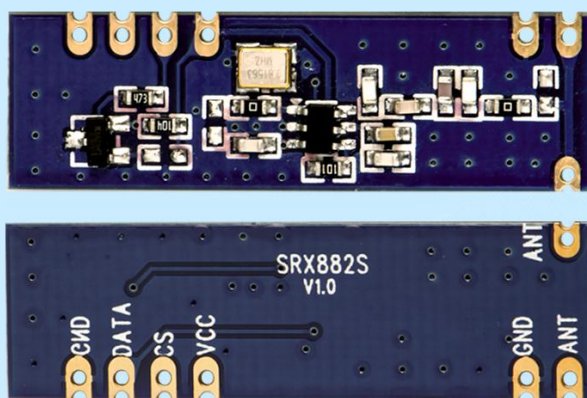


Micropower
Superheterodyne Receiver

Product Specification



Catalog

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Remark: Revision History

Version	Time	Modify
V1.0	2021-11	First release

1. Description

SRX882 is a low cost superheterodyne receiver module with low current consumption. It works well with our ASK transmitter STX882. It complies with the certification of ROHS, FCC, ETSI and CE. The module is easy to use and can be connected to the micro controller directly.

SRX882 is manufactured and tested strictly using lead-free process and complies with RoHS and Reach standards.

2. Feature

- Frequency Range: 433/315 MHz
- Super heterodyne modulation
- High sensitivity
- Standby mode current < 1uA
- Comply with ROHS,FCC,ETSI,CE
- High stability in varies environment

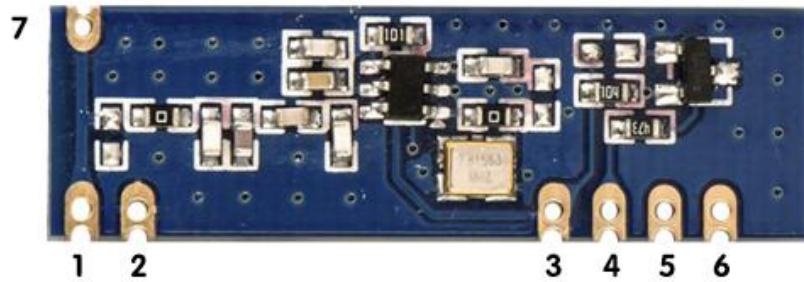
3. Application

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

4. Electrical Specifications

Parameter	Min	TP	Max	Unit	Condition
Operation conditions					
Supply Voltage	2.0	3	5.5	V	
Operating Temperature Range	-30		80	°C	
Receiving Start Time			3	ms	@433MHz
Current consumption					
Working Current		<3		mA	@433MHz
		<0.1		uA	@CS=0
RF parameters					
Frequency Range	433.82	433.92	434.02	MHz	@433MHz
	314.9	315	315.1	MHz	@315MHz
Sensitivity		-107		dBm	@1Kbps
Air rate	0.1		9.6	kbps	
Receiver bandwidth		200		KHz	

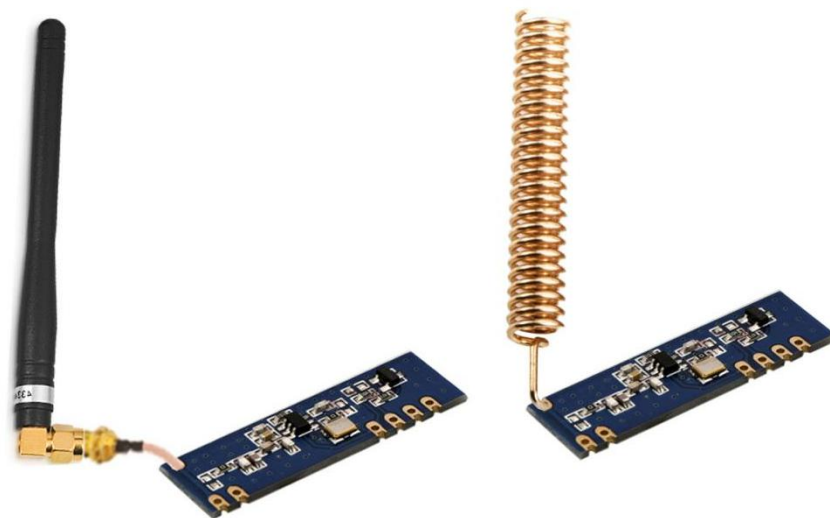
5. Pin Definitions



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	1: Normal working 0: Sleep mode
5	DATA	Data output
6	GND	Connected to power ground
7	ANT	Connect with 50 ohm coaxial antenna

