



# PU-607BDWP-TX

HDMI over Single CAT5e/6/7 HDBaseT™ - Bi-Directional PoE  
Wallplate 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	13/02/2014	First release
v1.01	31/03/2014	Corrected Contents List

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## **1. INTRODUCTION**

The PU-607BDWP-TX Wallplate 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×HDMI over Single CAT5e/CAT6 Transmitter
- ///** 1×IR Blaster
- ///** 1×IR Receiver
- ///** 1×24V DC Power Adaptor
- ///** Operation Manual

## **4. SYSTEM REQUIREMENTS**

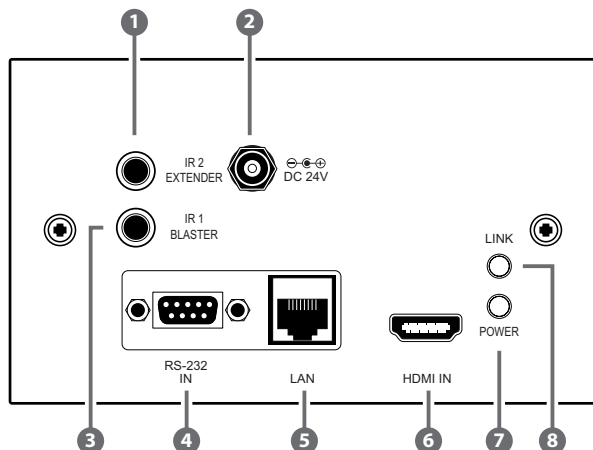
Input HDMI source equipment such as DVD/Blu-ray player and HDMI equipped output display (TV or monitor)with HDMI input jack.

## 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
  - /// 5-Play™ 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



- 1 IR 2 EXTENDER:** This slot is to connect with the IR receiver cable included in the package for IR signal receiving.
- 2 DC 24V:** Connect the power adaptor included in the package and then connect to AC power to activate the device.
- 3 IR 1 BLASTER:** This slot is to connect with the IR blaster cable included in the package for IR signal transmitting.
- 4 RS-232 IN:** This slot is to connect with D-Sub 9-pin cable from PC/ laptop device RS-232 commands sending.
- 5 LAN:** Connect to an active network for LAN serving and Telnet/Web GUI control.

When the transmitter or any compatible LAN equipped receivers are connected to a network, this allows the network access (including internet access if available) to be shared between the transmitter and all connected receivers. 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.



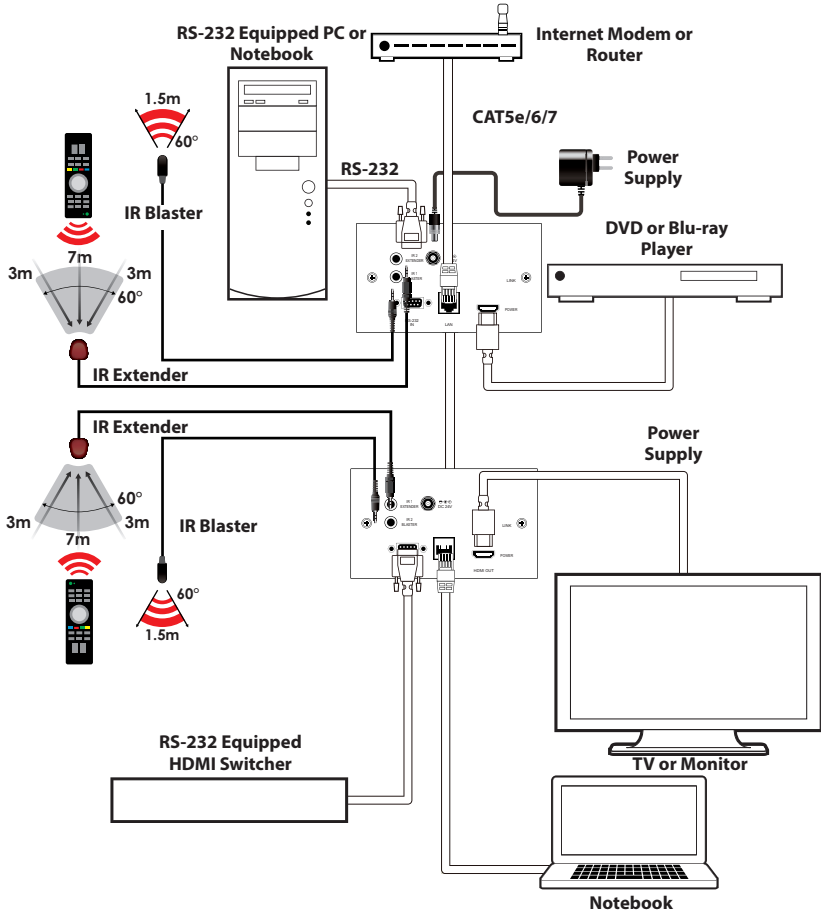
- ⑥ **HDMI IN:** This slot is to connect with HDMI source equipment such as DVD/Blu-ray player with HDMI source signal.
- ⑦ **Power LED:** This LED will illuminate when the device is connected to a power supply.
- ⑧ **LINK LED:** This LED will illuminate when the both CAT5e/6 input and output signal is connected.

