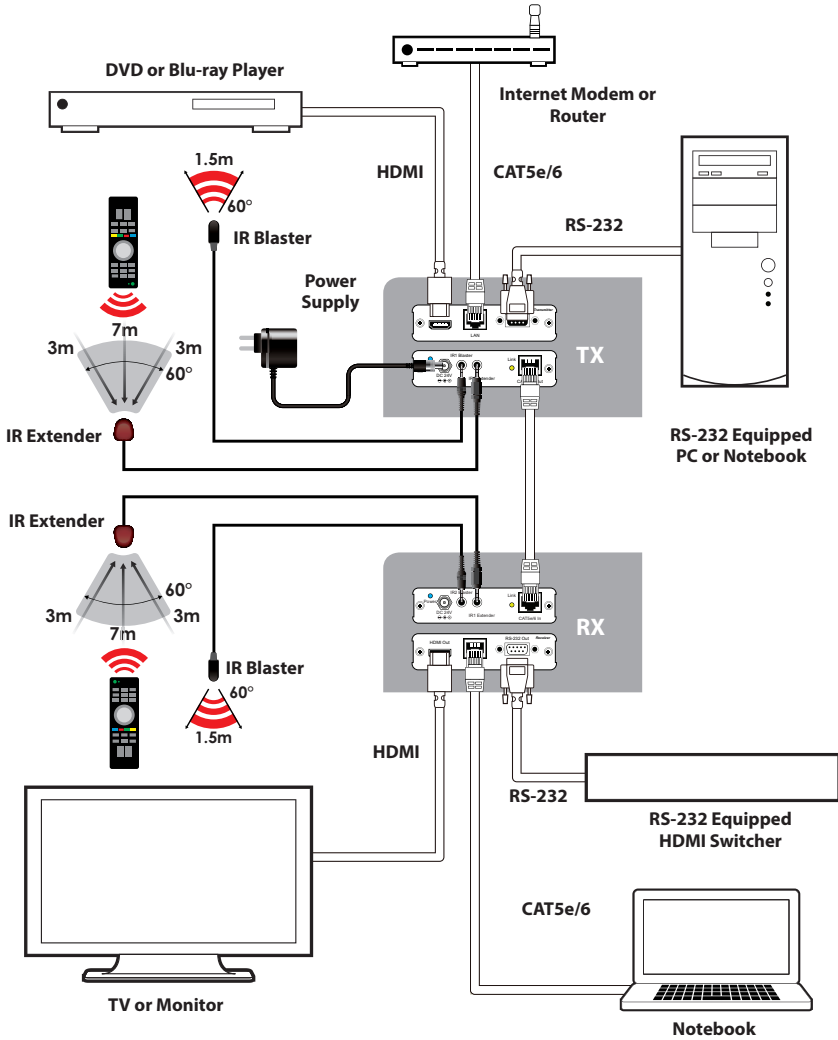
6.2 IR Cable Pin Assignment



6.3 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

7. CONNECTION DIAGRAM



Note: Only one of the units need to be connected to power, either the transmitter or receiver, in order for both to operate. In this example the transmitter is powering the receiver

8. SPECIFICATIONS

Video Bandwidth	300MHz / 9Gbps
Ethernet Speed	100 Mbps
Transmitter	
Input	1×HDMI, 1×IR Extender, 1×RS-232, 1×LAN
Output	1×CAT5e/6, 1×IR Blaster
HDMI In/Out Cable Distance	Up to 10 Meters
CAT6 In/Out Cable Distance	Up to 100 Meters
HDMI In/Out Supports Resolution	480i~1080p@50/60, 1080p@24, VGA~WUXGA
IR Frequency	30~50 kHz
ESD Protection	Human Body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Power Supply	24V/1.25A DC (US/EU Standards, CE/FCC/UL certified)
Dimensions	102mm (W)×113mm (D)×25mm (H)/each
Weight	252g (TX), 256g (RX)
Chassis Material	Aluminum
Silkscreen Color	Silver
Power Consumption	13 W
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)

9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT5e	Category 5 Cable
CAT6	Category 6 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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