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Atlona VGA over CAT5 Extender w/Stereo Audio and RS-232

AT-VGA-RS300SRS



User Manual



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Introduction

The Atlona AT-VGA-RS300SRS (Sender and Receiver) extender units with stereo audio allows users to extend VGA (up to 1920x1200) signals further than before. Using a single CAT5/5e/6 cable these units extend signal distances up to 1000ft (300m) with no signal degradation. 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 1920x1200 (WUXGA) to distances up to 1000ft (300ft).
- Supports RS-232 control
- Supports analog stereo audio
- Adjustable equalization and gain control on AT-VGA-RS300R (receiver)
- Wall mounting case & interlocked power jack

Package Contents

- 1 x AT-VGA-RS300SRS (Sender and Receiver)
- 2 x 5V DC power supply unit
- 4 x Screws
- 1 x IR Emitter
- 1 x IR Receiver
- 1 x mini screwdriver w/phillips-head and flat-head tips
- 1 x User Manual





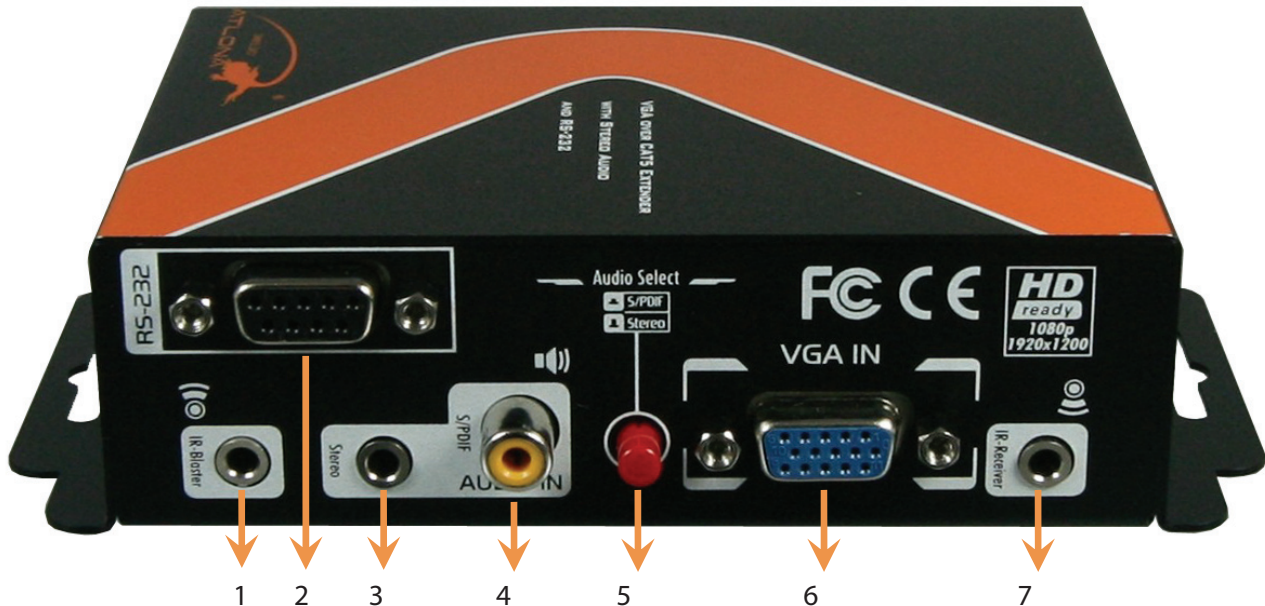
Technical	AT-VGA-RS300S	AT-VGA-RS300R
Use	Sender	Receiver
Video Bandwidth	350MHz	
Video Support	VESA	
Transmission	1920x1200 (WUXGA) up to 1000ft (330m) CAT5e	
Audio Support	Stereo	
RS-232 Signal Type	Half-duplex	
Input Video Signal	1.2 Volts (peak to peak)	
Equalization	Continuous analog control	
Loop-out	1 VGA local out + 1 audio local out on Sender	
ESD Protection	Human body model $\pm 15kV$ (air-gap discharge)	
Human body model	Human body model $\pm 8kV$ (contact discharge)	
Input Ports	1 x VGA 1 x RS-232 1 x 3.5mm	1 x 3.5mm 1 x RJ45
Output Ports	1 x RJ45 1 x VGA 1 x 3.5mm	1 x VGA 1 x RS-232 1 x 3.5mm
VGA Connector	HD15 (15-pin D-sub female)	
RJ45 Connector	WE/SS 8P8C with 2 LED indicators	
RS-232 Connector	DE9 (9-pin D-sub female)	
3.5mm Connector	Jack for analog stereo audio or IR cable	
Mechanical		
Housing	Metal enclosure	
Dimensions (LxWxH)	Model	(Sender/Receiver) 4.8x3.7x1(inch) or 123x95x25 (mm)
	Package	13x7.9x3.7(inch) or 330x200x95(mm)
Weight	Model	.75lbs or 370g
	Package	2.7lbs or 1240g
Mounting Type	Wall mount case with screws	
Power Supply	Interlocked 5V 2A DC	
Power Consumption	6W	
Operation Temperature	32°F - 104°F or 0°C - 40°C	
Storage Temperature	-4°F - 140°F or -20°C - 60°C	
Relative Humidity	20-90% RH (no condensation)	



PANEL DESCRIPTIONS

AT-VGA-RS300S

Front Panel

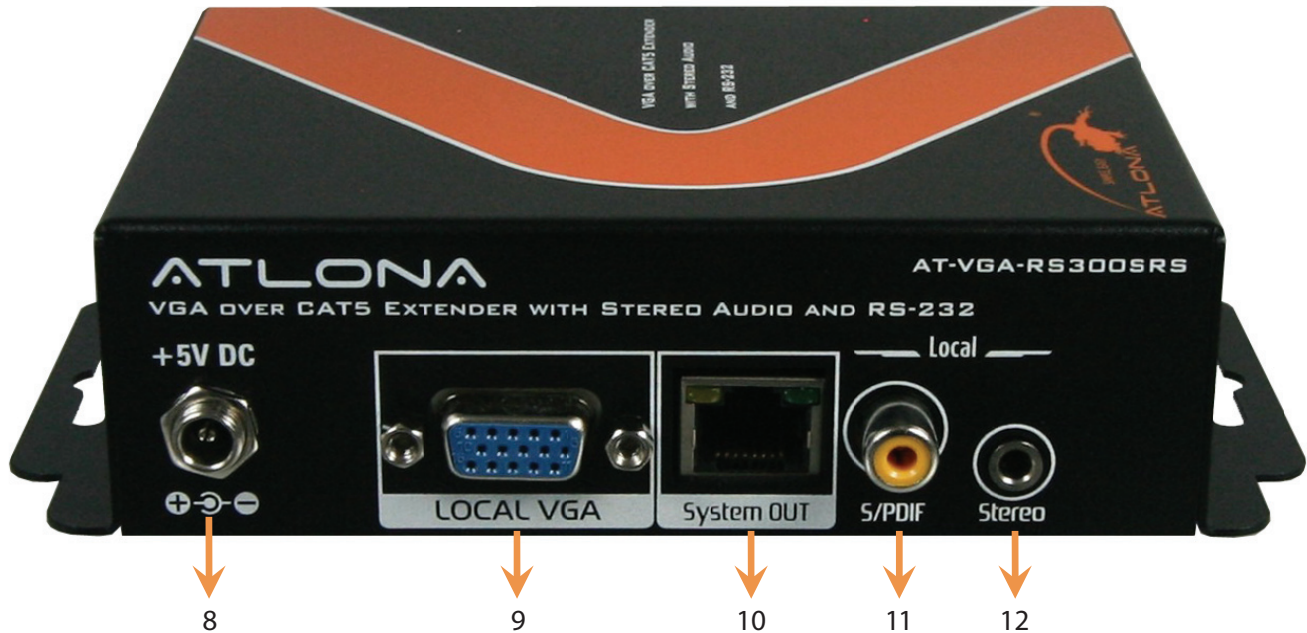


1. IR Blaster: connect to IR blaster for IR pass-through from AT-VGA-RS300R to AT-VGA-RS300S
2. RS-232: connect to a RS-232 signal source or receiver
3. Stereo IN: connect to analog audio source
4. S/PDIF IN: connect to digital audio source
5. Push-in button: select between S/PDIF and analog stereo audio [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

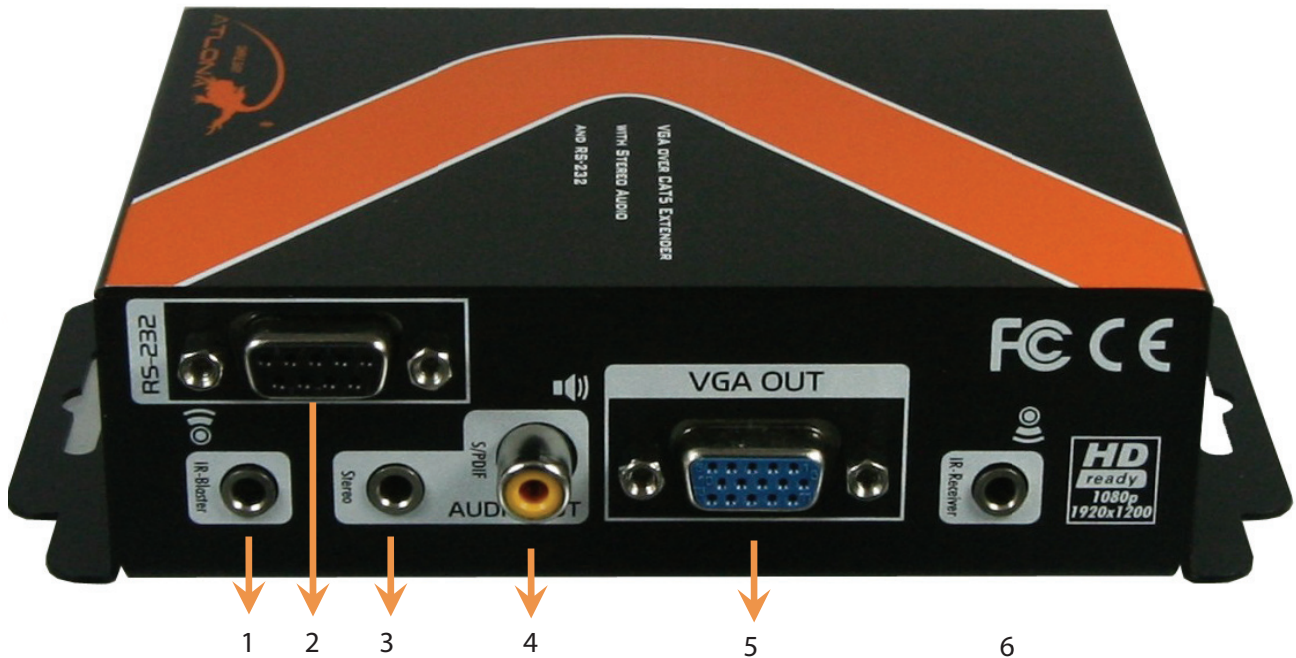
Rear Panel



8. +5V DC: interlocked 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 CAT5/5e/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

