RF Module Software

User's Manual

1. Brief Introduction of the Software

The main Procedure of setting the RF Module/radio parameters are as follows:
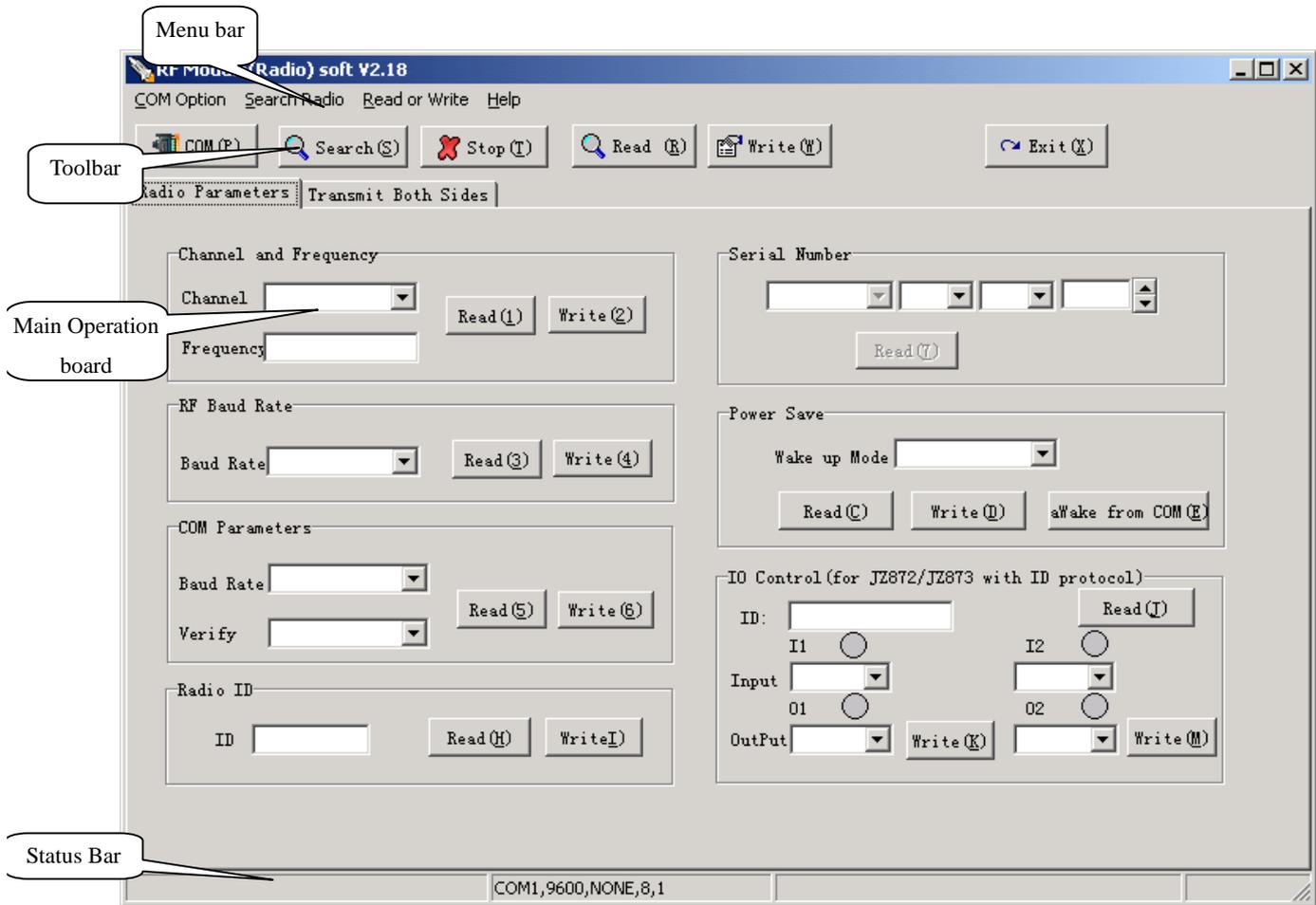
The software consists of Menu bar, Toolbar, Main Operation Board and Status bar, the Main Operation Board contains "Radio Parameters" and "Transmit Both Sides" .

