

HDMI® SPLITTERS

4K2K



Vanco Part Numbers:

EVSP1002 1x2

EVSP1004 1x4

EVSP1008 1x8

HDMI® 4K2K Splitters

EVOLUTION
BY 
ADVANCING DIGITAL CONNECTIVITY

www.vanco1.com • 800.626.6445

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.

FEATURES

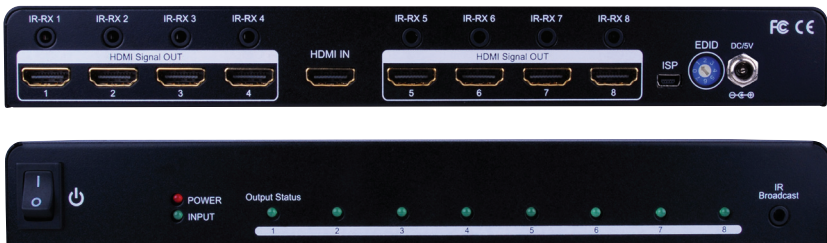
INTRODUCTION

The Evolution by Vanco HDMI 4K2K Splitters with EDID and IR distribute one HDMI input to multiple HDMI outputs. Turn one HDMI source into multiple displays that delivers up to 4K2K (2160p) Ultra High Definition resolution without any loss of quality or resolution. Also features EDID management, which allows and encourages source and display "handshake" for seamless integration. In addition, Evolution Splitters are equipped with IR pass-through which allows for source control at any display location, IR accessories sold separately. Fully cascadeable with any Evolution by Vanco product to create additional outputs or to create an expanded distribution system. The Evolution Splitters offer the most convenient solution for splitting one source into multiple displays.

HDMI® 1x8 4K2K Splitter

Part # EVSP1008

- Allows 1 HDMI source to be displayed on up to 8 HDMI displays
- Features EDID management which supports default HDMI EDID and has the ability to learn the EDID of display equipment
- Fully cascadeable so multiple units may be combined to create a larger HD distribution
- Supports 4K2K (2160p) Ultra High Definition resolution
- Simple Plug and Play solution
- HDCP Compliant
- EDID management
- Supports HDMI Deep Color and 3D
- DTS-HD Master Audio and Dolby TrueHD high bit rate audio support
- Wideband IR signal from 20KHz to 60KHz
- ISP port for firmware updates
- Dimensions: 10.2" (259mm) W x 1.26" (32mm) H x 3.86" (98mm) D



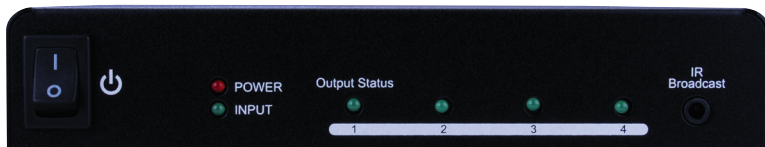
PACKAGE CONTENTS

- EVSP1008
- (1) DC 5V in line power supply
- Rack-mounting ear set
- Product Manual

HDMI® 1x4 4K2K Splitter

Part # EVSP1004

- Allows 1 HDMI source to be displayed on up to 4 HDMI displays
- Features EDID management which supports default HDMI EDID and has the ability to learn the EDID of display equipment
- Fully cascadable so multiple units may be combined to create a larger HD distribution
- Supports 4K2K (2160p) Ultra High Definition resolution
- Simple Plug and Play solution
- HDCP Compliant
- EDID management
- Supports HDMI Deep Color and 3D
- DTS-HD Master Audio and Dolby TrueHD high bit rate audio support
- Wideband IR signal from 20KHz to 60KHz
- ISP port for firmware updates
- Dimensions: 6.69" (170mm) W x 1.26" (32mm) H x 3.27" (83mm) D



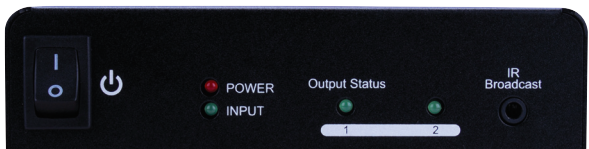
PACKAGE CONTENTS

- EVSP1004
- (1) DC 5V in line power supply
- Rack-mounting ear set
- Product Manual

