VDB2605 Bluetooth Gateway With 4G LTE Modem Datasheet

Document Information		
Title	VDB2605 Bluetooth Gateway With 4G LTE Modem Datasheet	
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This document applicable to the following products：

Product name	Type number	Product status
VDB2605	VDB2605 (0929602)	Mass production

Revision History

Revision	Description	Approved	Date
V1.01	Initial Release.	George	20180820
V1.02	Update BLE Specification.	George	20181227
V1.03	Update new shell and Dimension	Sherman	20200415

Bill of Materiel

Name	Model		Quantity	Remark
Bluetooth	VDB2605		1	VDB2605
AC-DC Adapter	BSF-137F		1	IN:AC100-240V/OUTPUT: 5.0V±10%

Content

1 General Description

VDB2605 is a Bluetooth Gateway with 4G Modem. It can be used in various scenarios flexibly. For example, the remote control BLE device, receives the data sent by the BLE device and sends it to servers. VDB2605 also supports the PoE switch power supply and 5.0V adapter power supply.

Figure1: VDB2605

2 Application Block Diagram

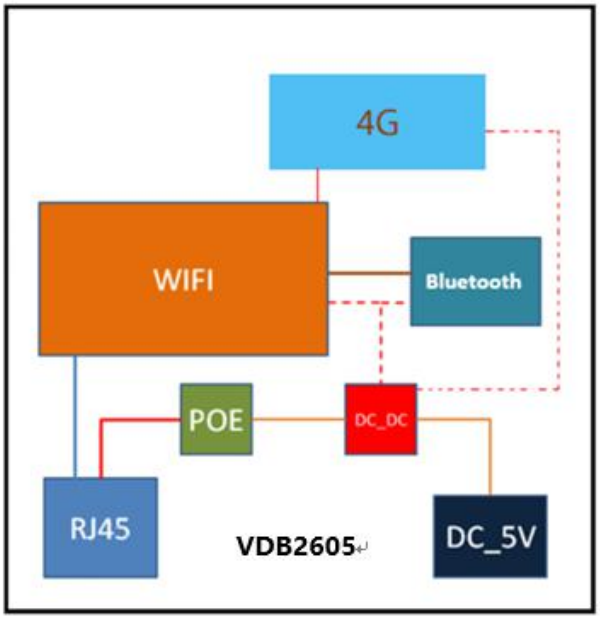
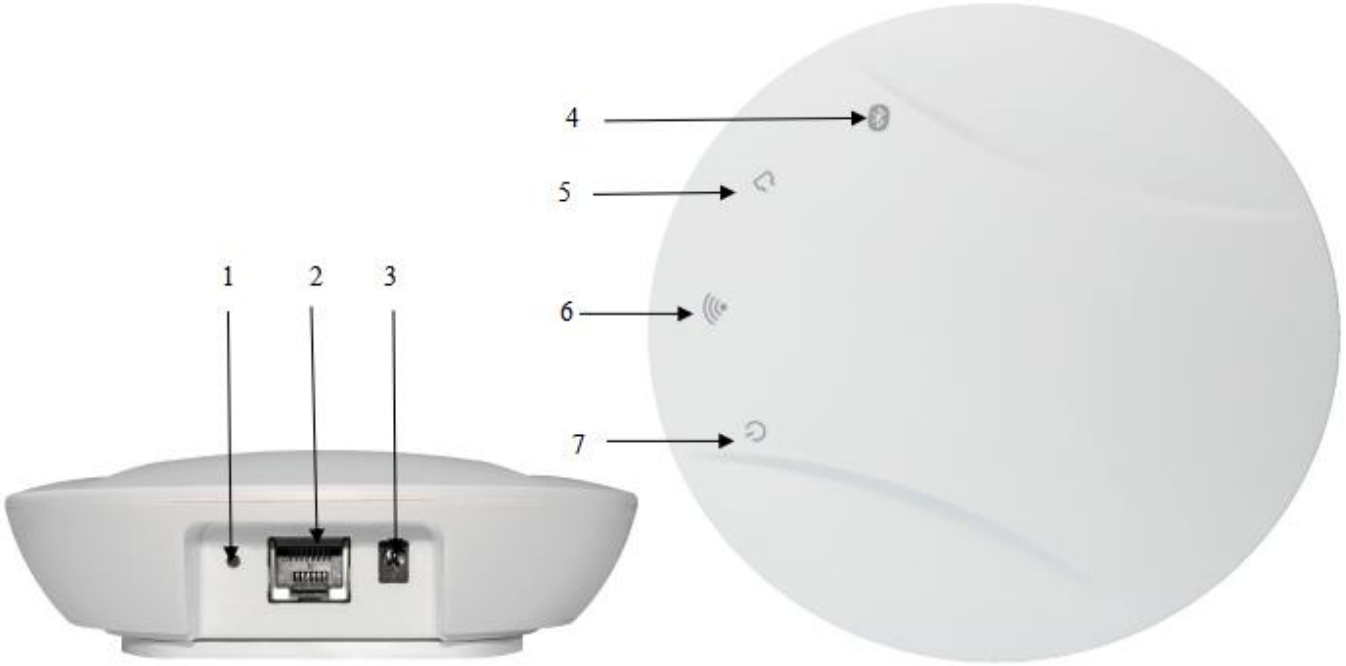