Menu Bar: The commonly used operation can be done in these menus.

Toolbar: The commonly used operation can be done by using the Quick Key.

COM Parameters: Enters the window of COM Parameters, can open appointed COM according to the corresponding form (baud rate, verification and so on) .

Search Radio: Can use different baud rate and verification to test the radio one by one, after test it, the Status Bar will clew on you have come through.

Stop Search: The user can stop it when testing.

Read Parameters: Can read all the main parameters, channel or frequency, RF baud rate, COM. In default situation, the radio will be Search before read. If the user needn't search when reading, then can open "read or write parameters", delete "search before read". 872 and 873 with ID protocol just have "read all parameters", when operate single parameters, just channel can be read and write.

Write parameters: Can write all main parameters, channel and frequency, RF baud rate,

COM. In default situation, the radio will be Search before write. If the user needn't search when writing, then can open "read and write parameter", delete "search before write". 872 And 873 with ID Protocol just have "read all parameters", when operated single parameters, just channel can be read and write.

Help: About this software

Exit: Exit this software

Main Operation Board: Some specific operations can be done through some buttons. Among them, " Radio Parameters" mainly realized the read and write of RF module/radio parameters, "Transmit Both Sides" realized the search between two RF modules/radios. (Also, user can realized the function according to other COM debugging software).

The main parameters of RF module/radio are: Channel or Frequency, RF baud rate, COM. Actually, those three parameters is enough for User's using. Other parameters mainly aim at user who has special request. For products don't have ID protocol（862、863、864、865、866、868、871、878）,it needn't to set .But for the products have ID protocol (872,873),the ID No. is their mark, it decides whether receive the data or not.

The essential condition for intercommunication of Two wireless module/radio:

The Air baud rate are the same, the channel (frequency) are the same.

Channel and frequency: Read and Write of the Channel and Frequency. Each channel corresponded with a frequency. Basically, 86 Series has 8 channels, 87 Series has 16 channels. The detail information of Channel and frequency can be checked in the User's Manual.

RF Baud Rate: Read and write of Air Baud rate

COM parameters: Read and write of the baud rate and verify .The parameters of COM should be the same as the connected Equipment or PC.

Radio ID: When the user use 872 and 873 with ID protocol, the ID should be set. The ID is different when the modules/radio is different. Other modules with transparent protocol needn't to set.

Ex-work series number: It is the marks of the modules when out of factory, which expresses the product category, years and serial number. The user can only check it.

Power save pattern: Nearly all products (besides 868, 878) have this function. The user must subscribe it if they need the function, If not, the function is not open when out of the factory. The 86 series product and 871 have the hardware awakening and COM awakening. 872, 873 has the function of hardware awakening, the COM awakening and air awakening. The modules are hardware awakening when out of the factory. User can change the pattern according to their request

IO Control: The 872, 873 with ID protocol can control input and output. This mainly show how to control and read in long-distance. When control the on-off , the computer-Central Desk should be a module with transparent Protocol, the subsidiary desk should with ID Protocol.

Transmit Both Sides: Can test the data transmit between two Modules/radios. Make the two RF Modules/Radios separately connected the COM of two Radios or two COM in a computer, opens "COM SET" software , choose one side as receiving(click "receive"), another side as Transmitting. The receiving side should input content which will be transmit, and then click "transmit". Thus the two sides can transmit data mutually.

2. Main Procedure

1. Radio Test

1□ Open the "COM Option", click the button "COM Set" on the Toolbar of the software page, entering into setting windows.
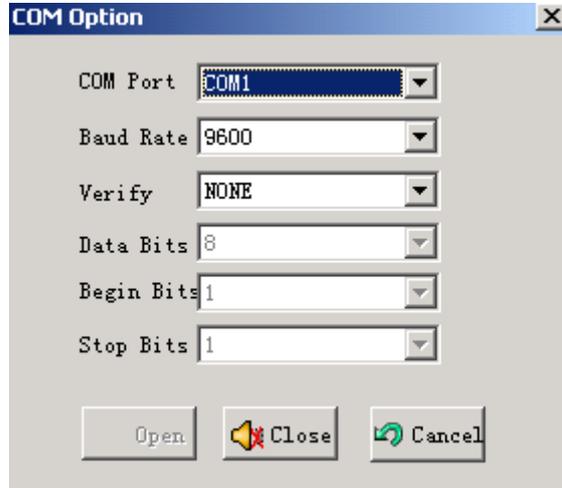
2□ Choose "COM Port", the baud rate can be kept in defaulted ,then click the button "open", entering into the main interface□

