

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 and OpenVPN Client/Server support
- Configuration via Web Browser / 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.

Security and Redundancy

SE5908A/SE5916A embeds OpenVPN and IPsec VPN, that allows you to tunnel your data securely through the internet and prevent unauthorized control of your Serial Devices by malicious people. The integrated Rapid Spanning Tree Protocol (RSTP), allows you to add a backup Ethernet link in the event the primary one fails.

Easy to Use

Flexible configuration options enable this unit to be setup over Ethernet by Telnet, Web Browser, 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.

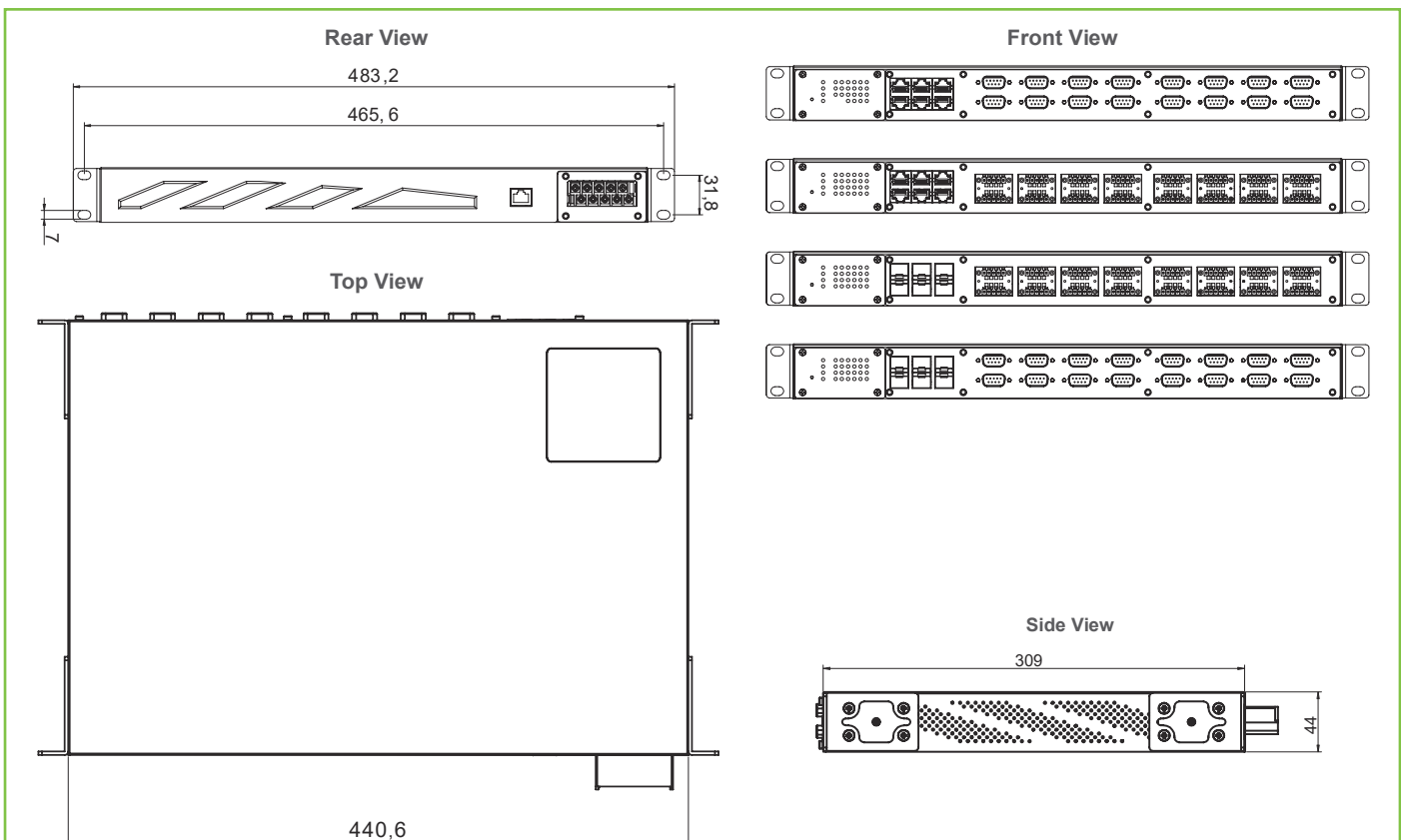
* More information available, please contact Atop representative

SPECIFICATIONS

| Technical 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 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) |

| Software | |
|---------------|--|
| Protocols | IPv4, ICMP, TCP, UDP, DHCP Client, SNMPv1,v2c,v3, HTTP, HTTPS, Telnet, RFC2217, 802.1D-2004 RSTP, Security through OpenVPN Client/Server and IPsec (host-to-host or host-to-side) with up to 37.9Mbps VPN throughput, PPTP, and SMTP/TLS |
| 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



REGULATORY APPROVALS

| Regulatory Approvals | | | | |
|---------------------------------------|---|----------------------|----------------------------------|---|
| Safety | 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 | Item | Value | Level | |
| IEC 61000-4-2 | ESD | Contact Discharge | ±8kV | 4 |
| | | Air Discharge | ±15kV | 4 |
| IEC 61000-4-3 | RS | Radiated (enclosure) | 10 V/m | 3 |
| IEC 61000-4-4 | EFT | AC Power Port | ±4.0KV | 4 |
| | | DC Power Port | ±4.0KV | 4 |
| | | Signal Port | ±4.0KV | 4 |
| IEC 61000-4-5 | Surge | AC Power Port | Line-to Line±2.0KV | 4 |
| | | AC Power Port | Line-to Earth±4.0KV | 4 |
| | | DC Power Port | Line-to Line±1.0KV | 3 |
| | | DC Power Port | Line-to Earth±2.0KV | 3 |
| | | Signal Port | Line-to Earth±2.0KV | 4 |
| IEC 61000-4-6 | CS | AC Power Port | 10 V rms | 3 |
| | | DC Power Port | | |
| | | Signal Port | | |
| IEC 61000-4-8 | PFMF | Enclosure | 100 A/m | 5 |
| IEC 61000-4-10 | Damped Oscillatory Magnetic Field | Enclosure | 100 A/m | 5 |
| IEC 61000-4-11 | DIP | AC Power Port | - | - |
| IEC 61000-4-12 | Damped Oscillatory | AC Power Port | 2.5 KV common, 1 KV differential | 3 |
| | | Signal Port | 2.5 KV common, 1 KV differential | 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 | SE5916A-6SFP-Sis-HV: 9.18 years; SE5916A-6SFP-Sis: 8.63 years | | | |
| Warranty | 5 years | | | |

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 | 6 (SFP) | 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 | 6 (SFP) | 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 | 24~48 VDC | 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 | 100/240 VAC or 100/370 VDC | 6 (RJ45) | 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 | | | 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 |