

VDB3601 规格书

VDB3601 Datasheet

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设备清单/Bill of Materiel

名称/Name	型号/Model	数量/Number	备注/Remark
蓝牙网关//BLE Gateway	VDB3601	1	VDB3601
5V 适配器/5V power adapter	BSF-137F	1	INPUT:AC100-240V OUTPUT: 5.0V (默认没有, 需订购/Default is not, need to order)

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1 产品介绍/Product Introduction

VDB3601 是一款支持 485 通信的蓝牙网关，WiFi 与蓝牙之间通过串口通信，可灵活应用于各种场景。例如，远程控制 BLE 设备，接收 BLE 设备发送的数据并转发到后台服务器等。此外，VDB3601 支持 POE 交换机供电和 5V 适配器供电两种供电方式，应用更加方便。

VDB3601 is a Bluetooth gateway that supports 485 communication. The communication between WiFi and Bluetooth is through a serial port. It can be flexibly applied to various scenarios. For example, you can remotely control the BLE device, receive data from the BLE device, and send it to the background server. In addition, the VDB3601 supports POE switch power supply and 5V adapter power supply for convenience.

VDB3601 采用双网口设计，可级联多个设备。POE 可靠性高，网口抗雷击浪涌防护能力可达共模 4kV 差模 2kV (10/700uS- 5/320uS 波形)。网关内部做了 4G/Cat.1 模块兼容，方便无法布网线特殊场景。此外网关内部还预留了 TF 卡，方便支持断网存储功能；预留双蓝牙，可同时扫描连接最多 19+19 台蓝牙设备。

VDB3601 兼容 RS485 接口，可以扩展连接 10 台从网关，降低布线成本。（需定制）

The VDB3601 uses a dual-network port design and can be cascaded to multiple devices. POE has high reliability and protects the network port against lightning surges up to 4kV in common mode and 2kV in differential mode (10/700uS-5/320uS waveform). The 4G/Cat.1 module is compatible with the gateway, which facilitates the special scenario in which network cables cannot be distributed. In addition, the TF card is reserved inside the gateway, which is convenient to support the storage function of network disconnection. Reserve dual Bluetooth to scan up to 19 + 19 Bluetooth devices simultaneously.

VDB3601 Compatible with RS485 interface, can expand to connect 10 slave gateways, reduce the cabling cost.(Custom required)



图 1-1/Figure 1-1: VDB3601

1.1 系统框图/System Diagram

VDB3601 内置 WiFi 和蓝牙两种无线通信方式。WiFi 与蓝牙之间通过串口通信，支持 485 与外部设备通信。VDB3601 支持 POE 供电和 DC 5V 电源供电两种供电方式。

VDB3601 built-in WiFi and Bluetooth two wireless communication modes. WiFi and Bluetooth communicate with each other through a serial port, and 485 can communicate with external devices. The VDB3601 supports POE power supply and DC 5V power supply.

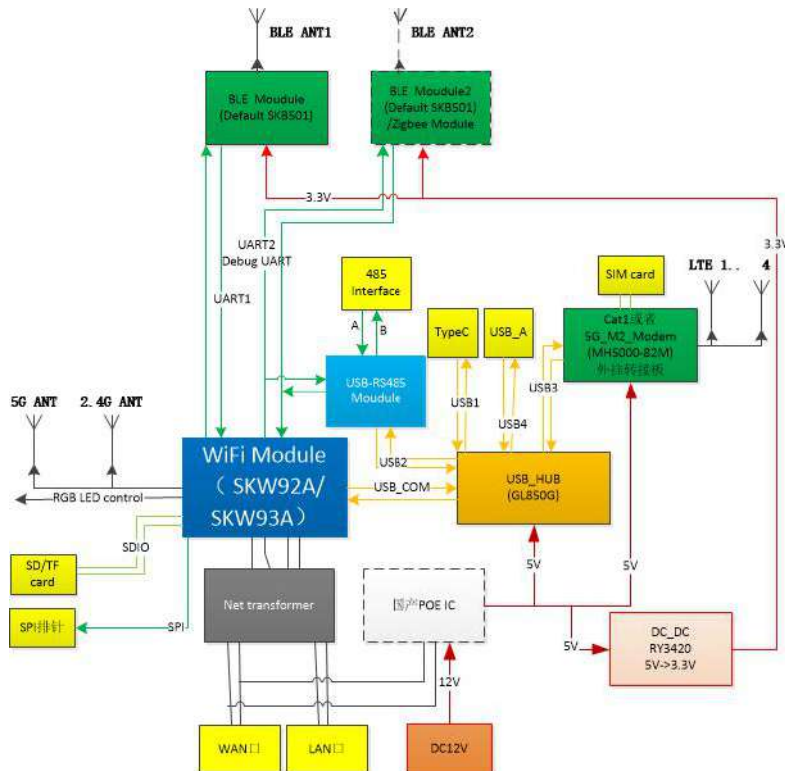
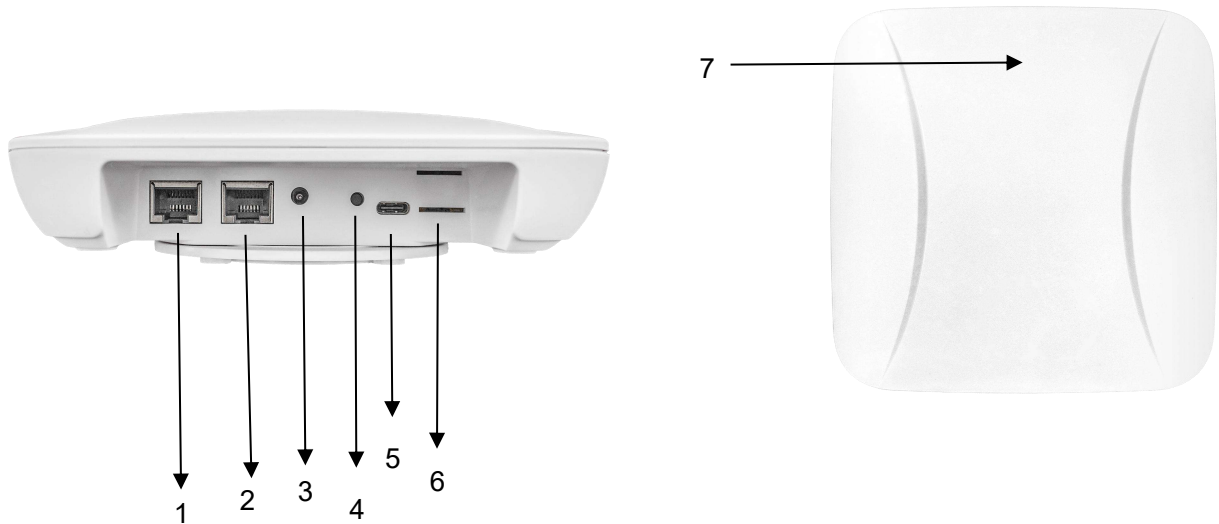


图 1-2/ Figure 1-2: VDB3601 框图/Diagram

1.2 特性/Features

- ◆ 支持 POE 供电和 DC5V 供电/ Support POE power supply and DC 5V power supply
- ◆ 支持 IEEE 802.11n, IEEE 802.11g, IEEE 802.11b 协议/ Supports IEEE 802.11n, IEEE 802.11g, IEEE 802.11b protocols
- ◆ 支持 Bluetooth ® 4.2/5.0 / Bluetooth ® 4.2/5.0 is supported
- ◆ 蓝牙发射功率最大可达+8dBm/ Bluetooth can transmit power up to +8dBm
- ◆ 结构小，轻便/ Small structure, light weight
- ◆ 1 个 WAN 网口和 1 个 LAN 网口/ One WAN network port and one LAN network port
- ◆ 符合 RoHS, FCC, CE 标准/ Comply with RoHS, FCC, CE standards

1.3 接口介绍/ Interface introduction



1: WAN/LAN 网口/WAN/LAN network port

2: LAN 网口/LAN network port

3: DC 接口/DC jack

4: 复位按键 Reset/Reset button

5: Type-C 接口/Type-C interface

6: TF 卡槽/TF card slot

7: 指示灯/Indicator light

1.3.1 网口/Net port

VDB3601 网口支持五类线和超五类线，可传输数据同时也能支持 POE 供电（由 POE 交换机供电称为 POE 供电，电压范围 44~57V）。网口为 WAN/LAN 双网口。

The VDB3601 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). The network port is a WAN/LAN dual network port.

工作模式/Working mode	网口/net gape
AP Client	LAN
Getway	WAN

1.3.2 DC 电源接口/DC Jack

VDB3601 的电源接口支持 DC 输入，输入电压范围为 5V，建议输入电流 2A，接口采用 DC 电源插座，电源座孔径 3.5mm，针径为 1.35mm，针头为正极。

The power interface of VDB3601 supports DC input, the input voltage range is 5V, the suggested current input is 2A, the interface adopts DC power socket, of which the power base diameter is 3.5mm, the needle diameter is 1.35mm, the needle is positive pole.

