SNR /SV Module User Guide

Two parts are included in this manual, one is for configuration and another is for wireless communication.

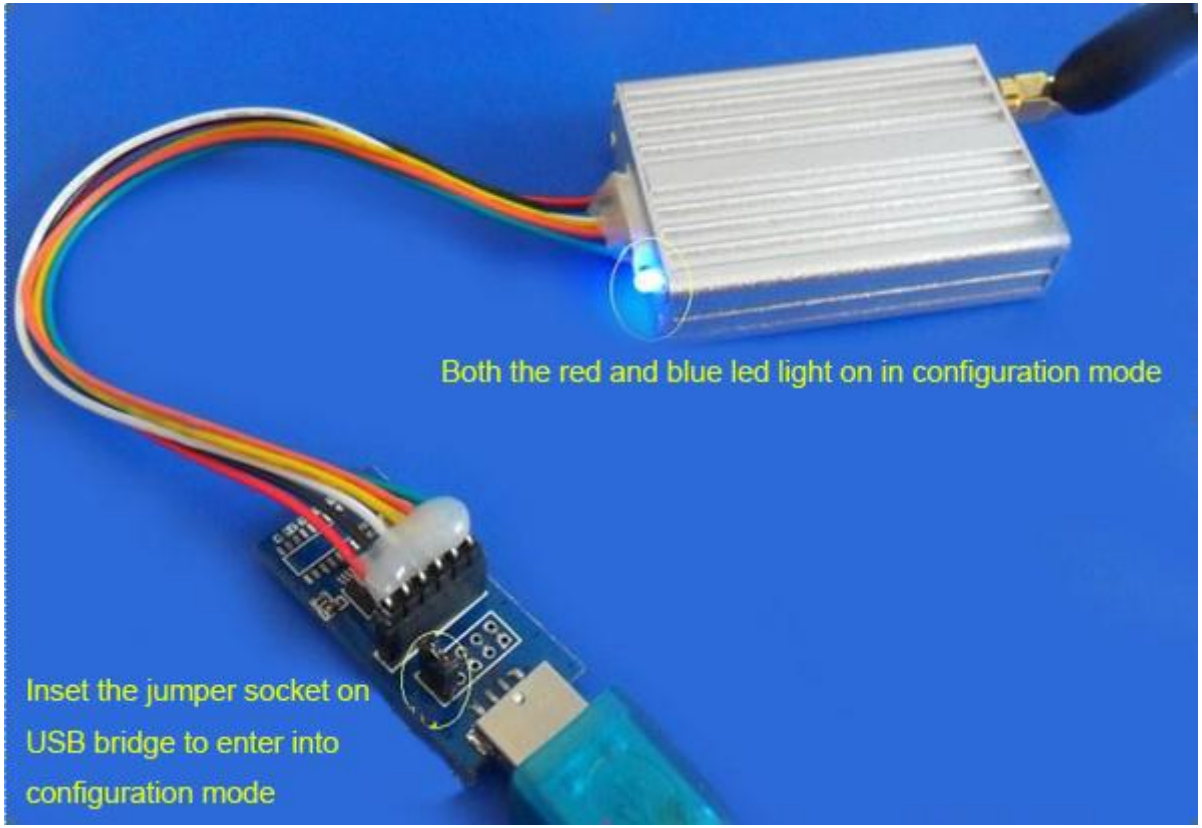
1. How to configure the internal parameters of the module?

