Preface

Thank you for purchasing the GPRS module from Suzhou VEICHI Electric Technology Co.

This manual is a random technical information.It is a guiding document for your correct use, superiority and safe operation, so please read it carefully and keep it properly.

In the process of use, if you have difficult questions or special requirements, please feel free to contact our office or distributor, or directly contact our customer service center, we will be happy to serve you.

We are always striving for continuous improvement of our products, so the information about this series is subject to change without notice.We apologize for any inconvenience this may cause.

Chapter 1 Purchase inspection

1.1 Purchase inspection

1.Please check the packaging of the product before opening the box to see if it has been damaged due to careless transportation.

2.Whether the specification and model of the product match with the ordered machine type.

3.The remote control module has undergone rigorous testing and quality inspection.Please check the availability of the certificate of conformity, product manual and warranty card, as well as the accessories used.

4.Check the inside of the machine for any damage.If there is obvious damage, please do not operate and use the machine, and contact our company or the distribution manufacturer in time to avoid accidents.

1.2 Name plate and model description

VEICHI

MODEL: IOT-GWS2.0

POWER INPUT: 24V DC

IOTGW000000000E801234567

Suzhou Veichi Electric Co., Ltd.   Made in China

1.3 The whole machine packaging accessories details

| Name	Quantity	Unit	Note
GWS2.0 Modules	1	个	
Communication connection cable	1	Article	
Mounting Screws	2	个	
GPS Antenna	1	Article	Optional
GSM Antenna	1	Article	
Instruction manual	1	本	

Chapter 2 The main performance characteristics

1、Automatic registration platform server

2、Automatic APN setting

3、Supports transparent transmission over serial port

4、Supports heartbeat maintenance links

5、Support GPS positioning, base station positioning and time calibration

6、Supports offline data storage

7、Support WIFI function

8、Support remote upgrade function

9、Support monitoring inverter fault status and operation status, and reporting fault information

10、Support remote SMS, RS485 serial tool, WIFI mobile APP, IOT platform to view and modify GPRS module internal parameters
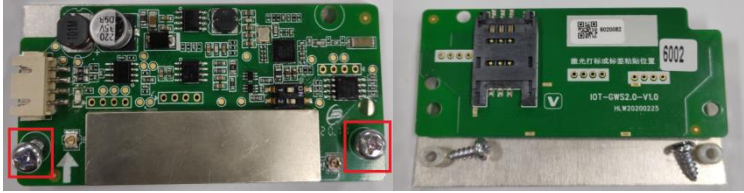
Chapter 3 Installation

Note: The antenna is installed in the position marked GSM side, as shown in the red box above.

Antenn
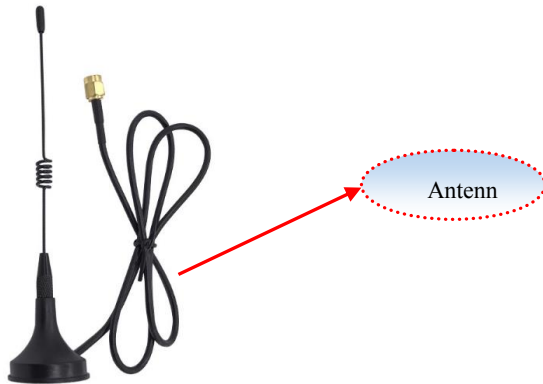
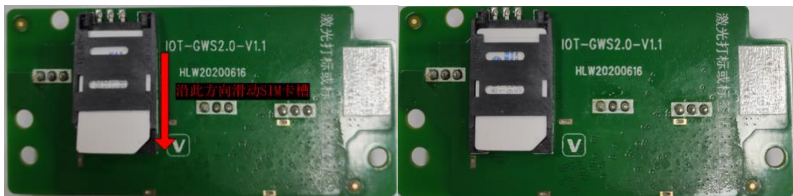1. Remove the fixing screws：