6. Antenna

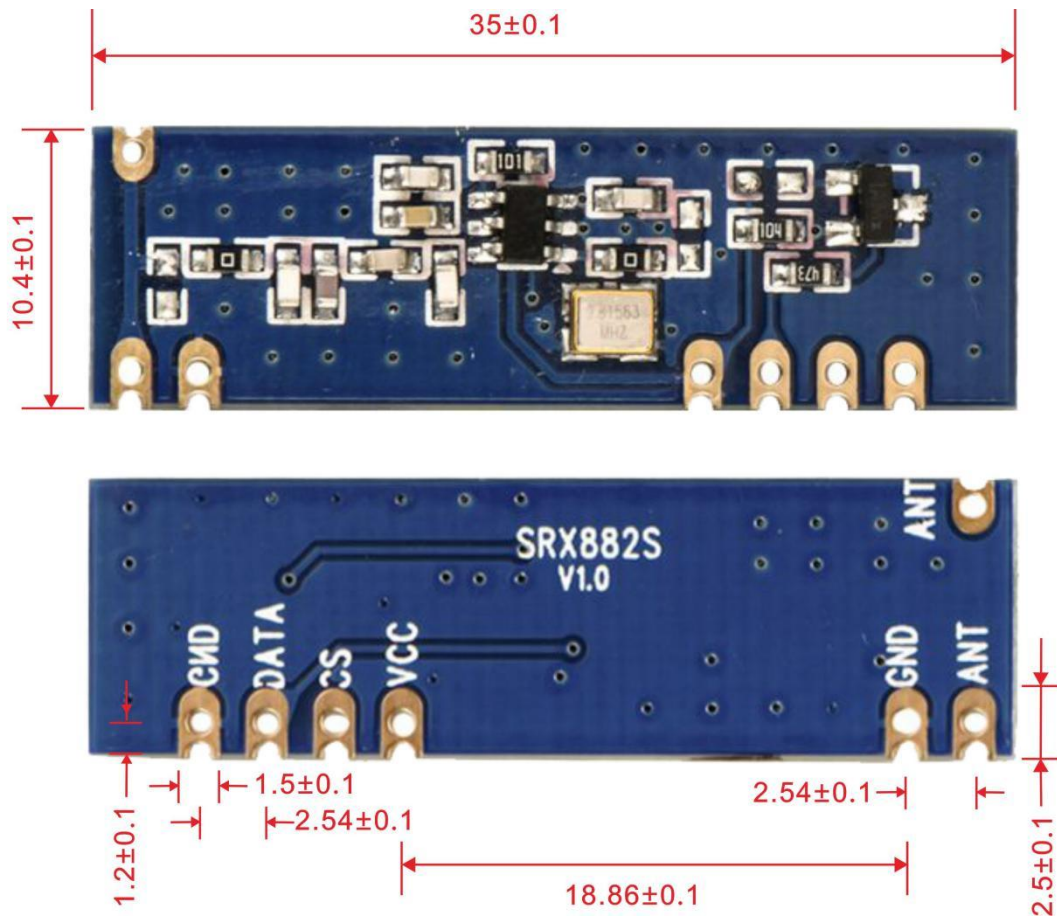
The antenna is very important for RF communication, its performance will affect the communication directly. Module needs antenna in 50ohm. Common antenna is spring antenna, external antenna can also be converted by SMA. Users can order accordingly. To ensure module in the best performance, we suggest 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)



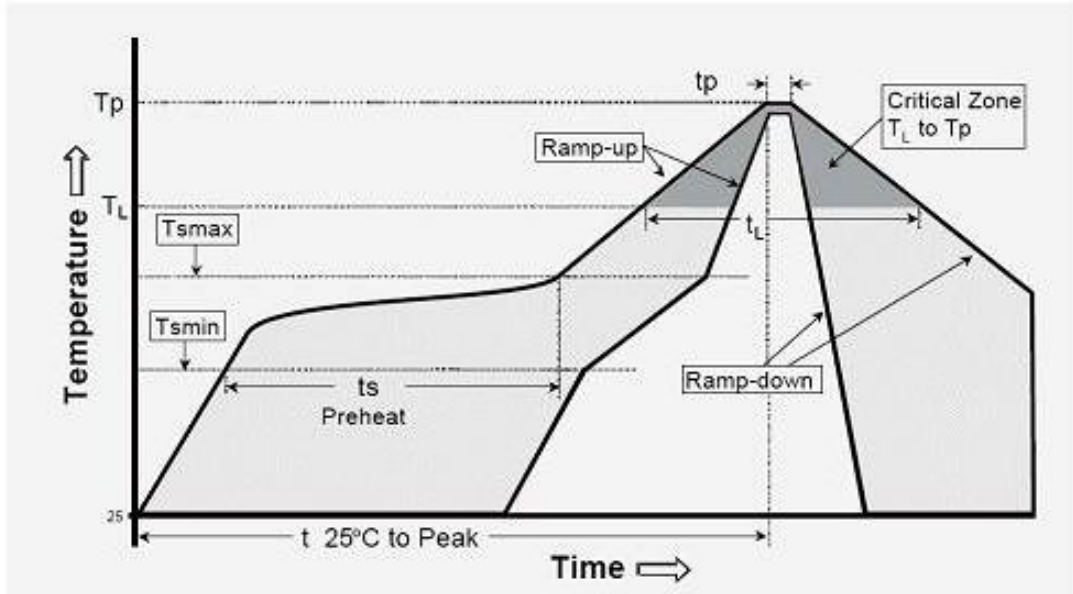
Thickness<2.2mm

8. Order information

For example: If the customer needs 433MHz, part number of released order shall be: SRX882S-433. This module has below versions:

Order number	Product type
SRX882S-315	315MHz working frequency
SRX882S-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 $\geq 2.5\text{mm}$)
The ramp-up rate (T_L to T_p)	3°C/s (max.)
preheat temperature	
- Temperature minimum (T_{smin})	150°C
- Temperature maximum (T_{smax})	200°C
- preheat time (t_s)	$60\sim 180\text{s}$
Average ramp-up rate (T_{smax} to T_p)	3°C/s (Max.)
- Liquidous temperature (T_L)	217°C
- Time at liquidous (t_L)	$60\sim 150$ second
peak temperature (T_p)	$245\pm 5^\circ\text{C}$