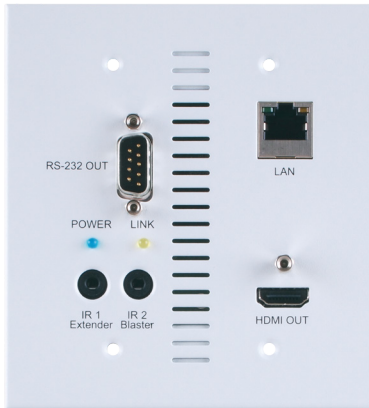# CH-507RXWPUS
CAT5e/6/7 over HDMI Wall-Plate Receiver with IR/RS232/LAN/PoE

Operation Manual

DISCLAIMERS

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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 DD/MM/YY	SUMMARY OF CHANGE
RDV1	30/09/13	Preliminary Release
RDV2	25/07/19	Update Format and Cable Distance

CONTENTS

1. INTRODUCTION

The CAT5e/6/7 over HDMI Wall-Plate Receiver can receive uncompressed audio/video over a single run of CAT5e/6/7 cable up to 100m/328ft at 1080p and 70m/229ft at 4K with PoC, IR, RS232 and LAN. of a data transmission rate of 100Mbps. A True HDBaseT 5Play solution to make your home or office more efficient and easy with control.

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 x CAT5e/6/7 to HDMI with IR/RS232/LAN/PoE Receiver
- 1 x IR Extender
- 1 x Operation Manual

4. SYSTEM REQUIREMENTS

Input HDMI over CAT5e/6/7 transmitter with source signal and HDMI equipped output display(TV/display).
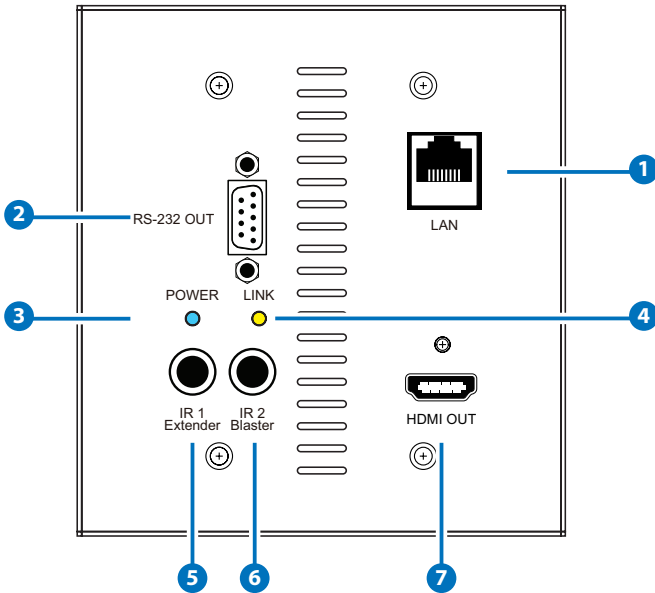
5. FEATURES

- 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 5Play convergence: uncompressed high definition Video and Audio, LAN serving, Power over Cable and RS232/IR Controls

- US 2 gang wall-plate design

6. HARDWARE DESCRIPTION

The following sections describe the hardware components of the unit.

6.1 Front Panel

1 LAN: Connect to an active network for LAN serving and Telnet/Web GUI control.

When the transmitter or any compatible LAN equipped receivers are connected to a network, this allows the network access (including internet access if available) to be shared between the transmitter and all connected 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.

2 **RS-232 OUT:** This slot is to connect with D-Sub 9-pin cable from device equipment for receiving RS-232 commands

3 **POWER LED:** This LED will illuminate when the device is connected to a power supply.

4 **LINK LED:** This LED will illuminate when the both CAT5e/6/7 input and output signal are connected

5 **IR 1 Extender:** This slot is to connect with the IR Receiver cable included in the package for IR signal receiving.

6 **IR 2 Blaster:** This slot is to connect with the IR Blaster cable included in the package for IR signal transmitting.

7 **HDMI OUT:** This slot is to connect with HDMI TV/monitor for display HDMI input source signal.
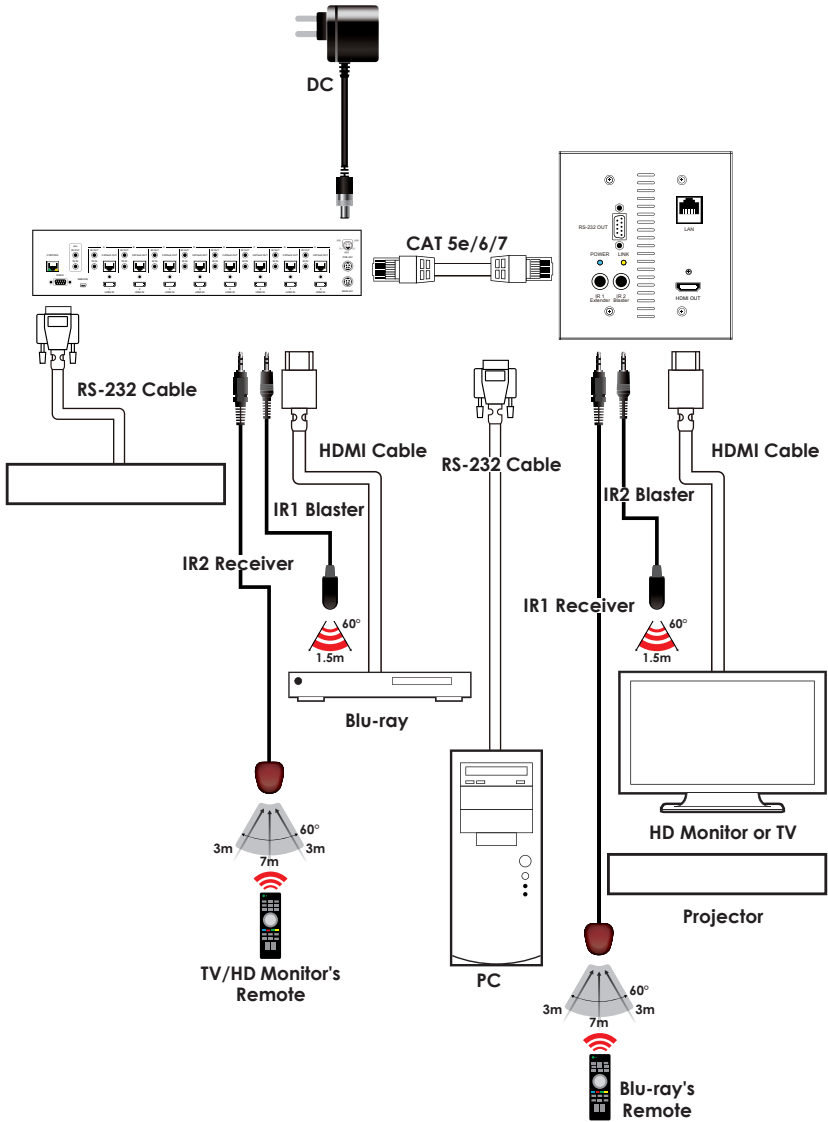
6.2 Rear Panel

