CH-501TX & RX

HDMI over Single CAT5e/CAT6

HDMI Bypass   HDMI In   RS 232 In

HDMI to CAT5e/6 with IR **CH-501TX**   *Transmitter*

HDMI Out   RS 232 Out

CAT5e/6 to HDMI with IR **CH-510RX**   *Receiver*
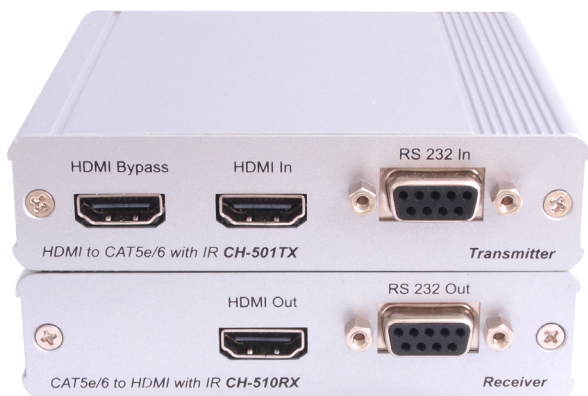
CH-501TX & RX

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	20101101	Preliminary Release

Table of Contents

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. Further, with a HDMI bypass design it allows an instant display at the control point. Hence, if you want to make your home or office more efficient, get the HDMI 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 over Single CAT5e/CAT6 Transmitter x 1
- HDMI over Single CAT5e/CAT6 Receiver x 1
- IR Blaster x 1
- IR Receiver 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 and 2k and 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
- Various controls over HDMI CEC, RS232 & IR
- 3Play™ convergence: HDMI & Control (IR & RS232)
- Installation Friendly

6. *Specifications*

Transmitter

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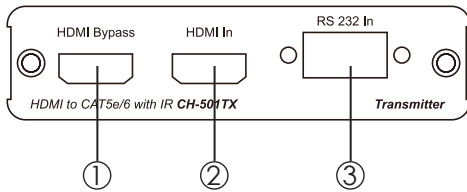Output   1 x CAT5e/6

Receiver

Input   1 x CAT5e/6, 1 x IR Extender, 1 x IR Blaster
Output   1 x HDMI, 1 x RS-232
ESD Protection   Human Body Model: ± 8kV (air-gap discharge)
                                                        ± 4kV (contact discharge)
Operating Temperature   0°C ~ 40°C/ 32° ~104°
Storage Temperature   -20°C ~ 60°C/ -4° ~140°
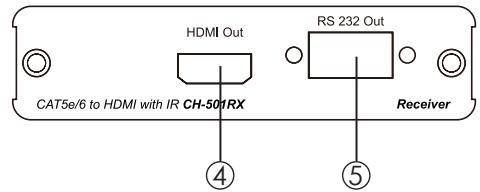Relative Humidity   20~90% RH (non-condensing)

7. *Operation Controls and Functions*

7.1 Front Panel
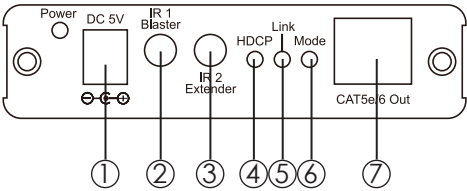
**Transmitter**   **Receiver**

①. HDMI Bypass: This slot is to connect with HDMI TV/monitor for instant display HDMI input source signal. When the HDMI bypass is connected, all signals will not transmit to the receiver side. Therefore, unplug this slot after confirm image display.

②. HDMI In: This slot is to connect with HDMI source equipment such as DVD/Blue-Ray player.

③. RS-232 In: This slot is to connect with PC/laptop with D-Sub 9 pin cable for RS-232 control system.

④. HDMI Out: This slot is to connect with HDMI TV/monitor for display HDMI input source signal.

⑤. RS-232 Out: This slot is to connect to the device that wishes to be controlled with D-Sub 9 pin cable for RS-232 signal to be execute.

7.2 Rear Panel

**Transmitter**   **Receiver**
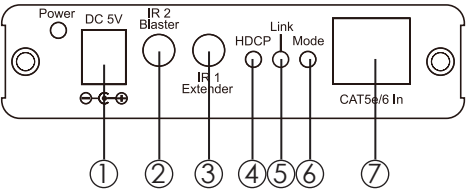
①. DC 5V: These slots are where you plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

②. IR 1/2 Blaster: These slots are to connect with the IR blaster cables included in the package for IR signal transmitting.

③. IR 1/2 Extender: These slots are to connect with the IR receiver cables included in the package for IR signal receiving.

