

## Low Power Consumption Gateway LTE Cat-1

## SE5201B



## **FEATURE HIGHLIGHTS**

#### **Comprehensive Connectivity**

- LTE Cat 1
- 2x 100 Base TX RJ 45, 2x LAN
- 1 RS 232/485 COM Ports
- 1 DI & 1 DO I/O Interfac

#### **Reliable & Trustworthy Platform**

- Multi WAN Failover
- Secure VPN and Firewall Isolation
- IEC62443-4-2 Cybersecurity Compliance\*

#### **Quick Deployment & Management**

ATOP NMS Management

#### **Compact and Robust Design**

- Efficient Power Consumption (<100 mW)
- Dimensions: 136 x 95 x 30 mm
- Industrial EMC Protection
- -30°C to +75°C Operation

#### Other Features

- SD Slot for Configuration and Storage
- Optional GPS Function
- Schedulable Power Management

#### High Quality Guaranteed

• Made in Taiwan with 5 Years Warranty

\* Coming soor

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### **PRODUCT DESCRIPTION**

ATOP SE5201B IoT gateway is a super-low power consumption LTE gateway. In addition to high EMC protection, wide-temperature operation, and rugged metal housing, SE5201B series has a configurable power management mechanism to reduce device power consumption. It is suitable for various operations, especially in power-challenged environments.

# Efficient Power Consumption

SE5201B supports Cellular LTE Cat-1. With extended idle and sleep modes, these standards have lower power consumption than other LTE standards. SE5201B/ CR5201B further enhances this efficiency by using less than 100 mW power in sleep mode, allowing easy deployment in powerchallenged environments.

# SD

**Expandable SD Storage** 

SE5201B reserves the flexibility to extend its storage capacity through a built-in SD slot, so you can store more data on the IoT gateway for work efficiency as well.



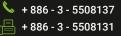
#### **Exceptional Security**

Integrating Firewall, Zone forwarding, and VPN functions, ATOP SE5201B allows you to connect your industrial network to the internet without fearing intrusions to your organization data.

# 30°C

#### **Endurance of Harsh Environments**

ATOP SE5201B is proven to run at its maximum loading in the harshest EMC and climate environments.



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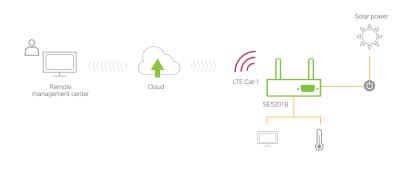




## **APPLICATIONS**

#### As a Low Power Consumption IoT Gateway

SE5201B can act as a low power consumption gateway. Through its smart power management mechanism, the device switches to sleep mode or hibernation mode during non-service phases, and can be woken via scheduled management policies to serve functions when needed. It is especially suited where power supply is limiting, such as in systems powered by solar batteries.



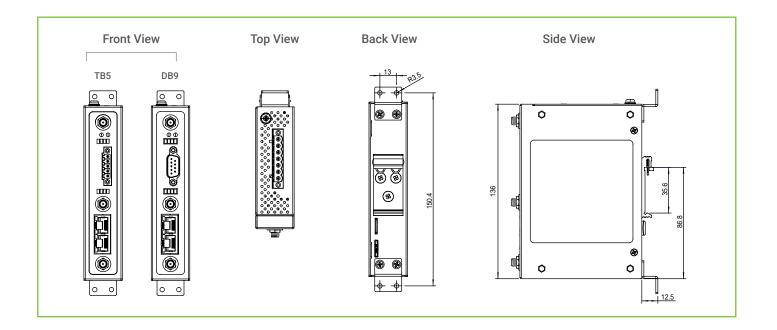
#### As a Cyber Security Gateway



SE5201B is also designed to act as a cyber security gateway. Un-secured network access will be denied by the firewall protection, while secured VPN tunnels enhance the security of your data transmission during the network communication. Security and encryption are indispensable to IoT, and therefore fundamental functions of SE5201B.

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### **DIMENSIONS & LAYOUT**



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# **SPECIFICATIONS**

Hardware Specifications		
Model Name	SE5201B/ CR5201B Series	
Cellular Interfaces		
Standards	LTE Cat 1	
Ethernet Interfaces		
Standards	802.3 for 10BaseT(X) 802.3u for 100BaseT(X)	
Ports	2 x RJ-45 10/100 BaseT(X), 1.5kV isolation	
GNSS		
Standards	GPS/GLONASS	
Serial Interfaces (SE5201B only		
Connector Type	9-Pin D-Sub or 5-Pin Terminal Block	
Ports	1 x RS-232/RS-485-2W, software selectable	
Baud Rate	1200 to 460,800 bps	
Parity	None, Odd, Even	
Data Bits	5, 6, 7, 8, software selectable	
Stop Bits	1, 2, software selectable	
Flow Control	None, Xon/Xoff, RTS/CTS (RS-232 only)	
Terminal Resistor (Ω)	120	
Pull High/Low Resistor (Ω)	On: 1K; Off: 100K	
External I/O Interfaces (SE5201	B only)	
Digital Input & Output	1 x DI, Photo coupled isolated (5VDC) 1 x DO, Digital Relay Output (1A@24VDC)	
Default/Reset Button	1 key	
Mode Button	1 key	
SIM card slots	1 or 2 push-pull SIM card holder	
SD Slot	1x Micro SD slot	
LED Indicators		
Power LED	1x Green LED	
Run LED	1x Green LED	
COM LED	1x Tx Green LED; 1x Rx Green LED	
DI/DO LED	1x DI LED; 1x DO Green LED	
LTE Signal	4X Green LED	