说明：出厂配备的 5V 电源适配器输入电压为 AC 100-240V,50/60Hz 输出电压为 5V 2A。电源接头为外负内正。

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

1.3.3 复位按键/Reset button

长按 VDB3601 的复位按钮 5 秒钟以上，VDB3601 内部的 WiFi 会恢复出厂设置。

Long press the reset button of VDB3601 for more than 5 seconds, the WiFi inside the VDB3601 will be restored to the factory Settings.

1.3.4 Type-C 接口/Type-C interface

Type-C 接口可外接 USB 设备如摄像头，也可以用于 5V1A 输出或者 5V2A 输入。

The Type-C interface can be connect to USB peripherals like camera, and it can be used for 5V power output or 5V2A power input.

1.3.5 TF 卡槽/TF card slot

插入 TF 卡，用于离线数据存储，预留设计需定制开发。

Insert TF card for offline data storage. This function is reserved and need customized application.

1.3.6 指示灯/Indicator light

WiFi 启动时，LED 为翠绿色常亮，WiFi 启动后 LED 由翠绿色常亮转变为蓝色常亮。

When WiFi is started, the LED is bright green, and after WiFi is started, the LED changes from bright green to blue.

1.4 应用场景/Application Block Diagram

应用场景 1：传感器信息采集、指令下发/Scene1: Sensor data collection or command deliver

(1) VDB3601 支持 485 全双工通信，通过 LAN 口级联多个从网关，单个主网关最多支持级联 10 台从网关（不支持热插拔），主网关下发轮询指令获取从每个从网关扫描的数据。

The VDB3601 supports 485 full-duplex communication. Multiple secondary gateways are cascaded through a LAN port. A single primary gateway can be cascaded to a maximum of 10 secondary gateways (not hot swap).

(2) 主网关解析从网关和蓝牙上报的数据，通过服务器可了解周边环境实时状态。

The primary gateway parses the data reported from the secondary gateway and Bluetooth, and learns the real-time status of the surrounding environment through the server.



图 1-3 蓝牙网关采集蓝牙传感器信息

Figure 1-3 BLE Gateway collect BLE sensor data

应用场景 2：室内定位/Scene2: Indoor positioning

(1) VDB3601 里的蓝牙模块以及从网关收集附近 Beacon 的信息，包括 RSSI，MAC 等，一秒一次。VDB3601 Bluetooth module and the information collected from the gateway of the nearby Beacon, including RSSI, MAC, etc., once a second.

(2) 蓝牙模块将收到 Beacon 信息，通过 UART 串口发给 VDB3601 里面的 WIFI 模块，从网关则通过 485 总线上传至主网关 WiFi 模块，一秒一次。

The Bluetooth module will receive the Beacon information and send it to the WIFI module in VDB3601 through the UART serial port. The secondary gateway will upload the beacon information to the WiFi module of the main gateway through bus 485, once a second.

(3) WIFI 模块获取从设备上报的信息，并通过 WiFi、网线或者 4G 模块联网，传输到指定的 UDP 服务器，并能接受服务器返回的信息。

The WIFI module obtains the information reported by the device, connects to the network through the WiFi, network cable, or 4G module, transmits the information to the specified UDP server, and receives the information returned by the server.

(4) UDP 服务器收到来自某个 IP 的探针数据后，通过解析数据和计算，得到 Beacon 的位置信息，可以显示在前端页面，并能下发命令到 WIFI 模块，WIFI 模块透传到蓝牙模块，定制性的工能开发（比如：结合灯具使灯亮起来、触发门铃等）。

Beacon locations can be displayed on the front page after the UDP server after analyzing and calculating the beacon information. UDP server can also delivered orders to the WiFi module, then sent it to the bluetooth module to develop different functions (such as lighting lamps, ringing door bell etc.).



图 1-4 蓝牙网关采集蓝牙信标信号强度

Figure 1-4 BLE Gateway collect BLE Beacon RSSI

说明：VDB3601 可通过网线或者 LTE 实现联网，也可以通过 WiFi 连接无线路由实现联网。

Remark: VDB3601 can be connected to the Internet via the POE switch or the wireless router or LTE modem.

2 硬件参数/Hardware parameters

尺寸/Dimension	150x47mm(ϕ xH)
供电方式/Power Supply	DC 4.5-5.5V、POE 44~57V
平均电流/currents	200mA@5V(单主机)
工作温度/Operating Temperature	-20°C~70°C
物理接口/Physical interface	网口 2 个、DC 电源接口 1 个/ Two network port, one DC power interface
WiFi	
WiFi 协议/protocol	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
传输速率/transmission 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 MCS0--MCS7 @ HT40
接收灵敏度/Sensitivity	HT40 MCS7 : -70dBm@10% PER(MCS7)
	HT20 MCS7 : -73dBm@10% PER(MCS7)
	54M: -76dBm@10% PER
	11M: -89dBm@ 8% PER
发射功率/Transmit Power	IEEE 802.11n: 15dBm @HT40 MCS7 15dBm@HT20 MCS7
	IEEE 802.11g: 16dBm
	IEEE 802.11b: 18dBm
无线安全/Wireless Security	WPA/WPA2, WEP, TKIP, and AES
工作模式/Working mode	Bridge、Gateway、AP Client
蓝牙/Bluetooth	
蓝牙协议/Bluetooth Protocol	Bluetooth ® 4.2/5.0
传输速率/Bluetooth Protocol	1Mbps/2Mbps
无线安全/Wireless Security	AES HW Encryption
覆盖范围/coverage area	80m无遮挡Light of sight
发射功率/Transmit Power	-20~-8dBm

3 安装方法/installation method

VDB3601 采用直插卡扣式安装，方便安装和拆卸，其安装方法如下。

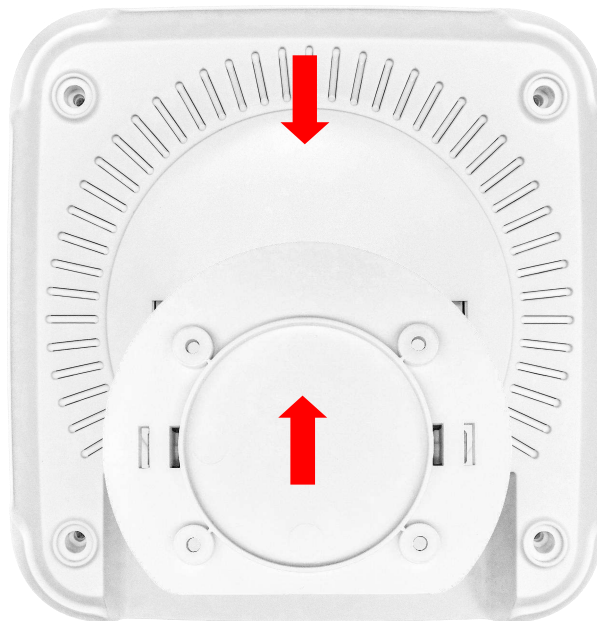
The VDB3601 is installed in straight clip mode for easy installation and removal. The installation method is as follows.

- a. 向网口端滑动取下 D 型卡扣/ Slide the D-shaped buckle toward the network port and remove it.
- b. 把 D 型卡扣平面一侧靠近安装处，安装到合适位置，使用螺丝紧固卡扣。/ Place the flat side of the D-shape buckle close to the mounting place. Install it in place and tighten the buckle with screws.

D-shape buckle close to the mounting place. Install it in place and tighten the buckle with screws.



- c. 把网关背面两个槽对齐 D 型卡扣，向网口端滑动卡紧即可。/ Align the two slots at the rear of the gateway with D-shaped clasps and slide them toward the network port to tighten them.



4 配置参数/ Configuration

4.1 网络拓扑/network topology

4.1.1 通过上级路由网段访问/Access through the superior routing network segment

VDB3601 在 gateway 模式下,使用 WAN 网口,PC 与 VDB3601 连接相同的上级路由,访问 VDB3601。

VDB3601 In gateway mode, PC and VDB3601 connect to the same upper-layer route over network port WAN to access the VDB3601.

VDB3601 工作在 apcli 模式下, PC 通过与 VDB3601 连接相同的上级路由,访问 VDB3601。

VDB3601 works in APCLI mode, where the PC accesses VDB3601 through the same superior route as VDB3601.

下图是网络连接的拓扑图, VDB3601 的 wan 口连接路由器的 LAN, 个人 PC 也连接到路由器的 LAN 口或者无线热点, 此时在 PC 上使用浏览器可以访问 VDB3601 的管理界面;

The following figure is the topology of the network connection. The WAN port of VDB3601 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 VDB3601 can be accessed through the browser on the PC.

