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## FRS\_DEMO\_C

### Walkie Talkie Transceiver /Data transfer Module

#### Demo Board specification (UHF/VHF)



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## 1 Outline

- 1) The demo board is specially made for the 0.5W(UHF/VHF) Frs module evaluation;  
For the 0.5W Frs module detail specification and the serial communication protocol , You may contact us to ask it.
- 2) it is a full function Walkie Talkie Transceiver system; Only DC 5V power supply is needed. You may evaluate the voice talking and data transferring by the demo board; you needn't waste your time in search the components and sealing; it is convenient for you to evaluate our module quickly, and it is also effective for you to expedite the development;
- 3) The demo board mechanical size :45X32mm;
- 4) The accessories of this demo board are as below:  
One Speaker;  
One antenna of 400MHz~470MHz or 136M-174M Based on the module it fixed ;
- 5) The demo board for 0.5W without transmit indication LED, But there is a power indication LED on the board.
- 6) The demo board are tested to make sure it works well before it deliver to you;
- 7) The default parameter for the DEMO\_C:  
GBW=12.5KHZ  
Narrow Bandwidth;  
Transmit Frequency: TFV=450.050MHZ, (For UHF )  
Receive Frequency: RFV=450.050MHZ, (For UHF)  
CTCSS for both Tx and Rx: CTCSS=01  
SQ=3  
Volume level: 8  
MIC Sensitivity: 4  
VOX: Off  
Auto power save: Enable;
- 8) We will provide you the technical support for both hardware and software , more than it, we can provide you the demo code for your reference;



## 2 The feature of the demo board

- 1) Voice intercom demo;
- 2) Data transfer/SMS transfer demo;
- 3) The demo board has RS232 transform ic itself, it is easy to connect the PC with demo board for module parameter setting;

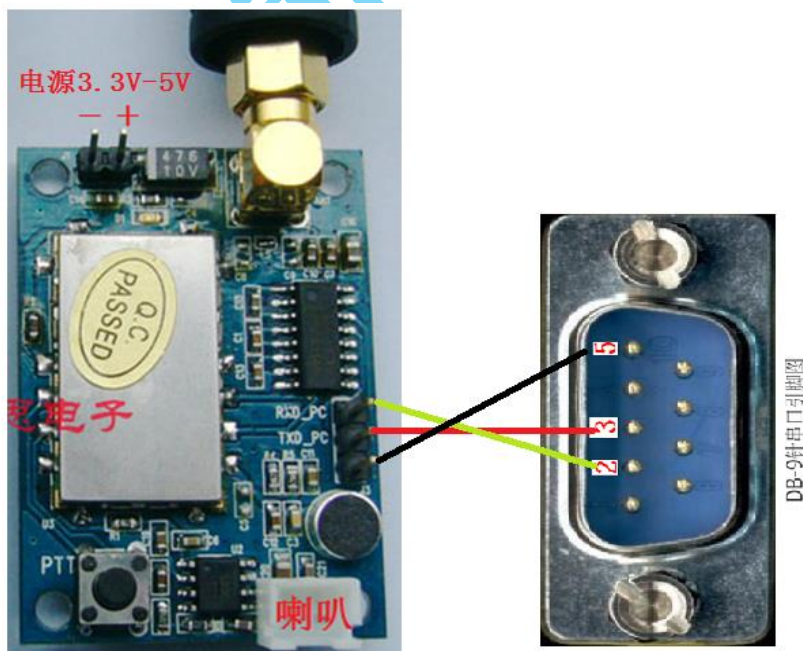
## 3 About voice talk demo

- 1) plug the speaker to the white outlet;
- 2) fix the antenna to the demo board;
- 3) Connect the DC power supply (or Battery) to the demo board, please pay attention to the power polarity; The DC power voltage could be 3.3V-5V, The current capacity should be more than 800mA;
- 4) After connect the power supply correctly, the blue Led would turn on;
- 5) When press the PTT key, It into the transmit state, you may talk now; Release the PTT Key ,it into the receive state, you may receive the talking from opposite side ;

## 4 How to set the parameter of the module

The setting command please refer 《SR-FRS-0W5 serial communication protocol》, You may ask it from our company;

