



LINK SP1X4-4KUHD
1 x 4 4K HDMI Splitter with Scaler

User Manual

Version: V1.0.0



Important Safety Instructions



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



6. Clean this apparatus only with dry cloth.



2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



7. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



9. Only use attachments / accessories specified by the manufacturer.



5. Do not place sources of naked flames, such as lighted candles, on the unit.



10. Refer all servicing to qualified service personnel.

Warnings of FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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Introduction

Overview

The LINK SP1X4-4KUHD is a 1 x 4 HDMI splitter with scaler, reliably distributes one HDMI input signal to four outputs at resolutions up to 4K@60Hz 4:4:4 chroma sub-sampling. It follows HDCP 2.2 and HDMI 2.0b specifications, including supported data rates up to 18 Gbps, HDR (high dynamic range), 3D and HD lossless audio formats.

With the built-in scaler, when connected to different displays, the corresponding HDMI output is capable of scaling down automatically (down to 1080P) to feed an optimal output signal to its attached display.

The splitter provides HDCP management which continuously authenticates HDCP encryption between all devices, ensuring correct source content is output to each display. It also features automatic input cable equalization, actively conditions input HDMI signals to compensate for signal loss when using long cables or cascading multiple units.

Features

- Distributes one HDMI input signal to four HDMI displays
- Supports HDMI 2.0b Specifications, including:
 - ✓ Data rates up to 18.0 Gbps
 - ✓ 3D
 - ✓ HDR
 - ✓ HD lossless audio formats
- HDCP 2.2 compliant
- Each HDMI output supports scaling down to 1080P individually (fps will not change during scaling down from 4K to 1080P)
- HDMI Input and output cable length up to 10m/33ft + 15m/50ft for 4Kx2K@30Hz, up to 5m/16ft +5m/16ft for 4Kx2K@60Hz
- Front panel LED indication for I/O and Power connectivity
- Automatic input cable equalization for signal regeneration compensation

Package Contents

- 1 x Splitter SP1X4-4KUHD
- 1 x Power Adapter with US plug (DC 5V 1A)
- 2 x Mounting Bracket

Specifications

Video	
Input	1 x HDMI IN (Type-A female connector)
Output	4 x HDMI OUT (Type-A female connector)
Input/Output Signal Type	HDMI, HDCP 2.2
Input/Output Resolution Supported	<p>VESA: 800x600⁸, 1024x768⁸, 1280x768⁸, 1280x800⁸, 1280x960⁸, 1280x1024⁸, 1360x768⁸, 1366x768⁸, 1440x900⁸, 1600x900⁸, 1600x1200⁸, 1680x1050⁸, 1920x1200⁸</p> <p>SMPTE: 720x480P^{7,8}, 720x576P⁶, 1280x720P^{6,7,8}, 1920x1080P^{6,7,8}, 3840x2160P^{2,3,5,6,8}, 4096x2160P^{2,3,5,6,8}</p> <p>1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz</p>
Maximum Data Rate	18 Gbps
Maximum Pixel Clock	600MHz
Input Video Signal	0.5~1.2 Vp-p
Audio	
Audio Format Supported	Fully supports audio formats in HDMI 2.0 specification, including PCM, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, DTS:X

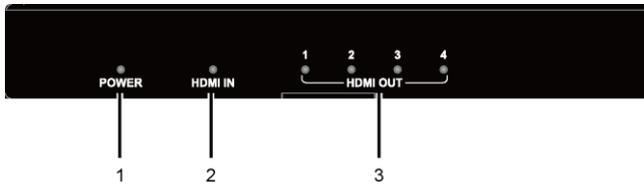
General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV(Air-gap discharge)/ ±4kV(Contact discharge)
Power Supply	DC 5V 1A
Power Consumption (Maximum)	<ul style="list-style-type: none"> 4K: 1.8W 1080P: 1.1W
Device Dimension (W x H x D)	140mm x 20mm x 65.2mm/ 5.5" x 0.8" x 2.6"
Product Weight	0.24kg/0.53lb
Certification	CE, FCC

Cable Specification:

Cable Type	Range	Supported Video
HDMI	Input/Output:15m/50ft	1080P@60Hz
	Input: 10m/33ft Output: 15m/50ft	4K@30Hz
	Input/Output: 5m/16ft	4K@60Hz 4:4:4 8bit

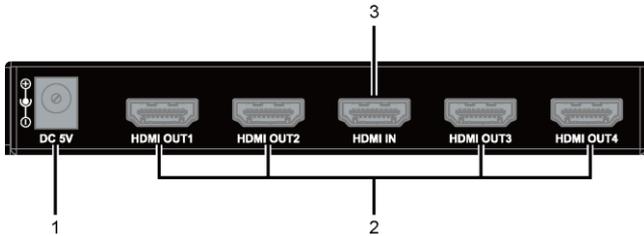
Panel Description

Front Panel



No.	Name	Description
1	Power LED (Red)	On: Power is applied to the splitter. Off: No power is applied to the splitter.
2	HDMI IN LED (Blue)	On: HDMI signal is detected on the HDMI input. Off: No HDMI signal is detected on the HDMI input.
3	HDMI OUT LED (1-4) (Blue)	On: An HDMI display is connected to the HDMI output. Off: No HDMI display is connected to the HDMI output.

