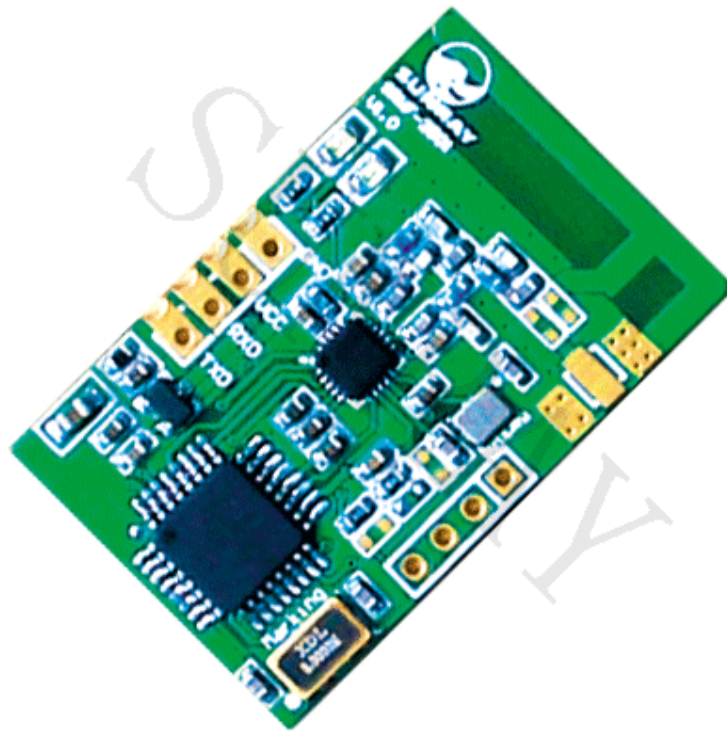


SRWF-2501 Wireless Transceiver Data Module user manual



ShangHai Sunray Technology Co.,Ltd



※ Applications Field

- 2400-2483.5 MHz ISM/SRD band systems
- Consumer electronics
- Wireless game controllers
- Wireless audio
- Wireless keyboard and mouse
- RF enabled remote controls

※ Product Description

- ★ As a general-purpose and transparent transmission module, can adapt to any standard or nonstandard user agreement;
- ★ Work on the 2400MHz ~ 2483.5MHz of the ISM (industrial, scientific, medical) band, to meet this band of various low-cost, low-power wireless product development and application;
- ★ TTL interface output;
- ★ Selectable channel、 baud rate、 data format;
- ★ Use the on-board PCB antenna, assembly convenience and space-saving;
- ★ Chip welding and needle inserted two kinds of connection options and equipment.

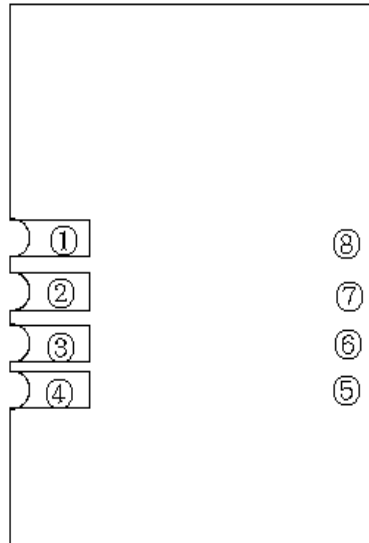
I Working conditions:

	Min	Max	Notes
Temperature	-20°C	60°C	
Voltage	4.5V	5.5V	
Current	>50mA	~	
Humidity	10%	90%	

Specifications:

	Parameters	Notes
Modulation	FSK	
Freq.	2400MHz ~ 2483.5MHz	
Power	$\leq 1\text{dbm}$	
Sensitivity	$\leq -105\text{dbm}(1200\text{bps})$	
channels number	8	can more
TX current	$28 \pm 1\text{mA}$ (0dbm)	
RX current	$22 \pm 1\text{mA}$ (0dbm)	
Sleep current	$\leq 7\mu\text{A}$	normal temperature -20~60°C
Dimension	38mm×24mm×5mm	
Communication distance	70m(9600bps , 0dbm)	on-board PCB antenna

II Pin Description



number	name	type	description
①	GND	Ground	Ground connection
②	VCC	Power	Power supply connection
③	RXD	Input	Connect the device TXD
④	TXD	Output	Connect the device RXD
⑤ ⑥ ⑦ ⑧			Programe interface, NC

III Basic functions

1、Power-on initialization instructions

Product connected to the power, the green light will flash once, indicating the module through the serial output of a string basic information. Thus to determine some basic information about the module.

