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**CHINA DRAGON TECHNOLOGY LIMITED**

**User Manual**

**Part Name: WIFI Module**

**Part No.: 8188 series**

**Date: 2014-6-25**

# Part 1: Introduction

This product is a new generation module, It is based on USB interface, accord with Wifi wireless network standard embedded module, the built-in wireless network protocol IEEE802.11 protocol stack, and TCP/IP protocol stack, save electricity intelligent control procedures , realize the user serial data to the wireless network conversion between. The entire module needs a power supply of 3.3 volt, and the product has integral antenna and alternative PCB antenna to use . But it isn't a MIMO equipment. Both of the antenna was used independent. When the customer need a PCB antenna, and the integral antenna will be take out, vise versa.

Through the Wifi module, the traditional serial equipment also can easily access wireless network.

- Interface: PIN
- Power supply voltage: +3.3V
- Wireless Features:
  - Compatible completely with IEEE 802.11 a/b/g/n standards
  - Compliant to IEEE 802.11 a/b/g/n Wireless LAN Standard
  - Channel frequency: 2412-2462MHz for 802.b/g/11n H20 mode ; 2422-2452MHz for 802.11n H40 mode
  - 802.11b/802.11g /802.11n(HT20): 11channels  
802.11(HT40): 7channels
- External Antenna can choose miniature coaxial connector (U.FL) type
- Others:
  - Supports many kinds of network protocols: TCP、UDP、DHCP、ICMP、DNS etc
  - Supports USB transmission mode
  - Can provide a user interface to set configuration parameters
- Application: Temperature controller、 Smart meter、 Household appliance、 remote control、 Security Products、 Toy, and other IOT industry(sunch as retail business and medical care etc).

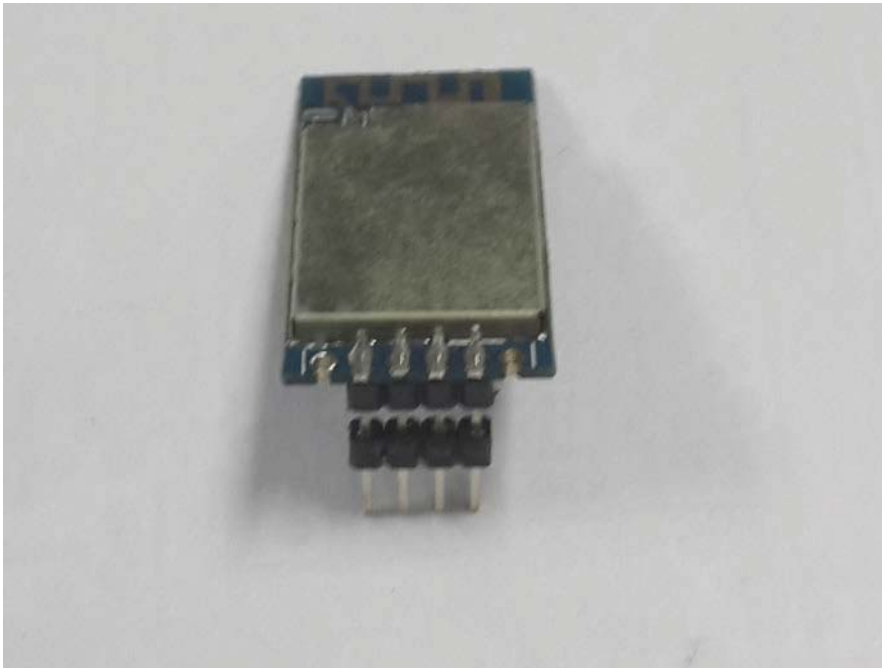
# Part 2: Product Description

This part comprehensively introduces hardware interface and product function of the WIFI module, in this way can help user to the familiar with using the WIFI module quickly and efficiently, and can start using it sooner.

