



PU-514L-KIT

HDBaseT™ LITE Extender Kit with 2-way IR (up to 60m)

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	15/03/13	First release
v1.01	01/07/13	Corrections
v1.02	31/07/13	Added USB Power Cable information
v1.03	08/10/13	Amended product description

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1. INTRODUCTION

The PU-514-KIT allows uncompressed HDMI, and 2-way IR signals to be transmitted over a Single CAT5e/6/7 cable to distances of up to 60m. Utilise the USB power output from a TV as an optional way of powering the PU-514L-RX receiver unit alternative to a mains power supply.

Designed with HDBaseT™ Lite technology for greater flexibility in custom installations with full HDMI and 2-way IR control signal transfer over a single CAT5e/6/7 cable.

2. APPLICATIONS

- /// Residential entertainment sharing and control
- /// University lecture hall display and control
- /// Retail sales display and control
- /// Meeting room presentation and control
- /// Commercial advertising display and control

3. PACKAGE CONTENTS

- /// 1×HDMI to CAT5e/6/7 with IR Transmitter
- /// 1×CAT5e/6/7 to HDMI with IR Receiver
- /// 1×IR Emitter
- /// 1×IR Receiver
- /// 2×5V/2.6 A DC Power Adaptor
- /// Operation Manual

4. SYSTEM REQUIREMENTS

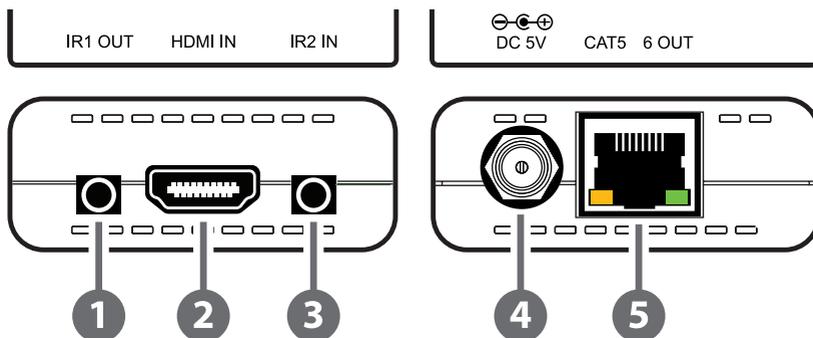
HDMI source equipment such as DVD/Blu-ray player/PC and TV/monitor/projector with HDMI input and HDMI and CAT5e/6/7 cables.

5. FEATURES

- /// HDMI 1.4 with 3D, 4Kx2K support, HDCP and DVI compliant
- /// Supports HDMI 1.4 (including HDCP) over a single CAT5e/6/7 up to 60m
- /// Complies with HDBaseT™- Lite specifications
- /// Full HD resolution support (1080p@60Hz/36-bit), 3D over 60m, 4Kx2K over 40m and PC resolution support (VGA to WUXGA) over CAT5e/6 cable
- /// HDMI input up to 15m with 8-bit deep colour, or 10m with 12-bit deep colour
- /// Supports HDMI output up to 15m with 8/12-bit deep colour
- /// Supports 2-way IR
- /// Supports High Definition LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission
- /// Choose to power the PU-514L-RX via the USB output from a TV (Cable available separately - APC-USB): *Please note the performance and consistency of USB power outputs from TV's can vary and cannot be guaranteed by CYP.*

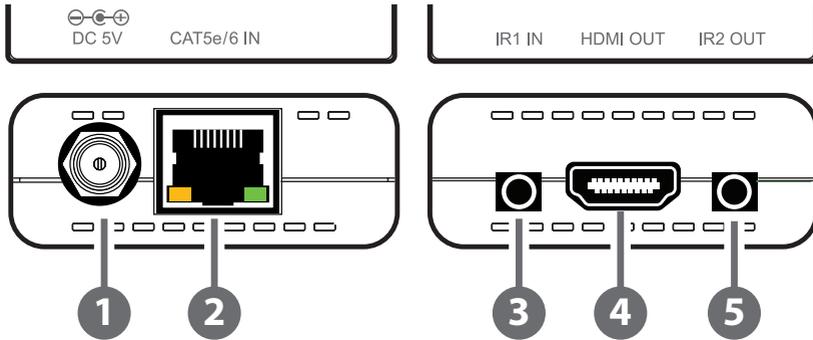
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



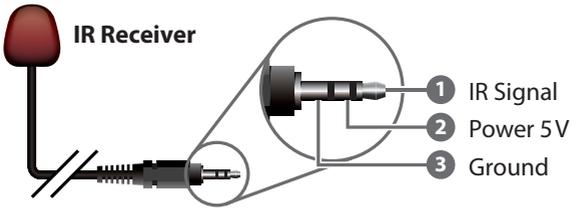
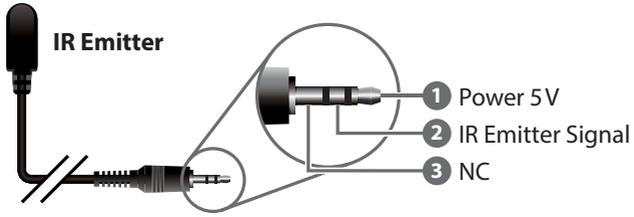
- 1 IR1 OUT/Emitter:** Connect to the supplied IR emitter for IR signal transmission to the source equipment. Place the IR emitter in direct line-of-sight of the equipment to be controlled.
- 2 HDMI IN:** Connect to an HDMI source device such as a DVD player or Set-top Box with HDMI cable or DVI to HDMI cable.
- 3 IR2 IN/Receiver:** Connect to the supplied IR receiver cable for IR signal reception and transmission to IR2 OUT on the receiver unit. Ensure that remote being used is within the direct line-of-sight of the IR receiver.
- 4 DC 5V:** Connect the 5V DC power supply to the unit and plug the adaptor into an AC outlet.
- 5 CAT5e/6/7 OUT:** Connect to the receiver unit with a single CAT5e/6/7 cable for transmission of all data signals. The yellow LED will illuminate when both transmitter and receiver are connected together and are powered. The green LED will illuminate when the device is connected to the power supply.

