

# VIDEO SPLITTER WITH AUDIO



## USER MANUAL

### VS-0116

Read this guide thoroughly and follow the installation and operation procedures carefully in order to prevent any damage to the units and/or any devices that connect to them.

This package contains:

- ◆ 1 VS-0116 16 Port Video Splitter with Audio
- ◆ 1 VGA/Audio Cable (1.8m)
- ◆ 1 Power Adapter
- ◆ 1 Rack Mount Kit
- ◆ 1 Quick Start Guide
- ◆ 1 User Manual

If anything is damaged or missing, contact your dealer.

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**Note:** This is an FCC Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This product is RoHS compliant.



## OVERVIEW

The VS-0116 16 Port Video Splitter with Audio duplicates the video and audio signals from an input source (i.e. a computer) and routes them to up to 16 output devices (monitors, projectors, etc.). Furthermore, it can be cascaded to additional ATEN video splitters to support thousands of monitors.

The VS-0116 goes beyond being merely a duplicator, however, in that it also enhances the video signals over distances up to 65 meters.

The VS-0116 provides fast, flexible, reliable solutions for installations that require audio-visual information to be delivered to multiple destinations – such as:

- ◆ Broadcasting information to public locations (news, airline and train schedule and arrival/departure information)
- ◆ Sporting events
- ◆ Theater and lecture overflow rooms
- ◆ Classroom and company training facilities.

The VS-0116 is your best choice to achieve multiple, high-resolution video signals over long distances.

## **FEATURES**

- ◆ Supports up to 250 MHz bandwidth
- ◆ High resolution video—1920x1440@60Hz
- ◆ Supports VGA, SVGA, XGA, SXGA, and Multisync video cards and monitors
- ◆ Supports DDC, DDC2, DDC2B (Port 1 only)
- ◆ Stereo audio support
- ◆ Maintains high video resolution over long distances
- ◆ Duplicates and enhances video signals up to 65m (max.)
- ◆ Cascades 3 levels to support thousands of monitors
- ◆ Adjustable video gain ensures high quality video
- ◆ Hot pluggable
- ◆ All metal exterior case
- ◆ No additional hardware or software needed
- ◆ Rack mountable in 19" system rack (1U)

## **APPLICATIONS**

- ◆ Ideal for Public Broadcasting, Remote Monitoring, and Classroom and Training Facilities
- ◆ Cost effective solutions for professional applications, school campuses and large scale video splitting
- ◆ Perfect for television wall displays, computer shops, and individual seat mounted video displays in buses and trains

## SYSTEM REQUIREMENTS

- ◆ A VGA, SVGA, XGA, SXGA, or Multisync monitor for each output port you will be using capable of the highest resolution that you will be using in the installation.
- ◆ Speakers for each output port you will be using (optional).
- ◆ A video cable with HDB-15 connectors (male on one end and female on the other end) for the computer you will be installing.
- ◆ An audio cable for the computer you will be installing.

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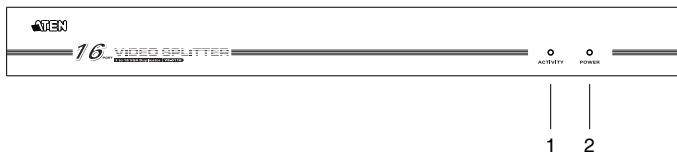
**Note:** 1. If you connect a DDC type monitor, all other monitors must be able to support the highest resolution that the DDC monitor can provide.

2. These products are designed for VGA, SVGA, XGA, SXGA, and Multisync monitors. They are neither suitable for CGA and EGA monitors nor should they be used with MONO type monitors that use digital video signals.

3. For best video quality, we recommend using ATEN brand video cables.

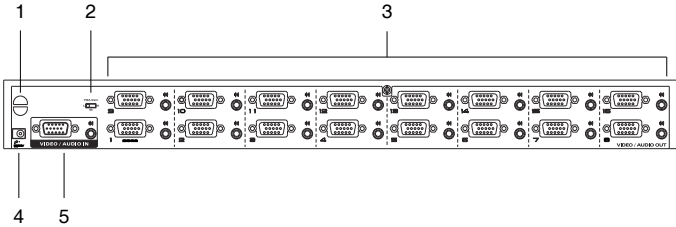
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# VS-01 16 FRONT VIEW



No.	Description	Function
1	Activity LED	Blinks to indicate that the unit is in use.
2	Power LED	Lights to indicate that the unit is receiving power.

# VS-0116 REAR VIEW



No.	Description	Function
1	Cable Tie Slot	Attach a cable tie here to fasten the cables.
2	Video Gain Switch	Low, Medium, and High settings provide fine tuning of the VGA video signal quality.
3	Video / Audio Output Ports	The video and audio cables from the monitors and speakers plug into any available ports.*
4	Power Jack	The Power Adapter cable plugs in here.
5	Video / Audio Input Port	If this is a stand alone (Single Stage) unit, or the First Stage unit of a cascaded installation, the cables from the computer's video and speaker output ports plug in here.  If this is a cascaded unit, the cables from one of the Video/Audio Output ports of the parent unit plug in here.

\* If you connect a DDC type monitor, all other monitors must be able to support the highest resolution that the DDC monitor can provide.

# HARDWARE INSTALLATION

## BEFORE YOU BEGIN



1. Make sure that the power to all the devices you will be connecting up has been turned off.
2. Make sure that all devices you will be connecting up are properly grounded.

