



# GSM/GPRS+GNSS Module

## SIM868



SIM868 module is a complete Quad-Band GSM/GPRS module which combines GNSS( GPS/GLONASS/BDS) technology for satellite navigation. The compact design with LCC and LGA pads will significantly save both time and costs for customers to develop GNSS enabled applications. Featuring an industry-standard interface and GNSS function, it allows variable assets to be tracked seamlessly at any location and anytime with signal coverage.

## Smart Machine Smart Decision

### General features

- Quad-band 850/900/1800/1900MHz
- 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)
- Support GPS/GLONASS/BD
- Dimensions: 17.6\*15.7\*2.3mm
- Weight: 1.5g
- Control via AT commands (3GPP TS 27.007, 27.005 and SIMCom enhanced AT Commands)
- Supply voltage range 3.4 ~ 4.4V
- Low power consumption
- Operation temperature:-40℃ ~85℃

### Specifications for GPRS Data

- GPRS class 12: max. 85.6 kbps (downlink/uplink)
- PBCCH support
- Coding schemes CS 1, 2, 3, 4
- PPP-stack
- USSD

### Specifications for SMS via GSM/GPRS

- Point to point MO and MT
- SMS cell broadcast
- Text and PDU mode

### Software features

- 0710 MUX protocol
- Embedded TCP/UDP protocol
- FTP/HTTP
- MMS
- POP3/SMTP
- DTMF
- Jamming Detection
- Audio Record
- SSL

### Specification for GNSS

- Receiver type
  - 33 tracking /99 acquisition -channel
- Sensitivity
  - Tracking: -167 dBm
  - Reacquisition: -161 dBm
  - Cold starts : -149 dBm
- Time-To-First-Fix
  - Cold starts: 28s (typ.)
  - Hot starts: <1s
  - Warm starts: 22s
- Accuracy
  - Horizontal position : <2.5m CEP

### Interfaces

- 77 SMT pads
- SIM Card Interfaces
  - SIM card: 3V/ 1.8V
- Analog audio interface
- RTC GNSS backup
- I2C interface
- USB interface
- Serial interface
- SD
- GPIO
- ADC
- GSM Antenna pad
- GNSS Antenna pad

### Certifications

- CE
- FCC
- ROHS
- REACH
- CCC
- TA

More about SIMCom SIM868  
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