



PU-1107-KIT

Pure Digital v1.3 HDMI over
Single CAT6 Extender Set with
Repeater Function

OPERATION MANUAL



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• **Trademark Acknowledgments**

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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

• **Revision History**

Version No	Date	Summary of Change
V1	20100412	Preliminary release

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1. Introduction

The HDMI 1.3 transmitter and receiver over ONE CAT 6 is a tool for extending your HDMI signal over long distances to a compatible display. Instead of using expensive HDMI cables, your existing CAT 6 cables/sockets can be utilized to perform advanced 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 225MHz. The HDMI 1.3 Transmitter and receiver, over ONE CAT6 extender is your substantial HDMI extender tool.

2. Applications

- Distribute HDMI signals over long distances
- 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

- HDMI 1.3, HDCP 1.1 and DVI1.1 compliant.
- 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 .
- Uses 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 8bit or 12bit resolution the HDMI input source can be 20meters away.
- Cable testing showed that with 1080p 8bit resolution the HDMI output device can be 15meters away and with 1080p 12bit resolution it can be 10 meters away.
- When transmitting a signal in 1080p 8bit resolution the CAT6 operating distance is 45 meters, and when the signal is in 12bit resolution the CAT6 operating distance is 10meters.
- Supports xvYCC

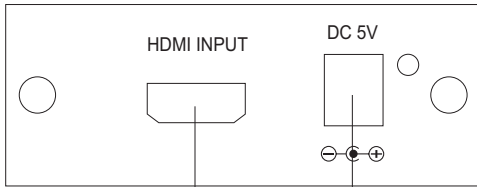
6. Specifications

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: $\pm 8\text{kV}$ (air-gap discharge) $\pm 4\text{kV}$ (contact discharge)
Dimensions (mm)	78.5 (W) X 102 (d) X 30 (H) / Tx 78.5 (W) x 72 (D) x 30 (H) / Rx
Weight(g)	182 / Tx 90 / Rx
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)

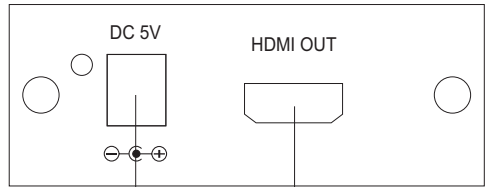
7. Operation Controls and Functions

7.1 Front Panel

CH-1107TX



CH-107RX

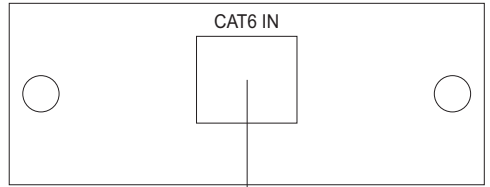
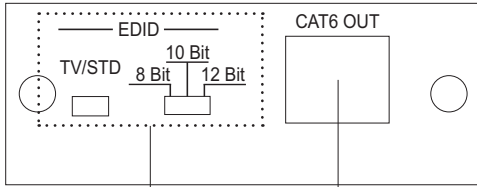


- ① HDMI INPUT: This slot is where you connect the HDMI or DVI output port of your source equipment such as DVD/Blu Ray players or Set-top-boxes with an HDMI cable or link up with another receiver unit from the same family to extend a signal over long distances.
- ② DC 5V: This is where you plug the 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 or HD monitor or link up with another receiver unit from the same family to extend a signal over long distances.

7.2 Rear Panel

CH-1107TX

CH-107RX



①

②

②

- ① EDID Control Switcher: Switch the EDID between STD and TV. Switch to STD to use the built-in EDID or switch to TV to use the TV's EDID. The default factory setting is TV, leave as is when the display is working properly.

Note: 1. When EDID is switched to STD the unit will use its built-in EDID which supports:

Video → 1080p 8-bit, 10-bit or 12-bit (max)

Audio → PCM 2CH

2. The EDID selection will only be activated when the unit is re-plugged and powered on.

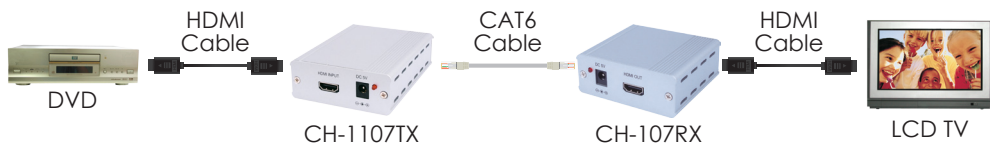
- ② CAT6 OUT/IN: Connect the CAT6 output of the transmitter with the CAT6 input of the receiver.

Note: A. This system was tested with CAT-6E/23AWG cables, so if using cables of another type, results may vary.

B. Cable distance tested with PS3 120G & 40" Samsung LED 12 bit LCD TV.

C. The figures provided in this manual are for reference only; actual performance may depend on the source and display used along with the type cable.

8. Connection and Installation



Acronyms



Acronym	Complete Term
CAT6	Category 6 Cable
EDID	Extended display identification data
HDMI	High-Definition Multimedia Interface



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