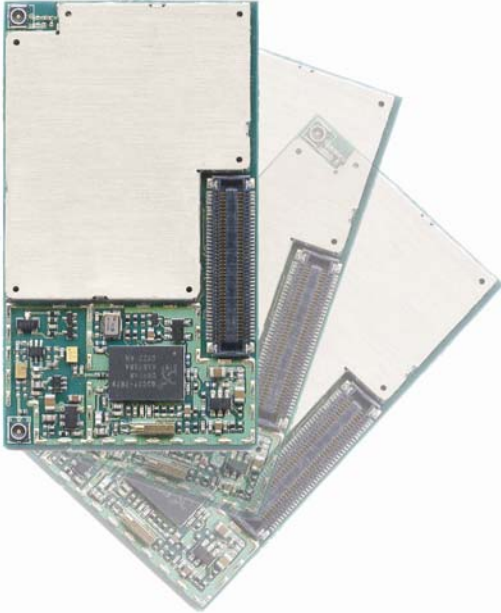


# SIM508

## GSM/GPRS+GPS Module



SIM508 module is a Tri-Band/Quad-Band\* GSM/GPRS-enabled module that is also equipped with GPS technology for satellite navigation. The compact design of the new SIM508 makes it easy to integrate GSM/GPRS & GPS as an all-in-one solution. You will save significantly both time and cost for the integration of additional hardware components.

The combination of both technologies allows goods, vehicles and people to be tracked seamlessly at any location and anytime.

\* Quad-Band version will be released @Q1,2006



***We make future wireless***

## General features

- Overall dimensions: 34mm x 55mm x 3 mm
- Weight: approx. 10g

## GSM/GPRS specifications

### General features

- Tri-Band 900/1800/1900 MHz or Quad-Band 850/900/1800/1900 MHz\*
- GPRS multi-slot class 10
- GPRS mobile station class B
- Compliant to GSM phase 2/2+
  - Output power:
    - 2 W for GSM850/GSM900
    - 1 W for GSM1800/GSM1900
- Control via AT commands (GSM 07.07 and 07.05 and SIMCOM enhanced AT commands)
- SIM application tool kit
- Low power consumption
- Supply voltage range 3.2...4.5 V
- Normal operation temperature: -20°C to +55°C
- Restricted operation temperature: -25°C to -20°C and +55°C to +75°C
- Auto switch-off at +85°C

### Specifications for SMS via GSM and GPRS

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

### Specifications for fax

- Group 3, class 1

### Specifications for data transfer

- GPRS class 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

\* Quad-Band version will be released @Q1,2006

## Specifications for audio

- Tricodex:
  - Half rate (HR)
  - Full rate (FR)
  - Enhanced full rate (EFR)
- Hands-free operation
- Echo suppression

## Interfaces

- 80-pin board-to-board
- 07.10 Multiplexer
- Interface to external SIM 3V or 1.8V
- Dual analog audio interface
- AT commands via serial interface
- keypad interface
- LCD Interface
- RTC Backup
- Charge interface
- Dual serial interface for GSM/GPRS
- Dual serial interface for GPS
- Two separate antenna connectors for GSM/GPRS&GPS, and an antenna pad for GSM/GPRS

## Compatibility

- AT cellular command interface

## Specifications for GPS

- Receiver 20 channels, L1 1575.42 MHz, C/A code 1,023 MHz chip rate
- Accuracy Position 10 m CEP
  - without SA/Velocity 0.1 m/s,
  - without SA/Time 1  $\mu$ s synchronized to GPS time
- DGPS accuracy 1 to 5 m, typical, 0.05 m/s, typical
- Date WGS-84
- Acquisition rate (TTFF defined at 95% of first position local station)
  - Hot start < 1s, average, open sky
  - Warm start < 38s, average, open sky
  - Cold start < 42s, average, open sky
- Operating voltage 3.3 V DC  $\pm$ 5%
- Low power consumption ca. 200 mW at 3.3 V
- Protocols
  - NMEA-0183
  - SiRF binary
  - RTCM SC-104
- Crystal oscillator (TCXO), temperature compensated with frequency stability of  $\pm$ 0.5 ppm
- Memory 4 Mb flash and 1Mb SRAM