HDMI® 1x2 4K2K Splitter

Part # EVSP1002

- Allows 1 HDMI source to be displayed on up to 2 HDMI displays
- Features EDID management which supports default HDMI EDID and has the ability to learn the EDID of display equipment
- Fully cascadable so multiple units may be combined to create a larger HD distribution
- Supports 4K2K (2160p) Ultra High Definition resolution
- Simple Plug and Play solution
- HDCP Compliant
- EDID management
- Supports HDMI Deep Color and 3D
- DTS-HD Master Audio and Dolby TrueHD high bit rate audio support
- Wideband IR signal from 20KHz to 60KHz
- ISP port for firmware updates
- Dimensions: 5.07" (129mm) W x 1.26" (32mm) H x 2.48" (63mm) D



PACKAGE CONTENTS

- EVSP1002
- (1) DC 5V in line power supply
- Rack-mounting ear set
- Product Manual

SPECIFICATIONS

TECHNICAL SPECS

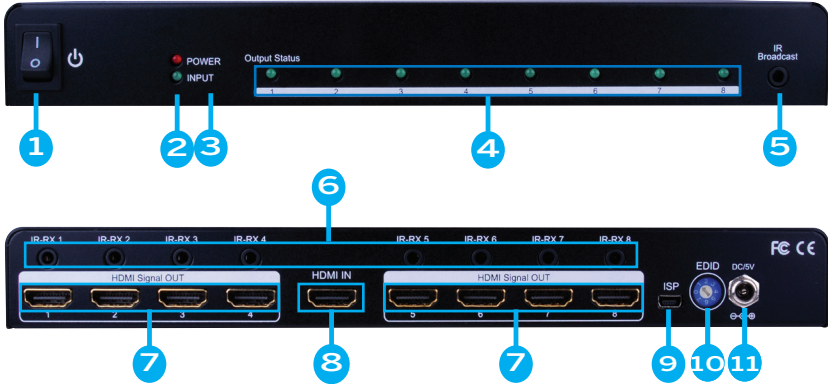
HDMI Compliance	HDMI Deep Color, full 3D & 4K2K
DVI Compliance	DVI 1.0
HDCP Compliance	HDCP 1.3
Video Bandwidth	Single-link 340MHz [10.2Gbps]
Video Support	Up to 4K 2K 297MHz
Audio Support	DTS-HD Master Audio, Dolby TrueHD Dolby Digital, DTS, DVD-Audio, LPCM, SACD, MPCM
ESD Protection	[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge][2] Core chipset — ±2kV
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]
Firmware Update	Feasible via RS-232 port
Input	EVSP1008: 1x HDMI (7.1 ch audio & video) + 8x3.5mm; EVSP1004: 1x HDMI (7.1 ch audio & video) + 4x3.5mm; EVSP1002: 1x HDMI (7.1 ch audio & video) + 2x3.5mm
Output	EVSP1008: 8x HDMI (7.1 ch audio & video) + 1x3.5mm; EVSP1004: 4x HDMI (7.1 ch audio & video) + 1x3.5mm; EVSP1002: 2x HDMI (7.1 ch audio & video) + 1x3.5mm
HDMI connector	Type A 19 pin female
3.5mm connector	IR blaster & IR receiver
Rotary control switch	EDID mode selection

MECHANICAL SPECS

Housing	Metal enclosure
Fixedness	Rack-mounting case with ears
Power supply	EVSP1008: 5V 4A DC; EVSP1004: 5V 2A DC; EVSP1002: 5V 2A DC
Power consumption	10 Watts (max)
Operation temperature	32-104 degrees F
Storage temperature	-4 - 140 degrees F
Relative humidity	20-90% RH (no condensation)

