SE5201B/CR5201B

Low Power Consumption Gateway LTE Cat-1

FEATURE HIGHLIGHTS

Comprehensive Connectivity

- LTE Cat 1
- 2x 100 Base TX RJ 45, 2x LAN
- 1 RS 232/485 COM Ports(SE5201B only)
- 1 DI & 1 DO I/O Interface

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

Reliable & Trustworthy Platform

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

Other Features

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

Quick Deployment & Management

- ATOP NMS Management

High Quality Guaranteed

- Made in Taiwan with 5 Years Warranty

* Coming soon

PRODUCT DESCRIPTION

ATOP SE5201B/ CR5201B IoT gateway is a super-low power consumption LTE gateway. In addition to high EMC protection, wide-temperature operation, and rugged metal housing, SE5201B/ CR5201B 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/CR5201B 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 power-challenged environments.

Exceptional Security

Integrating Firewall, Zone forwarding, and VPN functions, ATOP SE5201B/ CR5201B allows you to connect your industrial network to the internet without fearing intrusions to your organization data.

Expandable SD Storage

SE5201B/ CR5201B 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.

Endurance of Harsh Environments

ATOP SE5201B/ CR5201B is proven to run at its maximum loading in the harshest EMC and climate environments.

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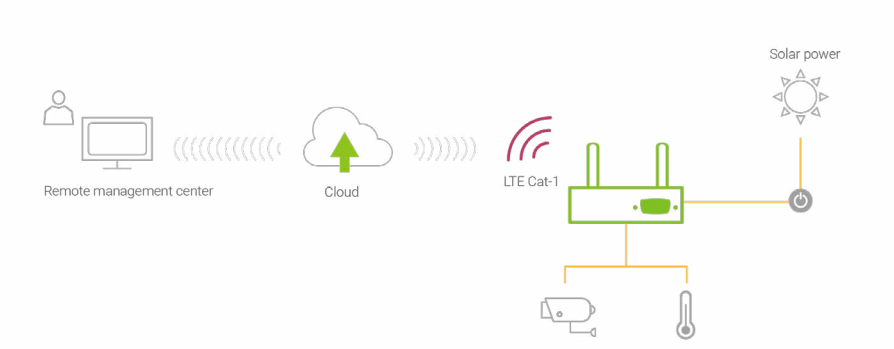
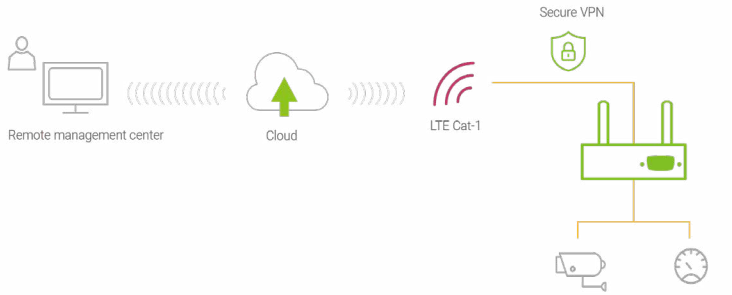
APPLICATIONS

As a Low Power Consumption IoT Gateway

SE5201B/ CR5201B 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.

