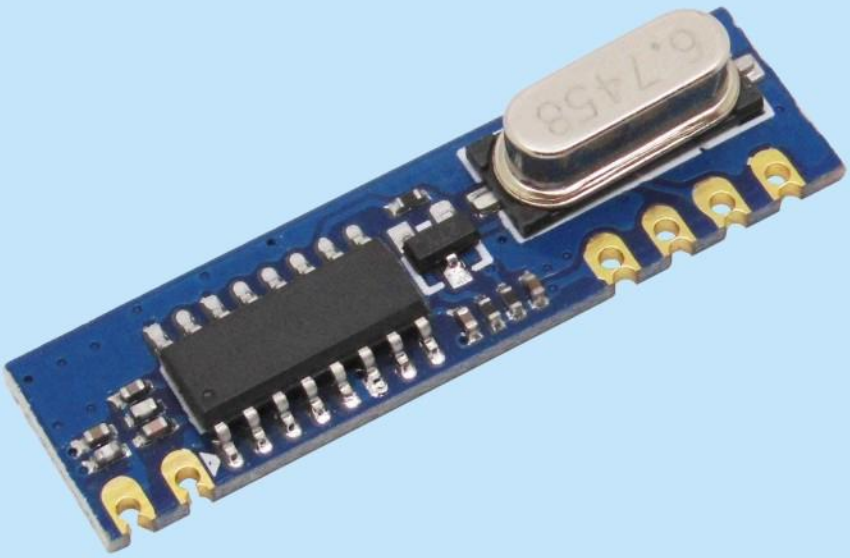
G-NiceRF®

SRX887

Micropower
Superheterodyne Receiver

Product Specification



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Remark: Revision History

Version	Time	Modify
V1.0	2015-11	First release
V2.0	2016-7	Modify some errors
V2.1	2017-6	Logo updated
V3.0	2019-7-3	Update Electrical Specifications

1. Description

SRX887 is a micro power strong driving force superheterodyne receiver module. Has high stability, anti-interference and high cost-effective, but also has a powerful driving force, certified by ROHS, FCC, CE, The module can be connected to the microcontroller directly. So it is more convenient for user developing wireless products.

SRX887 is manufactured and tested strictly using lead-free process and complies with RoHS and Reach standards.

2. Feature

- Frequency Range: 433/315 MHz for optional
- Superheterodyne modulation
- Super anti-power interface
- Standby mode current < 1uA
- Low self radiation
- Frequency stability and reliability
- Various international testing standards
- Small size

3. Application

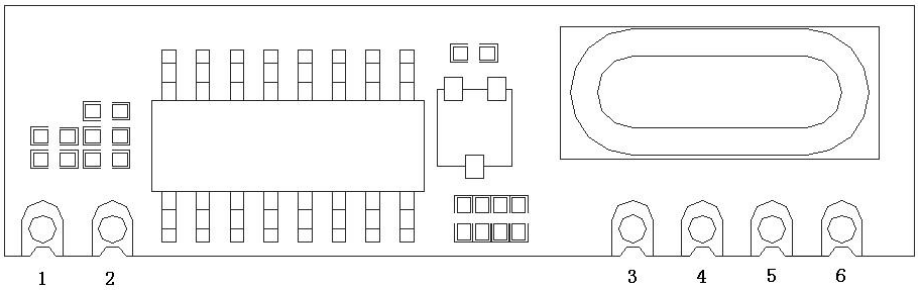
- Wireless door bell
- Wireless security alarm
- Wireless industrial control
- Wireless data transmission

4. Electrical Specifications

Parameter	Min.	Typ.	Max.	Unit	Condition
Operation Conditions					
Supply Voltage	3.0	5	5.5	V	
Operating Temperature Range	-20		70	℃	
Latency			20	ms	@315MHz
			9	ms	@433MHz
Current Consumption					
Consuming current		3.7	5	mA	@315MHz
		5.0	6.0	mA	@433MHz
		＜1		uA	@CS=1 Or vacant
RF Parameters					
Frequency Range	433.82	433.92	434.02	MHz	@433MHz
	314.9	315	315.1	MHz	@315MHz

Sensitivity		-107	-110	dBm	@1Kbps
Air rate	0.1		9.6	kbps	
Receiver bandwidth		200		KHz	

