Industrial Outdoor LoRaWAN 5G NR Cellular Gateway

LCG-350W-NR

Quick Installation Guide

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1. Package Contents

Thank you for purchasing PLANET Industrial Outdoor LoRaWAN 5G NR Cellular Gateway, LCG-350W-NR. The description of this model is as follows:

Model Name	Description
LCG-350W-NR	Industrial Outdoor LoRaWAN 5G NR Cellular Gateway

"LoRaWAN Gateway" is used as an alternative name in this Quick Installation Guide.

Open the box of the **LoRaWAN Gateway** and carefully unpack it. The box should contain the following items:

LoRaWAN Gateway x 1	QR Code Sheet	Wall Bracket and Base x 1
RJ45	Wall-mounted Kit x 1	Pole Clamp x 1
Wired Waterproof Kit x 1	Power Cord	Waterproof Rubber Stopper

If any item is found missing or damaged, please contact your local reseller for replacement.

2. Requirement

- **Workstations** running Windows 7/8/10/11, macOS 10.12 or later, Linux Kernel 2.6.18 or later, or other modern operating system are compatible with TCP/IP Protocols.

- Workstations are installed with **Ethernet NIC** (Network Interface Card)

- Ethernet Port Connection

  ➢ Network cables -- Use standard network (UTP) cables with RJ45 connectors.

  ➢ The above PC is installed with Web browser.

Note	It is recommended to use Google Chrome, Microsoft Edge, or Mozilla Firefox to access the LoRaWAN Gateway. If the web interface of the LoRaWAN Gateway is not accessible, please disable the antivirus software or firewall and try again.

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Note	To ensure the device functions properly, you can use either a PoE injector, a PoE switch, or an AC power adapter for power supply.

3. Hardware Installation

Refer to the illustration and follow the simple steps below to quickly install your **LoRaWAN Gateway**.

3.1 SIM Card Installation

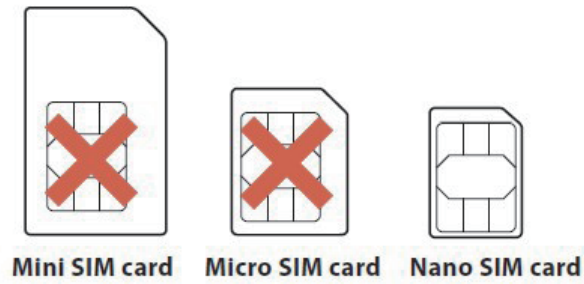A. Unscrew the two screws on the device's cover to remove it.
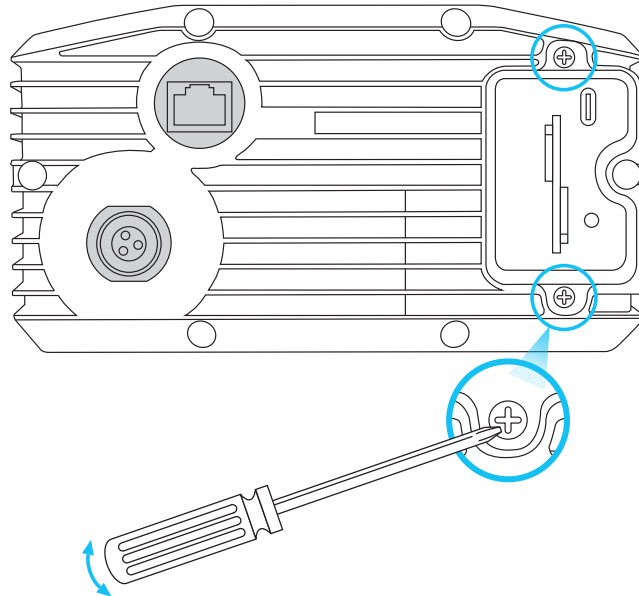
B. Insert the SIM card according to the instructions on the SIM card interface.
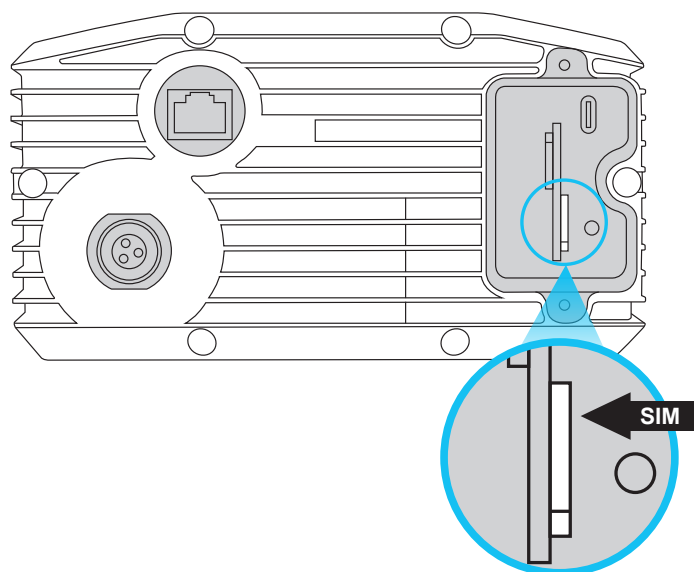
C. Reattach the device's cover and tighten the screws securely.

