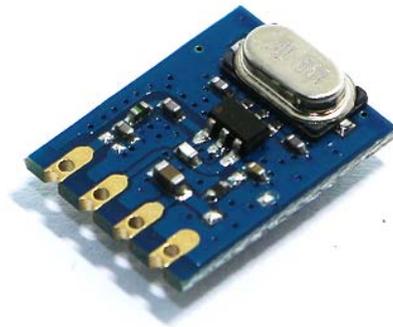


868Mhz Superheterodyne ASK Wireless Transmitter Module

SPECIFICATION

Model No.: DL-TXS868T

Version: V2.0



Before using this module, please read this document carefully, and pay attention to the following important matters:

This Wireless Transmitter Module is an electrostatic sensitive product. Please operate it on an anti-static workbench during installation and testing.

The module uses an external antenna by default. The antenna can be a wire antenna or a standard UHF antenna. You can choose a specific antenna according to the actual situation. If the terminal product uses a metal shell, be sure to install the antenna outside the metal shell. Otherwise, the RF signal will be seriously attenuated, which will affect the effective distance.

Metal objects and wires should be kept away from the antenna as much as possible.

When installing the module, nearby objects should be kept at a sufficient safety distance from the module to prevent short circuit damage.

This module should be used in a dry environment. Please do not make any liquid substance come into this module.

Please use an independent voltage regulator circuit to supply power to this module, and avoid sharing with other circuits. The tolerance of the power supply should not be less than 5%.

Limitations:

This module is intended to be embedded in the customer's terminal product application, and does not provide a casing itself. It is not recommended that the customer directly resell this module as a final product without permission.

This series of modules are in accordance with commonly used international standards. If there is any special certification needed, we can adjust certain indicators according to your needs.

This module cannot be applied to life rescue, life-support systems, or any occasion where personal injury or life threatening may cause by equipment failure. Any organization or individual carrying out the above-mentioned applications shall bear all risks at their own.

We will not be responsible for any direct or indirect damage, injury or loss of profits caused by products that use this module.

DL-TXS868T wireless module is a low cost, high performance and good stability RF transmitter module. Designed base on a brand chip, it is a high-performance ASK wireless transmission module for RKE (Remote Keyless Entry) system. It includes a SAW oscillator and a PA (power amplifier). The output power reaches 10dBm at 3.3V, with fewer peripheral components, it has a stable frequency and debugging-free, operating in 450-1000MHz frequency range, wide voltage ranges from 2.5V to 3.6V, which is very good for battery power supply systems, such as remote control, wall switch, etc.

It has high output power (max:10.5dBm) and transmission rate (10Kbps). With good harmonic suppression, the second harmonic in maximum power output mode is less than -35dBm, which meets the European RTTE certification standard of 868.35MHz. This product can be widely used in automatic remote-control chip lock, keyless entry system, wireless home security, wireless remote-control system and wireless smoke detecting related products.

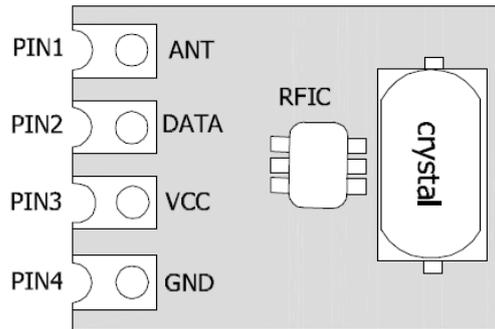
1. Features:

- Operation frequency: 450-1000MHz (default frequency: 868.35MHz);
- Transmission distance: 300 meters in an open air; 10dbm@3.3V;
- Operating voltage range: 2.5V-3.6V;
- The DATA input port uses a single-end serial port.
- Harmonic suppression ensures that it is certified by FCC, RTTE, etc.
- The module is compact in size, and has no adjustable elements on the periphery, so it is easy to use.
- Can be directly SMT on the remote-control products.

2. Applications:

- Wireless sensor terminal device, Home automation data sending, Wireless data sending, Automatic industrial control, Industrial remote control, Telemetry;
- Automatic direction control, Smart smoke alarm linkage system, Smart weather forecast and temperature monitoring of security monitoring camera;
- Security alarms for motorcycles and electric vehicles, Fishing and fishing monitoring alarms;
- Intelligent building data monitoring, Intelligent community emergency rescue alarm system, Kitchen and sanitation linkage control system, Lighting switch control system, Smart home control

3. Pins Definition:



The DL-TXS868T module has 4 pins, which are defined in the following table

Pin	Name	Description	Remark
1	ANT	Antenna output	
2	DATA	Data output, communicate with decoding unit	
3	VCC	Power supply, DC 3.3V is recommended	2.5V-3.6V
4	GND	Grounding, common ground with the MCU	