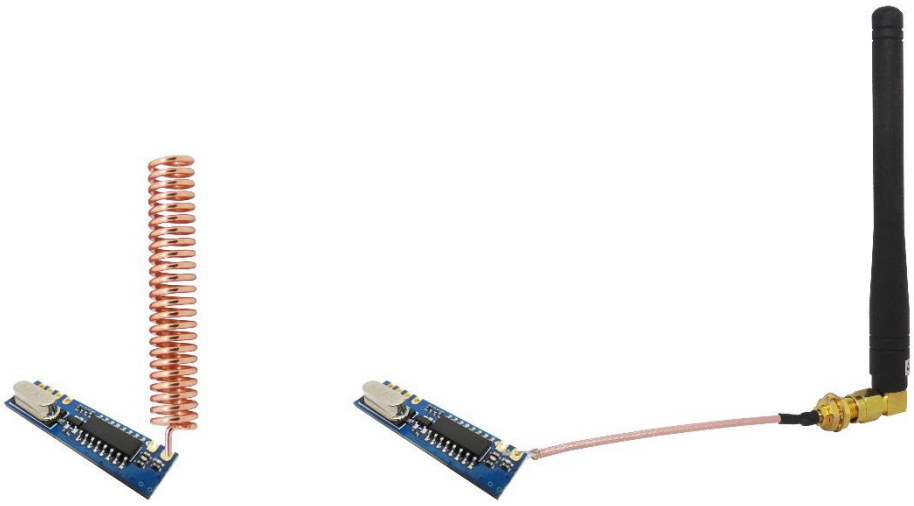
5. Pin Definitions



Pin Number	Pin Definitions	Description
1	ANT	Connect with 50 ohm coaxial antenna
2	GND	Connected to power ground
3	VCC	Positive power supply
4	CS	Low level to enable the module, high level to enter sleep mode
5	DATA	Data output pin
6	GND	Connected to power ground

6. Antenna

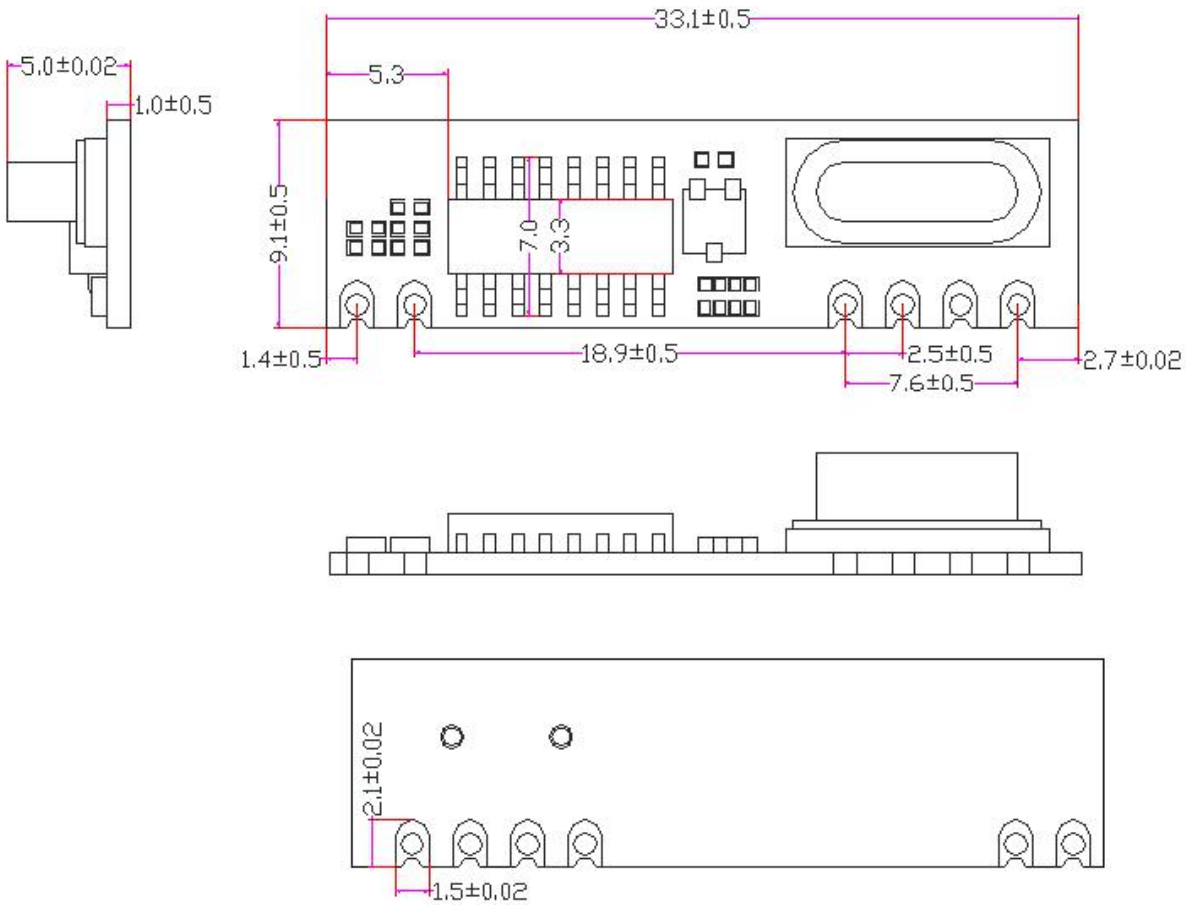
The antenna is very important for RF communication, its performance will affect the communication directly. Module needs antenna in 50ohm. Common antenna has rubber straight/ elbow/ foldable rod and sucker antenna and etc. Users can order accordingly. To ensure module in the best performance, we suggest to use the our antennas.



