



# VDB2607 Bluetooth Gateway With PoE Datasheet

## Document Information

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## Reversion History

Revision	Description	Approved	Date
V1.0	Initial Release	Sandi Li	2019.10.23
V1.01	Add different antenna combinations	Sherman	2020.4.8
V1.02	Update Poe power supply part description	Susan	2021.1.25

## Bill of Material

Name	Mdel	Quantity	Remark
Bluetooth Gateway	VDB2607	1	VDB2607
AC-DC Adapter	BSF-137F	1	IN:AC100-240V/OUTPUT: 5.0V±10%

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Ltd**

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## 1. General Description

VDB2607 is an outdoor Bluetooth Gateway with POE or DC power supply. It can be used in various scenarios flexibly. For example, in BLE device remote controlling, it can be used to broadcast information to BLE receivers. Or it can collect data sent by the BLE device and sends it to servers.

VDB2607 support BLE 5.0 with up to 8dBm broadcast TX power, which make it easy to cover more than 100 meters. Its data rate can be up to 2Mbps, allowing longer broadcasting data which contains more information.

The ethernet/WiFi data rate can be up to 100Mbps/580Mbps. It can help provide faster data transmission between server and client BLE devices.

VDB2607 also reserves the zig-bee support and 5G LTE support, making it ready for the coming everything-on-net era.



Figure1: VDB2607

## 1.1 Application Block Diagram

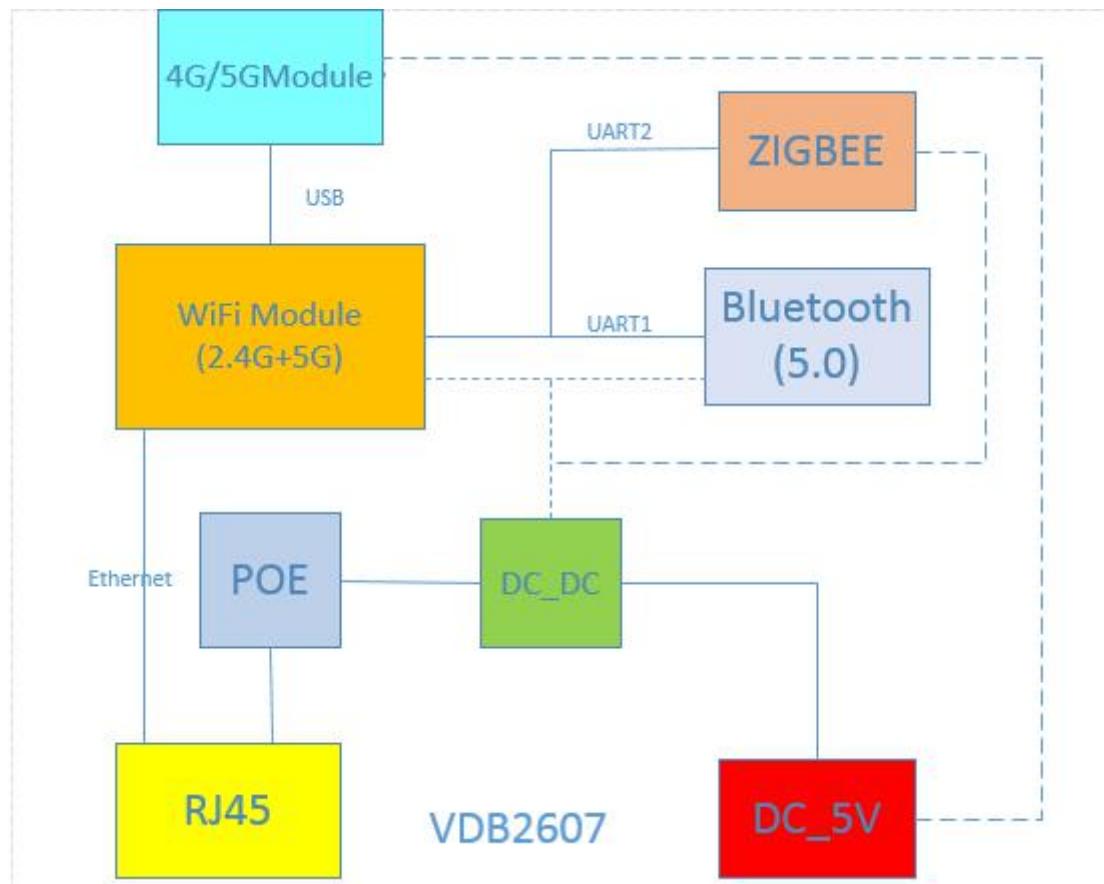


Figure 2: VDB2607 Block Diagram

## 1.2 Features

Supports the POE switch power supply and 5V adapter power supply;

Support IEEE802.3-2012 Type 1 , the IEEE802.3-2012 Type 1 requires a power supply device (PSE) to provide 44 to 57 V, and the power of the powered device (PD) must not exceed 12.95 W and the current does not exceed 350 mA;

Support IEEE 802.11ac, IEEE 802.11n, IEEE 802.11g, IEEE 802.11b Protocol;

Supporting Network Communication of 4G Module (LTE-TDD/LTE-FDD);

Support Bluetooth ® 5.0;

Supporting waterproof and dustproof;

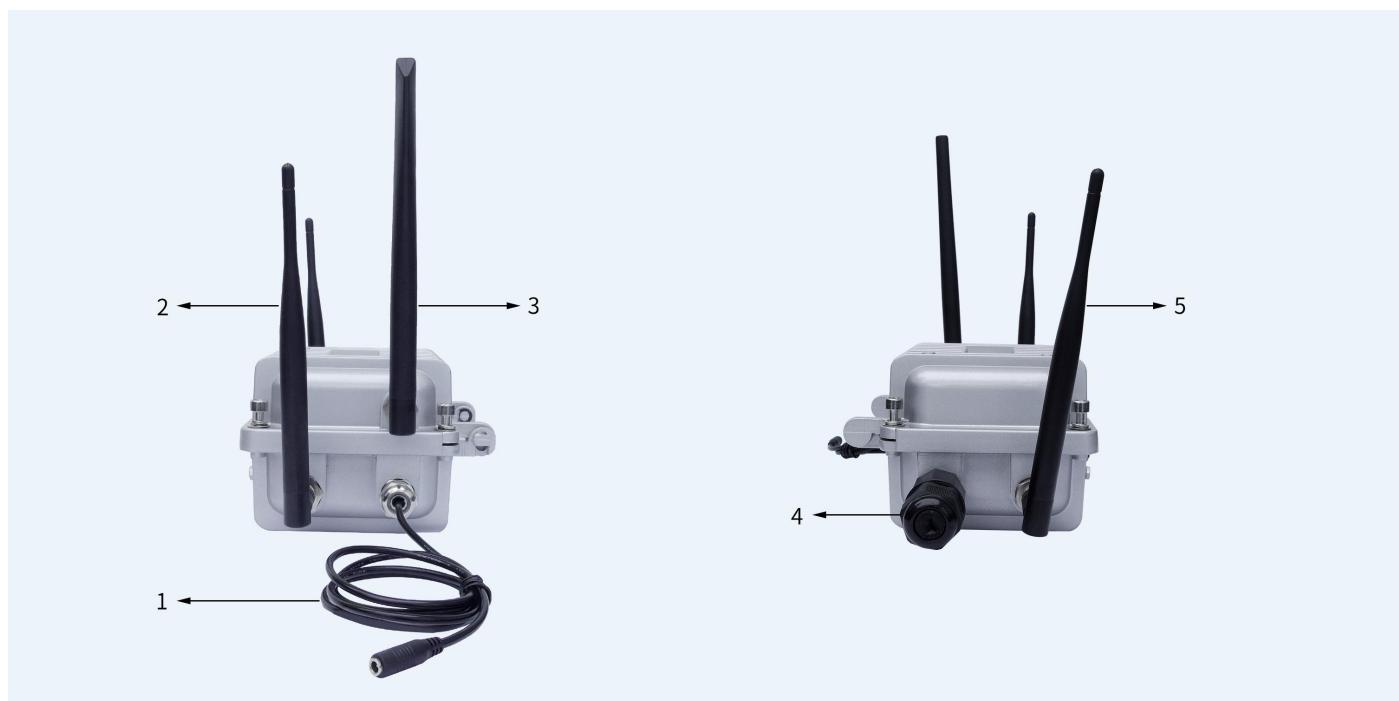
One WAN/LAN variable network port.

RoHS compliance (Lead-free);

FCC,CE compliance.

### 1.3 Interface

Antenna Type1: 3 antennas with no LTE support



1: DC\_DC Power Supply Interface(φ3.5mm);

2: 2.4GHz WiFi antenna;

3: 5GHz WiFi antenna;

4: RJ45 Interface(Network Interface and POE Power Supply Interface);

5: BLE antenna.

Antenna Type2: 4 antennas with LTE support but no POE

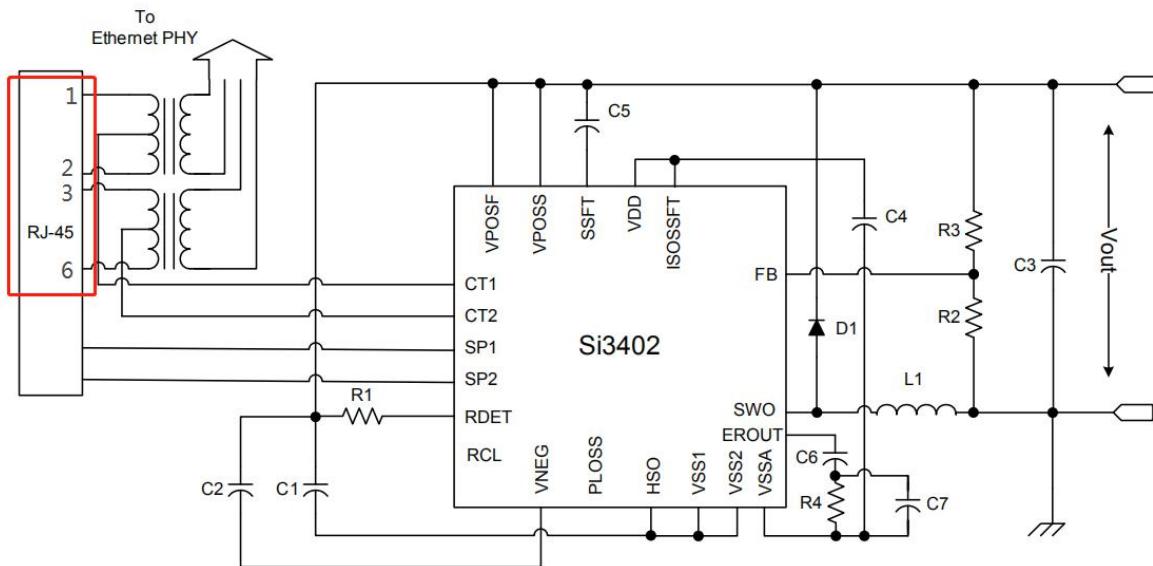
4: RJ45 Interface is removed and replaced by LTE Antenna (Compared with Antenna Type1)

Antenna Type3: 4 antennas with POE support but no DC

1: DC\_IN is removed and replaced by LTE Antenna(Compared with Antenna Type1)

### 1.3.1 WAN/LAN Port

The VDB2607 network port supports five types of lines and super five types of lines, which can transmit data and also support POE power supply (power supply by POE switch is called POE power supply, voltage range 44~57V. Default net-line order is 1,2,3,6, like the figure below). The network port is a WAN/LAN variable port.