A mini SIM card with 5G NR and 4G LTE subscription

Mini SIM card   Micro SIM card   Nano SIM card

3.2 Wiring the Ethernet Cable Installation

Follow Step 1 to put the network cable through the waterproof connector, and tighten the connector securely as shown in Step 2. Then plug one end of the cable into the gateway's LAN port, and slide the waterproof connector to the device where the connector is tightened.

Step 1:

Step 2:
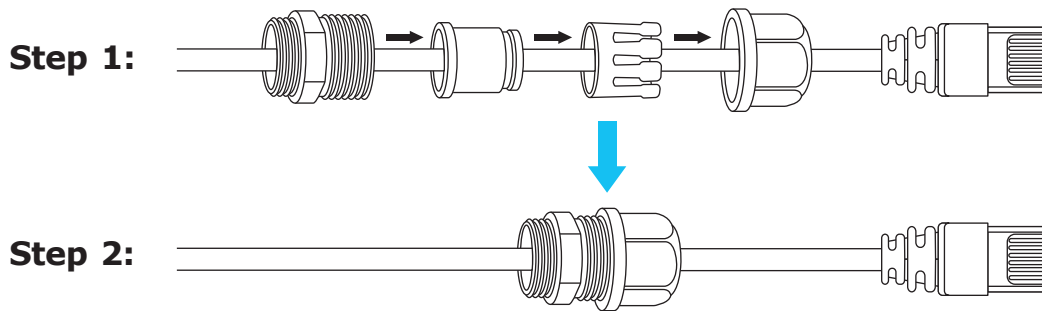
Plug the other end of the network cable into the PoE port of the PoE switch to finish the installation.

Note	Please make sure that the waterproof connector is securely fastened with **LoRaWAN Gateway** to prevent internal water seepage.

3.3 Wall Hanging and Pole Mounting Installation

Wall hanging

Step 1: Lock the base to the device.

**Step 2:** Connect the wall bracket to the base and fasten the screws.
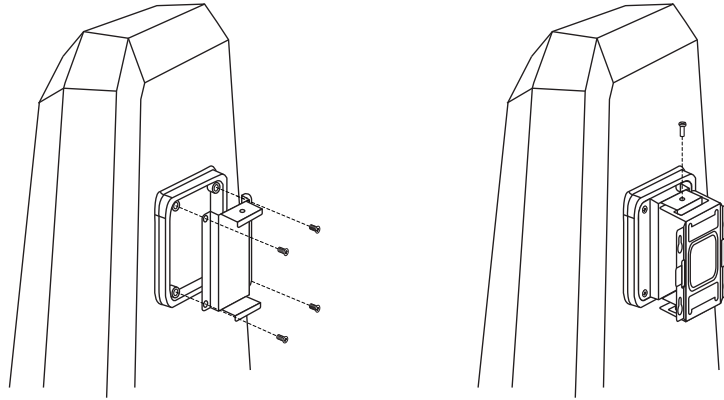
Step 3: Drill 4 holes with a **3mm** diameter on the wall. The horizontal and vertical distances between the 2 holes are **69.4mm** and **45.5mm**, respectively.

