Telit wireless solutions

GM862-GPS
Modem

Feature icons

- 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

- Premium FOTA Management

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).
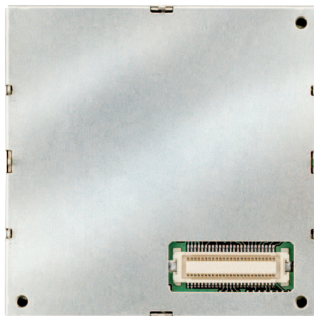
Product features

- 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

Telit
is in it.

TYPE:GM862-GPS
GPS
CE 168
PUSH PUSH SYSTEM
IMEI: 123456789012345
FCC ID: 123GM862GPS
GSM
Made in Italy by
Telit Communications S.p.A.
LOT N.: 4905   6S031000H00

actual size

Telit wireless solutions

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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
- 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*

🐍 python
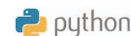
Telit's EASY features
- EASY SCAN ® automatic scan over GSM
  frequencies (with or without SIM card)

Order-No.
Please contact your Telit representative
for order codes and all further information

[09.2010]