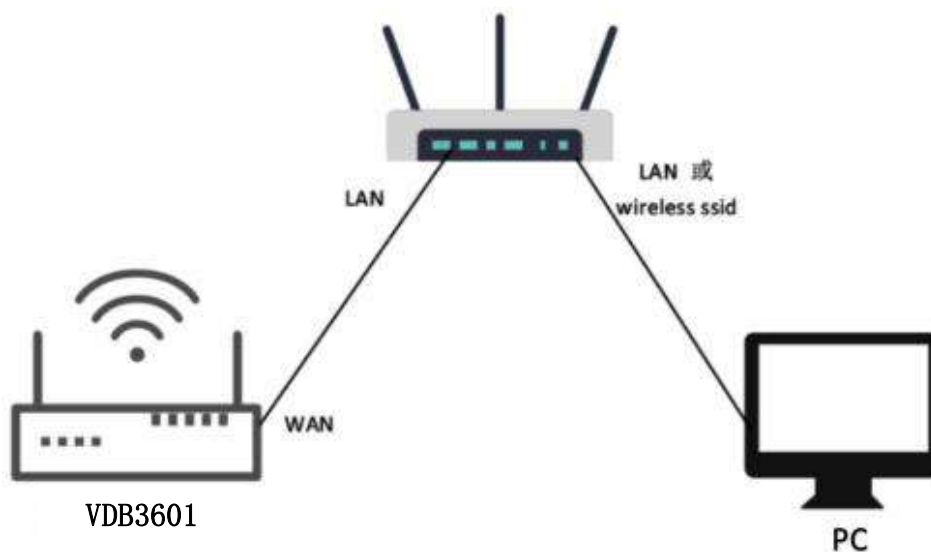


图 3-1 通过上级路由网段访问/Access through the superior routing network segment

下面假设此时路由器分配给 VDB3601 的 IP 地址为 192.168.0.106，PC 分配的 IP 为 192.168.1.118，此时在 PC 上使用浏览器访问 192.168.0.106，可以进入 VDB3601 的 web 认证界面。如下图所示

It is assumed that the IP address assigned to VDB3601 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 VDB3601 can be entered. As shown in the figure below



VDB3601 的默认管理账号密码分别为：admin/ admin。

The default managing account passwords of VDB3601: admin/ admin.

4.1.2 通过局域网连接/Connect via LAN

VDB3601 在 gateway 模式下，PC 通过 VDB3601 的 WIFI 热点访问 WIFI 模块。

VDB3601 in Gateway mode, the PC accesses the WIFI module through the WIFI hotspot of VDB3601.

VDB3601 在 AP-CLI 模式下，PC 可通过 VDB3601 的 WIFI 热点和唯一的网口访问 WIFI 模块。

VDB3601 In AP-CLI mode, THE PC can access the WIFI module through the WIFI hotspot of VDB3601 and the unique network port.

通过以上方式连接 VDB3601 后，VDB3601 会分配 IP 地址给 PC。用户可在 PC 上，通过访问网关 IP，登录到 VDB3601 的管理界面。默认的 IP 地址网段为 10.10.10.0/24，假设用户没有修改 VDB3601 的 IP 网段，那么，可在 PC 上通过浏览器 10.10.10.254，来到 VDB3601 的管理界面。

After connecting to VDB3601 in the above way, VDB3601 will assign the IP address to the PC. Users can log in to the administration interface of VDB3601 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 VDB3601, then the user can go to the management interface of VDB3601 through the browser on the PC at 10.10.10.254.

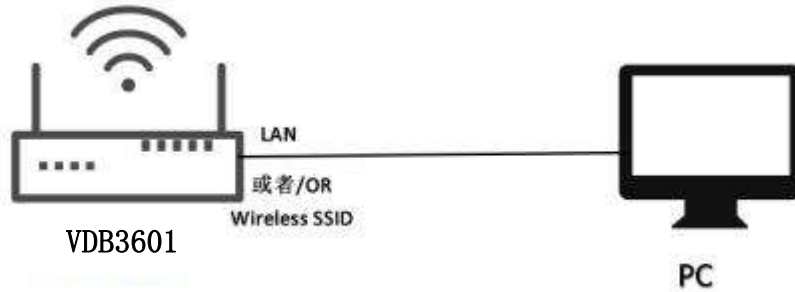
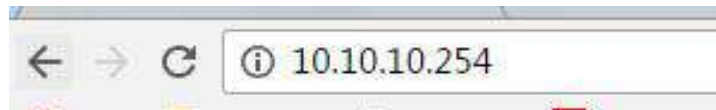


图 3-2 通过 VDB3601 局域网访问/Access via VDB3601 LAN

下图是 PC 上的访问截图： /The following is a screenshot of the access on PC:



4.2 广域网配置/Wan configuration

4.2.1 wan 口上网/Wan port access to the Internet

(1) 系统工作默认为 gateway 模式： / The system works in gateway mode by default;



说明：点击 Save，可以保存配置，但不会立即生效，可以在系统配置完后，再一次性确定：点击“确定”，会立即生效，网络会重启，需要等待网络恢复；

Note: Click Save, the configuration can be saved, but it will not take effect immediately. It can be determined once the system is configured. When click "确定", it will take effect immediately, the network will restart, need to wait for the network recovery;

(2) 广域网为动态地址分配; / Wan for dynamic address allocation;



(3) 查看状态/Check the status



4.2.2 无线上网/wireless internet

(1) 系统模式配置为 apclient 模式，按下图操作，点击"Save"后，需要刷新。

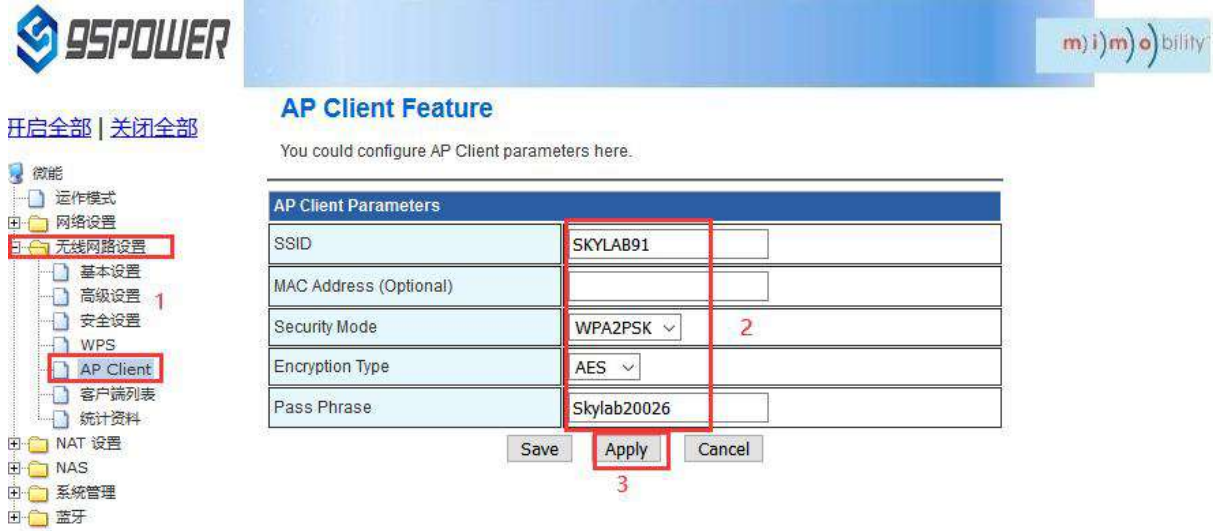
The system mode is configured as APCLI mode. Follow the operation as shown in the figure below and click "Save" to refresh.