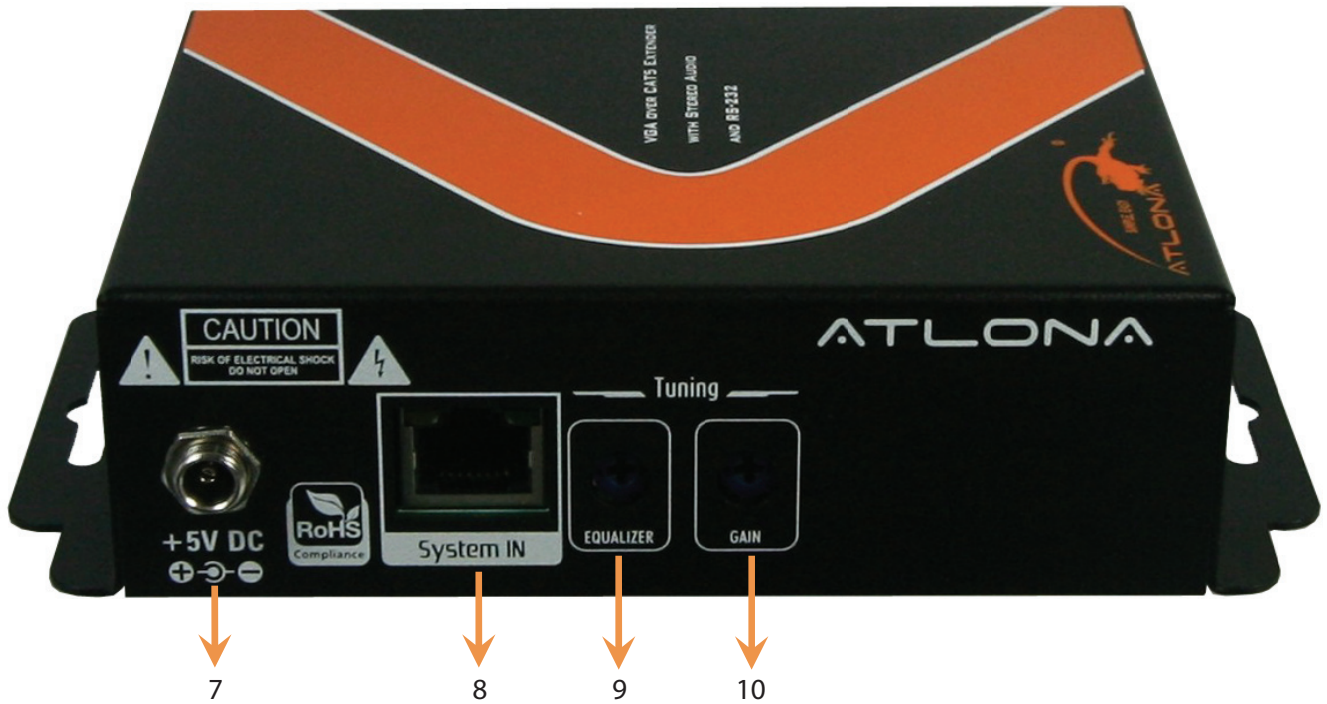


1. IR Receiver: Connect to the IR receiver
2. RS-232: Connect 9pin connector to device then RS-232 capable device
3. Audio Out: Connect analog audio to analog enabled device
4. S/PDIF Out: Connect S/PDIF connector to a digital audio device
5. VGA Out: Connect to VGA display or use a breakout cable to connect to a component video display
6. IR Blaster: Connect to the IR blaster.



AT-VGA-RS300R

Rear Panel



7. +5V DC Power Jack: connect power supply to device then to outlet
8. System IN: Connect CAT5/5e/6 cable to this port then the AT-VGA-RS300S In Port
9. Equalizer: Adjust the sharpness by moving this rotary control
10. Gain: Adjust the brightness with movements of the rotary control



Dipswitch



DIP Switch Position				Description
Pin-1	Pin-2	Pin-3	Pin-4	
ON [↑]	OFF [↓]	ON [↑]	OFF [↓]	Sender & Receiver Extender Mode - TxD ¹ of AT-VGA-RS300S is connected to TxD of AT-VGA-RS300R RxD ² of AT-VGA-RS300S is connected to RxD of AT-VGA-RS300R
OFF [↓]	ON [↑]	OFF [↓]	ON [↑]	Master to Slave Mode - TxD of AT-VGA-RS300S is connected to RxD of AT-VGA-RS300R RxD of AT-VGA-RS300S is connected to TxD of AT-VGA-RS300R

- Note: 1. TxD: The 3rd pin of RS-232, which is in charge of sending data
 2. RxD: The 2nd pin of RS-232, which is in charge of receiving data
 3. The Dip Switch is located on the bottom of the AT-VGA-RS300S (sender)

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 CAT5/5e/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 to an appropriate level for a range of input signals (brightness).
7. EQ Control is to equalize the wave form of the receiving video signal (sharpens).

Performance Guide for VGA Transmissions over CAT5/5e/6 Cable

Performance rating		Type of CAT5/5e/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 all times		



Safety Information

Safeguards



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



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



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



This equipment should be installed near the socket outlet and the device should be easily accessible in the 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, fish tanks, 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 and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, 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. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.



Warranty

Limited Warranty

Atlona Technologies warrants that (a) its products (AT-VGA-RS300SRS) 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 customers that fall within those areas.

Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

No liability for damages

To the maximum extent permitted by applicable law, in no event shall Atlona Technologies or its suppliers be liable for any damages arising out of the use of or inability to use this product, even if Atlona Technologies has been advised of the possibility of such damages. Such damages include but are not limited to: special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss. Atlona Technologies' and its suppliers' entire liability under any provision of this agreement shall be limited to the amount actually paid by you for the product. Some Jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damage. The above limitations may not apply to you in such jurisdictional cases.



Atlona Product Registration

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona, we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: <http://www.atlona.com/registration>