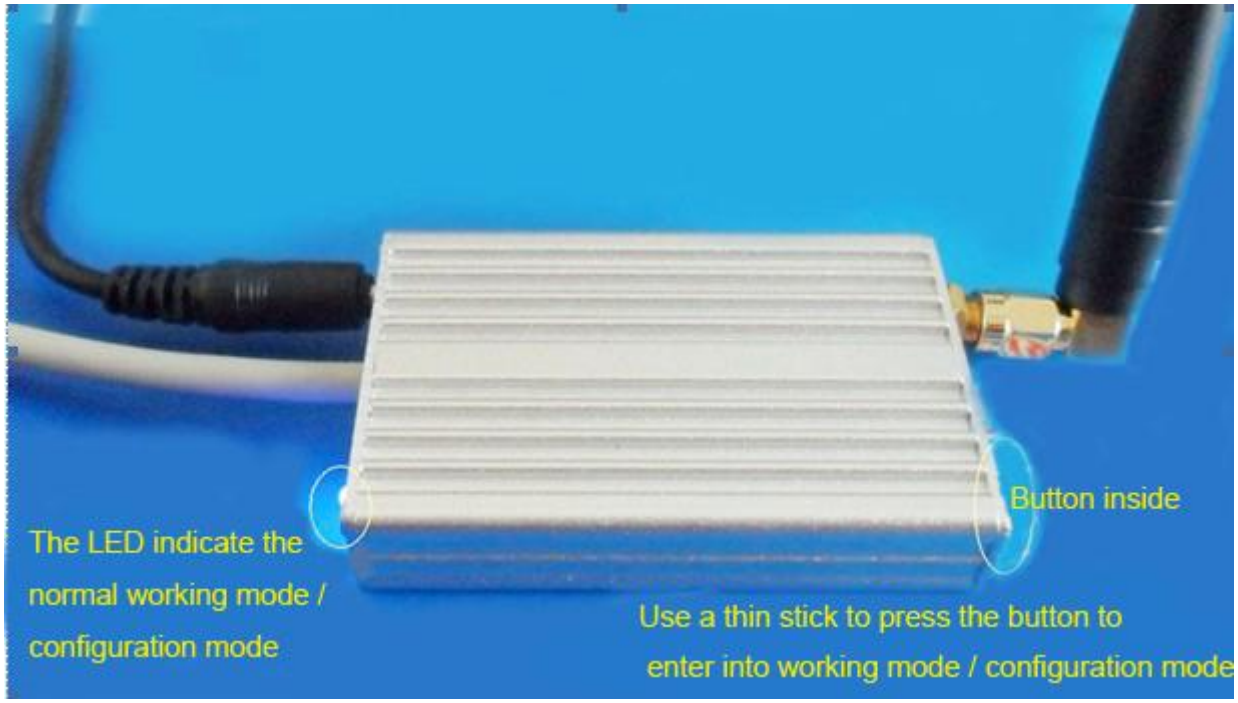
User can configure all the parameters either by the specified PC software or customer's own device with the communication protocol. If customer wants to configure the module with their own device, please contact the corresponding sales engineer for communication protocol. Below is the step of configuration with PC software.:

1.1) Install the USB driver and PC configuration software from NiceRF Wireless. Please download from our website or contact sales engineer for help.