(2) 广域网配置为动态地址分配； /The WAN is configured for dynamic address assignment;



(3) 配置上级 AP 信息; / Configure superior AP information;



4.2.3 移动 4G 上网/Mobile 4G Internet

(1) 保证移动上网卡和 4G 天线接好，系统配置为 Gateway 模式;

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



(2) 广域网配置 3G 上网方式; /Wan configuration 3G network mode;

广域网络设置

您可以依您的环境选择适当的联机模式，并依对不同的联机模式设置参数。

广域网络联机模式: 3G 2

4G 模式	
APN	<input type="text"/>
PIN	<input type="text"/>
Dial Number	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>
USB 4G 调制解调器	AutoDetect <input type="text"/>
MAC 复制	
Enabled	停用 <input type="text"/>

3 Save 确定 取消

(3) 查看联网状态; / Check the network status;

无线存取节点状态

让我们可以看到Ralink SoC平台的状态。

系统信息	
SDK版本	W0271.1.0
系统正常运行时间	8 hours, 54 mins, 51 secs
系统平台	RT2880 embedded switch
运作模式	Gateway Mode
Internet配置	
联机型态	3G
广域网络IP地址	<input type="text"/>
子网络遮罩	<input type="text"/>
默认网关	<input type="text"/>
主要域名服务器	<input type="text"/>
次要域名服务器	<input type="text"/>
MAC 位址	(null)
局域网	
本地IP地址	10.10.10.254
本地网络遮罩	255.255.255.0
MAC 位址	30:EB:1F:07:1B:A2

以太网网络端口状态

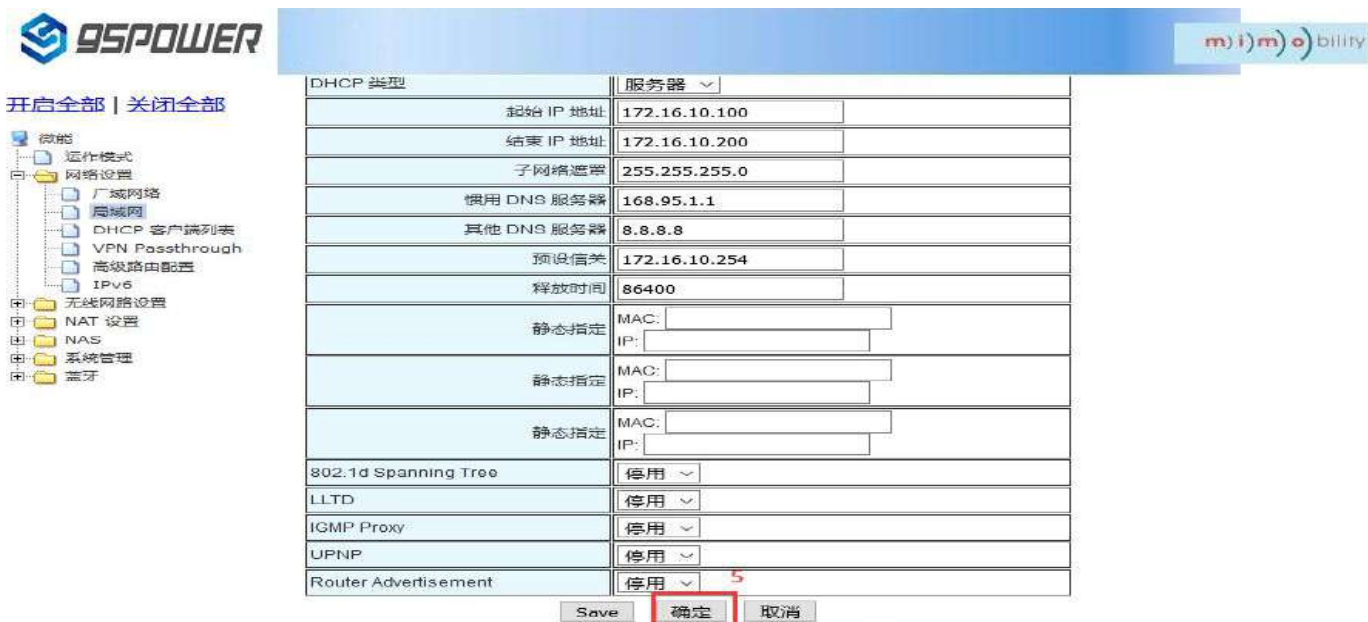
4.3 局域网配置/LAN configuration

4.3.1 更改局域网 IP 地址/Change the LAN IP address

VDB3601 默认的局域网网段为 10.10.10.254/24，客户可以根据需求修改局域网 IP 地址，下面介绍其操作步骤：

The default LAN segment of VDB3601 is 10.10.10.254/24. Customers can modify the LAN IP address according to their needs. The following steps are described:

(1) 按照下图步骤操作； /Follow the steps below;



(2) 修改完 IP 地址后，网络会重启，如果使用 WIFI 热点连接，可能出现断网情况，再次连接到热点使用新设置的 IP 地址访问模块。

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.



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

4.3.2 增设局域网网段/ Add LAN segment

VDB3601 可以增设局域网网段 lan2，默认没有开启 lan2。

Lan2 can be added to LAN segment in VDB3601. Lan2 is not enabled by default.

(1) 按下图步骤设置 lan2。/Follow the steps below to set up LAN2

局域网设置

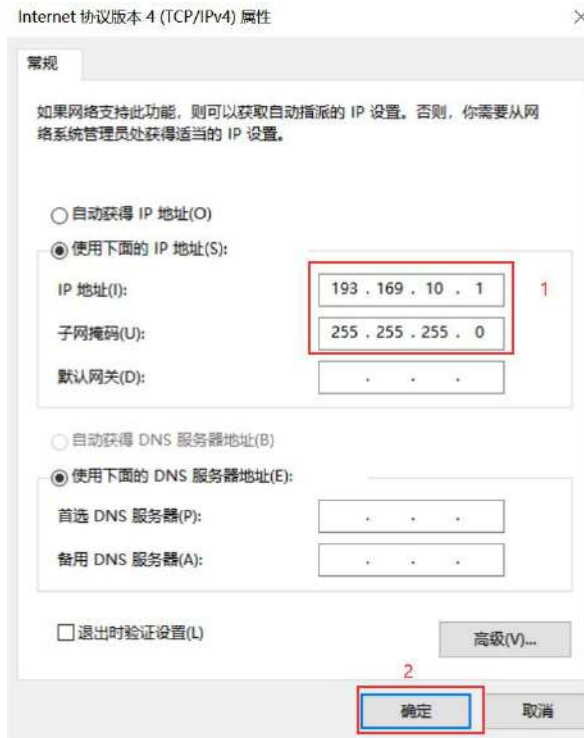
您可以启用/停止以及设置所有的网络功能。

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
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) lan2 设置完成后，用户可以使用设置静态 IP 为该网段，与设置通信，通过 lan2 的 IP 访问网关。

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.



4.3.3 配置 DHCP 参数/configuration DHCP

VDB3601 支持用户修改 DHCP 的各个参数，包括起始 IP、结束 IP、IP 地址租赁时间等参数，也支持用户关闭 DHCP 功能，使用静态 IP 连接。

VDB3601 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) 下面是关闭 DHCP 服务的步骤：/The following steps are to close the DHCP service

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
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	停用 v 2
802.1d Spanning Tree	停用 v
LLTD	停用 v
IGMP Proxy	停用 v
UPNP	停用 v
Router Advertisement	停用 v 3

Save 确定 取消

(2) 下面是设置 DHCP 服务器参数的步骤: /Here are the steps to set the DHCP server parameters:



4.3.4 绑定 IP 地址/Bind IP address

在调试过程中, 在 PC 上模拟服务器端进行测试时, 可绑定 PC 的 IP 地址, 使服务器在测试中 IP 地址固定。

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.

