



PU-507RX-SCD

5-Play™ HDBaseT™ Receiver with Integrated Video Scaling & Audio Breakout (inc. PoE & single LAN, up to 100m) -Stereo Audio only





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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	06/11/2013	First release





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1. INTRODUCTION

The PU-507RX-SCD Receiver allows uncompressed HDMI signals and IP data to be received over a Single CAT5e/6/7 cable. With full 5-Play convergence, this solution features RS-232, 2-way IR control functionality, and LAN serving over the same CAT5e/6/7 cable for transmission distances up to 100m. This receiver also features an on-board scaler with audio breakout enabling the installer to maximise video resolution support to the display whilst de-embedding stereo audio via an optical connection within the zone.

2. APPLICATIONS

- **III** Extend the operating distance of an HDMI signal
- Up scale standard definition video to High-Definition TVs/displays
- Lecture room/Showroom/Meeting room/Classroom display and control
- Up scale HDMI output to HDTV/PC resolutions

3. PACKAGE CONTENTS

- /// CAT5e/6 to HDMI with LAN/IR/RS-232/Bidirectional PoE Receiver
- **III** 1×IR Receiver
- **III** 1×IR Blaster
- **III** 24V/2.7 A DC Power Adaptor
- **///** Remote control (CR-128)
- **III** Operation Manual

4. SYSTEM REQUIREMENTS

HDBaseT compatible Transmitter (input) and output to display with an HDMI input connection.



5. FEATURES

- Supports all v1.3 HDMI resolutions
- Supports uncompressed video/audio up to 10.2Gbps
- W Video scaling ensuring maximum compatibility and optimum video resolution support.
- Supports Audio breakout via Optical output: Note: This device supports stereo audio input/output only.
- 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
- **III** 5-Play[™] convergence: HDMI, LAN, POE & Control (IR & RS232)
- **III** Supports 3D signals

Note:

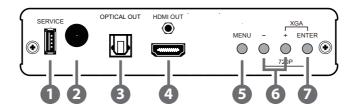
- 1. This system was tested with CAT6/23AWG cables, results may vary with cables of a different specification.
- 2. The PoE function is designed for powering compatible Transmitter units only—non-PoE Transmitters will need their own power supply. Transmitters from other brands may not be compatible.
- 3. DO NOT connect the LAN connection to the CAT5e/6/7 port. Doing so may cause a power shutdown and may damage the device





6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- **1 SERVICE:** Reserved for manufacturer use only.
- 2 IR Receiver window: Receives only the IR signal from the supplied remote control.
- **3 OPTICAL OUT:** Connect to an amplifier or active speaker with an optical cable.
- 4 HDMI OUT: Connect to an HDMI TV/Monitor
- **MENU:** Press this button to enter the On-Screen Display (OSD) menu.
- 6 -/+: Use these buttons to navigate down and up in the on-screen menu.
- **ENTER:** Press this button to confirm the selection.

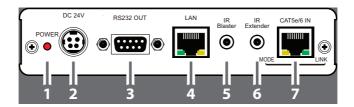
Note

Pressing '-' (MINUS) and ENTER simultaneously will immediately switch the output resolution of the device to 720p60.

Pressing '+' (PLUS) and ENTER simultaneously will immediately switch the output resolution of the device to XGA (1024×768)..



6.2 Rear Panel



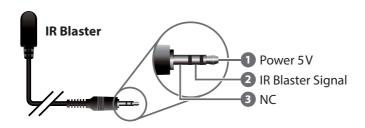
- 1 Power LED: This LED will illuminate when the device is connected to an active power supply.
- **DC 24V:** Connect the 24V DC power supply to the unit and plug the adaptor into an AC outlet. Only one unit requires powering if both the Transmitter and Receiver are both PoE compatible.
- **RS-232 OUT:** Connect to the device that is to be controlled (via D-Sub 9 pin female cable) by RS-232 commands.
- 4 LAN: Connect to an active network for LAN serving. When any compatible LAN equipped receivers are connected, this allows the network access (including internet access if available) to be shared between any connected LAN equipped 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.

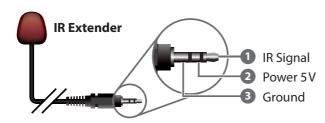
Warning: DO NOT connect the LAN connection to the CAT5e/6/7 port. Doing so may cause a power shutdown and may damage the device.

- **5 IR Blaster:** Connect the supplied IR Blaster cable for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.
- Go IR Extender: Connect to the supplied IR Receiver cables for IR signal reception. Ensure that remote being used is within the direct line-ofsight of the IR Extender.
- **MODE LED:** This LED will illuminated when the power is connected.
- **8 Link LED:** This LED will illuminate when connected to a Transmitter unit that is connected to a source that is outputting a signal.
- ② CAT5e/6 IN: Connect to the Transmitter unit with a Single CAT5e/6 cable for receiving all data signals.



