

SP-5104

1x4 HDMI Splitter with EDID Manager

User Manual



rev: 111125
Made in Taiwan



Safety and Notice

The **SP-5104 1x4 HDMI Splitter with EDID Manager** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **SP-5104** 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-5104 1x4 HDMI Splitter with EDID Manager** allows you to distribute one HDMI/DVI video sources up to 4 separate HDTV displays. This splitter offers the most flexible solution by which the high definition video and high quality audio can be transmitted to different local locations through HDMI cables and also to the next stage over a long distance without degrading the quality. The cascade ability allows pure digital video and audio broadcast station by station and therefore make extending HDMI compliant video and audio anywhere feasible. In addition, EDID management can allow you to switch setting between different EDID quickly and flexibly.

FEATURES

- State-of-the-art Silicon Image (founder of HDMI) chipset embedded for upmost compatibility and reliability
- Support HDMI Deep Color & 3D
- HDCP compliant
- HDMI 3D video support wide frequency range 25MHz-225MHz
- HDMI video distribution to up to 4 displays and cascade to another SP-5104
- Regenerates the HDMI signal
- Supports default HDMI EDID and has the ability to learn the EDID of displays
- Input up to 15m (50ft) using HDMI cables
- Outputs up to 15m (50ft) using HDMI cables
- Allows cascading
- Perfectly integrated with other HDMI over Cat.X series products

PACKAGE CONTENTS

- 1x SP-5104
- 1x DC 5V 4A in-line with C7 power cord
- 1x User Manual

SPECIFICATIONS

Model Name	SP-5104	
Technical		
Role of usage	1x4 Distribution Amplifier (Splitter)	
HDMI compliance	HDMI Deep Color & 3D	
HDCP compliance	Yes	
Video bandwidth	Single-link 225MHz [6.75Gbps]	
Video support	Up to WUXGA [1920x1200@60Hz] & UXGA [1600x1200@60Hz]	
Audio support	DTS-HD Master Audio, Dolby TrueHD Dolby Digital, DTS, DVD-Audio, LPCM, SACD, MPCM	
Input TMDS signal	1.2 Volts [peak-to-peak]	
Input DDC signal	5 Volts [peak-to-peak, TTL]	
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	1x HDMI	
Output	4x HDMI	
HDMI connector	Type A [19-pin female]	
Switch number	4	
Mechanical		
Housing	Metal enclosure	
Dimensions [L x W x H]	Model	195 x 110 x 27mm [7.7" x 4.3" x 1.1"]
	Package	330 x 200 x 95mm [1'1" x 7.9" x 3.7"]
	Carton	495 x 440 x 380mm [1'7" x 1'5" x 1'3"]
Weight	Model	600g [1.3 lbs]
	Package	1250g [2.8 lbs]
Fixedness	Wall-mounting case with screws	
Power supply	5V 4A DC	
Power consumption	4 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. **Power:** Power detection Indicator
2. **Signal:** Signal detection Indicator

Rear Panel



3. **power +5V DC:** connect to 5V 4A DC interlocking power adapter
4. **HDMI INPUT:** for cascading from HDMI source
5. **HDMI OUT 1 ~ 4:** for connecting to display through HDMI cable or through Cat-5e cable with our HDMI over Cat-5e extender

Top Panel



6. **SW1:** EDID Mode
7. **SW2:** EDID - Full HD/HD Selection
8. **SW3:** EDID - Audio Selection
9. **SW4:** EDID - Output Format Selection

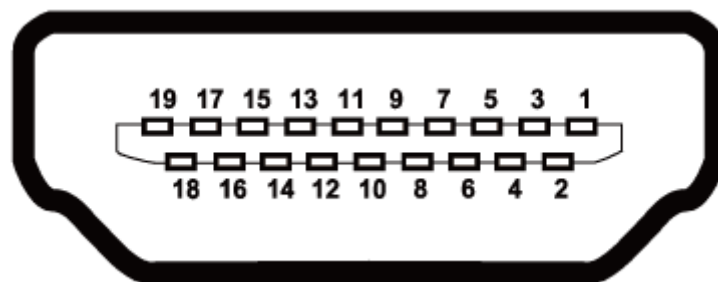
SWITCH SETTING

	Left Position	Right Position
SW1	Default EDID	EDID Learning
SW2	Full HD	HD
SW3	Audio - Multi Channel	Audio - 2 Channel
SW4	12 bit (Deep Color)	8 bit

EDID LEARNING

1. Power up the SP-5104. Connect to **HDMI OUT4** with the display you want the SP-5104 to learn its EDID.
2. The SP-5104 is only bound to learn the EDID from the display for the HDMI source device connected to **HDMI OUT4**.
3. To learn the display's EDID for source device connected to **HDMI OUT4**, Set **SW1** to Right Position. Power on and wait for about 5 seconds to complete the EDID learning process.