Step 4: Place four anchors inside the hole by hammering them. Then screw the four screws leaving a space of 2mm apart as shown in the diagram below.
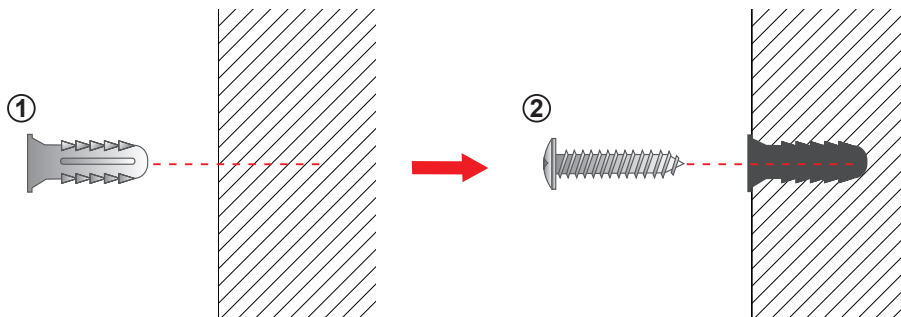
Step 5: The switch, shown in the picture below, can now be hung on the wall.

① Place against a wall

69.41mm

45.5mm

3mm Screw

② Hang up
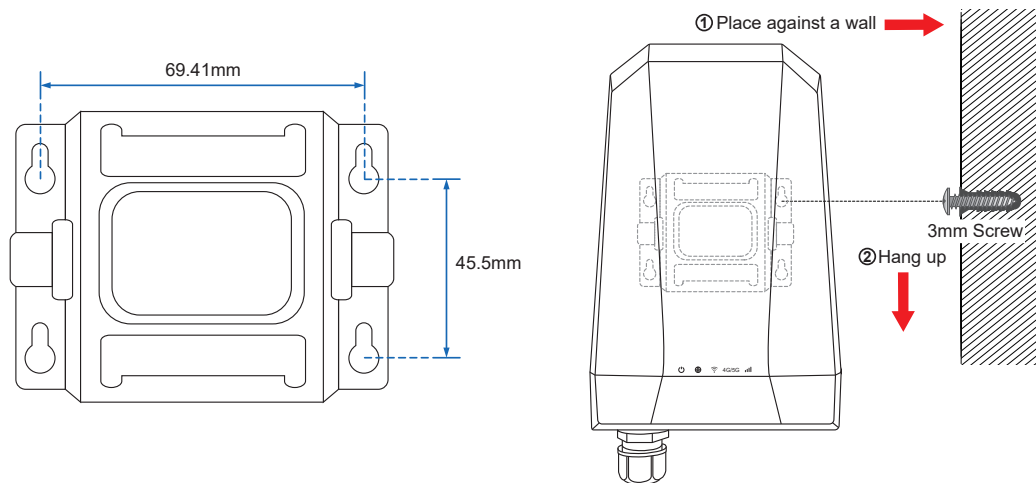
Pole mounting

To install the base and wall bracket, refer to **Step 1** and **Step 2** in Device Installation (Wall Hanging).

Step 6: The pole clamp goes through the hole of the wall bracket, and is wrapped around the pole. To finish the installation, fasten the clamp.
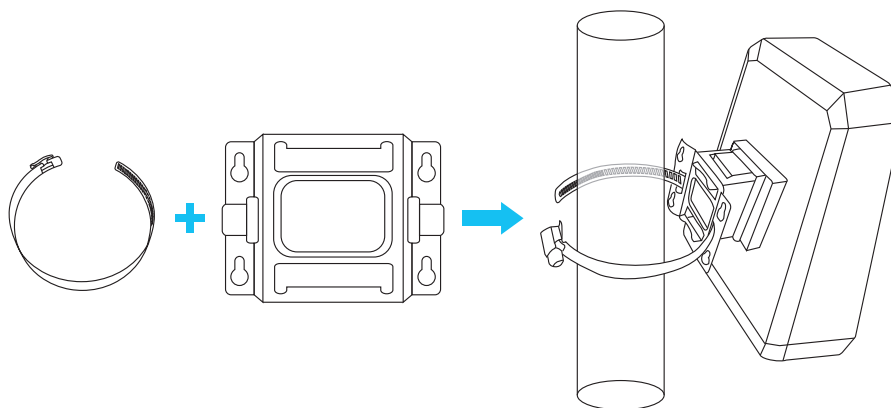
Note	To ensure better signal reception, please keep the LoRaWAN Gateway unobstructed.

