CH-110TX & CH-110RX

HDMI & IR over CAT6 Extender

Operation Manual

DISCLAIMERS

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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
RDV1	08/11/13	Preliminary Release

CONTENTS

1. INTRODUCTION

The HDMI & IR Transmitter and Receiver over ONE CAT6 is a tool for extending your HDMI & IR signal over long distances to a compatible display. Instead of using expensive HDMI cables, your existing CAT6 cables/sockets can be utilized to perform functions like transferring 8 bits/ color video and new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) digital audio, with a bandwidth up to 165MHz. The HDMI & IR Transmitter and Receiver, over ONE CAT6 extender is your substantial HDMI extender tool.

2. APPLICATIONS

- Distribute HDMI & IR signals over long distances
- Showroom display and control
- Hypermarket display and control
- Lecture room display and control

3. PACKAGE CONTENTS

- 1 x HDMI & IR Transmitter
- 1 x HDMI & IR Receiver
- 1 x IR Extender
- 1 x IR Blaster
- 2 x 5V DC Power Supply Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

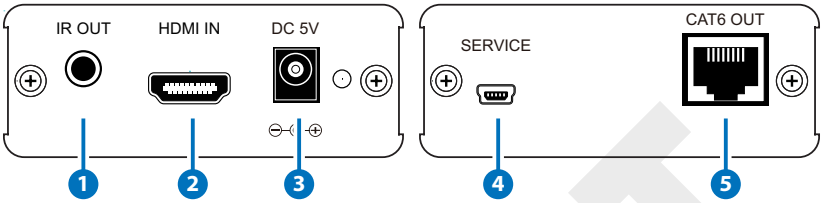
Input source equipment such as Blu-ray/DVD player and output connect to Receiver with HDMI display and CAT6 cable.

5. FEATURES

- HDMI, HDCP and DVI compliant
- Supports digital video formats with 3D at up to 24 bits (8 bits/color)
- Supports LPCM 7.1Ch, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission
- Uses CAT6 cable for data/DDC transmission
- Equalizes and recovers incoming TMDS data before re-transmitting it in optimal quality
- Supports distance up to 45 meters through CAT6 cable with 1080p 8bit
- Supports HDMI input up to 10 meters and output up to 15 meters at 1080p 8bit
- Supports xvYCC

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



1. **IR OUT:** Connect the IR Blaster cable included in the package for IR signal transmission. Pace the IR blaster in direct line-of-sight of the equipment to be controlled.
2. **HDMI IN:** 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-Box with an HDMI cable or link up with another receiver unit from the same family type to extend a signal over long distance.
3. **DC 5V:** Connect from 5V DC power supply into the unit and connect the adaptor to an AC outlet.
4. **SERVICE:** This slot is reserved for factory use only.
5. **CAT6 OUT:** Connect the CAT6 output of the Transmitter with the CAT6 input of the Receiver with CAT6 cable.

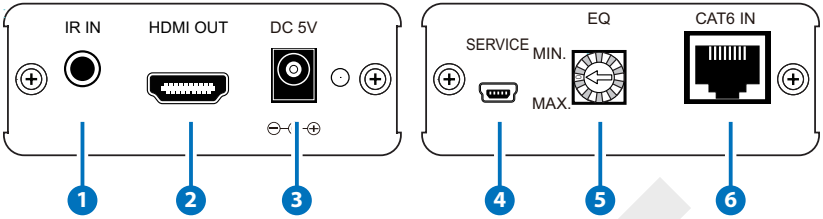
Note:

A. ***Cable tested with CAT6/23AWG/Solid, using cables of another types may result in different operating distance.***

B. ***Equipment used in cable distance testing included: PS3 120G, 37" Philips 8 bit LCD TV and 37" 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.***