④. HDCP LED: This red LED will illuminate in when the input source signal contains HDCP data.

⑤. Link LED: This yellow LED will illuminate when the both input and output signal is connected.

⑥. Mode LED: This green LED will blinking when the device is processing data.

⑦. 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
1	N/C
2	RxD
3	TxD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C

9. Connection and Installation

Acronyms

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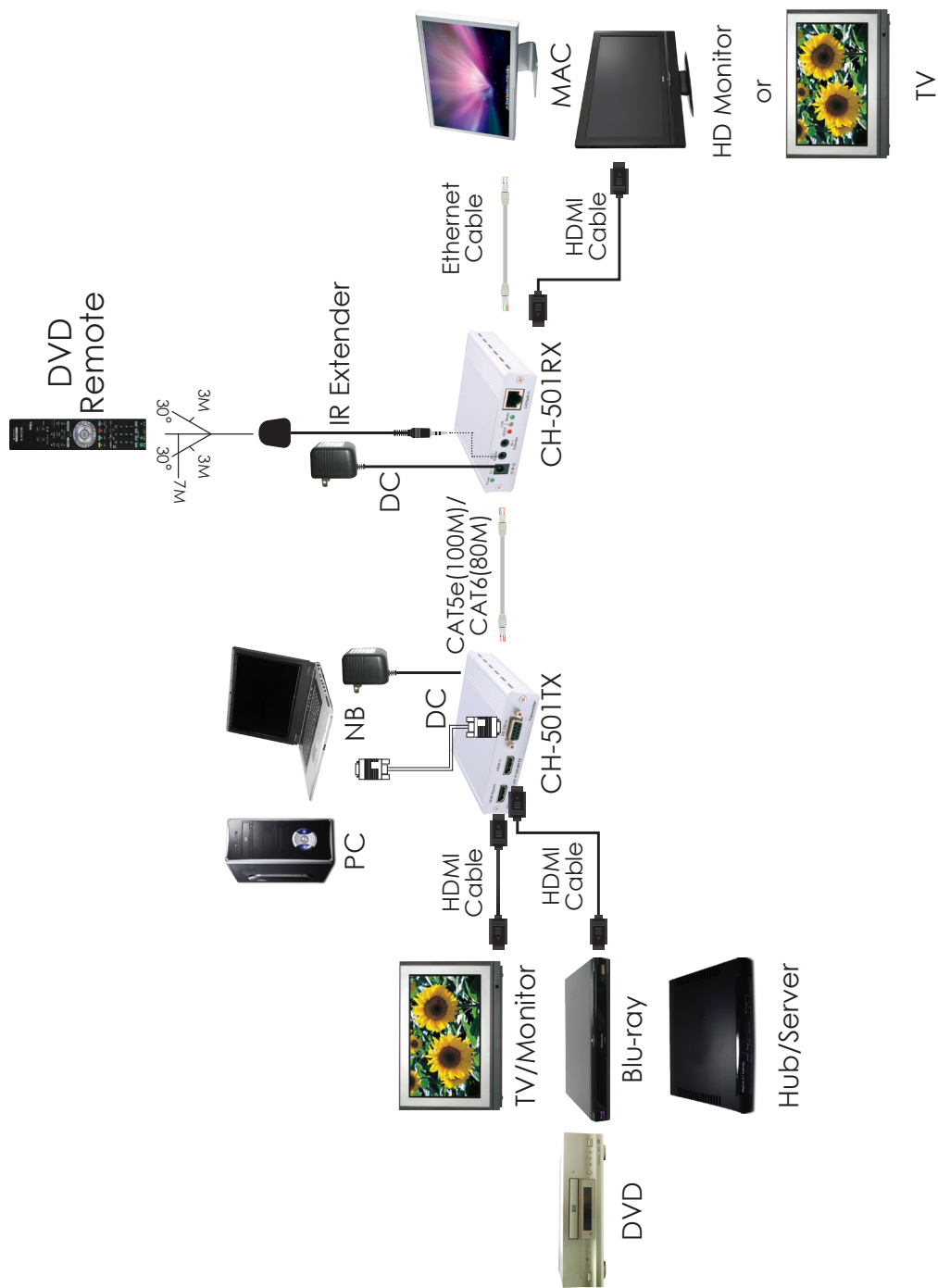
Acronym	*Complete Term*
CAT5e	Category 5 Cable
CAT6	Category 6 cable
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
HDCP	High-bandwidth Digital content protection
HDMI	High-Definition Multimedia Interface
IR	Infrared