KanexPro®

SP-1X4SL18G

HDMI 2.0 1x4 Splitter with 4K to 1080P Down-scaling

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MPN# SP-1X4SL18G

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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.

Packing List

- 1x HDMI 2.0 1x4 Splitter
- 4x Plastic Cushions
- 1x Power Adapter (5V DC 1A)
- 1x User Manual

Note: Please contact your distributor immediately if any damage or defect in the components is found.

Product Introduction

Thanks for choosing the HDMI 2.0 1x4 Splitter, which can distribute one HDMI input to four outputs. The splitter supports HDMI video resolution up to 4K@60Hz 4:4:4, 1080P 3D, and multichannel audio formats. Besides passing EDID information from the display, there are multiple built-in EDID settings can be selected by the 4-pin DIP switch on the front panel. Moreover, the splitter supports convenient firmware upgrade through Micro-USB port.

Features

- Supports HDMI 2.0 and the video resolution up to 4K@60Hz 4:4:4.
- HDMI input supports HDCP 2.2 and the outputs support HDCP Active or HDCP Passive mode.
- Supports video resolution down-scaling, the 4K input can be automatically degraded to 1080P output for compatibility with 1080P display.
- 18Gbps high bandwidth.
- Advanced EDID management: multiple built-in EDID settings can be selected.
- Built-in equalizer for signal enhancement to avoid signal attenuation in transmission.
- Supports CEC pass-through.
- Provides LEDs to indicate the current operating status.
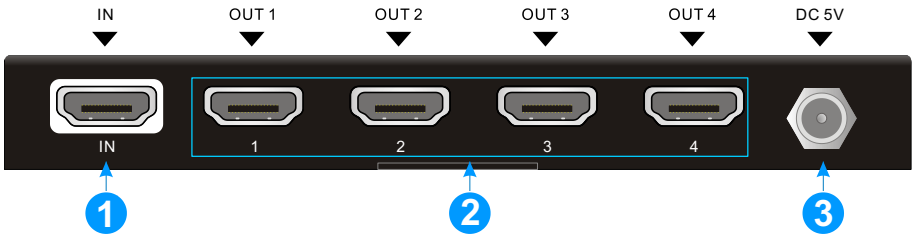- Firmware upgrade by Micro-USB port.

Panel Description

Front Panel

① **POWER LED:** The LED illuminates red when power is applied.

② **INPUT LED:** The LED illuminates blue when there is HDMI input.

③ **OUTPUT LEDs:** The LED illuminates blue when there is HDMI output on the corresponding channel.

④ **EDID:** 4-pin DIP switch for EDID setting and HDCP mode selection. Please refer to the *5.1 EDID Management* for more details.

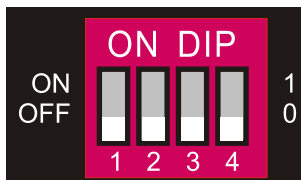⑤ **FW:** Micro-USB port for firmware upgrade.

Rear Panel

① **INPUT:** Type-A female HDMI input port to connect a HDMI source.

② **OUTPUTS:** Four type-A female HDMI output ports to connect HDMI displays.

③ **DC 5V:** DC barrel port to connect an AC power adapter.
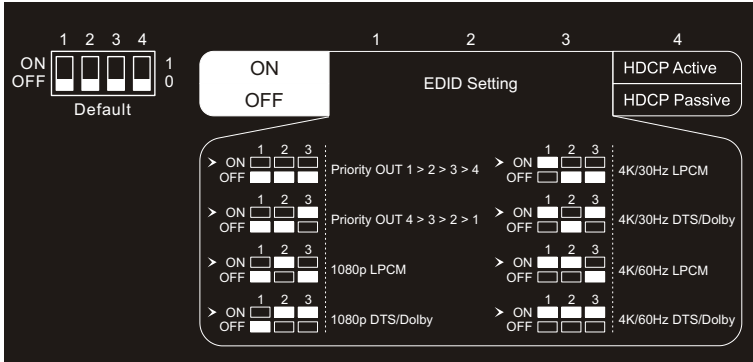
DIP Switch Operation

EDID Management

The Extended Display Identification Data (EDID) is used by the source device to match its video resolution with the connected display. By default, the source device obtains its EDID from the first connected display. Meanwhile, since the displays with different capabilities are connected to the splitter, the DIP switch on the front panel can be used to set the EDID to a fixed value to ensure the compatibility in video resolution.

