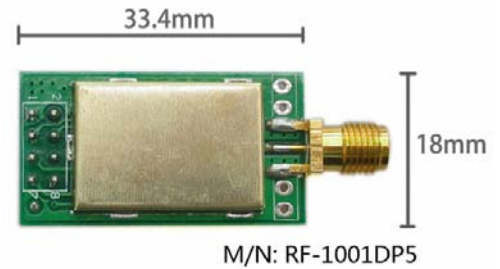


● Introduce

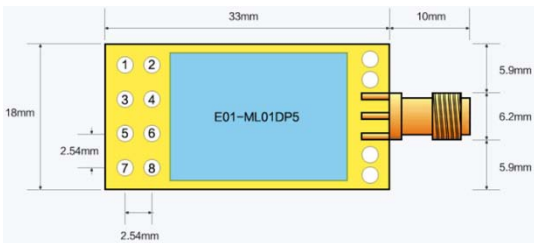
RF-1001DP3 is our latest 2.4G wireless communication module. Currently, it has a stable mass production. It is suitable for a variety of scenarios. nRF24L01P is the master chip of RF-1001DP3 module, which is imported from the Norwegian. And the module is equipped with 20dBm power amplifier chip which is imported from US, these enable the module to achieve the maximum transmit power 100mW (20dBm) and enhance the sensitivity to 10dBm simultaneously. Our design makes the transmission distance of the module over the nRF24L01P itself more than 10 times.

● Parametric Description

Num	Parametric Name	Detailed Description
1	Main chip	nRF24L01P, from Norway
2	Module size	15* 27mm
3	Interface	2*4*2.54mm, you can use the universal plate and DuPont line
4	Supply voltage	2.0-3.6V DC. Never exceeds 3.6V !
5	Communication voltage	0.7VDD-5VDC, VDD is the supply voltage of module
6	Measured distance	1750m@250K
7	Maximum power	20dbm
8	Air Rate	250K/1M/2M
9	Shutdown Current	About 1uA. Test Conditions: CE=0, power-down mode, VDD=3.0V.
10	Power Level	4 adjustable rating
11	Transmitting current	About 95mA
12	Receiving current	About 20mA
13	Antenna	External antenna, SMA interface external screw bore
14	Communication Interface	SPI, the maximum rate is 10Mbps
15	Transmitting length	Single data packet is 1-32 bytes
16	Receiving length	Single data packet is 1-32 bytes
17	RSSI Support	Does not support the true meaning of RSSI, supports packet loss statistics
18	Reception sensitivity	-94dbm@250Kbps
19	Work temperature	-30 - +85°C
20	Work humidity	Relative humidity :<90%
21	Storage temperature	-40 - +120°C
22	Working frequency	Adjustable value: 2.4000 – 2.525GHZ. Stepping value: 1MHz

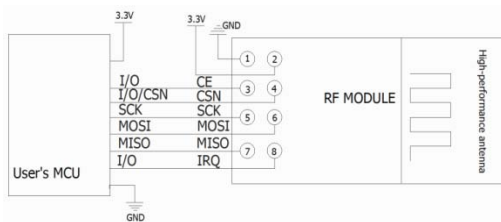


● Module pins and dimensions



Pin Num	Pin Name	Pin Direction	Application
1	GND		Ground
2	VCC		Power provide, must be between 2.0 to 3.6(Unit: V)
3	CE	Input	Control pin
4	CSN	Input	Chip select pin, for starting an SPI communication
5	SCK	Input	SPI bus clock
6	MOSI	Input	Digital input pin
7	MISO	Output	Digital output pin
8	IRQ	Output	Interrupt signal output pin, low level effectively

● SCM Connection



Connection description:

- 1) CE can be long-time set HIGH, but when the module write registers must first be set to power-down mode. Recommended CE pin to control by the microcontroller.
- 2) IRQ can choose to not connect, and it can use SPI query way to get the interrupt status.

● Notice:

1. Avoid body touch the electronic components.
2. Please ensure that the power supply has a smaller ripple, and must avoid frequent significant jitter.
3. Antenna mounting structure has a greater impact on module performance, please ensure the antenna exposed.
4. Avoid harmonic interference from other wireless devices bands
5. Please make the RF module stay away from the crystal.

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