

SE5901B Series

3G/4G LTE Cellular to Ethernet and Serial Secure Industrial Gateway



FEATURE HIGHLIGHTS

- Extensive 3G and LTE Band Support
 - EU: 2100/1800/850/2600/900/800MHz (B1/B3/B5/B7/B8/B20)
 - US: 1900/AWS/850/700/700/1900MHz (B2/B4/B5/B13/B17/B25)
- High-performance IPsec VPN throughput, data-rate up to 37.9Mbps*
- Wide temperature, industrial grade platform
- 1 x 10/100/1000Mbps Ethernet port
- 1-port RS-232/485, baud rate up to 921.6 Kbps
- 1-Port USB2.0 high speed OTG + 1-Port USB Power only
- TCP Server/Client, UDP, Virtual COM supported
- 2 Digital Inputs/ 2 Digital outputs in I/O version
- Additional embedded power-bank for fault-relay capability (B version)

PRODUCT DESCRIPTION

Providing connectivity for the Internet of Things

SE5901B, Atop's Industrial Serial to Ethernet and Cellular Gateway is a high-performance, cost effective gateway for serial signal communications; allowing almost any serial device to be connected to Ethernet network and providing connectivity to the world. Its powerful CPU provides up to 37.9Mbps* software-assisted AES encryption for protecting your data flow through the Internet with a secure IPsec VPN tunnel.

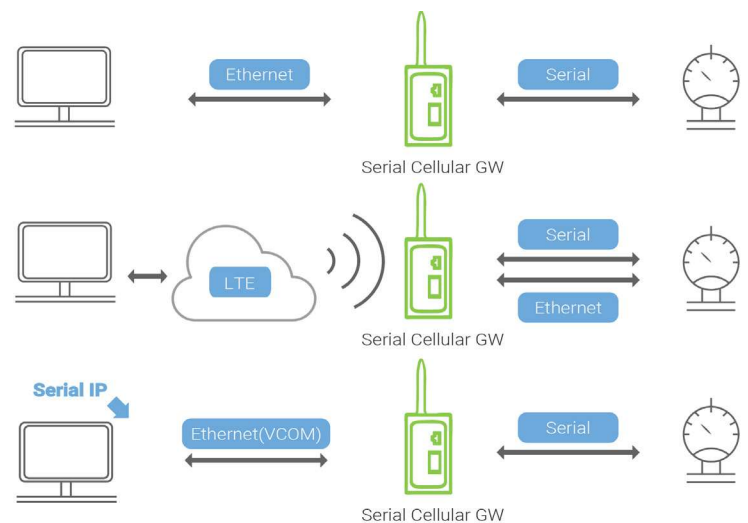
Advanced features available

Flexible configuration options enable this unit to be setup over Ethernet by Telnet, Web Browser, Serial Console, or our Windows Utility. Atop Virtual COM software provides a virtual environment for applications when accessing SE5901B through TCP. A dedicated I/O version provides 2 Digital Inputs and 2 Digital Outputs, GPS version provides Global positioning system geolocation and, specifically for the Internet of Things, a "B" version provides additional 15 seconds power during a power failure, allowing the device to relay back to the host the failure. This is Maintenance 4.0.

Rugged and flexible for advanced developments

SE5901B embeds high EMC protection, wide temperature operation, programming and installation flexibility in one device. SDK versions allow you to make use of the powerful hardware and develop your own applications on top of Atop's reliable APIs and with plenty of coding examples in Atop's SDK. SDK versions are available upon request. Please contact Atop's representative for additional information.

*: test carried out with one VPN-IPsec Tunnel, Peer-to-Peer mode, Ethernet cable. Performance can change based on the Cellular Network.



