

CH-506TX & RX

HDMI & IR over Single CAT5e/CAT6

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**

<i>Version No</i>	<i>Date</i>	<i>Summary of Change</i>
<i>RDV1</i>	<i>20110620</i>	<i>Preliminary Release</i>

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1. Introduction

The device that can make your home or office more efficient, this unit of HDMI with RS-232 over Single CAT5e/CAT6 can transmit and receive uncompressed audio/video, control through the built-in RS-232 and IR ports over 100M. Hence, if you want to make your home or office more efficient, get the HDMI & IR over Single CAT5e/CAT6 and prepare to be amazed.

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 & IR over Single CAT5e/CAT6 Transmitter x 1
- HDMI & IR over Single CAT5e/CAT6 Receiver x 1
- IR Blaster x 1
- IR Receiver x 1
- 3.5Ø to RS-232 female cable x 1
- 3.5Ø to RS-232 male cable x 1
- 5V 2.6A DC Power Adaptor x 2
- Operation Manual

4. System Requirements

Input HDMI source equipment such as DVD/Blue-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 with CAT6 cable or 80M/262ft with CAT5e cable
- Uncompressed video 1080p, 60Hz, 48bits
- Audio support up to 7.1CH & Dolby TrueHD, DTS-HD
- 3Play™ convergence: HDMI & Control (IR & RS232)
- Installation Friendly

6. Specifications

Transmitter

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

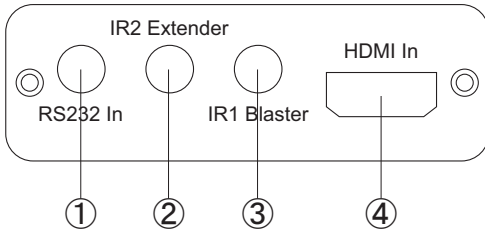
Receiver

Input	1 x CAT5e/6, 1 x IR Extender, 1 x IR Receiver
Output	1 x HDMI, 1 x RS-232
ESD Protection	Human Body Model: $\pm 8\text{kV}$ (air-gap discharge) $\pm 4\text{kV}$ (contact discharge)
IR Frequency	20~60Hz
Dimensions (mm)	102(W) x 107(D) x 25(H)
Weight (g)	240/Tx, 245/Rx
Chassis Material	Aluminum
Silkscreen Color	Silver
Power Consumption	TX: 2W ; RX: 6W
Operating Temperature	0°C ~ 40°C / 32° ~ 104°
Storage Temperature	-20°C ~ 60°C / -4° ~ 140°
Relative Humidity	20~90% RH (non-condensing)

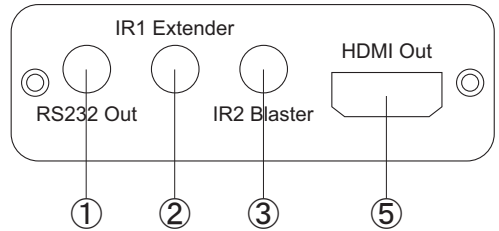
7. Operation Controls and Functions

7.1 Front Panel

Transmitter



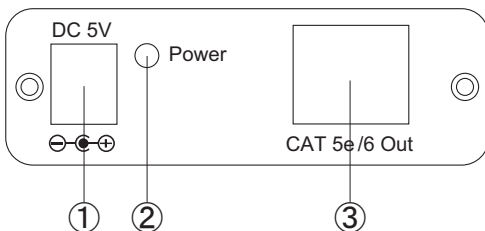
Receiver



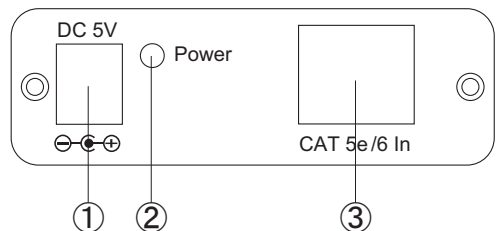
- ① RS-232 In/Out: These slots are to connect with 3.5mm phone jack RS-232 cable from PC/NB equipment for sending RS-232 commands.
- ② IR Extender 1/2: This slot is to connect with the IR receiver cable included in the package for IR signal receiving.
- ③ IR Blaster 1/2: This slot is to connect with the IR blaster cable included in the package for IR signal transmitting.
- ④ HDMI In: This slot is to connect with HDMI source equipment such as DVD/Blue-Ray player.
- ⑤ HDMI Out: This slot is to connect with HDMI TV/monitor for display HDMI input source signal.

