



ATOP Technologies, Inc.

LTE Cat.1 Low Power IoT Gateway
LTE Cat 1 Low Power IoT Protocol Gateway
Industrial LTE Cat.M1 Cellular Gateway

SE5201B-C1/ SE5201B-M1/
PG5201B-C1/ CR5201B Series

Hardware Installation Guide

Version V1.1

Updated in Mar, 2024



Package Check List

Inside the package you will find the following items:

- LTE Cat.1 Low Power IoT Gateway x1
LTE Cat 1 Low Power IoT Protocol Gateway x1
Industrial LTE Cat.M1 Cellular Gateway x1
- 5-Pin 3.81mm Lockable Terminal Block (TB version only) x 1
- 7 Pin 5.08mm Lockable Terminal Block x 1
- DIN-Rail Kit (Already mounted to the device) x 1
- Installation Guide with Warranty Card x 1



Never install or work on electrical or cabling during periods of lightning activity.
Never connect or disconnect power when hazardous gases are present.



Warning: Hot Surface Do Not Touch.



This equipment should be installed indoor and not connect directly with equipment installed outdoor.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Notice:

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

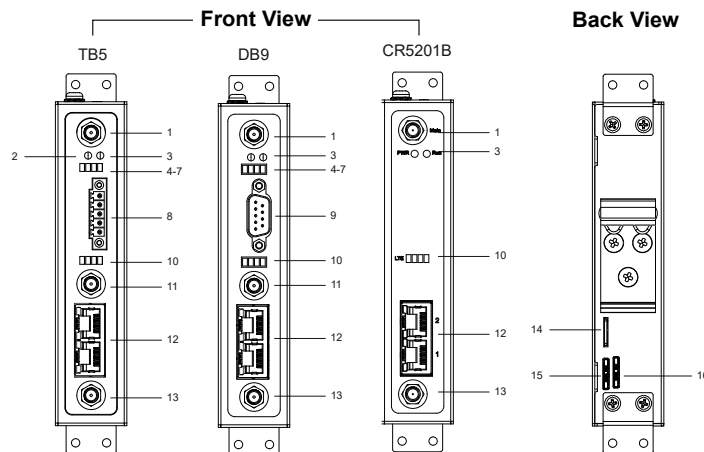
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

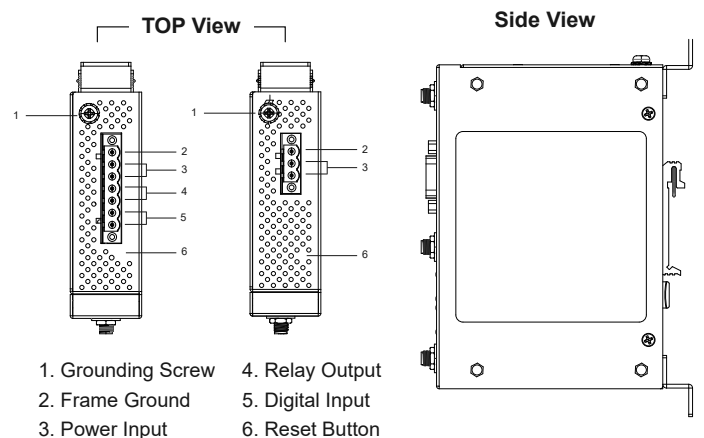
The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8inches) during normal operation.

Product Layout



1. SMA Connector for LTE Antenna
2. PWR LED
3. RUN LED
4. DI LED
5. DO LED
6. TX LED
7. RX LED
8. 5-Pin RS232/485 Terminal Block
9. 9-Pin Male RS232/485 D-Sub Connector
10. LTE Signal LED
11. SMA Connector for GNSS Antenna (M1 version only)
12. 2 x 10/100 BaseT(X) RJ-45
13. SMA Connector for LTE Antenna (M1 version only)
14. Micro SD slot
15. SIM1 slot
16. SIM2 slot



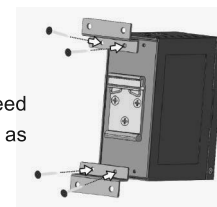
1. Grounding Screw
2. Frame Ground
3. Power Input
4. Relay Output
5. Digital Input
6. Reset Button

Installation Overview

The device's appearance is as in the figure below.

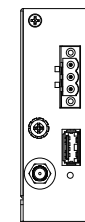
1. If you have purchased the wall mount kit, proceed to place the screws on the back of the device as shown in (Fig. 1).

