

# 4K HDMI® SPLITTERS



## 4K HDMI® Splitters

### Part Numbers:

**EVSP4K12 1x2**  
**EVSP4K14 1x4**  
**EVSP4K18 1x8**



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## DEAR CUSTOMER

Thank you for purchasing this product.  
For optimum performance and safety, please  
read these instructions carefully before connecting, operating or  
adjusting this product. Please keep this manual for future reference.

This product is 100% inspected and tested in the United States to verify  
HDMI performance parameters.

## WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

## CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

# INTRODUCTION

The Evolution by Vanco EVSP4K12, EVSP4K14 and EVSP4K18 with HDCP 2.2, 4K/60Hz, and 4:4:4 chroma capability, are the most up to date HDMI splitters that are compliant with HDCP 2.2 displays and sources. Also features EDID management, with different modes to ensure compatibility with source and display combinations. Supports LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio for advanced audio setups. Take any 4K source and split the signal to multiple 4K displays to ensure the highest quality possible with the Evolution 4K HDMI Splitters!

Note: To achieve 4K video quality, all connected displays must be able to handle 4K resolution. Any lower resolution display connected, will affect the overall resolution the splitters output to all ports.

## 1x2 HDMI® 4K Spiltter

### Part # EVSP4K12

- Transmits audio and video from a single source to 2 HDMI outputs up to 4K2K (2160p) Ultra High Definition resolution without any loss of quality or resolution
- Supports video formats up to 4K2K@60Hz with 12bit YCBCR 4:4:4 and HDR
- 3D frame sequential video format up to 1080p@60
- Supports high resolution VESA mode video format up to QSXGA 2560x2048@60Hz
- Compliant with HDCP 2.2 sources and backwards compatible with older versions of HDCP
- Dynamic and Manual EDID management modes to ensure compatibility during installation
- Supports LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio
- Supports Hot-plug
- High bandwidth: 18 Gbps
- Features status indicator for connection & input HDCP compliance
- Can be cascaded with other Evolution by Vanco products to create additional output options or to create an expanded distribution system
- Dimensions: 4" W x .7" H x 2.3" D

# PACKAGE CONTENTS

- EVSP4K12 4K HDMI 1x2 Splitter
- 1 DC 5V Power Supply
- Product Manual

## 1x4 HDMI® 4K Splitter

Part # EVSP4K14

- Transmits audio and video from a single source to 4 HDMI outputs up to 4K2K (2160p) Ultra High Definition resolution without any loss of quality or resolution
- Supports video formats up to 4K2K@60Hz with 12bit YCBCR 4:4:4 and HDR
- 3D frame sequential video format up to 1080p@60
- Supports high resolution VESA mode video format up to QSXGA 2560x2048@60Hz
- Compliant with HDCP 2.2 sources and backwards compatible with older versions of HDCP
- Dynamic and Manual EDID management modes to ensure compatibility during installation
- Supports LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio
- Supports Hot-plug
- High bandwidth: 18 Gbps
- Features status indicator for connection & input HDCP compliance
- Can be cascaded with other Evolution by Vanco products to create additional output options or to create an expanded distribution system
- Dimensions: 6.4" W x .6" H x 2.5" D

## PACKAGE CONTENTS

- EVSP4K14 4K HDMI 1x4 Splitter
- 1 DC 5V Power Supply
- Product Manual

# 1x8 HDMI® 4K Splitter

Part # EVSP4K18

- Transmits audio and video from a single source to 4 HDMI outputs up to 4K2K (2160p) Ultra High Definition resolution without any loss of quality or resolution
- Supports video formats up to 4K2K@60Hz with 12bit YCBCR 4:4:4 and HDR
- 3D frame sequential video format up to 1080p@60
- Supports high resolution VESA mode video format up to QSXGA 2560x2048@60Hz
- Compliant with HDCP 2.2 sources and backwards compatible with older versions of HDCP
- Dynamic and Manual EDID management modes to ensure compatibility during installation
- Supports LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio
- Supports Hot-plug
- High bandwidth: 18 Gbps
- Features status indicator for connection & input HDCP compliance
- Can be cascaded with other Evolution by Vanco products to create additional output options or to create an expanded distribution system
- Dimensions: 9.6" W x .6" H x 4.1" D

