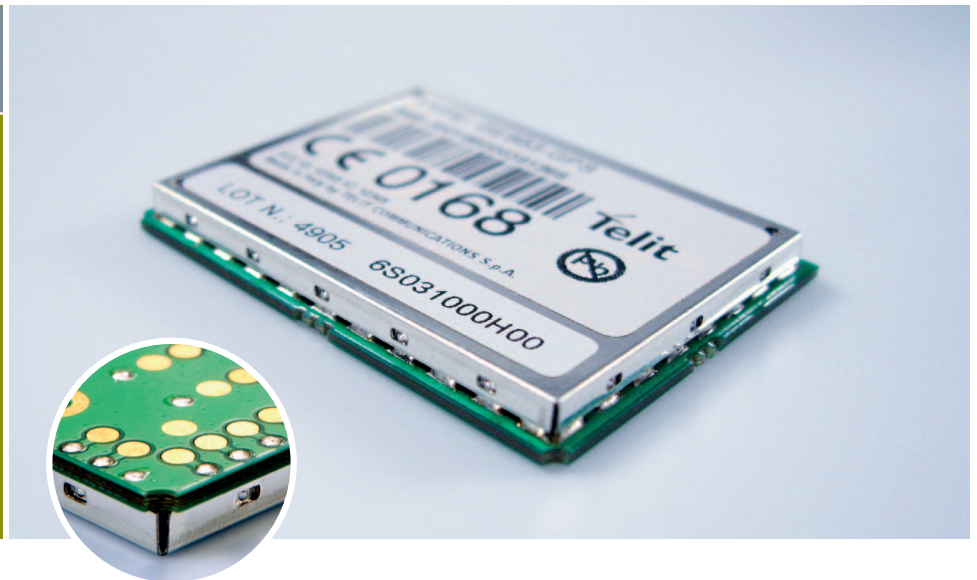















GSM | GPRS

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



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).

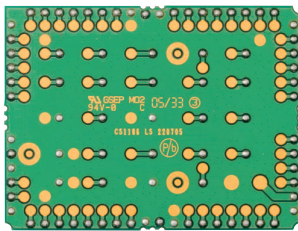
Product features

- 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



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 2679 4654
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

www.telit.com
www.telit.com/techforum
www.facebook.com/telitwireless
www.twitter.com/telit_ws

Distributed by:

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

Copyright © 2010, Telit
Subject to changes in technology, design and availability
* Copyright © 1991-1995 by Stichting Mathematisch
Centrum, Amsterdam, The Netherlands;
All Rights Reserved.
Copyright © 1995-2001 Corporation for National
Research Initiatives, All Rights Reserved.
Copyright © 2001-2010 Python Software Foundation;
All Rights Reserved.
All Rights Reserved are retained in Python.

