

4, 8, 16 Port VGA and Audio Extender / Splitter with Audio over Single CAT5

SER GUID



Model #: VGA-C5SP-4, VGA-C5SP-8, VGA-C5SP-16



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Section 1: Getting Started

1.1 Important Safeguards

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
 - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - Repair or attempted repair by anyone not authorized by us.
 - Any damage of the product due to shipment.
 - Removal or installation of the product.
 - Causes external to the product, such as electric power fluctuation or failure.
 - Use of supplies or parts not meeting our specifications.
 - Normal wear and tear.
 - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

1.2 Safety Instructions

The Avenview VGA-C5-SP-4, VGA-C5-SP-8, VGA-C5-SP-16, VGA & Audio Extender/Splitter over Single CAT5 has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the VGA-C5-SP-XX should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



1.3 Regulatory Notices Federal Communications Commission (FCC)

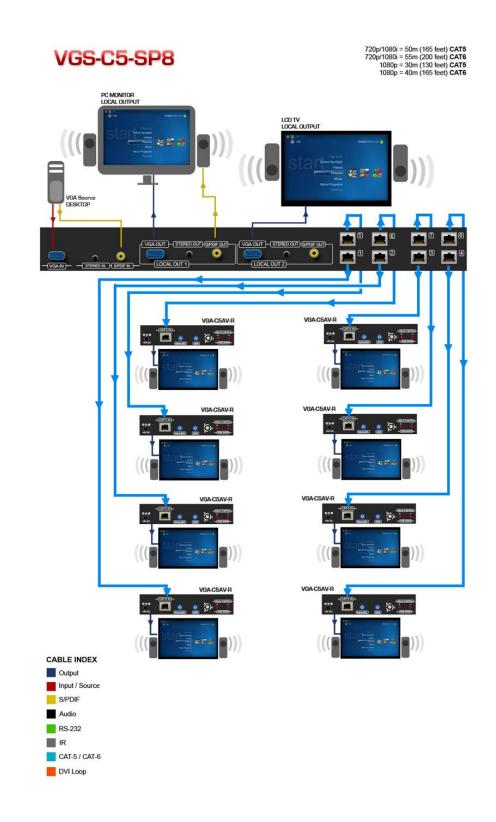
This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

1.4 Introduction

The Avenview VGA-C5-SP-4, VGA-C5-SP-8, VGA-C5-SP-16, VGA and Audio over CAT5 Transmitter / Splitter provides the most flexible solution by which the high resolution PC video and high quality stereo audio can be transmitted to different locations over super long distances. Built with 2 VGA and digital/analog audio loop outs, local A/V receivers can provide extra video and audio fan-outs through typical VGA, SPDIF, and analog audio cables. The high bandwidth VGA can be transmitted up to 65 meters (210 feet) on the local ports. The VGA-C5-SP-4, VGA-C5-SP-8, VGA-C5-SP-16 also extends VGA and stereo audio source up to 330 meters (1000 feet) through cost effective CAT-5 LAN cables. Accompanying the receivers of VGA-C5AV-R VGA CAT5 extender series equipped with the equalization, gain control and de-skew functions, the video and audio quality can be further assured and make the quality of overall transmission superior than the other VGA splitters on the market.

- Supports up to WUXGA (1920x1200@60) to 300m (1,000ft)
- Supports Analog Stereo Audio and S/PDIF Digital Audio
- Adjustable equalization and gain control on Receiver unit
- De-skew compensation available for RGB delay control







1.5 Package Contents

Before you start the installation of the converter, please check the package contents.

-	VGA-C5SP-XX	x 1
-	Rack Mounting Kit	x 1
-	Power Adapter (+5VDC, 2A)	x 1

- User's Manual x 1

1.6 Before Installation

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.