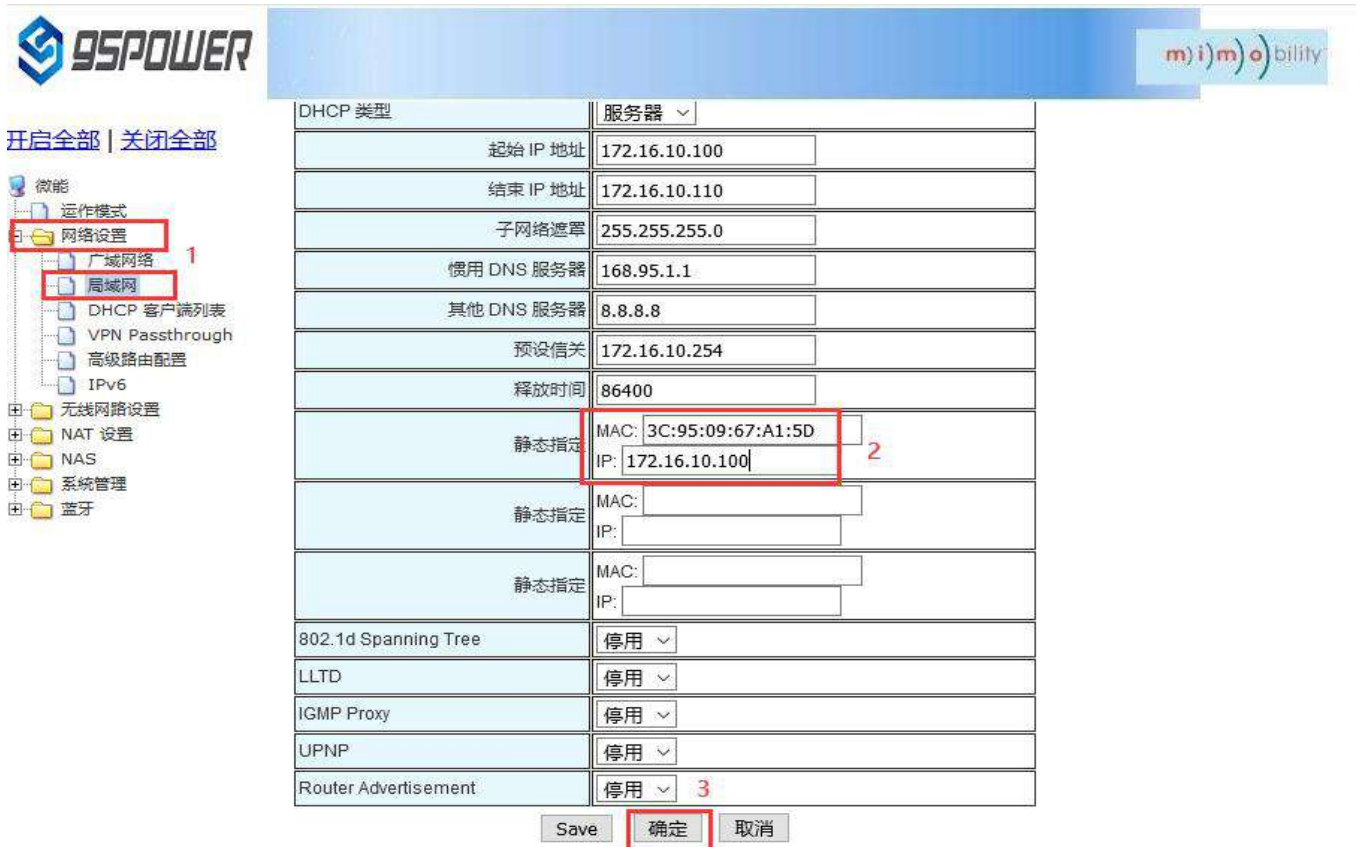
(1) 可以先查看 VDB3601 的 DHCP 列表, 复制对应 PC 的 MAC。下图是查看 DHCP 列表的步骤:

You can first check the DHCP list of VDB3601 and copy the MAC corresponding to PC. The following is the steps to view the DHCP list:



(2) 通过下图方式绑定 PC 的 IP 地址, 绑定后对应 PC 连接到 VDB3601, 获取的 IP 就是绑定的 IP 地址。

Bind THE IP address of PC through the following method. After binding, the PC is connected to VDB3601, and the IP obtained is the binding IP address.



The screenshot shows the network configuration interface of the 95POWER device. On the left is a navigation tree with '网络设置' (Network Settings) selected. The main area displays the DHCP server configuration table. The '静态指定' (Static Binding) section is highlighted with a red box, showing a MAC address of 3C:95:09:67:A1:5D and an IP address of 172.16.10.100. At the bottom, the '确定' (Confirm) button is highlighted with a red box.

DHCP 类型	服务器
起始 IP 地址	172.16.10.100
结束 IP 地址	172.16.10.110
子网掩码	255.255.255.0
备用 DNS 服务器	168.95.1.1
其他 DNS 服务器	8.8.8.8
预设网关	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: <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

Buttons: Save, **确定**, 取消

4.4 无线参数配置/Wireless parameter configuration

4.4.1 修改 WIFI 热点名、设置固定信道/Modify WIFI hotspot name and set fixed channel

无线网络设置

网络模式	11b/g/n mixed mode
网络名称 (服务集合标识符)	SKYLAB_28A1E8F9CE <input type="checkbox"/> 隐藏 <input type="checkbox"/> 分离
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

无线网络设置

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
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

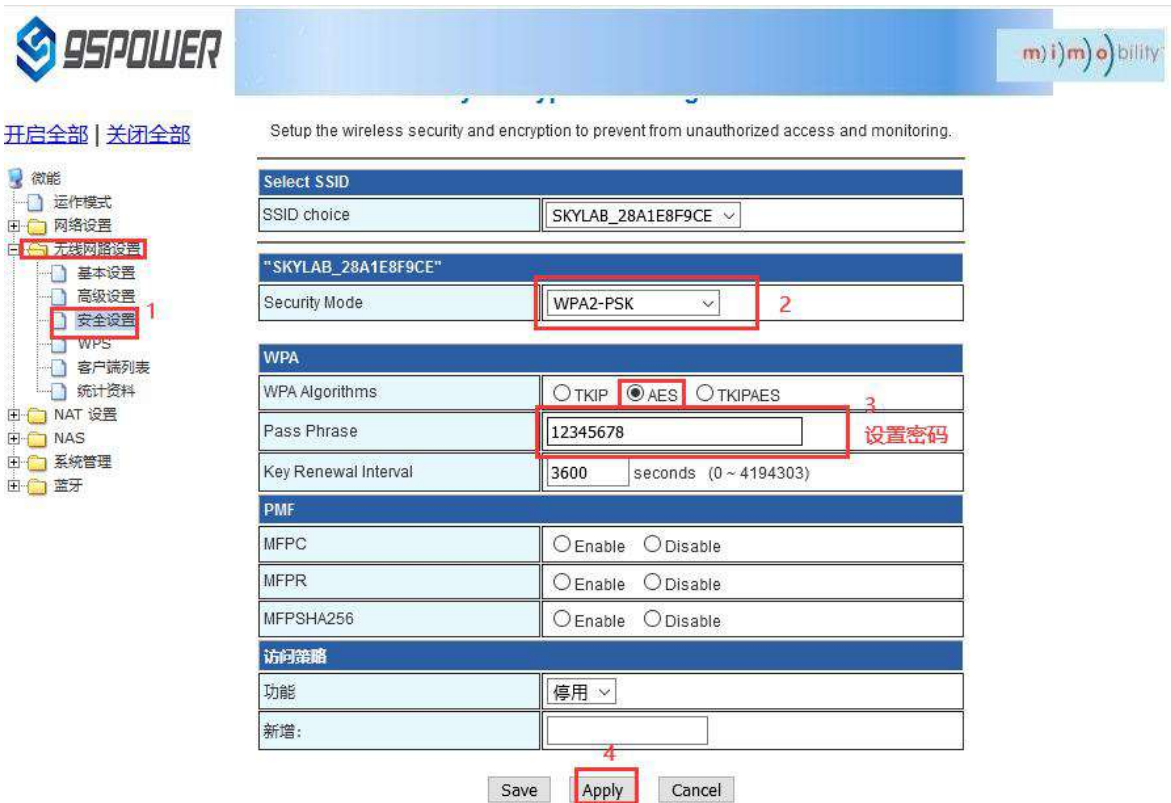
193.169.10.254/index.shtml

4.4.2 设置热点加密/不加密/Set hotspot encryption/unencryption

下面是设置开放热点的步骤图： /Here is the step-by-step diagram for setting up an open hot spot:



下面是介绍设置密码连接的配置图： /Here is the configuration diagram for setting up a password connection:



4.5 设置蓝牙信息/Setting Bluetooth Information

用户可以通过 web 界面配置蓝牙的各种参数，主要包括扫描过滤参数，扫描数据参数、网关蓝牙广播参数、网关蓝牙与 APP 和设备通信的各个 UUID。

On the Web UI, you can set Bluetooth parameters, including scan filter parameters, scan data parameters, gateway Bluetooth broadcast parameters, and UUIDs for the gateway Bluetooth to communicate with apps and devices.

4.5.1 配置蓝牙的过滤信息/ Configure Bluetooth filtering information

(1) 设置/取消扫描过滤的信号强度 RSSI 值/ Set or cancel the RSSI value of the filtered signal strength

