



ATLONA

**VGA OVER CAT5 EXTENDER WITH STEREO
AUDIO AND RS-232**

USER'S MANUAL

AT-VGA-RS300SR5



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INTRODUCTION

Atlona Technologies' AT-VGA-RS300SRS (Sender and Receiver) Extender units with stereo audio allow users to extend VGA (WUXGA) signal further than before. Using a single cost effective Cat-5/5e/6 cable, these units extend signal at distances up to 330m (1,000ft) with no signal degradation. The sender unit (AT-VGA-RS300S) is connected to the signal source and is then connected to the receiver unit (AT-VGA-RS300R) via the Cat-5/5e/6 cable. The receiver unit is then connected to the desired display. With built-in EQ and GAIN control, the transmission path can be adjusted to adapt to the cable quality and video bandwidth. This unit is perfect for extending computer monitors and digital signage applications.

FEATURES

- Supports up to WUXGA [1920x1200@60] or UXGA [1600x1200@60] distances up to 330m (1,000ft)
- Supports RS-232 control
- Supports analog stereo audio
- Adjustable equalization and gain control on AT-VGARS300R (Receiver Unit)
- Wall mounting case & interlocked power jack

PACKAGE CONTENTS

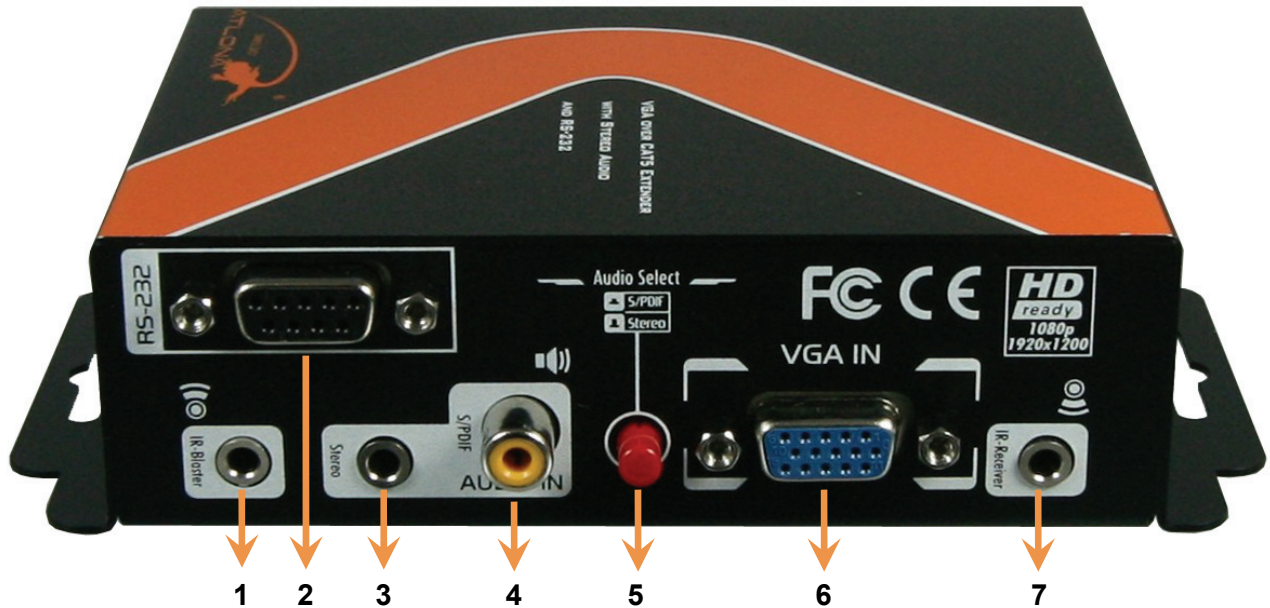
- 1x AT-VGA-RS300SRS (Sender & Receiver Unit)
- 2x 5V power supply unit
- 1x User's Manual