**Figure 1.3.1: VDB2607 POE**

**Attention: None-standard POE power supply may damage this product!**

Working mode	net gape
AP Client	LAN
Getway	WAN

**Table 1.3.1 Ethernet port working mode**

### 1.3.2 Power Supply Port

The VDB2607 power interface supports DC input, input voltage range is 4.5V to 5.5V, and the current is greater than 1000mA. The voltage interface adopts the DC power socket, and power seat aperture is 3.5mm. The needle diameter is 1.35 mm and is positive.

**Remark:** The input voltage of the 5V power adaptor is AC 100-240V and 50/60Hz, output voltage is 5V 2A. The power connector is positive inside and negative outside.

### 1.3.3 Reset

There is a reset button inside the VDB2607. After pressing the reset button for more than 5 seconds, the VDB2607 WiFi unit will be restored to the factory settings.

### 1.3.4 LED

There are four LED lights in VDB2607:

- 1)Power LED normally on when powered on;
- 2)Network LED normally on when connected;
- 3)WiFi LED normally on after connecting to WiFi for 1-2sec;
- 4)Bluetooth LED flashing once power on.

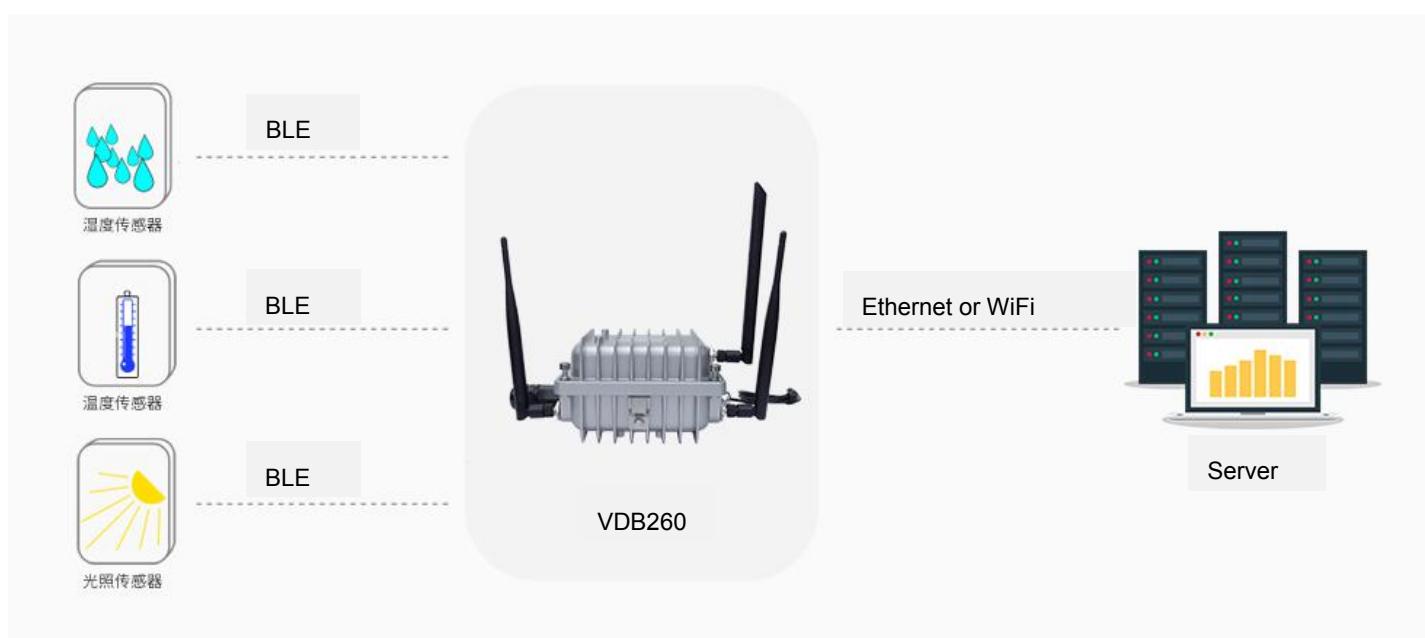
## 1.4 Applications

### 1.4.1 Indoor Positioning:

- 1)VDB2607 Bluetooth module collects information about Beacon nearby, including RSSI, MAC, etc., once per second.
- 2)Bluetooth module send the Beacon information to WiFi module through UART serial port, once per second.
- 3)WiFi module transfers the Beacon information to the specified UDP server, and accepts the information returned by the server.
- 4)Beacon locations can be displayed on the front page after the UDP server analyze and calculate the beacon information. An order can also be delivered to the WiFi module, then sent to the bluetooth module to develop different functions (such as: Lighting lamps and lanterns etc.).

### Schematic of Positioning:





Remark: VDB2607 can be connected to the Internet via the POE switch or the wireless router.

## 2. Module Specification

Dimension	Length: 153mm, width: 138mm, height: 97mm
Power Supply	DC 4.5V to 5.5V 、 POE 44V to 57V
Currents	350mA@5V
Operating Temperature	-20°C~70°C
Interface	WAN Port and Power Supply Port
<b>WiFi</b>	
WiFi Protocol	IEEE 802.11ac, IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
Data Rate	IEEE 802.11 b Standard Mode: 1,2,5.5,11Mbps
	IEEE 802.11g Standard Mode: 6,9,12,18,24,36,48,54Mbps
	IEEE 802.11n : MCS0~MCS7 @ HT20/ 2.4GHz band MCS0~MCS7 @ HT40/ 2.4GHz band MCS0~MCS9 @ HT40/ 5GHz band
	IEEE 802.11ac: MCS0~MCS9 @ VHT80/ 5GHz band
Sensitivity	VHT80 MCS9 : -60dBm@10% PER(MCS9) /5GHz band
	HT40 MCS9 : -63dBm@10% PER(MCS9) /5GHz band
	HT40 MCS7 : -70dBm@10% PER(MCS7) /2.4GHz band
	HT20 MCS7 : -71dBm@10% PER(MCS7) /2.4GHz band
	54M: -76dBm@10% PER
	11M: -88dBm@ 8% PER
Transmit Power	IEEE 802.11ac: 13dBm @HT80 MCS9 /5GHz band
	IEEE 802.11ac: 16dBm @HT80 MCS0 /5GHz band
	IEEE 802.11n: 14dBm @HT20/40 MCS7 /5GHz band
	IEEE 802.11n: 16dBm @HT20/40 MCS0 /5GHz band
	IEEE 802.11n: 16dBm @HT20/40 MCS7 /2.4GHz band
	IEEE 802.11g: 16dBm @54MHz
	IEEE 802.11b: 18dBm @11MHz
Wireless Security	WPA/WPA2, WEP, TKIP, and AES
Working mode	Bridge、Gateway、AP Client

Bluetooth	
Bluetooth Protocol	Bluetooth ® 5.0
Data Rate	Uncoded:1Mbps/2Mbps,Coded:125kbps(S=8)/500kbps(S=2)
Wireless Security	AES HW Encryption
Connection Distance	150m
Transmit Power	Tx Power -20 to +8 dBm in 4 dB Steps

### 3. Configuration

#### 3.1 network topology

##### 3.1.1 Access through the superior routing network segment

In the Gateway mode of VDB2607, the only network port is WAN,, PC and VDB2607 connect the same superior route, access VDB2607.

VDB2607 works in APCLI mode, where the PC accesses VDB2607 through the same superior route as VDB2607.

The following figure is the topology of the network connection. The WAN port of VDB2607 is connected to the ROUTER's LAN port, and the PERSONAL PC is also connected to the router's LAN port or wireless hotspot. At this point, the management interface of VDB2607 can be accessed through the browser on the PC.

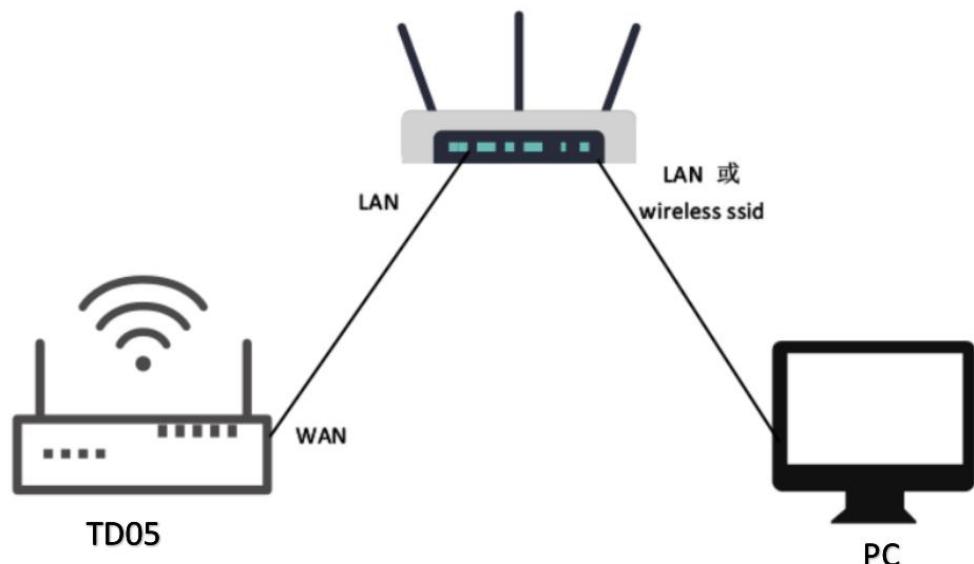
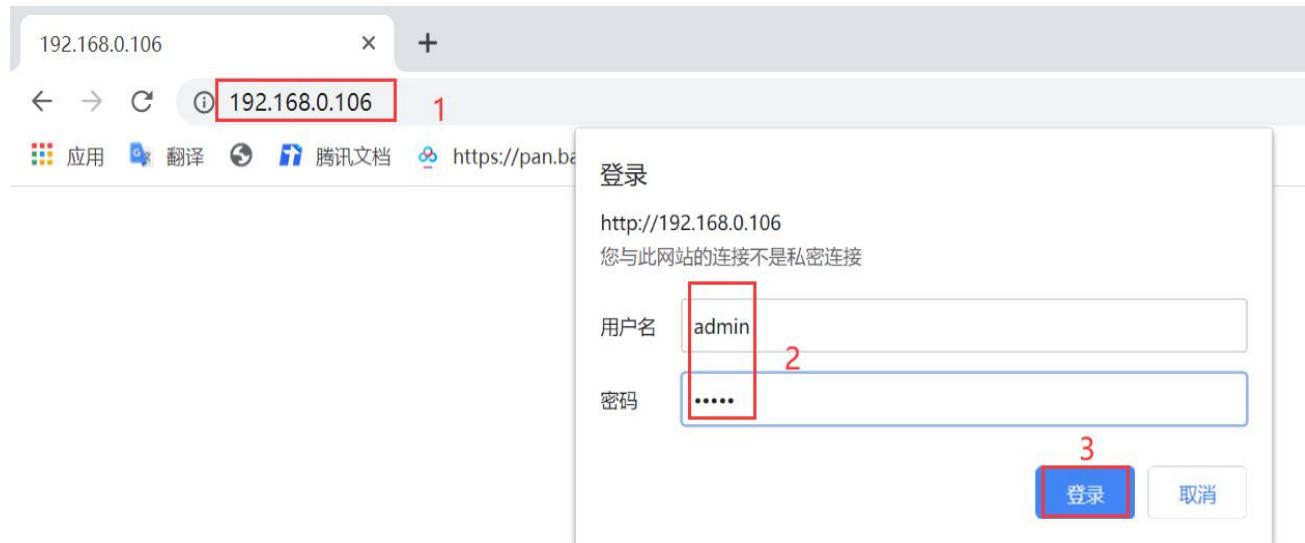


