

# SP-5008I

1x8 HDMI Splitter over IP with local out

## User Manual



Full HD  
1080

WUXGA  
x1920  
x1200

 **x.v.Color**  
**HDCP**™  
HIGH-DEFINITION CONTENT PROTECTION

**7.1 CH**  
**AUDIO**  
**CAT-5e/6/7**  
**SINGLE**  
**PATENTED**



rev: 140829  
Made in Taiwan



## Safety and Notice

The **SP-5008I 1x8 HDMI Splitter over IP with local out** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **SP-5008I** should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



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# INTRODUCTION

The **SP-5008I 1x8 HDMI Splitter over IP with local out** provides the most flexible solution by which the high definition video and high quality audio can be transmitted to different locations over a long distance up to 100m(330ft). The devices are cascable, allowing you to extend HDMI compliant displays almost anywhere. The input HDMI source can be duplicated and distributed to up to 8 HDMI enable displays through cost effective Cat-5/5e/6 cables with HDMI over IP receivers (CV-57I-RX and/or SP-5022I). For convenience, SP-5008I is also equipped a local HDMI output for monitoring.

Besides, integrating SP-5022I, each receiver can further daisy chain to two receivers for a 10 layer “daisy chain” for up to 1000M or even longer. Up to 100 TVs, displays or projectors can be supported. The SP-5008I is designed to simplify cabling of digital signage and commercial installation

## FEATURES

- Support HDMI 1.3
- DVI 1.0 compliant
- Resolution up to 1080p or WUXGA (1920x1200) with 7.1 ch Audio
- Extends up to 100m(330ft) of output Cat.X solid UTP cable under Full HD (1080P)
- Max. Display connected: Suggest under 100 displays
- Max. Daisy Chain Layer: Suggest under 10 layers
- Easy installation



Automatic EDID learning will detect all the connected HDMI equipped monitors and analyze all the content of EDID. The EDID with minimal resolution support will be the reference EDID for incoming HDMI source players.

## PACKAGE CONTENTS

- 1x SP-5008I
- 1x Rack-mounting ear set
- 1x DC 5V 4A in-line with C7 power cord
- 1x User Manual

# SPECIFICATIONS

Model Name	SP-5008I	
<b>Technical</b>		
Role of usage	1x8 Distribution Amplifier Transmitters[TX]	
HDMI compliance	HDMI 1.3	
DVI compliance	DVI 1.0	
HDCP compliance	Yes	
Video bandwidth	Single-link 225MHz [6.75Gbps]	
Video support	Up to WUXGA [1920x1200@60Hz] & FullHD [1080p@60Hz]	
HDMI over UTP transmission [24-bit]	Full HD (1080p)-100m (330ft) [CAT.X]	
Audio support	Surround sound (up to 7.1ch) or stereo digital audio	
ESD protection	[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±2kV	
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]	
Input TMDS signal	1.2 Volts [peak-to-peak]	
Input DDC signal	5 Volts [peak-to-peak, TTL]	
Input	1x HDMI	
Output	8x RJ-45 + 1x HDMI	
HDMI connector	Type A [19-pin female]	
RJ45 connector	WE/SS 8P8C with 2 LED indicators	
<b>Mechanical</b>		
Housing	Metal enclosure	
Dimensions [L x W x H]	Model	TBA
	Package	TBA
	Carton	TBA
Weight	Model	TBA
	Package	TBA
Fixedness	1RU rack-mounting case with ears	
Power supply	5V 4A DC	
Power consumption	10 Watts [max]	
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	

