

PLANET LCG-300 LoRaWAN Gateway



# PLANET LCG-300 LoRaWAN Gateway Installation Guide

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**PLANET LCG-300 LoRaWAN Gateway**



## Specifications

- **Models:** LCG-300, LCG-300W, LCG-300-NR
- **Ports:** 5-Port 10/100/1000T
- **Connectivity:** Industrial LoRaWAN, Wi-Fi, 5G NR

## Product Usage Instructions

- Network cables with RJ45 connectors
- A PC with a web browser (Google Chrome, Microsoft Edge, or Mozilla Firefox recommended)
- Connect the LoRa antenna to the LoRa antenna extender.
- Fasten the LoRa antenna extender to the connector on the front panel of the LoRaWAN Gateway.
- Fasten the two dual-band antennas to the antenna connectors on the front panel of the LoRaWAN Gateway.
- Bend the antennas to fit your needs.
- Insert an ejector pin next to the tray to loosen it.
- Pull out the tray gently and place the SIM card on it with the contacts facing upwards.
- Insert the tray back into the slot.
- Connect 5G NR antennas to the 5G NR antenna extender.
- Fasten the 5G NR antenna extenders to the connectors.
- Use the 6-contact terminal block connector for power inputs.
- Ensure power is OFF when inserting or tightening wires.

## FAQ

- **Q:** What web browsers are recommended for accessing the LoRaWAN Gateway?
- **A:** It is recommended to use Google Chrome, Microsoft Edge, or Mozilla Firefox for accessing the gateway. If facing issues, try disabling anti-virus software or firewall.

## Package Contents

Thank you for purchasing PLANET Industrial LoRaWAN Gateway, LCG-300 series. The descriptions of these models are as follows:

<b>LCG-300</b>	Industrial LoRaWAN Gateway with 5-Port 10/100/1000T
<b>LCG-300W</b>	Industrial LoRaWAN Wireless Gateway with 5-Port 10/100/1000T
<b>LCG-300-NR</b>	Industrial LoRaWAN + 5G NR Cellular Gateway with 5-Port 10/100/1000T

“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:

Model Name Item	LCG-300	LCG-300W	LCG-300-NR
Industrial LoRaWAN Gateway	1	1	1
Quick Installation Guide (QR code)	1	1	1
CloudViewer QIG	1	1	1
Wall-mount Kit	1	1	1
RJ45 Dust Cap	6	6	6
LoRa Antenna	1	1	1
LoRa Antenna Extender with Magnetic Base	1	1	1
Dual-band Wi-Fi Antenna	—	2	—
Antenna Dust Cap	1	3	5
5G NR Antenna	—	—	4
5G NR Antenna Extender with Magnetic Base	—	—	4

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

## Requirement

- Workstations running Windows 7/8/10/11, macOS 10.12 or later, Linux Kernel 2.6.18 or later, or other platforms 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 a 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 turn off the anti-virus software or firewall and then try it again.

## Hardware Installation

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

### LoRa Antenna Installation

- **Step 1:** Connect the LoRa antenna to the LoRa antenna extender.
- **Step 2:** Fasten the LoRa antenna extender to the connector on the front panel of the LoRaWAN Gateway.

