AIG-100 Series
Quick Installation Guide

Version 1.0, October 2022

Technical Support Contact Information
www.moxa.com/support

P/N: 1802001017010

Overview

Moxa AIG-100 Series can be used as smart edge gateways for data preprocessing and transmission. The AIG-100 Series focuses on IIoT-related energy applications and supports various LTE bands and protocols.

Package Checklist

Before installing the AIG-100, verify that the package contains the following items:

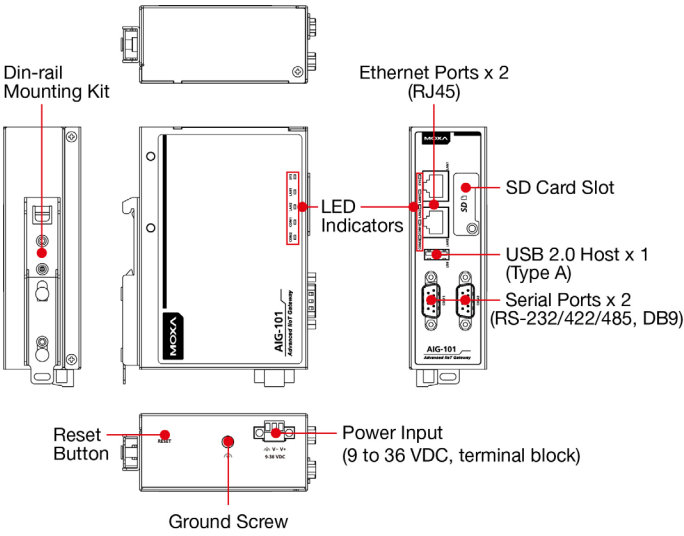
- AIG-100 gateway
- DIN-rail mounting kit (preinstalled)
- Power jack
- 3-pin terminal block for power
- Quick installation guide (printed)
- Warranty card

NOTE Notify your sales representative if any of the above items are missing or damaged.

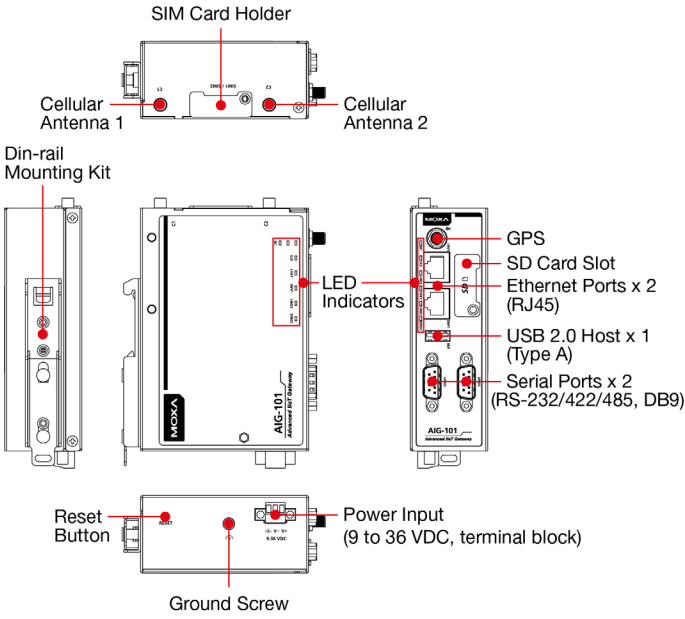
Panel Layout

The following figures show the panel layouts of the AIG-100 models:

AIG-101-T



AIG-101-T-AP/EU/US



LED Indicators

LED Name	Status	Function
SYS	Green	Power is ON
	Off	Power is OFF
	Green (blinking)	The gateway will reset to the default configuration
LAN1/LAN2	Green	10/100 Mbps Ethernet mode
	Off	Ethernet port is not active
COM1/COM2	Orange	Serial port is transmitting or receiving data
LTE	Green	Cellular connection has been established **NOTE:** Three levels based on the signal strength 1 LED is ON: Poor signal quality 2 LEDs are ON: Good signal quality All 3 LEDs are ON: Excellent signal quality
	Off	Cellular interface is not active

Reset Button

Reboots or restores the AIG-100 to factory default settings. Use a pointed object, such as a straightened paper clip, to activate this button.