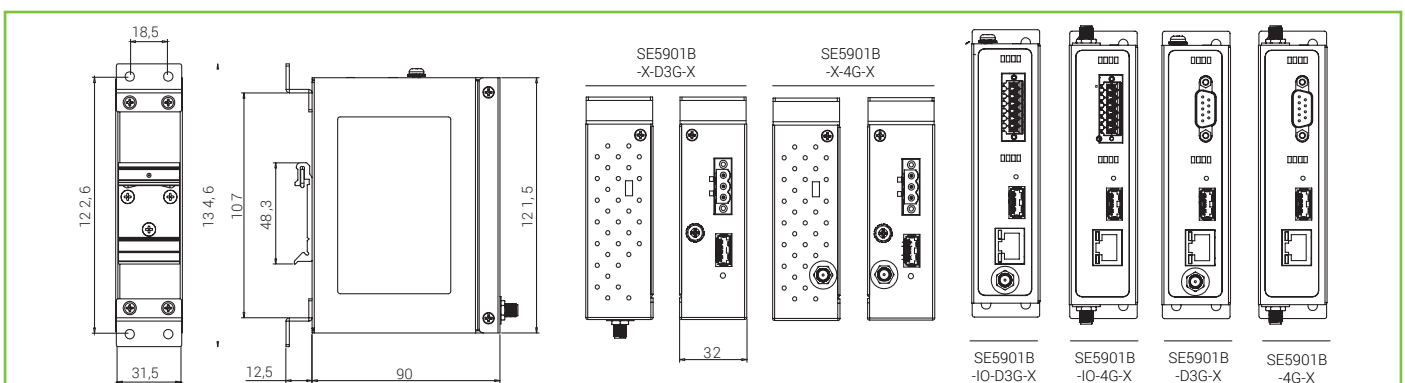
SPECIFICATIONS

Wireless Interface					
Standard	GSM/ GPRS/ EDGE/ UMTS/ HSPA+/ SCDMA/ LTE				
Wireless Module	EU version: Quectel EC25-E US version: Quectel EC20-A				
Antennas/ SIM card	1 (3G) or 2 (4G) - Included. Internal SIM card slot (x1)				
Band Options	Version	Band	Bands		
	EU	FDD LTE TDD LTE WCDMA GSM	2100/1800/850/2600/900/800MHz (B1/B3/B5/B7/B8/B20) 2600/2300/2500MHz (B38/B40/B41) 2100/850/900MHz (B1/B5/B8) 900/1800		
	US	FDD LTE TDD LTE GSM	1900/1700/850/700/700bMHz (B2/B4/B5/B12/B17) 1900/1700/850MHz (B2/B4/B5) 850/1900MHz		
Data Rate	Version	Band	Downlink Speed	Uplink Speed	
	EU	LTE-FDD LTE-TDD DC-HSPA+ UMTS TD-SCDMA EDGE GPRS	150 Mbps 130 Mbps 42 Mbps 384 Kbps 4.2 Mbps 236.8 Kbps 85.6 Kbps	50 Mbps 35 Mbps 5.76 Mbps 384 Kbps 2.2 Mbps 236.8 Kbps 85.6 Kbps	
		US	LTE-FDD LTE-TDD DC-HSPA+ UMTS TD-SCDMA EDGE GPRS	100 Mbps 61 Mbps 42 Mbps 384 Kbps 4.2 Mbps 236.8 Kbps 85.6 Kbps	50 Mbps 18 Mbps 5.76 Mbps 384 Kbps 2.2 Mbps 236.8 Kbps 85.6 Kbps
Network Interface					
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X)				
Ethernet Ports	1x 10/100/1000BASE-TX RJ-45				
Serial Interface					
Connector	D-Sub9 RS-232/485 software selectable (DB model) 14-Pin 5.08mm Terminal Block (integrated with DI/DOs)				
Ports	1 port RS-232/485 (2-wire) software selectable 1 port RS-232 (IO model only)				
Configuration	Baud Rate Data Bits Stop Bits Flow Control		1,200 ~ 921,600bps software selectable 7, 8 software selectable 1, 2 software selectable None, Xon/Xoff, RTS/CTS (RS-232 only)		
Universal Serial Bus					
USB ports	2 x USB A Type (USB 2.0) - 1-port High-Speed OTG + 1-port power only				

Digital Inputs/Outputs (IO Models)	
Digital Inputs (DIs) Digital Outputs (DOs)	2 channels photo coupler isolated digital input 2 channels digital output. N.O.(2A@24VDC)
Software	
Serial Server-related	VirtualCOM (Serial/IP), Virtual Server (port Forwarding)
Security	VPN IPsec. Max VPN throughput 37.9Mbps *
Network	IPv4, Dynamic DNS, DHCP Client, ICMP, TCP, UDP, HTTP, RFC2217, TELNET
Configuration	Embedded Web-Server (Web UI), TELNET, Atop Device Management Utility
Link Mode	
TCP Server TCP Client UDP	4 connections, Virtual COM, or Reverse Telnet Single destination or Virtual COM Up to 4 ranges of IPs
Power	
Input Voltage	9-48 VDC
Connector	3-Pin 5.08mm Lockable Terminal Block
Power Consumption	0.6A @ 12VDC (7.2 W Max)
Power Redundancy	USB DC 5V Power Input
Reverse Polarity Protection	Yes
Environmental limits	
Operating Temperature Storage Temperature Ambient Relative Humidity	-40°C~70°C (-40°F~158°F) -40°C~85°C (-40°F~185°F) 5%~95%, (Non-condensing)
Mechanicals	
Housing	IP30 protection, SPCC metal housing
Dimensions(W x H x D)	32mm x 122mm x 92mm
Installation	DIN-Rail or Wall-Mount (optional kit)
Weight	400 g
Reset Button	Yes

* : test carried out with one VPN-IPsec Tunnel, Peer-to-Peer mode, Ethernet cable. Performance can change based on the Cellular Network.

