RF-1212D-SMA Datasheet

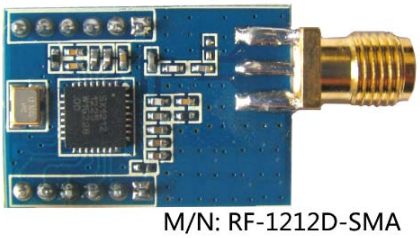
Everything done inhouse

Introduce

RF-1212D-SMA is our latest 433MHz wireless communication module. Currently, it has a stable mass production. It is suitable for a variety of scenarios. The main chip of RF-1212D-SMA is SX1212, and it is imported from SEMTECH. The resistance and the capacitance are made of imported materials, especially crystals, we use a wide temperature range with high precision crystal, in order to ensure its industrial characteristic.

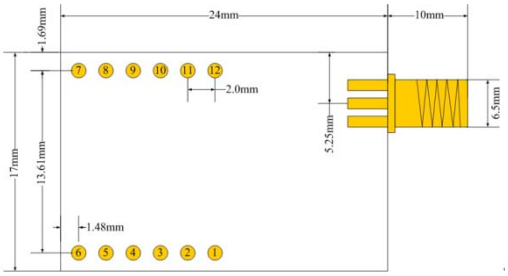
Parametric Description

Num	Parametric Name	Detailed Description
1	Main chip	SX1212
2	Module size	17* 24*1.2mm
3	Interface	2*6*2.00mm, you can use the universal plate and DuPont line
4	Supply voltage	1.9-3.6V DC
5	Communication voltage	0.7VDD-5.2VDC, VDD is the supply voltage of module
6	Measured distance	450m
7	Maximum power	12.5dbm
8	Air Rate	2K-500K. Due to the physical properties of the band 433M, Recommended no more than 20Kbps
9	Shutdown Current	About 1uA.
10	Power Level	Multi-adjustable
11	Transmitting current	About 29mA@433MHz
12	Receiving current	About 3.0mA
13	Antenna	SMA external antenna
14	Communication Interface	Standard SPI Mode 0, the maximum rate is 10Mbps
15	Transmitting length	Single data packet is 1-64 bytes
16	Receiving length	Single data packet is 1-64 bytes
17	RSSI Support	Support
18	Reception sensitivity	-110dbm@1.2Kbps
19	Work temperature	-30 - +85℃
20	Work humidity	Relative humidity :10% - 90%
21	Storage temperature	-40 - +125℃
22	Working frequency	300MHz – 510MHZ



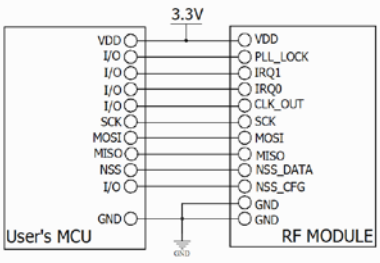
M/N: RF-1212D-SMA

Module pins and dimensions



Pin Num	Pin Name	Pin Direction	Application
1	VDD		Power provide, must be between 1.8 to 3.6(Unit: V)
2	PLL_LOCK	Input	PLL lock detect
3	IRQ1	Output	Programmable interruption pin 1
4	IRQ0	Output	Programmable interruption pin 0
5	CLK_OUT	Output	Programmable clock output pin
6	SCK	Input	SPI bus clock
7	MOSI	Input	Digital input pin
8	MISO	Output	Digital output pin
9	NSS_DATA	Input	Chip select pin. For writing data
10	NSS_CFG	Input	Chip select pin. For configuring register
11	GND		Ground, connected to the reference ground
12	GND		Ground, connected to the reference ground

Connection description



Connection description:

IRQ0 and IRQ1 can be used to output the status information of the module.

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.

Contact us

1111 Oakmont Drive #C, San Jose, CA 95117
Contact: John Huang
Tel No: +1-408-981-6615
E-mail: support@inhaos.com