



CH-304TX & RX

Digital Audio over Single CAT5e/6/7 Extender



Operation Manual



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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 |
|-------------|---------------|-------------------------------------|
| VS1 | 25/11/11 | First release |
| VS2 | 03/05/13 | Updated text and connection diagram |
| | | |

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1. INTRODUCTION

The Digital Audio Extender is useful for sending the digital audio signal up to 150m away at high quality. The units can switch between Coaxial and Optical digital signals and can be powered by either USB or power adaptor allowing users flexibility of choice between power sources. With its elegant and compact design, user friendly operation and easy installation, the Digital Audio Extender is ideal tool for extending digital audio from one location to another.

2. APPLICATIONS

- Coaxial or Optical digital audio signal extension over single CAT5/6/7 cable up to 150m

3. PACKAGE CONTENTS

- Digital Audio over Single CAT5e/6/7 Transmitter
- Digital Audio over Single CAT5e/6/7 Receiver
- 5V/1 A DC Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

Coaxial/Optical audio input source and amplifier or speaker output and single CAT6 cable for connecting transmitter and receiver.

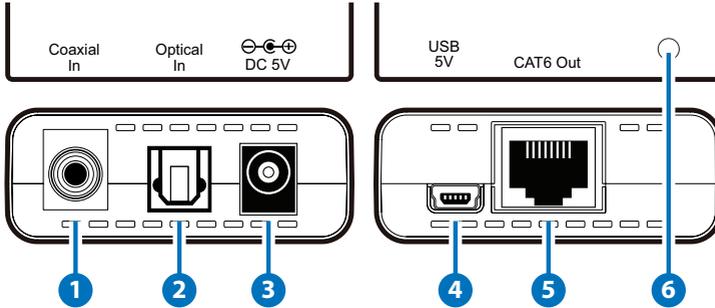
5. FEATURES

- Supports Coaxial or Optical digital audio S/PDIF signal
- Supports stereo and multi-channel digital audio such as LPCM 2 CH, Dolby Digital or DTS 5.1 CH
- Supports industry standard Category 5/5e/6 cable
- Digital audio S/PDIF performance sampling rate 96 kHz
- Supports single Coaxial input to Coaxial signal output
- Supports single Optical input to Optical signal output

Note: Only one of the two units need to be powered for both to operate. Use only a single type of power per unit, either the 5V DC power supply or the 5V USB connection.

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



1 Coaxial In

Connect to source audio equipment such as DVD or Blu-ray players with a Coaxial digital audio output.

2 Optical In

Connect to source audio equipment such as DVD or Blu-ray players with an Optical digital audio output.

3 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

4 USB 5V

Connect with a USB cable for power supply from computer or notebook.

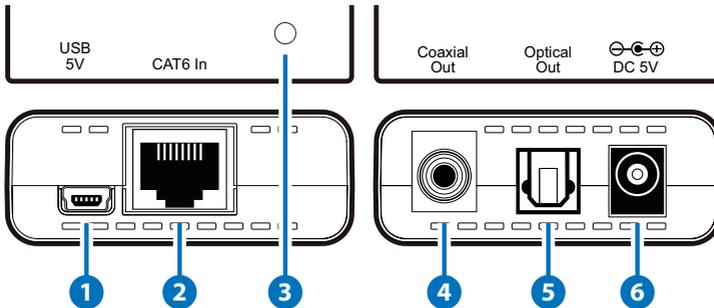
5 CAT6 Out

Connect to the receiver unit with a single CAT6 cable.

6 Power LED

The blue LED will light when the device is powered.

