



SPC-7C1H-HDTL

1 by 8 HDMI over HDMI & CAT5e/6/7 Splitter



Operation Manual

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	15/01/14	Preliminary Release

CONTENTS

1. Introduction.....	1
2. Applications.....	1
3. Package Contents	1
4. System Requirements.....	1
5. Features.....	2
6. Operation Controls and Functions.....	3
6.1 Front Panel.....	3
6.2 Rear Panel.....	3
6.3 IR Cable Pin Assignment.....	5
7. Connection Diagram	6
8. Specifications	7
8.1 CAT5e/6/7 Cable Specification	8
9. Acronyms	8



1. INTRODUCTION

The HDMI over HDMI and CAT5e/6/7 Splitter can split and distribute a single HDMI input and 2-way IR control up to seven CAT5e/6/7 outputs and includes a simultaneous HDMI bypass output. It supports resolutions up to 1080p Full HD, 4K×2K timing, 3D and multi-channel digital audio formats (such as LPCM 7.1CH, DoI-by TrueHD, Dolby Digital Plus and DTS-HD). The HDMI bypass output can be connected to an HDMI display or cascaded to another splitter. The CAT5e/6/7 outputs can be connected to CAT5e/6/7 to HDMI Receivers to extend the operating distance up to 60 meters.

2. APPLICATIONS

- Household entertainment sharing and control
- Lecture room display and control
- Showroom display and control
- Meeting room presentation and control
- Classroom display and control

3. PACKAGE CONTENTS

- HDMI over HDMI & CAT5e/6/7 Splitter
- IR Receiver x 1
- IR Blaster x 1
- 24V DC Power Adaptor
- Power Cord
- Operation Manual

4. SYSTEM REQUIREMENTS

- Source equipment with HDMI output connector
- Display TV/Monitor with HDMI input connector
- HDMI over CAT5e/6/7 Receivers with industry CAT5e/6/7 cables

5. FEATURES

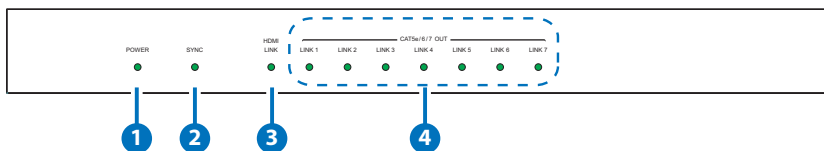
- HDMI with 3D & 4Kx2K supported, HDCP and DVI compliant
- Simultaneous HDMI and CAT5e/6/7 outputs
- Supports one HDTV and seven CAT5e/6/7 outputs
- Supports data rate from 250Mbps up to 3Gbps
- Supports wide range of PC resolutions from VGA to WUXGA and HDTV resolutions up to 4Kx2K (3840x2160@24/25/30Hz and 4096x2160@24Hz).
- Supports LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission (32-192kHz sample rate)
- Supports distances up to 60 meters through CAT5e/6/7 cables
- Supports selection of Standard or TV EDID settings
- Supports USB service port
- Supports Bidirectional IR control
- The 3D signal display follow by display TV's EDID

Note:

- 1. This system was tested with CAT6/23AWG cables, results may vary with cables of a different specification.*
- 2. Displaying HDMI 4Kx2K resolution require the standard 4Kx2K HDMI cable and display in order for proper image displaying.*

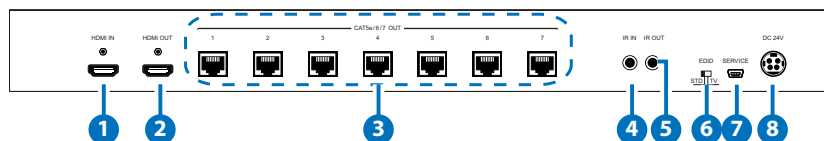
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- 1 POWER LED:** Once the power supply is connected the LED will illuminate.
- 2 SYNC:** This LED will illuminate when the HDMI input port connected to an active source.
- 3 HDMI LINK:** This LED will illuminate when HDMI output is connected to TV or display monitor.
- 4 LINK 1~7:** The link LED will illuminate when both the input source and output display signals are connected through CAT cable.

6.2 Rear Panel



- 1 HDMI IN:** Connect with source equipment such as DVD/Blu-ray or PS3 player.
- 2 HDMI OUT:** Connect to HDMI display for instant image display or cascade with another family type Transmitter.
- 3 CAT5e/6/7 OUT 1~7:** Connect these ports to CAT5e/6/7 to HDMI Receivers with CAT5e/6/7 cable to extend the signal up to 60m.
- 4 IR IN:** Connect with IR Extender to receive IR signal from Transmitter side and blast out at Receiver side. Ensure that remote controller being used is within the direct line-of-sight of the IR Extender.
- 5 IR OUT:** Connect with IR Blaster to blast out the IR signal received from the Receiver side. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.