## PACKAGE CONTENTS

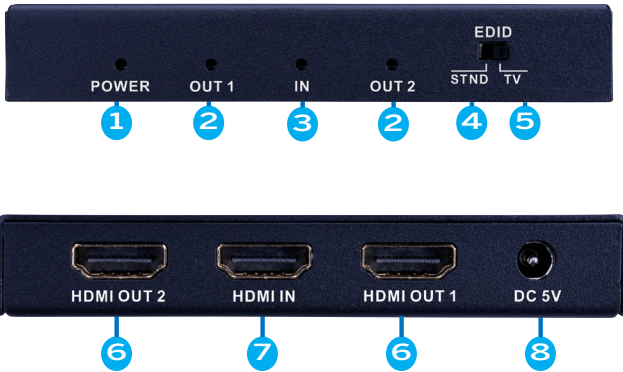
- EVSP4K18 4K HDMI 1x8 Splitter
- 12V2.5A DC Power Supply
- Product Manual

## SPECIFICATIONS

Video Bandwidth .....	600MHz/18Gbps
Input Ports .....	1 × HDMI (Female type)
Output Ports .....	2, 4 or 8 × HDMI (Female type),
Output Resolution .....	480i-1080p@50/60Hz; 2160p@24/30Hz; 2160p@60Hz; VESA Formats up to QSXGA 2560x2048@60Hz
ESD Protection .....	Human Body model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Power Supply .....	1x2, 1x4: 5V/2A DC; 1x8: 12V 2.5A DV (US/EU standards, CE/FCC/UL certified)
Dimensions .....	1x2: 4" W x .7" H x 2.3" D; 1x4: 6.4" W x .6" H x 2.5" D; 1x8: 9.6" W x .6" H x 4.1" D
Weight .....	1x2, 1x4: 0.6 lb.; 1x8: 1.4 lb.
Chassis Material .....	Metal
Operating Temperature .....	0 °C~40 °C/ 32 °F~104 °F
Storage Temperature .....	-20 °C ~ 60 °C/-4 °F ~140 °F
Relative Humidity .....	20~90 % RH (non-condensing)
Power Consumption (Max) .....	1x2, 1x4: 10W; 1x8: 30W

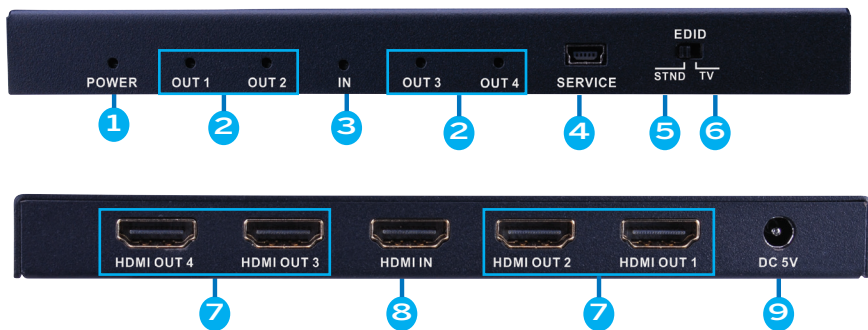
# PANEL DESCRIPTIONS

## EVSP4K12



1. POWER LED: Illuminates when the splitter is connected to power
2. OUTPUT 1/2 LED: Illuminates when a display is connected to "HDMI OUT 1/2" and is powered on
3. IN LED: Illuminates when the source is connected and is powered on
4. EDID: See EDID Management section for explanation of adjustment
5. EDID: See EDID Management section for explanation of adjustment
6. HDMI OUTPUT 1/2: Connect an HDMI display such as an HDTV or Projector; either port can also be used to cascade or daisy-chain to another splitter, to create additional outputs
7. HDMI IN: Connect a source such as a Set Top Box, Game Console, or media player/streamer
8. DC 5V IN: Connect the included power supply to power the unit

