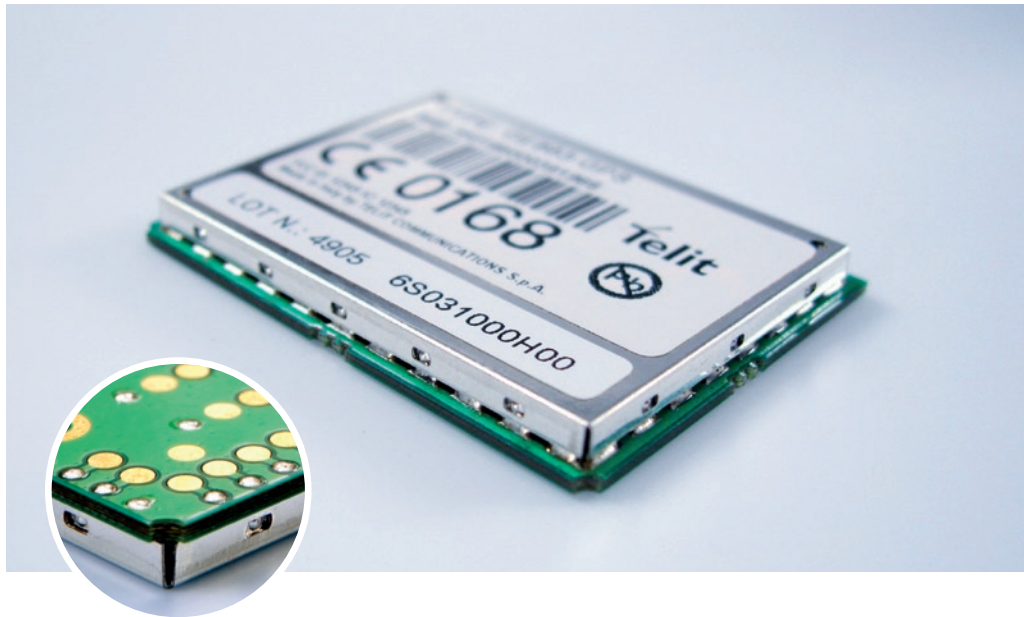














## GSM | GPRS

# GE863-GPS

Embedded



	Telit Unified AT Command Set
	SiRF® Powered
	20 Channel GPS Receiver
	BGA Package
	Quad Band GPRS
	GPRS Class 10
	RoHS Compliant
	PYTHON® Script Interpreter
	High Sensitivity
	Embedded FTP and SMTP Client
	Extended Temperature Range
	Extended RF Sensitivity
	Embedded TCP/IP Stack



TELIT INFINITA SERVICES



The new GE863-GPS is the smallest GSM/GPRS module in the market integrating full 20-channel GPS functionality. It combines the high performance from Telit's proven GSM/GPRS core technology with the latest SiRFstarIII™ high sensitivity single-chip GPS receiver.

The Ball-Grid-Array (BGA) package allows the end application to have a very low profile and small overall dimensions, making it possible for the design of extremely compact location-based-services solutions. Since connectors are eliminated, the solution cost is significantly reduced as compared to conventional mounting.

With its ultra low profile design, the Telit GE863-GPS is the ideal platform for mobile size-sensitive and high-volume applications in areas such as telematics, fleet management, tracking, security, and vehicle navigation. The new GPS receiver features low power consumption with position resolution accuracy of less than 2.5m, SBAS (WAAS and EGNOS) as well as high sensitivity for indoor fixes. These features combined with the available Python™ application development environment translate into a very cost effective and feature rich platform quite capable of becoming the total solution for the complete customer application.

Additional features including jamming detection, integrated TCP/IP protocol stack, and Easy Scan® offer unmatched benefits to the application developer without adding cost.

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 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).

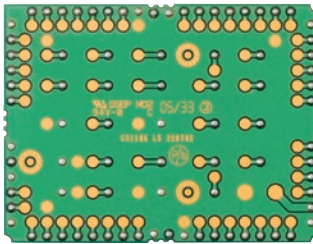
### Product features

- 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
- 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.®**

# GE863-GPS

Embedded



actual size

## GPS receiver

- GPS power consumption:  
operating current: 75 mA,  
(including 20 mA for the antenna LNA)
- High sensitivity for indoor reception,  
up to -159 dBm (with active antenna)
- Accuracy < 2.5 m
- Extremely fast TTFF's at low signal levels
- Hot start < 3 s
- Warm start < 35 s
- Cold start < 35 s
- 200,000+ effective correlators
- Supports 20-channel GPS,  
L1 1575.42 MHz
- GPS NMEA 0183 output format
- Date WGS-84
- Dedicated GPS AT commands
- SBAS (WAAS and EGNOS) support
- Low power consumption

## Interfaces

- 18 I/O ports maximum
- Analog audio (balanced and unbalanced)
- 1 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
- CE, GCF, FCC, PTCRB, IC, Anatel

## 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: 1.9 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 (with or without SIM card)

## Order-No.

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

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