4. Starting Web Management

The following shows how to start up the **Web Management** of the **LoRaWAN Gateway**. Note the **LoRaWAN Gateway** is configured through an Ethernet connection. Please make sure the manager PC must be set to the same **IP subnet address**.

For example, the default IP address of the **LoRaWAN Gateway** is *192.168.1.1*, then the manager PC should be set to **192.168.1.x** (where x is a number between 2 and 254), and the default subnet mask is 255.255.255.0.
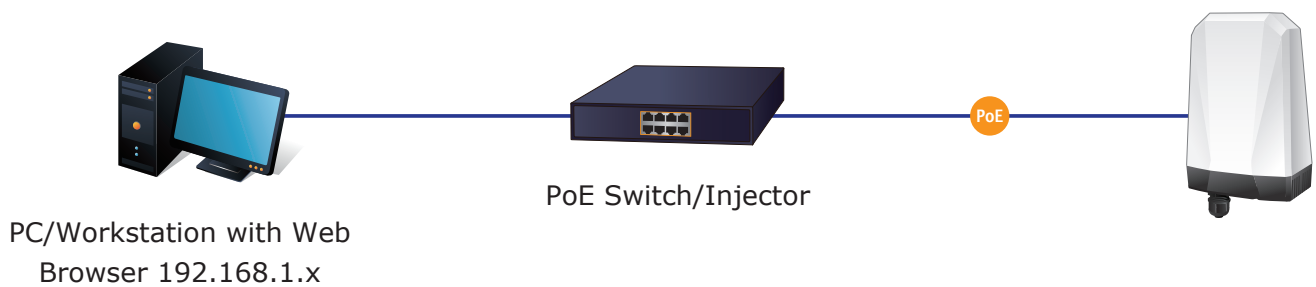

PC/Workstation with Web
Browser 192.168.1.x

PoE Switch/Injector

Figure 4-1: IP Management Diagram

Note	When the DHCP server of the LoRaWAN Gateway is enabled, the LAN PC will get IP from the Cellular.

Logging in to the Cellular Gateway

Step 1: Use your preferred web browser (such as Chrome, Edge, Firefox, etc.) and enter IP address ***https://192.168.1.1*** (the factory default IP address to access the Web interface.

Step 2: When the login page appears, as shown in Figure 4-2, enter the default username and password.


Figure 4-2: Login Screen

Step 3: Or the password you have previously changed, as shown in Figure 4-3.

Default IP Address: **192.168.1.1**
Default Username: **admin**
Default Password: **cg + the last 6 characters of the MAC ID in lowercase**
Default SSID (2.4G): **PLANET_2.4G**

Find the MAC ID on your device label. The default password is "cg" followed by the last six lowercase characters of the MAC ID.
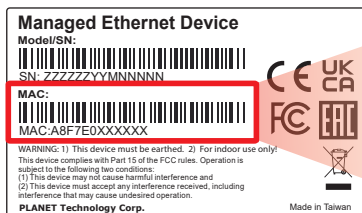
Figure 4-3: MAC ID Label

If you have already changed the password web login, please use this new password to log in.

Note

After entering the password, the main screen appears as shown in Figure 4-4.

Figure 4-4: Web-based Main Screen of LoRaWAN Gateway

Now, you can use the Web management interface to continue the LoRaWAN Gateway management or manage the LoRaWAN Gateway by console interface. Please refer to the user's manual for more.