Rear Panel



No.	Name	Description
1	DC 5V	Connect the power supply provided.
2	HDMI OUT (1-4)	Connect to the HDMI display using an HDMI cable.
3	HDMI IN	Connect to an HDMI source using an HDMI cable.

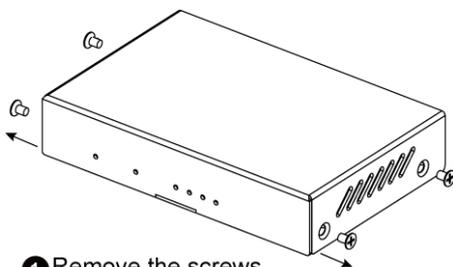
Installation and Wiring

Installation

Note: Before installation, please ensure the device is disconnected from the power source.

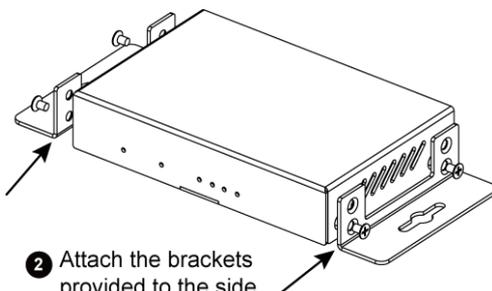
Steps to install the device in a suitable location:

1. Remove the four screws that secure the side panels to the device.



- 1 Remove the screws from the side panels

2. Position and install the mounting brackets with the four mounting screws mentioned above.



- 2 Attach the brackets provided to the side panels of the device

3. Mount and secure the device to a surface or a suitable location with the mounting screws.

Wiring

Warnings:

- Before wiring, disconnect the power from all devices.
- During wiring, connect and disconnect the cables gently.

Steps for device wiring:

1. Connect HDMI IN

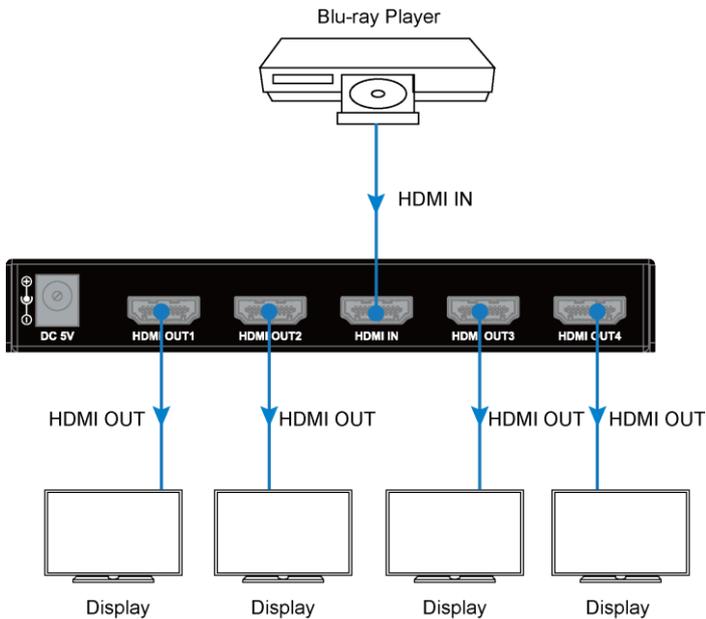
Connect an HDMI source device to HDMI IN of the splitter using a high-quality HDMI cable (e.g. PC, Blu-ray player, Apple TV, STB, etc.).

2. Connect HDMI OUT

Connect HDMI display devices to HDMI OUT (1-4) of the splitter (e.g. TV, projector, LCD/LED display, etc.).

3. Connect the power supply provided to the splitter.

4. Power on all attached devices.



Troubleshooting

Troubleshooting Steps

- 1 Power:** Ensure the source, display devices and splitter are powered on.
- 2 Indicator:** Ensure all LED indicators of the splitter are normal according to user manual.
- 3 Devices:** Ensure picture can be shown normally when connecting source to display device directly.
- 4 Cable:** Plug in and out the HDMI cable or try another HDMI cable. Ensure the specific cable length is within the available transmission range according to section Specification.
- 5 Compatibility:** Please test other source and display devices to determine if it is a compatibility issue.

Warranty Terms and Conditions

For the following cases LINK shall charge for the service(s) claimed for the products if the product is still remediable and the warranty card becomes unenforceable or inapplicable.

1. The original serial number (specified by LINK) labeled on the product has been removed, erased, replaced, defaced or is illegible.
2. The warranty has expired.
3. The defects are caused by the fact that the product is repaired, dismantled or altered by anyone that is not from a LINK authorized service partner. The defects are caused by the fact that the product is used or handled improperly, roughly or not as instructed in the applicable User Guide.
4. The defects are caused by any force majeure including but not limited to accidents, fire, earthquake, lightning, tsunami and war.
5. The service, configuration and gifts promised by salesman only but not covered by normal contract.
6. LINK preserves the right for interpretation of these cases above and to make changes to them at any time without notice.

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