Module Interface : Standard 2.54 PIN

System Interface: can using socket or connection terminal mode

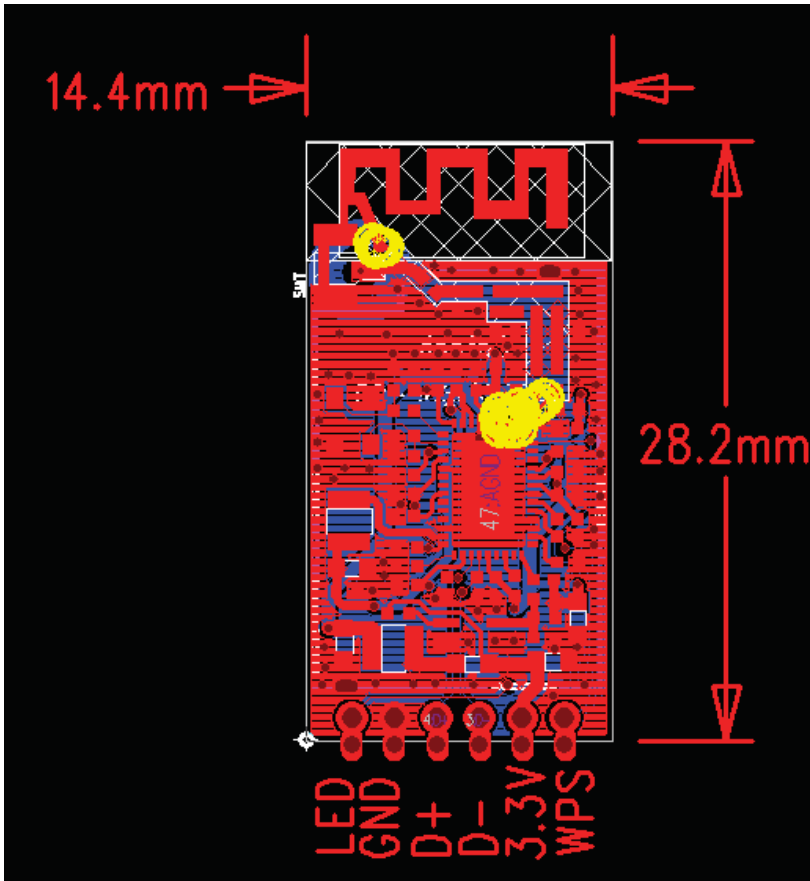
## WIFI Module Top View



**WIFI Module Bottom View (copper covered)**

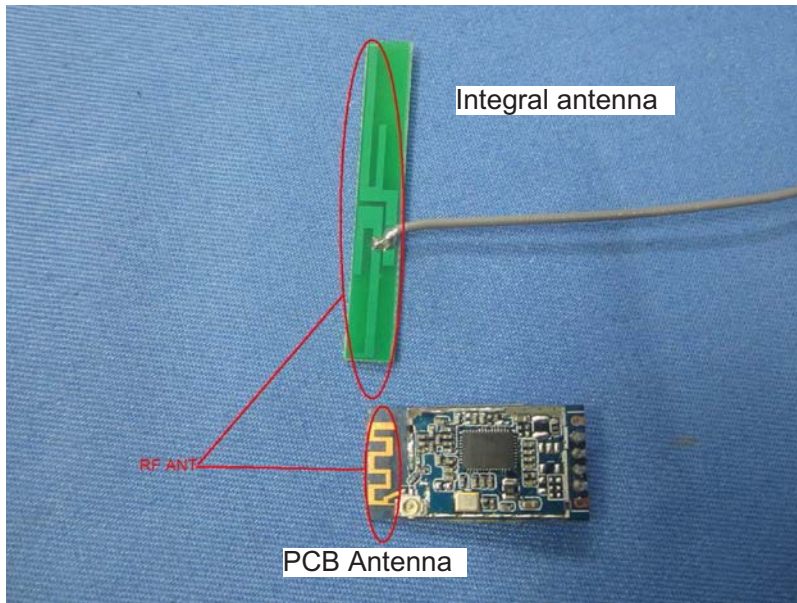


**WIFI module Size and PIN Description**



No	Pin name	Description
1	LED	It is connected to an external LED to show the module operating status
2	GND	Ground
3	D+	USB Data +
4	D-	USB Data -
5	VCC	3.3V
6	WPS	It is connected to an external push button to activate WPS.

## Antenna



Integral antenna: 2.0dBi  
PCB Antenna: 0dBi

#### Antenna Information:

IPX antenna interface, through miniature coaxial connector (U.FL or IPEX) connection to WIFI module  
2.4GHzWIFI antenna L=145mm

## FCC statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### FCC Radiation Exposure Statement

The modular can be installed or integrated in mobile or fix devices only. This modular cannot be installed in any portable device, for example, USB dongle like transmitters is forbidden.

This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This modular must be installed and operated with a minimum distance of 20 cm between the radiator and user body.

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following:  
"Contains Transmitter Module FCC ID: ROWCDT-H18188E-NX Or Contains FCC ID: ROWCDT-H18188E-NX "

when the module is installed inside another device, the user manual of this device must contain below warning statements;

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product