JZC TELECOM
Technology

Shenzhen JZC TELECOM Technology CO.,LTD.

JZX874A/B Micro Power Wireless Module

User's Manual

DVER   2.0

SHENZHEN JZC TELECOM TECHNOLOGY CO., LTD

JZX874A/B Micro Power Wireless Module

JZX874A/B data transmission module is highly integrated micro-power half-duplex, and the aluminum shell with a USB port for wireless data transmission module, has a strong anti-static and anti-jamming,

which uses "TI" high-performance RF chips and high-speed microcontroller. Module provides eight channels, and is equipped with professional set-up software for the user to change parameters, the module with transparent transmission mode, no user-written set and transmission procedures, you can transmit data of any size. And provides USB interface means Plug and Play, small size, easy to use.

Applications：

※ Water, electricity, gas, heating automatic meter reading system

※Wireless smart terminal PDA

※Wireless Queue System

※Wireless alarm and security system

※Smart Card

※Medical and electronic instrumentation automation control

※Intelligent teaching equipment

※ Intelligent home automation and lighting control

※Wireless electronic scale

Features：

※Frequency: 428-434MHz

※Distance:500m-2000m(1200Bps)

※Modulation:GFSK

※Transparent transmission

※ Built-in watchdog to ensure long-term reliable operation

※USB Interface

※Convenient and flexible

※Almost 512bytes data buffer

※Suitable for built-in installation

JZX874A/B module is the use of aluminum alloy shield wireless module, there is a strong anti-static and anti-jamming, the module uses ISM frequency band, without application frequency; can be set to 16 communication channels, According to transmit power divided into: (874A: transmission power less than 100mW, high receiving sensitivity-120dbm. 874B: transmit power less than 500mW, high receiving sensitivity-123dbm), size 70mm * 45mm * 19mm (main module), and produced JZX874C interface module supporting a large number for wireless meter reading, reactive power compensation industry, easy to use.
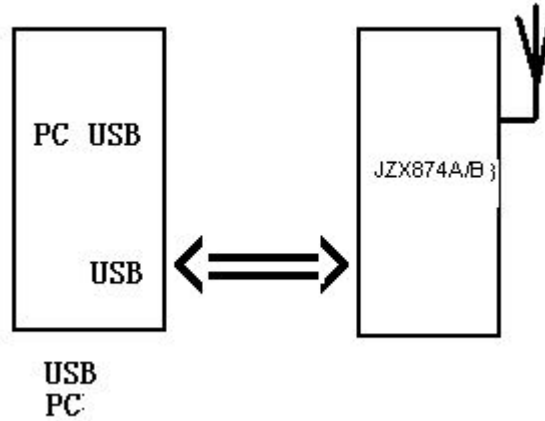
JZX874A/B the use of transparent transmission mode, the user's system in order to ensure reliable and stable increase in the transmission or the CRC checksum error detection mode, the error data retransmission. Transceiver module buffer of 512bytes, means that users can be in any state 512bytes of data transfer 1, when the speed is greater than the serial port is set to air rate, is theoretically unlimited length can send information packets, but does not recommend users to send long data packets, the proposed length of each packet data between 60 ~ 100B, generally not longer than the 120B, and recommended user program using the ARQ mode, the error data packets retransmission. As follows:

If the actual error rate 10-4, users need to send 1KB about 10000bit information, if the 1KB data as a packet, sent at least theoretically, there will be a data error in the receiver, then the 1KB data can never be received correctly. If it is divided into 10 packages, each package 100B, then send 10 packets, the packets according to a probability of only 1 error, the error in the form of a packet retransmission by ARQ 1, although it took more than 1 packet and the efficiency decreased by about 10%, but it can guarantee all the information is correctly received.