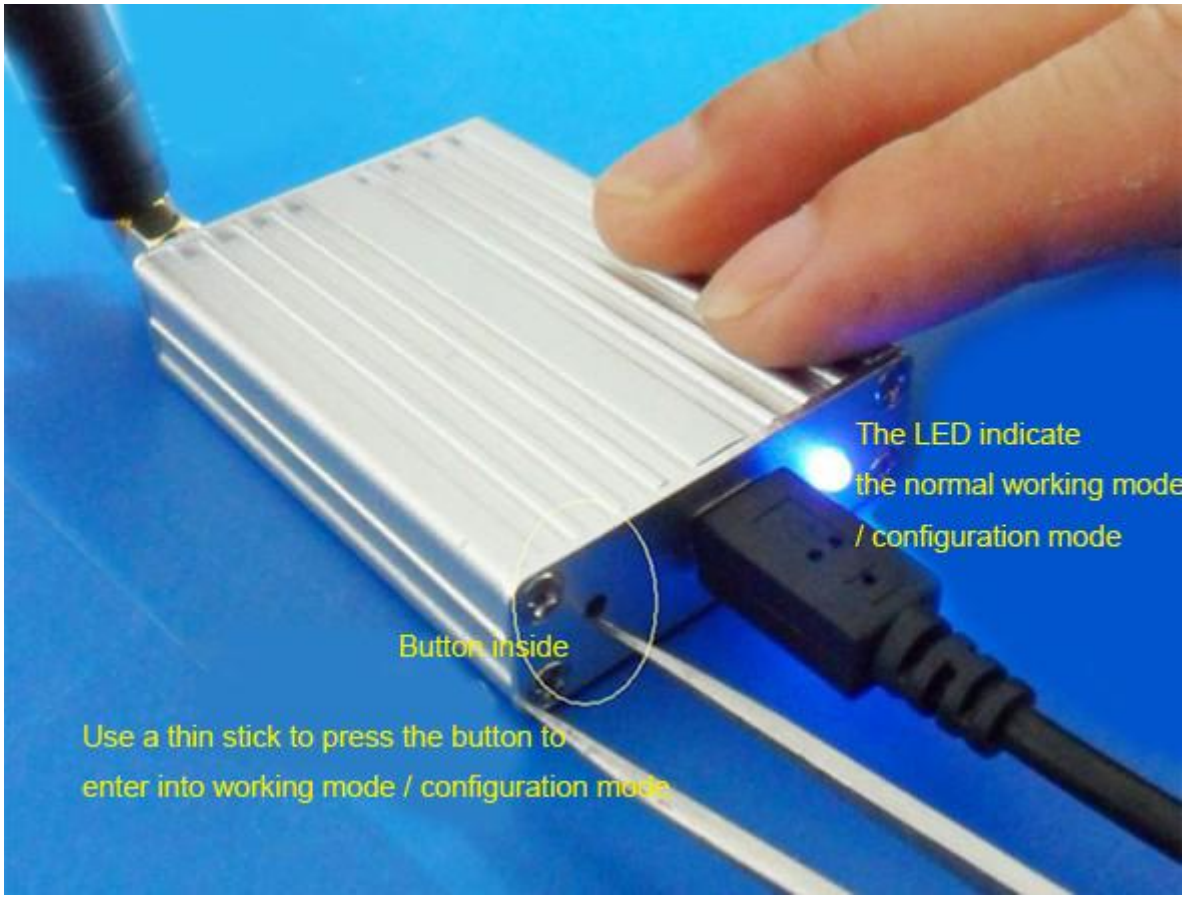
1.2) Connect the corresponding USB bridge board with SNR/SV module, and then insert the USB bridge board into the computer. The 3 types of USB bridge are : SU108-TTL, SU108-232 and SU108- 485. SU108-TTL is for TTL interface, SU108-232 is for 232 interface and SU108-485 for 485 interface. SNR613/ SNR614/ SNR653 / SNR654/ SV613/ SV614/ SV653 / SV654 can be connected to computer directly without USB Bridge.

1.3) Pull low the [Set] Pin of the SNR/ SV module to make SNR/SV module enter into configuration mode. For USB Bridge, user can insert the jumper socket to short the [Set] pin with ground. For SNR613/ SNR614/ SNR653 / SNR654/ SV613/ SV614/ SV653 / SV654, user can use a thin stick to push the [Set] button to toggle Configuration / Normal working mode. In configuration mode, both the red and blue LED will light on. In normal working mode, both the red and blue LED will light off. User can check the LED status to find out if the module has entered into configuration mode. Below is the shown figure.