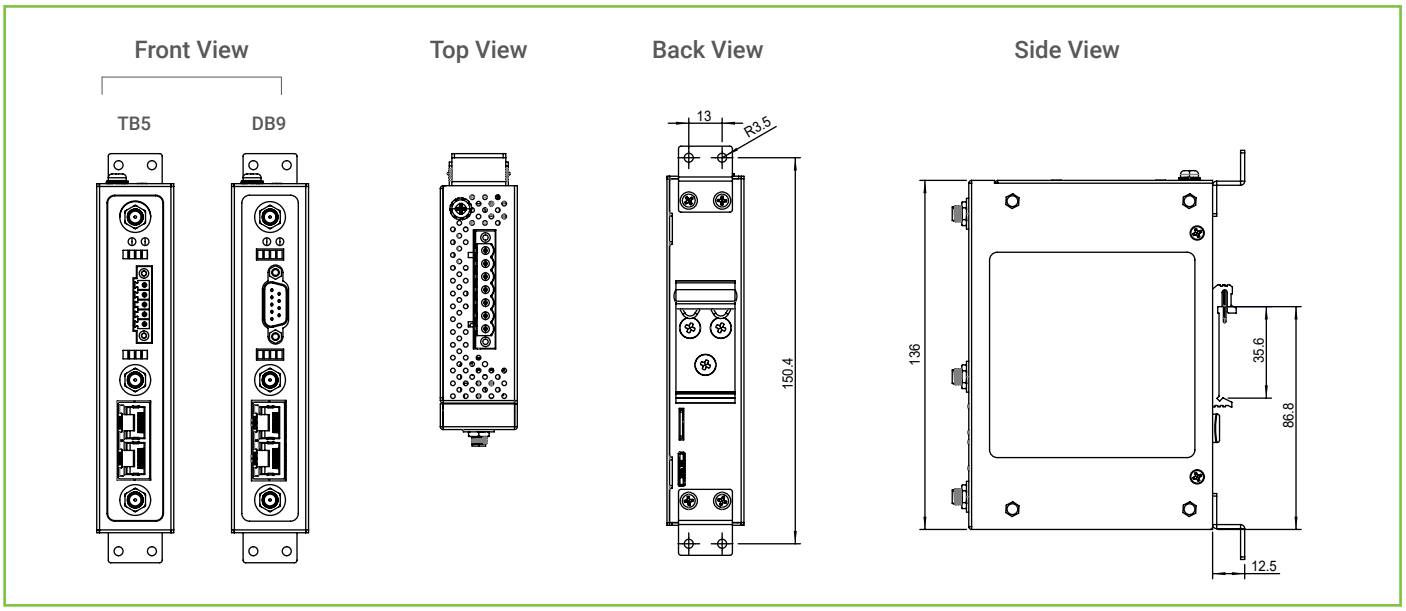


As a Cyber Security Gateway



SE5201B/ CR5201B 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/ CR5201B.

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 (SE5201B 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

SPECIFICATIONS

Antennas	
Cellular	2 x SMA(M) Antenna for LTE Cat.1
GNSS (Optional)	1 x Wide-Band
Power Characteristics	
Connector Type	Terminal Block
Input Voltage	9 to 48 VDC
Power Consumption (SE5201B only)	Idle < 3W@12VDC; Hibernate < 100mW@12VDC
Reverse Polarity Protection	Yes
Physical Characteristics	
Housing	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 - Sleep mode - Hibernation mode Multi waken-up mechanisms from sleep/hibernation modes - Timer

REGULATORY APPROVALS

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 15B, FCC Part 18, FCC part15C (15.247) Part 22H/24E/27L/27H/27F/27M/90R for LTE	
NCC	CNS 15936/15598-1	

Test	Item		Value	Level
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	3 3 3
IEC 61000-4-4	EFT	DC Power Port Signal Port	±1.0KV@ 5.0kHz ±1.0KV @ 5.0kHz	2 3
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	4
Shock	IEC 60068-2-27			
Freefall	IEC 60068-2-32			
Vibration	IEC60068-2-64			
Others	- ROHS, including 2015 amendment - REACH - TSCA (US) - TPCH (US) - Conflict mineral free			
MTBF	TBD			
Warranty	5 years			

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	B1/B3/B7/B8/ B20/B28	1x DB9	1	-
SE5201B-Q-T-C1-DB-EU-GPS	1P1SE5201B0012G	LTE Cat.1			2	Yes
SE5201B-Q-T-C1-TB-EU	1P1SE5201B0013G	LTE Cat.1		1x TB5	1	-
SE5201B-Q-T-C1-TB-EU-GPS	1P1SE5201B0014G	LTE Cat.1			2	Yes
SE5201B-Q-T-C1-DB-US	1P1SE5201B0001G	LTE Cat.1	B2/B4/B5/B12/ B13	1x DB9	1	-
SE5201B-Q-T-C1-DB-US-GPS	1P1SE5201B0002G	LTE Cat.1			2	Yes
SE5201B-Q-T-C1-TB-US	1P1SE5201B0003G	LTE Cat.1		1x TB5	1	-
SE5201B-Q-T-C1-TB-US-GPS	1P1SE5201B0004G	LTE Cat.1			2	Yes
SE5201B-E-T-C1-DB	1P1SE5201B0017G	LTE Cat.1	B1/B3/B7/B8/ B20/B28	1x DB9	1	-
SE5201B-E-T-C1-DB-GPS	1P1SE5201B0019G	LTE Cat.1			2	Yes
SE5201B-E-T-C1-TB	1P1SE5201B0018G	LTE Cat.1		1x TB5	1	-
SE5201B-E-T-C1-TB-GPS	1P1SE5201B001AG	LTE Cat.1			2	Yes
CR5201B-E-T-C1	1P1CR5201B0011G	LTE Cat.1		-	1	-