6.3 IR Cable Pin Assignment





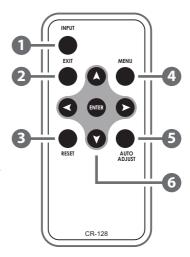
6.4 D-Sub 9 Pin Definitions

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



6.5 Remote Control

- **INPUT:** Not functional
- **EXIT:**Press this button to exit the menu or escape the current selection under OSD.
- MENU:Press this button to exit the menu or the current selection in the on-screen menu.
- 4 **RESET:** Press this button to return the device to the factory default settings.
- **5 AUTO ADJUST:** Press this button to optimise the positioning of the picture (picture centering) on the screen.



6 ENTER & ▲ ▼ **♦ :** Press ENTER to confirm the selection or use the directional buttons to navigate the on-screen menus.





6.6 OSD Menu

l st Layer	2 nd layer	3 rd Layer
DISPLAY		Native
		640x480 60
		800x600 60
		1024x768 60
		1360x768 60
		1280x720 60
		1280x800 60
	OUTPUT	1280x1024 60
		1440x900 60
		1400x1050 60
		1680x1050 60
		1600x1200 60
		1920x1080 60
		1920x1200 60
		720x480p 60
		1280x720p 60
		1920x1080i 60
		1920x1080p 60
		720x576p50
		1280x720p 50
		1920x1080i 50
		1920x1080p 50

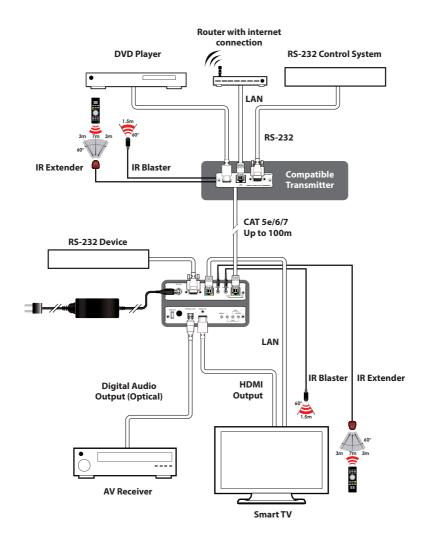


1 st Layer	2 nd layer	3 rd Layer	
	SIZE	OVER SCAN	
		FULL	
		ASPECT RATIO	
		PAN SCAN	
		LETTER BOX	
		UNDER 2	
		UNDER 1	
		INFO	
	MODE INFO	ON	
		OFF	
	COLOUR	R	
		G	
COLOUR		В	
		R OFFSET	
		G OFFSET	
		B OFFSET	
	CONTRAST	0~60	
	BRIGHTNESS	0~60	
	HUE	0~60	
	SATURATION	0~60	
	SHARPNESS	0~60	
	NR.	OFF	
		LOW	
		MIDDLE	
		HIGH	

1 st Layer	2 nd layer	3 rd Layer
	VOLUME	0~100
	DELAY	OFF
		40mS
AUDIO		110mS
		150mS
	COLLUC	ON
	SOUND	MUTE
SETUP	FACTORY RESET	NO
		YES
	KEY LOCK	OFF
	NET LOCK	ON
INFORMATION	INPUT	
	OUTPUT	
	REVISION	

Note: Items in **Bold** are the default setting.

7. CONNECTION DIAGRAM





8. SPECIFICATIONS

Ethernet Speed 100 Mbps

Input Video Bandwidth 300 MHz /10.2 Gbps Output Video bandwidth 165 MHz / 1.65 Gbps

Input Ports 1×CAT5e/6.

1×IR Extender

Output Ports 1×HDML

> 1×IR Blaster. 1×Optical, 1×RS-232. 1×LAN

CAT5e/6 Output Cable

Distance

Up to 100 Meters

HDMI output Resolution HD: Up to 1080p@60Hz

PC: Up to WUXGA(RB)

Audio Sampling Rate Up to 48 kHz/LCPM 2CH CAT5e/6 Output Resolu-HD: Up to 1080p@60Hz

tion

PC: Up to WUXGA(RB)

IR Frequency 30~50 kHz

ESD Protection Human body model:

> ±8kV (air-gap discharge) ±6kV (contact discharge)

Dimensions (mm) 145 mm (W) x 201.5 mm (D) x 30 mm (H)

Weight (g) 608 a

Chassis Material Aluminum

Colour 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)

14W Power Consumption



9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT5e	Category 5 Cable
CAT6	Category 6 Cable
HDMI	High-Definition Multimedia Interface
IR	Infrared
WUXGA (RB)	Widescreen Ultra Extended Graphics Array (Reduce blanking)



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 v1.00