6.2 Receiver Front and Rear Panels

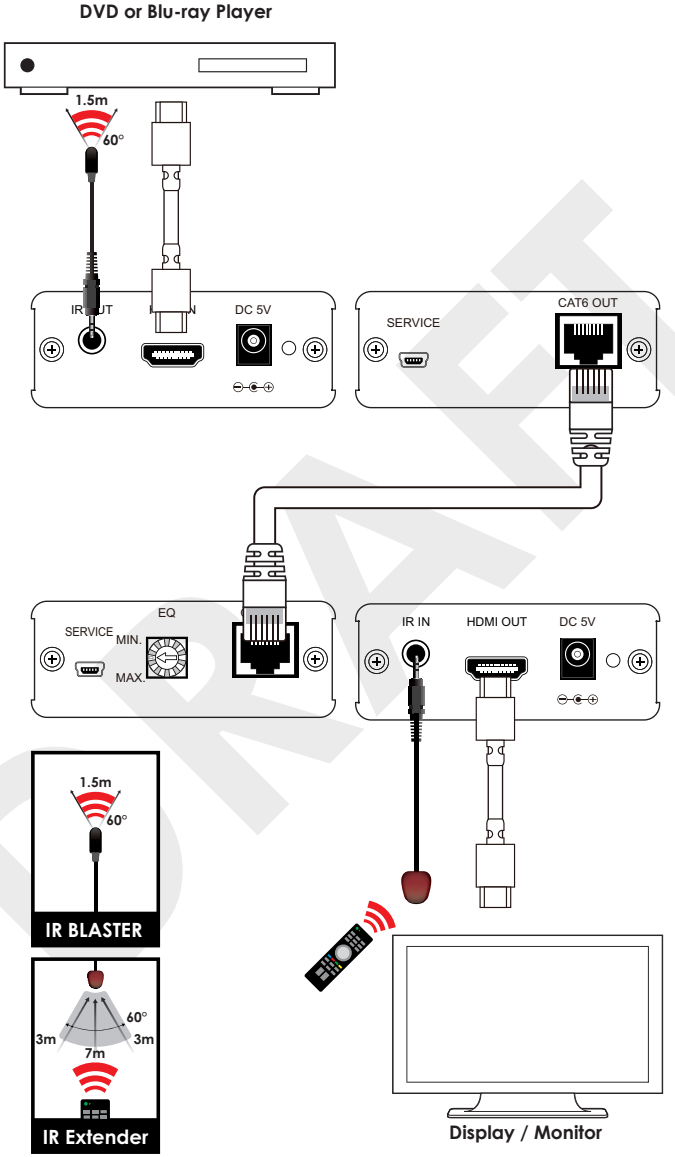


1. **IR IN:** Connect to the IR Extender for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR extender.
2. **HDMI OUT:** This slot is to connect the HDMI or DVI input port of your display such as an HDTV or HD monitor of liked up with another receiver unit from the same family type to extend a the signal over long distance.
3. **DC 5V:** Connect from 5V DC power supply into the unit and connect the adaptor to an AC outlet
4. **SERVICE:** This slot is reserved for factory use only.
5. **EQ MIN./MAX.:** Switch this HDMI equalize wheel from 0~7 to adjust HDMI signal strength from minimum to maximum.
6. **CAT6 IN:** Connect the CAT6 input of the Receiver with the CAT6 output of the Transmitter with CAT6 cable. The device will learn the EDID of the display when the power is connected.

6.3 EQ Selection Chart

Position	Transmission Distance
0	0~5M
1	5~10M
2	10~15M
3	15~20M
4	20~25M
5	25~30M
6	30~35M
7	35~45M (Default)

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Transmitter	
Input Ports	1 x HDMI, 1 Mini USB (for service only)
Output Ports	1 x IR Blaster, 1 x CAT6
Receiver	
Input Ports	1 x IR Extender, 1 x CAT6, 1 x Mini USB (for service only)
Output Ports	1 x HDMI
HDMI Cable Distance	I: 10M, O: 15M @ 1080p-8bit
CAT6 Cable Distance	45M@1080p-8bit
IR Frequency	30~50kHz
ESD Protection	Human body model: ±8kV (air-gap discharge) ±6kV (contact discharge)
Power Supply	5V / 1.2A DC (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	78.5(W) x 102(D) x 30(H)/Jacks Excluded 78.5(W) x 108.75(D) x 30(H)/Jacks Included/TX 78.5(W) x 110.5(D) x 30(H)/Jacks Included/RX
Weight(g)	196/Each
Chassis Material	Aluminum
Silkscreen Color	Silver
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)
Power Consumption	4.08W/TX, 2.88W/RX

9. ACRONYMS

ACRONYM	COMPLETE TERM
Dolby	Dolby Laboratories, Inc
DTS	Digital Theater System

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