SPECIFICATIONS

Technical		AT-VGA-RS300S	AT-VGA-RS300R
Role of usage		Sender	Receiver
Video bandwidth		350MHz	
Video support		VESA	
Transmission		WUXGA [1920x1200] — 330m (1,000ft) [CAT5e]	
Audio support		Stereo	
RS-232 signal type		Half-duplex	
Input video signal		1.2 Volts [peak-to-peak]	
Equalization		Continuous analog control	
Loop-out		1 VGA local-out + 1 audio local-out at Sender	
ESD protection		Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]	
Input		1x VGA 1x RS-232 1x 3.5mm	1x 3.5mm 1xRJ-45
Output		1x RJ-45 1x VGA 1x 3.5mm	1x VGA 1x RS-232 1x 3.5mm
VGA connector		HD-15 [15-pin D-sub female]	
RJ-45 connector		WE/SS 8P8C with 2 LED indicators	
RS-232 connector		DE-9 [9-pin D-sub female]	
3.5mm connector		Earphone jack for analog stereo audio or IR cable	
Mechanical			
Housing		Metal enclosure	
Dimensions [L x W x H]	Model	[Sender / Receiver] – 123 x 95 x 25mm [4.8"x3.7"x1"]	
	Package	330 x 200 x 95mm [1'1"x7.9"x3.7"]	
Weight	Model	370g [12oz]	380g [13oz]
	Package	1240g [2.7 lbs]	
Fixedness		Wall-mounting case with screws	
Power supply		Inter-locked 5V 2A DC	
Power consumption		6 Watts [max]	
Operation temperature		0~40°C [32~104°F]	
Storage temperature		-20~60°C [-4~140°F]	
Relative humidity		20~90% RH [no condensation]	