Table 1: Pins Definition of DL-TXS868T Module

4. Product Size:

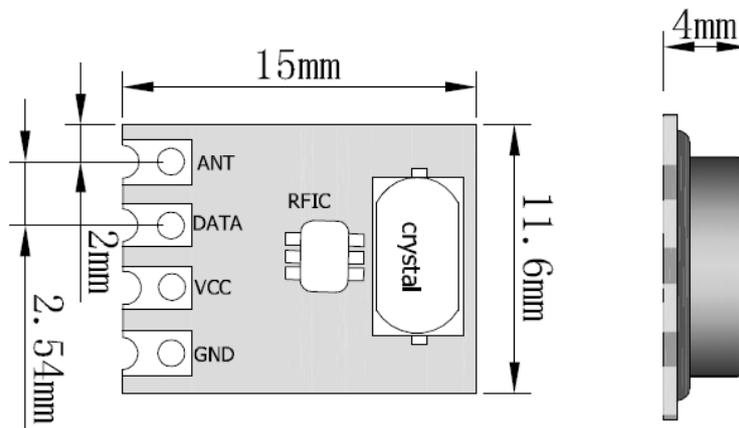


Figure 1: Module size

5. Technical Parameter

RF characteristics (Unless otherwise stated, the frequency is 868.35MHz, the temperature is 25 °C, and VCC is 3.3V)

No	Characteristics	Technical Parameter			Unit
		Min.	Typi.	Max.	
1	Frequency range	450	868.35	1000	MHz
2	VDD	2.5	3.3	3.6	V
3	Transmission power		10dBm@3.3V		dBm
4	Transmission rate		2.5	10	Kbps
5	Harmonic suppression	-39.8dBm	-35	-32dBm	dBm
6	Transmission current		23		mA

Table 2: High frequency characteristic table of the module

6. Connection between module and terminal equipment (TTL electrical level)

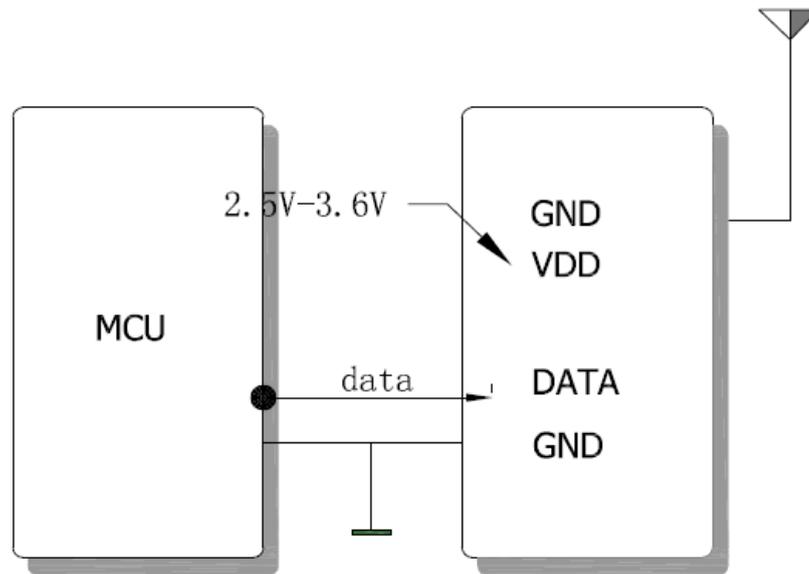


Figure 2: Wiring diagram for module application

7. Notices in module application

Considering the complexity of data transmission over the air, the radio frequency modulation method of the data, and some inherent characteristics of electromagnetic waves, the following

issues should be considered during the application process.

1. The electromagnetic interference of the application environment will affect the actual distance of the remote control. Electromagnetic wave interference is divided into mainboard power supply interference, TFT screen data cable interference, Flash data exchange interference; and airborne carrier frequency interference, noise interference, high-power signal source interference, etc.
2. Factors such as product size, internal space, and coating of the shell will cause the attenuation of the wireless signal, which will affect the remote-control distance. Usually the narrow internal space of the product is not conducive to the extension of the antenna. The outer shell should avoid metal or metal plating as much as possible.
3. To choose a proper antenna is very important. The antenna is an important part of the communication system, and its performance directly affects the indicators of the communication system. We must pay attention to its performance (antenna type, antenna electrical performance) when selecting the antenna. Please feel free to contact us for consultation or recommendation, if you need.

8. Contact us

Shenzhen DreamLnk Technology Co., Ltd

★ Data collection, Smart home, Internet of Things applications, Wireless remote-control technology, Remote active RFID, Antennas ★

Office Add.: Room 603, Unit C, Zone A, Huameiju Business Center, Xihu Rd., Bao'an District, Shenzhen, Guangdong Province, China

Factory Add.: 5th Floor, Building B, Huazhi Innovation Valley, No. 7 Yuhua Street, 138 Industrial Zone, Tangxia Town, Dongguan, Guangdong Province, China

TEL.: +86-755-29369047

FAX: +86-755-27844601

Mobile: +86 13760215716

Wechat: wsj_james

E-mail: james@dreamlnk.com

Web: www.iot-rf.com