

# ***CH-107 TX & RX***

HDMI v1.3 over ONE  
CAT6 HDMI Transmitter &  
Receiver

**Operation Manual**



**CH-107 TX & RX**

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## • **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**

<b><i>Version No</i></b>	<b><i>Date</i></b>	<b><i>Summary of Change</i></b>
<b><i>V1</i></b>	<b><i>20100317</i></b>	<b><i>Preliminary Release</i></b>

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## **1. Introduction**

The HDMI 1.3 transmitter and receiver over ONE CAT 6 is a tool for displaying HDMI content at long distances. Instead of using expensive HDMI cables, your existing CAT 6 cables/sockets can perform functions like transferring Deep Color (12 bits/color) video and new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) Digital audio, with a bandwidth up to 2.25Gbps. The HDMI 1.3 Transmitter and receiver, over ONE CAT6 extender is your preferred HDMI extension tool.

## **2. Applications**

- Long distance HDMI signal distribution
- Showroom display
- Hypermarket display
- Lecture room display

## **3. Package Contents**

- HDMI v1.3 Transmitter x 1
- HDMI v1.3 Receiver x 1
- 5V DC Power Supply adaptor x 2
- Operation Manual x 1

## **4. System Requirements**

Input HDMI source equipment and output HDMI display with connection cables and one CAT6 cable.

## **5. Features**

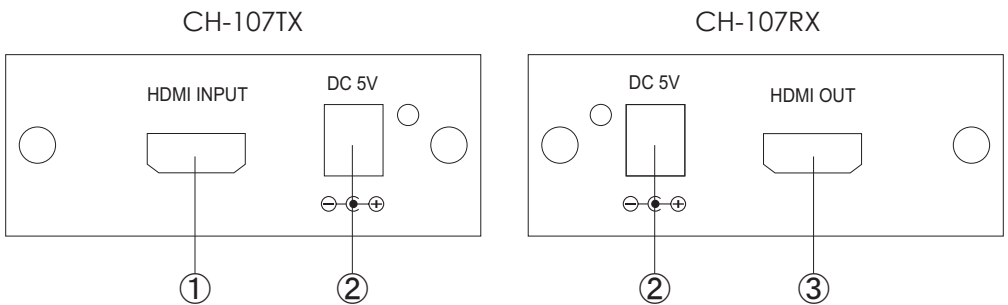
- Compliant with HDMI 1.3, HDCP 1.1 and DVII.1 standards.
- Supports digital video formats in Deep Color Mode at up to 36 bits (12bits/color) and new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) Digital audio .
- Supports one CAT-6 cable for data/DDC transmission.
- Equalizes and recovers incoming TMDS data before re-transmitting it in optimal quality regardless of the incoming signal quality.
- Cable testing showed that with 1080p 12bit resolution the HDMI input/output source can be 10meters away.
- Cable testing showed that with 1080p 12bit resolution the CAT6 input/output device can be 45/15 meters away.
- Support xvYCC

## 6. Specifications

Frequency Bandwidth	2.25Gbps (single link)
Transmitter	
Input/Output Ports	1 x HDMI Female port/1 x CAT6
Receiver	
Output/Input Ports	1 x HDMI Female port/1 x CAT6
Power Supply	5V/ 1A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human Body Model: $\pm 8kV$ (air-gap discharge) $\pm 4kV$ (contact discharge)
Dimensions (mm)	78.5 (W) x 72 (D) x 30 (H) / each
Weight(g)	90 / each
Chassis Material	Aluminum
Silkscreen Color	Silver
Power Consumption	TX: 3.5w ; RX: 2w
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)

## 7. Operation Controls and Functions

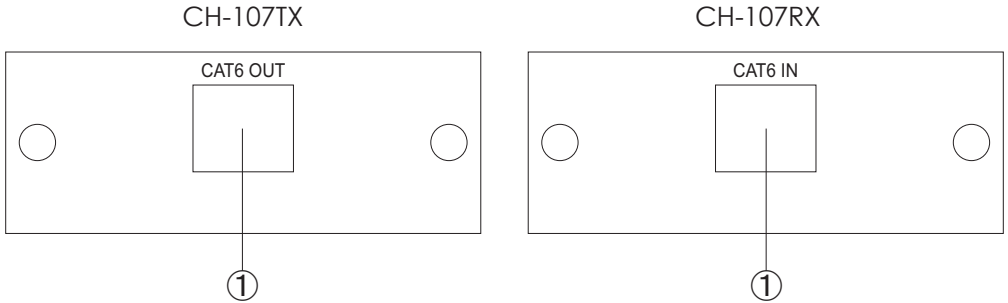
### 7.1 Front Panel



- ① HDMI INPUT: This slot is where you connect the HDMI or DVI output port of your source device such as a DVD player or Set-top-box with an HDMI cable or connect the unit to another unit from the same product family to extend your transmission over long distances.
- ② DC 5V: This slot is where you plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

- ③ **HDMI OUTPUT:** This slot is where you connect the HDMI or DVI input port of your display such as an HDTV/HD monitor or connect it to another transmitter from the same family in order to extend your transmission over long distances.

## 7.2 Rear Panel

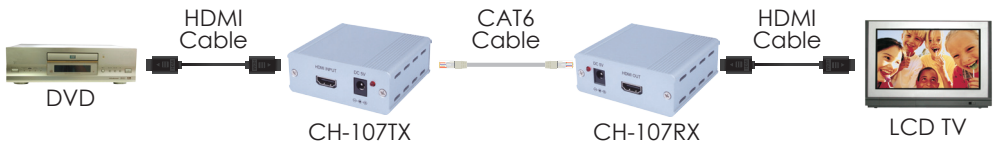


- ① **CAT6 OUT/IN:** Connect the CAT6 output of the transmitter with a CAT6 cable to the CAT6 input of the receiver.

**Note:**

- A. Cable tested with CAT-6E/23AWG/Solid, using cables of another type may result in a different operating distance.
- B. Equipment used in cable distance testing included: PS3 20G, 37" Philips 8 bit LCD TV and 40" Samsung 12 bit LCD TV.
- C. Figures provided in this manual are for reference only, actual performance may depend on the source and display used along with the type of cable.

## 8. Connection and Installation







# Acronyms

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## **Acronym**

## **Complete Term**

CAT6

Category 6 Cable

HDMI

High-Definition Multimedia Interface







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