2. Open the SIM card slot：
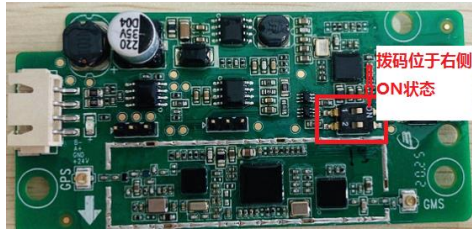

3. Installing the SIM card：
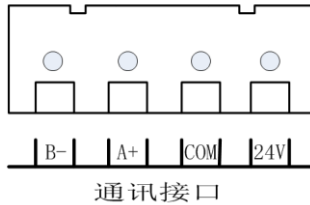

4. Fixed SIM card slot：

5. Recheck dip switch status：

   In order to confirm normal use after installation, you need to recheck that the dip switch is located in the right ON state to prevent the dip

switch state from changing due to the SIM installation process.

3.1 Terminal function description

通讯接口

Terminal name	Function Description
A+	RS485 Communication Interface
B-	
COM	Power Ground
24V	Power Positive

Chapter 4 Description of the indicator

● The light is always on when power is applied

● When connecting to the IOT platform successfully: the indicator light keeps flashing

slowly (on for 1 second, off for 1 second)

● When remote upgrade: the indicator light keeps flashing rapidly (on for 300 ms, off for 300 ms)

● When no device is added to the IOT platform: the indicator flashes once (on for 300 ms, off for 1 sec)

● When the connection to the router fails (password error, router shutdown, etc.): the indicator flashes twice (on for 300 ms, off for 300 ms, on for 300 ms, off for 1 second)

Chapter 5 Basic operation and run

5.1 Attentions

● This module is a 2G module and supports only 2G networks.

● Make sure that a valid mobile company SIM card is inserted correctly before use.

● Confirm that the power supply terminal and 485 communication terminal are in good contact, and test the GSM antenna and GPS antenna for secure contact.

● The dip switch needs to be turned ON during operation.

5.2 Basic operation

● Fix the IOT-GWS2.0 reliably and connect the terminals correctly.

● Bind the IOT-GWS2.0 module to the device well on the IOT platform according to the docked device model (inverter).

● Login to the platform, enter the corresponding management page, and read and write inverter parameters remotely.