## SINGLE STAGE

Setting up the Video Splitter is simply a matter of plugging in the cables. Refer to the installation diagram on the next page (the numbers in the diagram correspond to the numbered steps) and do the following:

1. Use a high density HDB-15 male/female VGA cable to connect the computer's video port to the video input port on the VS-0116.
2. Use a male/male audio cable to connect the computer's speaker port to the audio input port on the VS-0116.
3. Connect a monitor to any available video output port on the VS-0116.
4. Connect speakers to the audio output port that corresponds to the video output port you connected in step 3.

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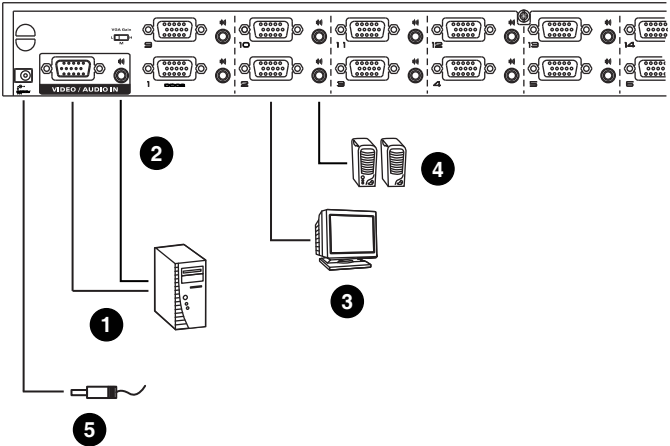
**Note:** Repeat steps 3 and 4 for any additional monitor(s) and speakers that you wish to connect.

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5. Plug the power adapter that came with the VS-0116 into an AC power source, then plug the power adapter cable into the splitter's Power Jack.
6. Power on the attached equipment.



# Single Stage Installation Diagram:



## CASCADING

To provide video display to additional monitors, the VS-0116 supports cascading up to 3 levels of video splitters.

Cascading additional Video Splitters involves the following six steps. Refer to the installation diagram on the next page (the numbers in the diagram correspond to the numbered steps) and do the following:

1. Use a high density HDB-15 male/female VGA cable to connect a video output port on the parent video splitter to the video input port on the child VS-0116.
2. Use a male/male audio cable to connect an audio output port on the parent video splitter to an audio input port on the child VS-0116.

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**Note:** Repeat steps 1 and 2 for any additional video splitter(s) you wish to cascade.

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3. Connect a monitor to any available video output port on the child VS-0116.
4. Connect speakers to the audio output port that corresponds to the video output port you connected to in step 3.

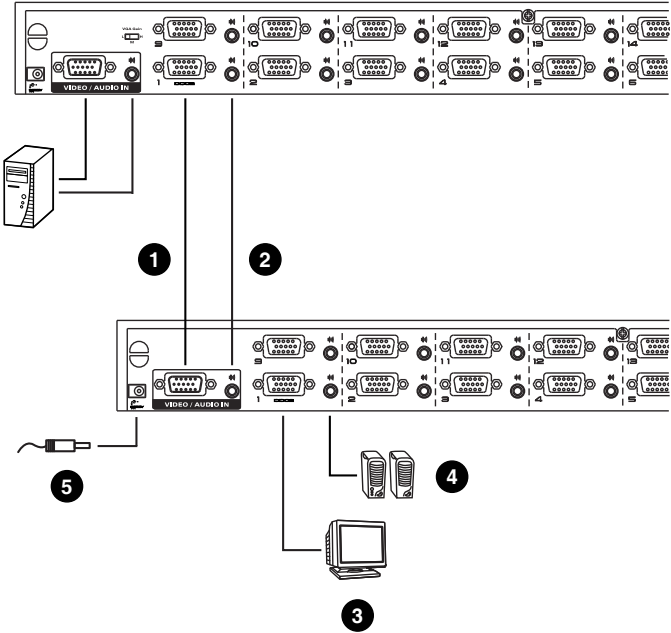
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**Note:** Repeat steps 3 and 4 for any additional monitor(s) and speakers that you wish to connect.

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5. Plug the power adapter(s) that came with the VS-0116(s) into an appropriate AC power source, then plug the power adapter cable(s) into the Video Splitter's power jack(s).
6. Power on the attached equipment.

# Cascaded Installation Diagram:



# SPECIFICATIONS

Model		VS-0116
Connection	Computer	1
	Monitors	16
Connectors	Input	1 x HDB-15 (male) 1 x 3.5mm Mini Stereo Jack (female)
	Output	16 x HDB-15 (female) 16 x 3.5mm Mini Stereo Jack (female)
	Power	DC Jack
LEDs	Activity	1 (green)
	Power	1 (blue)
Signal Type		VGA
Video Bandwidth		250 MHz
Cable Distance (splitter to monitor)		65m (maximum)
Video		1920x1440@60Hz; DDC2B (Port 1 only)
Power Supply		DC 5.3V, 2.4A
Power Consumption		3.3W (maximum)
Environment	Operating Temperature	0°~ 50°C
	Storage Temperature	-20°~ 60°C
	Humidity	0 ~ 80% RH, Non-condensing
Physical Properties	Housing	Metal
	Weight	2.8 kg
	Dimensions (L x W x H)	43.2 x 15.7 x 4.4 cm

## VGA PIN ASSIGNMENTS

Pin	Signal	Pin	Signal	Pin	Signal
1	Red Video	6	Analog Ground	11	ID0
2	Green Video	7	Analog Ground	12	ID1
3	Blue Video	8	Analog Ground	13	Horizontal Sync
4	ID2	9	NC	14	Vertical Sync
5	Ground	10	Ground	15	ID3

## GETTING HELP

If you need to contact ATEN technical support with a problem, visit our website at [www.aten.com](http://www.aten.com).

## LIMITED WARRANTY

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION.

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