The switch represents "**0**" when in the lower (**OFF**) position, and it represents "**1**" while putting the switch in the upper (**ON**) position.

Switch 1~3 are used for EDID setting. The DIP switch status and its corresponding setting are shown at the back of the product.

Switch Status	Video Resolution	Audio Format
000	Obtains EDID from the first detected display starting at HDMI output 1>2>3>4.	
001	Obtains EDID from the first detected display starting at HDMI output 4>3>2>1.	
010	1080P	LPCM
011	1080P	DTS/Dolby
100	3840x2160@30Hz HDR	LPCM
101	3840x2160@30Hz HDR	DTS/Dolby
110	3840x2160@60Hz HDR	LPCM
111	3840x2160@60Hz HDR	DTS/Dolby

HDCP Mode

Put switch 4 on "**ON**" position to select **HDCP Active** mode, or to "**OFF**" for **HDCP Passive** mode.

Switch Status	Mode	HDCP
OFF (0)	Passive (Default)	Automatically follows the display's HDCP version.
ON (1)	Active	Automatically removes the HDCP content of HDMI output

			for broader video solution.

Video Resolution Down-scaling

The product supports video resolution down-scaling, the 4K input can be automatically degraded to 1080P output for compatibility with 1080P display, shown in the below chart.

	Input			Output	
#	Resolution	Refresh	Color Space	Downscale	1080P Specs
1	3840x2160	60	4:4:4	Support	1080P@60Hz 4:4:4
2	3840x2160	30	4:4:4	Support	1080P@30Hz 4:4:4
3	3840x2160	24	4:4:4	Support	1080P@24Hz 4:4:4
4	3840x2160	60	4:2:0	Support	1080P@60Hz 4:2:0
5	3840x2160	30	4:2:0	Support	1080P@30Hz 4:2:0
6	3840x2160	24	4:2:0	Support	1080P@24Hz 4:2:0
7	3840x2160	60	4:2:2	Not Support	N/A
8	3840x2160	30	4:2:2	Not Support	N/A
9	3840x2160	24	4:2:2	Not Support	N/A

Firmware Upgrade

Please follow the below steps to upgrade firmware by the Micro-USB port:

1) Connect the splitter to the PC with USB cable.

2) Power on the splitter, and then the PC will automatically detect a U-disk named of "BOOTDISK".

3) Double-click to open the U-disk, a file named of "READY.TXT" will be showed.

4) Copy the latest upgrade file (.bin) to the "BOOTDISK" U-disk directly.

5) If the filename "READY.TXT" automatically turns to "SUCCESS.TXT", the firmware was upgraded successfully. If the firmware upgrade failed, please check the file (.bin) and then follow the above procedure to operate again.
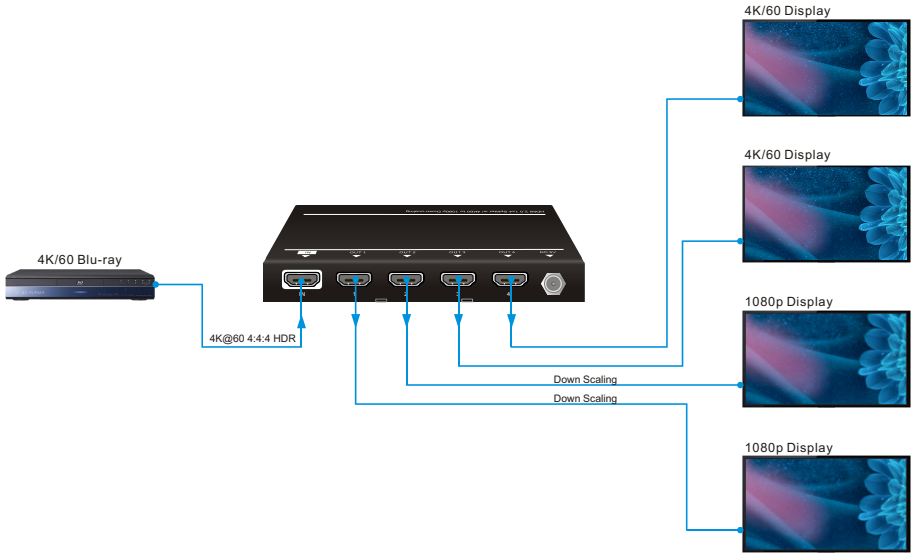
6) Remove the USB cable after firmware upgrade.