图 3.1 Access through the superior routing network segment

It is assumed that the IP address assigned to VDB2607 by the router is 192.168.0.106, and the IP assigned to THE PC is 192.168.1.118. At this time, the browser can access 192.168.0.106 on the PC, and the Web authentication interface of VDB2607 can be entered. As shown in the figure below



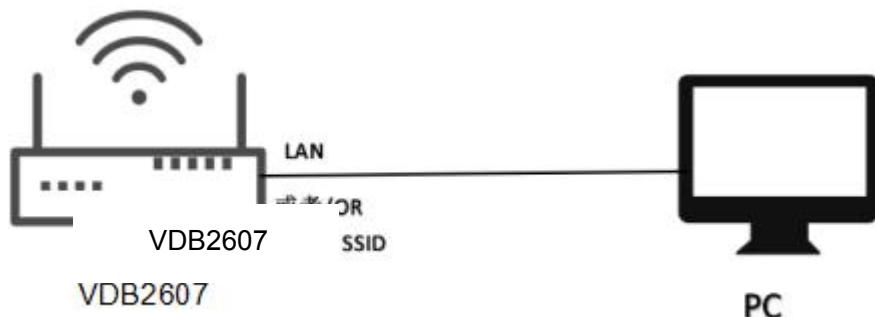
The password of VDB2607 is admin/admin.

### 3.1.2 Connect via LAN

VDB2607 in Gateway mode, the PC accesses the WIFI module through the WIFI hotspot of VDB2607.

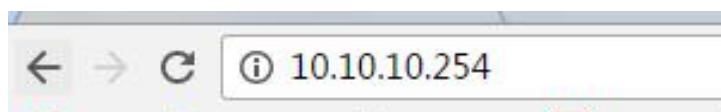
VDB2607 In AP-CLI mode, THE PC can access the WIFI module through the WIFI hotspot of VDB2607 and the unique network port.

After connecting to VDB2607 in the above way, VDB2607 will assign the IP address to the PC. Users can log in to the administration interface of VDB2607 on a PC by accessing the gateway IP. The default IP address network segment is 10.10.10.0/24. Assuming that the user has not modified the IP network segment of VDB2607, then the user can go to the management interface of VDB2607 through the browser on the PC at 10.10.10.254.



Access via VDB2607 LAN

The following is a screenshot of the access on PC:



## 3.2 Wan configuration

### 3.2.1 Wan port access to the Internet

(1) The system works in gateway mode by default;

The screenshot shows the "95POWER APSoC" web interface. The left sidebar menu is expanded, showing "启能" (Enable), "运作模式" (Operation Mode) which is selected and highlighted with a red box, "网络设置" (Network Settings), "无线网路设置" (Wireless Network Settings), "NAT 设置" (NAT Settings), "NAS", "系统管理" (System Management), and "蓝牙". The main content area is titled "运作模式设置" (Operation Mode Settings). It contains a note: "您可以在此处设置适合您网络环境的运作模式" (You can set the operating mode suitable for your network environment). There are three radio button options: "Bridge:", "Gateway:" (which is selected and highlighted with a red box), and "AP Client". Below each option is a brief description. At the bottom, there are three buttons: "启用 NAT" (Enable NAT) with a dropdown menu, "TCP Timeout" (TCP Timeout) set to 180, "UDP Timeout" (UDP Timeout) set to 180, and a "Save" button which is also highlighted with a red box. Below the "Save" button are "确定" (Confirm) and "取消" (Cancel).

Note: Click Save, the configuration can be saved, but it will not take effect immediately. It can be determined once the system is configured.

Click "OK", it will take effect immediately, the network will restart, need to wait for the network recovery;

(2) Wan for dynamic address allocation;



(3) Check the status



### 3.2.2 wireless internet

- (1) The system mode is configured as APCLI mode. Follow the operation as shown in the figure below and click "Save" to refresh3



(2) The WAN is configured for dynamic address assignment;



(3) Configure superior AP information;



m) i) m) o) bility

[开启全部](#) | [关闭全部](#)



### AP Client Feature

You could configure AP Client parameters here.

#### AP Client Parameters

SSID	SKYLAB91
MAC Address (Optional)	
Security Mode	WPA2PSK 2
Encryption Type	AES
Pass Phrase	Skylab20026

[Save](#) [Apply](#) [Cancel](#)

3

### 3.2.3 Mobile 4G Internet

- (1) Ensure that the mobile network card and 4G antenna are connected well, and the system is configured as Gateway mode;



m) i) m) o) bility

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### 运作模式设置

您可以在此处设置适合您网络环境的运作模式

Bridge:

所有乙太网络埠、以及无线网络界面，皆被串连到单一的桥接器界面。

Gateway:

第一个乙太网络埠视为广域网络端。其他的乙太网络埠、以及无线网络界面，则串连到单一的桥接器界面，并视为局域网端。

AP Client:

无线网络界面的客户端视为广域网络端。无线网络界面的基地台端、以及所有乙太网络埠，则串连到单一的桥接器界面，并视为发域网络端。

启用 NAT: [启用](#)  
TCP Timeout: 180  
UDP Timeout: 180

[Save](#) [确定](#) [取消](#)

- (2) Wan configuration 3G network mode;



(3) Check the network status;



### 3.3 LAN configuration

#### 3.3.1 Change the LAN IP address

The default LAN segment of VDB2607 is 10.10.10.254/24. Customers can modify the LAN IP address according to their needs. The following steps are described:

(1) Follow the steps below;

(2) After the IP address is modified, the network will restart. If the WIFI hotspot is used to connect, the network may be disconnected. Connect to the hotspot again and use the newly set IP address to access the module.



局域网设置

您可以启用/停止以及设置所有的网络功能。

局域网设置	
网络名称	Mediatek
IP 地址	172.16.10.254
子网络遮罩	255.255.255.0
局域网 2	<input type="radio"/> 启用 <input checked="" type="radio"/> 停用
局域网 2 IP 地址	
局域网 2 子网络遮罩	
MAC 地址	(null)
DHCP 类型	服务器
起始 IP 地址	172.16.10.100
结束 IP 地址	172.16.10.200
子网络遮罩	255.255.255.0
惯用 DNS 服务器	168.95.1.1
其他 DNS 服务器	8.8.8.8
预设信关	172.16.10.254

### 3.3.2/Add LAN segment

Lan2 can be added to LAN segment in VDB2607. Lan2 is not enabled by default.

- (1) Follow the steps below to set up LAN2



m) i) m) o) bility

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- 微能
- 运作模式
- 网络设置 1
  - 广域网络
  - 局域网
  - DHCP 客户端列表
  - VPN Passthrough
  - 高级路由配置
  - IPv6
- 无线網路设置
- NAT 设置
- NAS
- 系统管理
- 蓝牙

## 局域网设置

您可以启用/停止以及设置所有的网络功能。

### 局域网设置

网络名称	Mediatek
IP 地址	172.16.10.254
子网络遮罩	255.255.255.0
局域网 2	<input checked="" type="radio"/> 启用 <input type="radio"/> 停用 2
局域网 2 IP 地址	193.169.10.254
局域网 2 子网络遮罩	255.255.255.0
MAC 地址	(null)
DHCP 类型	服务器
起始 IP 地址	172.16.10.100
结束 IP 地址	172.16.10.200
子网络遮罩	255.255.255.0
惯用 DNS 服务器	168.95.1.1
其他 DNS 服务器	8.8.8.8
预设信关	172.16.10.254
释放时间	86400



m) i) m) o) bility

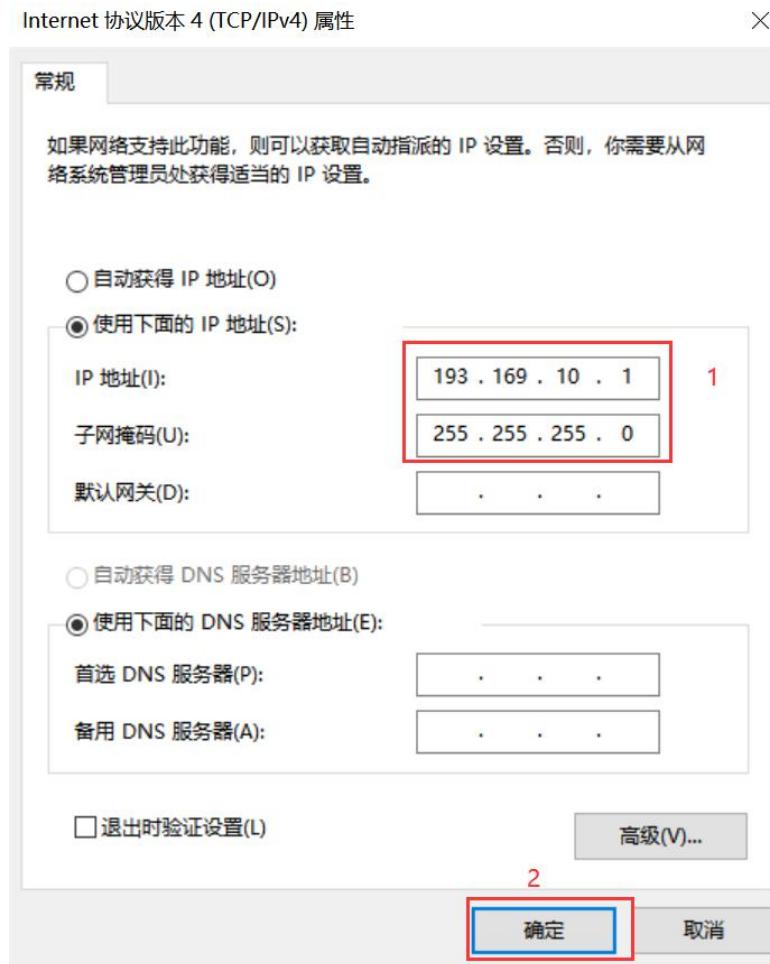
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- 微能
- 运作模式
- 网络设置
  - 广域网络
  - 局域网
  - DHCP 客户端列表
  - VPN Passthrough
  - 高级路由配置
  - IPv6
- 无线網路设置
- NAT 设置
- NAS
- 系统管理
- 蓝牙

DHCP 类型	服务器
起始 IP 地址	172.16.10.100
结束 IP 地址	172.16.10.200
子网络遮罩	255.255.255.0
惯用 DNS 服务器	168.95.1.1
其他 DNS 服务器	8.8.8.8
预设信关	172.16.10.254
释放时间	86400
静态指定	MAC: <input type="text"/> IP: <input type="text"/>
静态指定	MAC: <input type="text"/> IP: <input type="text"/>
静态指定	MAC: <input type="text"/> IP: <input type="text"/>
802.1d Spanning Tree	停用
LLTD	停用
IGMP Proxy	停用
UPNP	停用
Router Advertisement	停用 3

[Save](#) [确定](#) [取消](#)

- (2) After lan2 is set up, the user can set the static IP for the network segment and communicate with the set through lan2's IP access gateway.



