



CH-526RX

HDMI Splitter with Audio over CAT5e/6/7 Receiver



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
VR0	19/03/15	Preliminary Release

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1. INTRODUCTION

This HDMI and Audio over Single CAT5e/6/7 Receiver/Splitter can receive uncompressed audio/video and data over a single run of CAT5e/6/7 cable, from a Transmitter, up to distances of 100m. It has the added benefit of simultaneous dual HDMI outputs with audio de-embedding to a balanced or digital coaxial audio output and 2 bi-directional LAN serving connections, allowing devices such as Smart TVs or games consoles to share a Internet connection. The unit has a bidirectional PoC (Power over Cable) function that can power or be powered by a compatible transmitter allowing for greater flexibility in installations.

2. APPLICATIONS

- Extending incoming signal from CAT5e/6/7 to HDMI outputs
- Extending incoming signal from CAT5e/6/7 to both analog and digital audio outputs
- Lecture room/Showroom/Meeting room/Classroom display and control

3. PACKAGE CONTENTS

- 1 x HDMI Splitter with Audio over Single CAT5e/6/7 Receiver
- 1 x IR Receiver
- Operation Manual

4. SYSTEM REQUIREMENTS

HDBaseT compatible Transmitter input and output display with HDMI input jack.

5. FEATURES

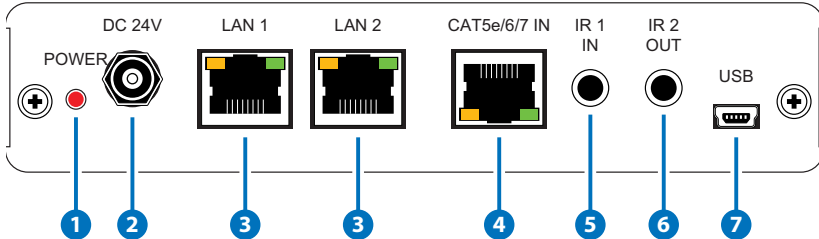
- Supports full range HDTV and PC output resolutions up to 4K2K and WUXGA (RB)
- Receive uncompressed data over a single 100 m/328 ft CAT5e/6/7 cable
- 5Play™ convergence: Video, Audio, LAN, Bidirectional PoC & Control (IR & RS-232 bypass)
- Supports bidirectional IR, Remote control and RS-232 (bypass)
- Provide with 24V DC power to or received from compatible PoC Transmitter through CAT5e/6/7
- Supports Ethernet transmission rate up to 100Mbps
- Supports Balanced analog audio output (R/L) and HDMI input audio sampling rate up to 192kHz
- Support coaxial digital audio up to 192kHz

Note:

1. *The PoC function is designed for powering compatible Transmitter units only—non-PoC Transmitter will need their own power supply. Transmitters of another brand may not be compatible.*
2. *DO NOT connect the CAT5e/6/7 port with Transmitter's LAN/CONTROL port. Doing so may trigger power shoot down and ruin the device.*

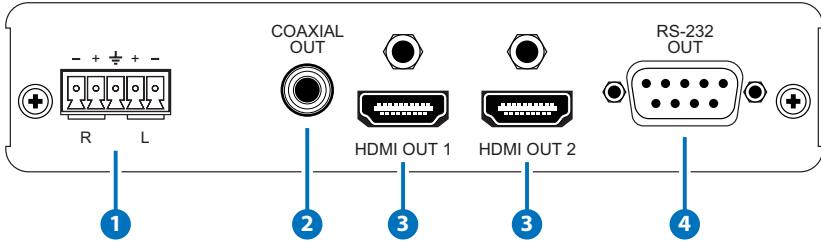
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