Both the red and blue led light on in configuration mode
Inset the jumper socket on
USB bridge to enter into
configuration mode



Picture of SNR614/ SNR654/SV614/SV654



Picture of SNR613/ SNR653/SV613/SV653

1.4) Open the PC configuration software supplied by NiceRF Wireless. Choose the right COM port and click [OPEN] buttond, the current parameters of the module is read out and displayed on the screen of the computer. Shown as below (It is the factory default value when used in the first time) :


Network Module Communication Tools
NiceRF
思为无线
NiceRF Wireless Technology CO.,LTD
TEL:0755-61596687
www.nicerf.com
Model
SV652
Version
2.62
Com21
CLOSE
Net Parameters
NET ID
00000000
NODE ID
0000
AUTO ADD 1
SET
Serial Parameters
Baud Rate
9600
Parity
None
Data bit
8
Stop
1
READ
DEFAULT
RF Parameters
Band
433
Data Rate
9600
Channel
20
Power
7
Frequency
433.92 MHz
HELP
Aliexpress store: http://www.aliexpress.com/store/934254
Device Found!

1.5), Set the parameters according to customer’s requirement, then click [SET] button to write the parameters value into the module (parameters will be saved even power off). Following this step, it will pop-up "Successfully SET" dialog box to indicate, as shown below:

2. How to use the module to transmit and receive data?

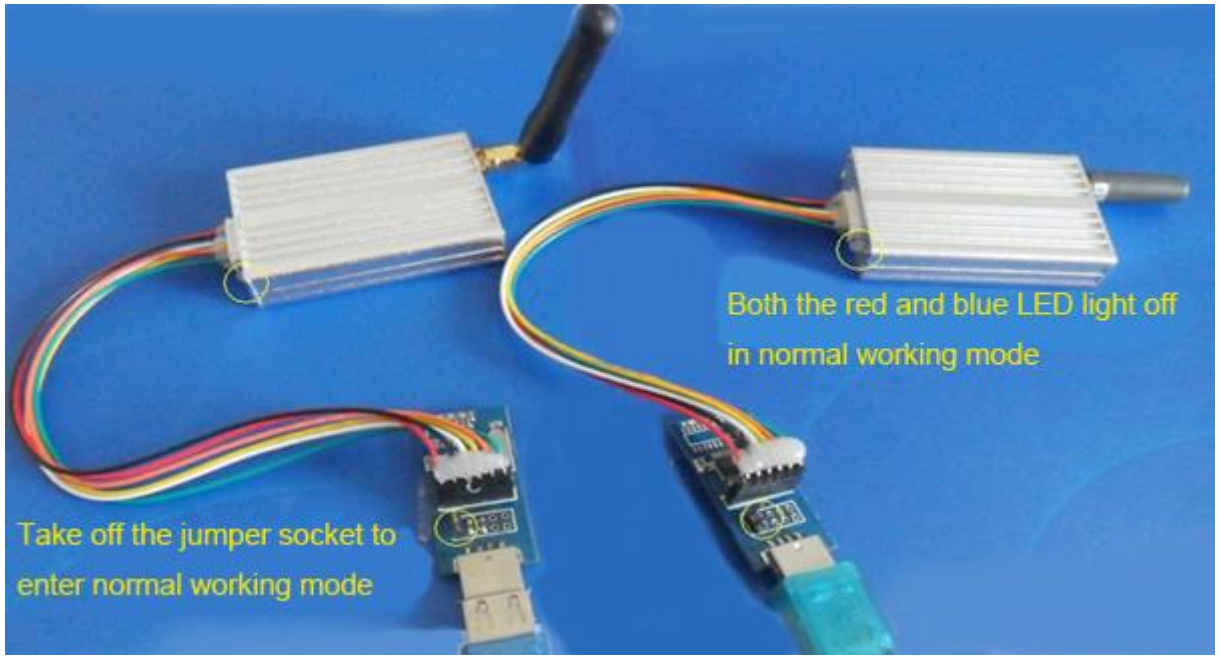
After configure the parameters, user can use computer or their own device to Tx and Rx data. Below is the step of Tx / Rx data via computer.