### 3.3.3 configuration DHCP

VDB2607 supports users to modify various DHCP parameters, including starting IP, ending IP, IP address lease time and other parameters, and also supports users to turn off DHCP function and use static IP connection.

(1) The following steps are to close the DHCP service



Here are the steps to set the DHCP server parameters:

(1) Set according to the steps shown in the diagram



### 3.3.4/Bind IP address

In the debugging process, when the server side is simulated on PC for testing, the IP address of THE PC can be bound so that the IP address of the server can be fixed during the test.

- (1) You can first check the DHCP list of VDB2607 and copy the MAC corresponding to PC.The following is the steps to view the DHCP list:



[开启全部](#) | [关闭全部](#)

微能

- 运作模式
- 网络设置
  - 广域网络
  - 局域网
    - 1 DHCP 客户端列表
    - VPN Passthrough
    - 高级路由配置
    - IPv6

## DHCP 客户端列表

您可以在此检视所有 DHCP 客户端。

### DHCP 客户端

网络名称	MAC 地址	IP 地址	过期	Os device
HONOR_20S-c0b62	44:55:C4:26:CA:37	172.16.10.100	23:56:40	2
yang	3C:95:09:67:A1:5D	172.16.10.101	00:00:00	

- (1) Bind THE IP address of PC through the following method. After binding, the PC is connected to VDB2607, and the IP obtained is the binding IP address.



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微能

- 运作模式
- 网络设置
  - 广域网络
  - 1 局域网
    - DHCP 客户端列表
    - VPN Passthrough
    - 高级路由配置
    - IPv6

DHCP 类型	服务器
起始 IP 地址	172.16.10.100
结束 IP 地址	172.16.10.110
子网络遮罩	255.255.255.0
惯用 DNS 服务器	168.95.1.1
其他 DNS 服务器	8.8.8.8
预设关	172.16.10.254
释放时间	86400
静态指定	MAC: 3C:95:09:67:A1:5D IP: 172.16.10.100
静态指定	MAC: IP:
静态指定	MAC: IP:
802.1d Spanning Tree	停用
LLTD	停用
IGMP Proxy	停用
UPNP	停用
Router Advertisement	停用

[Save](#) [确定](#) [取消](#)

### 3.4 Wireless parameter configuration

#### 3.4.1 Modify WIFI hotspot name and set fixed channel

网络模式	11b/g/n mixed mode
网络名称 (服务集合标识符)	SKYLAB_28A1E8F9CE
广播网络名称 (服务集合标识符)	<input checked="" type="radio"/> 启用 <input type="radio"/> 停用
AP Isolation	<input type="radio"/> 启用 <input checked="" type="radio"/> 停用
基本服务集合标识符	30:EB:1F:07:1B:A2
频率 (频道)	2452MHz (Channel 9)

**高吞吐量实体模块**

运作模式	<input checked="" type="radio"/> 混合模式 <input type="radio"/> Green Field
频道带宽	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
保护间隔	<input type="radio"/> 长 <input checked="" type="radio"/> 自动
MCS	Auto
反转方向权限(RDG)	<input checked="" type="radio"/> 停用 <input type="radio"/> 启用
延伸频道	2432MHz (Channel 5)
空时分组编码(STBC)	<input type="radio"/> 停用 <input checked="" type="radio"/> 启用
聚合MAC业务数据单元 (A-MSDU)	<input checked="" type="radio"/> 停用 <input type="radio"/> 启用
自动单一区块确认	<input type="radio"/> 停用 <input checked="" type="radio"/> 启用

频率 (频道)	2452MHz (Channel 9)
---------	---------------------

**高吞吐量实体模块**

运作模式	<input checked="" type="radio"/> 混合模式 <input type="radio"/> Green Field
频道带宽	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
保护间隔	<input type="radio"/> 长 <input checked="" type="radio"/> 自动
MCS	Auto
反转方向权限(RDG)	<input checked="" type="radio"/> 停用 <input type="radio"/> 启用
延伸频道	2432MHz (Channel 5)
空时分组编码(STBC)	<input type="radio"/> 停用 <input checked="" type="radio"/> 启用
聚合MAC业务数据单元 (A-MSDU)	<input checked="" type="radio"/> 停用 <input type="radio"/> 启用
自动单一区块确认	<input type="radio"/> 停用 <input checked="" type="radio"/> 启用
拒绝单一区块确认要求	<input checked="" type="radio"/> 停用 <input type="radio"/> 启用
HT Disallow TKIP	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
HT LDPC	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

**其它**

高吞吐量传送数据流	2
高吞吐量接收数据流	2

Save 确定 取消

193.169.10.254/index.shtml

#### 3.4.2 Set hotspot encryption/unencryption

Here is the step-by-step diagram for setting up an open hot spot:



[开启全部](#) | [关闭全部](#)

微能  
 运作模式  
 网络设置  
**无线网络设置**  
 基本设置  
 高级设置  
**安全设置**  
 WPS  
 客户端列表  
 统计资料  
 NAT 设置  
 NAS  
 系统管理  
 蓝牙

### Wireless Security/Encryption Settings

Setup the wireless security and encryption to prevent from unauthorized access and monitoring.

Select SSID	
SSID choice	SKYLAB_28A1E8F9CE
"SKYLAB_28A1E8F9CE"	
Security Mode	Disable
访问策略	
功能	停用
新增:	

Save **Apply** Cancel

Here is the configuration diagram for setting up a password connection:



[开启全部](#) | [关闭全部](#)

微能  
 运作模式  
 网络设置  
**无线网络设置**  
 基本设置  
 高级设置  
**安全设置**  
 WPS  
 客户端列表  
 统计资料  
 NAT 设置  
 NAS  
 系统管理  
 蓝牙

Setup the wireless security and encryption to prevent from unauthorized access and monitoring.

Select SSID	
SSID choice	SKYLAB_28A1E8F9CE
"SKYLAB_28A1E8F9CE"	
Security Mode	WPA2-PSK
WPA	
WPA Algorithms	<input type="radio"/> TKIP <input checked="" type="radio"/> AES <input type="radio"/> TKIPAES
Pass Phrase	12345678
Key Renewal Interval	3600 seconds (0 ~ 4194303)
PMF	
MFPC	<input type="radio"/> Enable <input type="radio"/> Disable
MFPR	<input type="radio"/> Enable <input type="radio"/> Disable
MFP SHA256	<input type="radio"/> Enable <input type="radio"/> Disable
访问策略	
功能	停用
新增:	

Save **Apply** Cancel

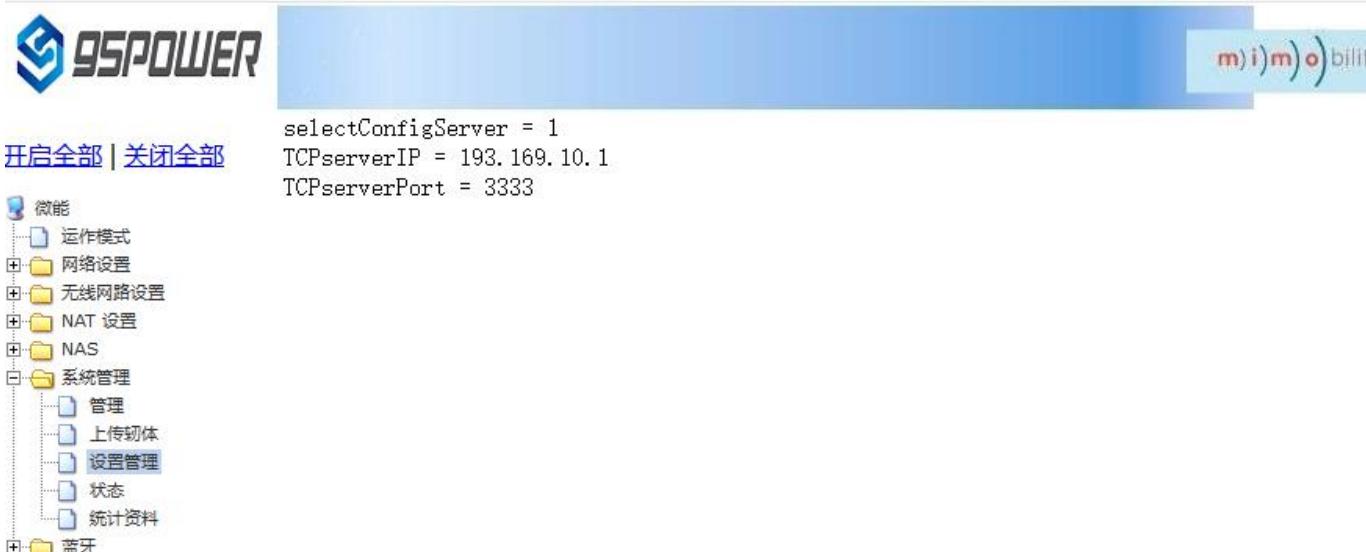
## 4、Server information configuration

The user can configure the server address and port information through the Web interface, which requires VDB2607 to be accessible. In addition, the default Internet access mode of VDB2607 is UDP protocol. In the Web

interface, you can customize the communication protocol, and the optional protocol is TCP/UDP/MQTT. The configuration method is as follows:

#### 4.1 Configure for TCP protocol communication

The configuration is the communication mode of TCP protocol. The configuration screenshot is as follows

