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HDBT[®]
ASP

PU-507RX-2H

5-Play™ HDBaseT™ Receiver with dual HDMI outputs
(inc. PoE & 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	11/11/2013	First release

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1. INTRODUCTION

The PU-507RX-2H Receiver allows uncompressed HDMI signals and IP data to be received 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 variant of the popular PU-507-RX Receiver provides dual HDMI outputs for added flexibility enabling distribution to a second display within a zone as an alternative to using an additional Distribution Amplifier.

2. APPLICATIONS

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

3. PACKAGE CONTENTS

- /// HDMI over HDMI & CAT5e/6/7 with LAN/IR/RS232/Bidirectional PoE Receiver
- /// IR Receiver x 1
- /// 3.5mm Phone Jack to RS-232 Cable
- /// Operation Manual

4. SYSTEM REQUIREMENTS

Input HDMI over CAT5e/6/7 Transmitter and output display with HDMI input.

5. FEATURES

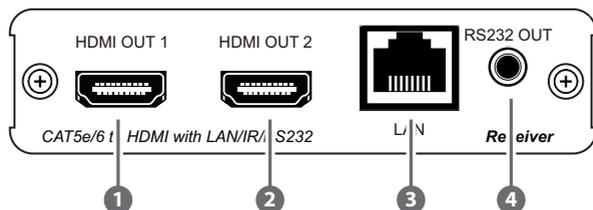
- /// Supports all v1.4 HDMI resolutions plus 4k.
- /// Supports Dual HDMI Outputs
- /// Supports uncompressed video/audio up to 10.2Gbps
- /// Common supported resolutions: HDTV: 480p, 576p, 720p, 1080i, 1080p, 1080p24, 4K; PC: VGA, SVGA, XGA, WXGA, SXGA, UXGA, WUXGA.
- /// HDMI, HDCP, & DVI compliant
- /// 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, POE & Control (IR & RS232)
- /// Supports 3D signals

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 Transmitter will need their own power supply. Transmitter of another brand may not be compatible.*
3. *Displaying HDMI 4Kx2K resolution require the standard 4Kx2K HDMI cable and display in order for proper image displaying.*

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1 HDMI OUT 1 & 2:

Connect to HDMI displays for instant image display or cascade with another family type Transmitter.

2 LAN:

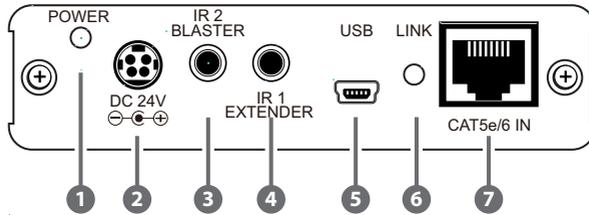
Connect to intra-net or internet service system for a total sharing rate of 100Mbps within the link of Receiver.

Warning: DO NOT connect this slot with any of 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 PC/Laptop or RS-232 enabled device (with supplied 3.5mm Phone Jack to D-Sub 9-Pin adaptor) to transmit of RS-232 commands.

6.2 Rear Panel



1 POWER LED:

Once the power supply is connected the LED will illuminate.

2 DC 24V:

Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet.

3 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.

4 IR 1 EXTENDER:

Connect to the supplied IR Extender cable for IR signal reception. Ensure that remote controller 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:

The link LED will illuminate when CAT5e/6/7 output have been connected to the Receiver and the Receiver have connected with display that shows image on screen.

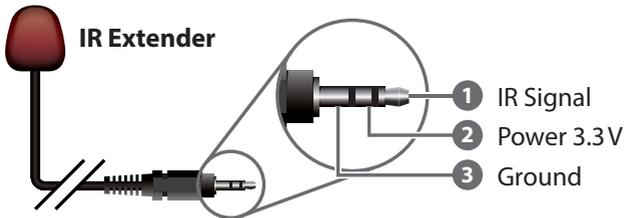
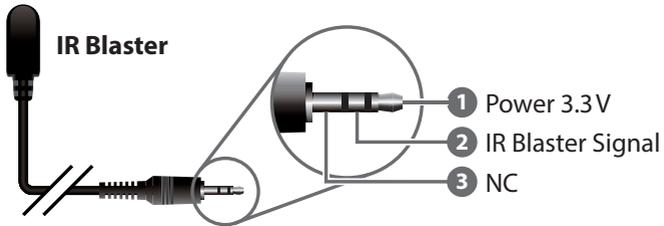
7 CAT5e/6 IN:

Connect this port to HDMI to CAT5e/6/7 Transmitter (with or without PoE function) with CAT5e/6/7 cable to extend the signal up to 100m.