6.2 Receiver Front and Rear Panels

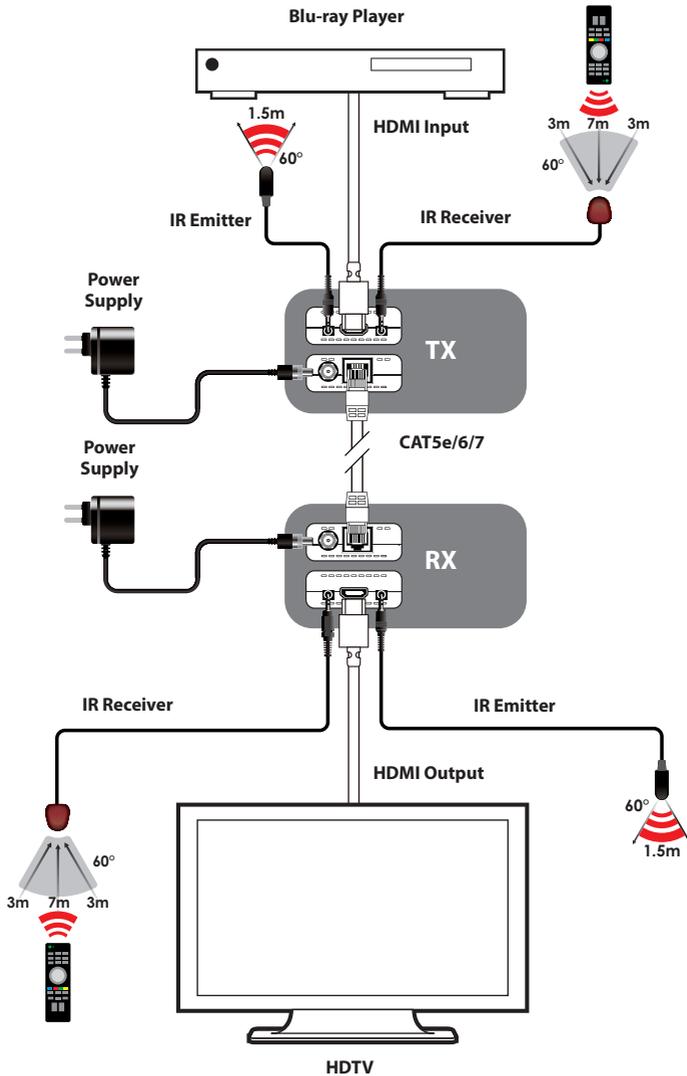


- 1 **DC 5V:** Connect the 5V DC power supply to the unit and plug the adaptor into an AC outlet.
- 2 **CAT5e/6/7 IN:** Connect to the transmitter unit with a single CAT5e/6/7 cable for transmission of all data signals. The yellow LED will illuminate when both the transmitter and receiver are connected and are powered. The green LED will illuminate when the device is connected to the power supply.
- 3 **IR1 IN/Receiver:** Connect the supplied IR receiver cable for IR signal reception and transmission to IR1 OUT on the transmitter unit. Ensure that the remote control being used is within the direct line-of-sight of the IR receiver.
- 4 **HDMI OUT:** Connect to a HDMI equipped TV/monitor for display of the HDMI input source signal.
- 5 **IR2 OUT/Emitter:** Connect the supplied IR emitter for IR signal transmission to the source equipment location from the IR1 OUT on the transmitter unit. Place the IR emitter in direct line-of-sight of the equipment to be controlled.

6.3 IR Pin Assignment



7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	300 MHz/10.2 Gbps
Transmitter	
Input	1×HDMI, 1×IR Receiver
Output	1×RJ45, 1×IR Emitter
Receiver	
Input	1×RJ45, 1×IR Receiver
Output	1×HDMI, 1×IR Emitter
ESD Protection	Human Body Model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Power Supply	2×5V/2.6 A DC (US/EU standards, CE/FCC/ UL certified)
Dimensions	55 mm (W)×82 mm(D)×22.5 mm (H)/each
Weight	56 g (TX), 64 g (RX)
Chassis Material	Plastic
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)
Power Consumption	3W (TX), 5.5W (RX)

8.2 CAT5e/6/7 I/O Cable Distance

Cable Type	Range	Pixel clock rate	Video Data Rate	Supported Video
CAT5e/6/7	60 m	<=225 MHz	<= 5.3 Gbps (HD Video)	Up to 1080p, 60 Hz, 36-bit, 3D (data rates lower than 5.3 Gbps or below 225 MHz TMDS clock).
	35 m	>225 MHz	> 5.3 Gbps (Ultra HD Video)	4K2K, 30Hz video formats

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



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