Figure 2: VDB2605 Block Diagram

3 Features

- Supports the PoE switch power supply and 5V adapter power supply.
- Support IEEE 802.3 standard-compliant solution, including pre-standard PoE support.
- Support IEEE 802.11n, IEEE 802.11g, IEEE 802.11b Protocol.
- Support Bluetooth ® 5.0.
- Support LTE-TDD/LTE-FDD/TD-SCDMA/UMTS
- EVDO/EDGE/GPRS/GSM/CDMA
- One WAN/LAN variable network port.
- RoHS compliance (Lead-free).
- FCC,CE compliance

4 Interface



1：Reset

2：PoE Interface

3：Power Interface

4：Bluetooth LED

5：RJ45 PoE　LED

6：WiFi LED

7：Power LED

Power Supply Port

The VDB2605 power interface supports DC_5V input, input voltage range is 4.5-12.0 V, and the current is greater than 500mA.The voltage interface adopts the DC-005 power socket, and power seat aperture is 5.5mm. The needle diameter is 2.1 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.

Reset

The VDB2605 WiFi part will resume factory setting after pressing the reset button for more than 5 seconds.

LED

Power LED normally on when powered on

RJ45 POE LED normally on when connected

WiFi LED normally on after connecting to WiFi for 1-2sec

Bluetooth LED flashing once power on

5 Applications

Indoor Positioning

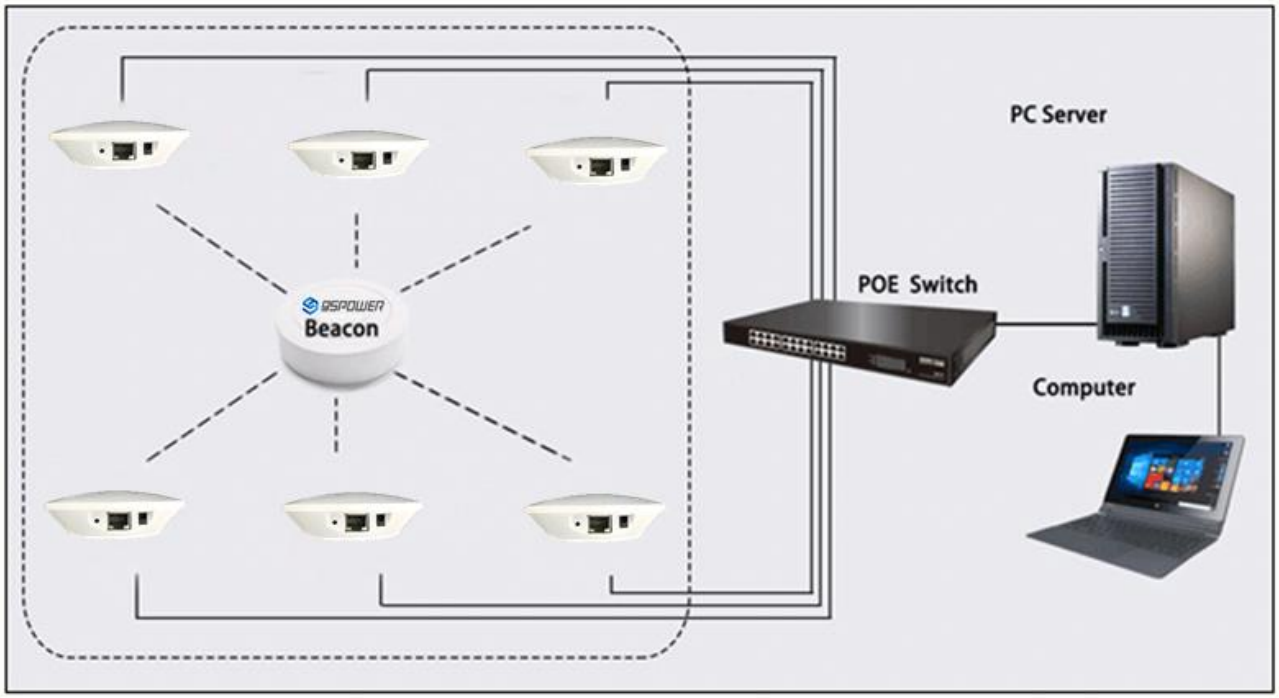
1)VDB2605 Bluetooth module collects information about Beacon nearby, including RSSI, MAC, etc., once per second.