7.2 Rear Panel

Transmitter



Receiver

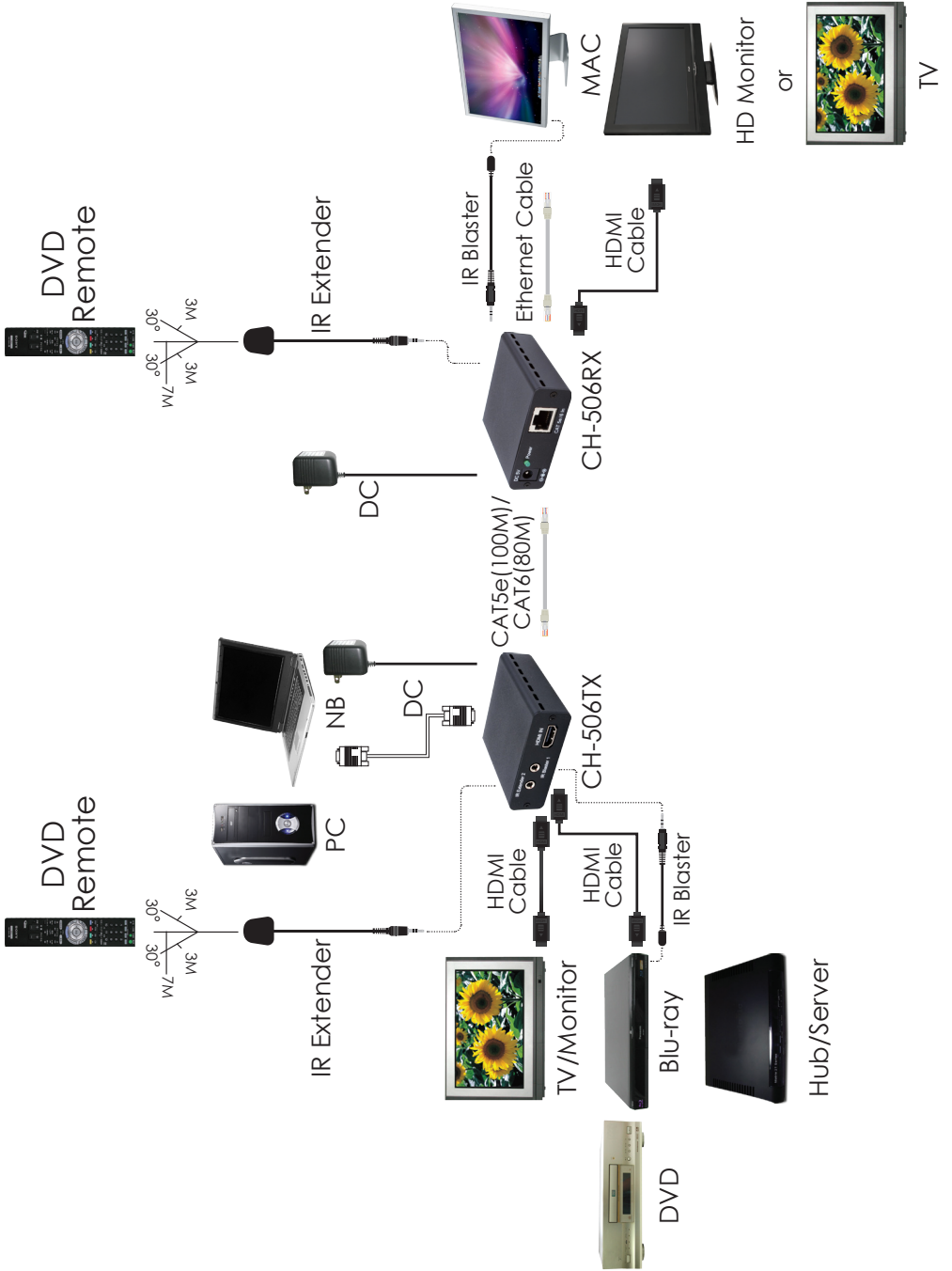


- ① DC 5V: These slots are where you plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.
- ② Power LED: This green LED will illuminate when the device is attached with power supply.
- ③ CAT5e/6 Out/IN: These slots are to be connected with a single CAT5e/6 cable for data 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



Acronyms



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