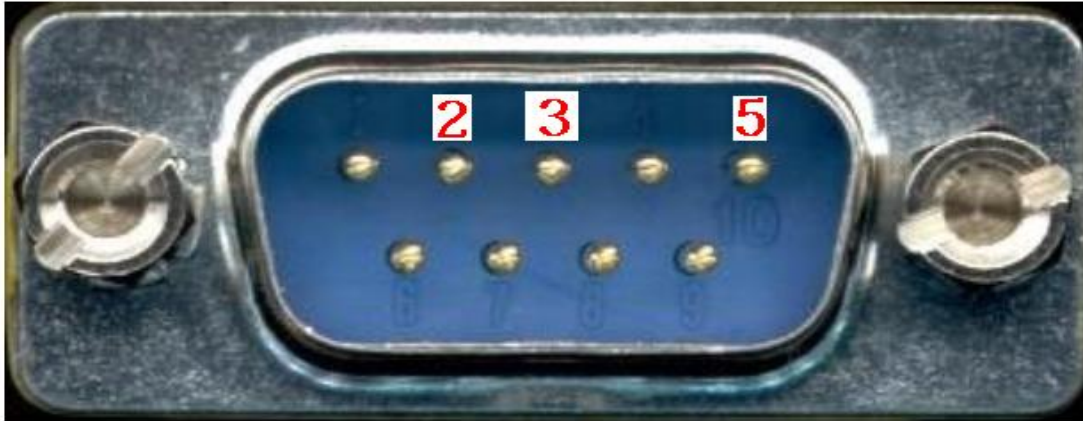
- 1) The serial port connection Schematic diagram



PTT对讲按键



2) RS232 DB-9 pin assignment



DB-9针串口引脚图

- DB-9 pin-2, RXD
- DB-9 pin-3, TXD
- DB-9 pin-5, GND

3) How to set the serial port parameter of PC when evaluate the module by PC?

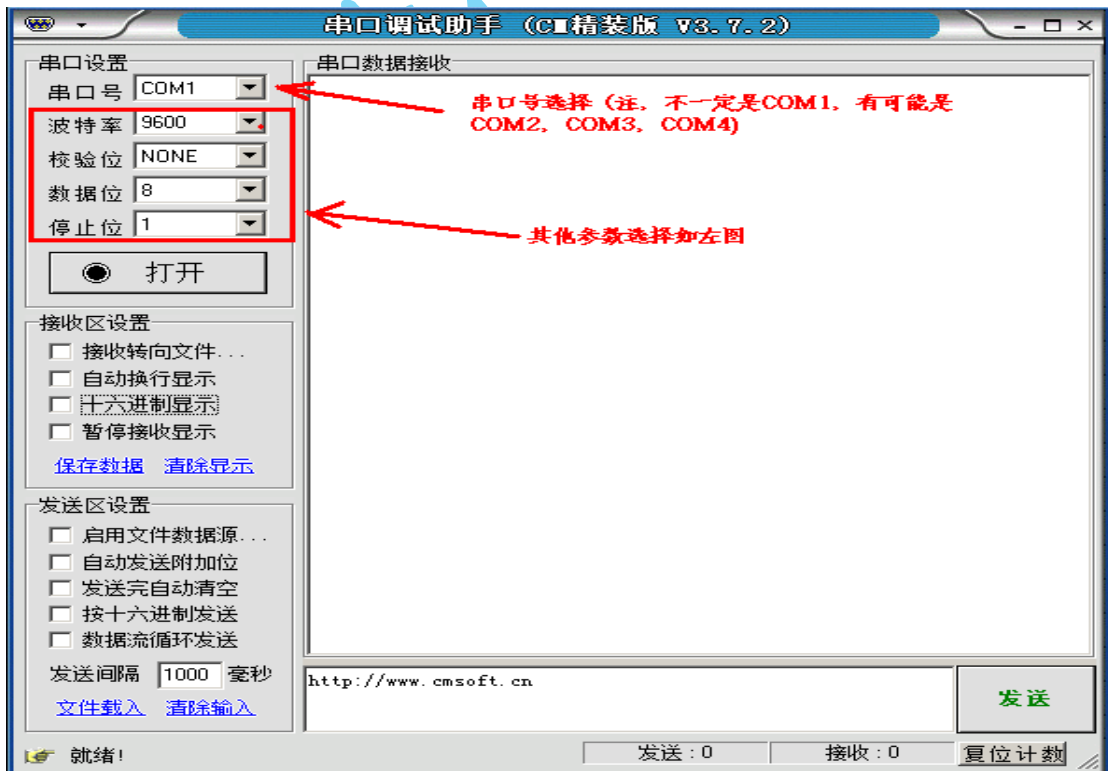
Serial port; May be COM1,COM2.COM3.... etc.

