

LORA RA-02 433MHZ LONG RANGE WIRELESS TRANSRECEIVER - SX1278

Ra-02 LoRa (Long-range Radio) module will take your IoT projects the distance with communication over a long-range spread spectrum. This form of wireless communication results in a larger bandwidth, increasing interference resistance, minimizing current consumption, and increasing security.

This module uses SX1278 IC and works on a 433MHz frequency. Frequency hopping—which gives you that sweet balance of quality signal transmission—will cover a range of 420-450MHz. This long range wireless capability is packed into a small (17 x 16mm) package and delivered without an antenna.

With the LoRa Ra-02, you don't have to compromise in the balance of range, interference immunity, or energy consumption. The technology behind this IC means that it's perfect for those projects requiring range and strength.

Features:

- LoRaTM spread spectrum communication
- +20dBm - 10mW. Stable RF output power when input voltage changed
- Half-duplex SPI communication
- Programmable bit rate can reach to 300kbps
- Support FSK, GFSK, MSK, GMSK, LoRaTM and OOK Modulation Mode
- 127dB RSSI wave range.
- Automatically detect RF signal, CAD mode and super high speed AFC
- With CRC 256 bytes data engine
- Half hole (castellated hole) SMD package
- With metal shielding case

Specifications:

- Wireless Standard: 433MHz
- Frequency range: 420 - 450MHz
- Port: SPI/GPIO
- Operating Voltage: 1.8 - 3.7V, default 3.3V
- Working Current, receive: less than 10.8mA(LnaBoost closed, Band 1)
transmit: less than 120mA(+20dBm),
Sleep model: 0.2uA
- Working temperature: -40- +85 degrees
- Pin pitch: 2.0 mm

Pins Explanation

Ra-01	Ra-02	Pin	Description
1	-	ANT	Antenna
2	1, 2	GND	GND
3	3	3.3V	3.3V Power in
4	4	RESET	Reset
5	5	DIO0	Digital IO0, software setting
6	6	DIO1	Digital IO1, software setting
7	7	DIO2	Digital IO2, software setting
8	8	DIO3	Digital IO3, software setting
9	9	GND	GND
10	10	DIO4	Digital IO4, software setting
11	11	DIO5	Digital IO5, software setting
12	12	SCK	SPI Clock input
13	13	MISO	SPI data output
14	14	MOSI	SPI data input
15	15	NSS	SPI Selected-IN
16	16	GND	GND