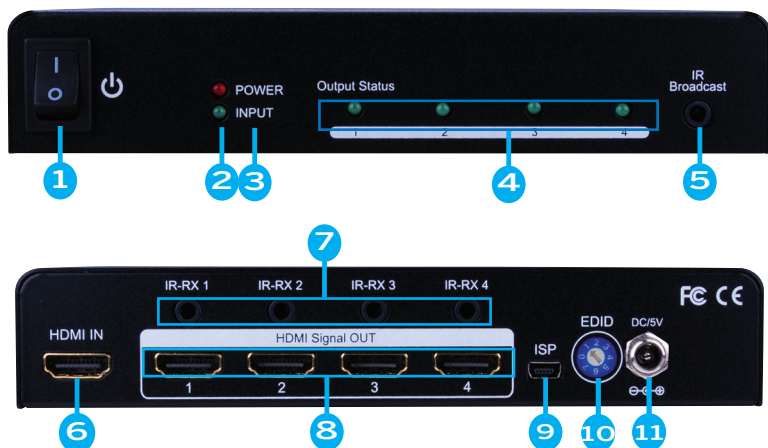
PANEL DESCRIPTIONS

EVSP1008



1. Power: Power on/off switch
2. Power LED: Lights on when power is on
3. Signal LED: Signal LED indicator
4. Output Status 1-8 LED: Output display indicaton LED.
5. IR Broadcast: Infrared 3.5mm socket for plugging in the extension cable of IR blaster
6. IR Receiver 1-8: Infrared 3.5mm socket for plugging in the extension cable of IR receiver
7. HDMI OUT 1-8: HDMI outputs to HDMI displays
8. HDMI IN: Connect to a HDMI input source
9. ISP: Firmware update
10. EDID MODE: See EDID section for EDID settings
11. +5V DC: Connect to the +5V DC 4A power supply unit

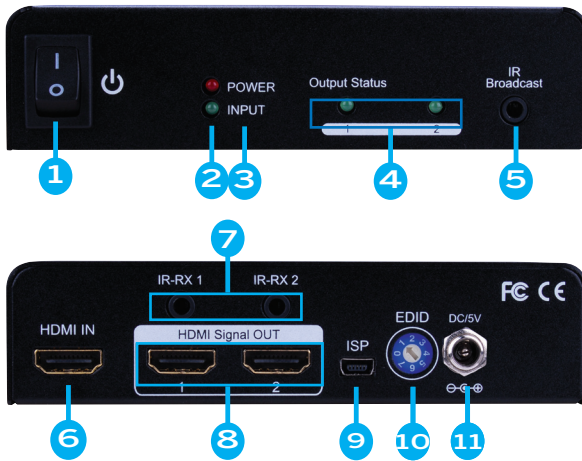
PANEL DESCRIPTIONS EVSP1004



1. Power: Power on/off switch
2. Power LED: Lights on when power is on
3. Signal LED: Signal LED indicator
4. Output Status 1-4 LED: Output display indicaton LED.
5. IR Broadcast: Infrared 3.5mm socket for plugging in the extension cable of IR blaster
6. HDMI IN: Connect to a HDMI input source
7. IR Receiver 1-4: Infrared 3.5mm socket for plugging in the extension cable of IR receiver
8. HDMI OUT 1-4: HDMI outputs to HDMI displays
9. ISP: Firmware update
10. EDID MODE: See EDID section for EDID settings
11. +5V DC: Connect to the +5V DC 2A power supply unit

PANEL DESCRIPTIONS

EVSP1002



1. Power: Power on/off switch
2. Power LED: Lights on when power is on
3. Signal LED: Signal LED indicator
4. Output Status 1-2 LED: Output display indication LED.
5. IR Broadcast: Infrared 3.5mm socket for plugging in the extension cable of IR blaster
6. HDMI IN: Connect to a HDMI input source
7. IR Receiver 1-2: Infrared 3.5mm socket for plugging in the extension cable of IR receiver
8. HDMI OUT 1-2: HDMI outputs to HDMI displays
9. ISP: Firmware update
10. EDID MODE: See EDID section for EDID settings
11. +5V DC: Connect to the +5V DC 2A power supply unit

EDID

The EDID switch allows for EDID learning or to pre-set an EDID to encourage a "handshake" between the display and source.