Chapter 6 Platform and cell phone operation method

6.1 IOT platform operation

1、Login GPRS platform website：http://gprs.veichi.com:8028 That is, you can enter the login screen as shown below.
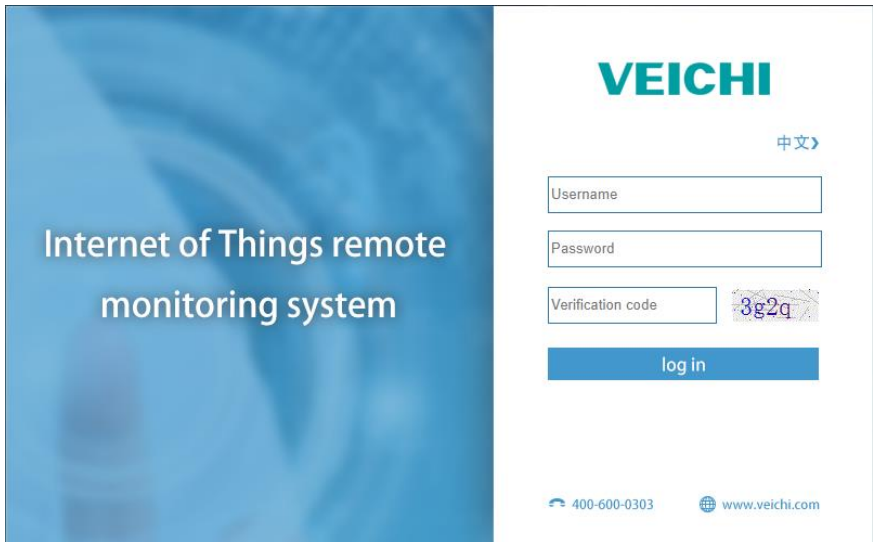
2、Enter the account number and password to log in, the account number and password are provided by our company, and enter the main page of IOT system successfully, as shown in the following figure.
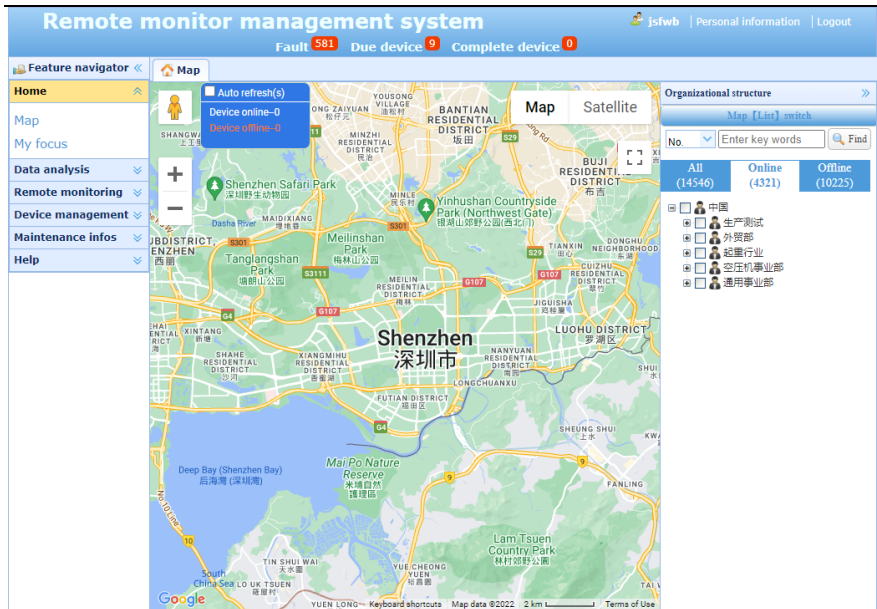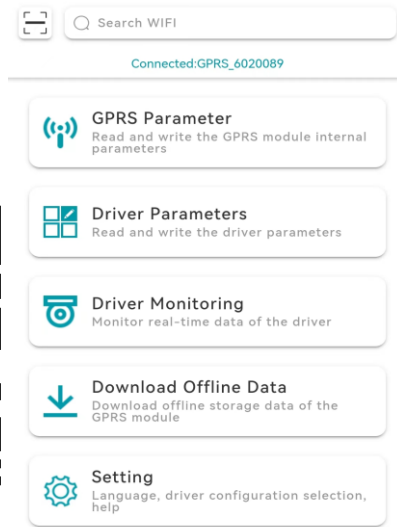
6.2 VC.WIFI Mobile App Operation（**This app can only be used in close proximity to the device**）

1、Open the VC.WIFI mobile app and connect the GPRS module.

VC.WIFI

2、 Perform operations such as reading and writing GPRS parameters, reading and writing drive parameters, monitoring drives in real time, and downloading offline stored data.

6.3 VC.IOT Mobile App Operation（**This app can be used regardless of distance**）

1、 Open VC.IOT mobile app and enter your account and password to login.

VC.IOT

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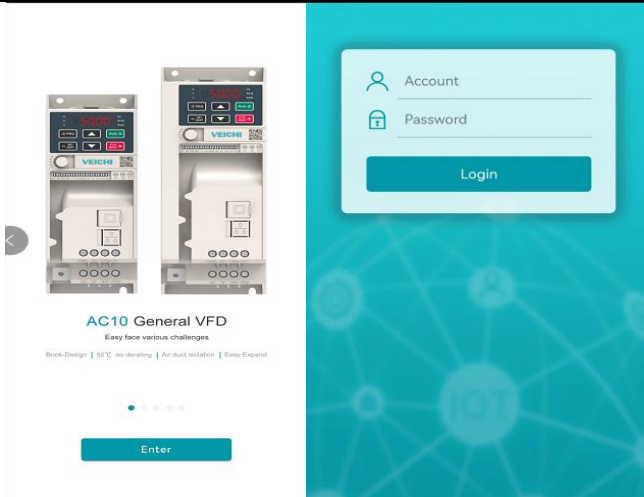
2、Performs device management, real-time monitoring, remote control, and parameter reading and writing operations.