- System reboot: Press and hold the Reset button for one second or less.
- Reset to the default configuration: Press and hold the Reset button till the SYS LED blinks (approximately seven seconds).

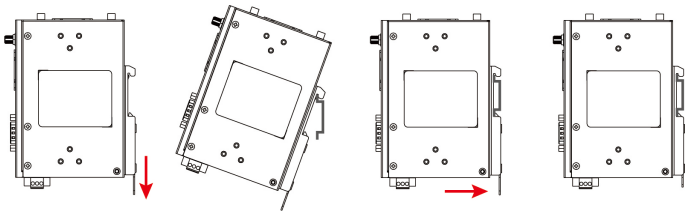
Installing the AIG-100

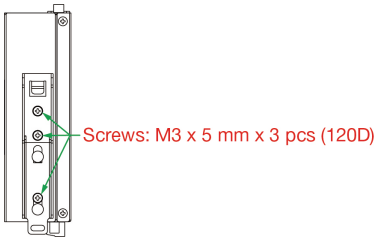
The AIG-100 can be mounted on to a DIN rail or on to a wall. The DIN-rail mounting kit is attached by default. To order a wall-mounting kit, contact a Moxa sales representative.

DIN-rail Mounting

To mount the AIG-100 on to a DIN rail, do the following:

1. Pull down the slider of the DIN-rail bracket at the back of the unit
2. Insert the top of the DIN rail into the slot just below the upper hook of the DIN-rail bracket.
3. Latch the unit firmly on to the DIN rail as shown in the illustrations below.
4. Once the computer is mounted properly, you will hear a click and the slider will rebound back into place automatically.

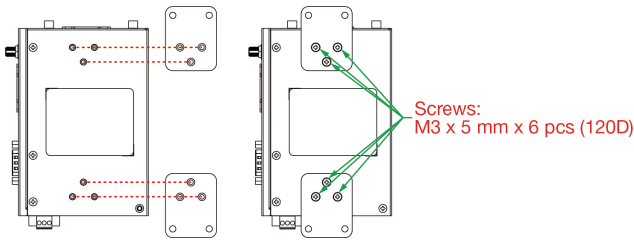




Wall Mounting (optional)

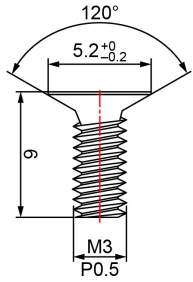
The AIG-100 can also be wall mounted. The wall-mounting kit needs to be purchased separately. Refer to the datasheet for more information.

1. Fasten the wall-mounting kit to the AIG-100 as shown below:



2. Use two screws to mount the AIG-100 on to a wall.
   These two screws are not included in the wall-mounting kit and

must be purchased separately. Refer to the detailed specifications below:



Head Type: flat
Head Diameter >5.2 mm
Length >6 mm
Thread Size: M3 x 0.5 mm

Connector Description

Power Terminal Block

A person trained for the job should install the wiring for the input terminal block. The wire type should be copper (Cu) and only 28-18 AWG wire size and torque value 0.5 N-m should be used.

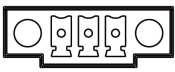
Power Jack

Connect the power jack (in the package) to the AIG-100's DC terminal block (on the bottom panel), and then connect the power adapter. It takes several seconds for the system to boot up. Once the system is ready, the SYS LED will light up.

NOTE The product is intended to be supplied by a UL Listed Power Unit marked "L.P.S." (or "Limited Power Source") and is rated 9-36 VDC, 0.8 A min., Tma = 70°C (min). If you need further help with purchasing the power source, please contact Moxa for further information.