6.2 Receiver Front and Rear Panels



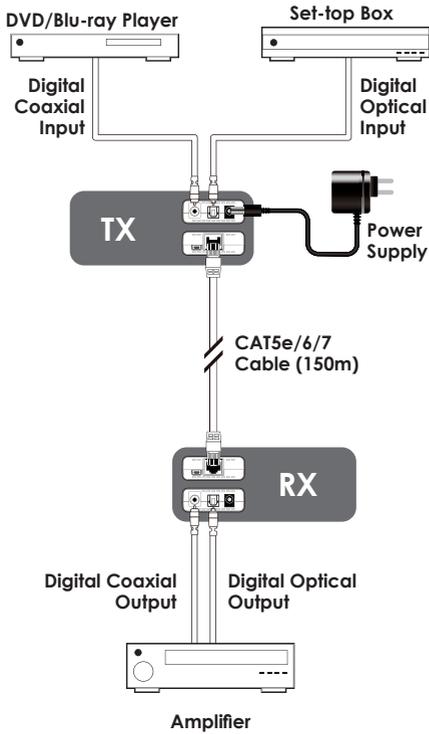
- 1 USB 5V**
Connect with a USB cable for power supply from computer or notebook.
- 2 CAT6 In**
Connect to the receiver unit with a single CAT6 cable.
- 3 Power LED**
The blue LED will light when the device is powered.
- 4 Coaxial Out**
Connect to an amplifier or active speakers with coaxial input.
- 5 Optical Out**
Connect to an amplifier or active speakers with optical input.
- 6 DC 5V**
Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

6.3 RJ45 Pin Assignment

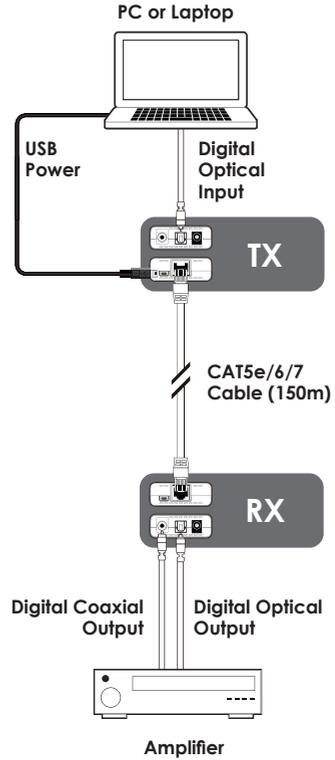
| TRANSMITTER | | | RECEIVER | |
|-------------|------------|--|----------|------------|
| Pin | Definition | | Pin | Definition |
| 1 | Signal A | CAT5e/6/7 150m  | 1 | Signal A |
| 2 | Signal B | | 2 | Signal B |
| 3 | Signal C | | 3 | Signal C |
| 4 | GND | | 4 | GND |
| 5 | GND | | 5 | GND |
| 6 | Signal D | | 6 | Signal D |
| 7 | DC 5V | | 7 | DC 5V |
| 8 | DC 5V | | 8 | DC 5V |

7. CONNECTION DIAGRAM

Example 1



Example 2



8. SPECIFICATIONS

TRANSMITTER

Input Ports 1×Coaxial, 1×Optical

Output Port 1×CAT6

RECEIVER

Input Port 1×CAT6

Output Ports 1×Coaxial, 1×Optical

CAT6 Cable Distance 150 m

Sample Rate 32/44.1/48/88.2/96 kHz

ESD Protection Human Body Model:
± 6kV (air-gap discharge)
± 4kV (contact discharge)

Power Supply 5 V/1 A DC (US/EU Standards, CE/FCC/UL certified)

Dimensions 22 mm (H)×70 mm (W)×50 mm (D)/each

Weight 50 g/each

Chassis Material Plastic

Silkscreen Color White

Operating Temperature 0 °C~45 °C/32 °F~104 °F

Storage Temperature -20 °C ~ 60 °C/-4 °F~140 °F

Relative Humidity 20~90% RH (non-condensing)

Power Consumption 2 W

9. ACRONYMS

| ACRONYM | COMPLETE TERM |
|---------|--|
| CAT5 | Category 5 Cable |
| CAT6 | Category 6 Cable |
| S/PDIF | Sony/Philips Digital Interconnect Format |



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