## PANEL DESCRIPTIONS EVSP4K14

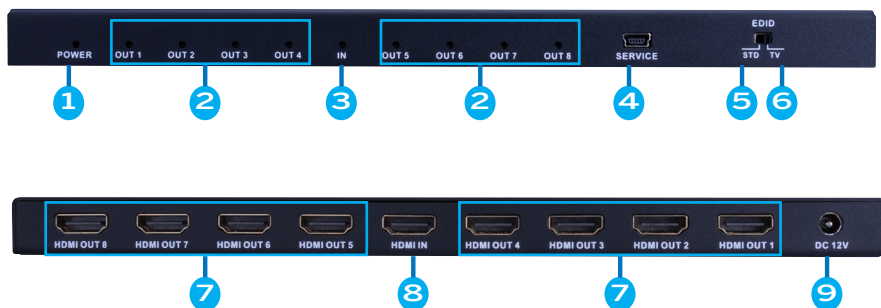


1. POWER LED: Illuminates when the splitter is connected to power
2. OUTPUT 1/2/3/4 LED: Illuminates when a display is connected to "HDMI OUT 1/2/3/4" and is powered on
3. IN LED: Illuminates when the source is connected and is powered on
4. SERVICE: Used for any future firmware updates available on the product page (downloads section) on [www.vanco1.com](http://www.vanco1.com)
5. EDID: See EDID Management section for explanation of adjustment
6. EDID: See EDID Management section for explanation of adjustment
7. HDMI OUTPUT 1/2/3/4: Connect an HDMI display such as an HDTV or Projector; any port can also be used to cascade or daisy-chain to another splitter, to create additional outputs
8. HDMI IN: Connect a source such as a Set Top Box, Game Console, or media player/streamer
9. DC 5V IN: Connect the included power supply to power the unit



# PANEL DESCRIPTIONS

## EVSP4K18



1. POWER LED: Illuminates when the splitter is connected to power
2. OUTPUT 1/2/3/4/5/6/7/8 LED: Illuminates when a display is connected to "HDMI OUT 1/2/3/4/5/6/7/8" and is powered on
3. IN LED: Illuminates when the source is connected and is powered on
4. SERVICE: Used for any future firmware updates available on the product page (downloads section) on [www.vanco1.com](http://www.vanco1.com)
5. EDID: See EDID Management section for explanation of adjustment
6. EDID: See EDID Management section for explanation of adjustment
7. HDMI OUTPUT 1/2/3/4/5/6/7/8: Connect an HDMI display such as an HDTV or Projector; any port can also be used to cascade or daisy-chain to another splitter, to create additional outputs
8. HDMI IN: Connect a source such as a Set Top Box, Game Console, or media player/streamer
9. DC 12V IN: Connect the included power supply to power the unit

## EDID MANAGEMENT

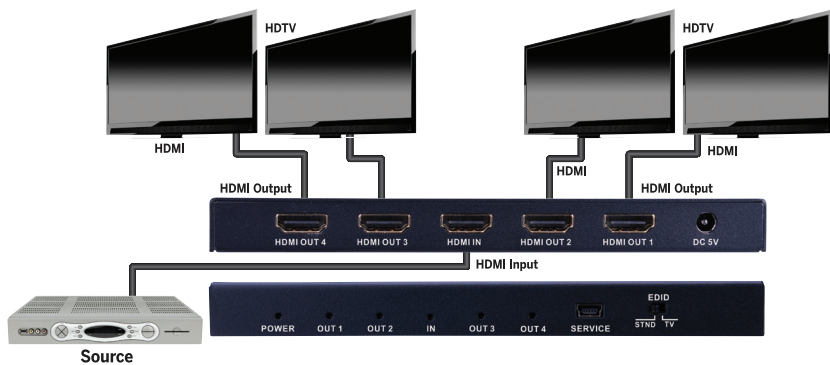
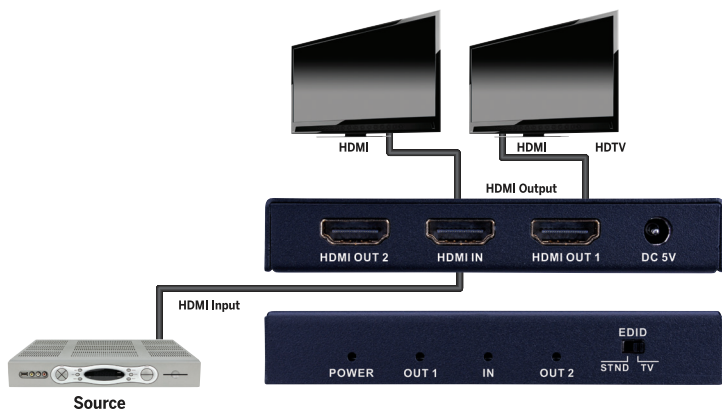
Extended Display Identification Data (EDID) is a data structure provided by a digital display to describe its capabilities to a video source (e.g. graphics card or set-top box). In a nutshell, the display provides its EDID info to the source to send the proper signal format, this is essential for a proper handshake to occur.