Chapter 7 Common fault analysis and treatment

7.1 Indicator light abnormalities

1、The "status indicator" lights up when the initial power is supplied, which means the power supply is normal.If this indicator does not light up, please check whether the power supply wiring is correct and whether the power supply amplitude is normal.

2、Device "status indicator" blinks 1 time (light 300 milliseconds, off 1 second), means the IOT platform has not added this device, please add this device on the IOT platform and try again.

3、The device "status indicator" is always on, the device is connected to the platform state, it is recommended to observe for a period of time, if the "status indicator" is still not flashing after a long time, you need to check according to the following steps.

①WIFI cell phone APP to read the parameter value of "Detect SIM card status" using RS485 serial tool or VC.
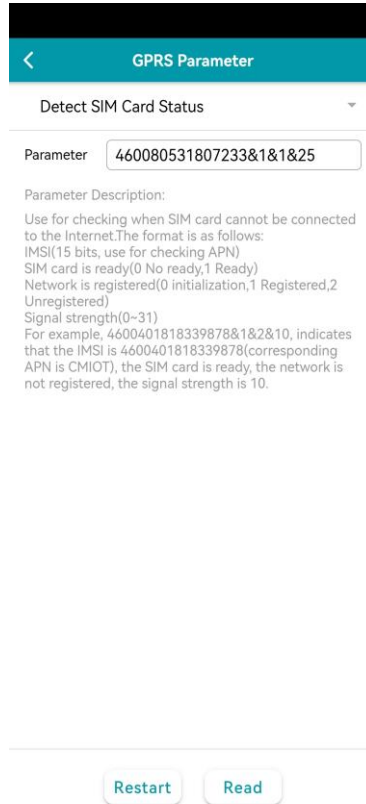
②If the SIM card does not exist, it is possible that the SIM card slot is not in good contact, re-install the SIM card and retry (refer to section 3.2 SIM card installation); if the SIM card exists, check whether the network is registered.

③If the network is not registered, first check the signal strength, when the signal strength is weak, check whether the antenna contact is good, replace the position and retry.

④Then check whether the APN settings are correct, retrieve the correct APN according to the IMSI number (foreign customers can insert the SIM card into the phone, check the APN name, user name and password in Settings - Wireless and Network - Mobile Network - Access Point Name), read the parameter values of the GPRS module "APN parameter group", if the APN parameters are inconsistent, modify them and try again.

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GPRS Parameter

APN Parameter Group

*Careful operation, may cause connection failure.

*Restart and take effect.

APN Name   CMIOT

Apn User

Apn
Password

Restart   Read   Write

⑤If not resolved, check whether the SIM card is in arrears, check whether the SIM card traffic is sufficient.

⑥If the network is registered, check that the server port and server address are correct.

⑦If the problem is still not solved, please contact our office or distributor, or contact our customer service center directly.

Chapter 8 Quality assurance

This product quality guarantee is handled according to the following terms：

8.1 Since the date of purchase of this product, the user can enjoy the following three packages due to product quality problems：

   8.1.1 Return, exchange and repair within 30 days after shipment；

   8.1.2 Replacement and repair within 90 days of shipment；

   8.1.3 Warranty for ~~12~~18months after shipment；

   8.1.4 Except when exporting abroad.

8.2 Lifetime paid service regardless of where you buy our products from；

8.3 The company's offices, dealers and supporting merchants throughout the country, authorized by the company can provide three packages of services.