- 0 - F/W update mode
- 1 - EDID Full-HD(1080p@60) - 24bit 2D video & 7.1ch audio
- 2 - EDID Full-HD(1080p@60) - 24bit 2D video & 2ch audio
- 3 - EDID Ultra-HD(4K2K@30) - 24bit 2D video & 7.1ch audio
- 4 - EDID Ultra-HD(4K2K@30) - 24bit 2D video & 2ch audio
- 5 - EDID HD(1080p@30)(1080i@60)(720p@60) - 24bit 2D video & 2ch audio
- 6 - Auto EDID analysis learning mode
- 7 - EDID learning mode

To set EDID:

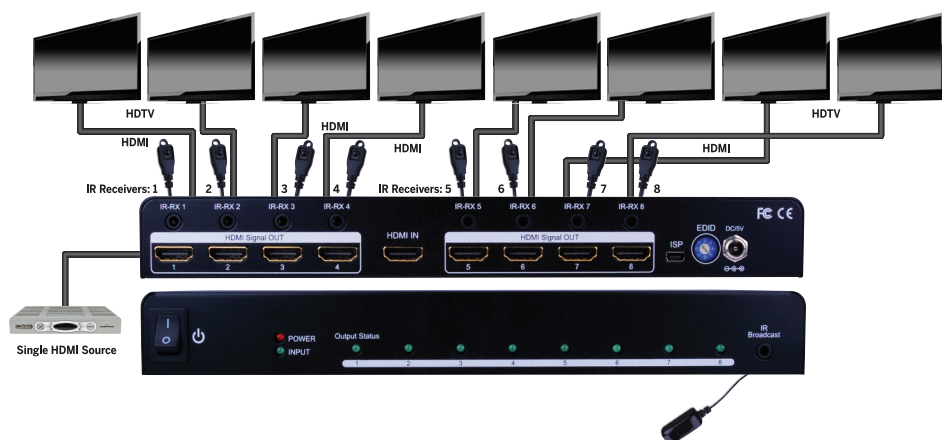
1. Ensure all source and display components, including Splitter are powered off and HDMI cables are disconnected.
2. Set EDID to position desired.
3. Connect HDMI cables from source equipment to Splitter and then from Splitter to each display.
4. Power the Splitter.
5. Power the Source equipment, followed by the display equipment.

CONNECT AND OPERATE

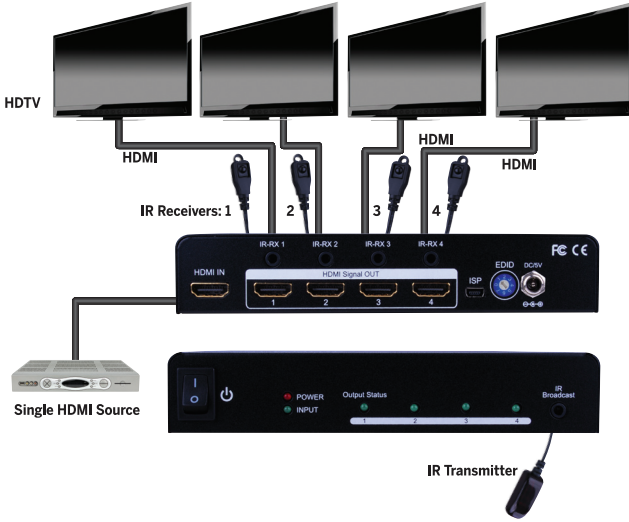
1. Connect a source such as a Blu-Ray Player, game console, A/V Receiver, Cable or Satellite Receiver, etc. to the HDMI input using high speed HDMI cables.
2. Connect display(s) such as an HDTV or HD Projector to the HDMI output on the unit using high speed HDMI cables.
3. For power, plug in the Splitter with the included power supply.
4. Power on the source, followed by the display.

At this point the display connected should display the source signal connected to the unit. If a display is having difficulty receiving a signal, see EDID section and perform EDID learning or 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. Use the source remote at the receiver emitter to test IR functionality. If the IR remote function is not responding, check the emitters to ensure they are placed correctly and are plugged into the correct IR jacks on the unit.