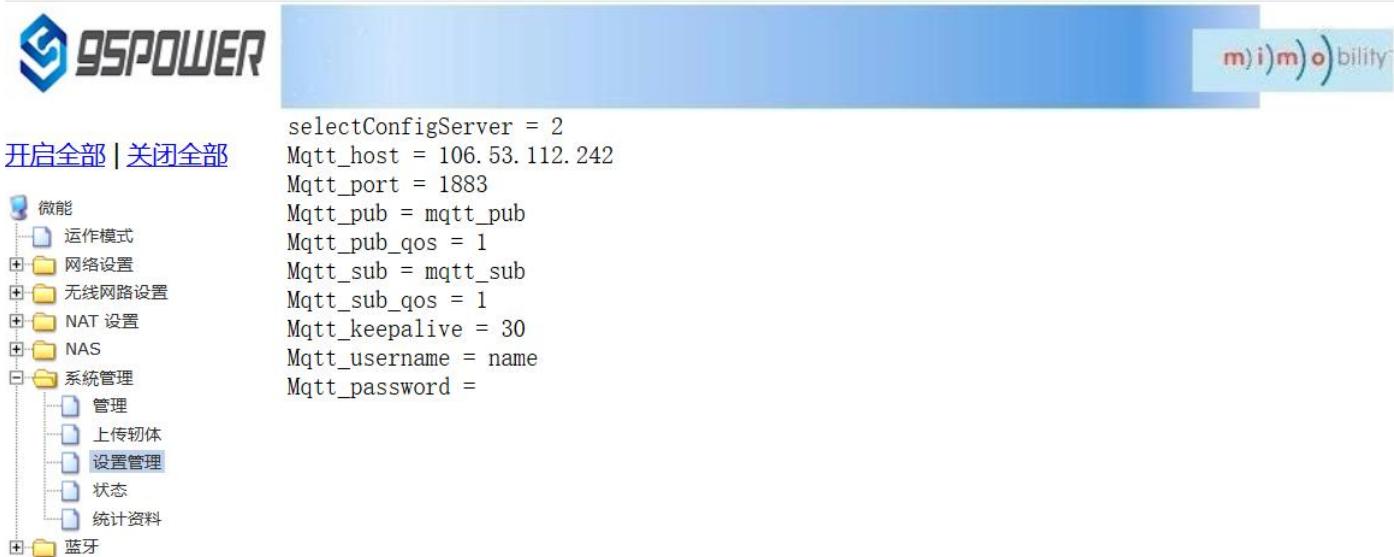
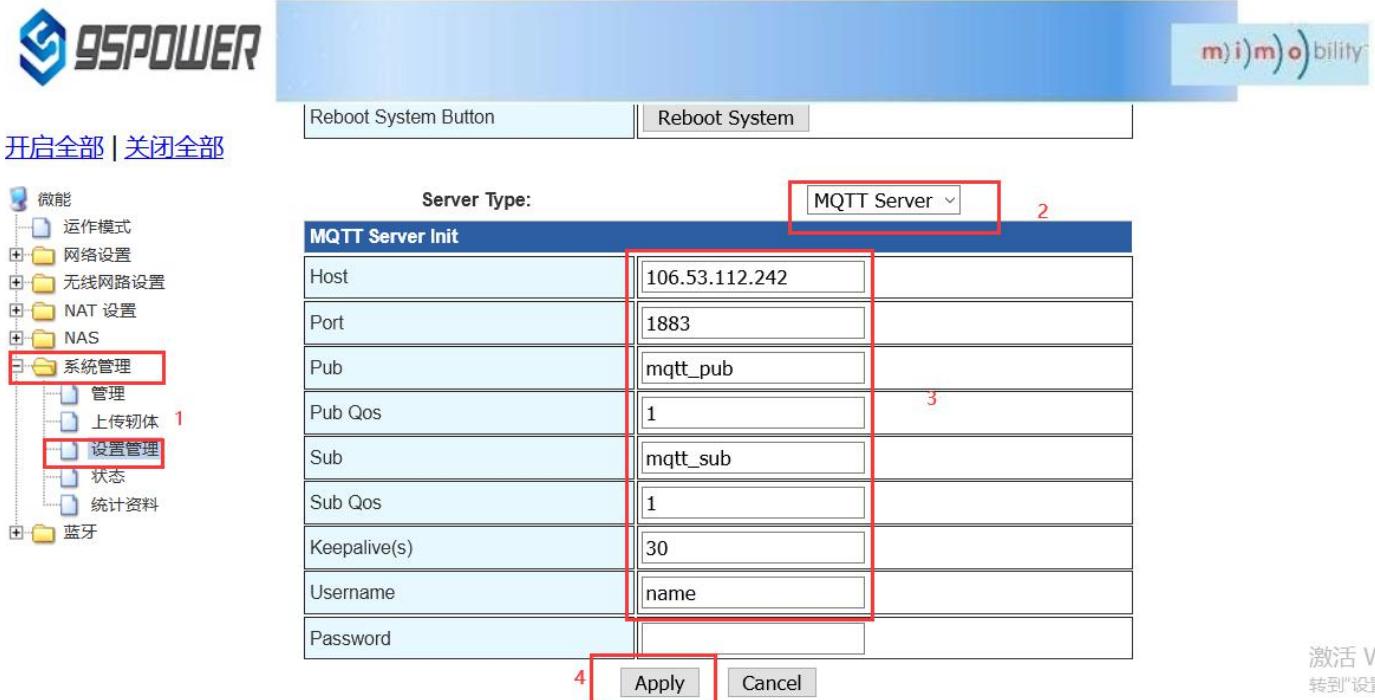


## 4.2 It is configured for UDP protocol communication

The configuration is UDP protocol communication. The configuration screenshot is as follows:



## 4.3 Configure for MQTT protocol communication



## 5. Set bluetooth information

Users can configure various parameters of Bluetooth through the Web interface, including scanning and filtering parameters, scanning data parameters, gateway Bluetooth broadcasting parameters, and uUids that gateway Bluetooth communicates with APP and device.

### 5.1 Configure Bluetooth filtering information

#### 5.1.1、Set/unfilter signal strength RSSI value

Set the filtered signal strength RSSI value

Here you can configure Bluetooth filtering.

Set Filter RSSI	
Filter RSSI	<input checked="" type="radio"/> Disable <input type="radio"/> Enable <span style="color:red">2</span>
RSSI	-100 <span style="color:red">3</span> (range [-127,127])
<b>Apply</b> <span style="color:red">4</span>	

Set Filter Device Name	
Filter DeviceName	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Device Name	(string len in [1,20], match in [0-9a-zA-Z])

Cancel the RSSI value setting of scanning filter signal strength;

Here you can configure Bluetooth filtering.

Set Filter RSSI	
Filter RSSI	<input checked="" type="radio"/> Disable <input type="radio"/> Enable <span style="color:red">2</span>
RSSI	-100 (range [-127,127]) <span style="color:red">3</span>
<b>Apply</b>	

Set Filter Device Name	
Filter DeviceName	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Device Name	(string len in [1,20], match in [0-9a-zA-Z])

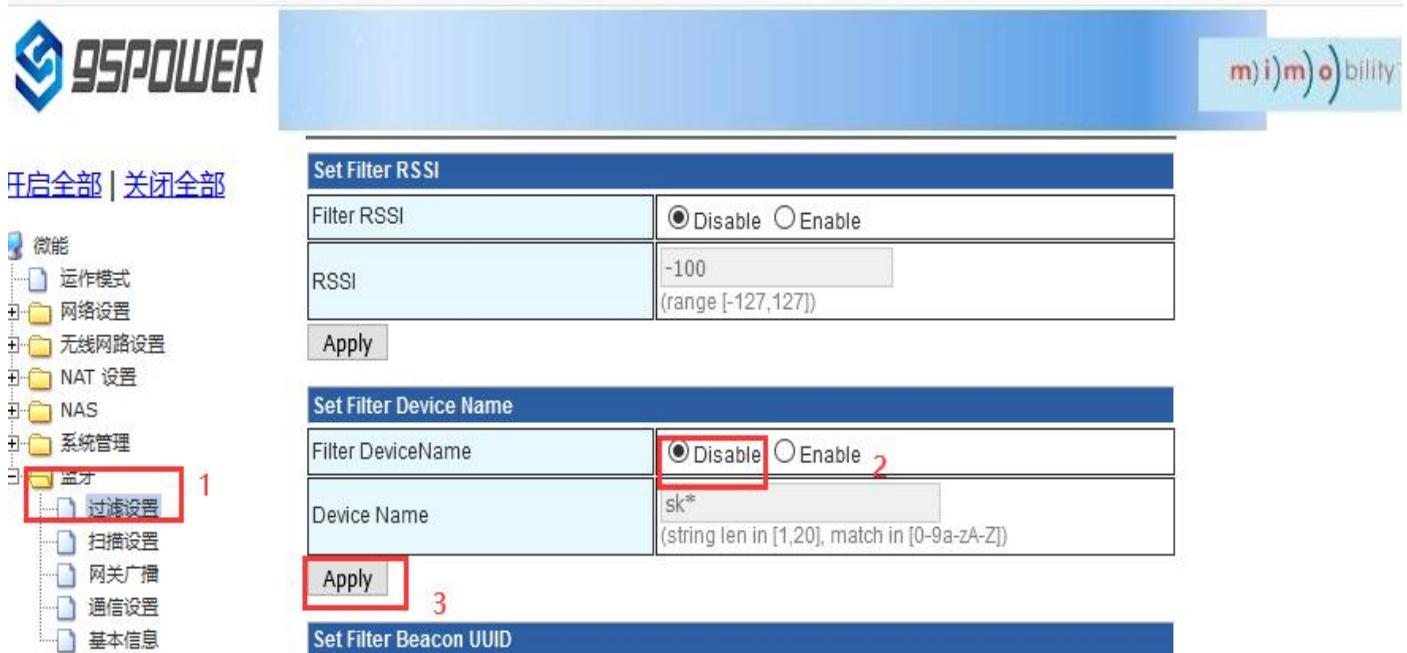
Set Filter Beacon UUID	
------------------------	--

### 5.1.2、Set/unscan filter device name

Set the Settings name for the scan



Unset the filter device name



### 5.1.3、Set/Unscan the filtered Beacon UUID

Set the scan filter Beacon UUID



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- 微能
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  - 无线网路设置
  - NAT 设置
  - NAS
  - 系统管理
    - 1 蓝牙
      - 过滤设置
      - 扫描设置
      - 网关广播
      - 通信设置
      - 基本信息

Set Filter RSSI	
Filter RSSI	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
RSSI	-100 (range [-127,127])
<a href="#">Apply</a>	

Set Filter Device Name	
Filter DeviceName	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Device Name	sk* (string len in [1,20], match in [0-9a-zA-Z])
<a href="#">Apply</a>	

Set Filter Beacon UUID	
Filter Beacon UUID	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Beacon UUID	1231111111111111111111112222222222 (String len is 32, match in [a-fA-F0-9])
<a href="#">Apply</a>	

Unset the scan filter Beacon UUID



m) i)m)o)bility

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    - 1 蓝牙
      - 过滤设置
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      - 通信设置
      - 基本信息

Set Filter RSSI	
Filter RSSI	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
RSSI	-100 (range [-127,127])
<a href="#">Apply</a>	

Set Filter Device Name	
Filter DeviceName	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Device Name	
<a href="#">Apply</a>	

Set Filter Beacon UUID	
Filter Beacon UUID	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Beacon UUID	1231111111111111111111112222222222 (String len is 32, match in [a-fA-F0-9])
<a href="#">Apply</a>	

#### 5.1.4、Set/unscan filtered CompanyId

Set the CompanyId for scanning and filtering



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Set Filter RSSI	
Filter RSSI	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
RSSI	<input type="text"/>
<a href="#">Apply</a>	

Set Filter Device Name	
Filter DeviceName	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Device Name	<input type="text"/>
(string len in [1,20], match in [0-9a-zA-Z])	
<a href="#">Apply</a>	

Set Filter Beacon UUID	
Filter Beacon UUID	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Beacon UUID	<input type="text"/>
(string len is 32, match in [a-fA-F0-9])	
<a href="#">Apply</a>	

Set Filter Company ID	
Filter Company ID	<input type="radio"/> Disable <input checked="" type="radio"/> Enable 2
Company ID	<input type="text"/> 004C
(string len is 4, match in [a-fA-F0-9])	
<a href="#">Apply</a> 3	

