

50mW High Power

Low Cost Low Harmony ASK Transmitter Module

## Product Specification



## Catalog

1. Description.....	- 3 -
2. Feature.....	- 3 -
3. Application.....	- 3 -
4. Electrical Specifications.....	- 3 -
5. Connection Schematic.....	- 4 -
6. Pin Definitions.....	- 4 -
7. Antenna.....	- 4 -
8. Mechanical dimensions (Unit:mm).....	- 5 -
9. Order information.....	- 6 -
Appendix 1: SMD Reflow Chart.....	- 6 -

### Remark: Revision History

Revision	Date	History
V1.0	2015-11	First release
V2.0	2016-4	Modify some errors
V2.1	2017-6	Logo updated

## 1. Description

STX882 is a small size,high power,low cost and low harmony ASK transmitter module,which has high stability and price performance.Its power is up to 50mW under 3.6V voltage. STX882 is the highest transmitted power ASK module compared other ASK transmitter in the market under 3.6V voltage. It is easy to use and can be connected to the micro-controller directly.

STX882 is manufactured and tested strictly using lead-free process and complies with RoHS and Reach standards.

## 2. Feature

- Frequency Range: 433/315 MHz
- ASK modulation mode
- Wide voltage range
- High stability in varies environment
- Comply with RoHS
- Super power interface

## 3. Application

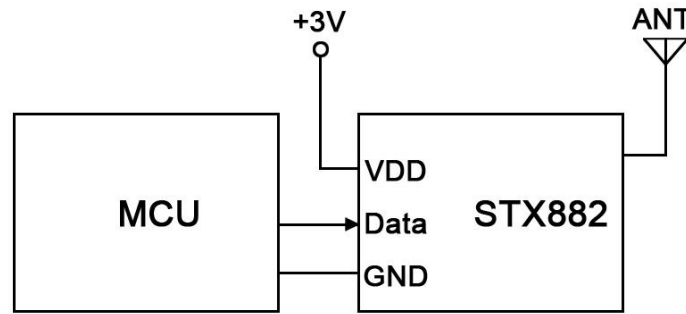
- Wireless door bell
- wireless security alarm
- wireless industrial control
- wireless data transmission

## 4. Electrical Specifications

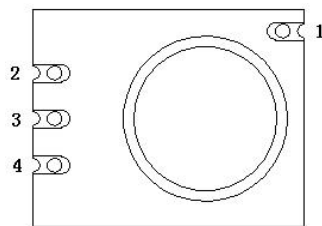
Parameter	Min.	Typ.	Max.	Unit	Conditions
Operation Conditions					
Supply Voltage	1.2	3.0	6	V	
Operating Temperature Range	-20	25	70	°C	
Current Consumption					
TX current		34		mA	@3.3V,15dBm
Sleep Current		≤0.01		uA	@DATA As Low level
RF Parameters					
Frequency Range	433.82	433.92	434.02	MHz	@433MHz
	314.9	315	315.1	MHz	@315MHz
RF power	12	13	13.5	dBm	@2.4V
	14	15	15.5	dBm	@3V
	19.5	20	20.5	dBm	@5V

Air rate	0.1		9.6	Kbps	
----------	-----	--	-----	------	--

**5. Connection Schematic**



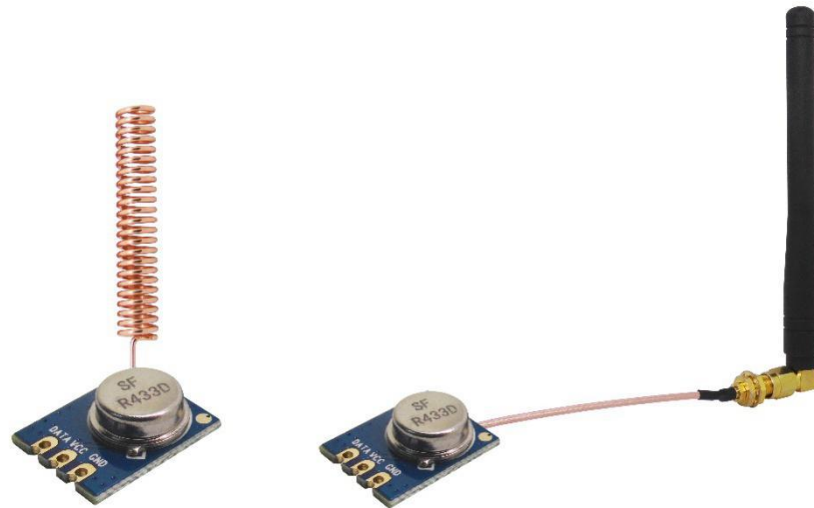
**6. Pin Definitions**



Pin Number	Pin Definitions	Description
1	ANT	Antenna input
2	DATA	Data input
3	VCC	Positive power supply
4	GND	Connected to power ground

