RA-02 433Mhz Lora Module



Description:

Ra-02 is a wireless transmission module based on SEMTECHs SX1278 wireless transceiver. It adopts advanced LoRa spread spectrum technology, with a communication distance of 10,000 meters. It has a strong ability of anti-jamming and has the function of air wake-up Consumption. The SX1278 RF module is mainly used for long-range spread spectrum communication, and it can resist Minimizing current consumption. The SX1278 has a high sensitivity of -148 dBm with a power output of +20 dBm, and a long transmission distance and high reliability. At the same time, compared with the traditional modulation technology, LoRa modulation technology has obvious advantages in anti-blocking and selection, which solves the problem that the traditional design scheme cannot consider the distance, interference and power consumption at the same time. It can be covering thousands of people in the district environment, particularly suitable for meter reading, smart home, burglar alarm equipment.

Features:

1. LoRa Spread Spectrum modulation technology
2. Constant RF power output at + 20dBm-100mW voltage change
3. Half-duplex SPI communication
4. Supports FSK, GFSK, MSK, GMSK, LoRa and OOK modulation modes
5. Automatic RF signal detection, CAD mode and very high speed AFC
6. Packet engine with CRC up to 256 bytes
7. Small footprint dual-row stamp-hole patch package
8. Shielded housing
9. Spring Antenna

Specifications:

- Communication distance: 10Km
- Sensitivity: down to -148dBm
- Programmable bit rates: up to 300kbps
- RSSI dynamic range: 127dB
- Wireless frequency: 433MHz
- Working voltage: 1.8-3.7v
- Working temperature: -40 - +80

Applications:

- To control high voltage
- Smart agriculture
- Smart cities
- Industrial automation
- Long-range communication devices