2.1, Make the module enter into normal working mode. Both the red and blue LED will light off in normal working mode. The method to enter into normal working mode is:

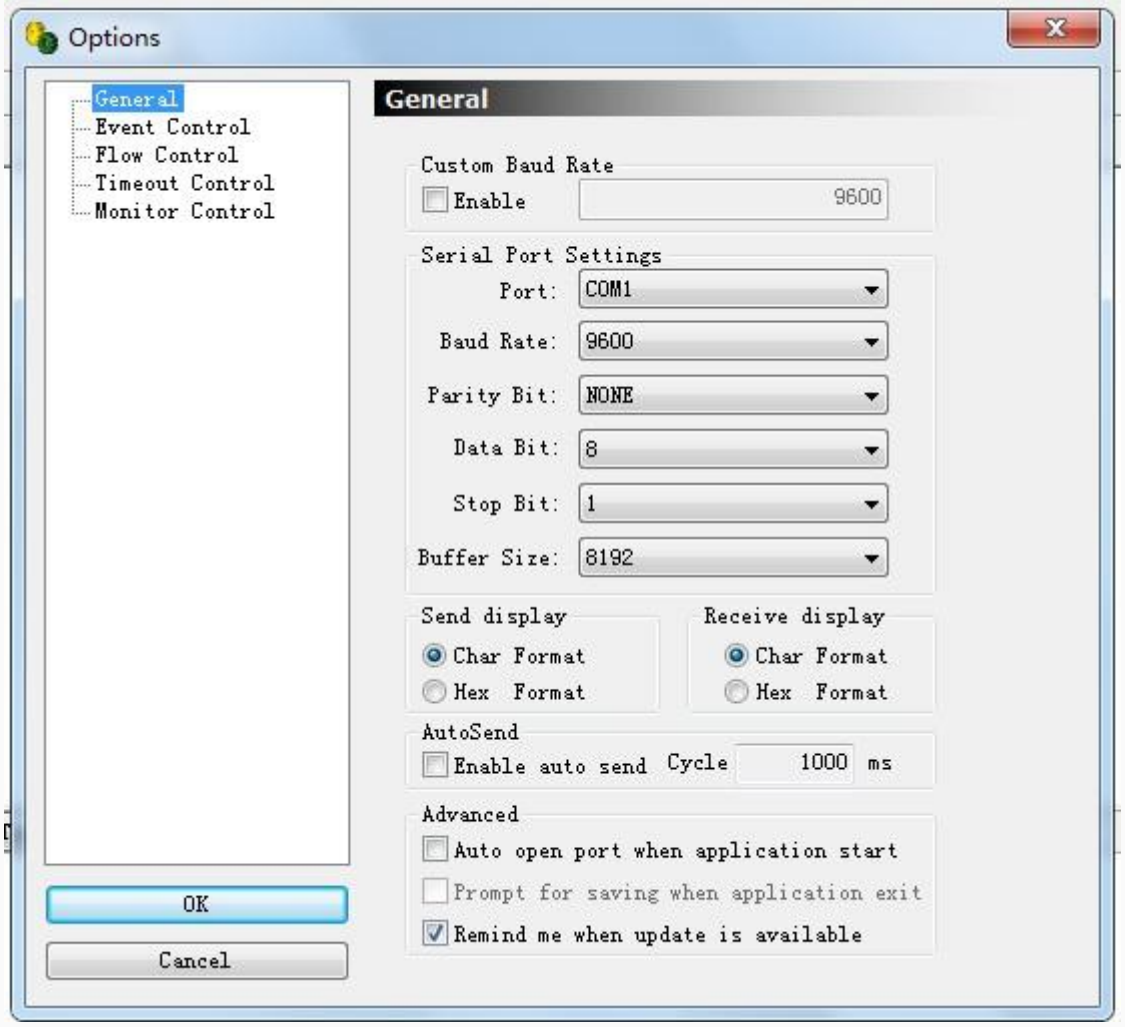
For the modules which connected with USB Bridge, the jumper socket needs to be taken off.