- 6 EDID STD/TV:** The default factory setting is on TV, leave as it is when the display is properly. The unit will detect the 1st CAT5e/6/7 output's EDID when it obtain a 4Kx2K EDID and send out the signal accordingly to other output ports. If the 1st CAT5e/6/7 output is without a 4Kx2K's EDID the unit will detect all output's EDID and send out the signal that all outputs can accept.

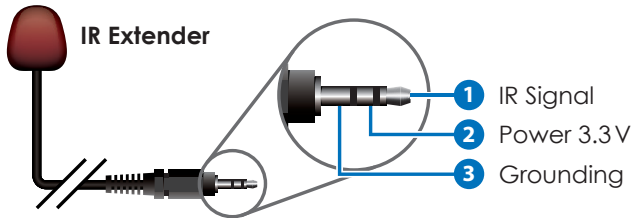
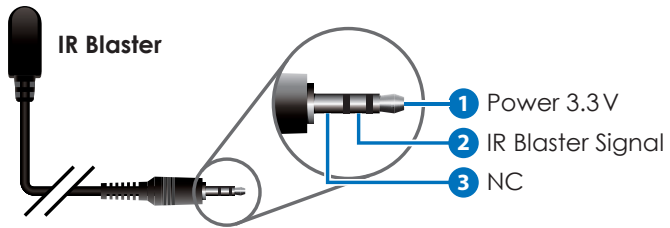
This device obtain the last memory function therefore, the device will use the last output port 1's EDID when output port 1 is not connected to a display after power cycling or switching in between the EDID setting.

Switch to STD to use build-in EDID if the display has problem.

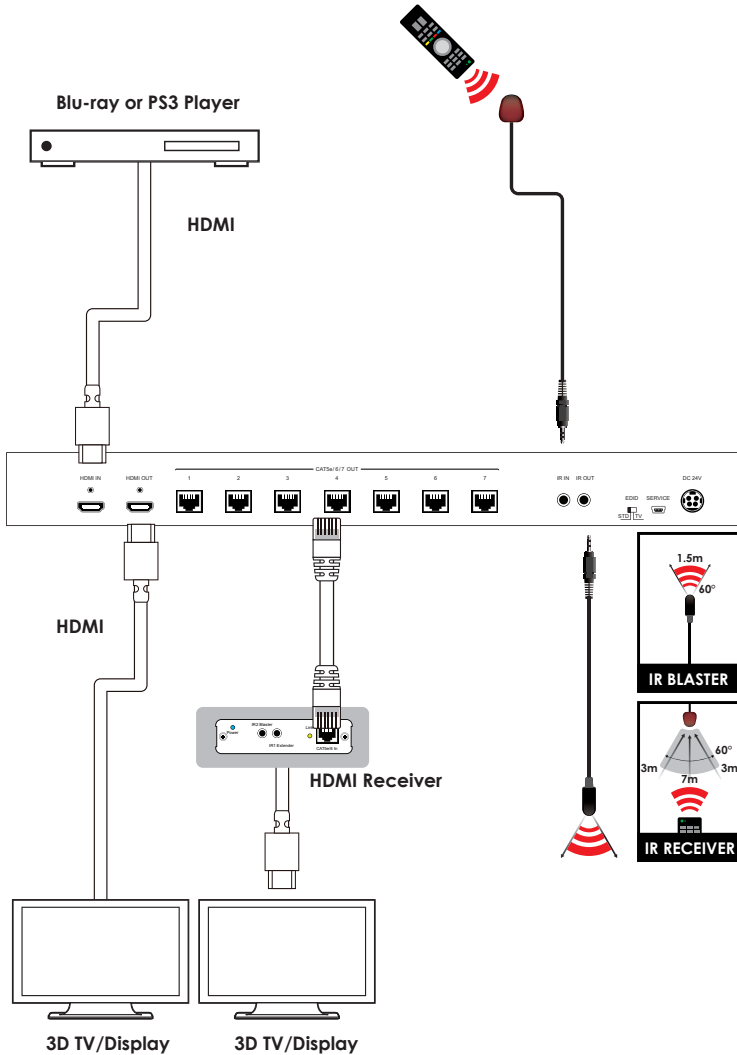
STD EDID's video at 1080p@60Hz and audio at LPCM 2CH.

- 7 SERVICE:** This slot is reserved for factory service only.
- 8 DC 24V:** Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet.

