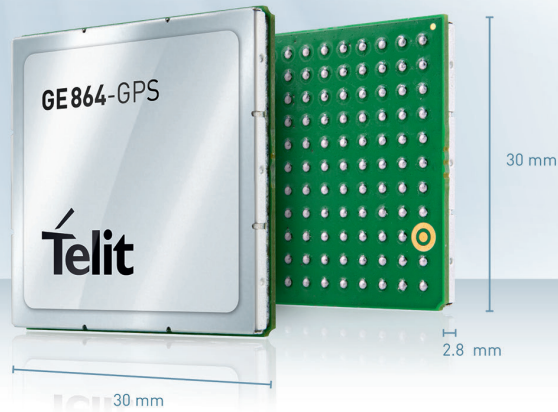




●● **GE864-GPS**

GSM | GPRS Embedded



## Product Description

The GE864-GPS is a compact GSM/GPRS module integrating full 48-channel A-GPS functionality. The low profile design makes the GE864-GPS an ideal platform for size sensitive, high-volume applications such as telematics, fleet management, tracking, security and vehicle navigation (compliant to the eCall directive).

The A-GPS receiver features very low power consumption, and adaptive micro-power controller to maintain hot start, position resolution accuracy of less than 2.5m, and a satellite based augmentation system, including GAGAN.

## Key Benefits

- RUN AT Remote Command and Event Monitoring services
- 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
- Easy migration from previous Telit versions and short time-to-market
- BGA package enables the design of compact applications, with reduced cost compared to board-to-board connector mounting
- Ideal platform for mobile size sensitive, high-volume applications, such as telematics, fleet management, tracking, security and vehicle navigation
- Ready to be integrated in automatic vehicles emergency & accident calling systems

## Family Concept

The GE864 quad-band GSM/GPRS series of cellular modules includes a standard variant, an ATEX certified variant, an automotive variant and a GPS-equipped variant; all featuring a common 30x30 mm footprint, low profile BGA package.

This allows developers and integrators to easily drop in different variants of the GE864 series with little design and integration time and effort.

## Telit m2mLOCATE

This product supports m2mLOCATE, a Telit cloud-based service that provides a device's position based on observed cellular Cell-IDs. Accessing a database of over 40 million cell-IDs globally, m2mLOCATE can provide a position for every use-case including indoors/underground, outdoors, and boundary situations.



## m2mAIR Ready

This product is capable of supporting the extensive suite of m2mAIR value-added services and connectivity you can use to enhance your application and boost your competitive advantage.

Find more information on [www.m2mair.com](http://www.m2mair.com)

### AVAILABLE FOR

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

### Combine your Cellular module with

- Short Range modules



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

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



Telit Modules + m2mAIR Value-Added Services including Connectivity

**m2mAIR**  
by Telit m2m experts

[www.m2mAIR.com](http://www.m2mAIR.com)

ONE STOP.  
ONE SHOP. NOW, INNOVATE!



## ●● GE864-GPS

### Product features

- Quad-band EGSM 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
- High sensitivity A-GPS receiver
- 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

- 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: 30 x 30 x 2.8 mm
- Weight: 6 grams
- Extended temperature range
  - 40°C to +85°C (operational)
  - 40°C to +85°C (storage temperature)

### GPS Receiver

- GPS current consumption:
  - Hibernate: 0,045mA
  - Acquisition: 45mA
  - Tracking: 37mA
  - Integrated LNA
- High sensitivity for indoor reception, up to -163 dBm
- Accuracy < 2.5 m
- Extremely fast TTFF's at low signal levels
- Hot start < 1s
- Warm start < 35 s
- Cold start < 35 s
- Active Jamming Remover
- Supports 48-channel GPS, L1 1575.42 MHz
- GPS NMEA 0183 output format
- Date WGS-84
- Dedicated GPS AT commands
- SBAS (WAAS, EGNOS, MSAS, GAGAN) support
- Optional Assisted GPS feature

### Interfaces

- 10 I/O ports maximum
- Analog Audio (balanced)
- 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
  - 2 GPS serial ports
  - PPS signal

### Approvals

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

### 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 (GPS OFF)
  - Dedicated mode: < 240 mA @ max power level
  - GPRS cl.10: < 420 mA @ max power level
- Supply voltage range: 3.22 – 4.5 V DC (3.8 V DC recommended)
- 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 m2m topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing m2m community and exchange experiences.