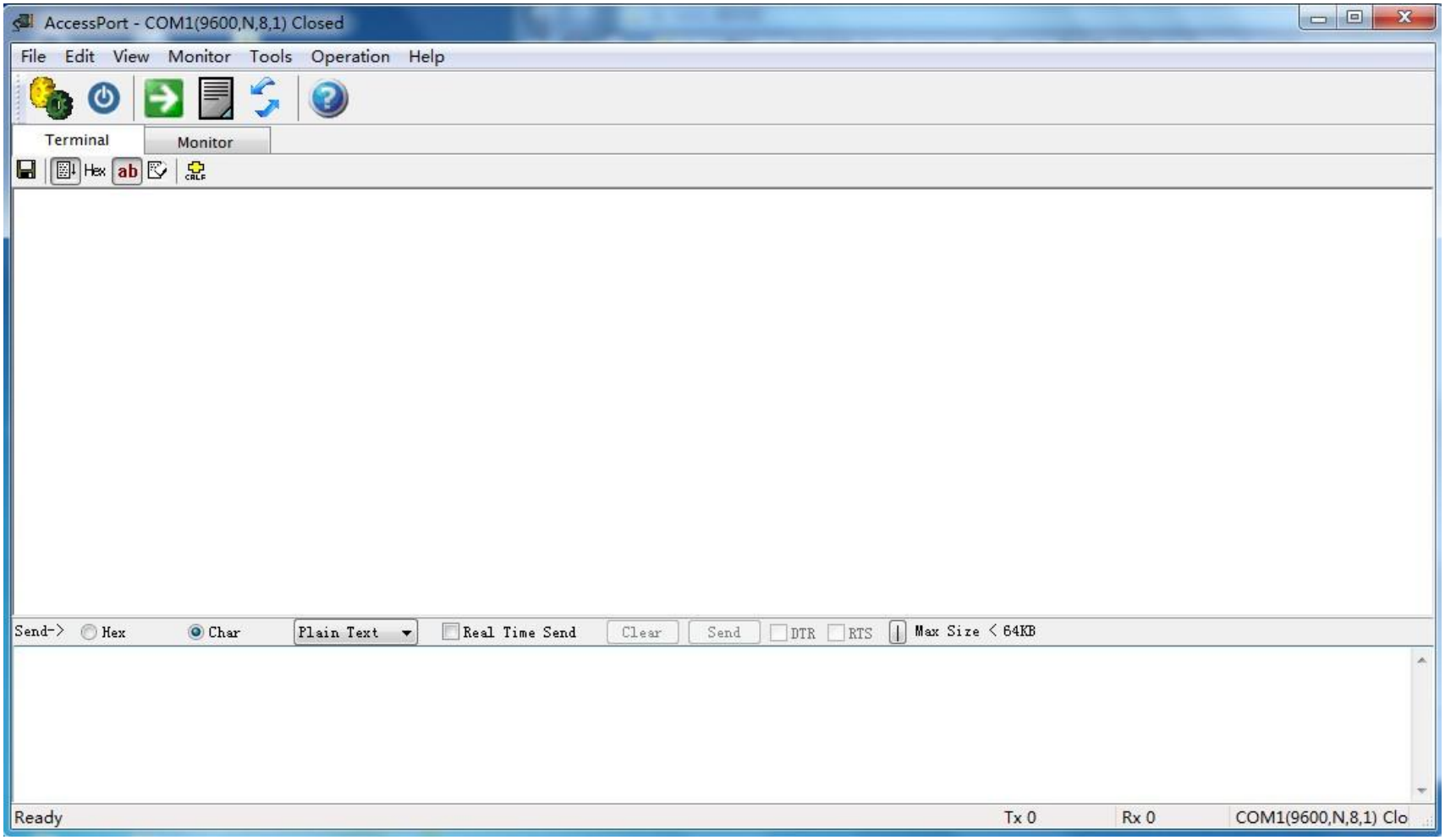
For the module which don’t need to connect with USB bridge (SNR613/ SNR614/ SNR653 / SNR654/ SV613/ SV614/ SV653 / SV654), user can use a thin stick to push the [Set] button.