Wall Mount Screw:
Screw Type: M4 / Screw depth: 6mm(Max.) / Screw Qty: 4 PCS



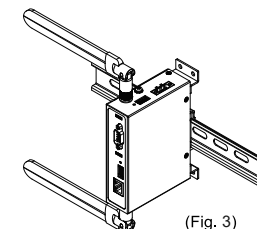
(Fig. 1)

2. Although internal grounding has been done inside, in order to ensure overall maximum performance and protect your device it is still strongly advised to ground the device properly; hazardous ESD can come into contact with it and damage your equipment. On the power terminal block, there is a terminal for Frame Ground, you can choose whether to connect it to the grounding or you may opt to connect to the grounding screw next to the terminal block (the one chosen should be connected at all times) (Fig. 2).



(Fig. 2)

3. Proceed then to fix the antennas to the female RP-SMA connectors deemed to (Fig. 3). You can then choose whether to plug in the I/O ports at this point or do it later depending on the actual location of the device or level of comfort for performing such operation.

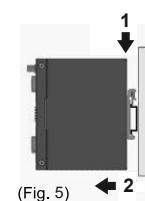


(Fig. 3)

4. Once the plate has been firmly put in place, proceed to mount the whole device as shown in (Fig. 4). Proceed to (Fig. 5) if you want to remove the device from DIN-Rail.



(Fig. 4)

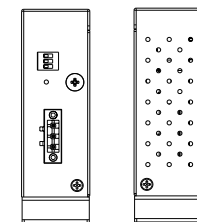


(Fig. 5)

Din Rail Screw:
Screw Type: M3 / Screw depth: 6mm(Max.) / Screw Qty: 3 PCS

5. Next we can then proceed to connect the device to the LAN (switch or PC, depending on the case), take care on using the RJ-45 connector; after this we can then proceed to the device's settings.

- The openings to the sides are for the device's heat dissipation please never obstruct or cover them with any objects or try to insert them through it.



- The device's factory IP by default is 10.0.50.100 you can access the device by its Web UI once it is connected to a physical network (or using Serial Manager, for more information on Serial Manager, please refer to its manual, Chapter 3). Please be aware that the PC needed for this procedure needs to be in the same subnet, or you may refer yourself to the device User's Manual on Sec. 3.1.

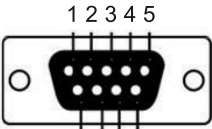
Field Maintenance and Service

If the device requires servicing of any kind, you may need to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.

- Voltage/Power lines should be properly insulated as well as other cables. Be careful when handling them so as to not trip over.
- Do not under any circumstance insert foreign objects of any kind into the heat dissipation holes located in the different faces of the device. This may not only harm the internal layout but might cause harm to you as well.
- Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions on section of your User’s manual.

Pin Assignments

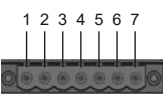
COM DB9 (9-Pin Male D-sub Connector)

	Pin	RS-232	RS-485
	1	—	—
	2	RxD	—
	3	TxD	Data+
	4	—	—
	5	SG	SG
	6	—	—
	7	RTS	Data-
	8	CTS	—
	9	—	—

COM TB5 (For RS-232/RS-485-2W Modes only)

	Pin	RS-232	RS-485-2w
	1	RxD	—
	2	CTS	—
	3	TxD	Data+
	4	RTS	Data-
	5	SG	SG

COM TB5 (For RS-232/RS-485-2W Modes only)

	Pin	Descriptions
	1	DI
	2	COM
	3	RY+ (DO+)
	4	RYc (DO-)
	5	V+
	6	V-
	7	F.G.

