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PU-507-KIT

v1.4 HDMI over Single CAT5e/6
HDBaseT 5Play, Single LAN, Set
(up to 100m)

OPERATION MANUAL

Safety Precautions

Please read all instructions before attempting to unpack or 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 module openings or empty slots, as you may damage parts.
➢ Do not attach the power supply cabling to building surfaces.
➢ Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
➢ To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	Date	Summary of Change
RDV1	20110728	Preliminary Release

Table of Contents

1. Introduction

The PU-507-KIT allows uncompressed HDMI signals and IP data to be transmitted over a Single CAT5e/6 cable. This solution has the added features of RS-232 and 2-way IR control functionality over the same CAT5e/6 cable.

These combined HDMI and control signals can be transmitted up to lengths of 100 metres.

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
- HDMI to CAT5e/6 with LAN/IR/RS-232 x 1
- CAT5e/6 to HDMI with LAN/IR/RS-232 x 1
- IR Blaster x 1
- IR Receiver x 1
- 24V/1.25A DC Power Adaptor x 1
- Operation Manual

4. System Requirements

Input HDMI source equipment such as DVD/Blu-Ray player and output display with HDMI input jack.

5. Features
- HDMI 1.4 with 3D, 4k x 2k support, HDCP & DVI Compliant
- Supports HDCP repeater and CEC function
- Simultaneously uncompressed data sending over a single 100M/328ft withCAT6 cable or 80M/262ft with CAT5e cable
- Uncompressed video 1080p, 60Hz, 48bits
- Audio support up to 7.1CH & Dolby TrueHD, DTS-HD
- 5Play™ convergence: HDMI, LAN, POE & Control (IR & RS232)
- Installation Friendly

6. Specifications

Transmitter

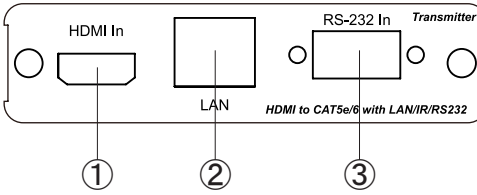|	
Input	1 x HDMI, 1 x IR Extender, 1 x RS-232
	1 x IR Blaster, 1 x LAN
Output	1 x CAT5e/6

Receiver

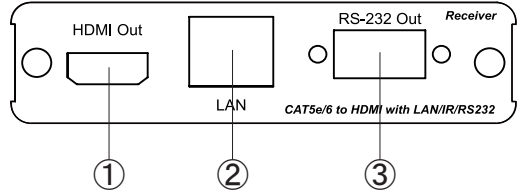|	
Input	1 x CAT5e/6, 1 x IR Extender, 1 x IR Blaster,1x LAN
Output	1 x HDMI, 1 x RS-232
ESD Protection	Human Body Model: ± 8kV (air-gap discharge)
	± 4kV (contact discharge)
IR Frequency	20~60Hz
Dimensions (mm)	102(W) x 115(D) x 25(H)
Weight (g)	252/Tx, 256/Rx
Chassis Material	Aluminum
Silkscreen Color	Silver
Power Consumption	TX: 6W ; RX: 8W
Operating Temperature	0°C ~ 40°C/ 32° ~104°
Storage Temperature	-20°C ~ 60°C/ -4° ~140°
Relative Humidity	20~90% RH (non-condensing)

7. *Operation Controls and Functions*

7.1 Front Panel

Transmitter   **Receiver**

HDMI In   RS-232 In *Transmitter*   HDMI Out   RS-232 Out *Receiver*

LAN   *HDMI to CAT5e/6 with LAN/IR/RS232*   LAN   *CAT5e/6 to HDMI with LAN/IR/RS232*

①   ②   ③   ①   ②   ③
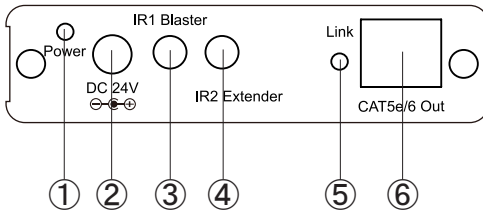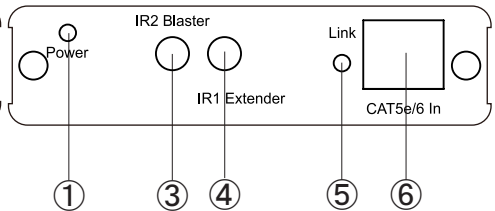
①. HDMI In/Out: These slots are to connect with HDMI source equipment such as DVD/Blu-ray player and HDMI TV/monitor with HDMI cables.
②. LAN: These slots are to connect with RJ-45 cable from the internet or intranet system to PC/NB device for online signal sending over CAT5e/6
③. RS-232 In/Out: These slots are to connect with D-Sub 9pin cable from PC/NB for RS-232 control and signal sending to the control device.