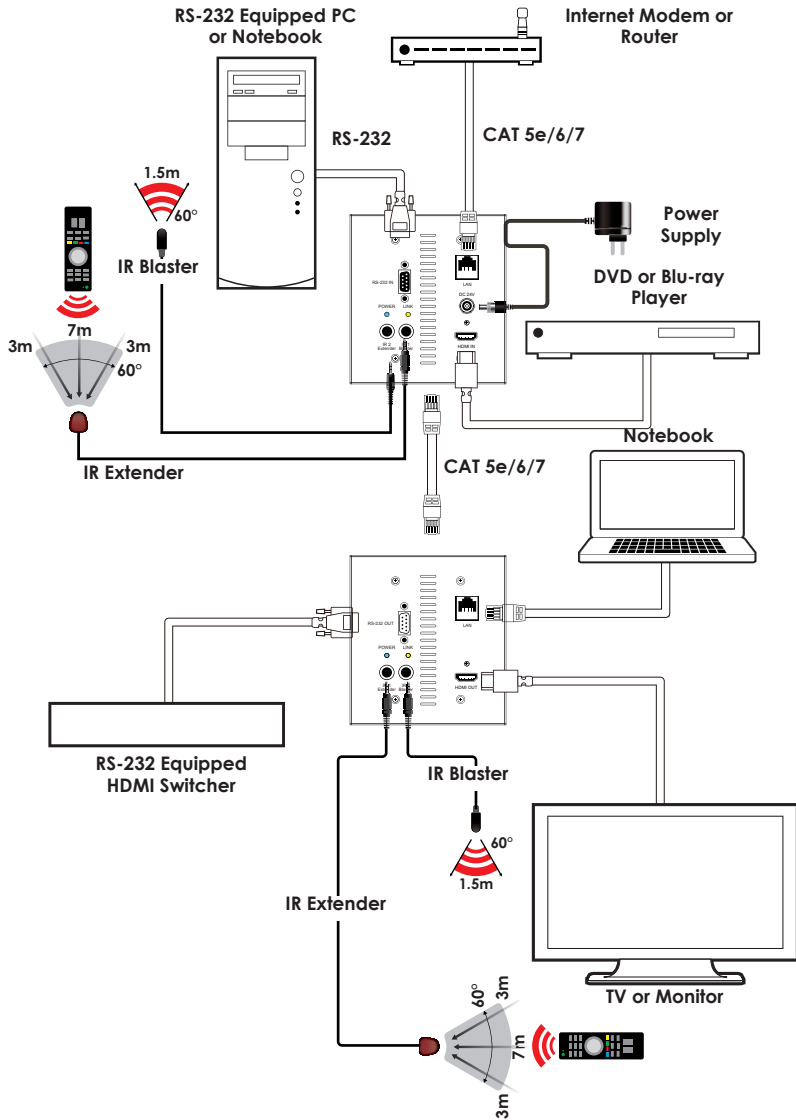**1** **CAT5e/6/7 IN:** Connect from HDMI to CAT5e/6/7 Transmitter for signal displaying.

6.3 RS-232 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

DC

CAT 5e/6/7

RS-232 Cable

HDMI Cable

RS-232 Cable

HDMI Cable

IR1 Blaster

IR2 Blaster

IR2 Receiver

IR1 Receiver

60°
1.5m

60°
1.5m

Blu-ray

HD Monitor or TV

60°
3m   3m
7m

Projector

TV/HD Monitor's Remote

PC

60°
3m   3m
7m

Blu-ray's Remote

8. SPECIFICATIONS

Video Frequency	300MHz/9Gbps
Input Ports	1 x IR Extender, 1 x CAT5e/6/7
Output Ports	1 x HDMI, 1 x IR Blaster, 1 x LAN, 1 x RS232
IR Frequency	30 - 50kHz
	(30 - 60kHz under ideal conditions)
Baud Rate	up to 115200/sec
ESD Protection	Human body model:
	±8kV (air-gap discharge)
	±4kV (contact discharge)
Dimensions (mm)	119.5(W) x 110(D) x 40(H)/Including jacks
Weight(g)	353
Chassis Material	Metal
Silkscreen Color	White
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 (no condensation)
Power Consumption (W)	8W

8.1 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 color
  - 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 color
  - Data rates higher than 5.3Gbps or above 225MHz TMDS clock but below 10.2Gbps