## 6.2 D-Sub 9 Pin Definitions

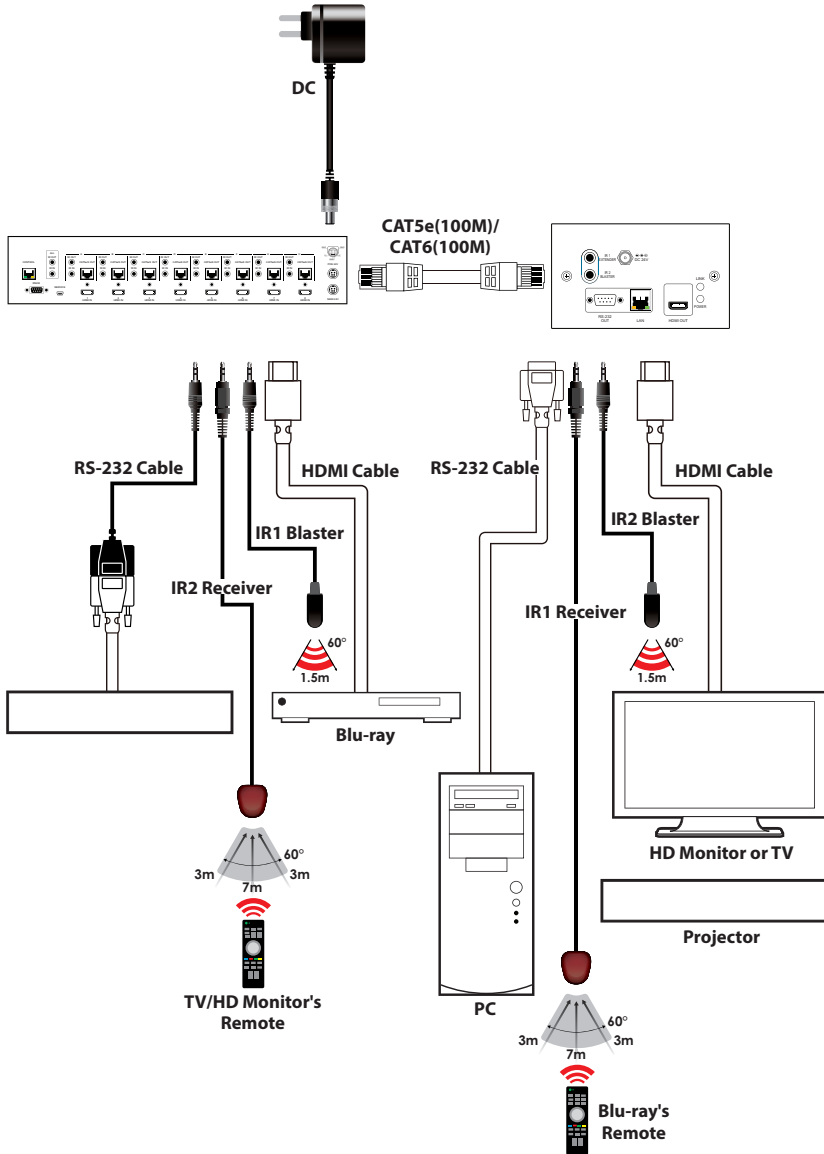
Pin	Define TX/RX
1	N/C
2	TxD/RxD
3	RxD/TxD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C

# 7. CONNECTION DIAGRAMS

## Option 1



## Option 2



## 8. SPECIFICATIONS

### 8.1 Technical Specifications

<b>Video Bandwidth</b>	300MHz/10.2Gbps
<b>Input</b>	1×HDMI, 1×IR Extender, 1×LAN, 1×RS-232
<b>Output</b>	1×CAT5e/6, 1×IR Blaster
<b>ESD Protection</b>	Human-body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
<b>IR Frequency</b>	30~50 kHz
<b>Dimensions</b>	146 mm(W)×86 mm (D)×48.5 mm (H)
<b>Weight</b>	156g
<b>Chassis Material</b>	Plastic
<b>Silkscreen Color</b>	White
<b>Operating Temperature</b>	0 °C~40 °C/32 °F~104 °F
<b>Storage Temperature</b>	-20 °C ~ 60 °C/-4 °F~140 °F
<b>Relative Humidity</b>	20~90% RH (non-condensing)
<b>Power Consumption</b>	11.8W

## 8.2 CAT5e/6/7 Cable Specification

Cable Type	Range	Pixel clock rate	Video Data Rate	Supported Video
CAT5e/6/7	100 m	$\leq 225$ MHz	$\leq 5.3$ 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	$> 225$ MHz	$> 5.3$ Gbps (Ultra HD Video)	4K2K, 30Hz video formats

## 9. ACRONYMS

ACRONYM	COMPLETE TERM
<b>CAT5e</b>	Category 5 Cable
<b>CAT6</b>	Category 6 Cable
<b>CEC</b>	Consumer Electronics Control
<b>DVI</b>	Digital Visual Interface
<b>HDCP</b>	High-bandwidth Digital Content Protection
<b>HDMI</b>	High Definition Multimedia Interface
<b>IR</b>	Infrared





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