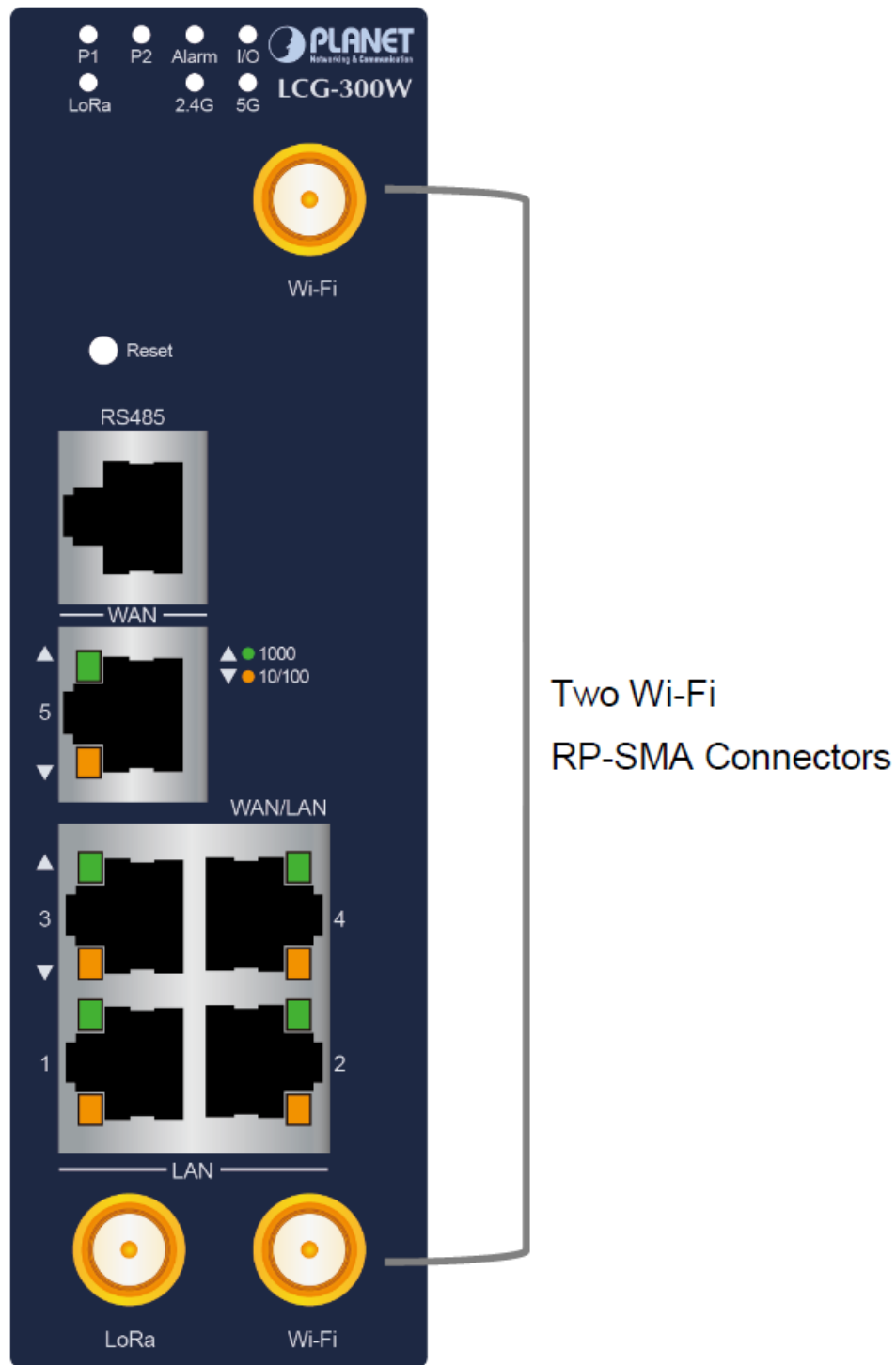


### Wi-Fi Antenna Installation (For LCG-300W Only)

- **Step 1:** Fasten the two dual-band antennas to the antenna connectors on the front panel of the LoRaWAN

Gateway.

- **Step 2:** You can bend the antennas to fit your actual needs.



#### SIM Card Installation (For LCG-300-NR Only)

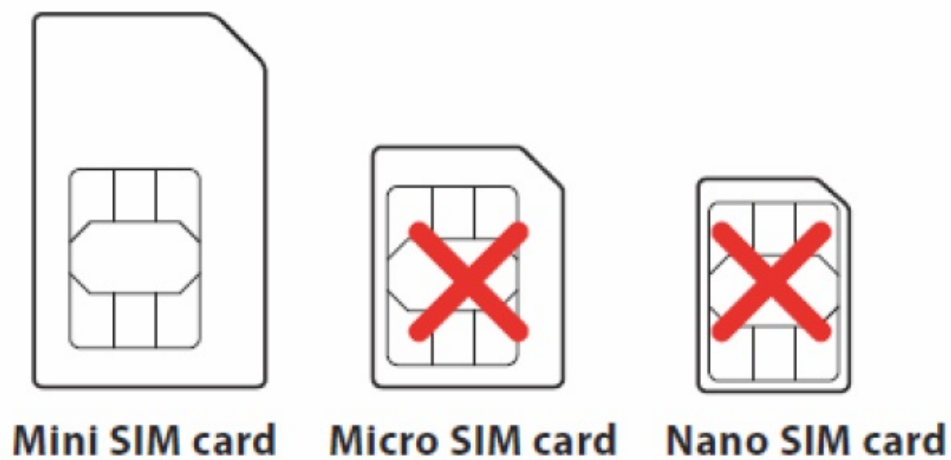
- **A.** Insert an ejector pin into the yellow button next to the tray to loosen the tray.



