

2.4G remote wireless transceiver module RF2401

Description:

RF2401 is a FSK wireless data communication module with the characters of remote control, ultra-low consumption and high sensitivity. It is designed particularly for working in 2.4G ISM global free application band. This module adopts the wireless chip which is designed by the top Euro RF company. Besides the features of low cost, small size and stability, its max TX power is 10dBm, receive current is only 7mA, sensitivity is up to -115dBm. It has been tested that the maximum distance can reach to 1Km, all the feature is much better than the existing 2.4G RF module. It can be widely used in daily life and activities where wireless connecting is needed. It complies with the FCC and ETSI certification.



Feature:

- Frequency arrange: 2400-2483.5 MHz
- Sensitivity up to -115dBm @1.5K
- Output power: -20~10 dBm
- Data rate: 1.5-72 kbps
- FSK modulation
- 1.9-3.6 V power supply
- Low power testing
- Ultra low current shutdown mode current < 10nA
- Low current receiving mode < 8 mA
- Transmitting current: 11 mA @-1dBm
36 mA @+10 dB
- Working temperature: -40 ~ +85 °C
- integrated voltage regulator
- Frequency hopping function

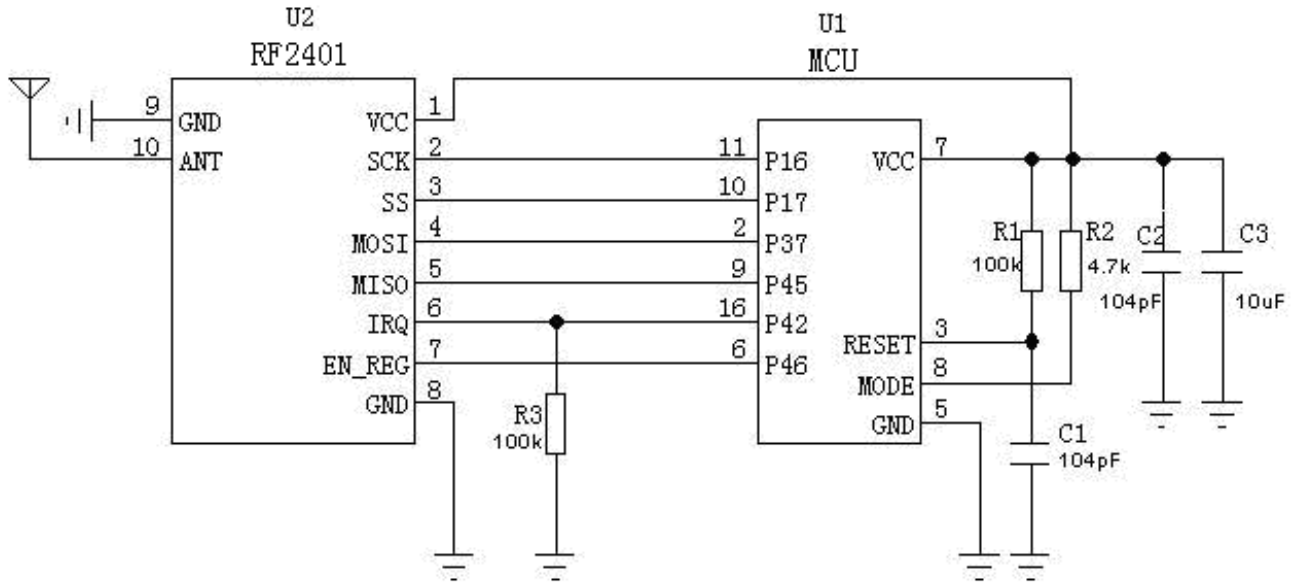
Application:

- Remote control
- Family security alarm and remote keyless entry
- industry control
- Home automation remote sensing
- Personal data record
- Toy control
- Sensor network
- Tire Pressure Monitoring
- Health monitoring
- Tag reader

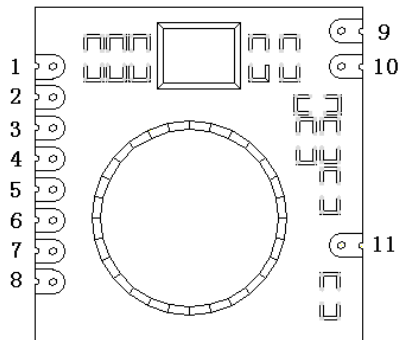
Specification:

| Parameter | MIN | TYP | MAX | Unit | Conditions |
|----------------------------|------|------|--------|------|---------------|
| Working Condition | | | | | |
| Working Voltage | 1.9 | 3.3 | 3.6 | V | |
| Working Temperature | -40 | | 85 | °C | |
| Current consumption | | | | | |
| Receiving current | | 7 | | mA | |
| Transmitting current | | 36 | | mA | @10dBm |
| Standby current | | <0.1 | | uA | |
| RF parameters | | | | | |
| Frequency range | 2400 | | 2483.5 | MHZ | |
| Modulation rate | 1.5 | | 72 | Kbps | FSK |
| RF power rang | -20 | | 10 | dBm | |
| Receiving sensitivity | | -115 | | dBm | @data=1.2kbps |

Schematic:



Pinout:



| Pin NO. | Pin name | I/O | Description |
|---------|----------|-----|--|
| 1 | VCC | | Connect VCC |
| 2 | SCK | I | SPI clock input, 0~VCC digital input |
| 3 | SS | I | Serial interface select input pin. 0 - VDD V digital input |
| 4 | MOSI | I | Serial digital input, 0 ~ VCC digital input |
| 5 | MISO | O | Serial digital input, 0-VCC digital input |
| 6 | IRQ | O | External interrupt output, 0 ~ VCC digital output |
| 7 | EN_REG | | Master control chip enable signal |
| 8 | GND | | Connect GND |
| 9 | GND | | Antenna negative |
| 10 | ANT | | Connect 50ohm coaxial antenna |
| 11 | NC | | NC |

For detailed datasheet and programming code please contact the related

sales engineer.

Mechanical Dimension:

