# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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### SE5908A Series SE5916A Series

### 8 or 16-Port IEC61850-3 Certified Industrial Rack-Mount Secure Serial Device Server



### **FEATURE HIGHLIGHTS**

- Remotely monitor, manage, and control industrial field devices
- IEC61850-3 certified, can be easily set up into IEC61850-3 substations
- Industrial EMC protection, wide temperature operation, -40°C~85°C
- Redundant Power Input for fault protection, either 24~48 VDC or High-Voltage AC/DC (100~240VAC or 100~370VDC)
- 6 Fast-Ethernet interfaces, either RJ45 or SFP slot
- 8 or 16 RS-232/RS-485/RS-422 Serial ports, with or without isolation
- TCP Server/Client, UDP, Virtual COM and Tunneling modes supported
- Embedded security with IPsec VPN support
- Configuration via Web Browser/ Serial Console / Telnet/ Windows Utility

### **PRODUCT DESCRIPTION**

#### Make Serial Devices Ready to the Network

The Industrial Serial Device Server SE5908A/SE5916A is a high-profile, high-performance wide temperature gateway for Ethernet (TCP/IP) and serial signal communications; allowing almost any serial device to be connected to a new or existing Ethernet network. By encapsulating serial data and transporting it over Ethernet, it offers full-duplex and bi-directional data seamlessly between the serial port and the Ethernet network.

#### Advanced embedded security

SE5908A/ SE5916A embeds IPsec VPN Encryption, that allows you to tunnel your data securely throught the internet and prevent unauthorized control of your Serial Devices by malicious people.

#### Easy to Use

Flexible configuration options enable this unit to be setup over Ethernet by Telnet, Web Browser, Serial Console, or our Windows Utility. Packed in a rugged metal housing for 19" rack mount with a redundant 24-48 VDC or High Voltage AC/DC power input, SE5908A/ SE5916A is ideal for mission-critical applications in utilities and especially in power substations. Atop Virtual COM software provides a virtual environment for applications when accessing the device through TCP.

#### Rugged and flexible for advanced developments

SE5908A/SE5916A embeds *high EMC protection, wide temperature operation*, programming and installation flexibility in one device. The *IEC61850-3 certified hardware* makes it the most advanced Ethernet-to-Serial or Computing option, while the dual power supply provides additional redundancy in case of power failure. High-Voltage option makes the device suitable for High-Voltage AC or DC inputs (100~240 VAC or 100~370VDC) that are common in substation environments., without additional cabling and power supply. *SDK versions\** allow you to make use of the powerful embedded TI ARM CPU, and develop your own applications on top of Atop's reliable SDK transforming your SE5908A / SE5916A in a cost effective, performing industrial computing platform.

\* More information available, please contact Atop representative

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### **SPECIFICATIONS**

Model Name	SE5908A (8-ports) SE5916A (16-ports)	
Network interface		
Speed	IEEE 802.3 10BaseT IEEE 802.3u 100BaseT(X) - RJ45 version IEEE 802.3u 100Base-FX - SFP version	
Connector ports	RJ45 x 6 (RJ45 version) SFP x 6 (SFP version)	
Serial Interface		
Connector	D-Sub9 (DB models, supporting only 5-pin RS-232 mode) or 5.08mm 5-Pin Terminal block (TB Models)	
Ports	8 (SE5908A) or 16 (SE5916A)	
Mode	RS-232/422/485 or RS-422/485 (SiS version) Software selectable	
Serial port isolation	3 kV isolation (SiS version only)	
Baud Rate	1,200 ~ 921,600 bps software selectable	
Parity	None, Odd, Even, Mark, Space	
Data Bits	5, 6, 7, 8 software selectable	
Stop Bits	1, 2 software selectable	
Flow Control	None, Xon/Xoff, RTS/CTS (RS-232 only)	
Power		
Input Voltage	Redundant 24-48 VDC or Redundant 100-240 VAC/ 100-370 VDC (HV Series)	
Input Current	0.73 A @ 24 VDC 0.35 A @ 100 VAC 0.20 A @ 100 VDC	
Power Consumption	Approximately 20 W	
Power Redundancy	Yes	
Connector	10-Pin Terminal Block	
Reverse Polarity Protection	Yes	
Physical Characteristics		
Housing Dimension (W x H x D) Weight Installation Reset Button	IP30 SPCC housing 440.6 x 44 x 309 mm (1U Rack-mount) 4 kg 19" Rack mount (Rack-mount kit included) Yes	
Environmental Limits		
Operating Temperature Storage Temperature Ambient Relative Humidity	-40°C~85°C (-40°F~185°F) -40°C~85°C (-40°F~185°F) 5%~95%, 55°C (Non-condensing)	

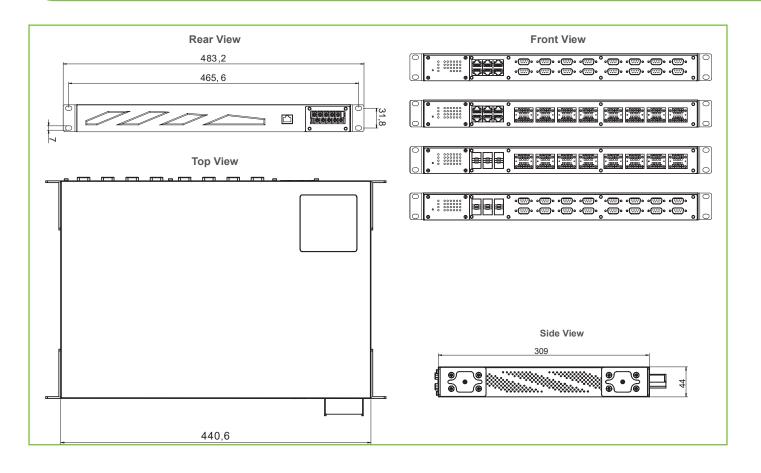
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Sofware		
Protocols	IPv4, ICMP, TCP, UDP, DHCP Client, SNMPv1,v2c,v3, HTTP, HTTPS, Telnet, RFC2217, Security through IPsec host-to-host or host-to-side VPN with up to 37.9Mbps VPN throughput	
Configuration	Atop Management Utility, Web UI, Telnet, Console	
VirtualCOM	Windows/Linux redirection software	
Link Modes		
TCP Client	Single destination or VirtualCOM	
TCP Server	4 Connections; VirtualCOM or reverse Telnet	
UDP	Up to 4 Ranges IP	

### **DIMENSIONS & LAYOUT**



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### **REGULATORY APPROVALS**

Safety	EN 61010-2-20	EN 61010-2-201			
EMC		FCC Part 15, Subpart B, Class B, EN 55032, Class B, EN 61000-6-2 Class B, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-4, IEC 61850-3 / IEEE 1613			
Test		ltem	Value	Leve	
IEC 61000-4-2	ESD	Contact Discharge Air Discharge	±8kV ±15kV	4 4	
IEC 61000-4-3	RS	Radiated (enclosure)	10 V/m	3	
IEC 61000-4-4	EFT	AC Power Port DC Power Port Signal Port	±4.0KV ±4.0KV ±4.0KV	4 4 4	
IEC 61000-4-5	Surge	AC Power Port AC Power Port DC Power Port DC Power Port Signal Port	Line-to Line±2.0KV Line-to Earth±4.0KV Line-to Line±1.0KV Line-to Earth±2.0KV Line-to Earth±2.0KV		
IEC 61000-4-6	CS	AC Power Port DC Power Port Signal Port	10 V rms	3	
IEC 61000-4-8	PFMF	Enclosure	100 A/m	5	
IEC 61000-4-10	Damped Oscillato- ry Magnetic Field	Enclosure	100 A/m		
IEC 61000-4-11	DIP	AC Power Port	-	-	
IEC 61000-4-12	Damped Oscillatory	AC Power Port Signal Port	2.5 KV common, 1 KV differential 2.5 KV common, 1 KV differential	3 3	
Shock Drop (Freefall) Vibration		MIL-STD-810F Method 516.5 MIL-STD-810F Method 516.5 MIL-STD-810F Method 514.5 C1 & C2			
RoHS II		Yes			
MTBF		TBD			
Warranty		5 years			

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### **ORDERING INFORMATION**