8.4 In the event of quality problems with this product, our company only assumes responsibility for the three packages in 9.1 and 9.2. When users need more liability guarantee, please take out insurance with the insurance company by yourself in advance.

8.5 Failure caused by the following reasons is a paid service, even if the purchased product is under warranty：

   8.5.1 Failure caused by not using and operating the product according to the requirements of the instruction manual；

   8.5.2 Failure caused by self-modification or over-range use without permission；

   8.5.3 Failure to pay for goods as required by the contract；

   8.5.4 Failures caused by natural disasters such as earthquakes, fires, floods, lightning strikes or abnormal voltages.

8.6 For the package return, exchange and repair services, the goods must be returned to the Company, and only after confirming the attribution of responsibility can they be returned or repaired.

Appendix：

一、SMS inquiry/setup command：

1、Basic Parameter Search

Command: The command queries the network communication status of GPRS communication module.

Format：TCP

Return value: T denotes server address; P denotes server port; D denotes GPRS code; cmiot denotes APN name; Imsi denotes operator number; Rssi denotes signal strength

Command	Return Value
TCP	VEICHI:T183.62.206.177,P8011,D2016006,cmiot,Imsi:460020,Rssi:20

2、Query APN parameters

Description：The command queries the APN parameters of the GPRS communication module.

Format：APN

Return value：APN denotes APN name; APNUser denotes user name; APNPsw denotes password

Command	Return Value
APN	VEICHI: APN:cmiot&APNUser:veichi&APNPsw:123456

3、Set administrator number

Description：This command is used to set the current administrator of the GPRS communication module

Format：Admin+Password(6 positions)

Command	Return Value
Admin123456	VEICHI: Admin set success.

4、Set APN parameters

Description：This command is used to set the APN parameters of the GPRS communication module

Format：APN&+APN name+&+APN User Name+&+APN code

Command	Return Value
APN&cmiot&&	VEICHI: Set APN success.

5、Set server parameters

Description：This command is used to set the server parameters of GPRS communication module

Format：IP + Server Address + & + Port

Command	Return Value
IPgprs.veichi.com&8052	VEICHI: Server changed success.

6、Restart module

Description：This command is used to remotely restart the module. After modifying the parameters, the user must restart the module for the parameters to take effect.

Format：System Restart

Command	Return Value
System Restart	VEICHI: System restart success.

7、SMS modification APN steps

Step 1: Set the administrator number

Only the administrator can set the APN, non-administrators can only view the APN

SMS sending:Admin123456

Administrators will receive an SMS after successful setup, the SMS content is"VEICHI:Admin set success"

Step 2: Set APN

The format of APN SMS settings is：APN&yourapn&username&password

Underline"XXX"Mark as mandatory

Wave Underline"XXX"Mark as APN information：From left to right: APN, user name, password, if there is no user name and password can be replaced by lowercase veichi, so that the default will be saved as an empty APN set successfully, will receive SMS "VEICHI:set APN success"。

如：APN is CMNET，User Name:abcdef，password is 123456， then send SMS APN&CMNET&abcdef&123456

如：APN is internet，If username is empty and password is empty, send SMS APN&internet&veichi&veichi or APN&internet&&

Note: Edit the content of the SMS without spaces and carriage returns.