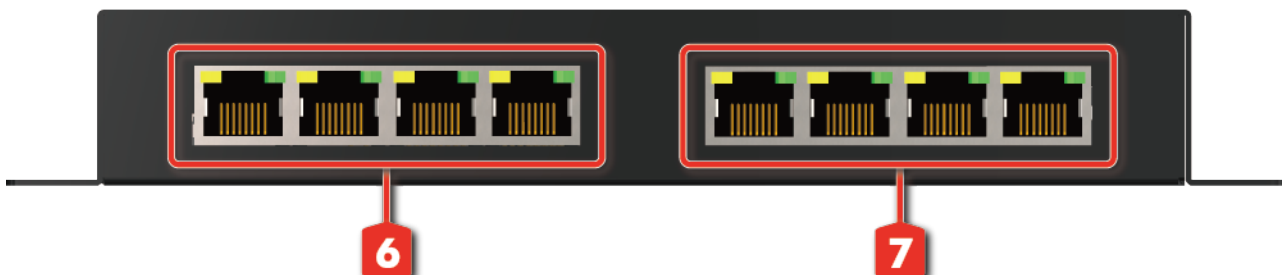
# PANEL DESCRIPTIONS

## Front Panel



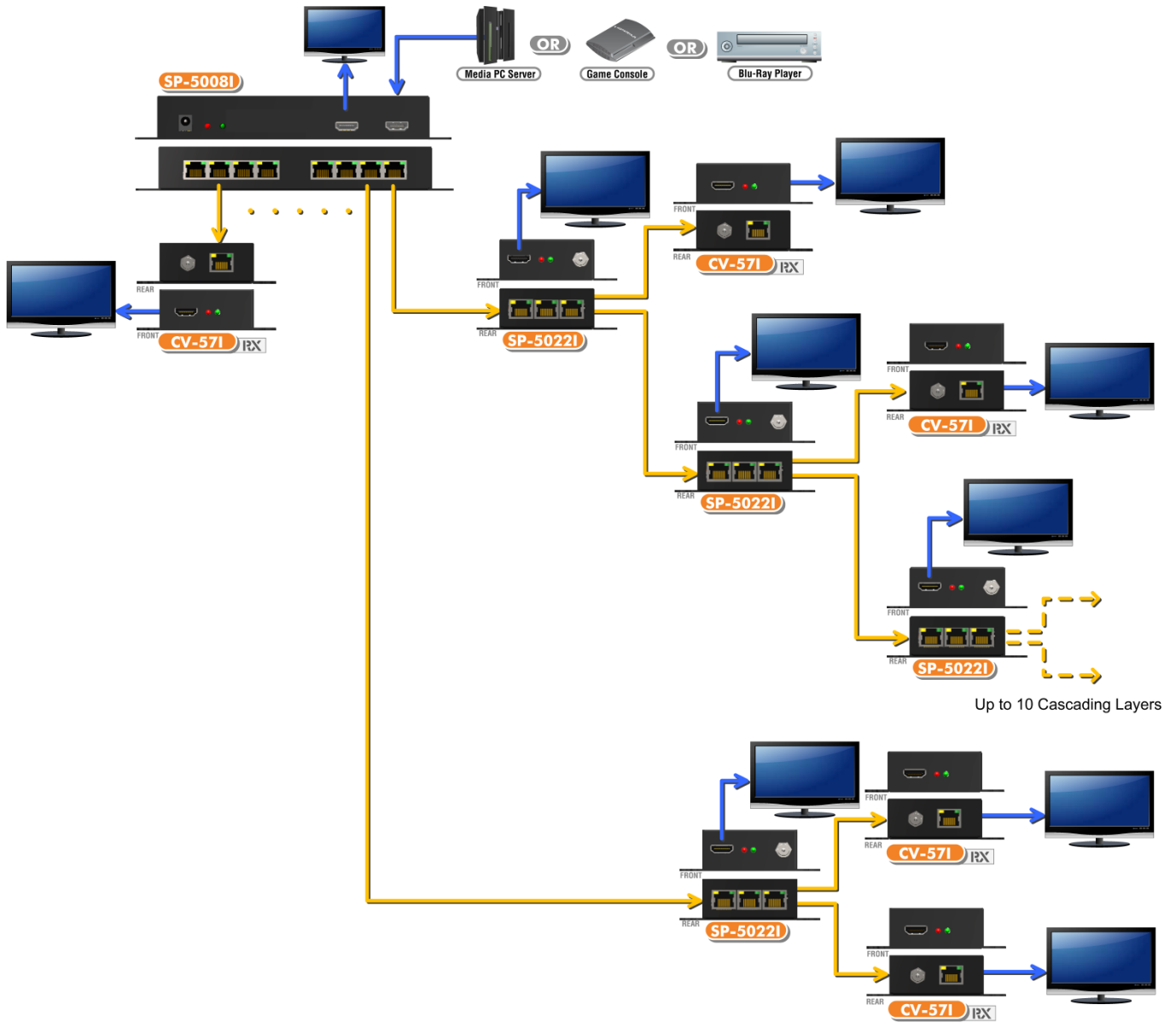
1. **+5V DC:** Connect to 5V DC power supply
2. **Power LED Indicator:** Power LED indicator
3. **Signal LED Indicator:** Signal LED indicator
4. **HDMI Local Out:** Connect to a HDMI display with a HDMI male-male cable.
7. **HDMI IN:** Connect to a HDMI input source

## Rear Panel



8. **Output Port 1-4:** RJ-45 outputs for each output channel
9. **Output Port 5-8:** RJ-45 outputs for each output channel

# CONNECTION DIAGRAM



# HARDWARE INSTALLATION

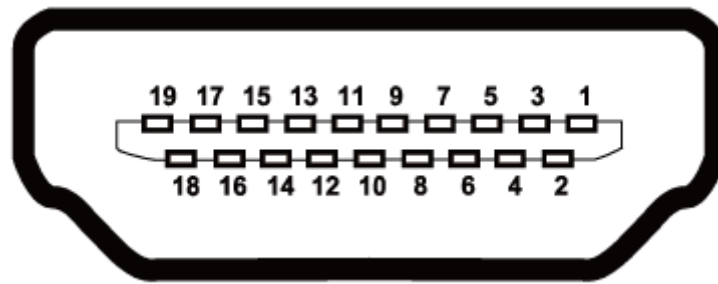
1. Connect HDMI/DVI video source to SP-5008I with HDMI cable
2. Connect all HDMI/DVI displays to each SP-5022I or CV-57I-RX with HDMI cable
3. Connect the Cat.X cable between SP-5022I / CV-57I-RX and SP-5008I
4. Power on SP-5008I and SP-5022I / CV-57I-RX
5. Power on source and displays