Ordering information					
Model name	Part Number	Description	Power	Ethernet	Serial
SE5916A-6SFP	1P1SE5916A0001G	Ind. 16 Port Serial Server, 100BASE-FX SFP slot, DB9	24~48 VDC		16 (DB9)
SE5916A-6SFP-TB	1P1SE5916A0002G	Ind. 16 Port Serial Server, 100BASE-FX SFP slot, TB5			16 (TB)
SE5916A-6SFP-Sis	1P1SE5916A0003G	Ind. 16 Port Serial Server, 100BASE-FX SFP slot,Isolated			16 (TB)
SE5908A-6SFP	1P1SE5908A0001G	Ind. 8 Port Serial Server, 100BASE-FX SFP slot, DB9			8 (DB9)
SE5908A-6SFP-TB	1P1SE5908A0002G	Ind. 8 Port Serial Server, 100BASE-FX SFP slot, TB5			8 (TB)
SE5908A-6SFP-Sis	1P1SE5908A0003G	Ind. 8 Port Serial Server, 100BASE-FX SFP slot,Isolated			8 (TB)
SE5916A-6SFP-HV	1P1SE5916A0004G	Ind. 16 Port Serial Server, 100BASE-FX SFP slot, DB9	100/240 VAC or 100/370 VDC		16 (DB9)
SE5916A-6SFP-TB-HV	1P1SE5916A0005G	Ind. 16 Port Serial Server, 100BASE-FX SFP slot, TB5			16 (TB)
SE5916A-6SFP-Sis-HV	1P1SE5916A0006G	Ind. 16 Port Serial Server, 100BASE-FX SFP slot, Isolated			16 (TB)
SE5908A-6SFP-HV	1P1SE5908A0004G	Ind. 8 Port Serial Server, 100BASE-FX SFP slot, DB9			8 (DB9)
SE5908A-6SFP-TB-HV	1P1SE5908A0005G	Ind. 8 Port Serial Server, 100BASE-FX SFP slot, TB5			8 (TB)
SE5908A-6SFP-Sis-HV	1P1SE5908A0006G	Ind. 8 Port Serial Server, 100BASE-FX SFP slot, Isolated			8 (TB)
SE5916A	1P1SE5916A0008G	Ind. 16 Port Serial Server, 10/100BASE-T(X) RJ45, DB9	100/240 VAC or 100/370	-6 (RJ45)	16 (DB9)
SE5916A-TB	1P1SE5916A0009G	Ind. 16 Port Serial Server, 10/100BASE-T(X) RJ45, TB5			16 (TB)
SE5916A-Sis	1P1SE5916A000AG	Ind. 16 Port Serial Srv, 10/100BASE-T(X) RJ45,Isolated			16 (TB)
SE5908A	1P1SE5908A0007G	Ind. 8 Port Serial Server, 10/100BASE-T(X) RJ45, DB9			8 (DB9)
SE5908A-TB	1P1SE5908A0008G	Ind. 8 Port Serial Server, 10/100BASE-T(X) RJ45, TB5			8 (TB)
SE5908A-Sis	1P1SE5908A0009G	Ind. 8 Port Serial Srv, 10/100BASE-T(X) RJ45, Isolated			8 (TB)
SE5916A-HV	1P1SE5916A000BG	Ind. 16 Port Serial Server, 10/100BASE-T(X) RJ45, DB9			16 (DB9)
SE5916A-TB-HV	1P1SE5916A000CG	Ind. 16 Port Serial Server, 10/100BASE-T(X) RJ45, TB5			16 (TB)
SE5916A-Sis-HV	1P1SE5916A000DG	Ind. 16 Port Serial Srv, 10/100BASE-T(X) RJ45,Isolated			16 (TB)
SE5908A-HV	1P1SE5908A000AG	Ind. 8 Port Serial Server, 10/100BASE-T(X) RJ45, DB9			8 (DB9)
SE5908A-TB-HV	1P1SE5908A000BG	Ind. 8 Port Serial Server, 10/100BASE-T(X) RJ45, TB5	VDC		8 (TB)
SE5908A-Sis-HV	1P1SE5908A000CG	Ind. 8 Port Serial Srv, 10/100BASE-T(X) RJ45, Isolated			8 (TB)
SDK Version	Ask headquarter	SDK Programmable version, ask HQ for information	-	-	8/16

Optional Accessories			
Model name	Part Number	Description	
SDR-75-24	50500752240001G	75W/3.2A DIN-Rail 24VDC power supply 88~264VAC / 124-370VDC input	
GDC-120	59906861G	120mm copper woven grounding cable	
ADP-DB9(F)-TB5	59906231G	Female DB9 to Female 3.81mm TB5 Converter	
LM38-A3S-TI-N	50708051G	SFP Transceiver, 155Mbps, 1310nmLED, Multi-mode, 2km, 3.3V, -40~85C	
LS38-A3S-TI-N	50709431G	SFP Transceiver, 155Mbps, 1310nmFP, Single-mode, 30km, 3.3V, -40~85C	

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