AT-VGA-RS300S

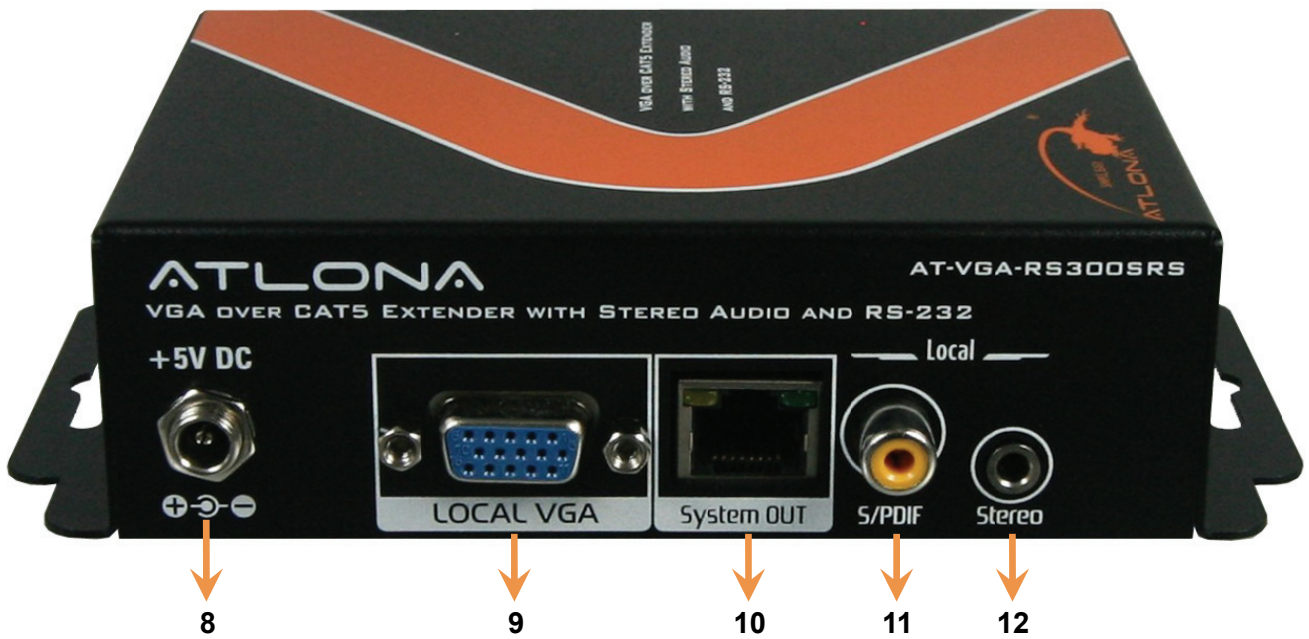
Front Panel



1. **IR-Blaster**: connect to IR blaster for IR pass-through from AT-VGA-RS300R to AT-VGA-RS300S
2. **RS-232**: connect to a RS-232 signal source or receiver
3. **Stereo IN**: connect to analog audio source
4. **S/PDIF IN**: connect to digital audio source
5. Push-in button: select between S/PDIF and analog stereo audio [button down-S/PDIF, button up-Stereo]
6. **VGA IN**: connect to a VGA input source or a component video source via a VGA-component break cable
7. **IR-Receiver**: connect to IR receiver for IR pass-through from AT-VGA-RS300R to AT-VGA-RS300R