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： VDB2605 can be powered by PoE.

6 Module Specification

Dimension	Diameter: 124mm; Height: 40mm
Power Supply	DC4.5-12V、POE Switch up to 57V
Currents	250mA@5V
Operating Temperature	-20℃~70℃
Interface	Power Supply Port
WiFi	
WiFi Protocol	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 : 72Mbps @ HT20 150Mbps @ HT40
Sensitivity	HT40 MCS7 : -67dBm@10% PER(MCS7)
	HT20 MCS7 : -73dBm@10% PER(MCS7)
	54M: -76dBm@10% PER
	11M: -91dBm@ 8% PER
Transmit Power	IEEE 802.11n: 15dBm @HT40 MCS7 15dBm@HT20 MCS7
	IEEE 802.11g: 16dBm
	IEEE 802.11b: 18dBm
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	200m
Transmit Power	0~+20dBm

4G LTE	
Working Mode	LTE-TDD/LTE-FDD/TD-SCDMA/UMTS/ EVDO/EDGE/GPRS/GSM/CDMA

7 Configuration

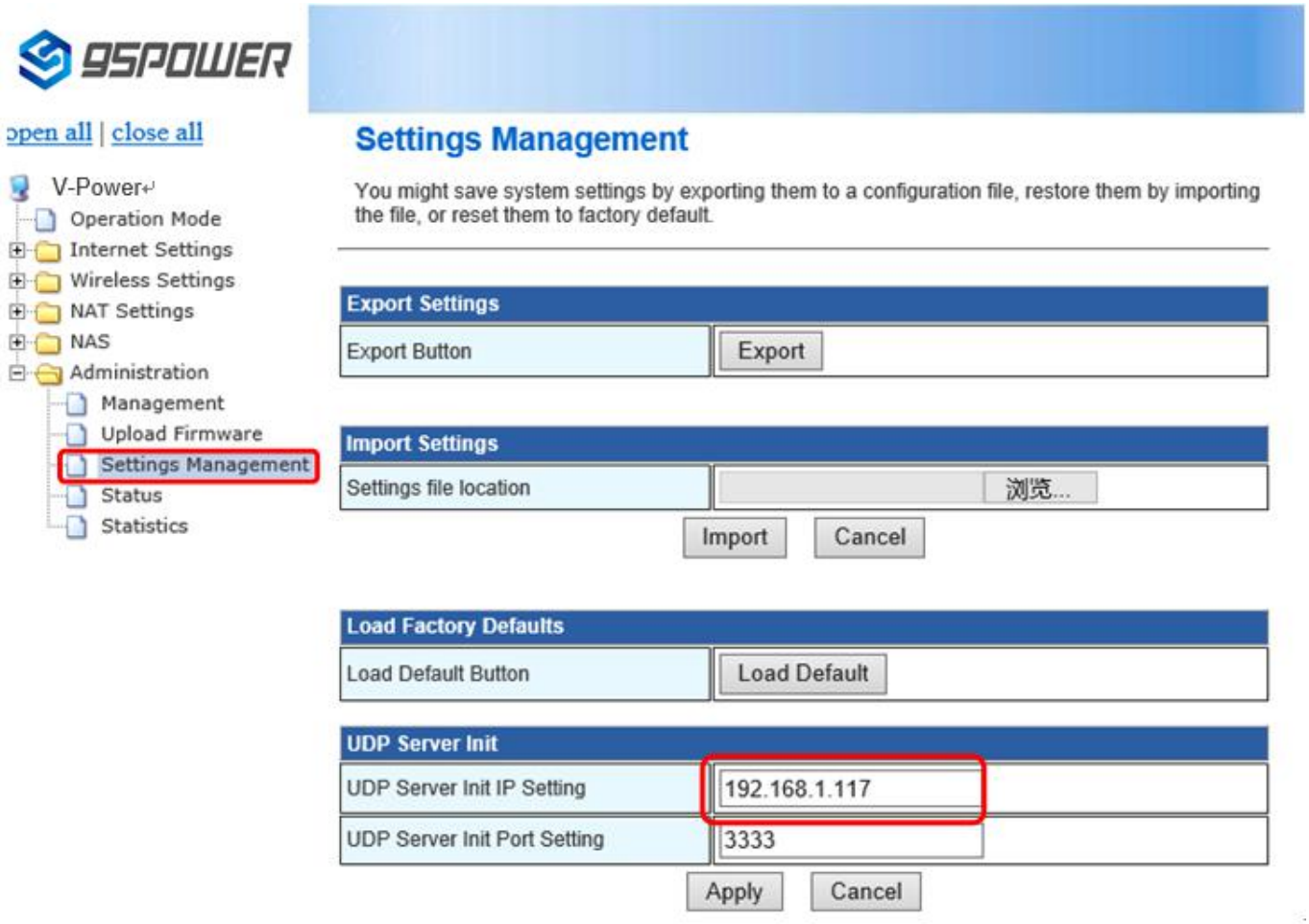
7.1 Connect to VDB2605 by WLAN

7.2 Enter to the page http://10.10.10.254

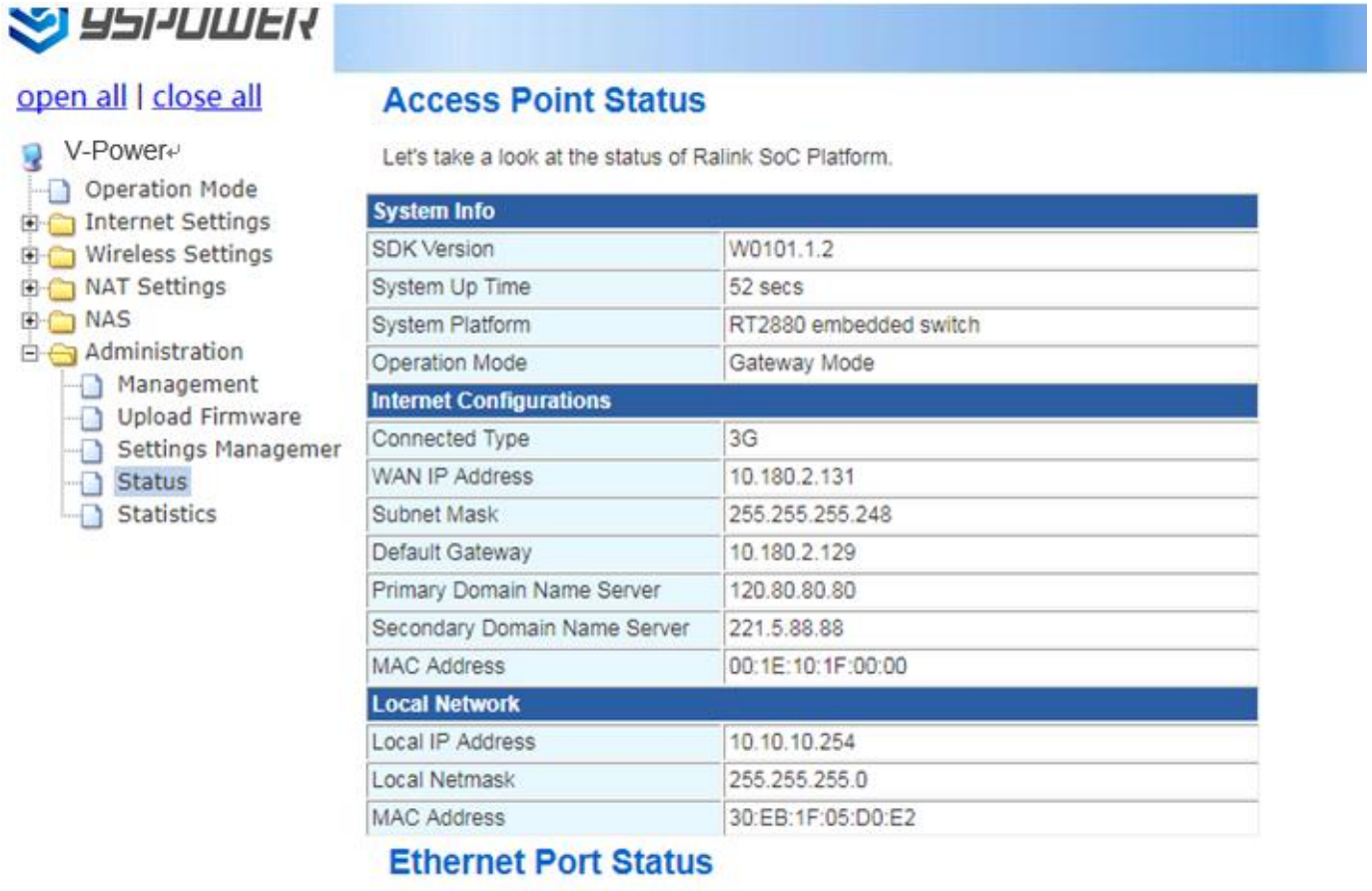
7.3 Input Account and Password <admin/admin>

7.4 Select Language

7.5 Click Administration->Settings Management, then input the UDP Server address in UDP Server Init IP Setting, UDP Server Init Port Setting default is 3333.



7.6 Click Administration ->Status to check the Access Point Status.



8 Contact Information

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