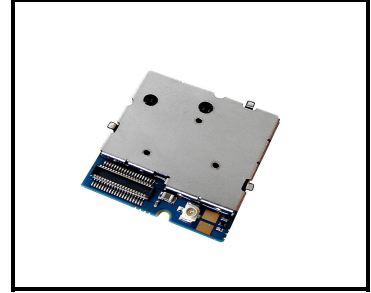


# SAGEM HiLo Module

## PRODUCT SYNOPSIS

### FEATURES SUMMARY

**Very small Form Factor ( 27mm X 27 mm X 3.4 mm) Preliminary**  
**GSM, GPRS Class 10**  
**RoHS compliant**  
**Quad band Support**  
**Extended temperature range (from -40°C up to +85°C)**  
**Low power consumption (< 2mA in Idle mode)**  
**Ultra high Internet connectivity**



### DETAILED SPECIFICATIONS

GENERAL CHARACTERISTICS	
<b>Size</b>	
Dimension (LxWxH, mm)	Preliminary 27 x 27 x 3.4 mm
Weight (g)	7
Foot Print (cm <sup>2</sup> )	7.29
<b>Connectivity</b>	
Technology	Connector
Number of pins	40 Molex connectors
Antenna connection	50 ohms, coaxial cable or contact plate

RADIO LINK	
<b>GSM</b>	
GSM Band	850 - 900 - 1800 - 1900
Voice codecs	HR, EFR, FR, AMR
<b>GPRS</b>	
PBCCH supported	yes
GPRS Class	B (suspend/resume supported)
GPRS Multislot Class	class 10 (2+4, 5 active active time slot at a time)
GPRS baudrates	DL up to 85,6 Kbps and UL up to 42,8 kbps
<b>Others</b>	
EDGE	no
UMTS	no

POWER MANAGEMENT	
<b>Power supply</b>	
Power supply DC voltage (min / max / nominal)	3.2 V / 4.5 V / 3.6 V
<b>Power Management</b>	
Autonomous sleep mode management	yes
Inhibition of sleep mode	yes
Negotiated between DTE and DCE	yes
<b>Power Consumption</b>	
Consumption in Communication mode	220 mA average, 2200 mA peak during TX slot
Consumption in Standby mode (can receive a call)	< 2 mA
Consumption in off mode	50 uA
<b>Battery charging function</b>	
Battery charging algorithm embedded in the software	yes
Battery type recommended	Li-Ion or Li Polymer *

INTERFACE with EXTERNAL CPU	
<b>Command and data interface</b>	
Multiplexed serial interface	yes (07.10 MUX interface)
2nd serial interface	Yes, SPI Interfaces for Internal Traces.
<b>V24 flow control</b>	
Flow control Module => DTE	yes, hardware and software
Flow control DTE => Module	yes, hardware and software
<b>Command set</b>	
AT commands set	07.05, 07.07, v25ter

AUDIO INTERFACE	
<b>Audio interface</b>	
Analog audio interface	1
Type of audio input/output	Differential
<b>Audio settings</b>	
Microphone sensitivity setting	yes
Speaker gain setting	yes
Acoustic echo cancellation	yes
<b>Audio features</b>	
Ringtones management	yes



**GSM STANDARD FEATURES & CALL MANAGEMENT**

<b>Call management</b>	
Automatic answer	yes (data calls only)
Internal Phonebook	yes
Call history (dialed, received and missed)	no
CLIP / CLIR / COLP / COLR	yes
Call wait / call hold	yes
Conference call	yes
Call forwarding	yes
Call barring	yes
Forbidden list	no
<b>Supplementary services</b>	
FDN	yes
USSD	yes, Phase 2+
Sim toolkit	yes, Class 3 Release 99
AoC	yes

**MESSAGING**

<b>Messaging</b>	
SMS	yes (text mode and PDU mode)
MMS	no

**DATA**

<b>Data / Fax</b>	
Built-in data / fax Modem	yes
Data over CSD 9,6 kbps	yes
Data over GPRS	yes
<b>Built-in communication protocols</b>	
IP	yes
TCP Sockets	yes
FTP	yes

**LOCALIZATION**

<b>Localization features</b>	
SMS CB	yes
Cell ID	yes
Network cells measurements	yes

**SECURITY**

<b>Security</b>	
Sim lock	yes (under certain condition)
Device lock	Yes

**DEVELOPMENT TOOLS**

<b>Extensive documentation</b>	
Dummy	yes
Hardware specification	yes
Application Note	yes
AT commands list	yes
<b>Comprehensive suite of developer tools</b>	
Evaluation board	yes
Evaluation software tools	yes
Audio setting tool	yes
Upgrade tools	yes
<b>Smart Phone / PDA</b>	
Microsoft Windows Mobile Compliant	yes
Microsoft RIL drivers	yes