Step 3: Check whether the APN is set successfully

SMS sending：APN

Reply：VEICHI:APN: internet &APNUSER: abcdef&APNPW:123456
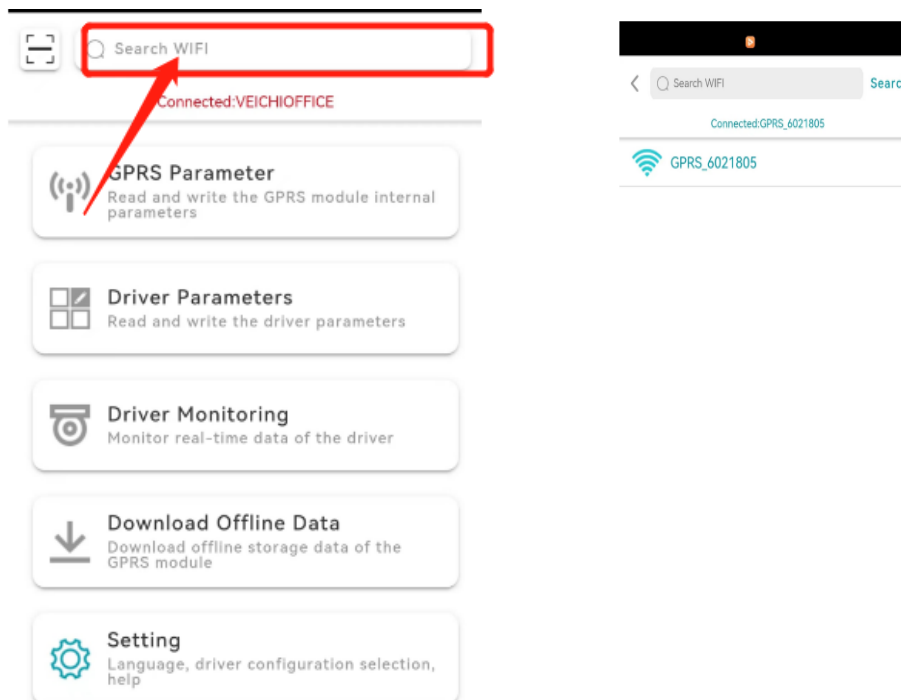
Check if the APN is the same as the one set.