Example:

```
Shanghai Sunray Technology Co.,LTD
Type:          SRWF-2501
Radio Freq    :2400 - 2483.5 MHz
Baud rate     :9,600 BPS
Channel       :0
Web site      :http://www.51sunray.com
```

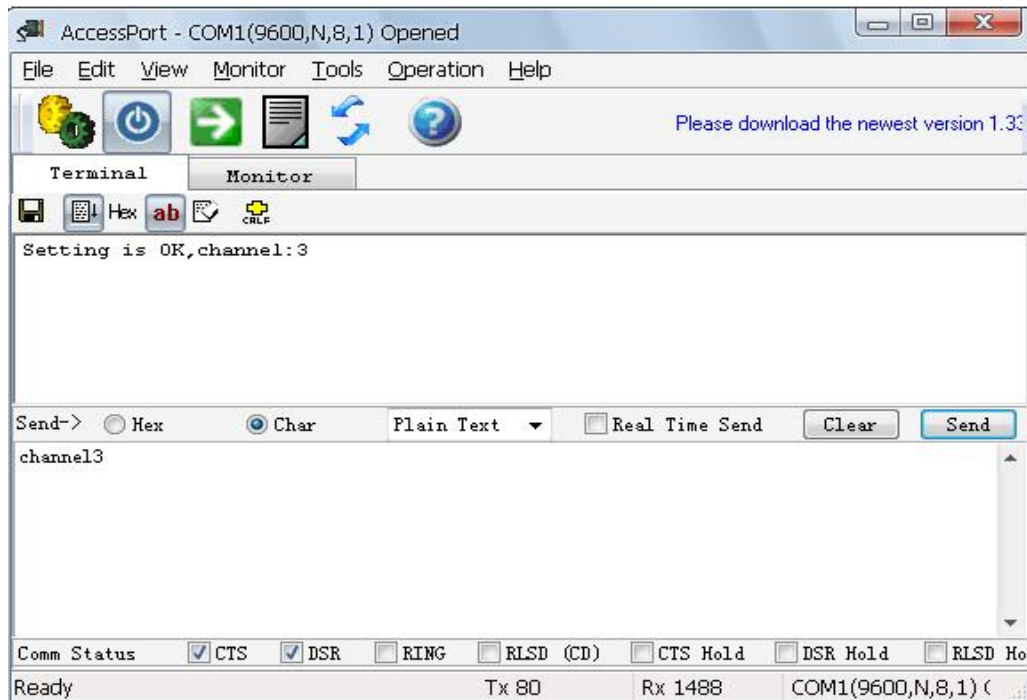
(SRWF-2501 indicated the product type, 2400 - 2483.5 MHz is the frequency range , 9,600 BPS is the communication baudrate,0 is the NO.0 channel, <http://www.51sunray.com> is company's web site , so that you can query information。)

When the serial data are launched into the air , the **red light** will blink;

