

Small Size UHF RFID Module SIM7500



Features

- Based on the New Generation Impinj E710 reader chip.
- Support EPC global Gen2 (ISO 18000-6C).
- 30dBm RF power output.
- Surface Mounted Devices (SMD) form factor allows for rapid and seamless integration.
- Real-time monitoring of on-board temperature.
- Coin size and low power consumption.

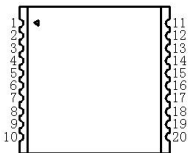
Specification

| Physical Characteristics | |
|--------------------------|--------------------------------------|
| Dimensions | 28mm L x 28mm W x 3.5mm H |
| Net Weight | 5.5g |
| RFID Characteristics | |
| Air Protocols | EPC Class 1 Gen 2 (ISO 18000-6C) |
| Chipset | Impinj E710 |
| Frequency | USA: 902-928MHz FCC (NA, SA) |
| | EU: 865-868MHz (ETSI) |
| | CN: 920-925MHz (CMIIT) |
| Antenna Ports | Single mono-static RF port |
| Output Power | 5dBm-30dBm (± 1 dBm) adjustable |
| Sensitivity | -75dBm |
| Work Mode | Fixed / hop frequency optional |
| Tag RSSI | Support |
| Application Interface | |
| Host API | C, C#/.NET, Java |

| RFID Performance | |
|-------------------------|--|
| Max Read Rate | ≥ 900 tags/s |
| Max Tag Read Distance | ≥ 5 m, with 2dBi ceramic antenna |
| Communication Interface | |
| Communications | 20 pin surface mount module (SMT compatible) |
| GPIO (Optional) | 2 Inputs (DC 0~3.3V), 2 Outputs (DC 0~3.3V) |
| Power Supply | |
| Input Voltage | 3.6~5.0 +/-5% |
| Power consumption | 4.5W, 0.9A@5V, 30dBm |
| Working Environment | |
| Operating Temp. | -20°C to +55°C |
| Storage Temp. | -40°C - +85°C |
| Humidity | 5-95% non-condensing (+25°C) |

*Specifications subject to change without notice.

FPC Connector Definition



| Pin# | Signal | Pin# | Signal |
|------|---|------|---|
| 1 | VCC (+3.6~5V) | 11 | GND |
| 2 | GND | 12 | 3.3V Output |
| 3 | LOW (POWER DOWN) HIGH & DISCONNECT (ACTIVE) | 13 | SWCLK SWD programming interface clock cable |
| 4 | Digital Output 2 (GPIO OUT2) | 14 | SWDIO SWD programming interface data cable |
| 5 | Digital Input 1 (GPIO IN1) | 15 | GND |
| 6 | Digital Input 2 (GPIO IN2) | 16 | GND |
| 7 | RXD (DATA INPUT, TTL Voltage) | 17 | GND |
| 8 | TXD (DATA OUTPUT, TTL Voltage) | 18 | NC |
| 9 | RST (LOW ACTIVE, Vacant if not needed) | 19 | ANT |
| 10 | Digital Output 1(GPIO OUT1) | 20 | GND |

Mechanical Drawing