5. Recovering Back to Default Configuration

■ IP address has been changed or password has been forgotten –

To reset the IP address to the default IP address **"192.168.1.1"** or reset the login password to default value, press the hardware-based **reset button** on the rear panel for about **15 seconds**. After the device is rebooted, you can log in the management Web interface within the same subnet of 192.168.1.xx.
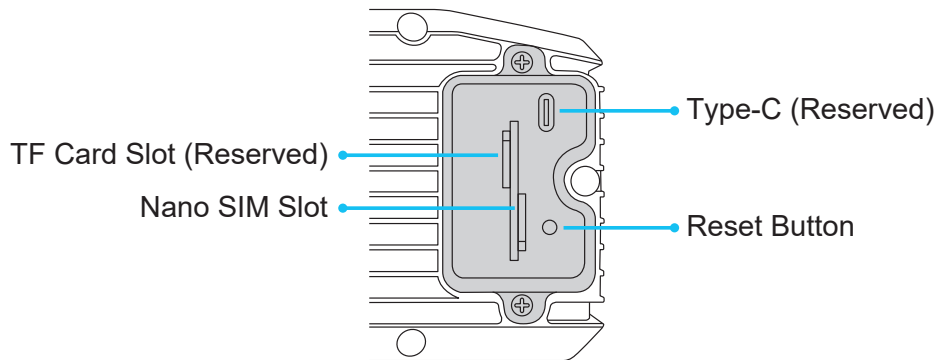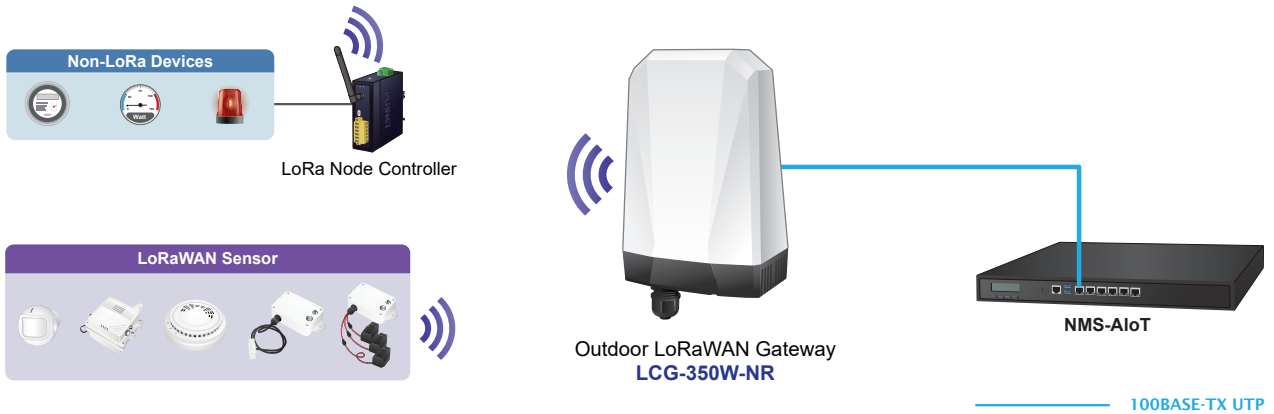

**Figure 5-1:** LCG-350W-NR Reset Button

6. Connecting to PLANET NMS-AIoT

Set up the NMS-AIoT Controller with an Ethernet connection for the first-time configuration shown in the topology below.


Launch the Web browser (Google Chrome is recommended.) and enter the default IP address **https://192.168.1.100:8888** of NMS-AIoT. Then, enter the default username and password shown above to log on to the system.