AT-VGA-RS300S

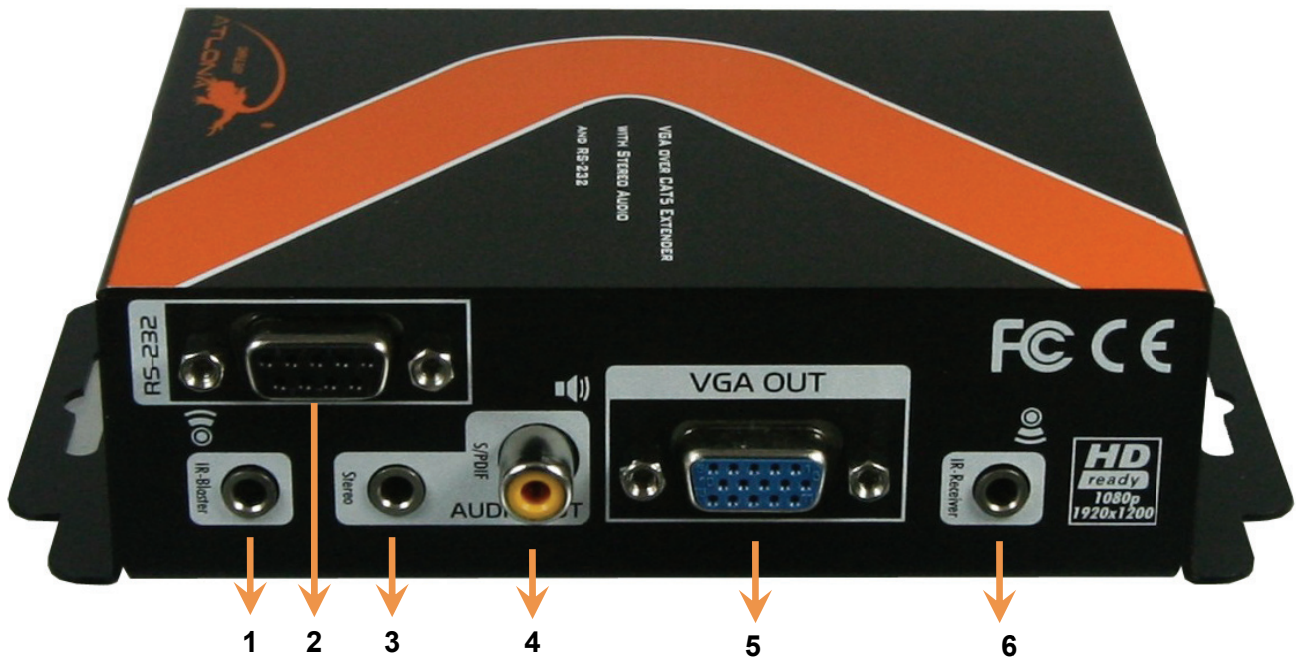
Rear Panel



8. **+5V DC:** inter-locked power jack to connect to 5V DC power supply unit
9. **Local VGA:** VGA loop-out to a local VGA display or component video display via a VGA-component breakout cable
10. **System OUT:** Plug in a Cat-5/5e/6 cable that needs to be linked to AT-VGA-RS300R
11. **Local S/PDIF:** Digital stereo audio loop-out
12. **Local Stereo:** Analog stereo audio loop-out

AT-VGA-RS300R

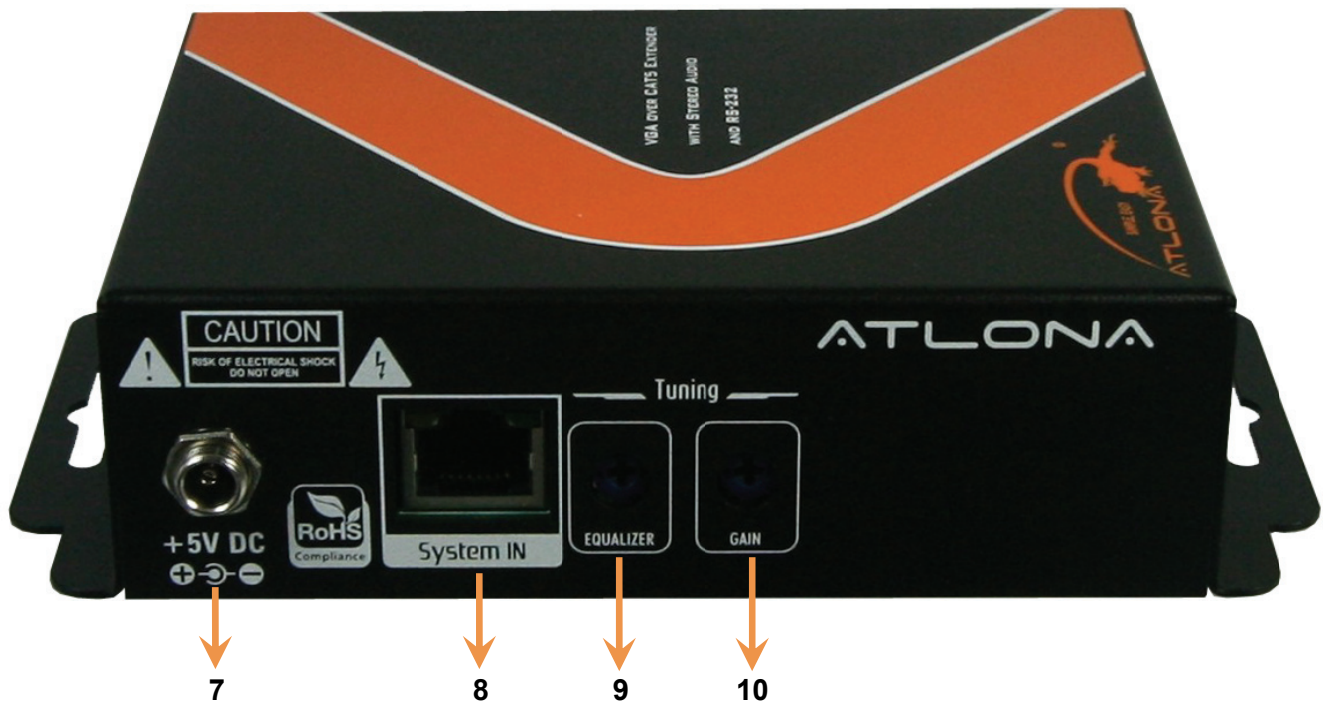
Front Panel



1. **IR Receiver:** Connect to the IR receiver
2. **RS-232:** Connect to a RS-232 device
3. **Audio OUT:** Connect to analog audio output
4. **S/PDIF OUT:** Connect to digital audio output
5. **VGA OUT:** VGA output to a VGA display or component video display via a VGA-component breakout cable
6. **IR Blaster:** Connect to the IR blaster

