

# GSM | GPRS

## GE865-QUAD Embedded



- Ultra Compact
- Telit Unified AT Command Set
- RUN AT Commands Remotely
- 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 (3GPP 27.010)
- Embedded TCP/IP Stack

**TELIT INFINITA SERVICES**

Premium FOTA Management

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 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).

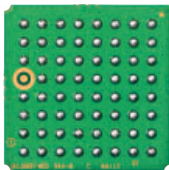
### Product features

- Quad-band EGSM 850 / 900 / 1800 / 1900 MHz
- 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: < 25 uA
  - Idle (registered, power saving): < 1.8 mA
  - Dedicated mode: < 270 mA @ max power level
  - GPRS cl.10: < 370 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 (typ.) @ 850 / 900 MHz
  - 106 dBm (typ.) @ 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
- RoHS compliant

**Making machines talk.®**

# GE865-QUAD

Embedded



actual size

## Interfaces

- 10 I/O ports maximum
- Analog audio (balanced)
- Digital Voice Interface
- 2 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 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
- 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

## 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
- Over-the-air application SW update



## 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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