

# User's Manual

## Video Splitter



DVI	HDMI
VSD-102	VSM-102
VSD-104	VSM-104
VSD-108	VSM-108
with Independent Audio Channel	
VSDA-102	VSMA-102
VSDA-104	VSMA-104
VSDA-108	VSMA-108



Maybachstrasse 39 Tel: +49 7161 60686 0 www.evn-components.de  
73037 Göppingen Fax: +49 7161 60686 29 info@evn-components.de



- ▣ The final specification is the actual product based.
- ▣ Features and functions may be added or changed after the manual was written. Please visit our website to download the latest version of manual for reference.

PP5-RHAA12Z-000

**RoHS**

## Features

- Easy and affordable way to duplicate one video input to multiple DVI (VSD / VSDA) or HDMI (VSM / VSMA) outputs
- Automatic power-save when signal input is lost
- Cascaded operation for increased signal outputs
- Crisp clear video images
- Support EDID, HDCP, and is Blu-ray ready for high definition display
- Support DVI / HDMI display resolutions of up to UXGA (1600 x 1200), WUXGA (1920 x 1200), Full HD 1080p (1920 x 1080)
- Rack mountable ( compatible for 4 / 8-Port only )
- Support audio function for HDMI / Audio over DVI source devices
- LED indicators for signal activity monitoring
- Accurate and reliable reproduction of digital video signals without attenuation and distortion
- Install in seconds

## Package Contents

- Video Splitter x 1
- Power Adapter Set x 1
  - Power Adapter with necessary AC Cord
  - or
  - Plug-in Power Adapter
- User's Manual x 1
- Foot Pad x 1 Set
- Rack Mount Bracket (for 8-port model only) x 1 Set

### Optional

- Rack Mount Bracket (for 4-port model)
- HDMI Cable (M-to-M) 1.8m
- DVI Cable (M-to-M) 1.8m
- Audio Cable
- DVI-to-HDMI Adapter
- HDMI-to-DVI Adapter



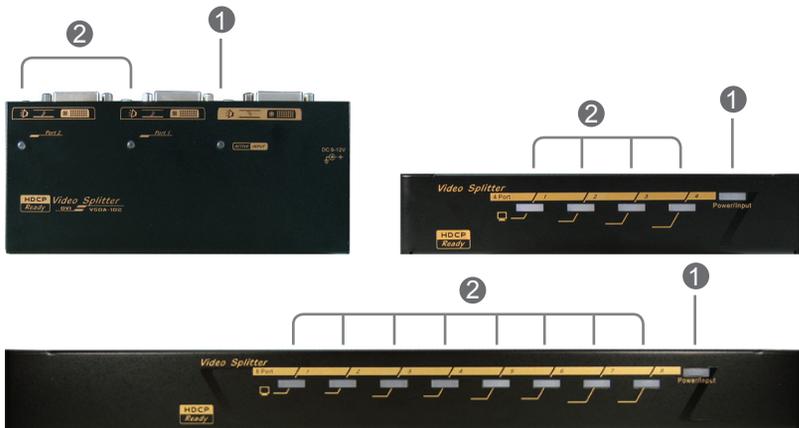
# Trouble Shooting

Symptom	Possible Cause	Solution
Video does not display on some ports	DVI specification of the source devices doesn't match the DVI specification of DVI cable and/or the DVI display device	There are three DVI standards: DVI-I, DVI-D, and DVI-A. Make sure that DVI specifications of the source devices, cables, and monitors all match. NOTE: Some monitors are able to support multiple DVI signals.
		Check if the splitter unit has been connected to the source computer before the computer powered on
Erratic behavior	Splitter may not receive enough power	Please check the power adapter attached to the splitter if it matches the system specifications, and if it is functioning properly.
Not receiving picture or sound	Wrong installation process	The video splitter requires at least one monitor connection before powering on the source device.
	The signal source may require the display device that is HDCP compliant.	Check if the display monitor is HDCP compliant. HDCP prevents the transfer of digital content to unauthorized HDMI devices.
	The display monitor is added to the unit by hot-plug, but the video source may not support hot-plug.	Check if the video source supports hot-plug. If it doesn't, shut down the source device and reboot it again.
	The attached devices are not well connected.	Check if you have connected your components correctly

# Operation

The quality of the output signal will depend largely upon the quality of video source, cable and display device used. Low quality cables degrade output signal causing elevated noise levels. Please use the proper cable and make sure the display device is capable of handling the resolution and refresh rate selected. Interference from nearby electrical devices can have an adverse effect on signal quality as well.

