



# SIM808 GSM/GPRS/GPS Arduino IOT Board

SKU:DFR0355



## INTRODUCTION

This is an Arduino Leonardo with SIM808 GSM/GPRS/GPS. The SIM808 with Leonardo mainboard is the latest Arduino board developed by DFRobot for multi-purpose applications. The onboard SIM808 module includes an integrated quad-band GSM/GPRS and GPS satellite navigation module, and a 4 layer PCB integrates the microcontroller, microphone, headphone jack and GPRS/GPS, giving this board the tiny footprint of a regular credit card! Meanwhile, the board includes a sleep mode feature for extra-low power consumption. And an on-board 3.7V Lipo battery power supply and battery-charging circuit has been integrated into the board, making it ideal for applications such as real-time car tracking, security patrolling and IoT projects.

Compared with the existing SIM808 modules on the market, this SIM808 uses the latest version with better stability.

## APPLICATIONS

- GPRS network nodes
- Remote communications
- Satellite positioning
- Real-time car tracking systems
- Security
- Internet of things (IoT)

## SPECIFICATION

- **AVR Arduino MCU: ATmega32u4 (Bootloader: Leonardo)**
- Operating voltage: 5V
- Input Voltage: 5V (USB)/7~23V(Vin)/3.5~4.3V (BAT)
- Low-power consumption: (100mA@7V-GSM mode)
- Digital I/O Pins: 20
- PWM Channels: 7
- Analog Input Pins: 12
- DC Current per I/O Pin: 40 mA
- DC Current for 3.3V Pin: 50 mA
- Flash Memory: 32 KB (of which 4 KB is used by the bootloader)
- SRAM: 2.5 KB
- EEPROM: 1 KB
- Clock Speed: 16 MHz
- **Wireless Module: SIM808 GSM/GPRS/GPS module**
- Quad-band 850/900/1800/1900MHz – 2G GSM network
- GPRS multi-slot class 12/10
- GPRS mobile station class B
- Compliant to GSM phase 2/2+
  - Class 4 (2 W @ 850/900MHz)
  - Class 1 (1 W @ 1800/1900MHz)
- Bluetooth: Compliant with 3.0 + EDR (Not open in this version)
- Time-To-First-Fix
  - Cold starts: 30s (typ.)
  - Hot starts: 1s (typ.)
  - Warm starts: 28s (typ.)
- Accuracy: Horizontal position 2.5m CEP
- Update rate: 5Hz
- Control: AT command (GSM07.07, 07.05 and SIMCom enhanced AT commands)
- Dimension: 73\*54mm / 2.87\* inches
- Weight: 50g

## SHIPPING LIST

- SIM808 with Leonardo mainboard x1
- Built-in Spring GSM Antenna x1
- Built-in GPS antenna x1