3□ Click "Search Radio" on the Toolbar. The software will "begin Search"(Search with the different baud rate and verify one by one),if it can search the radio, then the Status bar will hint "search successfully". If not, the system will hint "can't Serch " Thus, the user should check the power or data line, the interface is RS232 or has been changed to RS232. After checked it, click "Search" again. If you want to stop when Searching, can click "Stop", then it will stop testing.

Note: We suggest "Search Radio" before set the parameters of RF module/radio. After Search successfully, don't change the property of COM again.

2□Read Or Write all Parameters

1□ Can Read All Parameters:

The radio will be Search automatically before read, and will read when "Search successfully".If the user have Search the radio successfully, then they can delete "Search before read". The method is to open "Read or Write parameters", choose "Search before read", and delete it, then open the appointed COM, click "read", the software will decide whether to Search or not according to the user's request ,then will read all parameters. When read successfully, the main parameters of the RF module/radio will be shown on the list box or Test

box. And also will be hinted on the Status Bar.

2、**Write all Parameters:**

The radio will be Search automatically before writing parameters, the user can write the parameters after Search successfully. If the user have searched the radio, then they can delete "Search before Write". The method is to open "Read or Write parameters", choose "Search before Write", and delete it ,then open the appointed COM, click "write", the software will decide whether to search or not according to the user's request ,then will write parameters. When successfully write it, the main parameters of the RF module/radio will be shown on the list box or test box. And also will be hinted on the Status Bar.

　Note: Read and Write all Parameters is aimed at main parameters: Channels and Frequency, RF baud rate and COM baud rate (baud rate and verification).

3. Read or Write single parameter

1、**Read channel and frequency:**

If haven't search the radio, then please search it till searched successfully (after searched, if the user haven't change the COM, then needn't to search again), Click "Read", then it will show after read.
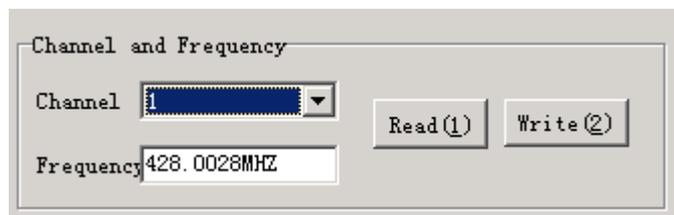
2、**Write channel and Frequency:**

If haven't search the radio, then please search it till successfully (after searched, if the user haven't change the COM, then needn't to search again), Click "Write", then it will show after read.

3、**Read RF baud rate:**

If haven't Search the radio, then please search it till successfully (after searched, if the user haven't change the COM, then needn't to search again), Click "Read", then it will show after read.

4□ **Write RF baud rate:**

If haven't Search the radio, then please search it till successfully (after searched, if the user haven't change the COM, then needn't to search again), Click "Write", then it will show after Write.

5□ **Read COM parameters:**

If haven't Search the radio, then please search it till successfully (after searched, if the user haven't change the COM, then needn't to search again), Click "Read", then it will show after read.

6□ **Write COM parameters:**

If haven't search the radio, then please search it till successfully (after searched, if the user haven't change the COM, then needn't to search again), after choose "baud rate" and "Verify", Click "Write", then it will show after read.

4. Transmit Both Sides

1) Set the COM:

Make the two RF Modules/Radios separately connected the COM of two Radios or two COM in a computer, opens "COM SET", according to the wireless module/broadcasting station's COM Baudrate and verification, opens COM, which connects the RF module/radios. If we don't know the COM parameter of the RF module/radios, please first search the radio or read its parameter; The two software open the COM separately according to the parameters of the this RF modules/radios.