Grounding

Grounding and wire routing help limit the effects of noise because of electromagnetic interference (EMI). There are two ways to connect the AIG-100 grounding wire to the ground.



⏚ **V– V+**
9-36 VDC

1. **Through the SG (Shielded Ground):** The SG contact is the left-most contact in the 3-pin power terminal block connector when viewed from the angle shown here. When you connect to the SG contact, the noise will be routed through the PCB and the PCB copper pillar to the metal chassis.

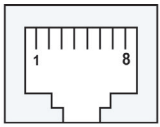
2. **Through the GS (Grounding Screw):** The GS is next to the power connector. When you connect to the GS wire, the noise is routed directly through the metal chassis.

NOTE The grounding wire should have a minimum diameter of 3.31 mm^2.

NOTE If using a Class I adapter, the power cord must be connected to a socket-outlet with an earthing connection.

Ethernet Port

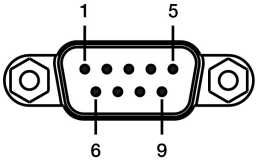
The 10/100 Mbps Ethernet port uses the RJ45 connector. The pin assignment of the port is as below:



Pin	Signal
1	Tx+
2	Tx-
3	Rx+
4	–
5	–
6	Rx-
7	–
8	–

Serial Port

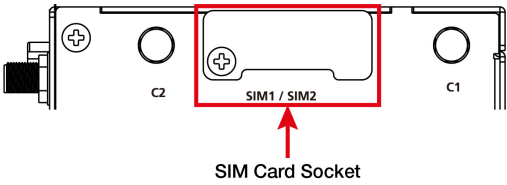
The serial port uses the DB9 male connector. Software can configure it for the RS-232, RS-422, or RS-485 mode. The pin assignment of the port is as below:



Pin	RS-232	RS-422	RS-485
1	DCD	TxD-(A)	–
2	RxD	TxD+(B)	–
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	–	–
7	RTS	–	–
8	CTS	–	–
9	–	–	–

SIM Card Socket

The AIG-100-T-AP/EU/US comes with two nano-SIM card sockets for cellular communication. The nano-SIM card sockets are on the same side as the antenna panel. To install the cards, remove the screw and the protection cover to access the sockets, and then insert the nano-SIM cards into the sockets directly. You will hear a click when the cards are in place. The left socket is for SIM 1 and the right socket is for SIM 2. To remove the cards, push the cards in before releasing them.



RF Connectors

The AIG-100 comes with RF connectors to the following interfaces.

Cellular

The AIG-100-T-AP/EU/US models come with a built-in cellular module. You must connect the antenna to the SMA connector before you can use the cellular function. The C1 and C2 connectors are interfaces to the cellular module. For additional details, refer to the AIG-100 Series datasheet.

GPS

The AIG-100-T-AP/EU/US models come with a built-in GPS module. You must connect the antenna to the SMA connector with the GPS mark before you can use the GPS function.

SD Card Socket

The AIG-100 models come with a SD-card socket for storage expansion. The SD card socket is next to the Ethernet port. To install the SD card, remove the screw and the protection cover to access the socket, and then insert the SD card into the socket. You will hear a click when the card is in place. To remove the card, push the card in before releasing it.

USB

The USB port is a type-A USB 2.0 port, which can be connected to Moxa UPort models to extend the serial port capacity.

Real-time Clock

A lithium battery powers the real-time clock. We strongly recommend that you do not replace the lithium battery without the help of a Moxa support engineer. If you need to change the battery, contact the Moxa RMA service team.

ATTENTION

There is a risk of explosion if the battery is replaced with an incorrect type of battery. Dispose of used batteries according to the instructions in the warranty card.

Access to the Web Console

You can log in to the web console by default IP through the web browser. Please ensure your host and AIG are under the same subnet.

- LAN1: https://192.168.126.100:8443
- LAN2: https://192.168.127.100:8443

When you log in to the web console, the default account and password:

- Default account: **admin**
- Default password: **admin@123**