Avenview

AV Connectivity, Distribution And Beyond...

VGA /Audio Extender over Single CAT5 / CAT6 with RGB Delay Control & Eq

| VGA | HD ready 1080p | WUXGA 1920x1200 | CAT 5/6 | RoHS Compliant FC CE |

Model #: VGA-C5A-SET

Product Application & Market Sectors

Corporate	House Of Worship
Military	Residential
Education	Industrial
Medical	Aviation

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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-C5A-SET, VGA and Audio Extender over Single CAT5/CAT6 with RGB Delay Control has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the VGA-C5A-SET 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.

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.

Warning symbols	Description
	ONLY USE THE PROVIDED POWER CABLE OR POWER ADAPTER SUPPLIED. DO NOT TAMPER WITH THE ELECTRICAL PARTS. THIS MAY RESULT IN ELECTRICAL SHOCK OR BURN.
	DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE OF THE PRODUCT.
BEWARE this unit contains static sensitive devices	THE VIDEO BOARDS ARE VERY SENSITIVE TO STATIC. PLEASE ENSURE IF RACK MOUNTED OR INSTALLED ON A SURFACE, IT SHOULD BE IN A GROUNDED ENVIROMENT.

WARNING

Read & understand user guide before using this device.

Failure to follow the proper installation instructions could result in damage to the product and preventing expected results.

2.   INTRODUCTION

The Avenview VGA-C5A-SET lets you extend VGA (WUXGA) to cover the distance up to 300m (1,000ft). with only one cost effective CAT-5e cable, The system consists of Transmitter (VGA-C5A-S) and Receiver (VGA-C5A-R). With built-in EQ and GAIN control, the transmission path can be adjusted to adapt the cable quality and video bandwidth. Furthermore, the VGA RGB delay control [de-skew] function provides the compensation among R, G, B signals due to long transmission or through normal UTP cable. Analog stereo audio signals can be sent along with high quality VGA signal over long distance UTP cable.

- Supports up to WUXGA (1920x1200@60) to 300m (1,000ft)

- Supports Analog Stereo Audio and S/PDIF Digital Audio

- Local VGA output

- Adjustable equalization and gain control on Receiver unit

- De-skew compensation available for RGB delay control

- Wall mounting case for better fixedness

2.1   PACKAGE CONTENTS

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

1	VGA-C5A-S X 1 VGA-C5A-R X 1	
2	POWER ADAPTER (+5VDC) X 1	
3	USER'S MANUAL X 1	

- 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.
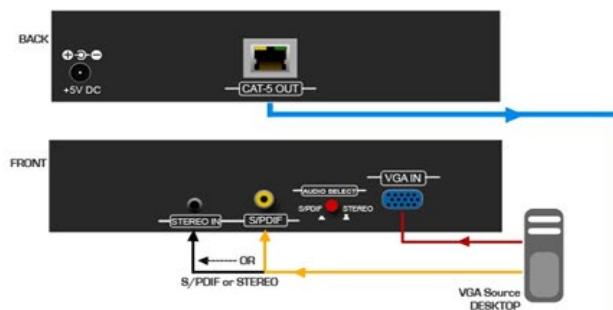- Do not twist or pull by force ends of the UTP cable. It can cause malfunction.

2.3.1 INPUT PANEL (Transmitter, VGA-C5A-S)
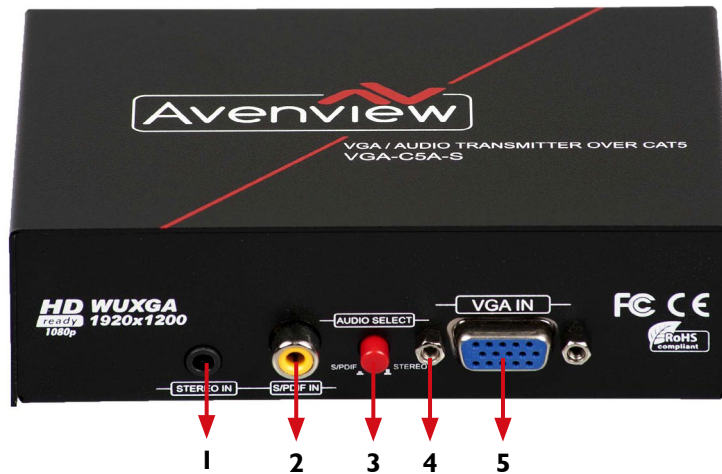
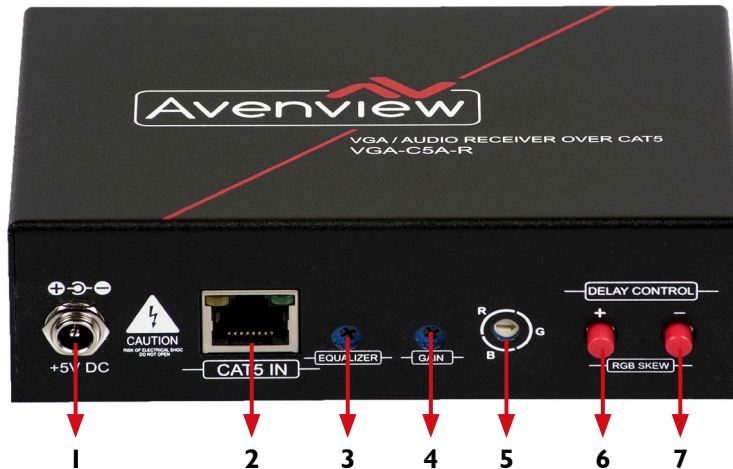| 1. Audio IN	2. S/PDIF IN
3. Push Button (Audio Selection SPDIF/2ch)	4. VGA IN

