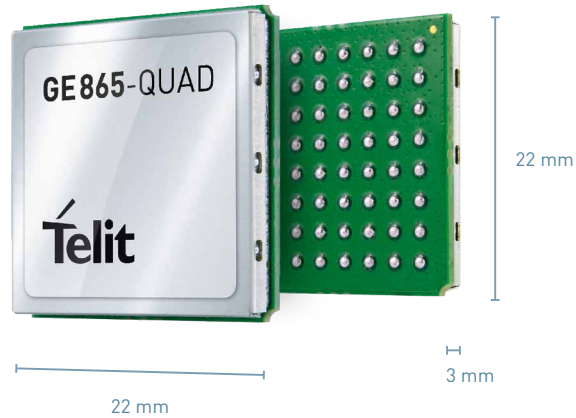


# GE865-QUAD

GSM | GPRS Embedded



## Product Description

Telit's highly successful GE865-QUAD is a reliable 2.5G cellular solution that is perfect for size sensitive and high-volume industrial applications. Features, including on-board Python interpreter and Over-The-Air firmware update, make this product a complete and efficient solution for any M2M market.

## Key Benefits

- Very small form factor, measuring only 22 x 22 x 3 mm
- Low-power – ideal for wearable, medical, solar powered applications
- PYTHON Script Interpreter - customers can run their Python applications directly inside the module
- Premium FOTA Management - Easy firmware update by transmitting only a small delta file

## Family Concept

The BGA packaged GE865 series is the ideal solution for embedded cellular applications where small size and energy efficiency are crucial.

The series, which currently includes only the GE865-QUAD, is significantly smaller, features a better power consumption profile than previous Telit modules and the majority of current competing products.

Because of its extremely compact form factor and a rich set of features, including on-board Python interpreter, it is positioned for vertical application areas such as wearable, telemetry, mobile asset tracking and telemedicine.

## Telit IoT LOCATE

IoT LOCATE is a Telit portal-based service that provides a device's position based on observed cellular Cell-IDs. Accessing a database of over 40 million cell-IDs globally, IoT LOCATE can provide a position for every use-case including indoors/underground, outdoors, and boundary situations.

## IoT Connectivity Ready

This product is capable of supporting the extensive suite of IoT Connectivity value-added services and connectivity you can use to enhance your application and boost your competitive advantage.

### AVAILABLE FOR

- EMEA
- North America
- Latin America
- APAC
- Korea
- Australia

### Combine your Cellular module with

Short Range modules



GNSS modules



[www.telit.com](http://www.telit.com)

### Complete, Ready to Use Access to the Internet of Things



# GE865-QUAD

## Product Features

- Quad-band GSM | GPRS 850/900/1800/1900 MHz
- GSM | GPRS protocol stack 3GPP Release 4 compliant
- Control via AT commands according to 3GPP TS 27.005, 27.007 and Telit custom AT commands
- Serial port multiplexer 3GPP TS 27.010
- SIM access profile
- SIM application toolkit 3GPP TS 51.014
- DARP/SAIC support
- SMS support
- SMS over GPRS
- 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
- SIM phonebook
- Fixed dialing number (FDN)
- Real-time clock
- Alarm management
- Network LED support
- IRA, GSM, 8859-1 and UCS2 character set
- Jamming detection
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP, ICMP and FTP protocols
- PFM (Premium FOTA Management) Over-The-Air Update service
- Remote AT commands
- Event monitor
- Telit's EASY features EASY SCAN® automatic scan over GSM frequencies (also without SIM card)

## Data

- GPRS class 10
- Mobile station class B
- Coding scheme 1 to 4
- PBCCH support
- GERAN Feature Package 1 support (NACC, Extended TBF)

## CSD

## Environmental

- 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)

## 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

## Approvals

- Fully type approved conforming R&TTE directive
- CE, GCF (Europe)
- FCC, IC, PTCRB (North America)
- ANATEL (Brazil)

## Electrical & Sensitivity

- Output power
  - Class 4 (2W) @ 850/900 MHz
  - Class 1 (1W) @ 1800/1900 MHz

- 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
- Extended supply voltage range: 3.22 – 4.5 V
- DC (3.8 V DC nominal)
- Sensitivity:
  - < -107 dBm (typ.) @ 850/900 MHz
  - < -106 dBm (typ.) @ 1800/1900 MHz

## Software

- Python\* application resources
- Python\* script interpreter (module takes the application code directly in the Python\* language)
- Memory: 800 kB of NV memory for the user scripts and 1 MB RAM for the Python\* engine usage



## Join the Telit Technical Forum

For a quicker and more rewarding integration experience join the Telit Technical Forum. There you can browse the first open forum covering all IoT topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing IoT community and exchange experiences.