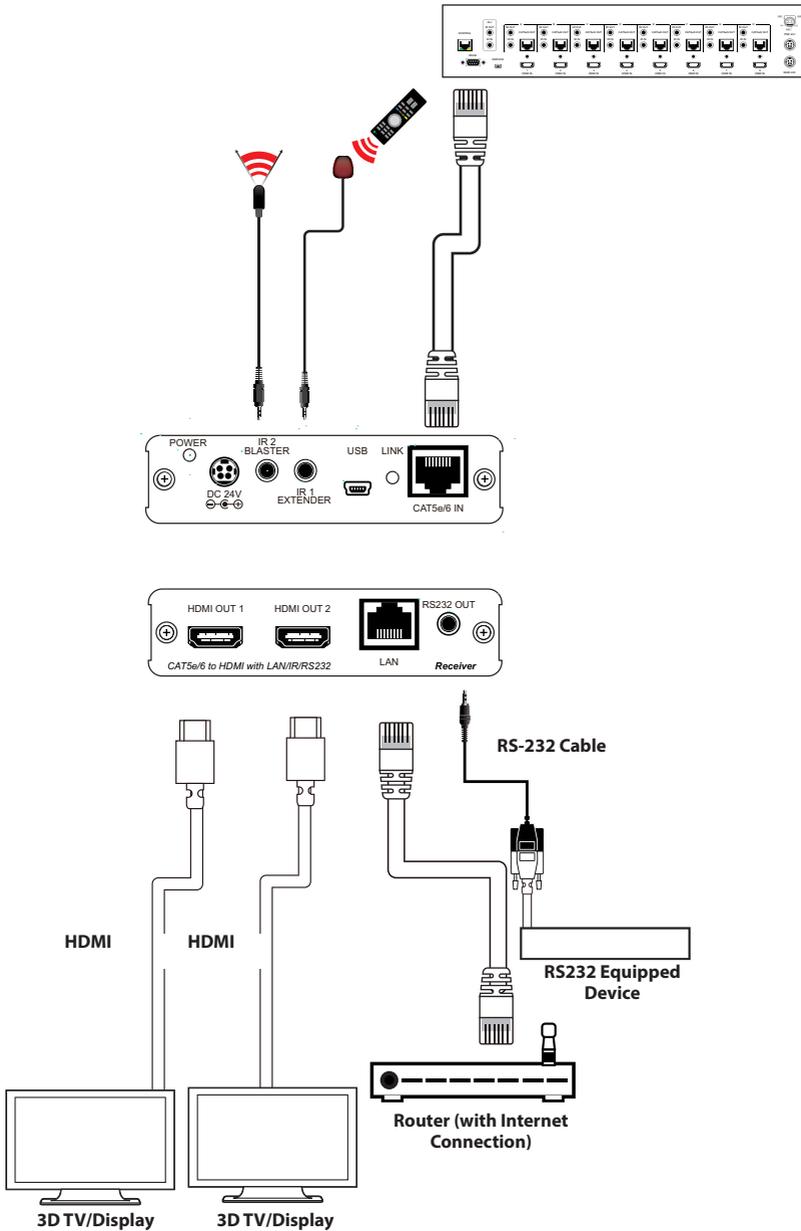
6.3 D-Sub 9-Pin Definitions

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

6.4 IR Cable Pin Assignment



7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	300Mbps/10.2Gbps
Input ports	1 x CAT5e/6/7, 1 x IR Extender, 1 x LAN, 1 x USB (Service only)
CAT5e/6/7 Input Cable Distance	up to 100 Meters
Output port	2 x HDMI, 1 x RS-232, 1 x Blaster,
HDMI Output Cable Distance	N/A
Resolution	Up to 4Kx2K (3840x2160@30Hz/4096x2160@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 (mm)	102 (W) x 109 (D) x 25 (H)
Weight (g)	282 g
Chassis Material	Metal
Color	Black
Operating Temperature	0 °C~40 °C
Storage Temperature	-20 °C ~ 60 °C/-4 °F~140 °F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	18.3W

8.2 CAT5e/6/7 Cable Specification

Cable Type	Range	Pixel clock rate	Video Data Rate	Supported Video
CAT5e/6/7	100 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).
	70 m	> 225 MHz	> 5.3 Gbps (Ultra HD Video)	4K \times 2K, 30Hz video formats

9. ACRONYMS

ACRONYM	COMPLETE TERM
4Kx2K	3840x2160 / 4096x2160
DTS	Digital Theater System
EDID	Extended Display Identification Data
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television



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