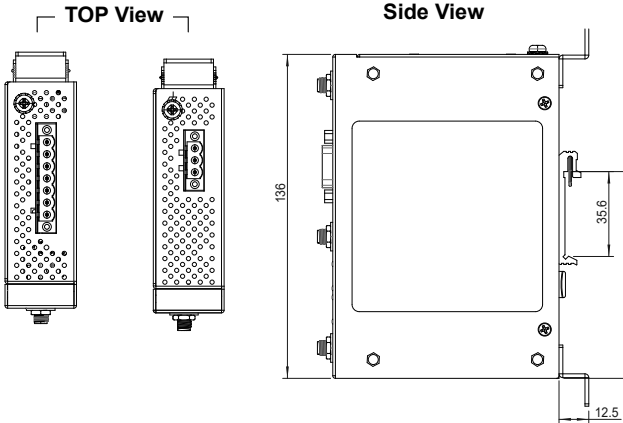
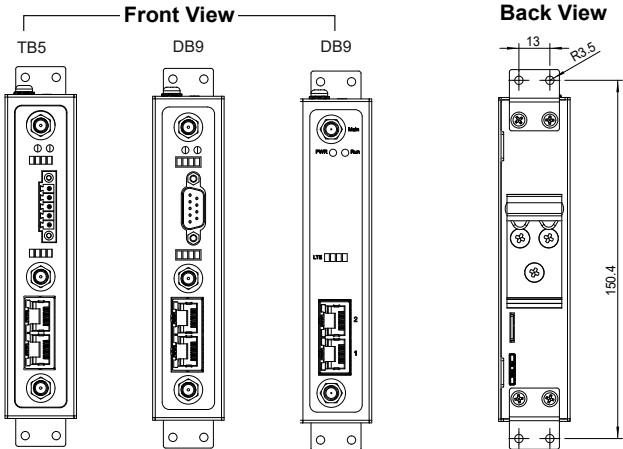
Pin Assignments and Connections

10/100 BASE-T(X) Ethernet								
RJ-45								
10/100 Base-T(X)								
Pin	1	2	3	4	5	6	7	8
Signal	Tx+	Tx -	Rx+			Rx -		

LED Indicators

Name	LED	Status	Description
Power	Green	On	Power is supplied
		Off	Power is not supplied
RUN	Green	On/ Blinking	System firmware is running normally
		Off	System firmware is not ready/halt
LTE Cat1/ Cat M1 Signal Strength	Green	On	0-LED on (): No signal
			1-LED on (): Poor
			2-LED on (): Fair
			3-LED on (): Good
			3-LED on (): Excellent
COM-TX	Green	Blinking	COM port is transmitting/receiving data
		Off	No data transmitted/received
COM-RX	Green	Blinking	COM port is transmitting/receiving data
		Off	No data transmitted/received
DIO	Green	On	Activated
		Off	Deactivated
Ethernet	Green	On	Indicate link speed is 100Mbps
		Off	Indicate link speed is 10Mbps
	Orange/ Yellow	Solid/ Blinking	Solid: Link is established Blink: Transmission (Tx/Rx events) is activated
		Off	Deactivated or no transmission data

Unit Dimensions and Layout (unit=mm)



Warranty Policy

Warranty Conditions

Products supplied by ATOP Technologies are covered in this warranty for sub-standard performance or defective workmanship. The warranty is not, however, extended to goods damaged in the following circumstances:

- (a) Excessive forces or impacts
- (b) War or an Act of God: wind storm, fire, flood, electric shock,earthquake
- (c) Use of unqualified power supply, connectors, or unauthorized parts/kits
- (d) Replacement with unauthorized parts

RMA and Shipping Costs Reimbursement

Customers shall always obtain an authorized "RMA" number from ATOP before shipping the goods to be repaired to ATOP. When in normal use, a sold product shall be replaced with a new one within 3 months after purchase. The shipping cost from the customer to ATOP will be reimbursed by ATOP.

After 3 months and still within the warranty period, it is up to ATOP whether to replace the unit with a new one; normally, as long as a product is under warranty, all parts and labor are free of charge to the customers.

After the warranty period, the customer shall cover the cost for parts and labor.Three months after purchase, the shipping cost from the customer to ATOP will not be reimbursed, but the shipping cost from ATOP to the customer will be paid by ATOP.

Limited Liability

ATOP shall not be held responsible for any consequential losses from using ATOP's product.

Warranty Period

Product Categories	Warranty	Product Categories	Warranty
Ethernet Switches	5 Years	DIN-Rail Power Supplies	3 Years
Wireless		Power Adaptors	1 Year
Serial Device Servers			
Protocol Gateways		Antennas	
Media Converters		Other Accessories	
Embedded Device Servers			

The warranty certification will not be effective until an authorized stamp issued by ATOP's overseas agents.

Purchase Date: / / (yyyy/mm/dd)

Serial Number

ATOP Customer Services and Support

- 1. Contact your local dealers or ATOP Technical Support Center at the following number: +886-3-550-8137
- 2. Report any problems via ATOP's website or email
 www.atoponline.com  service@atop.com.tw

