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AV Access

4KSP12-S

1 x 2 4K HDMI Splitter with Scaler



User Manual

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Important Safety Instructions

- Do not expose this apparatus to rain, moisture, dripping or splashing. No objects filled with liquids, such as vases, shall be placed on the apparatus.
- Do not install or place this unit in a bookcase, built-in cabinet, or in another confined space. Ensure the unit is well ventilated.
- To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, or similar items.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not place sources of naked flames, such as lighted candles, on the unit.
- Clean this apparatus only with dry cloth.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Protect the power cord from being walked on or pinched, particularly at plugs.
- Only use attachments/accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel.

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Introduction

Overview

The 4KSP12-S is a 1 x 2 HDMI splitter with scaler, reliably distributes one HDMI input signal to two outputs at resolutions up to 4K@60Hz 4:4:4 chroma subsampling. 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 two 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 two 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
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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

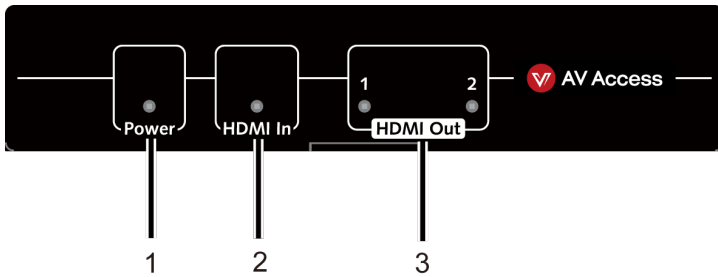
Package Contents

Before you start the installation of the product, please check the package contents:

- 4KSP12-S x 1
- Power Adapter with US plug (DC 5V 1A) x 1
- Mounting Bracket x 2

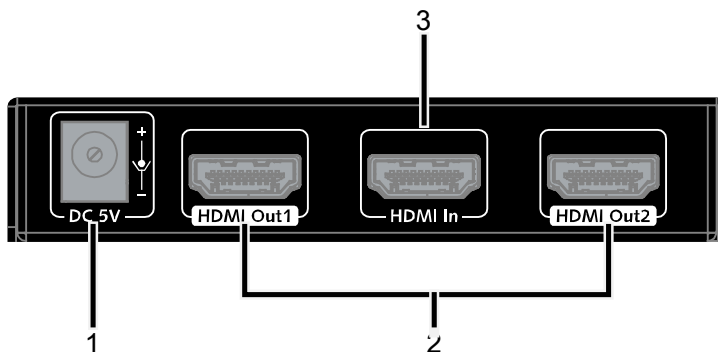
Panel

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 (1-2) (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 (1-2)	Connect to the HDMI display using an HDMI cable.
3	HDMI IN	Connect to the HDMI source using an HDMI cable.

Scaler

Each HDMI output supports scaling down to 1080P individually (fps will not change during scaling down from 4K to 1080P).

Each 4K resolution after scaling is shown as below:

Before Scaling	After Scaling
4K@60 HZ 4:4:4	1080P@60 4:4:4
4K@60 HZ 4:2:0	1080P@60 4:4:4

Installation and Application

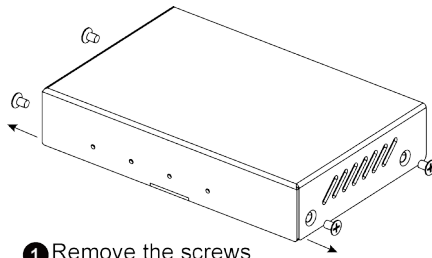
Brackets Installation

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

In order to keep elegant appearance, we design to share screws with the product chassis, please refer to the below steps to install.

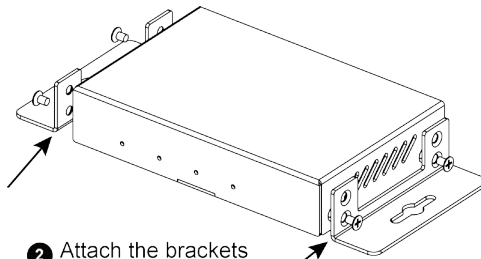
Steps to install the device in a suitable location:

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

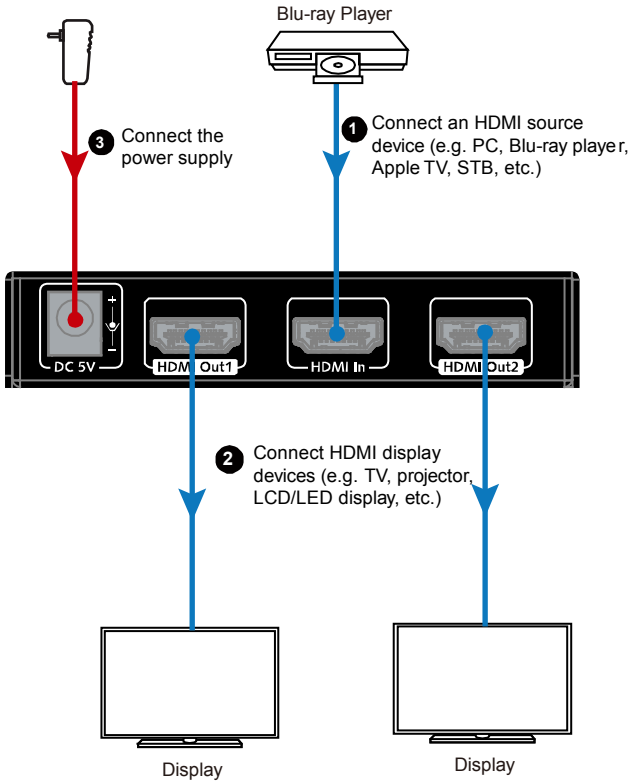
3. Mount and secure the device to a surface or a suitable location with the

mounting screws.

Typical Application

Warnings:

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



Specification

Technical	
Input	1 x HDMI IN (Type-A female connector)
Output	2 x HDMI OUT (Type-A female connector)
Video Signal Type	HDMI2.0, 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>
HDR Format Supported	HDR 10, Dolby Vision
Audio Format Supported	PCM2.0/5.1/7.1, Dolby True HD and DTS HD Master Audio
Maximum Data Rate	18 Gbps

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)	100mm x 20mm x 65.2mm/ 4" x 0.8" x 2.6"
Product Weight	0.18kg/0.4lb

Cable Specifications:

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

Trouble Shooting

Steps of Regular Troubleshooting Routine

- 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. Standard HDMI 2.0 cable is required when 18G signal (4K@60Hz 4:4:4 8bit) is being transmitted.
- 5 Compatibility:** Please test other source and display devices to determine if it is a compatibility issue.

Warranty

Products are backed by a limited 1-year parts and labor warranty. For the following cases AV Access Technology Limited shall charge for the service(s) claimed for the product if the product is still remediable and the warranty card becomes unenforceable or inapplicable.

1. The original serial number (specified by AV Access Technology Limited) 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 an AV Access Technology Limited 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.
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