Baut rate: 9600 only;

Parity: None

Data: 8

stop: 1



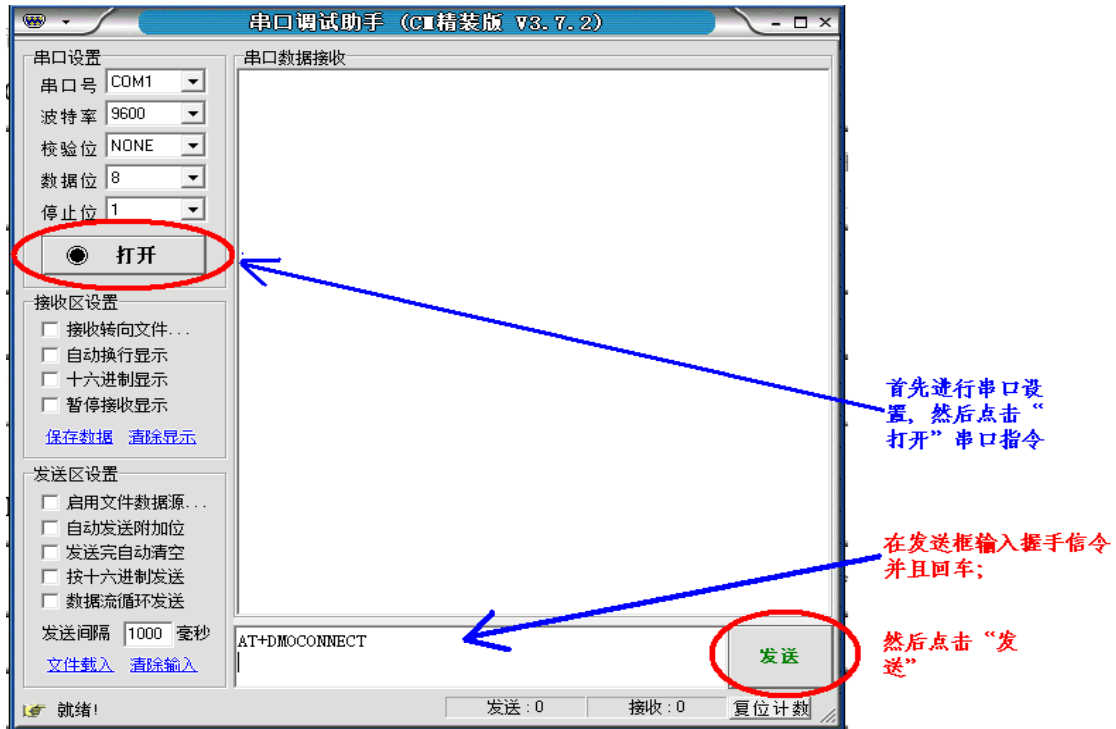


The serial tool is "Serial assist", you may ask it from our company or download from the web.