JZX874A/B set parameters, the market is no longer used wireless modules used in the traditional way to change the parameters of the jumper, causing long-term use because it brings bad, options less dynamic change is not easy, a lot of inconvenience. JZX874A/B using the serial port setting parameters easy and quick, easy set refers to the chip embedded in the user program and operating software in the background. Meanwhile module 1200/2400/4800/9600/19200bps five kinds of rate and 8 frequencies; provide USB interface mode, it need only install with the provided USB driver, you can get on a COM port on the PC for users to use.
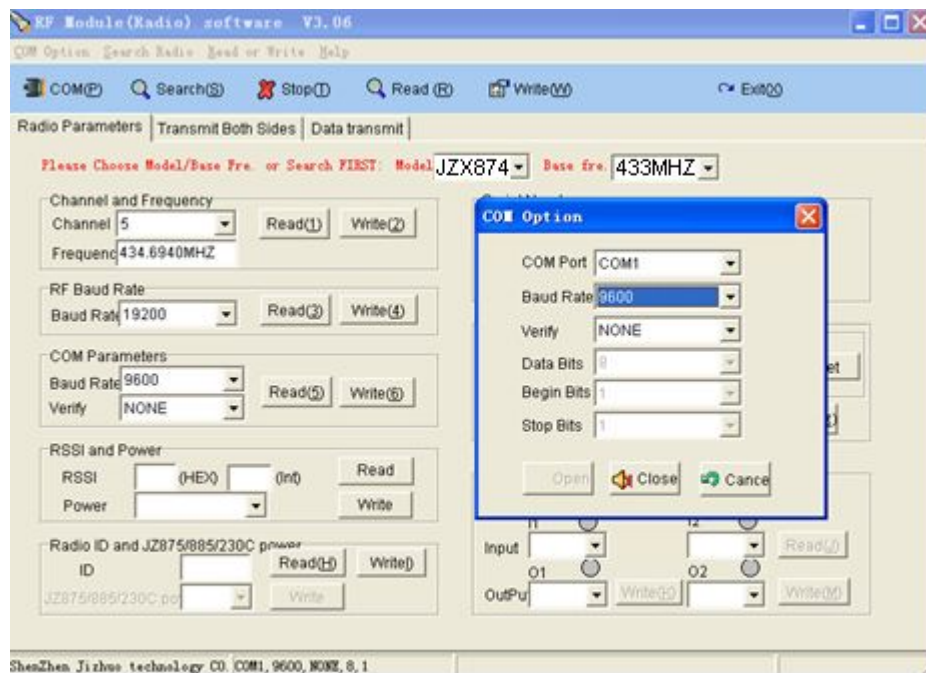
JZX874A/B work for the conventional model, that module into the computer, install the driver software, the main good, it is in receive mode; you also may be sending data.

Module with PC connections

USB connections

For software testing and change parameters

Methods of operation

1. on the computer to install "JZX-USB Driver"

2. JZX874A/B between the module and the PC, select the serial port used.

3. the radio detection, when the check to the station (the software will prompt detection success), you can read or change a single parameter.

4. change the parameters, when you select a parameter you want to set, after set up to read again, to see the parameters of the module is not what you want。

Note: Two or more modules to communicate, then the frequency of the station modules and air rate must be consistent.

Module to communicate with user equipment, the module's serial port parameters and user settings must be consistent.

Frequency

Channel	Frequency	Channel	Frequency
1	430.2000MHz	9	458.5250MHz
2	431.4288MHz	10	459.1250MHz
3	431.7360MHz	11	459.5250MHz
4	430.5072MHz	12	460.1250MHz
5	434.6940MHz	13	460.5250MHz
6	434.2332MHz	14	461.1250MHz
7	433.1580MHz	15	461.5250MHz
8	433.9260MHz	16	462.1250MHz

Communicated Module

JZX874A/B wireless module with all the JZX87 series of models to communicate with each other.

Communications as long as you pay attention to the following:

A. select all the modules to communicate with each other the same channel.

B. you have the same communication module of the air rate.

C. the communication module, power supply, interface connection is connected

JZX874A/B default parameter

Channel: Five channel;
Serial port speed: 9600BPS
Serial port verification: Null

Airborne speed: 9600BPS

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Technical specification of JZX874A/B

Technical specification	
Modulation：	GFSK
Frequency：	433MHz
Transmit Power：	A:100mW(20 dB)　　　　B:500mW(27dB)
Receiver sensitivity：	A:-120dBm　　　　　　B:-123dBm
Transmit Current：	<400mA
Receive Current：	<50mA
Channel Rate：	1200/2400/4800/9600/19200Bit/s Customized
Serial Port Rate：	1200/2400/4800/9600/19200Bit/s Customized
Interface：	USB
Interface-data-format：	8E1/8N1/8O1
Working Power：	DC 4.5-5.5V
Working Temperature：	-20℃～75℃
Working humidity：	10%～90% Relative humidity, non condensing
Size：	70mm*45mm*19mm
Communicated Model：	JZX871/JZX873/JZX872/JZX875/JZX878/JZX874C

Optional Antenna:

small rod antenna
thick whip antenna
small suction cup antenna

Trouble and solve ways:

Trouble and solve ways:	
Troubles	Cause and Remedy
Between devices not communicated	Communication at both ends of the air rate, parity inconsistency
	Frequency inconsistency
	Without power
	Module has destroyed
	The pin of sleep mode not set
Short Distance	Environment very bad or the antenna is blocked
	The existence of the same frequency or magnetic or electrical interference, or replacement of the channel away from sources of interference
	Power match or not. Voltage and current is large enough
Module cant communicate with PC	Without power
	TTL to RS232 converter is damaged, or without power supply
	Converters .module.pc with connection error
	Change work channels
	Serial port baud rate settings are not correct or air, to re-set
	Power supply ripple big, replace the power supply

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