

# GSM | GPRS

# GM862-GPS Modem



- Telit Unified AT Command Set
- SiRF® Powered
- 20 Channel GPS Receiver
- Quad Band GPRS
- GPRS Class 10
- Pin to Pin Backward Compatible
- RoHS Compliant
- On Board SIM Holder
- SIM Access Profile
- PYTHON® Script Interpreter
- Embedded FTP and SMTP Client
- Extended Temperature Range
- Extended RF Sensitivity
- Serial Port Multiplexer (GSM 7.10)
- Embedded TCP/IP Stack



TELIT INFINITA SERVICES



The new GM862-GPS module is at the cutting edge of the Telit product line. It combines superior performance in quad-band GSM/GPRS modem functionality with the latest 20-channel high sensitivity SiRFstarIII™ single-chip GPS receiver. Pin-to-pin compatibility to the previous GM862-GPS module enhances and extends the functionality of new and existing GPS applications.

With its ruggedized design, extended temperature range, integrated SIM card holder, and industrial-grade connectors, the Telit GM862-GPS is the ideal platform for mobile 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)
- GSM 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: 43.9 x 43.9 x 6.9 mm
- Weight: 20 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.®**

# GM862-GPS

Modem



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

- 50-pin Molex connector
- 13 I/O ports maximum
- Analog audio (balanced and unbalanced)
- 1 A/D converter, buzzer output
- ITU-T V.24 serial link through UART:  
- CMOS level  
- Baud rate from 300 to 115,200 bps  
- Autobauding from 2,400 to 57,600 bps
- 50 Ohm MMCX antenna connector
- On board SIM card holder, 1.8V / 3V with  
real-time detection

## 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 © 2009, Telit Communications S.p.A.  
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 © 2001-2009 Python Software Foundation; All Rights Reserved.  
All Rights Reserved are retained in Python.



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.  
9th Fl., Daewoo Securities Bld.  
34-3 Yeouido-dong, Yeongdeungpo-gu  
Seoul 150-716, KOREA  
Tel +82 2 368 4600  
Fax +82 2 368 4606  
E-Mail: APAC@telit.com

www.telit.com

Distributed by:

www.lte.com.tr  
Long Term Evolution

www.lte.com.tr • info@lte.com.tr

LTE ELEKTRONİK ELEKTRİK TEK. VE YAZ. İTH. İHR. SAN. VE TİC. LTD. ŞTİ.

Add: Mustafa Kemal Mah. 2131sk. No: 32/2 TR-06510 Çankaya-ANKARA  
Tel: +90 312 443 03 04 Fax: +90 312 443 09 69