2G-IOT card connect WLAN function guidance

1、 Download WIFI application APP in your phone——VC.WIFI. If you use IPHONE ,please download and search the APP in your store.
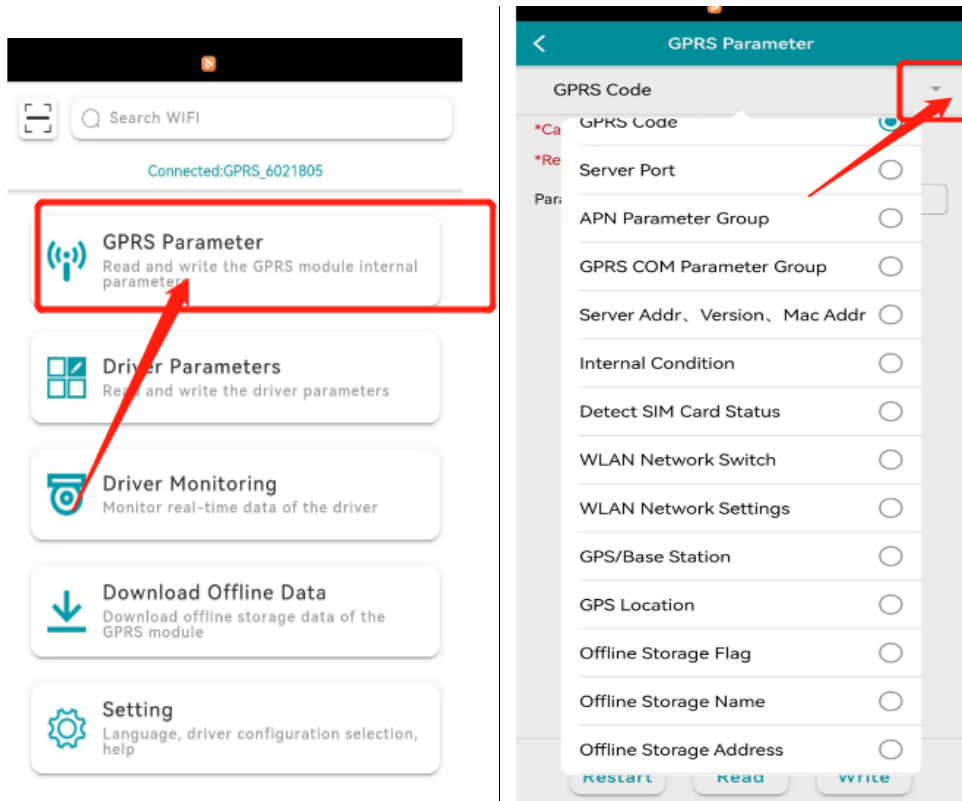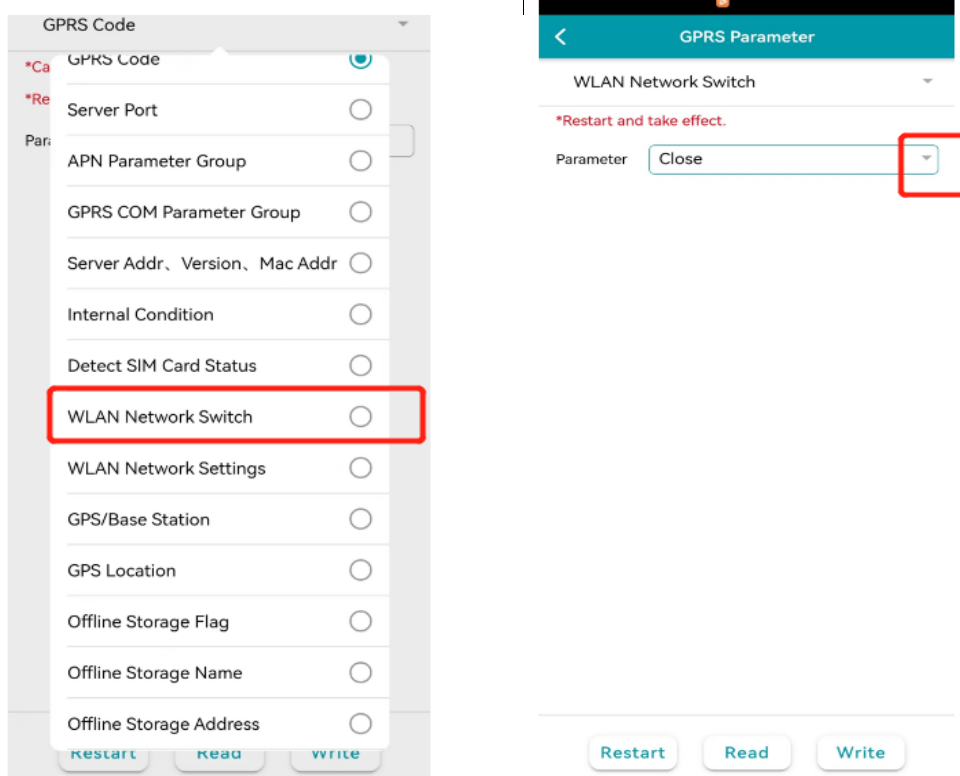

1.1 Android QR Code

2、 Open already downloaded app, power on the IOT card. Click the search WIFI, connected your IOT number

3、 Return to the main interface，then click GPRS parameter（only connect IOT WIFI to click），enter and click the drop-down arrow to open the list.
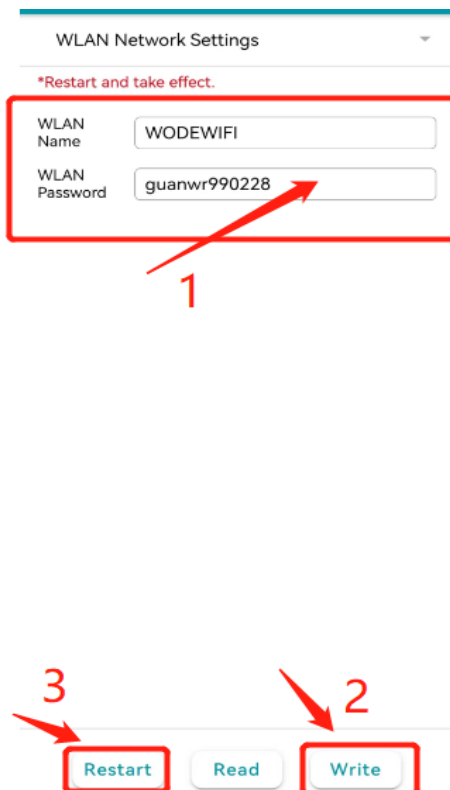
VEICHI