LCG-300-NR\_EMQ-1.png

- **B.** Pull out the tray gently from the tray slot. Place the SIM card on the tray with the gold-coloured contacts facing upwards.
- **C.** Insert the tray back into the tray slot.

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



#### NR Antenna Installation

(For LCG-300-NR Only)

- **Step 1:** Connect 5G NR antennas to the 5G NR antenna extender.
- **Step 2:** Fasten the 5G NR antenna extenders to the connectors.

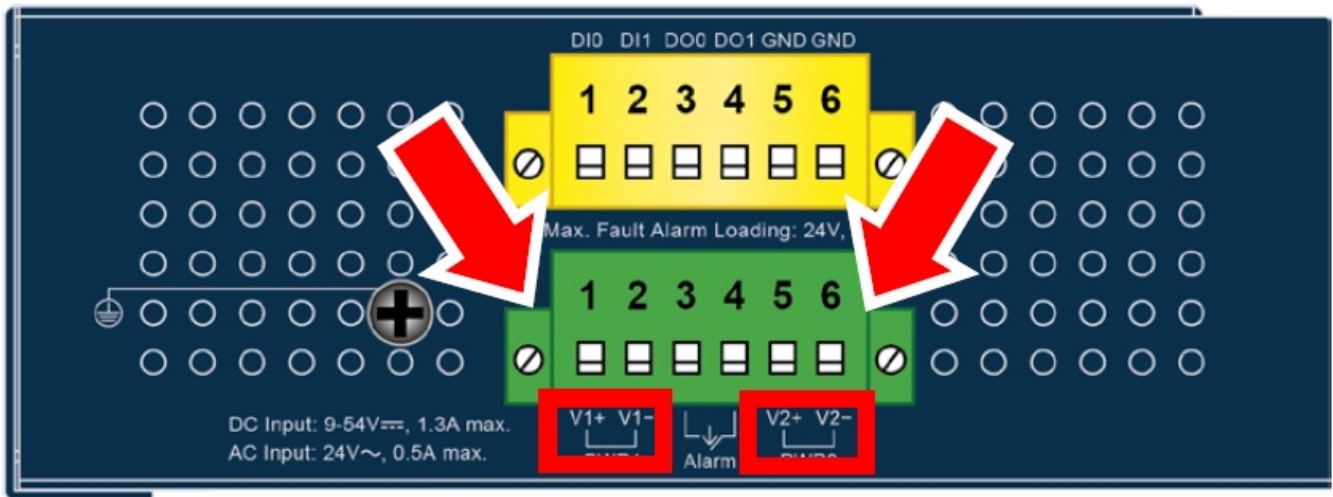


## Wiring the Power Inputs

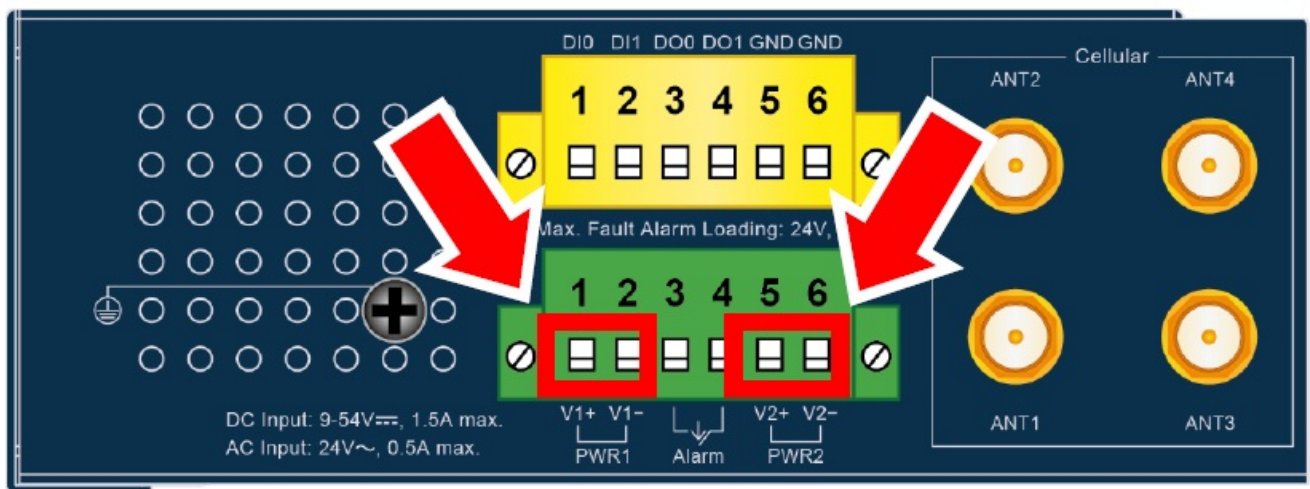
- The 6-contact terminal block connector on the top panel of the LoRaWAN Gateway is used for two DC redundant power inputs. Please follow the steps below to insert the power wire.
- When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or 5 and 6 for POWER 2.