1.7 Panel Description

FRONT PANEL (Transmitter, VGA-C5SP-8)



1. Power Connector	2. VGA Input
3. Stereo Audio Input	4. S/PDIF Input
5. Local Video and Audio Output	6. Local Video and Audio Output
7. RJ45 Outputs	





1.8 Installation

To setup Avenview VGA-C5SP-4, VGA-C5SP-8, VGA-C5SP-16 follow these steps for connecting to a device:

- 1. Switch off all devices, including monitors
- Connect a VGA and Audio source to VGA and Audio In on VGA-C5SP-4, or VGA-C5SP-8, or VGA-C5SP-16
- 3. Connect to the Receiver Unit VGA-C5AV-R through CAT5 / CAT6 cable to VGA-C5-SP-4, or VGA-C5SP-8, or VGA-C5SP-16
- 4. Plug in 5V 4A DC power adapter
- 5. Power on the Displays and Speakers connected to VGA-C5AV-R
- 6. Power on the VGA and Audio sources
- If a blurred video is seen or even worse, not displayed at all, try to adjust the EQ and Gain rotary controls to improve the cable skew. GAIN rotary controls are designed for gain control, and EQ rotary controls are designed for equalizing the wave form of the receiving video signal. It is suggested to begin with adjusting the rotary control of EQ to get the input video displayed first, and then the GAIN according to the video you see on the screen.
- 2. RGB delay control [De-skew] offers the flexible functionality to allow skew compensation among VGA R, G, B signals due to long transmission or thru low quality cable. By adjusting the rotary switch to choose R, G or B color channel at first, then use the push buttons to increase or decrease the delay in the corresponding color channel. There are totally 31 steps, each step with 2ns difference, for adjusting the delay between each color individually. Then the graphics quality can be further assured.



Section 2: Specifications

Item	Description				
Units	VGA-C5-SP-4	VGA-C5-	SP-8	VGA-C5-SP-16	
Unit Description	4 Port VGA Extender	8 Port VGA E	xtender	16 Port VGA Extender	
-	Splitter	Splitter		Splitter	
Video Bandwidth	350MHz				
Video Support	VESA				
Supported Resolutions	Up to WUXGA (192	WUXGA (1920 x1200)		Up to 1280x1024	
Resolution and Distance	WUXGA 1920x 1200 at (1000 feet)	1280v10		024 at 300 meters (1000 feet)	
Audio Support	Stereo				
Equalization	Continuous Analog Control				
Input Video Signal	1.2 Volts (peak-to-peak)				
ESD Protection	 Human body model — ±15kV (air-gap discharge) & ±8kV (contact discharge) Core chipset — ±8kV 				
	1 x VGA				
Input	1 x RCA				
	1 x 3.5mm Audio				
	2 x VGA	2 x VGA		2 x VGA	
Output	2 x RCA	2 x RCA		2 x RCA	
o a op a o	2 x 3.5mm	2 x 3.5mm		2 x 3.5mm	
4 x RJ45		8 x RJ45		16 x RJ45	
VGA Connector	HD-15 (15 pin D-sub Female)				
RJ45 Connector	WE/SS 8P8C with 2 LED indicators				
3.5mm Audio Connector	Earphone jack for Analog Stereo Audio				
RCA Connector	S/PDIF Digital Audio				
Dimensions (L x W x H)	16" x 3.8" x 1.7"		16" x 3.8" x 3.5"		
Power Supply	5V 4A DC				
Power Consumption	10 Watt (max)	15 Watt (max)		25 Watt (max)	
Environmental					
Operating Temperature	32° ~ 104°F (0° to 40°C)				
Storage Tempearture	-4° ~ 140°F (-20° ~ 60°C)				
Relative Humidity	20~90% RH (no condensation)				

Notice

- 1. All transmission distances are measured using Belden 1583A CAT-5e 125MHz LAN cable and STRODESIGN Video Signal Generator VG-859C. The transmission distance is defined as the distance between the video source and the VGA display.
- 2. The transmission length is largely affected by the type of LAN cables, the type of video sources, and the type of display. The testing result shows solid LAN cables (usually in bulk cable 300m or 1000ft form) can transmit a lot longer signals than stranded LAN cables (usually in patch cord form). Shielded STP cables are better suit than unshielded UTP cables. A solid UTP CAT5e cable shows longer transmission length than stranded STP CAT6 cable. For long extension users, solid cables are your only choice.
- 3. To reduce the interference among the unshielded twisted pairs of wires in LAN cable, you can use shielded LAN cables to improve EMI problems, which is worsen in long transmission.
- 4. Because the quality of the LAN cables has the major effects in how long transmission distance will be made and how good is the received display, the actual transmission length is subject to your LAN cables. For resolution greater than 1080i or 1280x1024, a CAT-6 cable is recommended..



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