2) Set the Main RX:

Chooses a side as the main receiving side, in the page of " Transmit Both Side" of the software, Select "Main RX" , click the button "receive", entering into the status of receiving, In the "TX option", we can choose "TX after Return" or "Timing TX". **"TX after Return"** means can transmit the data after receiving the data from the main transmitting side. **"Timing TX"** means transmitting the appointed data on the fixed time. The user can choose between them according to their different request. (For distance test, it's suggested to use "transmitting on fixed time", if there is data don't received when using "TX after return", it won't transmit, then it will bring about the interrupt of TX.) . The time of "Timing TX" is according to the request, the size of the data and the speed.
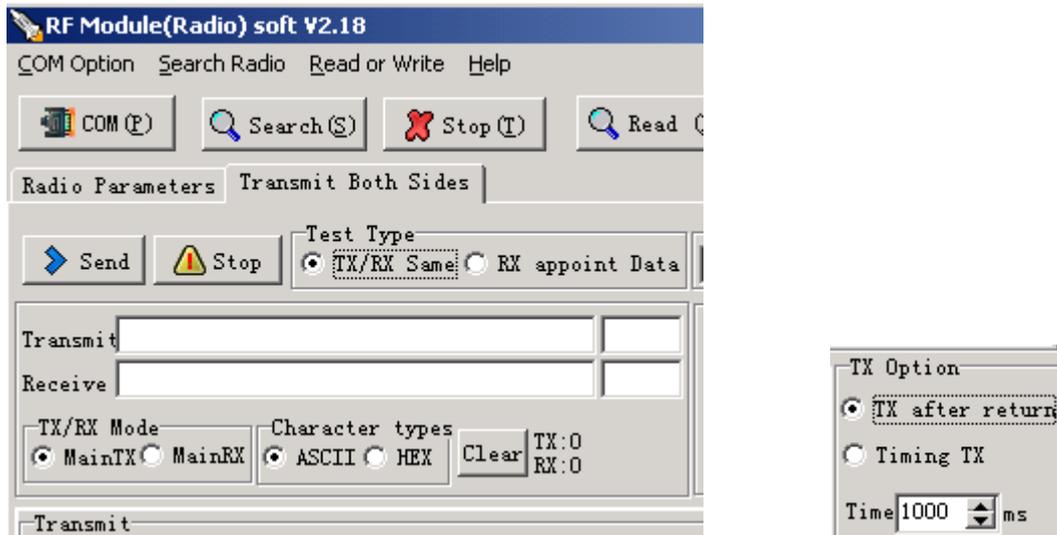
3) Set Main TX

Chooses another side as Main TX, in the page of " Transmit Both Side" of the software, select "Main TX", and input the content in the textbox, click "send", the two modules comes into "Transmit Both Side". One side get the data, then it will send to another side.
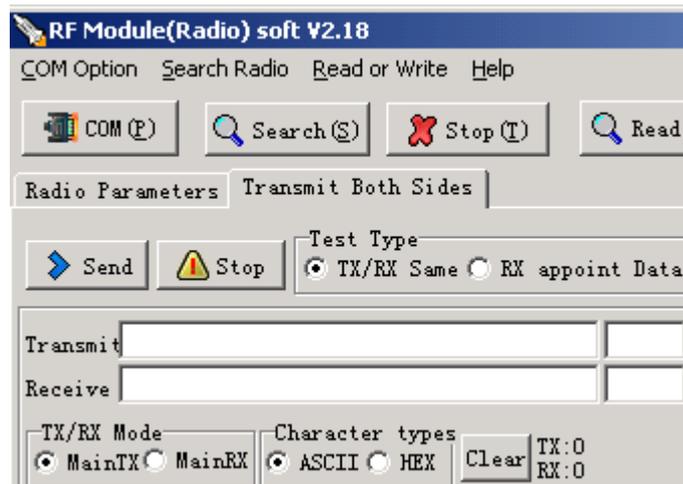
4) The result of "Mutual transmit test" :

The result of Testing will be shown on the "Statistic Frame", including transmission, receive times, wrong times, success ratio and so on.