**JZC TELECOM**
Technology

Shenzhen JZC TELECOM Technology CO.,LTD.

# JZX864A Micro Power Wireless Module

## User's Manual



## DVER   2.0

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# JZX864A Micro Power Wireless Module

JZX864A 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(1200Bps)**

※**Modulation:FSK**

※**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**

JZX864A 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 8 communication channels, transmit power of 100mW (20dB ), high receiver sensitivity-110dbm, size 70mm * 45mm * 19mm (main module), and produced JZX862A interface module supporting a large number for wireless meter reading, reactive power compensation industry, easy to use.

JZX864A the use of transparent transmission mode, the user's system in order to ensure reliable and stable increase in the transmission or the CRC check sum error detection mode, the error data re-transmission. 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 re-transmission. As follows:
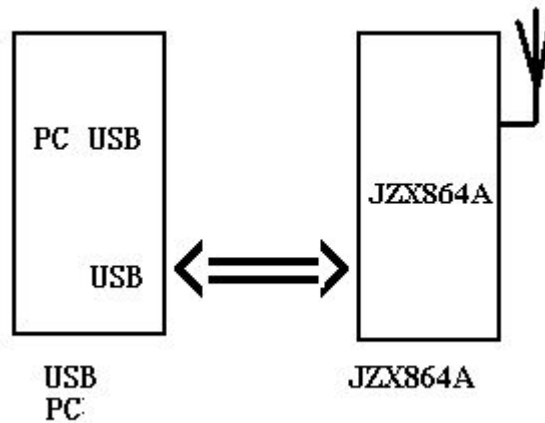
If the actual error rate 10-4, users need to send 1KB about 10000bit information, if the 1KB data as a packet, sent at least theoretically, there will be a data error in the receiver, then the 1KB data can never be received correctly. If it is divided into 10 packages, each package 100B, then send 10 packets, the packets according to a probability of only 1 error, the error in the form of a packet re-transmission 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.

JZX864A 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. JZX864A 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
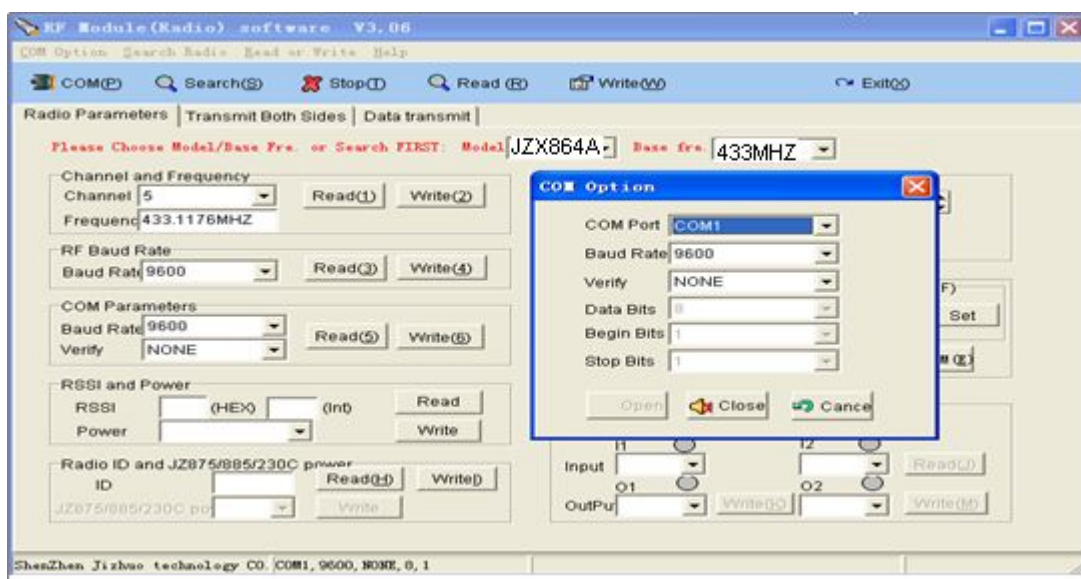
PC for users to use.

JZX864A 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, Z864A 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 | 428.0028MHZ | 5 | 432.1500MHZ |
| 2 | 429.0012MHZ | 6 | 431.4588MHZ |
| 3 | 433.3020MHZ | 7 | 430.0764MHZ |
| 4 | 433.9164MHZ | 8 | 433.5308MHZ |

## Communicated Module

JZX864A wireless module with all the JZX86 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

# JZX864A default parameter

**Channel: First channel;**
**Serial port speed: 9600BPS**
**Serial port verification: Null**

**Airborne speed: 9600BPS**

**Technical specification of JZX864A**

| Technical specification | |
|---|---|
| **Modulation：** | FSK |
| **Frequency：** | 433MHz |
| **Transmit Power：** | 100mW(20 dB) |
| **Receiver sensitivity：** | -110dBm |
| **Transmit Current：** | <100mA |
| **Receive Current：** | <11mA |
| **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, no condensing |
| **Size：** | 70mm*45mm*19mm |
| **Communicated Model：** | JZX861/JZX864A/JZX863/JZX864A |

# 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 |

**Note: All of the rights of final interpretation and modification by our company**