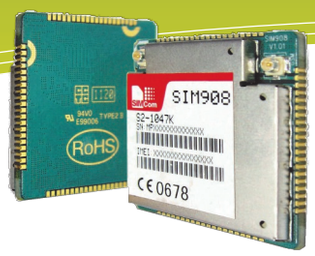
SIM908

Combination GSM/GPRS+GPS Module in an SMT package



OVERVIEW

The SIM908 is the first member of a new family of ARM926EJ-S based modules doubling the core performance frequency versus traditional ARM7 based solutions. At the same time, with advanced, innovative design, the SIM908 can reduce sleep mode power consumption, providing a power saving of up to 40% compared to current industry averages.

It is delivered in an SMT package size of 30x30x3.2mm.

The product features an integrated internal GPS.

Considering the high performance, low power, and small size, SIM908 is an ideal module for many M2M applications where positioning is required at and affordable price.

GENERAL FEATURES

- Quad Band 850 / 900 / 1800 / 1900 MHz
- GPRS Multi-slot class 10
- GPRS Mobile Station class B
- Compliant to GSM phase 2 / 2+
  - Class 4 (2W @ 850 / 900 MHz)
  - Class 1 (1W @ 1800 / 1900 MHz)
- Dimensions: 30 x 30 x 3.2mm
- Weight: 5.2g
  -SIM908-C:11.1g
- Control via AT Commands (GSM 07.07, 07.05 and SIMCOM enhanced AT Commands)
- SIM Application Toolkit
- Supply Voltage Range
  -GPRS: 3.2V ~ 4.8V
  -GPS: 3.0V ~ 4.5V
- Low Power Consumption
- Normal Operating temperature: -40ºC to +85ºC

Specifications for SMS via GSM/ GPRS

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

Specifications For Audio

- Tricodec
  - Half rate (HR)
  - Full rate (FR)
  -Enhanced Full rate (EFR)
- Hand-free operation
- Echo cancelation

Compatibility

- AT cellular command interface

Certifications

- CE
- ROHS

Specifications for data transfer

- GPRS Class 8/10: max 85.6 kbps downlink
- PBCCH support
- Coding Schemes CS 1, 2, 3, 4
- CSD up to 14.4 kbps
- USSD
- Non Transparent Mode
- PPP-stack
- Integrated TCP/IP stack

Specification for GPS

- Receiver type
  - 42-channel
  - GPS L1 C/A code
  - High-performance STE engine
- Sensitivity
  -Tracking: -160 dBm
  - Cold starts: -143 dBm
- Time-To-First-Fix
  -Cold starts: 30s (typ.)
  -Hot starts: 1s (typ.)
- Accuracy
  - Horizontal position: <2.5m CEP
- Power consumption (GSM engine in idle mode)
  - Acquisition 77mA
  - Tracking 76mA

Interface

- 80-pad with SMT type
- Interface to external SIM 3V/1.8V
- Dual analog audio interface
- SPI interface
- RTC backup
- Charge interface
- A serial interface and a debug Interface for GSM/GPRS
- Debug interface for GPS NMEA Information output
- Two separate antenna connectors for GSM /GPRS & GPS

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