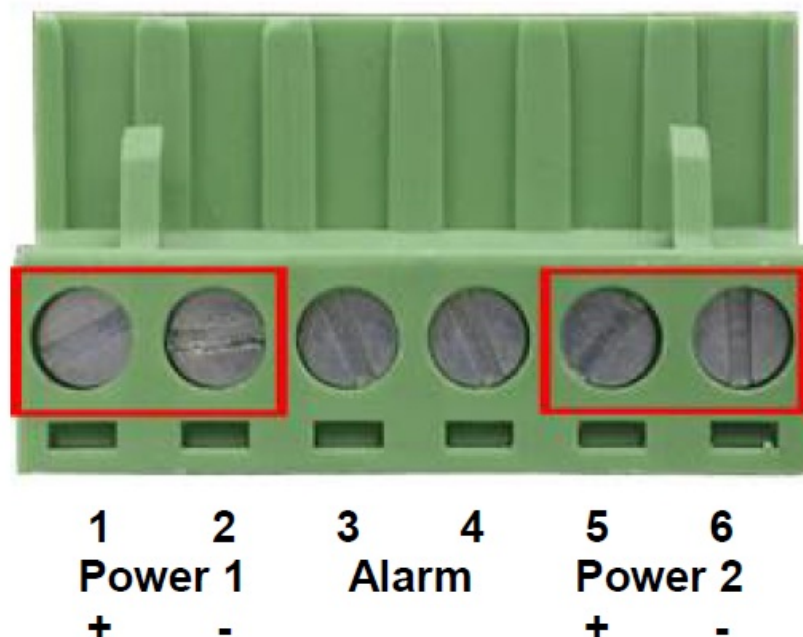


LCG-300/LCG-300W



LCG-300-NR

- Please make sure the input voltage is by the specifications of the LoRaWAN Gateway.
- Tighten the wire-clamp screws for preventing the wires from loosening.





- The wire gauge for the terminal block should be in the range between 12 and 24 AWG.