★ To ensure modules get the best performance, user must obey the following principles when using the antennas：

- Put the antenna away from the ground and obstacle as possible as you could;
- If you choose the sucker antenna, pull straight the lead wire as possible as it can be, the sucker under arches should be attached on the metal object;

7. Mechanical dimensions (Unit:mm)



8. Order information

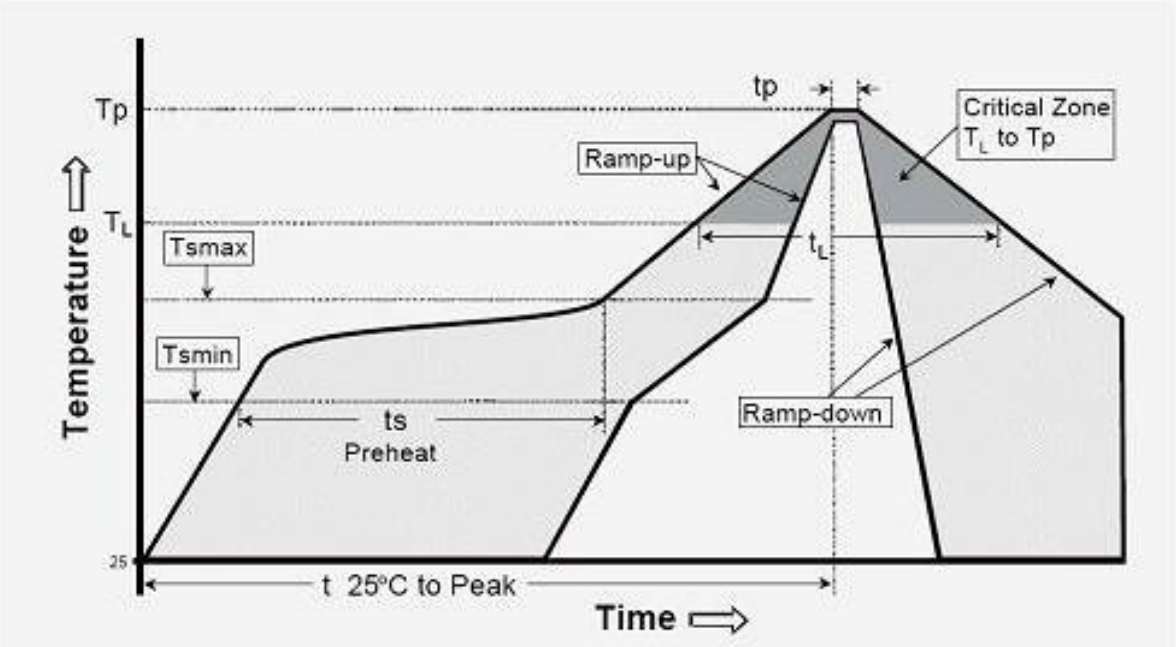
SRX887-433
└ Centre frequency

For example: If the customer needs 433MHz, part number of released order shall be: SRX887-433.

This module has below versions:

Order number	Product type
SRX887-315	315MHz working frequency
SRX887-433	433MHz working frequency

Appendix 1：SMD Reflow Chart



IPC/JEDEC J-STD-020B the condition for lead-free reflow soldering	big size components （thickness >=2.5mm）
The ramp-up rate (Tl to Tp)	3℃/s (max.)
preheat temperature - Temperature minimum (Tsmin) - Temperature maximum (Tsmax) - preheat time (ts)	 150℃ 200℃ 60~180s
Average ramp-up rate(Tsmax to Tp)	3℃/s (Max.)
- Liquidous temperature(TL)	217℃
- Time at liquidous(tL)	60~150 second
peak temperature(Tp)	245+/-5℃