HDMI PIN DEFINITION



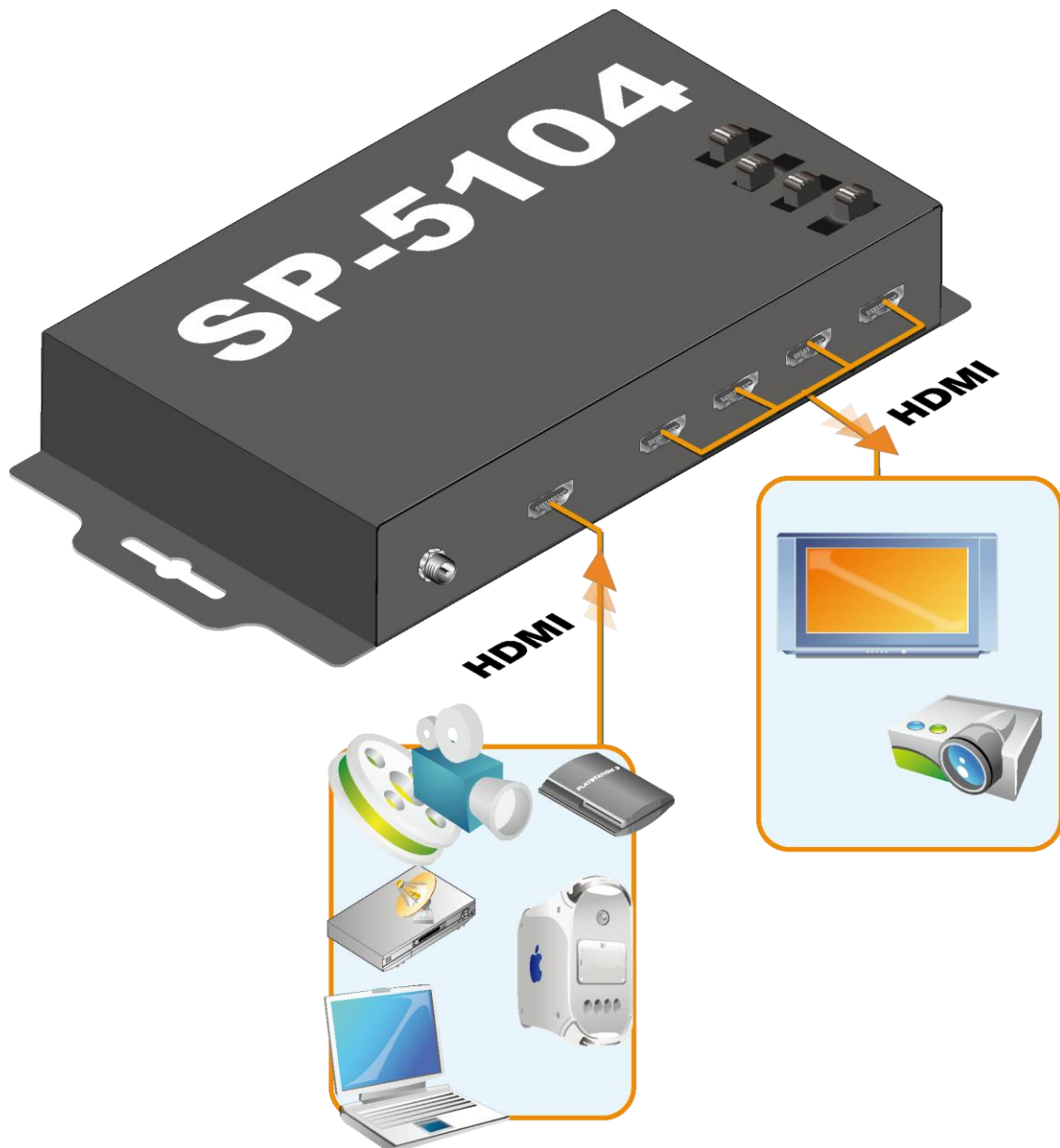
Type A (Receptacle) HDMI

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

HARDWARE INSTALLATION

1. Connect HDMI input to HDMI compliant sources (such as a Blu-ray Disc player)
2. Connect all HDMI outputs to the HDMI displays
3. Plug in 5V 4A DC power supply.
4. Power on the SP-5104
5. Power on the HDMI displays.
6. Power on the HDMI source(s).

CONNECTION DIAGRAM



WARRANTY

The SELLER warrants the **SP-5104 1x4 HDMI Splitter with EDID Manager** 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-5104** features and specifications is subject to change without further notice.