Unset the scan filter CompanyId



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RSSI	
<input type="text"/>	(range [-127,127])
<a href="#">Apply</a>	

Set Filter Device Name	
Filter DeviceName	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Device Name	<input type="text"/>
(string len in [1,20], match in [0-9a-zA-Z])	
<a href="#">Apply</a>	

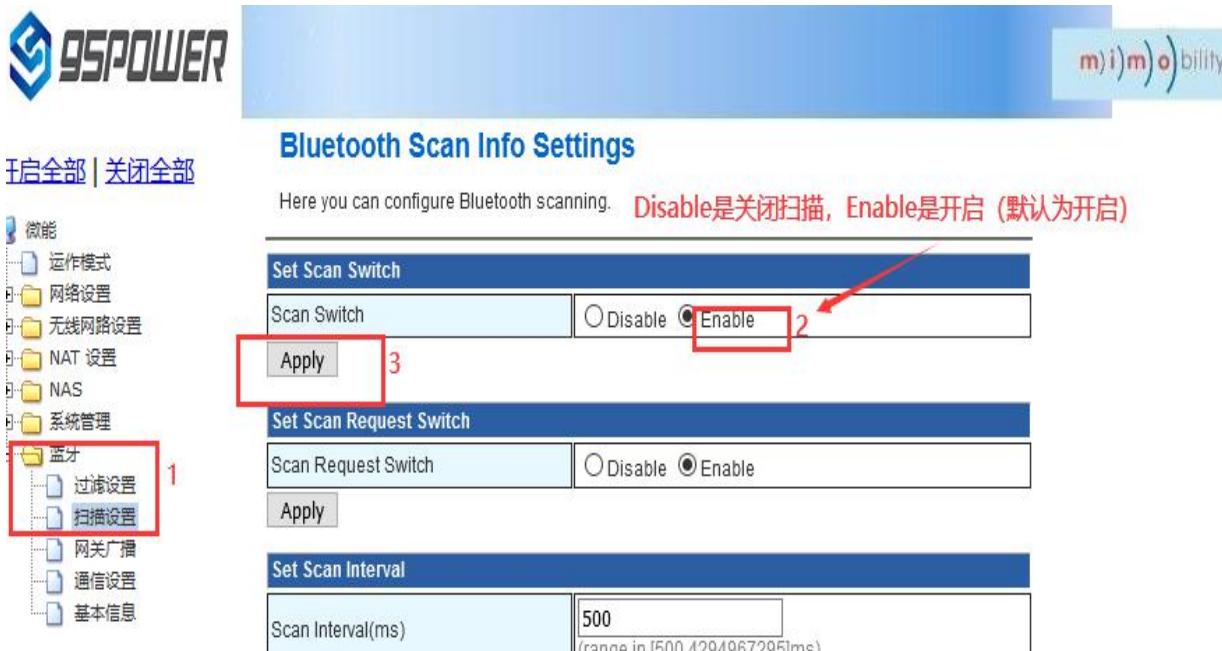
Set Filter Beacon UUID	
Filter Beacon UUID	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Beacon UUID	<input type="text"/>
(string len is 32, match in [a-fA-F0-9])	
<a href="#">Apply</a>	

Set Filter Company ID	
Filter Company ID	<input checked="" type="radio"/> Disable 2 <input type="radio"/> Enable
Company ID	<input type="text"/> 004C
(string len is 4, match in [a-fA-F0-9])	
<a href="#">Apply</a> 3	

## 5.2 Configure the Bluetooth scan parameters

### 5.2.1、 Set the scan output switch

The steps to set the Bluetooth scan output switch are as follows:



### 5.2.2、 Sets whether to start a scan request

When the scan request is started, the scan output is 62 bytes, which is started by default. When the scan request is not started, the amount of data output from the scan is 31 bytes.



### 5.2.3、 Set the time interval for the scan output

Set the time interval of scan output to a minimum of 500ms.



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### Bluetooth Scan Info Settings

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- 蓝牙**
  - 过滤设置
  - 扫描设置**
  - 网关广播
  - 通信设置
  - 基本信息

1

#### Set Scan Switch

Scan Switch  Disable  Enable

**Apply**

#### Set Scan Request Switch

Scan Request Switch  Disable  Enable

**Apply**

#### Set Scan Interval

Scan Interval(ms)  (range in [500,4294967295]ms)

2

单位为ms

3

**Apply**

### 5.2.4、Sets the number of output device information at a time

Set the amount of device information output at a time to a minimum of 1.



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### Bluetooth Scan Info Settings

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- 系统管理
- 蓝牙**
  - 过滤设置
  - 扫描设置**
  - 网关广播
  - 通信设置
  - 基本信息

1

#### Set Scan Switch

Scan Switch  Disable  Enable

**Apply**

#### Set Scan Request Switch

Scan Request Switch  Disable  Enable

**Apply**

#### Set Scan Interval

Scan Interval(ms)  (range in [500,4294967295]ms)

**Apply**

#### Set Scan Device Number

Scan Device Number  (range in [1,65535]) 2 此时输出的设备为10

**Apply**

3

### 5.2.5、Sets the scan single broadcast universal device mode or the forward work card mode

The default is single broadcast universal device mode, which can be set to transfer card mode according to application needs.



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[开启全部](#) | [关闭全部](#)



### Bluetooth Scan Info Settings

Here you can configure Bluetooth scanning.

#### Set Scan Switch

Scan Switch  Disable  Enable

[Apply](#)

#### Set Scan Request Switch

Scan Request Switch  Disable  Enable

[Apply](#)

#### Set Scan Interval

Scan Interval(ms)  (range in [500,4294967295]ms)

[Apply](#)

#### Set Scan Device Number

Scan Device Number  (range in [1,65535])

[Apply](#)

2

#### Set Scan Mode

Scan Mode  Unicast Mode  Forward Dev Mode

[Apply](#)

3

## 5.3 Configure the gateway to broadcast configuration information

### 5.3.1、Set the gateway broadcast switch

The default gateway turns on Bluetooth broadcasting, and users can turn off Bluetooth broadcasting according to their needs.



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### The Gateway Broadcast Info Settings

Here you can configure the gateway broadcast information.

Disable: 关闭蓝牙广播

Enable: 开启蓝牙广播

#### Set Gateway Broadcast Switch

Gateway Broadcast Switch  Disable  Enable

[Apply](#)

2

3

#### Set Gateway Broadcast Name

Gateway Broadcast Name  (string len is [1,20], match in [0-9a-zA-Z])

[Apply](#)

#### Set Gateway Broadcast Interval

### 5.3.2、Set the gateway broadcast name

Sets the name of the Bluetooth broadcast to a maximum length of 20 bytes.



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## The Gateway Broadcast Info Settings

Here you can configure the gateway broadcast information.

### Set Gateway Broadcast Switch

Gateway Broadcast Switch	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
--------------------------	---

Apply

### Set Gateway Broadcast Name

Gateway Broadcast Name	skffa	2
------------------------	-------	---

(string len is [1,20], match in [0-9a-zA-Z])

Apply

### Set Gateway Broadcast Interval

### 5.3.3、 Set the interval between gateway broadcasts



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### Set Gateway Broadcast Interval

Gateway Broadcast Interval(ms)	500	2
--------------------------------	-----	---

(range [20,10000])

Apply

### Set Gateway Broadcast iBeacon UUID

Gateway Broadcast iBeacon UUID	1234567890ABCDEF1234567890ABCDEF
--------------------------------	----------------------------------

(string len is 32, match in [a-fA-F0-9])

Apply

### Set Gateway Broadcast iBeacon Major

Gateway Broadcast iBeacon Major	850
---------------------------------	-----

(range in [0,65535])

Apply

### 5.3.4 Set the iBeacon UUID for the gateway broadcast

**Set Gateway Broadcast Interval**

Gateway Broadcast Interval(ms)	500 (range [20,10000])
--------------------------------	---------------------------

**Set Gateway Broadcast iBeacon UUID**

Gateway Broadcast iBeacon UUID	1234567890ABCDEF1234567890ABCDEF (string len is 32, match in [a-fA-F0-9])
--------------------------------	--

**Set Gateway Broadcast iBeacon Major**

Gateway Broadcast iBeacon Major	850 (range in [0,65535])
---------------------------------	-----------------------------

### 5.3.5. Set the iBeacon Major for gateway broadcast

**Set Gateway Broadcast iBeacon UUID**

Gateway Broadcast iBeacon UUID	1234567890ABCDEF1234567890ABCDEF (string len is 32, match in [a-fA-F0-9])
--------------------------------	--

**Set Gateway Broadcast iBeacon Major**

Gateway Broadcast iBeacon Major	0 (range in [0,65535])
---------------------------------	---------------------------

**Set Gateway Broadcast iBeacon Minor**

Gateway Broadcast iBeacon Minor	999 (range in [0,65535])
---------------------------------	-----------------------------

### 5.3.6、Set the iBeacon Minor for gateway broadcast

开启全部 | 关闭全部

**Set Gateway Broadcast iBeacon UUID**

Gateway Broadcast iBeacon UUID	1234567890ABCDEF1234567890ABCDEF (string len is 32, match in [a-fA-F0-9])
--------------------------------	--

**Set Gateway Broadcast iBeacon Major**

Gateway Broadcast iBeacon Major	0 (range in [0,65535])
---------------------------------	---------------------------

**Set Gateway Broadcast iBeacon Minor**

Gateway Broadcast iBeacon Minor	0 <span style="color:red">2</span> (range in [0,65535])
---------------------------------	--

**Apply** 3

1 2 3

微能 运作模式 网络设置 无线网路设置 NAT 设置 NAS 系统管理 蓝牙 过滤设置 扫描设置 网关广播 通信设置 基本信息

### 5.3.7、Set iBeacon Measured Power for gateway broadcast

开启全部 | 关闭全部

**Set Gateway Broadcast iBeacon UUID**

Gateway Broadcast iBeacon UUID	1234567890ABCDEF1234567890ABCDEF (string len is 32, match in [a-fA-F0-9])
--------------------------------	--

**Set Gateway Broadcast iBeacon Major**

Gateway Broadcast iBeacon Major	0 (range in [0,65535])
---------------------------------	---------------------------

**Set Gateway Broadcast iBeacon Minor**

Gateway Broadcast iBeacon Minor	0 (range in [0,65535])
---------------------------------	---------------------------

**Set Gateway Broadcast iBeacon Measured power**

Gateway Broadcast iBeacon Measured power(dbm)	-78 <span style="color:red">2</span> (range in [-127,127])
---	---