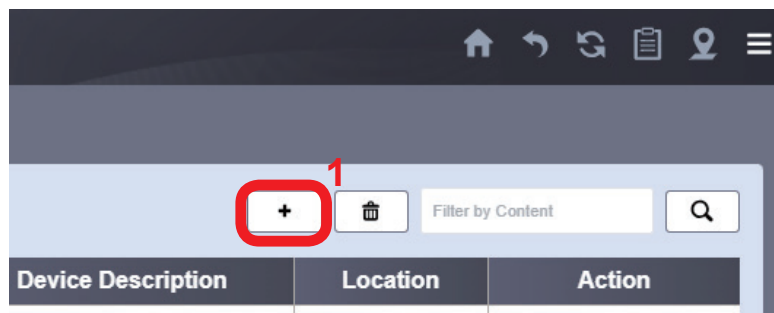The secure login with SSL (HTTPS) prefix is required.
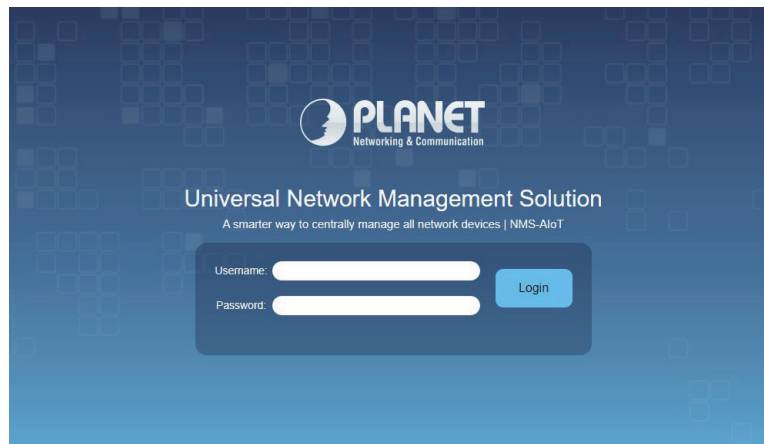
After logging on, connect the NMS-AIoT Controller to the network to centrally control PLANET managed devices.

1. In NMS-AIoT, press the **"Menu"** icon ☰ . Then click **"Devices Management"** and **"Devices List"** to go to devices list page.
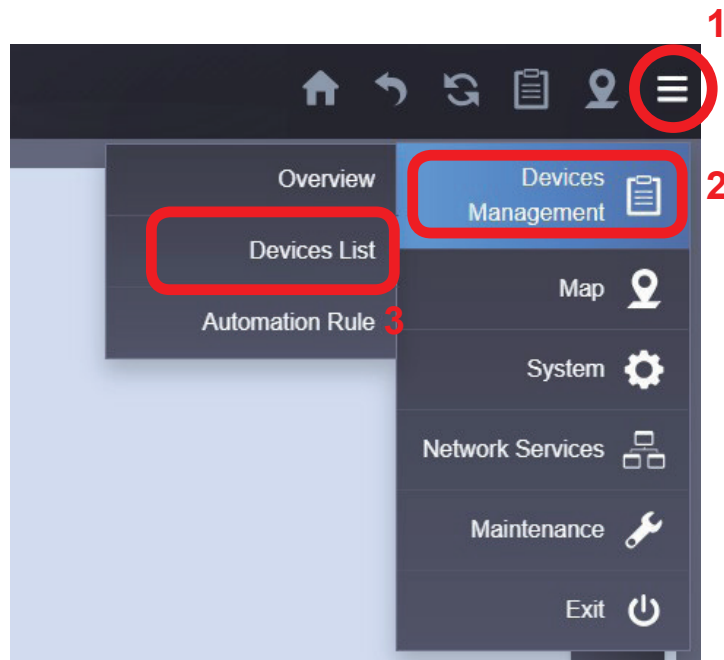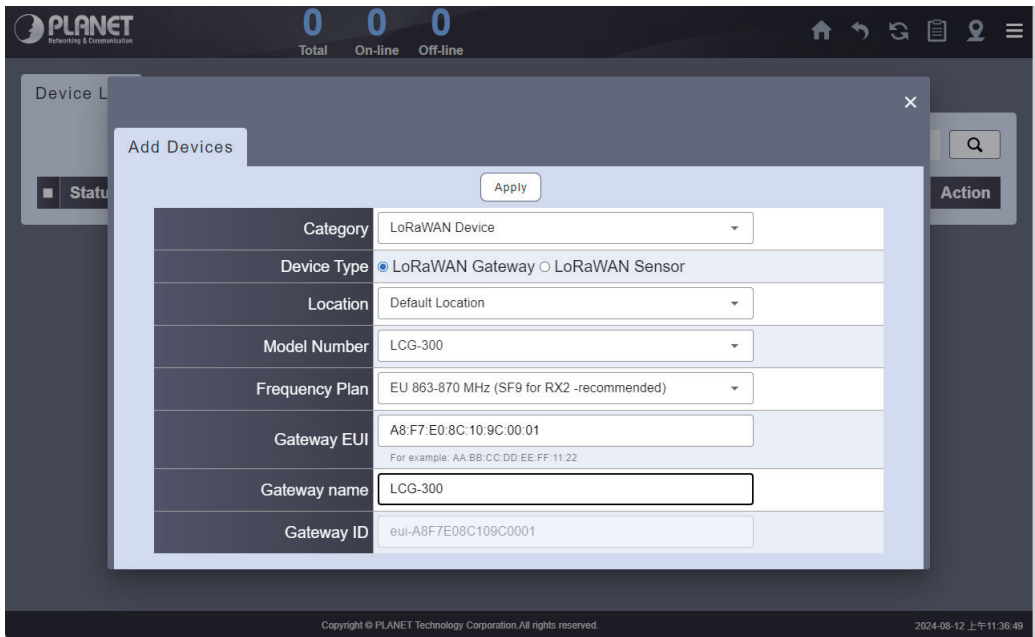