DIMENSIONS & LAYOUT



REGULATORY APPROVALS

Regulatory Approvals				
Safety	EN 60950-1:2006			
EMC/Radio	FCC 47 CFR PART 22H, FCC 47 CFR PART 24H, FCC PART 27L, FCC Part 15B, EN301511, EN301908-1, EN301908-2, EN301489-1, EN301489-7, EN301489-24, EN55032, EN55024, EN61000-6-2, EN61000-6-4			
Test	Item		Value	Level
IEC 61000-4-2	ESD	Contact Discharge	±6KV	3
		Air Discharge	±8KV	3
IEC 61000-4-3	RS	Enclosure Port	10(V/m), 80-1000MHz	3
IEC 61000-4-4	EFT	AC Power Port	±2.0KV	3
		DC Power Port	±2.0KV	3
		Signal Port	±1.0KV	3
IEC 61000-4-5	Surge	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	3
IEC 61000-4-6	CS	0.15-80MHz	10V rms	3
IEC 61000-4-8	PFMF	(Enclosure)	AC 50Hz 10A/m	3
IEC 61000-4-11	DIP	AC Power Port	>95%,Reduction,0.5period 30%, Reduction,25 period >95%,Reduction,250 period	-
Shock	IEC 60068-2-27			
Drop	IEC 60068-2-32			
Vibration	IEC 60068-2-64			
RoHS	Yes			
MTBF	TBD			
Warranty	5 years			

ORDERING INFORMATION

Ordering information					
Software Type	Model name	Cellular	Serial Ports	I/O	Other
Ethernet/ Cellular to Serial Gateway, VirtualCOM and IPsec VPN Security	SE5901B-D3G-US	3G (US)	1 (DB9)	-	-
	SE5901B-IO-D3G-US	3G (US)	1 (TB) +1 RS232	2/2	-
	SE5901B-IO-D3G-GPS-US	3G (US)	1 (TB) +1 RS232	2/2	GPS
	SE5901B-4G-US	4G (US)	1 (DB9)	-	-
	SE5901B-IO-4G-US	4G (US)	1 (TB) +1 RS232	2/2	-
	SE5901B-IO-4G-GPS-US	4G (US)	1 (TB) +1 RS232	2/2	GPS
	SE5901B-4G-B-US	4G (US)	1 (DB9)	-	-
	SE5901B-IO-4G-B-US	4G (US)	1 (TB) +1 RS232	2/2	Battery
	SE5901B-IO-4G-GPS-B-US	4G (US)	1 (TB) +1 RS232	2/2	GPS - Battery
	SE5901B-D3G-EU	3G (EU)	1 (DB9)	-	-
	SE5901B-IO-D3G-EU	3G (EU)	1 (TB) +1 RS232	2/2	-
	SE5901B-IO-D3G-GPS-EU	3G (EU)	1 (TB) +1 RS232	2/2	GPS
	SE5901B-4G-EU	4G (EU)	1 (DB9)	-	-
	SE5901B-IO-4G-EU	4G (EU)	1 (TB) +1 RS232	2/2	-
	SE5901B-IO-4G-GPS-EU	4G (EU)	1 (TB) +1 RS232	2/2	GPS
	SE5901B-4G-B-EU	4G (EU)	1 (DB9)	-	Battery
	SE5901B-IO-4G-B-EU	4G (EU)	1 (TB) +1 RS232	2/2	-
	SE5901B-IO-4G-GPS-B-EU	4G (EU)	1 (TB) +1 RS232	2/2	GPS - Battery

Optional Accessories		
Model name	Part Number	Description
UN315-1212(US-Y) LV6	50500151120003G	Y-Type (5.08 mm) adaptor, 100-240VAC input, 1.25A @ 12VDC output, US plug
UNE315-1212(EU-Y)LV6	50500151120013G	Y-Type (5.08 mm) adaptor, 100-240VAC input, 1.25A @ 12VDC output, EU plug
ADP-DB9(F)-TB5	59906231G	Female DB9 to Female 3.81mm TB5 Converter
WMK-315-Black	70100000000050G	Black Aluminum Wall Mount Kit
WL-7200-V1 WLAN Dongle	59908002G	802.11b/g/n 300M , USB Dongle