① 设置过滤的信号强度 RSSI 值/Set the RSSI value of the filtered signal strength

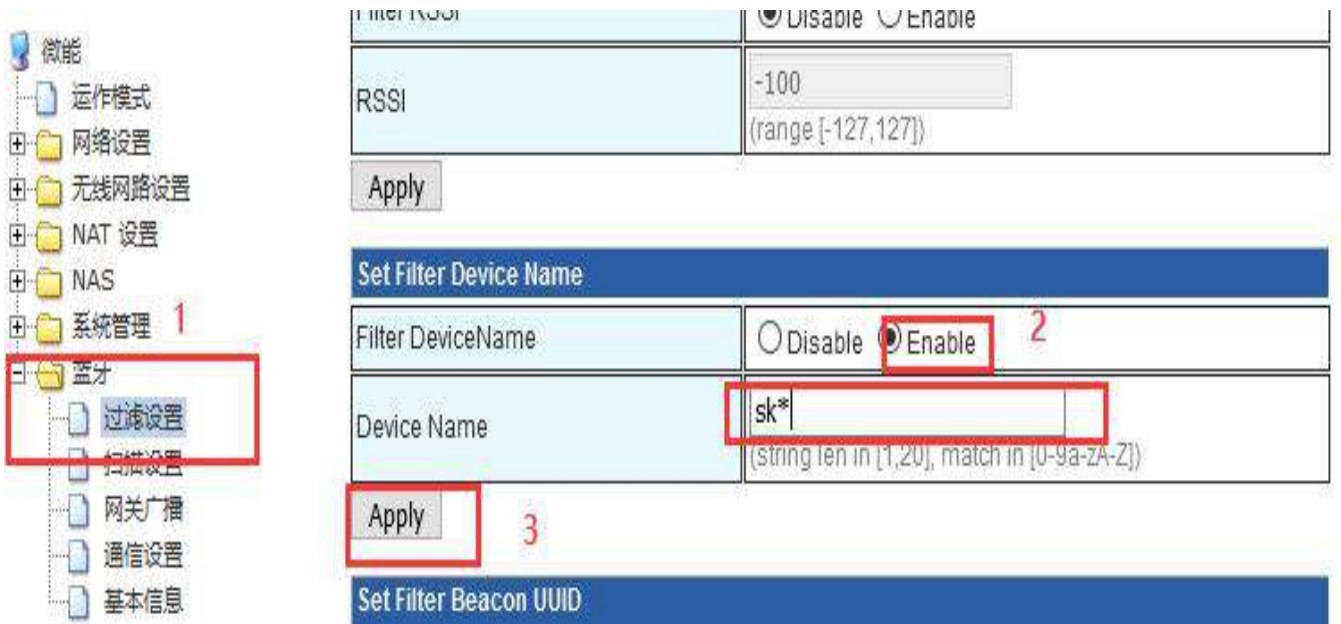
The screenshot shows the 'Bluetooth Filter Info Settings' page. On the left sidebar, '蓝牙' (Bluetooth) is selected, and '过滤设置' (Filter Settings) is highlighted with a red box and labeled '1'. The main content area has a sub-header 'Bluetooth Filter Info Settings' and a description 'Here you can configure Bluetooth filtering.' Below this are two sections: 'Set Filter RSSI' and 'Set Filter Device Name'. In the 'Set Filter RSSI' section, the 'Filter RSSI' field has radio buttons for 'Disable' and 'Enable', with 'Enable' selected and highlighted by a red box labeled '2'. The 'RSSI' field contains '-100' and is highlighted by a red box labeled '3'. Below it, the 'Apply' button is highlighted by a red box labeled '4'. The 'Set Filter Device Name' section has radio buttons for 'Disable' and 'Enable', with 'Disable' selected.

② 取消扫描过滤的信号强度 RSSI 值设置/Cancel the RSSI value of the scanned signal strength

The screenshot shows the 'Bluetooth Filter Info Settings' page. On the left sidebar, '蓝牙' (Bluetooth) is selected, and '过滤设置' (Filter Settings) is highlighted with a red box and labeled '1'. The main content area has a sub-header 'Bluetooth Filter Info Settings' and a description 'Here you can configure Bluetooth filtering.' Below this are two sections: 'Set Filter RSSI' and 'Set Filter Device Name'. In the 'Set Filter RSSI' section, the 'Filter RSSI' field has radio buttons for 'Disable' and 'Enable', with 'Disable' selected and highlighted by a red box labeled '2'. The 'RSSI' field contains '-100' and is highlighted by a red box labeled '3'. Below it, the 'Apply' button is highlighted by a red box labeled '3'. The 'Set Filter Device Name' section has radio buttons for 'Disable' and 'Enable', with 'Disable' selected.

(2) 设置/取消扫描过滤的设备名称/Set or cancel the name of the device for scanning filtering

① 设置扫描的设备名称/ Set the name of the device to be scanned



The screenshot shows the 'System Management' menu on the left with 'Filter Device Name' selected. The main configuration area has the following settings:

- Filter DeviceName:** Disable Enable (labeled 2)
- Device Name:** sk* (labeled 3)
- Apply:** (labeled 3)

② 取消过滤设备名称的设置/ The setting of filtering device name is canceled

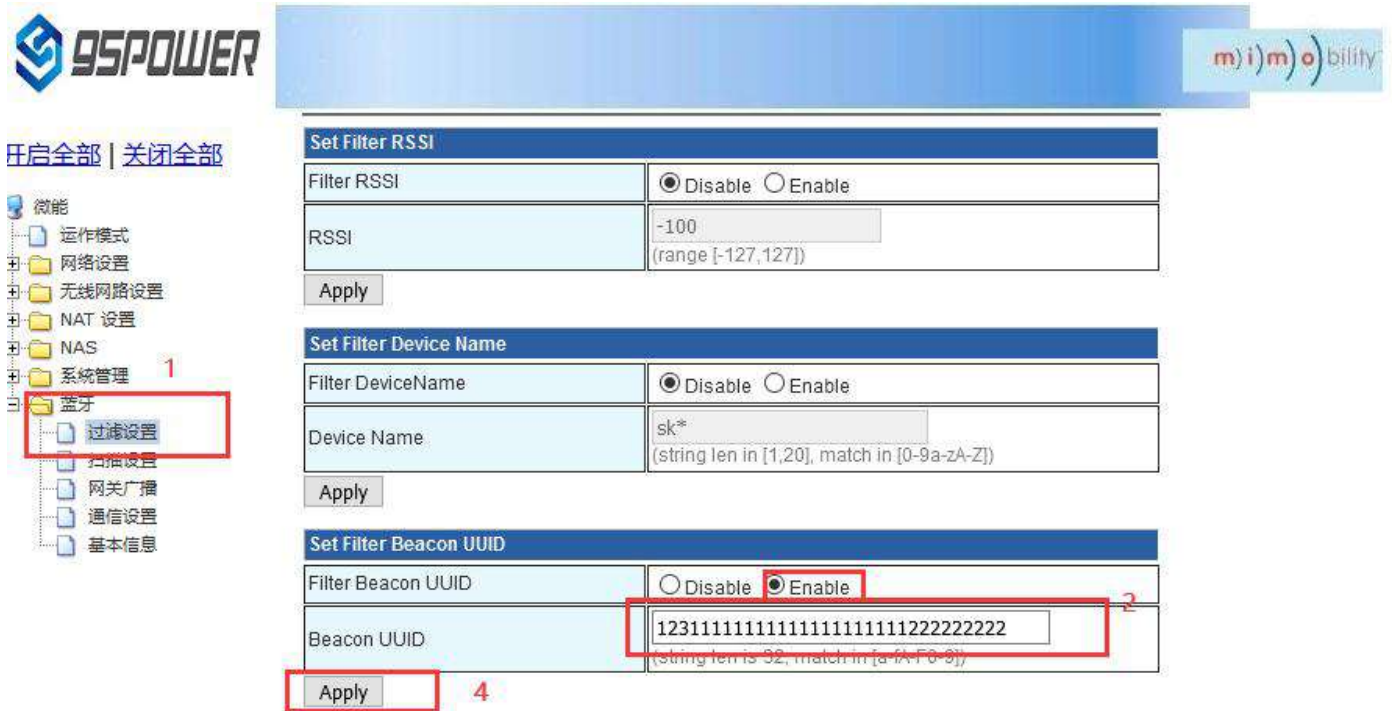


The screenshot shows the 'System Management' menu on the left with 'Filter Device Name' selected. The main configuration area has the following settings:

- Filter DeviceName:** Disable Enable (labeled 2)
- Device Name:** sk* (labeled 3)
- Apply:** (labeled 3)

