

Product Specification



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Note: Revision History

Revision	Date	Comment
V1.0	2021-4	First release

1. Overview

STX883Pro is a small, ultra-thin, low-harmonic ASK transmitter module that can be certified with FCC/CE/IC ID etc. It adopts a chip design, which greatly improves the stability of the product. The data port of the module can be directly connected to the microcomputer, so that the development of wireless products is more convenient and faster.

FCC ID:2AD66-STX883PRO

2. Features

- Frequency range: 433.92MHz
- ASK modulation mode
- long range
- Stable and reliable frequency
- FCC/ CE/IC ID certification

3. Applications

- Remote control door
- Wireless security alarm

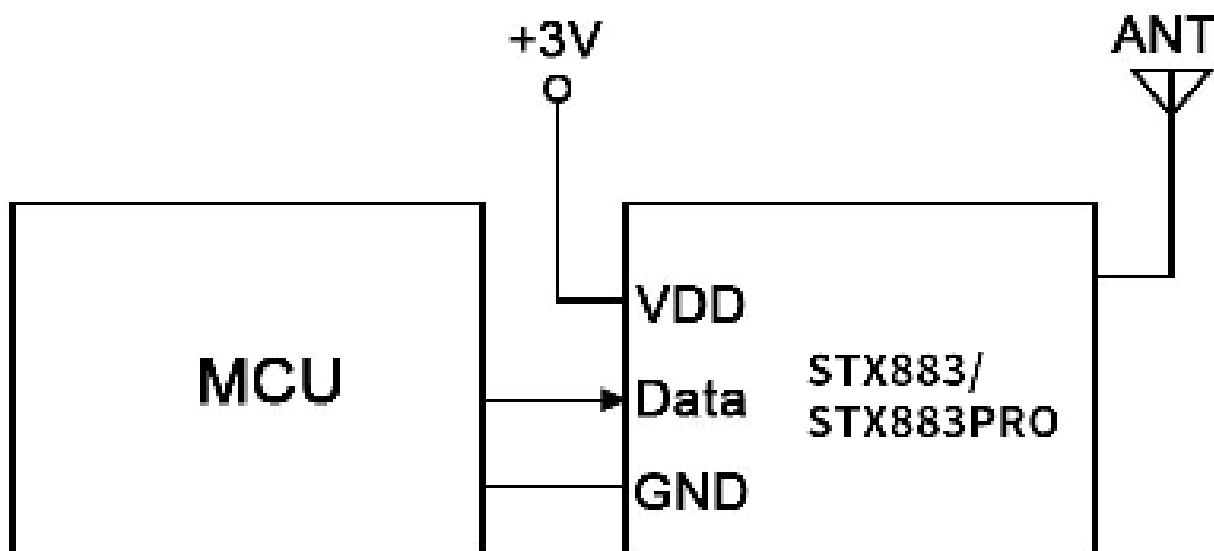
4. Electrical Characteristics

Parameter	Min.	Typ.	Max.	Unit	Condition
Operation Conditions					
Working voltage range	1.2	3.0	5	V	
Temperature voltage	-20	25	60	°C	
Current Consumption					
TX current		<20		mA	@3.3V,10dBm
Sleep current		≤0.01		uA	When @DATA is low
RF Parameter					
Frequency range		433.92		MHz	@433MHz
Transmit power		5.718		dBm	@3.3V
Data rate	0.1		5	Kbps	

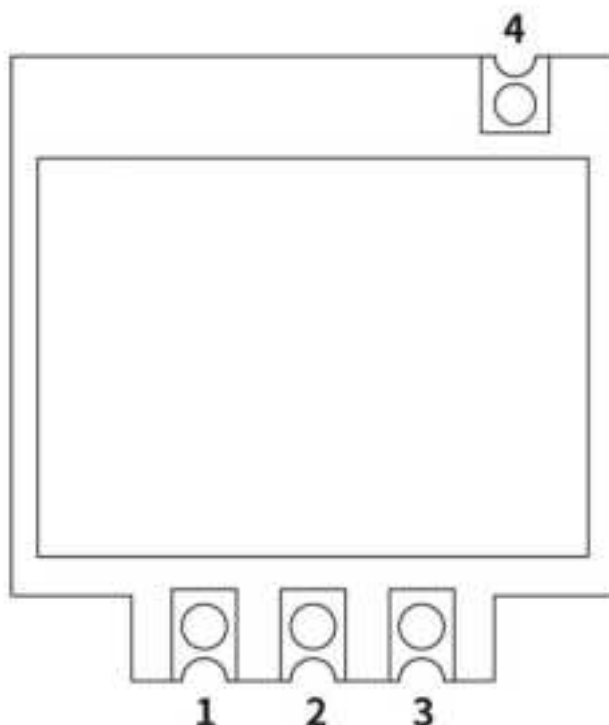
5. Voltage, power and current comparison table