# LED Indicator



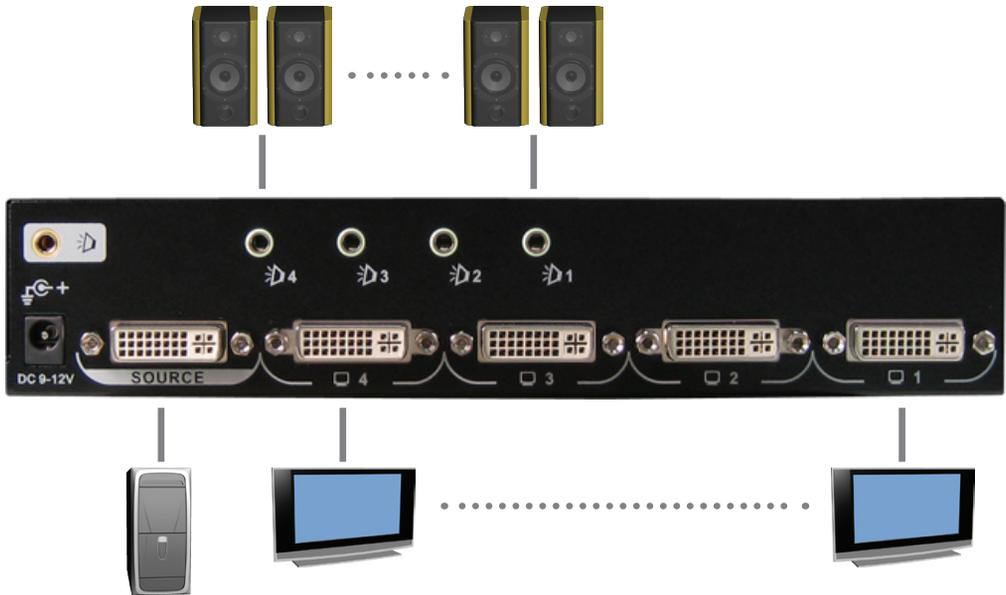
1	<u>Green</u> : Power On <u>Blue</u> : Video Signal OK
2	Video Output Signal

# Specifications

Model		VSD-102	VSD-104	VSD-108
		VSDA-102	VSDA-104	VSDA-108
Number of Video Output		2	4	8
Video Resolution (max.) / Signal Type		Full HD 1080p (1920 x 1080) / VGA (640 x 480) / SXGA (1280 x 1024) / UXGA (1600 x 1200) / WUXGA (1920 x 1200)		
LED Indicators	Power active Video OK	Dual color x 1	Dual color x 1	Dual color x 1
	Video output	2	4	8
Rack Mountable (optional)		N/A	Yes	Yes
Cable Length (max.)		10M (depends on cable quality)		
Connectors	Input	DVI Female x 1 / Audio jack x 1 set (VSDA series only)		
	Output	DVI Female x 2	DVI Female x 4	DVI Female x 8
		Audio jack x 2 / 4 / 8 sets (VSDA series only)		
Enclosure		Metal		
Power Consumption (Max.)		2.7W	4.0W	10.0W
		2.8W	4.1W	10.2W
Operating Voltage		DC 9~12V		
Dimensions H X W x D (mm)		20 x 180 x 85	44 x 220 x 135	44 x 438 x 180

Model		VSM-102	VSM-104	VSM-108
		VSMA-102	VSMA-104	VSMA-108
Number of Video Output		2	4	8
Video Resolution (max.) / Signal Type		Full HD 1080p (1920 x 1080) / VGA (640 x 480) / SXGA (1280 x 1024) / UXGA (1600 x 1200) / WUXGA (1920 x 1200)		
LED Indicators	Power active Video OK	Dual color x 1	Dual color x 1	Dual color x 1
	Video output	2	4	8
Rack Mountable (optional)		N/A	Yes	Yes
Cable Length (max.)		5M (depends on cable quality)		
Connectors	Input	HDMI Female x 1 / Audio jack x 1 set (VSMA series only)		
	Output	HDMI Female x 2	HDMI Female x 4	HDMI Female x 8
		Audio jack x 2 / 4 / 8 sets (VSMA series only)		
Enclosure		Metal		
Power Consumption (Max.)		2.7W	4.0W	10.0W
		2.8W	4.1W	10.2W
Operating Voltage		DC 9~12V		
Dimensions H X W x D (mm)		20 x 180 x 85	44 x 220 x 135	44 x 438 x 180