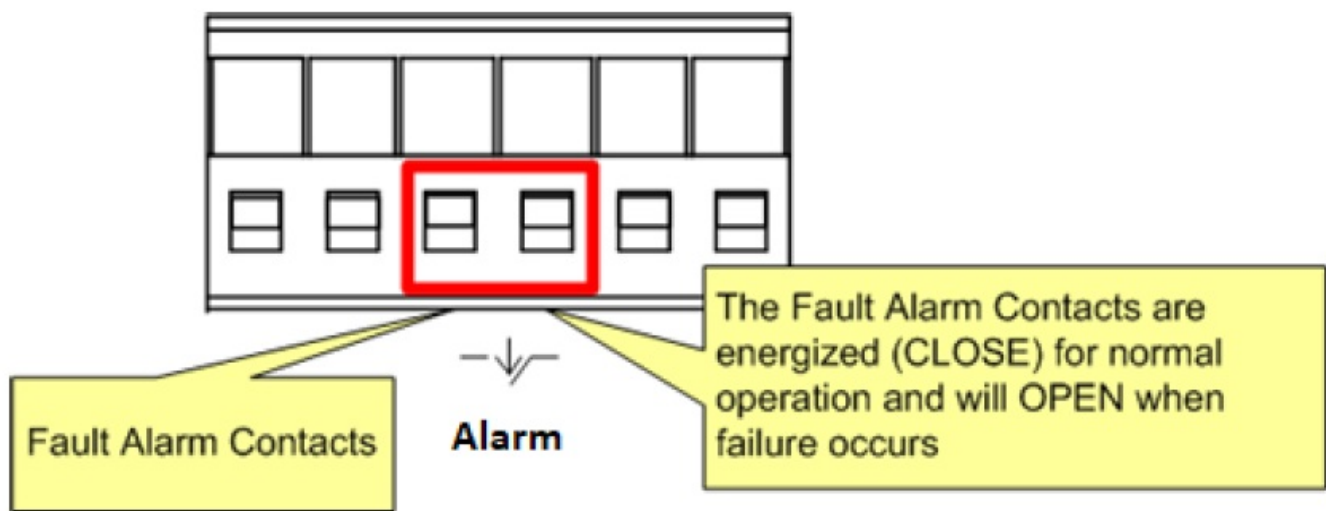
**CAUTION** PWR1 and PWR2 must provide the same DC voltage while operating with dual power input.

### Grounding the Device

The user **MUST** complete grounding wired with the device; otherwise, sudden lightning could cause fatal damage to the device. EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY

### Wiring the Fault Alarm Contact

The fault alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the LoRaWAN Gateway will detect the fault status of the power failure or port failure and then will form an open circuit. The following illustration shows an application example for wiring the fault alarm contacts



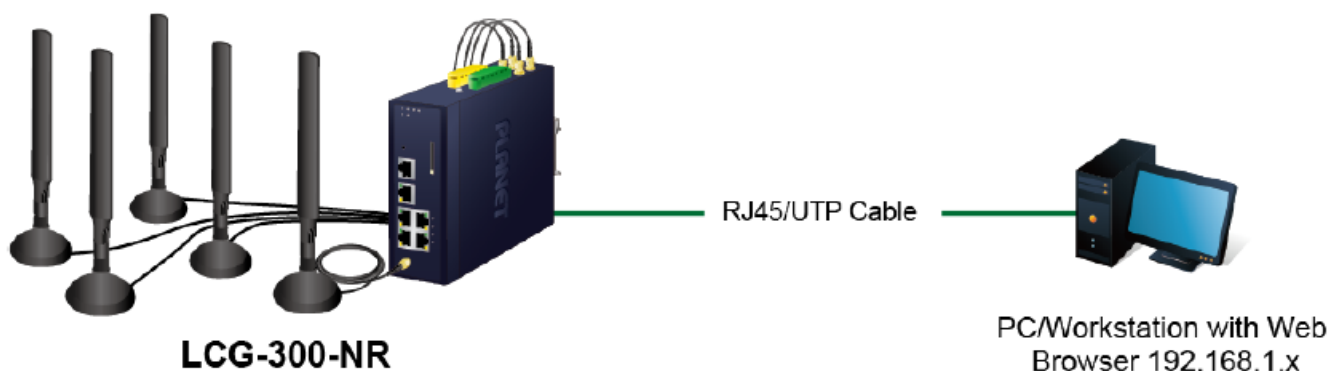
Insert the wires into the fault alarm contacts

1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. The alarm relay circuit accepts up to 24V (max.) and 1A current.