STX883 / STX883Pro		
Voltage (V)	Power (dBm)	Current (mA)
2	2	5.6
2.5	6.4	7.5
3	8.7	8.6
3.3	10.0	9.2
3.6	11	9.7
4.0	11.7	10.1
4.5	12.44	10.2
5.5	12.66	10.3

6. Typical application circuit



7. Pin definition



Pin NO.	Pin name	Description
1	GND	Power ground
2	VCC	Connect the power supply positive
3	DATA	Data input
4	ANT	Antenna input

8. Peripheral accessories

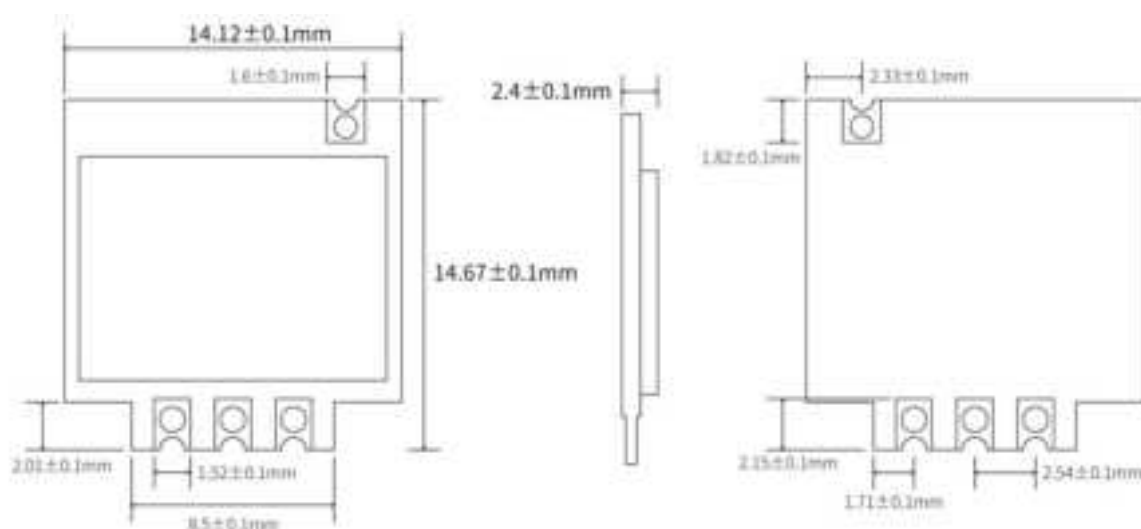
1) Antenna

The antenna is an important part of the communication system, and its performance directly affects the indicators of the communication system. The antenna impedance required by the module is 50 ohms. Common antennas include spring antennas, and can also be transferred to straight/elbow/folded rods, small suction cups, etc. through SMA. Users can choose antennas according to their own application environment. In order to keep the module in the best working condition, it is recommended to use the antenna provided by our company.

★ During the use of the antenna, the following principles should be followed to ensure the best communication distance of the module:

- The antenna should not be close to the ground surface as much as possible, and the surrounding area should be kept away from obstacles.
- If you purchase a suction cup antenna, straighten the lead as much as possible, and the suction cup base must be attached to a metal object.

