

The user manual of WIFI、Bluetooth module

1. The product description

The user can achieve the terminal equipment connection WIFI net and Bluetooth, through this module

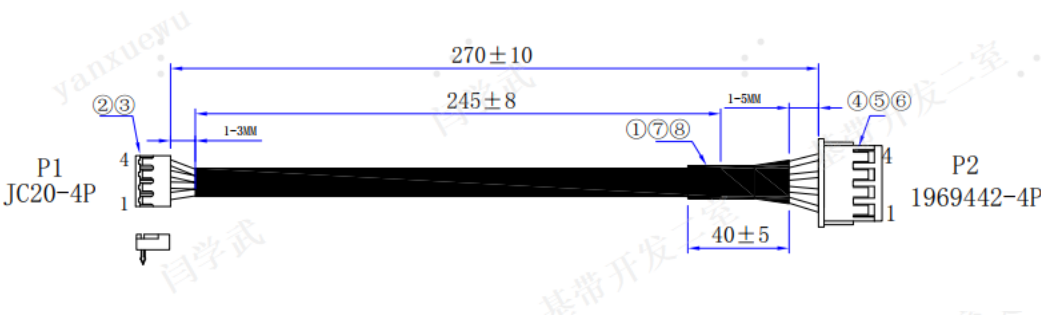
This equipment may be operated in all European countries.



2. Interface

◆ Interface

4pin through hole



◆ Pin definition

Pin	Name	Function	Remarks
1 red	VCC_5V	5V	
2 white	UART0_TX	UART0_TX	I/O
3 green	UART0_RX	UART0_RX	I/O
4 black	GND	GND	

◆ Power consumption requirements

The maximum working current is not more than 500mA, the instantaneous maximum current is not more than 700mA;

In standby mode, the power supply of the module shall be no less than 0.45W, and the power supply current shall be no less than 1A (DC-DC is recommended).

R.7Basic parameters

Feature Description	Feature Description
Model	MWB414C.05
Product Name	WIFI Module
Major Chipset	Realtek RTL8720CF
WLAN Standard	IEEE 802.11b/g/n
Max Power	18.24dBm
BT Standard	BLE4.2

WLAN Frequency Range	2412MHz-2462MHz
BT Frequency Range	2402MHz-2480MHz
Spread Spectrum	IEEE 802.11b: DBPSK, DQPSK, CCK for DSSS (Direct Sequence Spread Spectrum) IEEE 802.11g: BPSK, QPSK, 16QAM, 64QAM for OFDM (Orthogonal Frequency Division Multiplexing) IEEE 802.11n: MCS0~MCS7, OFDM
Modulation Method	DSSS/DBPSK/DQPSK/16-QAM/ 64-QAM
Data Transfer Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0~MCS7, up to 72.2Mbps
Antenna Reference	PCB printed ANT
Interface	4pin printed ANT
Supply Voltage	5V±0.5V
Dimension	38×20×3.2mm
Operating Temperature	-10°C to 70°C
Storage Temperature	-20°C to 85°C

Note:

Low Temperature Operation

When the external temperature is lower than -10°C, the modules have an increased risk of damage and face unpredictable risks. Do not use modules at temperatures lower than -10 °C!

4.The display method of Model approved code

In the factory, the model approve code is pasted on the back shell in a label.

5.CE Statement

EU DECLARATION OF CONFORMITY

Hisense declares that the radio equipment type Hisense MWB414C .05 is in compliance with Directive 2014/53/EU.

6.FCC Statement

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

(1) Operational use conditions

Module has professional users use condition limitations, Host product manufacturer please ensure giving such warning like "Product is limited to professional users use" in your product's instruction.

(2) Antenna used

	Antenna type	Max. Antenna Gain
BLE/2.4G Wi-Fi	PCB Antenna	-1.53dBi

(3) Labelling Instruction for Host Product Integrator

Please notice that 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. For FCC, this exterior label should follow "Contains FCC ID: 2A4A3FRIDGE-2088".

§15.19 Labelling requirements shall be complied on end user device. Labelling rules

for special device, please refer to §2.925, § 15.19 (a)(5) and relevant KDB publications. For E-label, please refer to §2.935.

(4) Installation Notice to Host Product Manufacturer

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module. The module is limited to installation in mobile application, a separate approval is required for all other operating configurations, including portable configurations with respect to §2.1093 and difference antenna configurations.

(5) Antenna Change Notice to Host manufacturer

If you desire to increase antenna gain and either change antenna type or use same antenna type certified, a Class II permissive change application is required to be filed by us, or you (host manufacturer) can take responsibility through the change in FCC ID (new application) procedure followed by a Class II permissive change application.

(6) FCC other Parts, Part 15B Compliance Requirements for Host product manufacturer

This modular transmitter is only FCC authorized for the specific rule parts listed on our grant, host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

Host manufacturer in any case shall ensure host product which is installed and operating with the module is in compliant with Part 15B requirements.

Please note that For a Class B or Class A digital device or peripheral, the instructions furnished the user manual of the end-user product shall include statement set out in §15.105 Information to the user or such similar statement and place it in a prominent location in the text of host product manual. Original texts as following:

For Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.