

GSM | GPRS

GE863-SIM

Embedded



- Integrated SIM on chip
- Telit Unified AT Command Set
- BGA Package
- Quad Band GPRS
- GPRS Class 10
- RoHS Compliant
- SIM Access Profile
- PYTHON* Script Interpreter
- Embedded FTP and SMTP Client
- Extended Temperature Range
- Extended RF Sensitivity
- Serial Port Multiplexer (GSM 7.10)
- Embedded TCP/IP Stack



TELIT INFINITA SERVICES



The GE863-SIM, the latest generation of GE863 product family, adding the integrated SIM on chip feature to other family standards like quad-band functionality and RoHS compliance allows one consistent product for all global GSM networks and gives a significant cost advantage by saving approval and logistic costs.

The unique Ball-Grid-Array (BGA) package enables a low profile and small resulting product size for the design of compact applications. Since connectors are eliminated, the solution cost is significantly reduced compared to conventional mounting. With its low profile design and extended temperature range, the Telit GE863-SIM is the perfect platform for compact, medium to high volume m2m applications. Additional features such as jamming detection, integrated TCP/IP protocol stack, and Easy Scan® functionality enhance the application at no additional cost.

The Telit's GE863-SIM SIM on chip is a solution integrated in the modules with great advantages in m2m applications for its long life, temperature, vibration, shock and humidity resistance, easy logistics and increased SIM protection. The Python application development environment available on the GE863-SIM makes it possible to run the customer's program inside the module, translating it into a very cost effective and feature rich platform quite capable of becoming the complete solution for the customer application. State-of-the-art SPI and IIC interfaces provide connectivity for external peripherals such as sensors and displays.

All Telit modules, support Over-the-Air firmware update by means Premium FOTA Management. By embedding RedBend's vCurrent® agent, a proven and battle-tested technology powering hundreds of millions of cellular handsets world-wide Telit is able to update its products by transmitting only a delta file, which represents the difference between one firmware version and another.

As a part of Telit's corporate policy of environmental protection, all products comply to the RoHS (Restriction of Hazardous Substances) directive of the European Union (EU Directive 2002/95/EG).

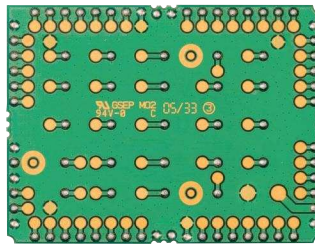
Product features

- Quad-band EGSM 850 / 900 / 1800 / 1900 MHz
- Output power
 - Class 4 (2W) @ 850 / 900 MHz
 - Class 1 (1W) @ 1800 / 1900 MHz
- Control via AT commands according to GSM 07.05, 07.07 and Telit enhancements
- Supply voltage range: 3.22-4.5 V DC (3.8 V DC recommended)
- Power consumption (typical values)
 - Power off: < 26 uA
 - Idle (registered, power saving): 2.6 mA
 - Dedicated mode: 200 mA
 - GPRS cl.10: 370 mA
- SIM on chip
- Serial port multiplexer GSM 7.10
- SIM access profile
- Sensitivity:
 - 107 dBm (typ.) @ 850 / 900 MHz
 - 106 dBm (typ.) @ 1800 / 1900 MHz
- Dimensions: 41.4 x 31.4 x 3.6 mm
- Weight: 9 grams
- Extended temperature range
 - 40°C to +85°C (operational)
 - 40°C to +85°C (storage temperature)
- RoHS compliant
- TCP/IP stack access via AT commands

Making machines talk.®

GE 863-SIM

Embedded



actual size



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Interfaces

- 18 I/O ports maximum
- Analog audio (balanced and unbalanced)
- 3 A/D plus 1 D/A converters
- Buzzer output
- ITU-T V.24 serial link through CMOS UART:
 - Baud rate from 300 to 115,200 bps
 - Autobauding from 2,400 to 57,600 bps

Audio

- Telephony, emergency call
- Half rate, full rate, enhanced full rate and adaptive multi rate voice codecs (HR, FR, EFR, AMR)
- Superior echo cancellation & noise reduction
- Handset & hands-free operations
- DTMF

Approvals

- Fully type approved conforming with R&TTE directive
- CE, GCF

SMS

- Point-to-point mobile originated and mobile terminated SMS
- Concatenated SMS supported
- SMS cell broadcast
- Text and PDU mode

Circuit switched data transmission

- Asynchronous transparent circuit switched data (CSD) up to 14.4 kbps
- Asynchronous non-transparent CSD up to 9.6 kbps
- V.110

GPRS data

- GPRS class 10
- Mobile station class B
- Coding scheme 1 to 4
- PBCCH support

Fax

- Group 3, class 1

GSM supplementary

- Call forwarding
- Call barring
- Call waiting & call hold
- Advice of charge
- Calling line identification presentation (CLIP)
- Calling line identification restriction (CLIR)
- Unstructured supplementary services mobile originated data (USSD)
- Closed user group

Additional features

- SIM phonebook
- Fixed dialing number (FDN)
- Real-time clock
- Alarm management
- Battery management
- Network LED support
- IRA character set
- Jamming detection & report
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP and FTP protocols
- TFMS (Telit Firmware Management Services) Over-the-Air update

Python* application resources

- Python* script interpreter (module takes the application code directly in the Python* language)
- Memory: 2 MB of NV memory for the user scripts and 1.2 MB RAM for the Python* engine usage
- Over-the-air application SW update
- IIC Bus and SPI Bus controlled in Python*



Telit's EASY features

- EASY SCAN® automatic scan over GSM frequencies (also without SIM card)

Order-No.

Please contact your Telit representative for order codes and all further information

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