### 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.



**Figure 4-1: IP Management Diagram**

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

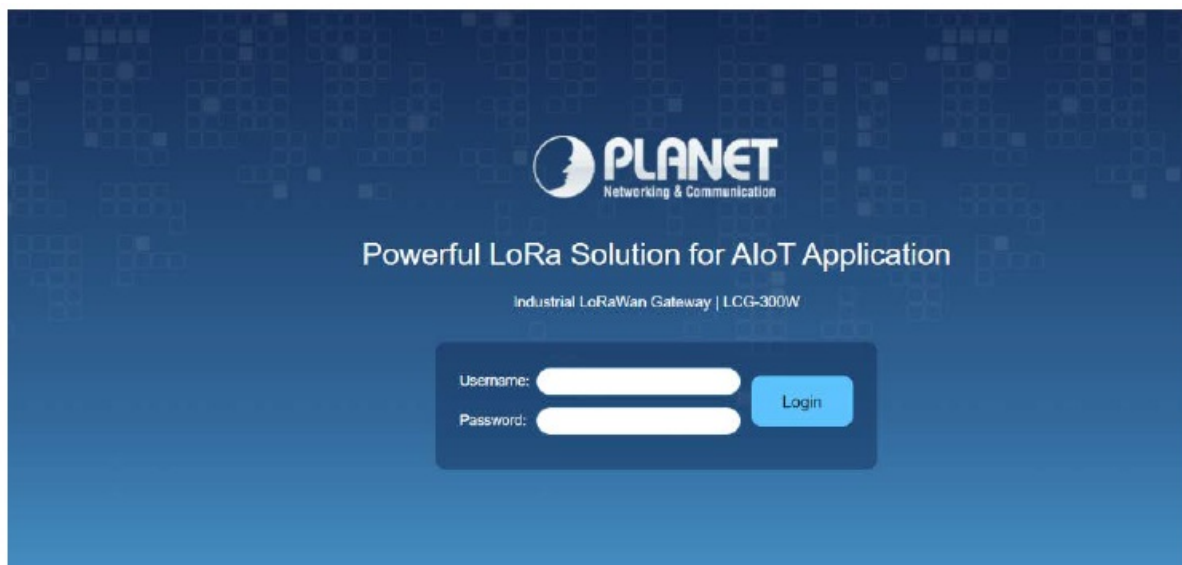
## Logging in to the LoRaWAN Gateway

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 or the one that you have just changed in the console) to access the Web interface.

The following steps are based on the firmware version before June of 2024.

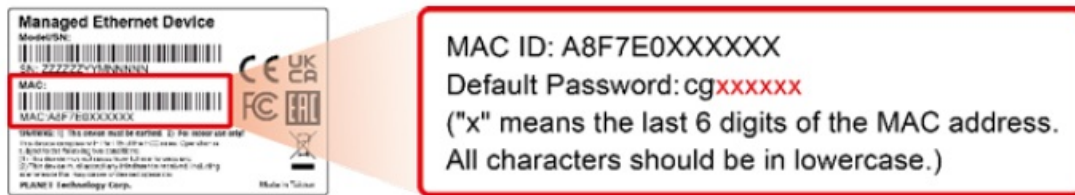
2. When the following dialogue box appears, please enter the default user name “admin” and password “admin” (or the password you have changed before) as shown in Figure 4-2.

- Default IP Address: 192.168.1.1
- Default User Name: admin
- Default Password: admin
- Default SSID (2.4G): PLANET\_2.4G (for LCG-300W)
- Default SSID (5G): PLANET\_5G (for LCG-300W)



**Figure 4-2: Login Screen**

- The following web screen is based on the firmware version of April of 2024 or after..
- Please enter the default user name and password, Refer to Figure 4-3 to determine your initial login password.
  - 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 (for LCG-300W)
  - Default SSID (5G): PLANET\_5G (for LCG-300W)
- 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 via console or web login, please use this new password to log in and skip steps 3.
- After entering the password, the main screen appears as shown in Figure 4-3.



**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.

## Recovering Back to Default Configuration

### IP address has been changed or the admin password has been forgotten –

To reset the IP address to the default IP address “192.168.1.1” or reset the login password to the default value, press the hardware 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-300 Series Reset Button

### Customer Support

- You can browse our online FAQ resource and User's Manual on the PLANET Web site first to check if it could solve your issue. If you need more support information, please contact the PLANET support team.
- PLANET online FAQs:
- <https://www.planet.com.tw/en/support/faq>
- Support team mail address:
- [support@planet.com.tw](mailto:support@planet.com.tw)
- LCG-300, LCG-300W and LCG-300-NR User's Manual:
- <https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=LCG-300&view=3#list>.



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### Documents / Resources

<div><div>Quick Installation Guide</div><div>Industrial LoRaWAN Gateway</div><div>LCG-300 Series</div><div>Quick Installation Guide</div></div>	<div><div><a href="#">PLANET LCG-300 LoRaWAN Gateway</a> [pdf] Installation Guide</div><div>LCG-300, LCG-300W, LCG-300 LoRaWAN Gateway, LCG-300, LoRaWAN Gateway, Gateway</div></div>
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## References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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