SAGEM HILO

GPRS M2M modules

The highest concentration
of technology in the smallest package

**FREEDOM OF SPEECH
FOR SMART MACHINES**

SAGEM

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GPRS M2M modules

GSM, GPRS Class 10

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

Extremely small Form Factor (27 mm x 27 mm x 3.6 mm)

Extremely light weight (< 4.3 g.)

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

Very low power consumption (< 1,25 mA in Idle mode)

Complete embedded Internet connectivity

Ruggedized design for automotive & industrial applications

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

- Smallest GPRS module available on the market, SAGEM HiLo perfectly suits all your applications for which size matters! (Track&trace, POS, security…)
- Thanks to its extremely low power consumption, SAGEM HiLo increases the autonomy of your battery-powered applications (POS, Track&trace, security phones…)
- With its extended t° range, SAGEM HiLo understands your specific automotive requirements.
- Last but not least, thanks to its very competitive positioning, SAGEM HiLo 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
- 40 Pins Industrial approved Connector
- Size (L x W x H mm): 27 x 27 x 3.6
- Weight: < 4.3 g.
- Operational Temperature range: -40°C / +85 °C
- Power supply DC voltage (min / max / nominal): 3.2 V / 4.5 V / 3.6 V
- Antenna Connection & Detection through 50 ohms RF connector or Antenna pad
- Full Type Approved: R&TTE, GCF, PTCRB, FCC, Rohs Compliancy
- Consumption in Standby mode (can receive a call): < 1.25 mA
- Consumption in off mode: < 56 µA
- Enhanced mechanical integration for ruggedised environment

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

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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