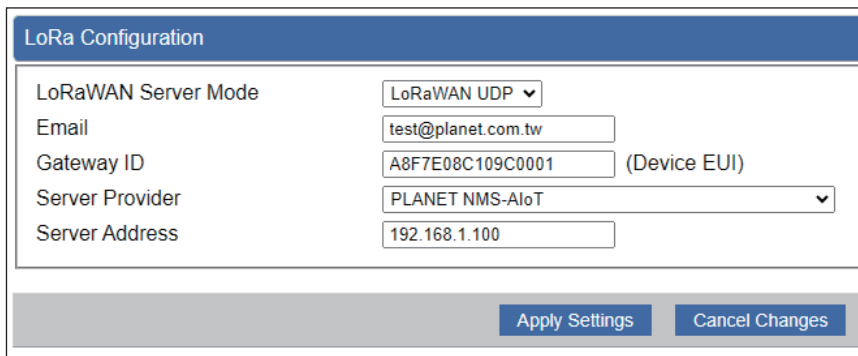2. Press the **"plus"** icon ⊕ to open the page to add a new device.

3. **Add a new LoRaWAN gateway on the NMS-AIoT**

   Enter the relevant data for the LoRaWAN gateway.

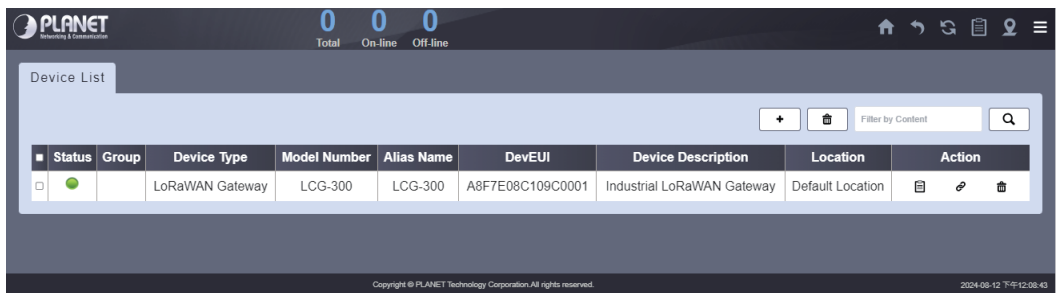4. **Set up the LoRaWAN gateway on the LCG series device**

   Select **PLANET NMS-AIoT** as the application server. Then, enter the IP address of NMS-AIoT and apply the settings.

After setting, it will be shown in the device list in Web UI of NMS-AIoT.

7. Customer Support

You can browse our online FAQ resource and User's Manual on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:
https://www.planet.com.tw/en/support/faq

Support team mail address:
support@planet.com.tw

LCG-350W-NR User's Manual:
https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=LCG-350W-NR&view=3#list

(Please select your model name from the drop-down menu of Product Models.)