2.3.1 OUTPUT PANEL (Transmitter, VGA-C5A-S)

1. +5V DC Power Jack	2. VGA OUT
3. RJ45 OUT	4. S/PDIF OUT
5. Audio OUT	

2.4.1 INPUT PANEL (Receiver, VGA-C5A-R)

1.	5V 2A DC Power Connector	2.	RJ45 IN for CAT5 cable
3.	EQ: Rotary Control for equalization of R, G, B respectively	4.	GAIN: Rotary control for Gain Control of R, G, B respectively
5.	Rotary Control: R=0~2, G=3~5, B=6~7 for de-skew compensation on respective color channel	6.	Push button to increase level of de-skew compensation
7.	Push button to decrease level of de-skew compensation		

2.4.2 OUTPUT PANEL (Receiver, VGA-C5A-R)
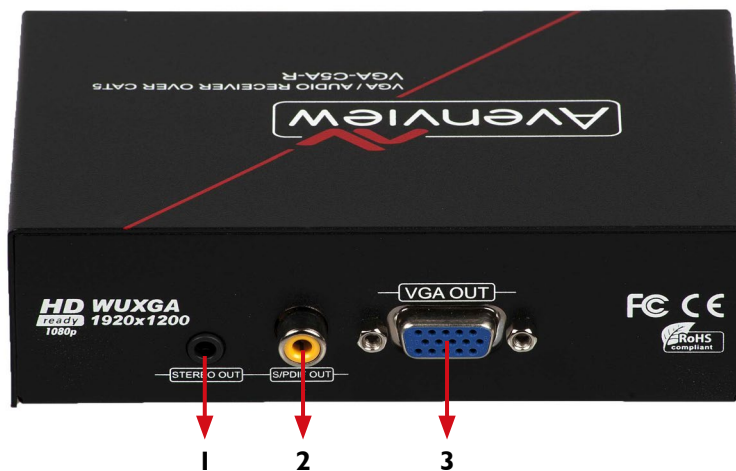
1.	Audio OUT	2.	S/PDIF OUT
3.	VGA OUT		

3.   INSTALLATION

1. Connect VGA and audio source to Transmitter (VGA-C5A-S)
2. Connect VGA display and speakers to Receiver (VGA-C5A-R)
3. Connect CAT5/CAT6 cable between Transmitter (VGA-C5A-S) and Receiver (VGA-C5A-R)
4. Ensure that cables are tightly connected
5. Plug in 5V DC power adapter to the power jack of the Receiver VGA-C5A-R.
6. Plug in 5V DC power adapter to the power jack of the Transmitter VGA-C5A-S.

4.   GENERAL TROUBLESHOOTING

PROBLEM	POSSIBLE SOLUTION
NO IMAGE	• Check if connection to the source and the display are correct. • Ensure that display device supports the resolution that is being output.
COMMON VIDEO PROBLEMS	
GHOSTING	• This product supports up to WUXGA (1920x1200) resolution. • Check the VGA and CAT5 connection • If outputting from a PC. Check the maximum resolution range of the graphics card.
NOISE	• Adjust Skew + - (#6,7)for Horizontal Synchronization
COLOR MISMATCH	• Adjust the Gain(#4) or Color Channels RGB(#5)
SMEARING OF VIDEO	• Adjust the EQ (#3 see Section 3)

Gain rotary controls - are designed for gain control.

EQ rotary controls - are designed for equalizing the wave form of the receiving video signal.

RGB Delay Control [de-skew] - offers the flexible functionality to allow skew compensation among VGA RGB signals due to long transmission or thru low quality cable.

NOTE: 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.

When adjusting the rotary switch first choose R, G or B color channel, second use the push buttons to increase or decrease the delay in the corresponding color channel. There are totally 31 steps, each step with 2nanoseconds (ns) difference, for adjusting the delay between each color individually. Then the graphics quality can be further assured.

5. SPECIFICATIONS

ITEM	DESCRIPTION	
UNITS	VGA-C5A-S	VGA-C5A-R
UNIT DESCRIPTION	VGA Transmitter	VGA Receiver with RGB Delay Control
VIDEO BANDWIDTH	350MHz	
VIDEO SUPPORT	VESA	
SUPPORTED RESOLUTIONS	Up to WUXGA (1920 x1200)	
RESOLUTION AND DISTANCE	WUXGA 1920x 1200 at 300 meters (1000 feet)	
AUDIO SUPPORT	Stereo	
EQUALIZATION	Continuous Analog Control	
INPUT VIDEO SIGNAL	1.2 Volts (peak-to-peak)	
RGB DELAY CONTROL	-	Yes
ESD PROTECTION	- Human body — ±19kV (air-gap discharge) & ±12kV (contact discharge) - Core chipset — ±8kV	
INPUT	1 x VGA + 1 x 3.5mm + 1 x RCA	1 x RJ45
OUTPUT	1 x RJ45 + 1 x VGA 1 x 3.5mm + 1 x RCA	1 x VGA 1 x 3.5mm + 1 x RCA
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 or IR Cable	
RCA CONNECTOR	S/PDIF Digital Audio	
DIMENSIONS (L X W X H)	4.8" x 3.7" x 1"	
POWER SUPPLY	5V 2A DC	
POWER CONSUMPTION	5 Watt (max)	

Environmental

OPERATING TEMPERATURE	32° ~ 104°F (0° to 40°C)	
STORAGE TEMPERATURE	-4° ~ 140°F (-20° ~ 60°C)	
RELATIVE HUMIDITY	20~90% RH (no condensation)	

AV Connectivity, Distribution And Beyond...

TECHNICAL SUPPORT

CONTACT US

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