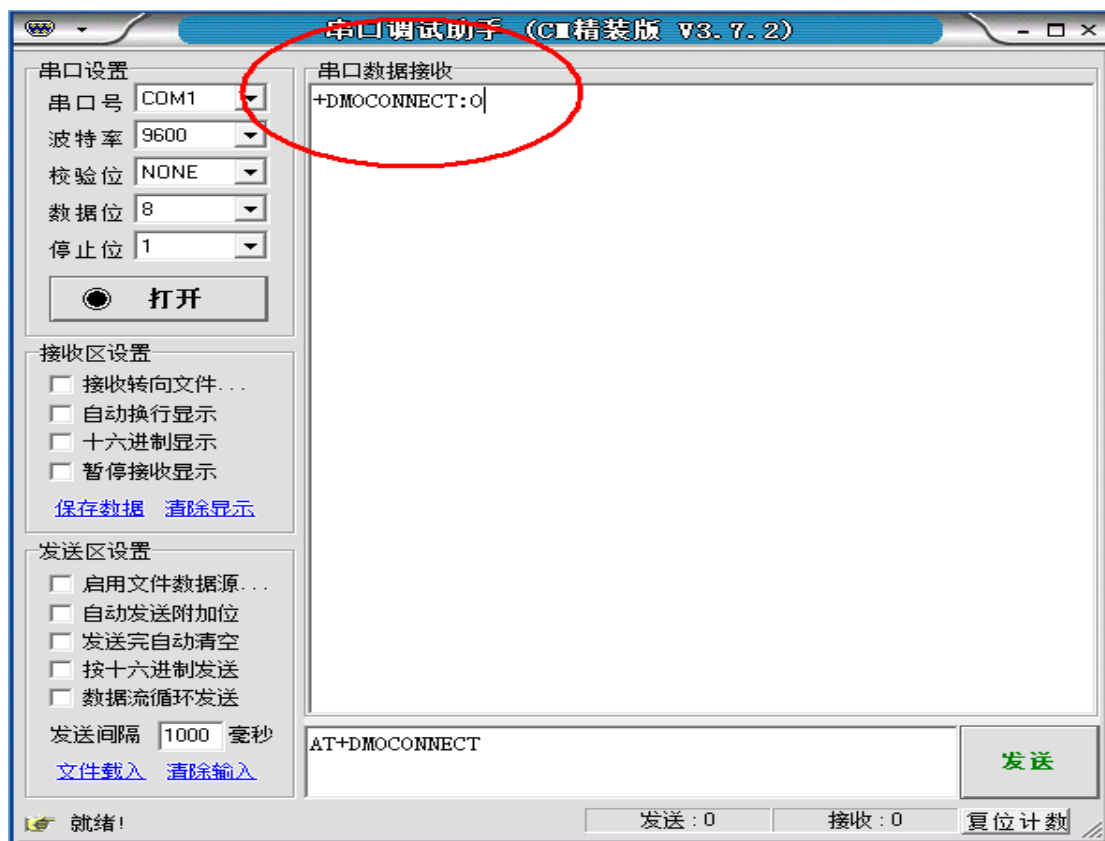
4) parameter setting

To verify whether if the communication is OK of the module, For example, We send the shake hands command **AT+DMOCONNECT**, when communication success the module should feedback: **+DMOCONNECT:0**

Send the command : **AT+DMOCONNECT**



When communication success, it report the command as bellow:



## 5) Short message / Data transfer

Prepare 2 sets PC, All the PC must connect the demo board correctly;  
Suppose PC1 as the data transfer, and PC2 as the data receiver;

Transfer data by PC1:

(Text format)

**AT+DMOMES=7ABCDEFG** (must Enter)

- 1) When finish the command input, an Enter is must;
- 2) Check the item of serial tool "Transmit by HEX"

Now the command of text format is converted to HEX format automatically; You must modify the message length "37" to be "07" because the message length must be HEX ;

- 3) Click "Send"
- 4) Once the message be sent correctly by module, The module would report the transfer results to PC, that is , the contents as below would be displayed on PC1.

**+ DMOMES: 0**



Receive data by PC2:

Once received a message /data , The receive area would display as below:

- 1) When not check “HEX ” , The display contents would be:  
**+DMOMES=[\*]ABCDEFG**
- 2) When check “HEX” , The display contents would be:  
**2B 44 4D 4F 4D 45 53 3D 07 41 42 43 44 45 46 47**

## 8 Comment

- 1) The default frequency of the demo board for UHF is 450.050MHZ;  
The default CTCSS is 1;
- 2) For the all parameter you set, it couldn't be kept once power off;

**Technical support:**

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