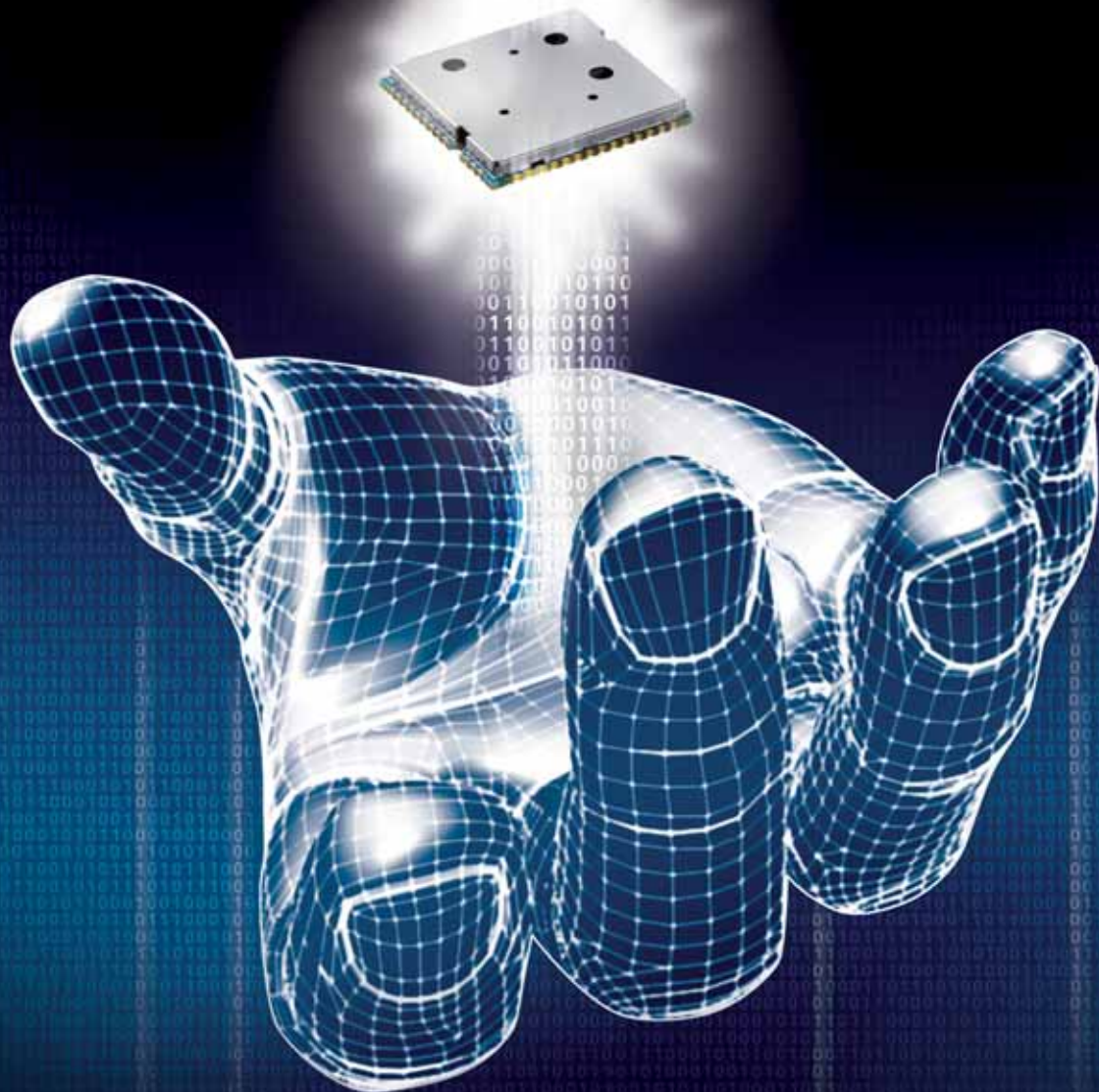


SAGEM HiLo^{NC}

Connectorless GPRS M2M modules

Adaptability :
a clear sign of intelligence



**FREEDOM OF SPEECH
FOR SMART MACHINES**



SAGEM HiLo^{NC}

Connectorless GPRS M2M modules

SMT mount module

GSM, GPRS Class 10

Full Quad band Support: 850/900/1800/1900 MHz

Extremely small Form Factor (24 mm x 24 mm x 2.6 mm)

