

ACTIVE RFID MODULE M2410



The M2410 is an active RFID reader module operating in the 2.4GHz band. The product has a wide range of applications, high recognition rate, powerful features, high reliability, and strong scalability. Its read range is adjustable from 0 to 80 meters in radius.

The M2410 long-distance reading and writing module is equipped with a new generation of 2.4G high-frequency transceiver chip developed by Nordic. The main control chip selects a new generation of high-performance ARM-COTEX M processor, which has functions such as watchdog and real-time monitoring of device status information. Equipped with an external amplifier and low-noise amplifier to improve transceiver performance. The module also integrates a high dynamic range gain control circuit for wide range applications. The reader module is shielded by a metal shell. The appearance of the reader module is simple, beautiful, compact, lightweight, durable, and full of sense of technology and modernity. The module has a double-row pin interface, and the host connection is more reliable.

The product adopts software fault-tolerant and hardware anti-jamming design, and can work continuously and stably for a long time in a bad working environment.

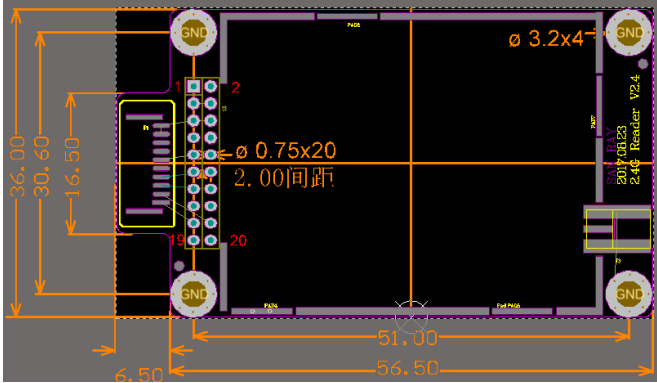
Product advantages

- Reader module supports TTL level, UART communication interface.
- Reading distance can be debugged by software to realize perimeter applications.
- Provides a powerful API user interface that enables rapid integration and interfacing with existing user information systems.
- The reader module design, device selection and production test procedures are all referenced to industrial product labels and can be used under all kinds of harsh conditions.
- This product uses an alloy shield cover, which has high strength, anti-jamming and other advantages.
- The communication protocol is developed independently by SANRAY and can be customized and extended for the needs of special users.
- Provide supporting API development kits to enable customers to quickly complete development.

Product Technical Parameters

Name	Reference
working frequency	2.4~2.483G
Output Power	-40dbm to +20dbm adjustable
Receiver sensitivity	Better than -95 dbm
Communication rate	1Mbit/s
Frequency error:	≤20ppm
Modulation	GFSK
Physical interface	2x10 double needle, 2.0mm pitch
Interface level	TTL level
RF interface	MMCX female seat
Firmware upgrade	Support upgrade
Serial communication parameters	The baud rate is adjustable (230400bps by default)
Application Software Platform	Provides software development kits (SDKs) and APIs
Support label operation	Private agreement
Support tag working mode	Active tag
Read distance	80m(Depending on the tag output power)
Read rate	200 pcs /second (ID number only)
Size	63mm×36mm×4mm(L×W×H)
Power	DC5V
Shutdown current	1uA
Receive current	30mA (Power consumption 0.15W)
Emission current	100mA (Power consumption 0.5W)
Operating temperature	-20°C-60°C
Storage temperature	-50°C-80°C
Working humidity	5%-95% (No condensation)
IP lever	IP54

Interface Description



Pin	Name	Description
1	GND	Grand
2	GND	Grand
3	+5V	5V power input
4	+5V	5V power input
5	+5V	5V power input
6	+5V	5V power input
7	GND	Grand
8	GND	Grand
9	P-EN	Power control terminal (input high level, module normal operation, input low level, cut off power)
10	GND	Grand
11	GND	Grand
12	DIO	Module programming data interface
13	GND	Grand
14	CLK	Module programming clock interface
15	GND	Grand
16	GND	Grand
17	TXD	Module serial data output
18	RXD	Module serial data input
19	GND	Grand
20	GND	Grand