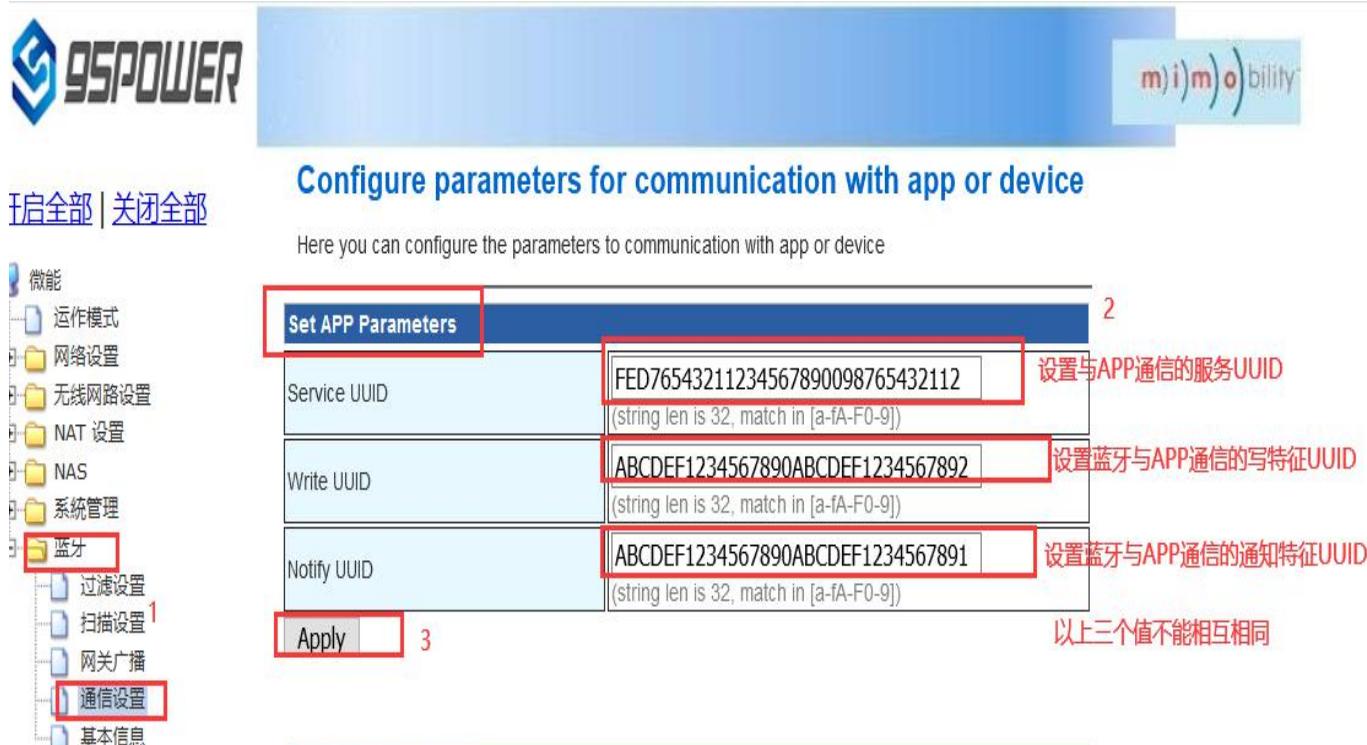
**Apply** 3

1 2 3

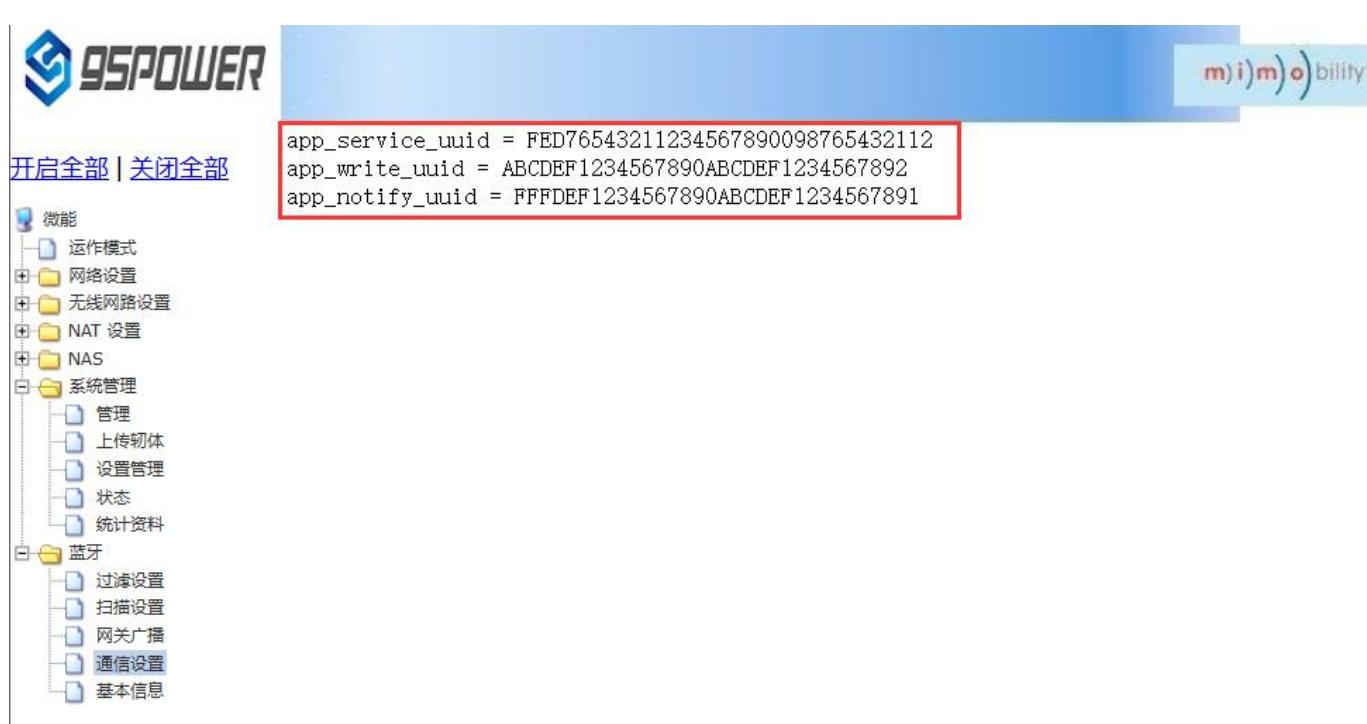
微能 运作模式 网络设置 无线网路设置 NAT 设置 NAS 系统管理 蓝牙 过滤设置 扫描设置 网关广播 通信设置 基本信息

## 5.4 Configure the parameters associated with communication

### 5.4.1 Configure the UUID that communicates with the APP



The screenshot shows the 'Set APP Parameters' section of the configuration interface. It includes fields for Service UUID, Write UUID, and Notify UUID, each with a red box highlighting its value. A red box also highlights the 'Apply' button. Red annotations provide instructions: '设置与APP通信的服务UUID' (Set service UUID for communication with APP) next to the Service UUID field, '设置蓝牙与APP通信的写特征UUID' (Set Bluetooth write characteristic UUID for communication with APP) next to the Write UUID field, and '设置蓝牙与APP通信的通知特征UUID' (Set Bluetooth notification characteristic UUID for communication with APP) next to the Notify UUID field. A final annotation states '以上三个值不能相互相同' (The three values cannot be the same).



The screenshot shows the command-line output of the configured UUIDs:

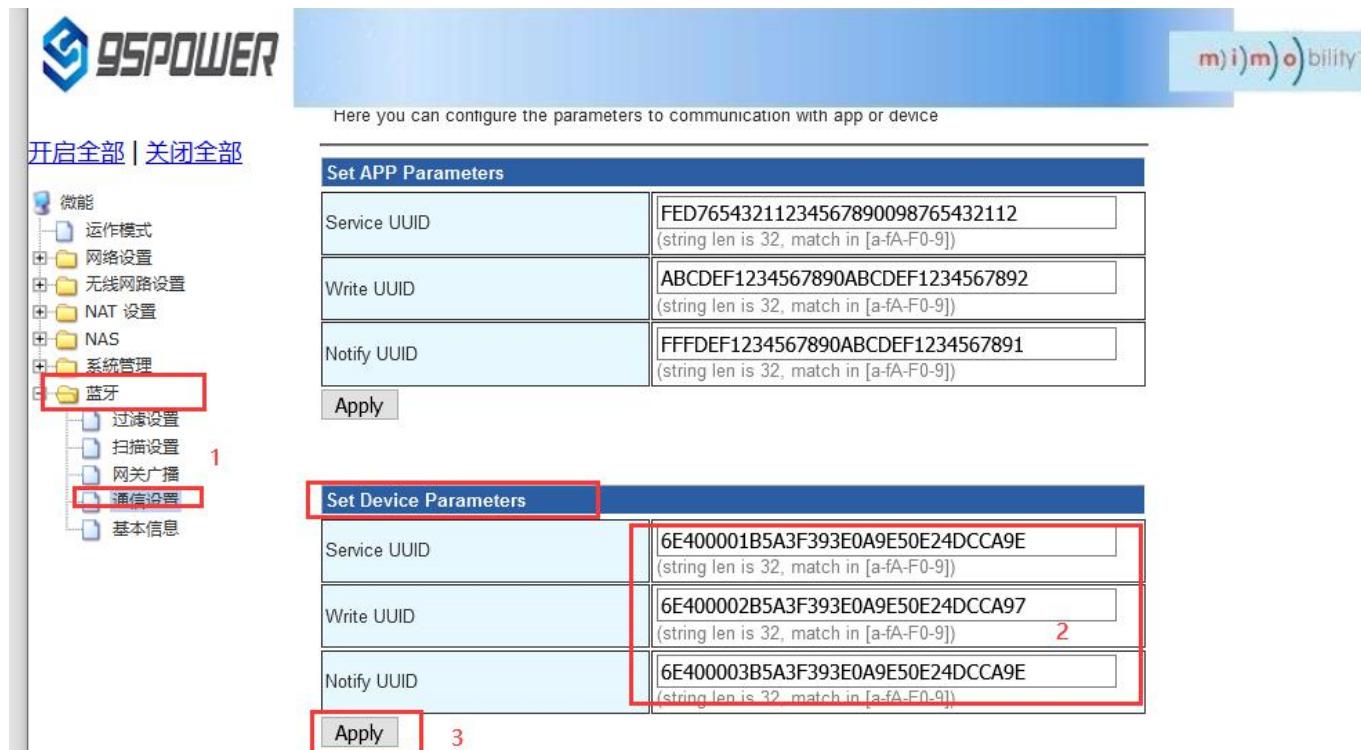
```
app_service_uuid = FED76543211234567890098765432112
app_write_uuid = ABCDEF1234567890ABCDEF1234567892
app_notify_uuid = FFFDEF1234567890ABCDEF1234567891
```

Click "Communication Settings" to view the Settings. After the setup is successful, you need to restart the gateway for the configuration to take effect. Here is how to restart the gateway