6.3 IR Cable Pin Assignment



7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Video Bandwidth	340Mbps/10.2Gbps
Input ports	1 x HDMI, 1 x IR IN, 1 x USB (Service only)
Output ports	1 x HDMI, 1 x IR OUT, 7 x CAT5e/6/7
Resolution	Up to 4Kx2K (3840x2160@24/25/30Hz/4096x2160@24Hz)
HDMI Input & Output Cable Distance	Up to 10m@1080p 8/12-bit
CAT5e/6/7 Output Cable Distance	Up to 60m
IR Frequency	30~50kHz
Power Supply	24V / 2.7A DC (US/EU standards, CE/FCC/UL certified)
Dimensions	432mm(W) x 173 mm(D) x 44 mm(H)/ Jacks Excluded 432mm(W) x 179 mm(D) x 49 mm(H)/ Jacks Included
Weight	2122 g
Chassis Material	Metal
Silkscreen Color	Black
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 60°C / -4 °F ~ 140 °F
Relative Humidity	20 ~ 90% RH (non-condensing)
Power Consumption	32W

8.1 CAT5e/6/7 Cable Specification

Cable Type	Range	Pixel clock rate	Video Data Rate	Supported Video
CAT5e/6/7	60 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 225MHz TMDs clock)
	40 m	>225 MHz	> 5.3 Gbps (Ultra HD Video)	4K2K, 30Hz video formats
CAT6/7	60 m	>225 MHz	> 5.3 Gbps (Ultra HD Video)	4K2K, 30Hz video formats

9. ACRONYMS

ACRONYM	COMPLETE TERM
4Kx2K	3840x2160 / 4096x2160
DTS	Digital Theater System
EDID	Extended Display Identification Data
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television

PhD Solutions Product Warranty

Should you feel your product does not function adequately due to defects in materials or workmanship, PhD Solutions (hereby referred to as “the warrantor”) will, for the length of the period indicated below:

a) Repair the product with new or refurbished parts.

or

b) Replace it with a new or refurbished product.

Limited Warranty Period

Commencing from the original date of purchase, all PhD Solutions products are covered by a **one year PARTS and LABOUR** warranty depending on the product.

Please contact your PhD Solutions dealer for details.

During this period there will be no charge for unit repair, replacement of parts, unit components or replacement of product if necessary. The decision to repair or replace will be made by the warrantor. The purchaser must mail-in or return the product to PhD Solutions during the warranty period.

This limited warranty only covers the product purchased as new and is extended to the original purchaser only. It is non-transferable to subsequent owners, even during the warranty period.

A purchase receipt or other proof of original purchase date is required for the limited warranty service.

IF REPAIR IS NEEDED DURING THE LIMITED WARRANTY PERIOD THE PURCHASER WILL BE REQUIRED TO PRODUCE A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE.

Please note: THE CUSTOMER WILL BE CHARGED FOR PARTS OR REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.

Product Service Provided

1. Damage requiring service

All units should be serviced by a PhD Solutions qualified service person.:

2. Servicing Personnel

Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorised PhD Solutions servicing personnel.

Return to Supplier

When shipping the unit, carefully pack and send it prepaid (preferably in the original packaging) with a tracking number and adequate insurance. Please include a document or letter detailing the reason for return and include a daytime telephone number and/or email address where you can be contacted.

If repair is required during the limited warranty period, the purchaser will be required to provide a sales receipt or other proof of purchase, indicating date and location of purchase as well as the price paid for the product. The customer will be charged for the repair or replacement of any unit received unless such information is provided.

Warranty Limits and Exclusions

1. This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship and DOES NOT COVER normal wear and tear or cosmetic damage.

The limited warranty also DOES NOT COVER damage that occurs in shipment or failures caused by products not supplied by the warrantor.

Failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, incorrect installation, set-up adjustment, implementation of/to consumer controls, improper maintenance, power line surge, lightening damage, Electro static discharge (ESD), modification, service by anyone other than a manufacturer-approved service centre or factory-authorized personnel, or damage attributable to acts of God.

2. There are no express warranties except as listed under "limited warranty coverage." The warrantor is not liable for incidental or consequential damage resulting from the use of this product or arising out of any breach of this warranty.

- For example: damage for lost time, the cost of having a person/persons remove or re-install previously installed equipment, travel to and from service location, loss of or damage to media, images, data or other recorded/stored content.

ANY PARTS AND SERVICE NOT COVERED BY THIS LIMITED WARRANTY ARE THE RESPONSIBILITY OF THE CUSTOMER.

PhDSOLUTIONS

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