Telit® wireless solutions

GSM | GPRS

GE 865-QUAD
Embedded

Ultra Compact

01 01 01 01 Telit Unified AT Command Set

RUN AT Commands Remotely

BGA Package

GPR **4** Quad Band GPRS

GPRS Class 10

RoHS Compliant

SIM SIM Access Profile

PYTHON* Script Interpreter

Embedded FTP and SMTP Client

Extended Temperature Range

Extended RF Sensitivity

Serial Port Multiplexer (3GPP 27.010)

Embedded TCP/IP Stack

TELIT INFINITA SERVICES

FOTA Premium FOTA Management

intel Intelligent Systems Alliance

The new GE865 product family introduces the smallest GSM/GPRS Ball-Grid-Array (BGA) modules in the market.

The low profile and small size of the unique BGA package for the GE865-QUAD enable the design of extremely compact applications. Since connectors are eliminated, the solution cost is significantly reduced compared to conventional mounting.

With its ultra-compact design and extended temperature range, the Telit GE865 product line is the perfect platform for high-volume m2m applications and mobile data devices. Additional features such as integrated TCP/IP protocol stack and serial multiplexer extend functionality of the application at no additional cost.

The GE865 makes it possible to run the customer's application inside the module using Python Script Interpreter, thus making it the smallest, complete platform for m2m solutions.

All Telit modules, support Over-the-Air firmware update by means Premium FOTA Management. By embedding Red Bend Software vRapid Mobile® 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).
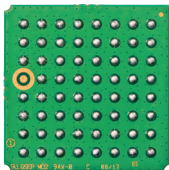
Product features

- Quad-band EGSM 850 / 900 / 1800 / 1900 MHz
- GSM/GPRS protocol stack 3GPP Release 4 compliant
- Output power
  - Class 4 (2W) @ 850 / 900 MHz
  - Class 1 (1W) @ 1800 / 1900 MHz
- Control via AT commands according to 3GPP TS 27.005, 27.007 and Telit custom AT commands
- Control via Remote AT commands
- Power consumption (typical values)
  - Power off: < 62 uA
  - Idle (registered, power saving): 1.5 mA @ DRX=9
  - Dedicated mode: < 240 mA @ max power level
  - GPRS cl.10: < 420 mA @ max power level
- Serial port multiplexer 3GPP TS 27.010
- SIM access profile
- SIM application toolkit 3GPP TS 51.014

- Extended supply voltage range: 3.22–4.5 V DC (3.8 V DC nominal)
- TCP/IP stack access via AT commands
- Sensitivity:
  < -107 dBm @ 850 / 900 MHz
  < -106 dBm @ 1800 / 1900 MHz
- Dimensions: 22 x 22 x 3 mm
- Weight: 3.2 grams
- Extended temperature range
  -40°C to +85°C (operational)
  -40°C to +85°C (storage temperature)
- DARP/SAIC support
- Enhanced Measurement Report support
- RoHS compliant

Making machines talk.®

GE865-QUAD
Embedded

Telit is in it.

actual size

Telit ® wireless solutions

Telit Communications S.p.A.
Via Stazione di Prosecco, 5/B
I-34010 Sgonico (Trieste), Italy
Tel   +39 040 4192 200
Fax   +39 040 4192 289
E-Mail: EMEA@telit.com

Telit Wireless Solutions Inc.
3131 RDU Center Drive, Suite 135
Morrisville, NC 27560, USA
Tel +1 888 846 9773 or +1 919 439 7977
Fax +1 888 846 9774 or +1 919 840 0337
E-Mail: NORTHAMERICA@telit.com

Telit Wireless Solutions Inc.
Rua Cunha Gago, 700 - cj 81, Pinheiros
São Paulo - SP, 05421001, Brazil
Tel   +55 11 2679 4654
Fax   +55 11 3031 5051
E-Mail: LATINAMERICA@telit.com

Telit Wireless Solutions Co., Ltd.
12th Fl., Shinyoung Securities Bld.
34-12, Yeouido-dong, Yeongdeungpo-gu
Seoul, 150-884, Korea
Tel. +82 2 368 4600
Fax +82 2 368 4606
E-Mail: APAC@telit.com

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Distributed by:

Interfaces
- 10 I/O ports maximum
- Analog audio (balanced)
- Digital Voice Interface
- 2 A/D plus 1 D/A converter
- Buzzer output
- ITU-T V.24 serial link through CMOS UART:
  - Baud rate from 300 to 115.200 bps
  - Autobauding up to 115.200 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
- Multiple audio profiles pre-programmed and fully configurable by mean AT commands
- DTMF

Approvals
- Fully type approved conforming with R&TTE directive
- CE, GCF, FCC, PTCRB, IC

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

Circuit switched data transmission
- 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
- GERAN Feature Package 1 support (NACC, Extended TBF)

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
- Network LED support
- IRA , GSM, 8859-1 and UCS2 character sets
- Jamming detection
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP, ICMP and FTP protocols
- Remote AT commands
- Event monitor
- PFM (Premium FOTA Management) Over-The-Air Update service

Python* application resources
- Python* script interpreter (module takes the application code directly in the Python* language)
- Memory: 1.9 MB of NV memory for the user scripts and 1 MB RAM for the Python* engine usage

🐍 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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