## EDID LEARNING

1. Keep pushing receiver EDID button
2. Unplug and plug-in power to reboot receiver
3. Release EDID button till screen show OSD "EDID copy success"
4. Receiver will send display EDID to sender for ensuring correct video format output from video source

# PIN DEFINITION









## HDMI

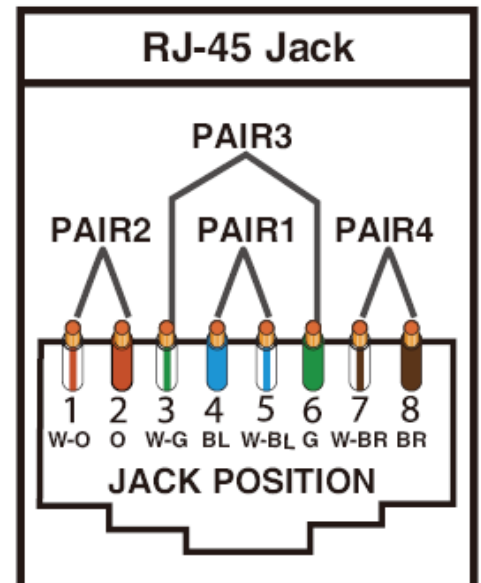


Type A (Receptacle) HDMI

Pin 1	TMDS Data2+	Pin 11	TMDS Clock Shield
Pin 2	TMDS Data2 Shield	Pin 12	TMDS Clock-
Pin 3	TMDS Data2-	Pin 13	NC
Pin 4	TMDS Data1+	Pin 14	Reserved (N.C. on device)
Pin 5	TMDS Data1 Shield	Pin 15	SCL
Pin 6	TMDS Data1-	Pin 16	SDA
Pin 7	TMDS Data0+	Pin 17	DDC/CEC Ground
Pin 8	TMDS Data0 Shield	Pin 18	+5V Power
Pin 9	TMDS Data0-	Pin 19	Hot Plug Detect
Pin 10	TMDS Clock+		

## RJ45 / Cat.X

Data Link TIA/EIA-568-B		
PIN	Color	Function
1	 W-O	TX0-
2	 O	TX0+
3	 W-G	TX1-
4	 BL	TX2-
5	 W-BL	TX2+
6	 G	TX1+
7	 W-BR	TXC-
8	 BR	TXC+





# NOTICE

1. If the DVI or HDMI device requires the EDID information, please use EDID Reader/Writer to retrieve and provide DVI or HDMI display EDID information.
2. All HDMI over CAT5 transmission distances are measured using Belden 1583A CAT5e 125MHz UTP cable and ASTRODESIGN Video Signal Generator VG-859C & VG-870B.
3. The transmission length is largely affected by the type of Cat-5/5e/6 cables, the type of HDMI sources, and the type of HDMI display. The testing result shows solid UTP cables (usually in the form of 300m [1,000ft] bulk cables) can transmit a lot longer signals than stranded UTP cables (usually in the form of fixed length patch cords). Shielded STP cables are better suited than unshielded UTP cables. A solid UTP Cat-5e cable shows longer transmission range than stranded STP Cat-6 cable. For long extension applications, solid UTP/STP cables are the only viable choice.
4. EIA/TIA-568-B termination (T568B) for Cat-5/5e/6 cables is recommended.
5. To reduce the interference among the unshielded twisted pairs of wires in Cat-5/5e/6 cable, one can use double shielded STP cables to improve EMI problems, which is worsen in long transmission.
6. Because the quality of the category cables has the major effect on how long the transmission limit can achieve and how good is the received picture quality, the actual transmission range is subject to one's choice of Cat-5/5e/6 cables. For desired resolutions greater than 1080i or 1280x1024, a Cat-6 cable is recommended.
7. If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input [HDMI input 1] generally can produce better transmission performance among all HDMI inputs.



## Performance Guide for HDMI over Category Cable Transmission

Performance rating		Type of category cable		
Wiring	Shielding	CAT5	CAT5e	CAT6
Solid	Unshielded (UTP)	★★★	★★★★★	★★★★★
	Shielded (STP)	★★★	★★★	★★★★
Stranded	Unshielded (UTP)	★	★★	★★
	Shielded (STP)	★	★	★★
<b>Termination</b>		Please use <b>EIA/TIA-568-B</b> termination ( <b>T568B</b> ) at any time		

# WARRANTY

The SELLER warrants the **SP-5008I 1x8 HDMI Splitter over IP with local out** free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surge. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables and power adapters are limited to a 30 day warranty and must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the SP-5008I features and specifications is subject to change without further notice.**