AT-VGA-RS300R

Rear Panel



7. **+5V DC** power jack: connect to 5V DC power supply
8. **System IN**: Plug in a Cat-5/5e/6 cable that needs to be linked to AT-VGA-RS300S
9. **EQUALIZER**: Rotary control for equalization of R, G, B, respectively
10. **GAIN**: Rotary control for gain control of R, G, B, respectively respective R/G/B color channel that is chosen by the RGB selector

DIP SWITCH

DIP Switch Position				Description
Pin-1	Pin-2	Pin-3	Pin-4	
ON [▲]	OFF [▼]	ON [▲]	OFF [▼]	Sender & Receiver Extender Mode – Tx ¹ D of AT-VGA-RS300S is connected to Tx ¹ D of AT-VGA-RS300R Rx ² D of AT-VGA-RS300S is connected to Rx ² D of AT-VGA-RS300R
OFF [▼]	ON [▲]	OFF [▼]	ON [▲]	Master to Slave Mode – Tx ¹ D of AT-VGA-RS300S is connected to Rx ² D of AT-VGA-RS300R Rx ² D of AT-VGA-RS300S is connected to Tx ¹ D of AT-VGA-RS300R

Note: 1. Tx¹D: The 3rd pin of RS-232, which is in charge of sending data

2. Rx²D: The 2nd pin of RS-232, which is in charge of receiving data

INSTALLATION

1. Connect VGA source, audio source and RS-232 devices to the AT-VGA-RS300S (Sender)
2. Connect VGA display, audio and RS-232 devices to the AT-VGA-RS300R (Receiver)
3. Connect a Cat-5/5e/6 cable between the transmitting and receiving units.
4. Plug in 5V DC power supply unit to the power jack of the AT-VGA-RS300R (Receiver)
5. Plug in 5V DC power supply unit to the power jack of the AT-VGA-RS300S (Sender)
6. Adjust GAIN control is to an appropriate level for a range of input signal levels (brightness),
7. EQ Control is to equalize the wave form of the receiving video signal (sharpness).

Performance Guide for VGA over CAT5/6 Cable Transmission

Performance rating		Type of CAT5/6 cable		
Wiring	Shielding	CAT5	CAT5e	CAT6
Solid	Unshielded (UTP)	***	****	*****
	Shielded (STP)	***	***	****
Stranded	Unshielded (UTP)	*	**	**
	Shielded (STP)	*	*	**
Termination		Please use EIA/TIA-568-B termination (T568B) at any time		

SAFETY INFORMATION

Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

Do not modify the wall plug. Doing so will void the warranty and safety features.

This equipment should be installed near the socket outlet and the device should be easily accessible in case it requires disconnection.

Precautions

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product or cause fires.

In the event of an electrostatic discharge, this device may automatically turn off. If this occurs, unplug the device, and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins, or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements and swimming pools.

Use only accessories recommended by ATLONA to avoid fire, shock or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluid or aerosols, which could enter the unit and cause damage, fire or electrical shock. Some substances may also mar the finish of the product.

Never open or remove unit panels or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-VGA-RS300SRS. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorized ATLONA reseller or contact ATLONA directly.

WARRANTY

1. LIMITED WARRANTY

Atlona Technologies warrants that (a) its products (the "Product") will perform substantially in accordance with the accompanying written materials for a period of 3 YEARS from the date of receipt and (b) that the Product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to Customer.

2. CUSTOMER REMEDIES

Atlona Technologies and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' option, either return of the price paid for the Product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of Customer's receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period or 3 year, whichever is longer.

3. NO OTHER WARRANTIES

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