9. Mechanical size (unit: mm)

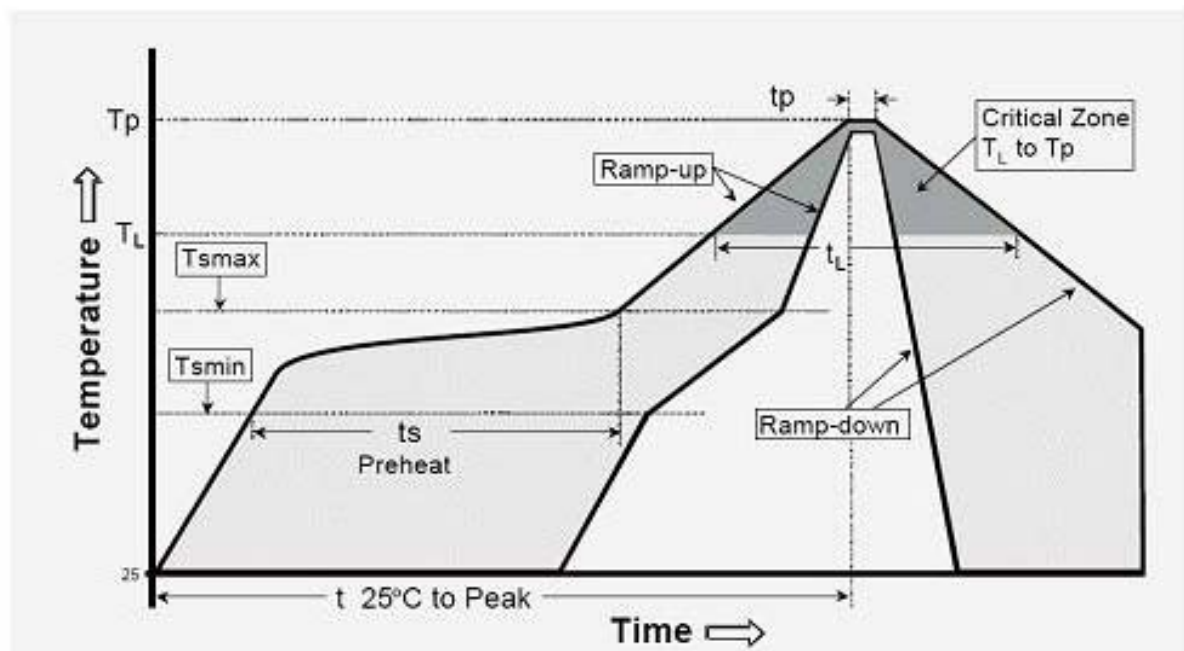


10. Product order information

Currently STX883Pro only supports the 433MHz frequency band, and the product models are as follows:

Order model	Product type
STX883Pro-433	The working frequency band of the product is 433 MHz

Appendix: Furnace temperature curve diagram



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)	60~180s
Average ramp-up rate(T_{smax} to T_p)	3°C/s (Max.)
- Liquidous temperature(T_L)	217°C
- Time at liquidous(t_L)	60~150 second
peak temperature(T_p)	245+/-5°C

➤ **FCC statements**

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement, The device can be used in portable exposure condition without restriction. Federal Communication Commission (FCC) Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.

➤ **CE**

This device is a low-power radio transmitter and receiver. As recommended by international guidelines, the device meets applicable national SAR limits of 2.0W/kg (10g).10g SAR: meets low-power exclusion level, SAR test is not required.

This product can be used across EU member states.

EU Regulatory Conformance

Hereby, NiceRF Wireless Technology Co., Ltd. Corporation declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

For the declaration of conformity, visit the Web site <http://www.nicerf.com> certification.



This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users.
 2. The transmitter module may not be co-located with any other transmitter or antenna.
- As long as the two conditions above are met, additional transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required for the installed module.

Important Note:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the Federal Communications Commission of the U.S. Government (FCC) and the Canadian Government authorizations are no longer considered valid and the FCC ID and IC ID cannot be used on the final product. In these circumstances, the OEM integrator shall be responsible for re-evaluating the end-product (including the transmitter) and obtaining a separate FCC and IC authorization in the U.S. and Canada.

OEM Integrators - End Product Labeling Considerations:

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains, FCC ID: 2AD66-LORA128XF27. The grantee's FCC ID can be used only when all FCC compliance requirements are met.

OEM Integrators - End Product Manual Provided to the End User:

The OEM integrator shall not provide information to the end user regarding how to install or remove this RF module in end product user manual. The end user manual must include all required regulatory information and warnings as outlined in this document.