When the module receives data from the air, the **green light** will blink。

2、Through the serial port to change the channel and the baud rate

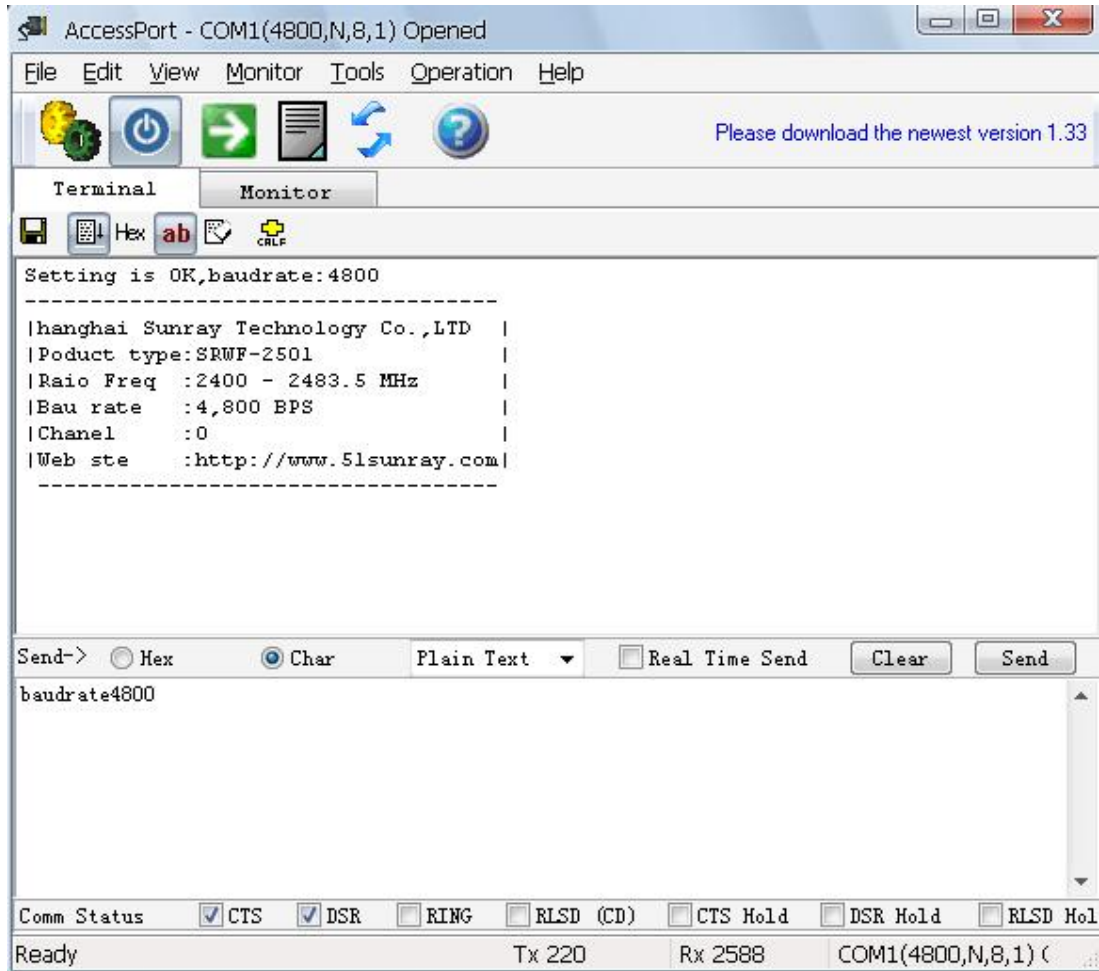
a、command of changing channel : channel+target channel number(0~7), example: If you want to set the module work in the 3rd channel, then the serial debug Assistant dialog box, enter the variation of the order: "channel3", after click the serial port debugging assistants "send" key to complete the, Set after the success of serial debugging aids show "Setting is OK, channel: 3", right after the module to re-power on, then the success of the channel changes, specifically as shown below:





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b、 command of changing baudrate: baudrate+ target baudrate(currently supports 1200bps、2400、4800、9600、19200、38400), for example: If you want to set the module work in 4800bps, then the serial debug Assistant dialog box, enter the variation of the order: "baudrate4800", after click the the serial debug Assistant "send" key to complete, set the serial debug Assistant show after the success of "Setting is OK, baudrate: 4800 ", after re-power on, the channel change is successful, specifically as shown below