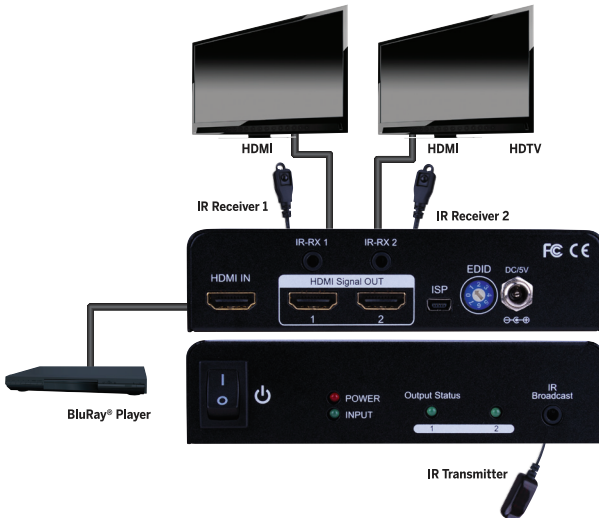
CONNECTION DIAGRAM EVSP1008



CONNECTION DIAGRAM EVSP1004



CONNECTION DIAGRAM EVSP1002

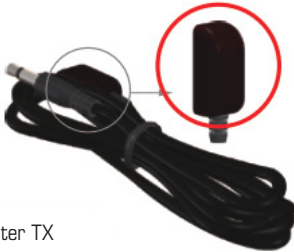


NOTICE

1. Vanco High Speed HDMI cables are strongly recommended for use with this product to ensure best results.
2. Incorrect placement of IR Blaster and Receiver may result in the failure of the unit. Please check carefully before plugging in the IR accessories into the respective IR sockets.
3. If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input [HDMI input #1] generally can produce better transmission performance among all HDMI inputs.

IR PASS-THROUGH

IR Extenders



IR Blaster TX



IR Receiver RX

IR accessories sold separately, see below for part #s.

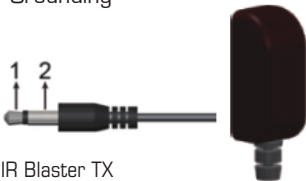
IR BLASTER (EV-IRTX)

Plug IR Blaster into IR TX port of the splitter; place blaster in front of the IR eye of the source.

IR RECEIVER (EV-IRRX)

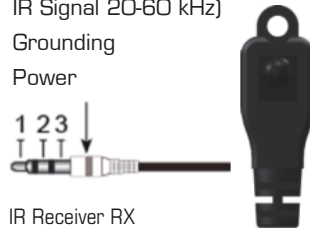
Plug IR Receiver(s) into IR RX ports of the splitter (IR-RX 1 to IR-RX 4); place receiver at or near display.

1. IR Signal
2. Grounding



IR Blaster TX

1. IR Signal 20-60 kHz
2. Grounding
3. Power



IR Receiver RX

TROUBLE-SHOOTING

1. Best results are usually achieved when the source and display resolutions are the same. If resolutions differ, the unit will try to adjust the signal to match the resolution of the HDTV with the lowest resolution. This will result in a picture with a lower resolution on the other HDTV sets.
2. If you do not get audio and video, access the "setup" menu on the TV to adjust the audio and video settings. If the HDMI control circuit cannot establish a handshake, then there usually will be no audio or video in addition to a blue or black screen with a statement similar to "this protocol not supported" or "weak signal".
3. If the above mentioned messages display, reset the unit by disconnecting the power supply. You can also disconnect all of the HDMI and power cables, wait 15 minutes for any voltages to decay and then reconnect all of the cables.
4. If you are still encountering issues, attempt the "hot-plug concept. With all of the HDMI cables disconnected, turn on the source and plug in the HDMI cable into it's output, then power up the Vanco unit and plug the HDMI cable into it's input, finally turn on the display and plug the HDMI cable from the receiver into it. This activates all of the devices in corresponding order and results in a signal being plugged into a device that is on and will attempt to connect the signal.
5. Most of the major source and display manufacturers employ a proprietary control channel to communicate between devices from the same manufacturer. Sometimes this can interfere with the HDMI control circuit or the authentication of the signal. Call the manufacturer if you experience this issue. Sometimes a player, an audio/video receiver, or a cable/satellite box may not have the latest software update, usually this can be downloaded from the manufacturer's website.
6. If you have problems with the IR control circuit, make sure that the IR RX pigtail is plugged into the unit and pointed at the display, and the IR TX pigtail is attached to the unit and pointed at the source.

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 equipments, 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 info@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.

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.

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