Extremely light weight (< 3 g)

Extended operational temperature range (from -40°C up to +85°C)

Very low power consumption (< 1,5 mA in Idle mode)

Complete embedded Internet connectivity

Ruggedized design for automotive & industrial applications

Extended sensitivity level



SAGEM introduces its new GPRS solution for all your M2M applications :

- Smallest GPRS module available on the market, SAGEM HiLo^{NC} perfectly suits all your applications for which size matters ! (Track&trace, POS, security...)
- Thanks to its extremely low power consumption, SAGEM HiLo^{NC} increases the autonomy of your battery-powered applications (POS, Track&trace, security phones...)
- With its extended t° range, SAGEM HiLo^{NC} understands your specific automotive requirements.
- Last but not least, thanks to its very competitive positioning, SAGEM HiLo^{NC} creates new possibilities for all your cost-driven applications (Metering...)

Moreover, by choosing SAGEM, you decide to choose :

- A world class manufacturer who controls its own production capacity
- A technology validated and approved worldwide
- A top of the range technical support
- The highest standards of quality

TECHNICAL FEATURES

ENVIRONMENT

- SMT mount type
- Size (L x W x H mm) : 24 x 24 x 2.6
- Weight : < 3 g
- Operational Temperature range : -40°C / +85 °C
- Power supply DC voltage (min / max / nominal) : 3.2 V / 4.5 V / 3.7 V
- Antenna Connection & Detection
- Full Type Approved : R&TTE, GCF, PTCRB, FCC, Rohs Compliancy
- Consumption in Standby mode (can receive a call) : < 1.5 mA
- Enhanced mechanical integration for ruggedized environment
- Diagnostic temperature support
- Easy scan features
- Firmware upgrade over the air (FOTA)

RADIO LINK

- Full Quad Band : EGSM 850, 900, 1800, 1900
- Output Power : Class 4 (2W) for 850 / 900 Mhz ; Class 1 (1W) for 1800 / 1900 Mhz
- GPRS Multislot Class : class 10 (3+2 & 4+1)
- GPRS baudrates : DL up to 85,6 kbps, UL up to 42,8 kbps
- GPRS Coding Scheme : CS1 to CS 4
- Mobile Station Class B

DATA INTERFACES

- 2 serial Interfaces (incl. one for internal traces)
- Full Hardware and Software Flow Control
- AT commands set : GSM 07.05; 07.07; 07.10, Proprietary AT commands
- Multiplexing 07.10 serial interface
- Data over CSD 9,6 kbps, Fax
- Complete internet connectivity embedded : TCP, FTP, UDP, SMTP, POP3...
- 5 generals I/O & 1 ADC
- Reset input

AUDIO INTERFACE

- Voice codecs : HR, EFR, FR, AMR
- Analog audio interface
- Echo Cancellation & Noise reduction

GSM FEATURES

- Automatic hang up for Data call
- Internal Phonebook
- CLIP / CLIR / COLP / COLR
- Call wait / call hold, Conference call
- Call forwarding, Call Barring
- Supports of : FDN, USSD, Sim Toolkit, AoC
- PDU and Text mode SMS support
- MMS support (dedicated AT commands)
- Module reset/alarm based on RTC

LOCALIZATION

- SMS CB, Cell ID
- Network cells measurements

SECURITY

- Sim lock supported
- Device lock possibility
- Dedicated TAC for Customization purpose
- Sim 3V & 1.8 V supported

DEVELOPMENT AND SUPPORT TOOLS

- Extensive Documentations: HW Specs, Application Note, AT command list, pedagogical documentations
- Development board
- Evaluation software tools (TCP-IP, MMS, 07.10 protocol, ...)
- Audio settings tool
- Upgrade tools
- Design, Certification & production support

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