



SRD RF Module



SIM20

SIM20 is a high integrate half-duplex, multi-channel low power wireless communication module. It includes high speed MCU and perfect performance RF chip, so it has high receiving sensitivity, programmable transmitting power and data rate. SIM20 supports the multi-channel choice, transparent data transfer without complex user setting; it supports UART, IIC, SPI, GPIO interfaces.

The leading features of the module make it ideal for industry applications such as automatic metering, wireless medical telemetry service (WMTS), home automation and process and building control.

Smart Machine Smart Decision

General features

- Dimensions: 21X 13.8X 2.6 mm
- Weight: 1.5 g
- Supply voltage range 3.0...3.6 V
- Normal operation temperature: -30 ° C to +80 ° C
- Storage temperature: -45 ° C to +90 ° C
- Humidity: 10%~90%
- Low power consumption
- Flexible software programmable setting option
- Control via AT commands (SIMCOM enhanced AT Commands)

Specifications for SRD RF

- Maximum transmit power: 18 dBm
- Receive sensitivity: -118dBm @2400bps
- Transmission distance:1500 Meters @9600bps (SIM20-A, open sky)
- Can support continuous frequency tuning over the complete240–930 MHz band. Default 3 modules frequency bands support as below:
 - SIM20-A: 433MHz – 434.79MHz
 - SIM20-B: 863MHz – 870MHz
 - SIM20-C :902MHz – 928MHz
- Modulation schemes: GFSK
- Frequency interval: 100KHz
- Sleep current consumption: 16uA
- Rx current consumption: 26mA
- Tx current consumption: 80mA@18dBm, peak value
- Support peer to peer transmission and broadcasting transmission
- Adapt to mass data transmission

Interfaces

- 22 SMT pads include:
- Power pad and ground pads
 - Antenna Interface
 - UART Interface
 - SPI Interface (reserved)
 - IIC Interface (reserved)
 - Download Interface

Standard

- ETSI EN 300-220
- FCC Part 15
- Chinese SRD regulatory standards

More about SIMCom SIM20
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