



PU-607BD-RX

**HDMI over Single CAT5e/6/7 HDBaseT™ - Bi-directional
PoC Receiver (full 5Play™ & Single LAN up to 100m)**

/// OPERATION MANUAL

DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. CYP (UK) Ltd assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

CYP (UK) Ltd assumes no responsibility for any inaccuracies that may be contained in this document. CYP (UK) Ltd also makes no commitment to update or to keep current the information contained in this document.

CYP (UK) Ltd reserves the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means—electronic, mechanical, magnetic, optical, chemical, manual, or otherwise—without express written permission and consent from CYP (UK) Ltd.

© Copyright 2019 by CYP (UK) Ltd.

All Rights Reserved.

Version 1.1

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.

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
v1.01	31/03/2014	Corrected Contents List
V1.02	22/08/2019	Update Format and Cable Distance

CONTENTS






1. Introduction	6
2. Applications	6
3. Package Contents	6
4. System Requirements	6
5. Features.....	7
6. Operation Controls and Functions	8
6.1 Receiver Front and Rear Panels	8
6.2 IR Cable Pin Assignment	9
6.3 D-Sub 9 Pin Definitions	9
7. Connection Diagram	10
8. Specifications.....	11
8.1 Technical Specifications	11
8.2 Cable Specifications	12
9. Acronyms.....	13

1. INTRODUCTION





The PU-607BD-RX Receiver can receive uncompressed video/audio and IP data over an single run of CAT5e/6/7 cable up to 100m/328ft at 1080p and 70m/229ft at 4K. It has the added benefit of control through the built-in RS-232 pass-through and 2-way IR control and a LAN serving connection. Additionally, it has bi-directional Power over Cable (PoC) functionality that allows for greater flexibility in installations.

This Receiver is designed to be used with the PU-607BD-TX or PU-607BDWP-TX Transmitters only, which enables bi-directional Power over Cable (PoC) functionality that allows for greater flexibility in installations.

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-RX Receiver
-  1×IR Blaster
-  1×IR Receiver
-  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

- /// HDMI 1.x and DVI 1.0 compliant
- /// HDCP compliant
- /// Supports HDMI 3D and 4K x 2K features
- /// Supports HDCP repeater and CEC bypass
- /// Supports distance up to 100m/328ft at 1080p and 70m/229ft at 4K through CAT5e/6/7 cable
- /// HDMI input resolutions up to 4K@60Hz (YUV 4:2:0, 8-bit) or 4K@30Hz (YUV 4:4:4, 8-bit)
- /// Supports pass-through of audio formats including LPCM 2.0/5.1/7.1, and Bitstream over HDMI
- /// HDBaseT™ convergence: uncompressed high-definition Video and Audio, LAN serving, Bi-directional Power over Cable (PoC) and IR/RS-232 Control pass-through
- /// Installation friendly

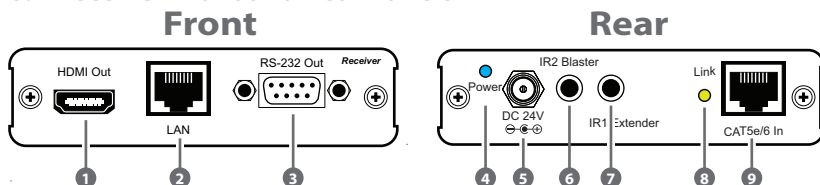
Note:

1. *This system was tested with CAT6/23AWG cables, results may vary with cables of a different specification.*
2. *The PoC function is designed for powering compatible units only—non-PoC units will need their own power supply. Receivers of another brand may not be compatible.*
3. *For playback of 4K2K HDMI source signals, a 4K2K capable display and High Speed HDMI cables are required.*

Note: Only compatible with PU-607BD-TX & PU-607BDWP-TX Transmitters

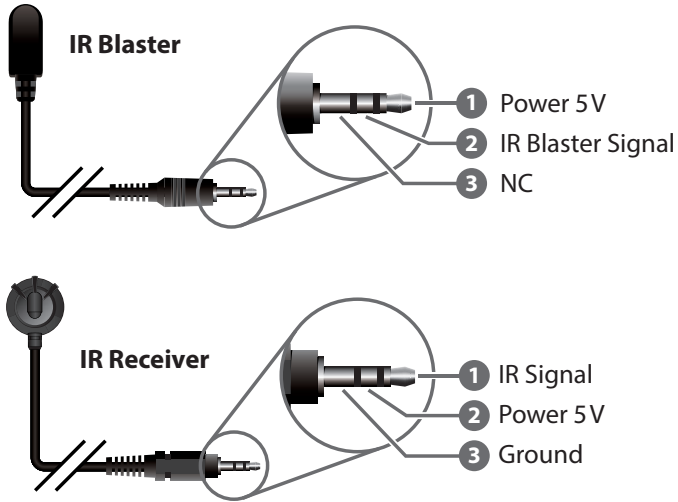
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Receiver Front and Rear Panels



- 1 **HDMI Out:** Connect to a HDMI equipped TV/monitor for display of the HDMI input source signal.
- 2 **LAN:** Connect to a PC or Laptop to the Internet or network connection.
- 3 **RS-232 Out:** Connect to the device that is to be controlled (via D-Sub 9 pin female cable) by 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 2 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 1 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 In:** Connect to the transmitter unit with a Single CAT5e/6 cable for transmission of all data signals.

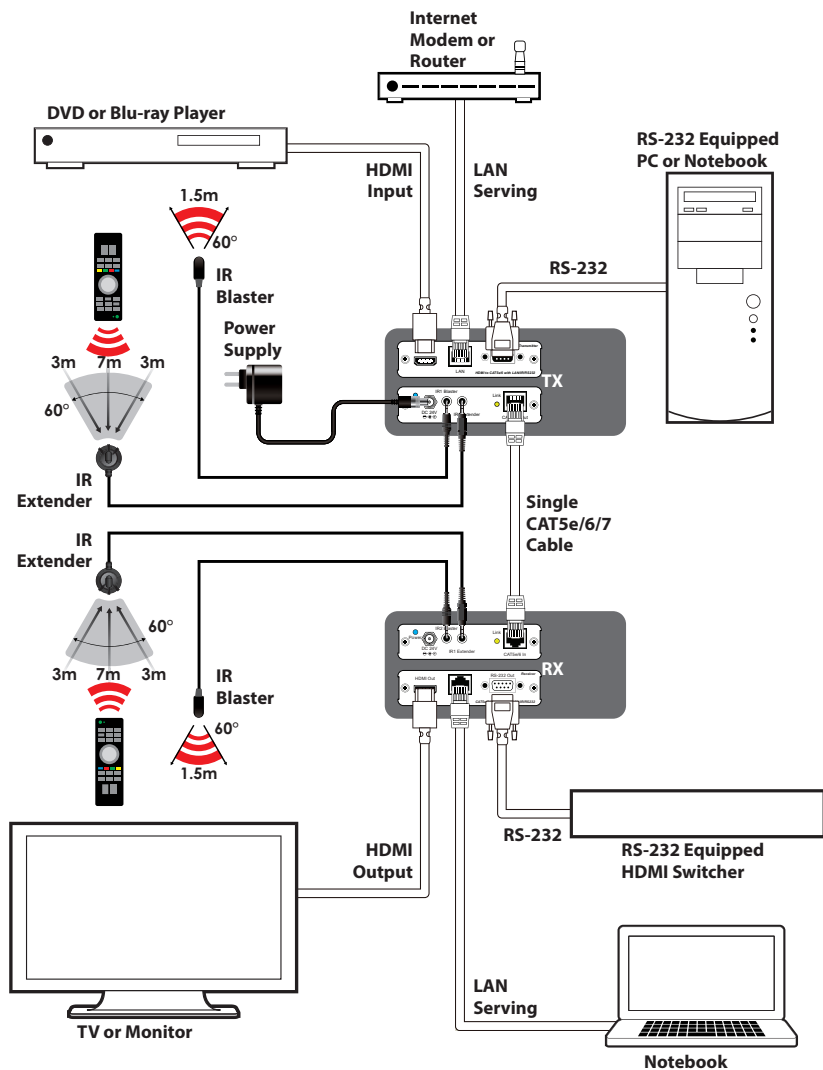
6.2 IR Cable Pin Assignment



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



8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	340 MHz/10.2 Gbps
Ethernet Speed	100 Mbps
<i>Transmitter</i>	
Input Ports	1×HDMI, 1×LAN, 1×IR Extender, 1×RS-232
Output Ports	1×CAT5e/6/7, 1×IR Blaster
<i>Receiver</i>	
Input Ports	1×CAT5e/6/7, 1×IR Extender
Output Ports	1×HDMI, 1×LAN, 1×IR Blaster, 1×RS-232
IR Frequency	30 – 50kHz (30 – 60kHz under ideal conditions)
Baud Rate	Up to 115200/sec
Power Supply	24V/1.25 A DC (US/EU Standards, CE/FCC/UL certified)
ESD Protection	Human Body Model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Dimensions	102 mm (W)×113 mm (D)×25 mm (H)/Each
Weight	252 g/TX, 256 g/RX
Chassis Material	Aluminum
Silkscreen Colour	Silver
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	13 W

8.2 Cable Specifications

Cable Length	1080p		4K30	4K60
	8-bit	12-bit	(4:4:4) 8-bit	(4:2:0) 8-bit
High Speed HDMI Cable				
HDMI Input	15m	10m	5m	5m
HDMI Output	15m	10m	5m	5m
Ethernet Cable				
Cat.5e/6/7	100m		70m	

1080p (FHD Video)

- Up to 1080p@60Hz, 12-bit colour
- Data rates lower than 5.3Gbps or below 225MHz TMDS clock

4K30 (UHD Video)

- 4K@24/25/30Hz & 4K@50/60Hz (4:2:0), 8-bit colour
- Data rates higher than 5.3Gbps or above 225MHz TMDS clock but below 10.2Gbps

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
PoC	Power over Cable



CYP (UK) Ltd., Unit 7, Shepperton Business Park, Govett Avenue, Shepperton,
Middlesex, TW17 8BA

Tel: +44 (0) 20 3137 9180 | Fax: +44 (0) 20 3137 6279

Email: sales@cypeurope.com

www.cypeurope.com

v1.02