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# **SPECIFICATIONS**

CellularGNSS (Optional)Power CharacteristicsConnector TypeInput VoltagePower Consumption (SE5201B only)Reverse Polarity ProtectionPhysical CharacteristicsHousingDimensional (Markov D)	2 x SMA(M) Antenna for LTE Cat.1 1 x Wide-Band Terminal Block 9 to 48 VDC Idle < 3W@12VDC; Hibernate < 100mW@12VDC Yes
Power CharacteristicsConnector TypeInput VoltagePower Consumption (SE5201B only)Reverse Polarity ProtectionPhysical CharacteristicsHousing	Terminal Block 9 to 48 VDC Idle < 3W@12VDC; Hibernate < 100mW@12VDC Yes
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Reverse Polarity Protection         Physical Characteristics         Housing	Yes
Physical Characteristics Housing	
Housing	Matal Incursion, IDOO Desta ation
	Matal Lauria a UD00 Desta stica
	Metal housing, IP30 Protection
Dimension (W x H x D)	136 x 95 x 30 mm
Weight	TBD
Installation	DIN-Rail, Wall mount (Optional)
Reset Button	Yes
Environmental Limits	
Operating Temperature	-30 to +75 °C
Storage Temperature	-40 to + 85 °C
Ambient Relative Humidity	5% to 95% (non-condensing)
Ingress Protection Rating	IP30
Software Specifications	
Protocols	TCP/IP, UDP, ARP, DHCP, SMTP, SNMP, Https, SNMP v1/v2/v3
Security	OpenVPN, IPSEC, L2TP
Virtual COM	Yes
Firewall	ACL, NAT, Port-forwarding
VPN	IPSEC, OpenVPN, L2TP
System Management	WEB, SSH, Telnet
Power Management       Scheduled power management         Power Management       - Hibernation mode         Multi waken-up mechanisms from sleep/hibernation modes	

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# **REGULATORY APPROVALS**

Safety	EN62368-1				
EMC	CNS 15936/15598-1 EN55032, EN61000-6-4, EN55024, EN61000-6-2, FCC Part 15B, FCC Part 18				
CE	Cellular	EN301489-1/-52, EN301908-1 RSE for LTE and WCDMA EN301511 for GSM			
	GNSS	EN303413, EN301489-1/-3			
FCC		FCC Part 18, FCC part150 27L/27H/27F/27M/90R f			
NCC	CNS 15936/15	598-1			
Test		Item	Value	Leve	
IEC 61000-4-2	ESD	Contact Discharge Air Discharge	±4KV ±8KV	2 3	
IEC 61000-4-3	RS	Enclosure Port	10 (V/m) , 80-1000MHz 3 (V/m), 1.4-2.0GHz 10 (V/m), 2.0~2.7GHz		
IEC 61000-4-4	EFT	DC Power Port Signal Port	±1.0KV@ 5.0kHz ±1.0KV @ 5.0kHz		
IEC 61000-4-5	Surge	DC Power Port Signal Port	Line-to-Line ±0.5KV Line-to-Earth ±1.0KV Line-to-Earth ±1.0KV	2 2 2	
IEC 61000-4-6	CS	DC Power Port Signal Port	10V, 150KHz to 80MHz, 80%AM 10V, 150KHz to 80MHz, 80%AM	3 3	
IEC 61000-4-8	PFMF	Enclosure	30A/m (r.m.s), 50Hz or 60Hz		
Shock	IEC 60068-2-27				
Freefall	IEC 60068-2-32	2			
Vibration	IEC60068-2-64				
Others	- ROHS, includi - REACH - TSCA (US) - TPCH (US) - Conflict mine	ing 2015 amendment ral free			
MTBF	TBD				
Warranty	5 years				



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# **ORDERING INFORMATION**

Ordering information-C1						
Model name	Description					
	Part Number	Cellular	Band	RS232/485 Serial Port	SIM Slots	GPS
SE5201B-Q-T-C1-DB-EU	1P1SE5201B0011G	LTE Cat.1		1x DB9	1	-
SE5201B-Q-T-C1-DB-EU-GPS	1P1SE5201B0012G	LTE Cat.1	B1/B3/B7/B8/ B20/B28		2	Yes
SE5201B-Q-T-C1-TB-EU	1P1SE5201B0013G	LTE Cat.1	(for EU region)		1	-
SE5201B-Q-T-C1-TB-EU-GPS	1P1SE5201B0014G	LTE Cat.1		1x TB5	2	Yes
SE5201B-Q-T-C1-DB-US	1P1SE5201B0001G	LTE Cat.1	B2/B4/B5/B12/ B13 (for US region) 1x TB5		1	-
SE5201B-Q-T-C1-DB-US-GPS	1P1SE5201B0002G	LTE Cat.1			2	Yes
SE5201B-Q-T-C1-TB-US	1P1SE5201B0003G	LTE Cat.1			1	-
SE5201B-Q-T-C1-TB-US-GPS	1P1SE5201B0004G	LTE Cat.1			2	Yes
SE5201B-E-T-C1-DB-TW	1P1SE5201B0017G	LTE Cat.1	1.550		1	-
SE5201B-E-T-C1-DB-TW-GPS	1P1SE5201B0019G	LTE Cat.1	B1/B3/B7/B8/ B20/B28	1x DB9	2	Yes
SE5201B-E-T-C1-TB-TW	1P1SE5201B0018G	LTE Cat.1	(for Taiwan region) 1x TB5		1	-
SE5201B-E-T-C1-TB-TW-GPS	1P1SE5201B001AG	LTE Cat.1			2	Yes

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		
RFDPA46383ASBGBA01	59902241G	GPS Antenna(GPS/GLONASS/BeiDou)		