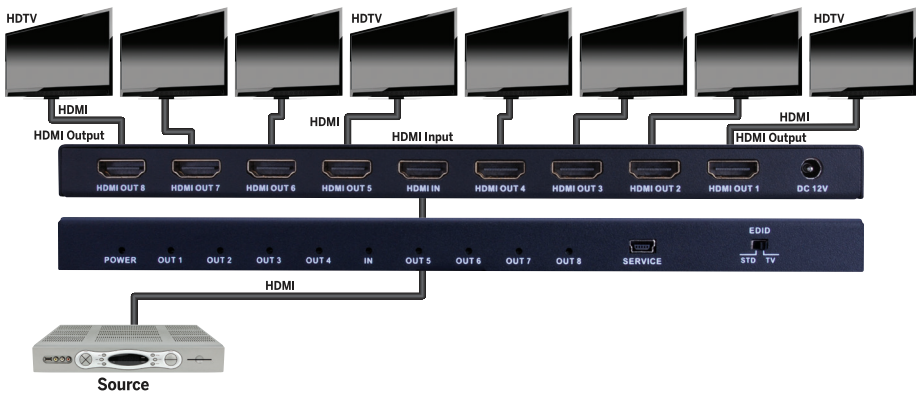


- When making any adjustments to EDID, turn off every component (splitter, source, and all displays), then turn on splitter first, followed by the source, then the main display (HDMI Output 1). Finally, turn on all other displays after ensuring the correct video signal is displaying on the main display.
- When in 'TV' mode, the unit will read the EDID settings of the display device connected to HDMI OUT 1 (Output 1 should be the main display connected). This is an auto setting and should be set to 4K resolution if desired. If Output 1 detects a 4K2K capable EDID setting, the splitter will transmit the signal in that resolution format to all outputs. If no 4K2K capable EDID is detected, then the unit will output the best resolution that all displays can support.
- When in 'STND' mode, the splitter will use its own built-in EDID settings. In this mode, the EDID will default to 1080p@60Hz and LPCM 2CH Stereo audio. Use this mode if there are display issues in TV Mode.

Note: To achieve 4K video quality, all connected displays must be able to handle 4K resolution. Any lower resolution display connected, will affect the overall resolution the splitters output to all ports, and the splitter will use the highest resolution that all displays connected can handle.

# CONNECTION DIAGRAM





## CONNECT AND OPERATE

1. Connect a source such as a Blu-Ray Player, game console, A/V Receiver, Cable or Satellite Receiver, etc. to the HDMI input
2. Connect displays such as an HDTV or HD Projector to the HDMI outputs
3. For power, connect the provided power supply

At this point the display connected should display the source signal connected to the unit. If no signal is being displayed, check all HDMI cables connected. If a display is having difficulty receiving a signal, access the display's menu and adjust the resolution (lowest to highest until signal is displayed). A 24 Hz vertical refresh rate may work better than 60 Hz or higher.

## TROUBLE-SHOOTING

<b><i>Problems</i></b>	<b><i>Causes</i></b>	<b><i>Solutions</i></b>
Color loss or no video signal output in HDMI display	The connecting cables may not be connected correctly or it may be broken.	Check whether the cables are connected correctly and in working condition.
	The display is not compatible with the present output resolution.	Make sure the resolution of the display(s) is compatible with the present resolution.
No HDMI signal output while local HDMI input is in normal working state	The connecting cables may not be connected correctly or it may be broken.	Check whether the cables are connected correctly and in working condition.
Splash screen in output devices	Poor quality of the connecting cable	Change for another cable of good quality.
Static becomes stronger when connecting the video connectors	Bad grounding	Check the grounding and make sure it is connected well.

## SAFETY AND NOTICE

These splitters have been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, these splitters 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

## LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

## TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to [techsupport@vanco1.com](mailto:techsupport@vanco1.com).

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, etc. please visit [www.vanco1.com](http://www.vanco1.com)

## LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.



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