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Technical Specification

Video Input	
Input	(1) HDMI
Input Connector	(1) Type-A female HDMI
HDMI Input Resolution	Up to 4Kx2K@60Hz 4:4:4 8bit
HDMI Standard	2.0
HDCP Version	2.2, 1.4 compliant
CEC	Supported
Video Output	
Output	(4) HDMI
Output Connector	(4) Type-A female HDMI
HDMI Output Resolution	Up to 4Kx2K@60Hz 4:4:4 8bit
HDMI Standard	2.0
HDCP Version	2.2, 1.4 compliant
CEC	Supported
Control	
Control Part	(1) EDID 4-pin DIP switch, (1) Micro-USB port
General	
Bandwidth	18Gbps
HDMI 2.0 Cable Length	4K@60Hz 4:4:4 ≤ 5m, 4K@60Hz 4:2:0 ≤ 15m, 1080P ≤ 20m
Operation Temperature	-10℃ ~ +55℃
Storage Temperature	-25℃ ~ +70℃
Relative Humility	10%-90%
Power Supply	Input:100V~240V AC, Output: 5V DC 1A
Power Consumption	2.5W (Max)
Dimension (W*H*D)	142.0mm x 17.6mm x 70.4mm
Net Weight	260g

Note: Please adopt high-qualified HDMI cable fully compliant with HDMI 2.0 for reliable transmission and connection.

System Connection

The following diagram illustrates the typical input and output connection of the splitter:

10. After-sales Service

If problems arise when operating the device, please refer to this user manual. Any transport costs are borne by the users during the warranty.

1. Product Limited Warranty: We warrant that products will be free from defects in materials and workmanship for three years, which starts from the first day the product exits warehouse. (Make note of the serial number on the product)
Proof of purchase in the form of a bill of sale or receipted invoice MUST be presented to obtain warranty service.

2. What the warranty does not cover:

- Warranty expiration.
- Factory applied serial number has been altered or removed from the product.
- Damage, deterioration or malfunction caused by:
- Normal wear and tear
- Use of supplies or parts not meeting our specifications
- No certificate or invoice as the proof of warranty.
- The product model showed on the warranty card does not match with the

model of the product for repairing or had been altered.

- Damage caused by force majeure.
- Servicing not authorized
- Any other causes which does not relate to a product defect
- Delivery, installation or labor charges for installation or setup of the product

3. Technical Support: Email or call our after-sales department if there are any problems or any unanswered questions. Please inform us the following information about your cases:

- Product version and name.
- Detailed failure situations.

Remarks: For any questions or troubleshooting please contact your local distributor or email support@kanexpro.com or call 888-975-1368

11. Warranty

A. LIMITED WARRANTY
KanexPro ™ warrants that (a) its products (the "Product") will perform greatly in agreement with the accompanying written materials for a period of 36 months (3 full years) from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years.

B. CUSTOMER REMEDIES
KanexPro's entire liability and Customer's exclusive remedy shall be, at KanexPro option, either return of the price paid for the product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to KanexPro with a copy of customers' receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period of 3 years, whichever is longer.

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