(3) 设置/取消扫描过滤的 Beacon UUID / Set/cancel the scan filter Beacon UUID

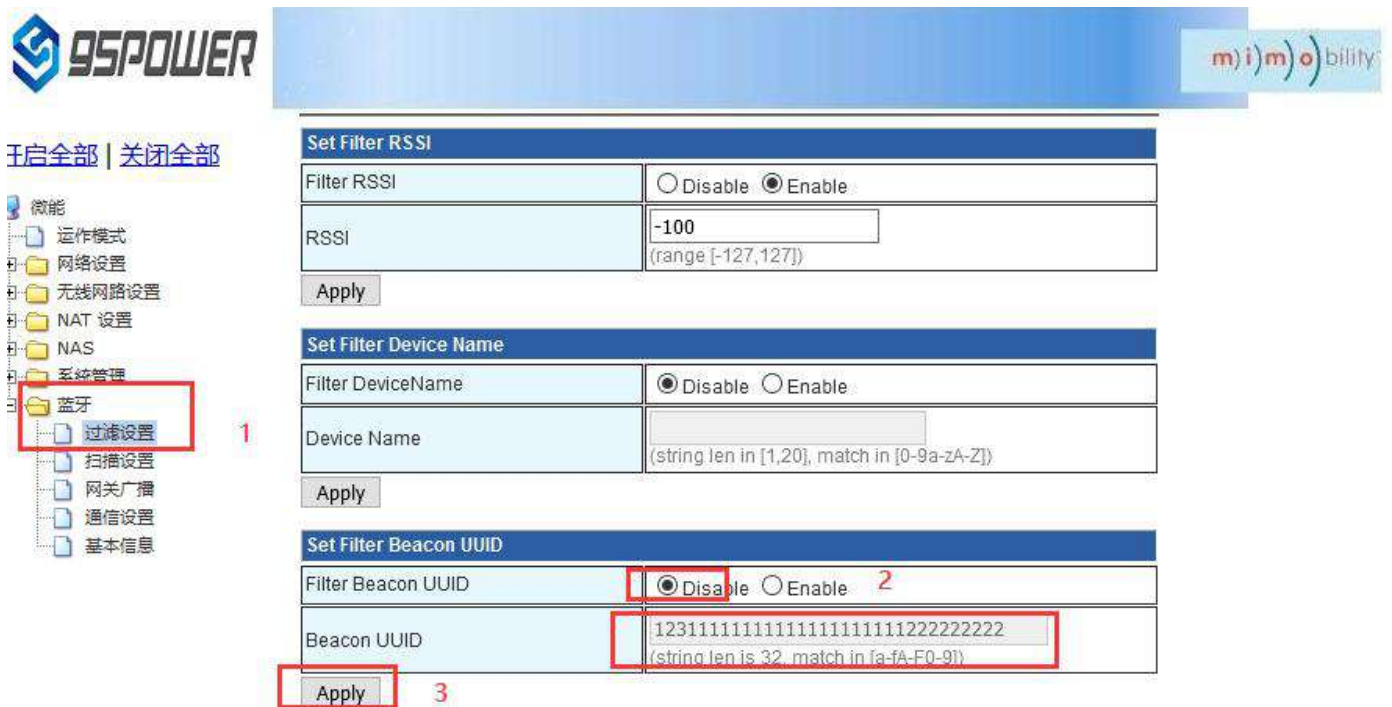
① 设置扫描过滤 Beacon UUID / Set the scan filter Beacon UUID



The screenshot shows the GSPower web interface. On the left is a navigation tree with '过滤设置' (Filter Settings) highlighted in red and numbered 1. The main content area has three sections:

- Set Filter RSSI:** Filter RSSI is set to Disable, Enable. RSSI value is -100 (range [-127,127]).
- Set Filter Device Name:** Filter DeviceName is set to Disable, Enable. Device Name is sk* (string len in [1,20], match in [0-9a-zA-Z]).
- Set Filter Beacon UUID:** Filter Beacon UUID is set to Disable, Enable (numbered 2). The Beacon UUID field contains 1231111111111111111111111111122222222 (string len is 32, match in [a-fA-F0-9]). The 'Apply' button is highlighted in red and numbered 4.

② 取消扫描过滤 Beacon UUID 的设置 / The setting of scanning and filtering Beacon UUID was canceled



The screenshot shows the GSPower web interface. On the left, '过滤设置' (Filter Settings) is highlighted in red and numbered 1. The main content area has three sections:

- Set Filter RSSI:** Filter RSSI is set to Disable, Enable. RSSI value is -100 (range [-127,127]).
- Set Filter Device Name:** Filter DeviceName is set to Disable, Enable. Device Name is empty (string len in [1,20], match in [0-9a-zA-Z]).
- Set Filter Beacon UUID:** Filter Beacon UUID is set to Disable, Enable (numbered 2). The Beacon UUID field contains 1231111111111111111111111111122222222 (string len is 32, match in [a-fA-F0-9]). The 'Apply' button is highlighted in red and numbered 3.

(4) 设置/取消扫描过滤的 Company ID / Set or cancel the Company ID of scan filtering

① 设置扫描过滤的 Company ID / Set the Company ID of the scan filter

开启全部 | 关闭全部

- 微能
 - 运作模式
 - 网络设置
 - 无线网络设置
 - NAT 设置
 - NAS
 - 系统管理
 - 蓝牙 **1**
 - 过滤设置** **1**
 - 扫描设置
 - 网关广播
 - 通信设置
 - 基本信息

Set Filter RSSI

Filter RSSI Disable Enable

RSSI
(range [-127,127])

Apply

Set Filter Device Name

Filter DeviceName Disable Enable

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

Apply

Set Filter Beacon UUID

Filter Beacon UUID Disable Enable

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

Apply

Set Filter Company ID

Filter Company ID Disable Enable **2**

Company ID
(string len is 4, match in [a-fA-F0-9])

Apply **3**

② 取消扫描过滤 Company ID 的设置/ The setting of filtering the Company ID is canceled

开启全部 | 关闭全部

- 微能
 - 运作模式
 - 网络设置
 - 无线网络设置
 - NAT 设置
 - NAS
 - 系统管理
 - 蓝牙 **1**
 - 过滤设置** **1**
 - 扫描设置
 - 网关广播
 - 通信设置
 - 基本信息

RSSI
(range [-127,127])

Apply

Set Filter Device Name

Filter DeviceName Disable Enable

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

Apply

Set Filter Beacon UUID

Filter Beacon UUID Disable Enable

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

Apply

Set Filter Company ID **2**

Filter Company ID Disable Enable

Company ID
(string len is 4, match in [a-fA-F0-9])

Apply **3**

4.5.2 配置蓝牙扫描参数/Configure Bluetooth scanning parameters

(1) 设置扫描输出开关/ Set the scan output switch

设置蓝牙扫描输出开关的步骤如下图:

The steps for setting the Bluetooth scan output switch are as follows:



(2) 设置是否启动扫描请求/Set whether to enable the scan request

当启动扫描请求时，扫描输出的数据量为 62 字节，默认是启动的。当不启动扫描请求时，扫描输出的数据量为 31 字节。

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



(3) 设置扫描输出的时间间隔/Set the interval time for scanning output

设置扫描输出的时间间隔，最小值为 500ms。

Set the interval for scanning output. The minimum value is 500ms.

The screenshot shows the 'Bluetooth Scan Info Settings' page. On the left, a navigation tree has '蓝牙' (Bluetooth) selected, with '扫描设置' (Scan Settings) highlighted. The main content area has three sections: 'Set Scan Switch' (Scan Switch: Enable), 'Set Scan Request Switch' (Scan Request Switch: Enable), and 'Set Scan Interval' (Scan Interval(ms): 5000). Red boxes and numbers 1, 2, and 3 highlight the '扫描设置' menu item, the '5000' input field, and the 'Apply' button respectively. A red note '单位为ms' (unit is ms) is next to the input field.

(4) 设置单次输出设备信息数量/Set the number of output device information

设置单次输出的设备信息的数量，最小为 1。

Set the number of device information to be output at a time. The minimum value is 1.

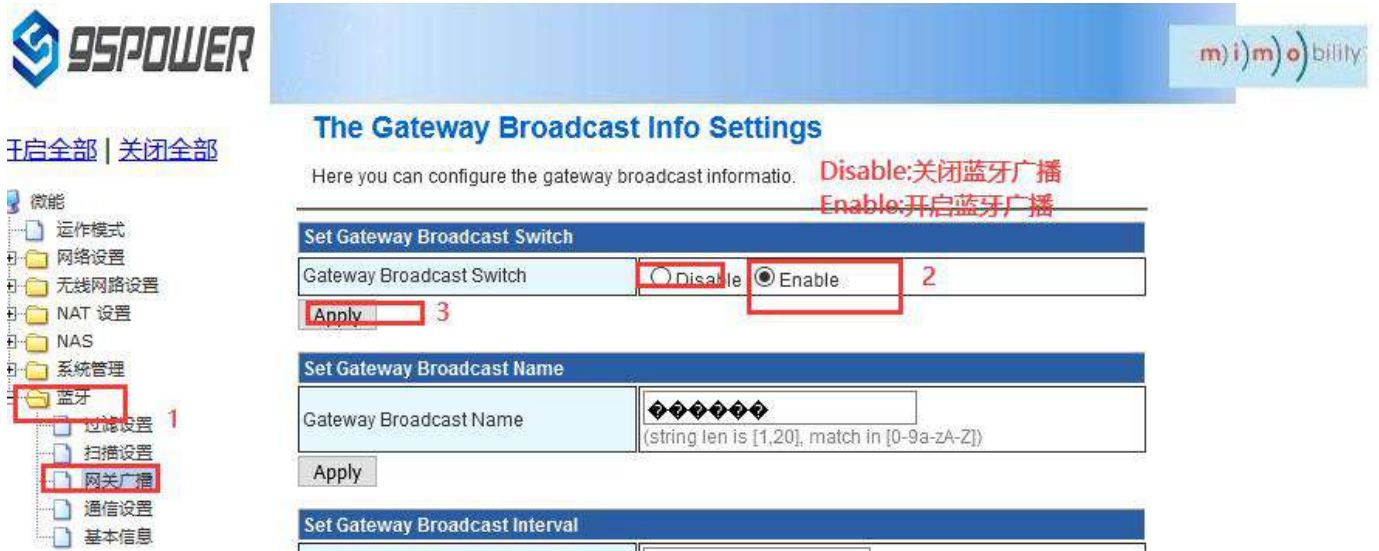
The screenshot shows the 'Bluetooth Scan Info Settings' page. On the left, the navigation tree has '蓝牙' (Bluetooth) selected, with '扫描设置' (Scan Settings) highlighted. The main content area has four sections: 'Set Scan Switch' (Scan Switch: Enable), 'Set Scan Request Switch' (Scan Request Switch: Enable), 'Set Scan Interval' (Scan Interval(ms): 5000), and 'Set Scan Device Number' (Scan Device Number: 10). Red boxes and numbers 1, 2, and 3 highlight the '扫描设置' menu item, the '10' input field, and the 'Apply' button respectively. A red note '此时输出的设备为10' (device output at this time is 10) is next to the input field.