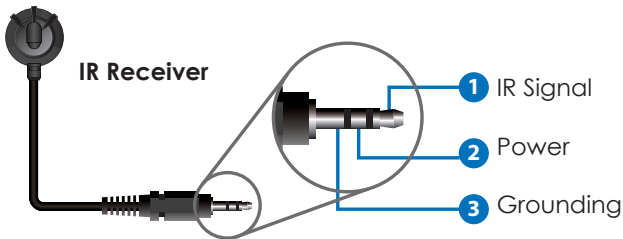
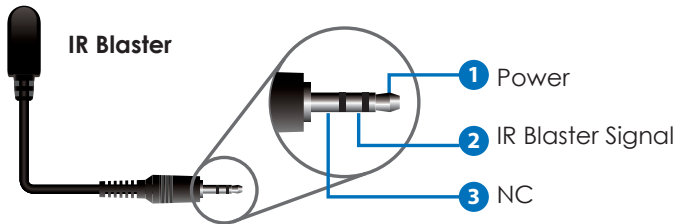
- 1 Power LED:** This LED will illuminate when the device is connected to a power supply.
- 2 DC 24V:** Plug the 24 V DC power supply into the unit and connect the adaptor to an AC outlet. Only one side of power is needed to activate both Transmitter and Receiver when both obtain the PoC function.
- 3 LAN 1/2:** Connect to an active network for LAN sharing of a total transmission rate up to 100Mbps. Or when a compatible LAN equipped Transmitter is connected to an active network, this allows the network access (including internet access if available) to be shared between the Transmitter and Receiver. Connect any Ethernet equipped device e.g. a Smart TV or games console to the LAN port for that device to share the network internet access.
Note: DO NOT connect this slot with any of the CAT5e/6/7 port. Doing so may trigger power shoot down and ruin the device.
- 4 CAT5e/6/7 IN:** Connect from the Transmitter unit with a Single CAT5e/6 cable for receiving all data signals.
- 5 IR IN:** Connect to the supplied IR Receiver cables for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR Extender.
- 6 IR OUT:** Connect to the supplied IR Blaster cable for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.
- 7 USB:** This port is reserved for firmware update only.

6.2 Rear Panel



- 1 Balanced Analog R/L OUT:** Connect to an amplifier or active speaker with 3.5mm terminal block jack for audio output.
- 2 COAXIAL OUT:** Connect to an amplifier or active speaker with coaxial cable for audio output.
- 3 HDMI OUT 1/2:** These slots are to connect with HDMI TV/Monitor for output image display.
- 4 RS-232 OUT:** This slot is to connect with D-Sub 9-pin cable from device equipment for receiving RS-232 commands.

6.3 IR Cable Pin Assignments





6.4 D-Sub 9 Pin Definition

Pin	Define TX/RX
1	N/C
2	TxD / RxD
3	RxD / TxD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C



8. SPECIFICATIONS

Ethernet Speed	100 Mbps
Video Bandwidth	340MHz / 10.2Gbps
Input Ports	1x CAT5e/6/7, 1 x IR Extender
Output Ports	2 x HDMI, 1 x Coaxial, 1 x Balanced Analog (R/L), 1xIR Blaster, 1 x RS-232, 2xLAN
CAT5e/6/7 Output Cable Distance	Up to 100 Meters
HDMI Input/Output Cable Distance	Up to 10 Meters@1080p or 5 Meters@4K2K
HDMI output Resolution	Up to 4K2K@24/25/30 & 4K2K@50/60 (YUV 420)
Audio Sampling Rate	Up to 96 kHz / Balanced Analog Up to 192 kHz / Coaxial & HDMI
IR Frequency	30~50 kHz
ESD Protection	Human body model: ±8kV (air-gap discharge) ±6kV (contact discharge)
Power Supply	24 V/1.25 A DC (US/EU standards, CE/ FCC/UL certified)
Dimensions (mm)	145 (W) x 115 (D) x 30(H)/Jack Excluded 145 (W) x 128 (D) x 30(H)/Jack Included
Weight (g)	394
Chassis Material	Aluminum
Silkscreen Color	Black
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	12w

8.1 CAT5/6/7 Cable Specification

Cable Type	Range	Pixel clock rate	Video Data Rate	Supported Video
CAT5e/6/7	100 m	<=225 MHz	<=5.3 Gbps (HD Video)	Up to 1080p, 60 Hz, 36 bits, 3D (data rates lower than 5.3 Gbps or below 225 MHz TMDS clock).
CAT7	100m	>225 MHz	> 5.3 Gbps (Ultra HD Video)	4K2K, 30Hz video formats
CAT5e/6	70m			

9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT 5e	Category 5 Cable
CAT6	Category 6 Cable
CAT7	Category 7 Cable
HDMI	High-Definition Multimedia Interface
IR	Infrared
WUXGA (RB)	Widescreen Ultra Extended Graphics Array (Reduce blanking)



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