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4、Click "WLAN Network Switch"，open the function，and click "write"

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5、 Click "WLAN Network Setting"，input your WIFI information（Must be accurate），and click "write "，end to click "restart"

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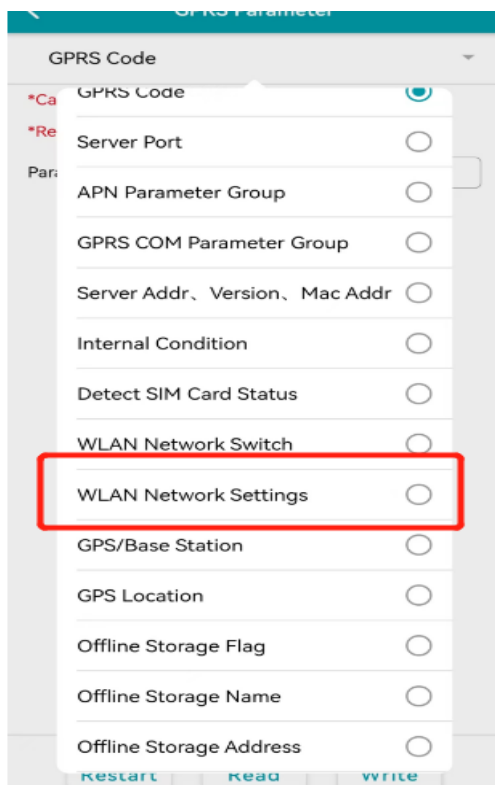
6、 Finally, in the WLAN can see the IOT device connection (WLAN band must be set 2.4HZ or can not connect). After that, you can connect to the IOT app normally.
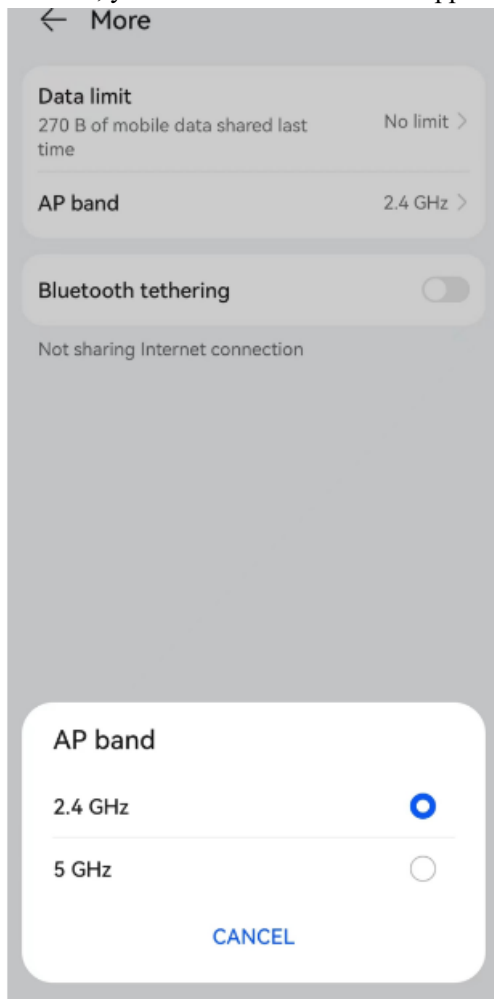
Note: When you do not need WLAN and want to reapply the WIFI function. You need to turn off your connected WLAN, and then wait for the small light above the iot card to blink in order to detect the WIFI of the IOT card, and then use the WIFI APP to turn off the WLAN function afterwards.

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