

# 1x4, 1x8, 1x12, 1x16 VGA Extender / Splitter over Single CAT5

## User's Guide



Models

VGA-C5-SP-4

VGA-C5-SP-8

VGA-C5-SP-12

VGA-C5-SP-16

**WUXGA**  
**1920x1200**

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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-12, 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 equipments, 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-12, 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-12, 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-C5A-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.

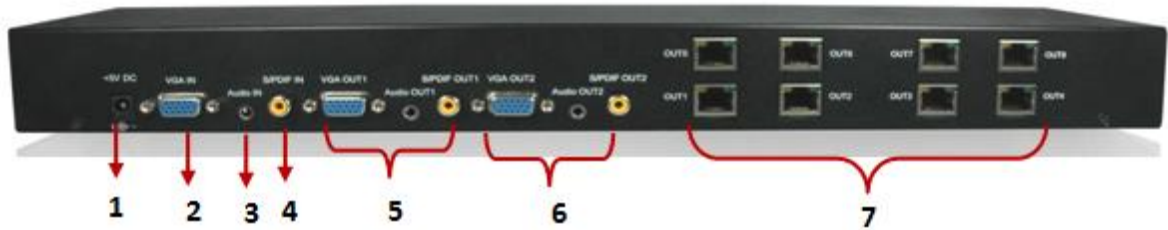
- VGA-C5-SP-x x 1
- Power Adapter (+5VDC, 2A) x 1
- Rack Mounting Kit x 2
- User's Manual x 1

## 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-C5ARS-S)



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

1. Switch off all devices, including monitors
2. Connect a VGA and Audio source to VGA and Audio In on VGA-C5-SP-4
3. Connect to the Receiver Unit VGA-C5A-R through CAT5 / CAT6 cable to VGA-C5-SP-4
4. Plug in 5V 4A DC power adapter
5. Power on the Displays and Speakers connected to VGA-C5A-R
6. Power on the VGA and Audio sources

## 1.9 General Troubleshooting

<b>Problem</b>	<b>Possible Solution</b>
<b>No Image</b>	<ul style="list-style-type: none"><li>• Check if connection to the source and the display are correct.</li><li>• Ensure that display device supports the resolution that is being output.</li></ul>
<b>Screen Defects Appear</b>	<ul style="list-style-type: none"><li>• This product supports up to WUXGA (1920x1200) resolution.</li><li>• Check the VGA and CAT5 connection</li><li>• If outputting from a PC. Check the maximum resolution range of the graphics card.</li></ul>

## Section 2: Specifications

Item	Description			
<b>Units</b>	VGA-C5-SP-4	VGA-C5-SP-8	VGA-C5-SP-12	VGA-C5-SP-16
<b>Unit Description</b>	4 Port VGA Extender Splitter	8 Port VGA Extender Splitter	12 Port VGA Extender Splitter	16 Port VGA Extender Splitter
<b>Video Bandwidth</b>	350MHz			
<b>Video Support</b>	VESA			
<b>Supported Resolutions</b>	Up to WUXGA (1920 x1200)		Up to 1280x1024	
<b>Resolution and Distance</b>	WUXGA 1920x 1200 at 300 meters (1000 feet)		1280x1024 at 300 meters (1000 feet)	
<b>Audio Support</b>	Stereo			
<b>Equalization</b>	Continuous Analog Control			
<b>Input Video Signal</b>	1.2 Volts (peak-to-peak)			
<b>ESD Protection</b>	<ul style="list-style-type: none"> <li>- Human body model — ±15kV (air-gap discharge) &amp; ±8kV (contact discharge)</li> <li>- Core chipset — ±8kV</li> </ul>			
<b>Input</b>	1 x VGA 1 x RCA 1 x 3.5mm Audio			
<b>Output</b>	2 x VGA 2 x RCA 2 x 3.5mm 4 x RJ45	2 x VGA 2 x RCA 2 x 3.5mm 8 x RJ45	2 x VGA 2 x RCA 2 x 3.5mm 12 x RJ45	2 x VGA 2 x RCA 2 x 3.5mm 16 x RJ45
<b>VGA Connector</b>	HD-15 (15 pin D-sub Female)			
<b>RJ45 Connector</b>	WE/SS 8P8C with 2 LED indicators			
<b>3.5mm Audio Connector</b>	Earphone jack for Analog Stereo Audio			
<b>RCA Connector</b>	S/PDIF Digital Audio			
<b>Dimensions (L x W x H)</b>	16" x 3.8" x 1.7"		16" x 3.8" x 3.5"	
<b>Power Supply</b>	5V 4A DC			
<b>Power Consumption</b>	10 Watt (max)	15 Watt (max)	20 Watt (max)	25 Watt (max)
<b>Environmental</b>				
<b>Operating Temperature</b>	32° ~ 104°F (0° to 40°C)			
<b>Storage Temperature</b>	-4° ~ 140°F (-20° ~ 60°C)			
<b>Relative Humidity</b>	20~90% RH (no condensation)			



## Notice

1. *All transmission distances are measured using Belden 1583A CAT-5e 125MHz LAN cable and ASTRODESIGN 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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