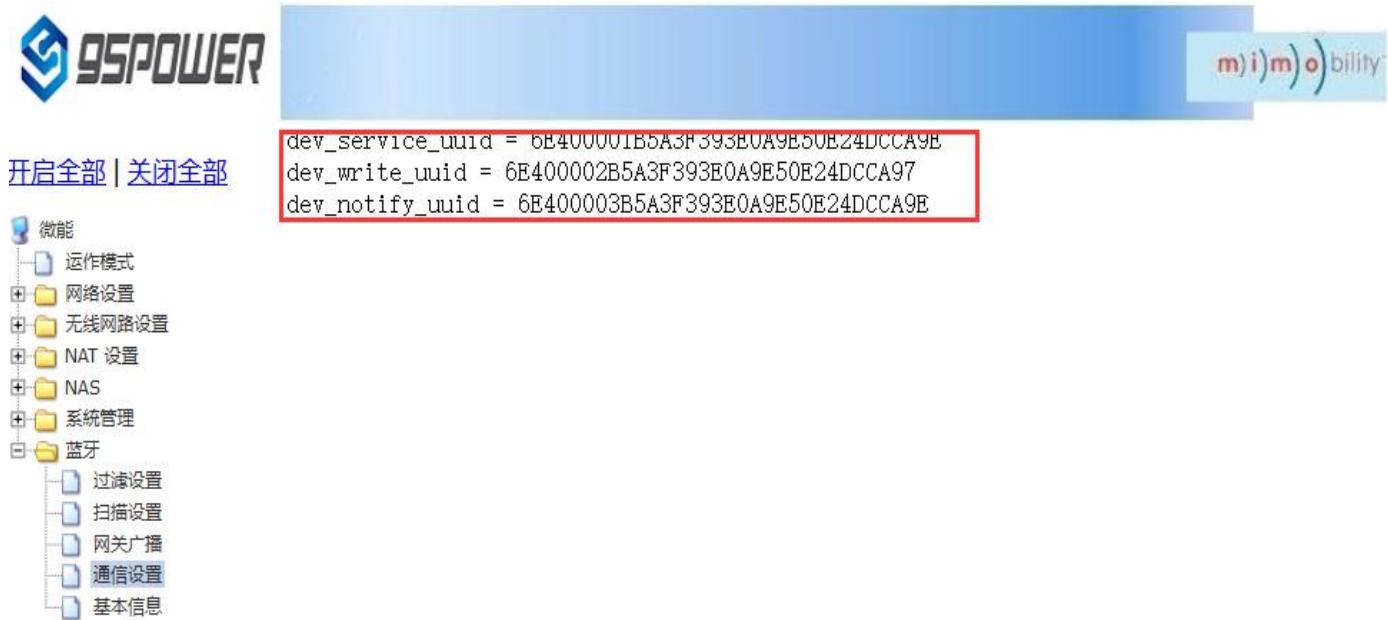


激活 Wind  
转到“设置”以进

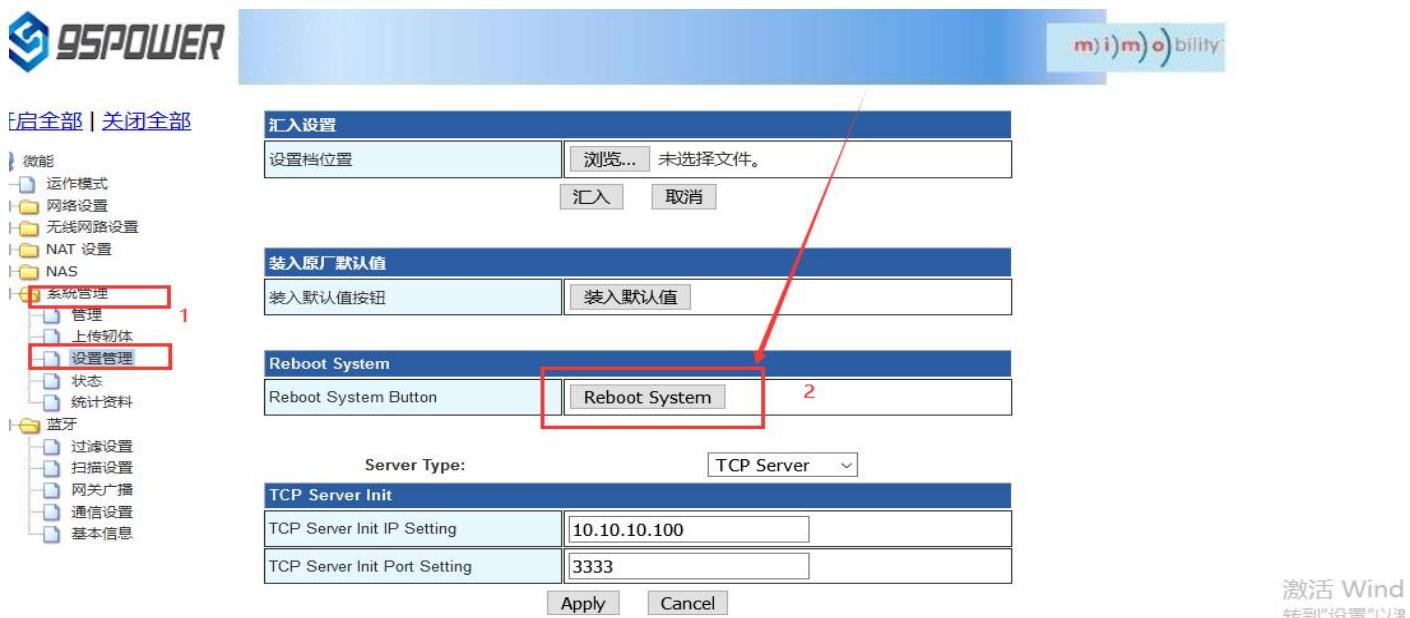
#### 5.4.2 Configure the UUID that communicates with the device



After clicking Apply, the interface will jump to, as shown below:



Click "Communication Settings" to return to the corresponding interface to check the Settings. After the setup is successful, you need to restart the gateway for the configuration to take effect, as follows



## 6. System management configuration

### 6.1 Set up the WEB interface display

VDB2607 web pages support simplified Chinese, traditional Chinese, English display, default for simplified Chinese display. Customers can switch the displayed language according to their needs. The operation steps are as follows:

(1) Select the language to be switched. Take Switching to English as an example. In figure 2, select English.



(1) Check the switching effect



## 6.2 factory data reset; restore factory setting

If you need to restore factory Settings, please follow the steps shown below.



## 6.3 Restart the system

Here are the steps to restart the system



## 6.4 upgrade system

WIFI firmware can be upgraded through the Web interface. The upgrade steps are as follows:

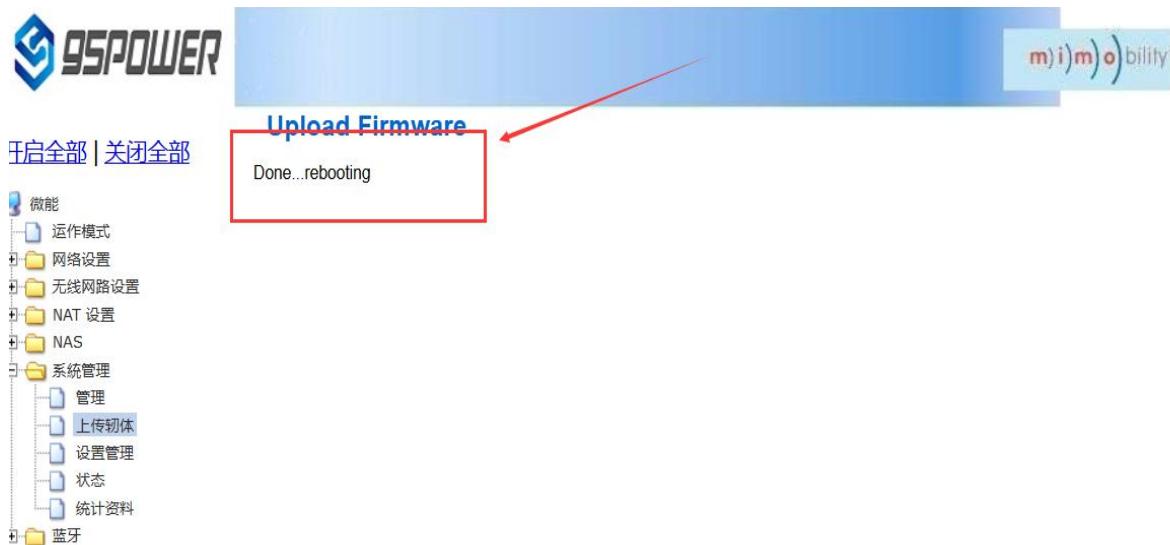
- (1) After clicking 2 in the figure below, select the firmware you need to upgrade locally. When you confirm, a prompt of 3 appears and click OK to start the upgrade.



- (1) During the upgrade process, a prompt as shown in the figure below will appear. Do not power off until the prompt disappears. At this point, power off may cause the module to be upgraded to brick



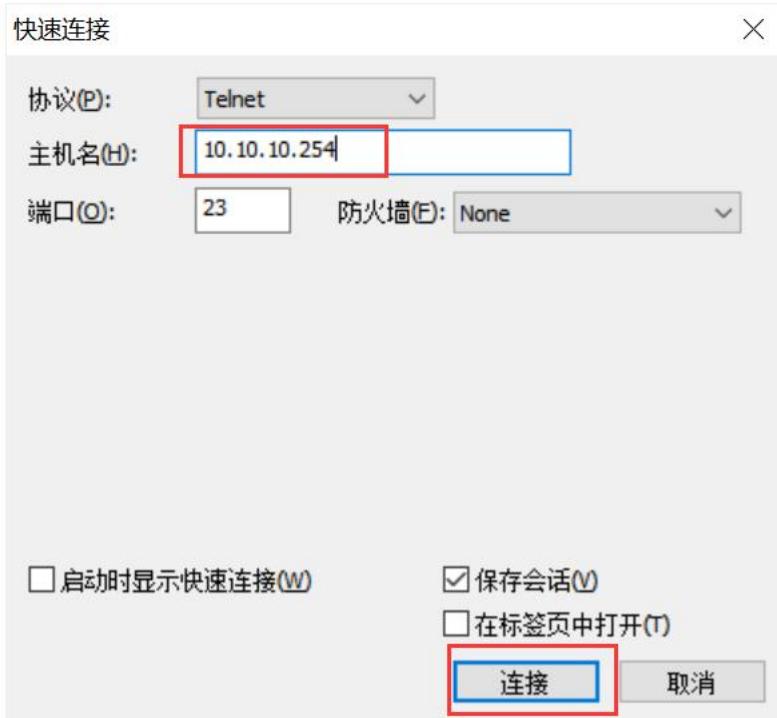
(2) After the successful upgrade, there will be a prompt to restart the system, as shown in the figure below.



## 6.5 Telnet test management

The following describes the process of configuring Telnet using the SecureCRT tool.

(1) Select Telnet protocol, host name 10.10.10.254, port default 23;



- (1) After entering the administrative terminal, use the command detection

```
✓ 10.10.10.254 (6) ▾

BusyBox v1.12.1 (2020-09-07 19:21:03 CST) built-in shell (ash)
Enter 'help' for a list of built-in commands.

# ping 10.10.10.100
PING 10.10.10.100 (10.10.10.100): 56 data bytes
64 bytes from 10.10.10.100: seq=0 ttl=128 time=4.900 ms
64 bytes from 10.10.10.100: seq=1 ttl=128 time=5.600 ms
64 bytes from 10.10.10.100: seq=2 ttl=128 time=4.100 ms
^C
--- 10.10.10.100 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.100/4.866/5.600 ms

# █
```



95Power Information Technology Co.,  
Ltd

Bluetooth Gateway With POE Datasheet  
Module No.: VDB2607

## 7. Contact Information

**95Power Information Technology Co., Ltd**

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