# Connection Pattern



Example of VSD-104 / VSDA-104 / VSM-104 / VSMA-104 Connection  
(Audio jacks are not available for VSD and VSM models)

# Installation

- Prior to installation, please power off all devices that will be connected to this system.
- Ensure that all devices you will connect are properly grounded.
- Place cables away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise.

One piece of DVI male-to-male cable for VSD / VSDA series, or one piece of HDMI male-to-male cable for VSM / VSMA series is required to connect from a video source to the Video Splitter Input (SOURCE). Multiple monitors or TVs should be connected to the Video Splitter's output ports.

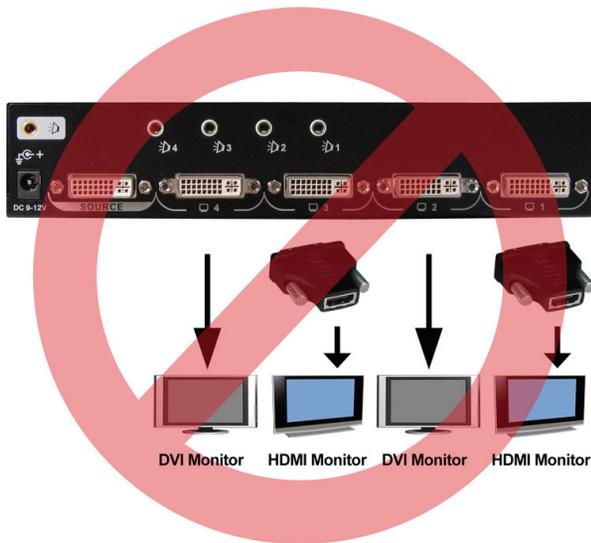
For the model with built-in audio port (VSDA / VSMA), plug a set of audio jack from the speaker to the Splitter's audio port.

For VSD series with audio over DVI combination, both audio and video signals can be outputted by using a DVI-to-HDMI adapter that combines digital video (DVI) and digital audio into HDMI to seamlessly integrate into your modern home theater or computer systems. Connect the optional DVI-to-HDMI adapter(s) to the output side of the splitter, and then connect the HDMI display or projector to the HDMI output of the DVI-to-HDMI adapter. The adapter will convert the digital audio onto the digital video signal to generate the HDMI signal.

Turn on your video source only after you've made all the connections.

## NOTE:

1. At least one monitor connection to the splitter unit is required when powering on the source device.
2. The splitter unit is required to connect to the computer before the computer is powered on.
3. The splitter unit is HDCP compliant and required to use the HDCP-compliant display when it is connecting to the HDCP video source.
4. Each output port on the Unit is required to apply the same connection pattern whenever a DVI-to-HDMI (or HDMI-to-DVI) adapter is used for HDMI (or DVI) signal conversion between the Unit and the HDMI (or DVI) display. The mixed (HDMI and DVI) output connections may cause signal degradation.



The example of mixed connection pattern MUST not be used.

### **Blu-ray Ready**

The Splitter Unit is able to support high definition video such as DVD or Blu-ray and multi-channel audio, and carry the best signal from source to displays; the high bandwidth allows for the transmission of large amounts of information at a very high rate of speed.

Blu-ray uses a blue-violet laser to read and write data, while current optical disc technologies such as DVD, DVD±R, DVD±RW, and DVD-RAM rely on a red laser to read and write data. Despite the different type of lasers used, Blu-ray uses a blue-violet laser (405nm) that it has a shorter wavelength than a red laser (650nm), which makes it possible to focus the laser spot with even greater precision. This allows data to be packed more tightly and stored in less space, so it's possible to fit more data on the disc even though it's the same size as a CD/DVD.