4.5.3 配置网关广播配置信息/ Configure the gateway broadcast configuration

(1) 设置网关广播开关/Set the gateway broadcast switch

默认网关开启蓝牙广播，用户可根据需求关闭蓝牙广播。

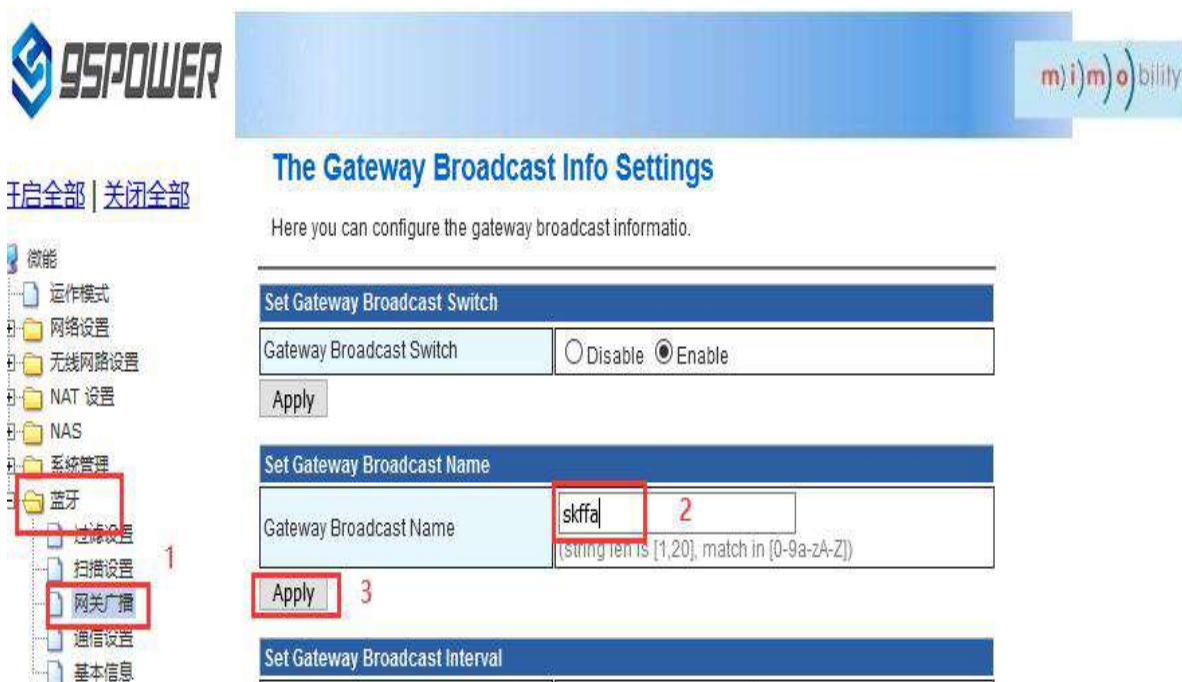
Bluetooth broadcasting is enabled on the default gateway. You can disable Bluetooth broadcasting as required.



(2) 设置网关广播名称/Set the broadcast name of the gateway

设置蓝牙广播的名称，长度最大 20 字节。

Set the name of the Bluetooth broadcast. The maximum length is 20 bytes.



(3) 设置网关广播的间隔/Set the gateway broadcast interval

95POWER

m)l)m)o bilii

启用全部 | 关闭全部

微能

- 运作模式
- 网络设置
- 无线网络设置
- NAT 设置
- NAS
- 系统管理
- 蓝牙 1
 - 过滤设置
 - 扫描设置
 - 网关广播 1
 - 通信设置
 - 基本信息

Set Gateway Broadcast Interval

Gateway Broadcast Interval(ms) 2
(range [20,10000])

Apply 3

Set Gateway Broadcast iBeacon UUID

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

Apply

Set Gateway Broadcast iBeacon Major

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

Apply

(4) 设置网关广播的 iBeacon UUID/Set the iBeacon UUID of the gateway broadcast

95POWER

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微能

- 运作模式
- 网络设置
- 无线网络设置
- NAT 设置
- NAS
- 系统管理
- 蓝牙 1
 - 过滤设置
 - 扫描设置
 - 网关广播 1
 - 通信设置
 - 基本信息

Set Gateway Broadcast Interval

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

Apply

Set Gateway Broadcast iBeacon UUID

Gateway Broadcast iBeacon UUID 2
(string len is 32, match in [a-fA-F0-9])

Apply 3

Set Gateway Broadcast iBeacon Major

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

Apply

(5) 设置网关广播的 iBeacon Major / Set the iBeacon Major of the gateway broadcast

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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: 0 2
(range in [0,65535])

Apply 3

Set Gateway Broadcast iBeacon Minor

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

(6) 设置网关广播的 iBeacon Minor / Set the iBeacon Minor of the gateway broadcast

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 - 网关广播
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 - 基本信息

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: 0
(range in [0,65535])

Apply

Set Gateway Broadcast iBeacon Minor

Gateway Broadcast iBeacon Minor: 0 2
(range in [0,65535])

Apply 3

(7) 设置网关广播的 iBeacon Measured power / Set iBeacon Measured power for gateway

broadcasting

4.6 配置与通信相关参数/Configure communication parameters

4.6.1 配置与 APP 通信的 UUID / Configure the UUID for communicating with the APP



点击“通信设置”，查看设置情况。设置成功后，需要重启网关，使配置生效。下面是重启网关的操作。

Click "通信设置" to view the Settings. After the configuration, restart the gateway for the configuration to take effect. The following is how to restart the gateway.



激活 Wind
转到“设置”以

4.6.2 配置与设备通信的 UUID / Configure the UUID used to communicate with the device

Here you can configure the parameters to communication with app or device

Set APP Parameters	
Service UUID	FED76543211234567890098765432112 <small>(string len is 32, match in [a-fA-F0-9])</small>
Write UUID	ABCDEF1234567890ABCDEF1234567892 <small>(string len is 32, match in [a-fA-F0-9])</small>
Notify UUID	FFFDEF1234567890ABCDEF1234567891 <small>(string len is 32, match in [a-fA-F0-9])</small>

Apply

Set Device Parameters	
Service UUID	6E400001B5A3F393E0A9E50E24DCCA9E <small>(string len is 32, match in [a-fA-F0-9])</small>
Write UUID	6E400002B5A3F393E0A9E50E24DCCA97 <small>(string len is 32, match in [a-fA-F0-9])</small>
Notify UUID	6E400003B5A3F393E0A9E50E24DCCA9E <small>(string len is 32, match in [a-fA-F0-9])</small>

Apply 3

点击 apply 后，会跳转界面，如下所示：

Click apply, the interface will jump to, as shown below:

dev_service_uuid = 6E400001B5A3F393E0A9E50E24DCCA9E
dev_write_uuid = 6E400002B5A3F393E0A9E50E24DCCA97
dev_notify_uuid = 6E400003B5A3F393E0A9E50E24DCCA9E

点击“通信设置”返回对应界面，查看设置情况。设置成功后，需要重启网关，使配置生效，操作如下：

Click "通信设置" to return to the corresponding interface and check the Settings. After the configuration is successful, restart the gateway for the configuration to take effect. operation is as follows:



5 型号信息/Ordering information

主型号/ Model	子型号/ Sub-model	料号/ Part No.	备注 Note
VDB3601	P	39056	单蓝牙 4.2/5.0 扫描器，小批量试产/ Single Bluetooth 4.2 / 5.0 scanner, small-batch trial production
		3905601	不带蓝牙，样品阶段/ Without Bluetooth, the sample stage

6 联系方式/Content information

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