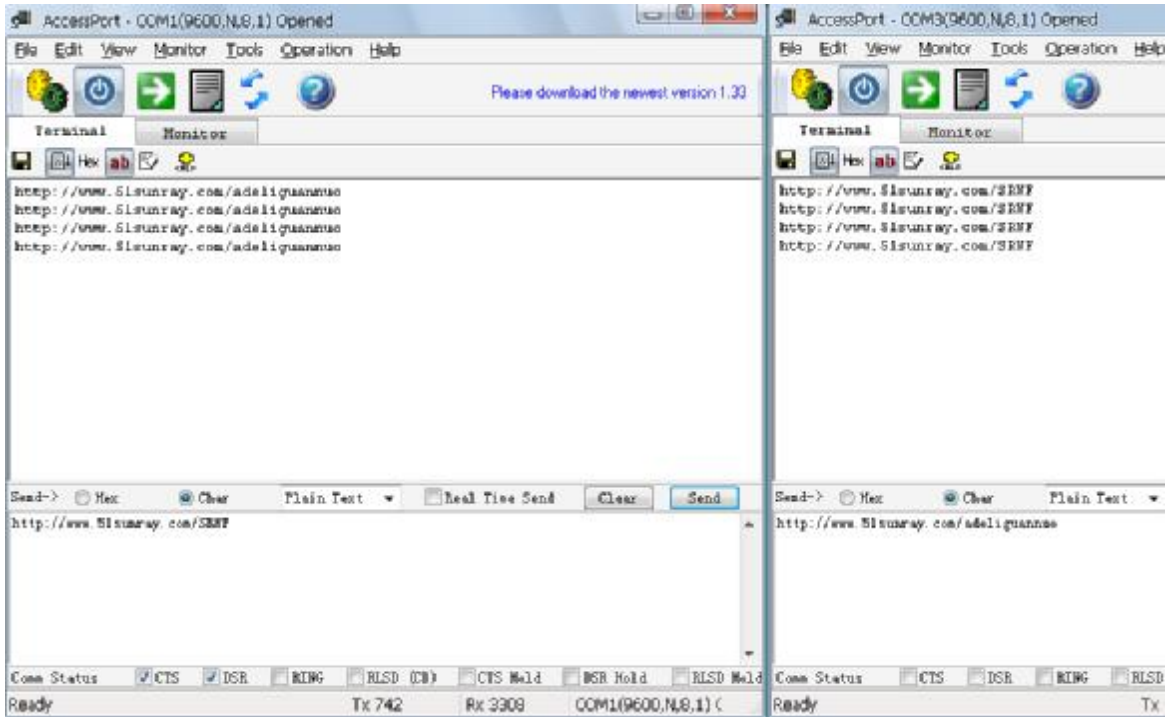




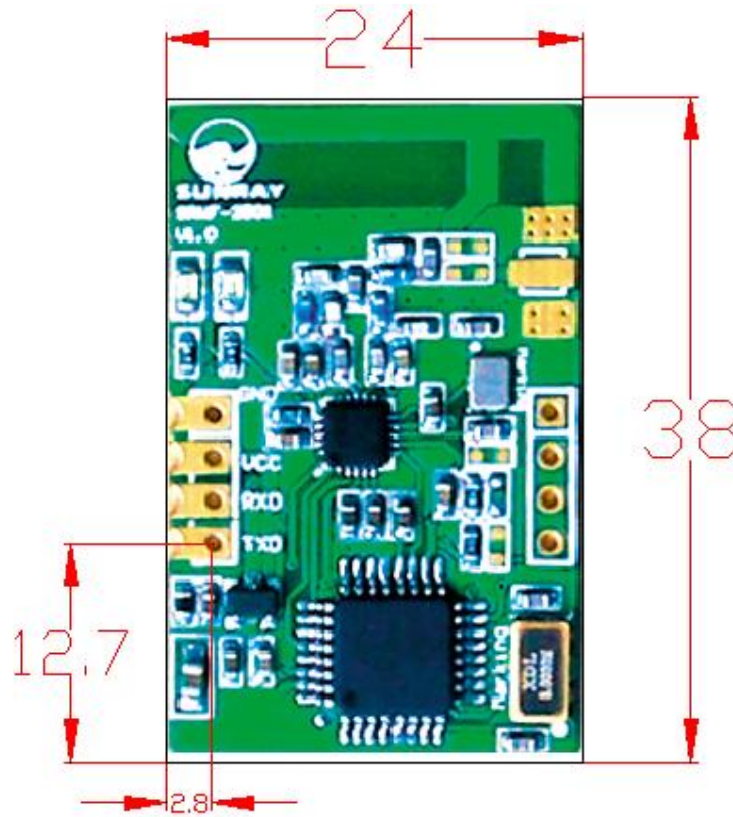
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3、Data transmission

Two modules in the same channel and baudrate can communicate data,



IV Product size (unit : mm)



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