**7. Antenna**

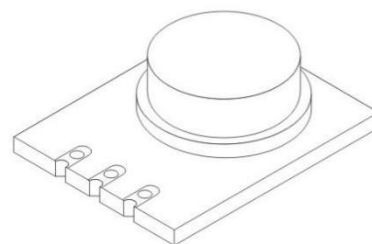
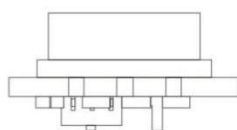
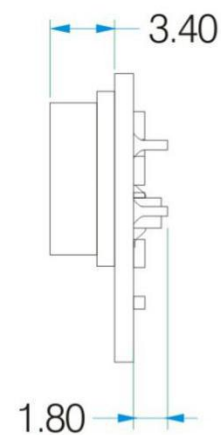
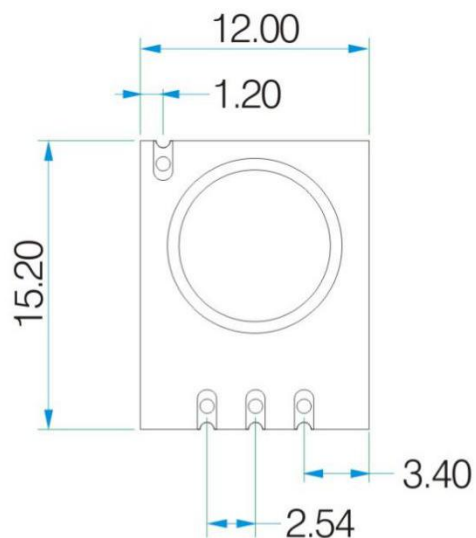
The antenna is very important for RF communication, its performance will affect the communication directly. Module needs antenna in 50ohm. Common antenna has rubber straight/ elbow/ foldable rod and sucker antenna and etc. Users can order accordingly. To ensure module in the best performance, we suggest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

## 8. Mechanical dimensions (Unit:mm)



9. Order information

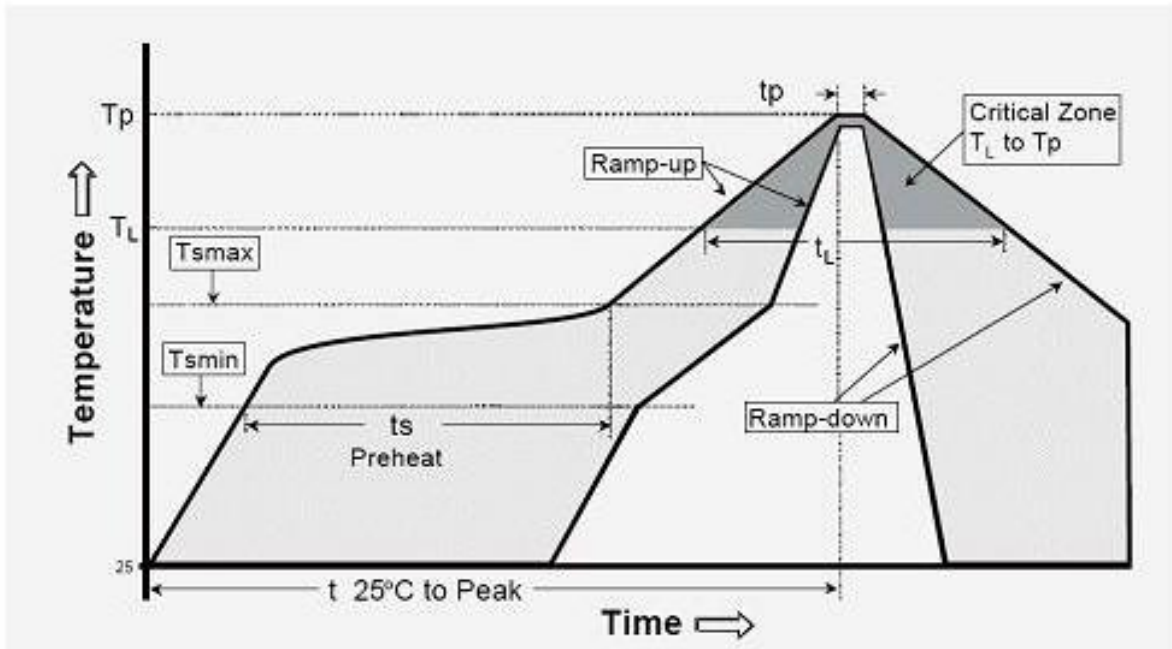
STX882-433  
 └ Centre frequency

For example: If the customer needs 433MHz, part number of released order shall be: STX882-433.

This module has below versions:

Order number	Product type
STX882-315	315MHz working frequency
STX882-433	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 (Tl to Tp)	3°C/s (max.)
preheat temperature	
- Temperature minimum (T <sub>min</sub> )	150°C
- Temperature maximum (T <sub>max</sub> )	200°C
- preheat time (t <sub>s</sub> )	60~180s
Average ramp-up rate(T <sub>max</sub> to Tp)	3°C/s (Max.)
- Liquidous temperature(T <sub>L</sub> )	217°C
- Time at liquidous(t <sub>L</sub> )	60~150 second
peak temperature(T <sub>p</sub> )	245+/-5°C