2.2) Power on the module, the red and blue led will blink 3 times, then the modules enter receiving mode, the red and blue LED lights off , shown as below:

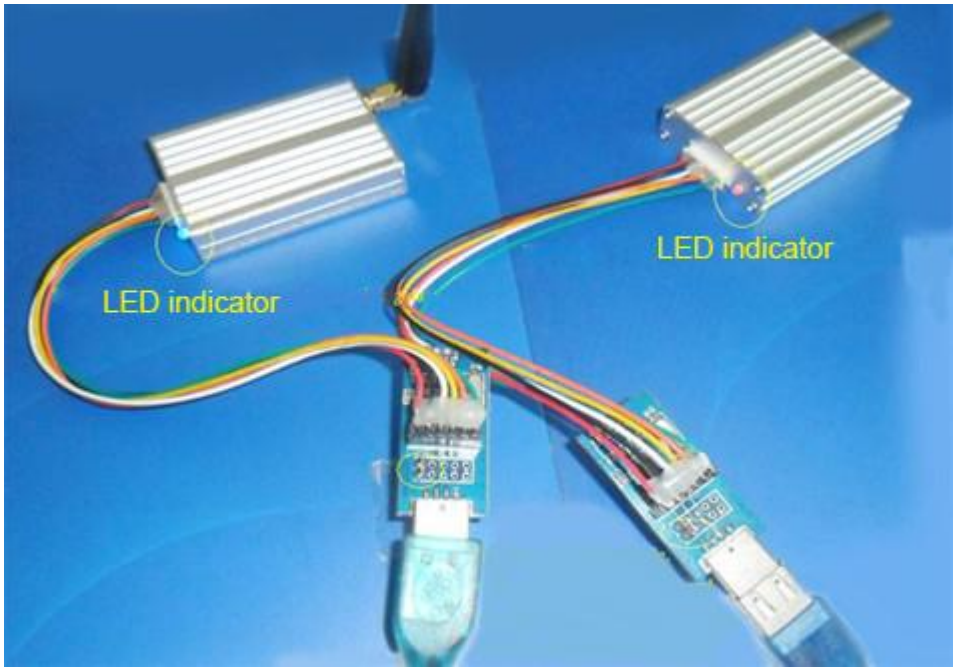


2.3) Tx / Rx data. Open the serial debugging assistant (please download from our website or contact our sales engineer), choose the correct COM port to set the parameters of serial port. After that, input the data string in the transmitting area, click "manual send" button, then the date string will appear in the receiving area. Shown as below:


Options
General
Event Control
Flow Control
Timeout Control
Monitor Control
OK
Cancel
General
Custom Baud Rate
Enable
9600
Serial Port Settings
Port:
COM1
Baud Rate:
9600
Parity Bit:
NONE
Data Bit:
8
Stop Bit:
1
Buffer Size:
8192
Send display
Char Format
Hex Format
Receive display
Char Format
Hex Format
AutoSend
Enable auto send
Cycle
1000
ms
Advanced
Auto open port when application start
Prompt for saving when application exit
Remind me when update is available



c) LED Indicator. When one packet is transmitted, the red LED on the transmitter will blink once; when one packet is received and verified correctly, the blue LED on the receiver will blink once. Shown as below:



3, Q & A

A) Can’t communicate?

1) Check if the band, channel, data rate, NET ID is set correctly;
2) Check if the power supply is connected correctly ;
3) Check if CS is pull high or Leave Open;

4) Check if the antenna is connected correctly;

B) Communication distance is not so far as expected?

1) Check if the Power supply is stable;
2) Check if the antenna well matched and install properly;
3) Check if the surrounding environment is good, if strong interference exist;

C) Data received incorrectly?

1) Check if serial data rate, parity and serial data bit are set correctly;