7.2 Rear Panel

Transmitter   **Receiver**

IR1 Blaster   Link   IR2 Blaster   Link

Power   Power

DC 24V   IR2 Extender   CAT5e/6 Out   IR1 Extender   CAT5e/6 In
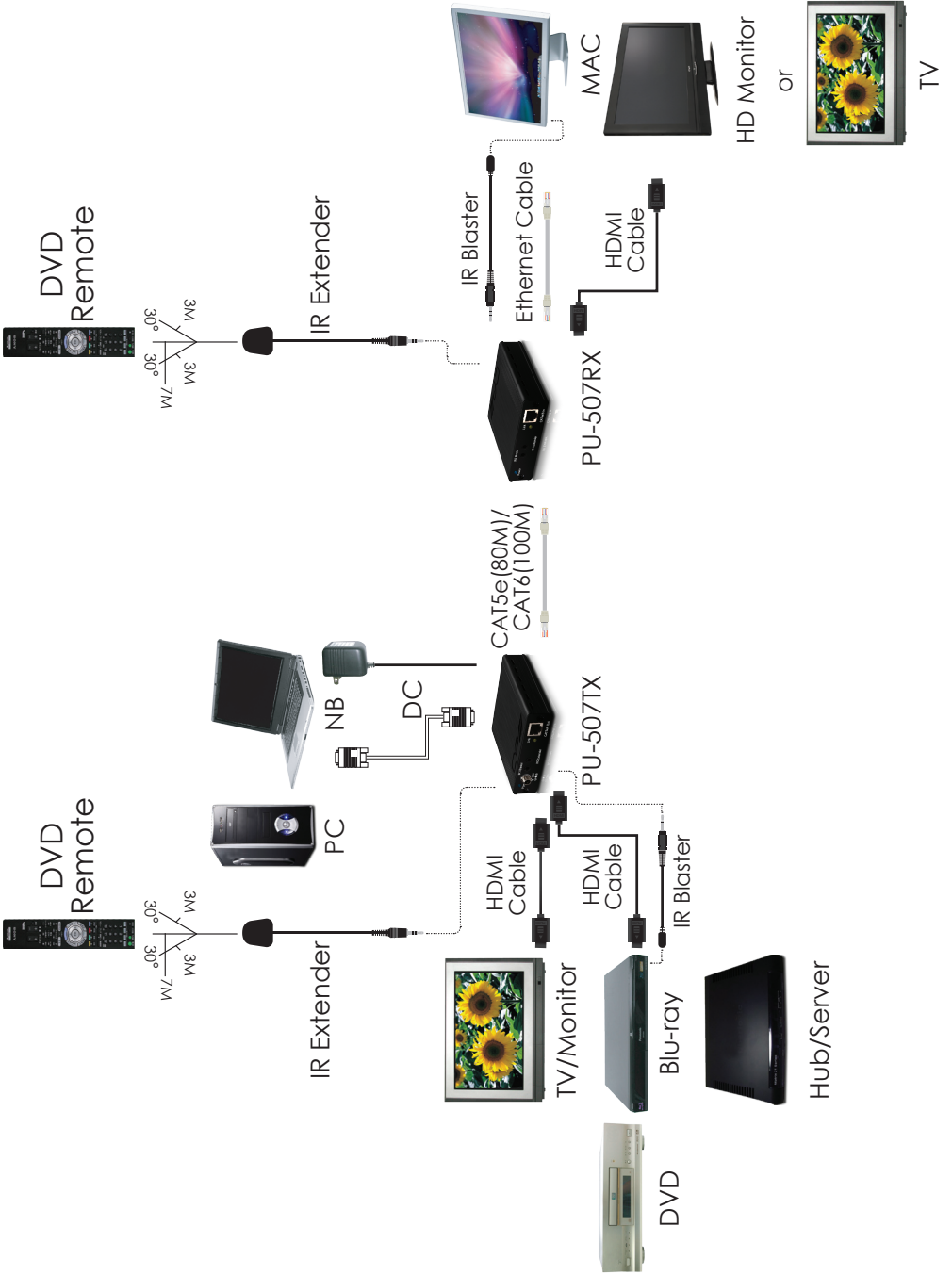
① ②   ③ ④   ⑤   ⑥   ①   ③ ④   ⑤   ⑥

①. Power LED: This green LED will illuminate when the device is attached with power supply.
②. DC 24V: This slot is where you plug the 24V DC power into the unit and connect the adaptor to an AC outlet.
③. IR 1/2 Blaster: These slots are to connect with the IR blaster cable included in the package for IR signal transmitting.
④. IR 1/2 Extender: These slots are to connect with the IR receiver cable included in the package for IR signal receiving.
⑤. Link LED: This green LED will illuminate when the signal is detected from the other end of the device.
⑥. CAT5e/6 Out/In: These slots are to be connected with a single CAT5e/6 cable for data transmitting.

8. 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

9. *Connection and Installation*

The diagram shows connection and installation of the PU-507RX and PU-507TX HDMI extenders.

Top section (PU-507RX):
- DVD Remote with IR beam angles: 30°, 30°, 3M, 3M, 7M
- IR Extender
- PU-507RX
- IR Blaster
- Ethernet Cable
- HDMI Cable
- MAC
- HD Monitor or TV

Bottom section (PU-507TX):
- DVD Remote with IR beam angles: 30°, 30°, 3M, 3M, 7M
- IR Extender
- CAT5e(80M)/CAT6(100M)
- NB
- DC
- PC
- PU-507TX
- HDMI Cable
- HDMI Cable
- IR Blaster
- TV/Monitor
- Blu-ray
- DVD
- Hub/Server

Acronyms

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Acronym	Complete Term
CAT5e	Category 5 Cable
CAT6	Category 6 Cable
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
HDCP	High-bandwidth Digital content protection
HDMI	High-Definition Multimedia Interface
IR	Infrared