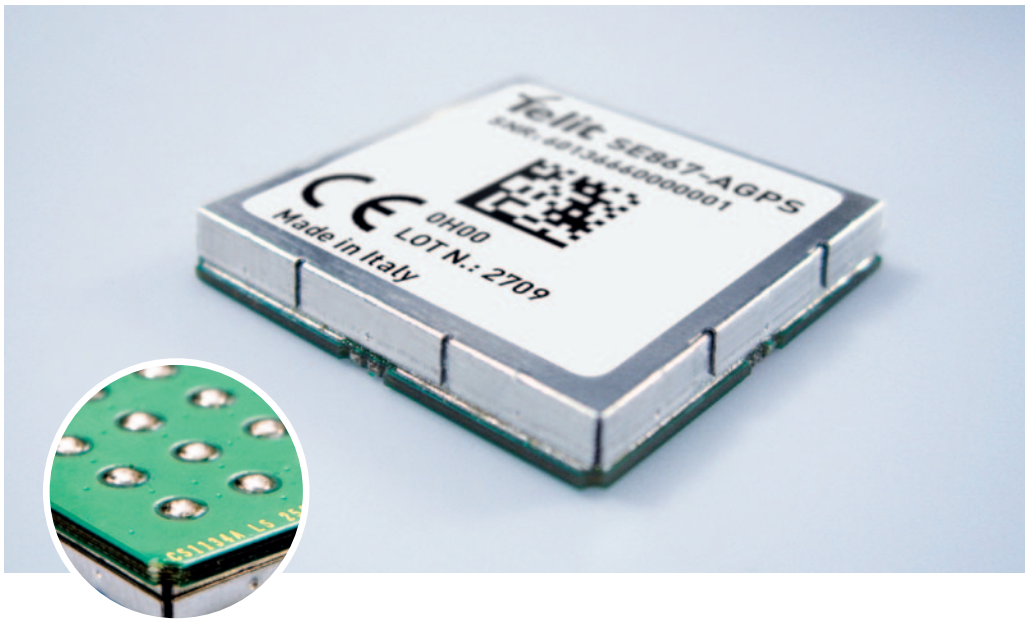
Telit wireless solutions

Satellite

SE 867-AGPS

GPS Standalone

Embedded



- Ultra Compact
- BGA Package
- High Sensitivity
- NMEA 0183
- < 1m Position Accuracy
- Low Power Consumption
- WAAS, EGNOS and MSAS capable
- 44 Channel GPS Architecture
- A-GPS
- 28 Ephemeris Pre-fetch
- RoHS Compliant
- Extended Temperature Range

The new SE867-AGPS is the smallest module in Telit portfolio, and the first GPS standalone module featuring state-of-the-art GPS characteristics, with the high quality and great support that usually accompany Telit products.

The low profile and small size of the unique BGA package for the SE867-AGPS enable the design of extremely compact applications. Since connectors are eliminated, the solution cost is significantly reduced compared to conventional mounting.

With its ultra-compact design and extended temperature range, the Telit SE867-AGPS is the perfect module for high-volume m2m applications and mobile data devices.

Requiring only 2 layers for PCB design and little integration effort for external components, Telit SE867-AGPS represents the ideal solution in terms of total cost effectiveness and time-to-market readiness.

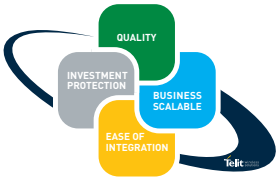
Equipped with a powerful yet power saving baseband processor, SE867-AGPS provides all the GPS information via NMEA standard protocol on serial interface.

Applications requiring extremely quick FIX can efficiently retrieve the correct position within two seconds, by means of assisted GPS and pre-fetch ephemeris features.

As a part of Telit's corporate policy of environmental protection, all Telit products comply to the RoHS (Restriction of Hazardous Substances) directive of the European Union (EU Directive 2002/95/EG).

Product features

- Dimensions: 18 x 18 x 3.5 mm
- Weight: 1.8 g
- 35 balls BGA package, requiring only 2 Layer PCB
- Frequency Band: L1Band, C/A Code
- Standards: NMEA, 3GPP AGPS performance requirements
- 44 Channel GPS architecture
- Sensitivity
  - Autonomous Cold Start Acquisition: -144 dBm
  - Assisted Acquisition: -155 dBm
  - Autonomous Tracking: -160 dBm
- Flexible power supply
  - Wide range from 2.5 up to 4.2 V plus reference voltage for I/O (1.8 V, 3 V typ)
  - Multiple input power for enhanced power saving (1.8 V, 3.0 V typ)
- Positional Accuracy (CEP50): Autonomous Positional Error < 1.0 m
- Velocity Accuracy (30 m/s)
  - Speed: < 0.05 m/s
  - Heading: < 0.2 deg
- Time To First Fix (50% @ -130 dBm)
  - Hot Start: 1.3 s
  - Cold Start: <35 s
- Power consumption
  - Acquisition: 75 mW
  - Tracking: 65 mW
- RoHS compliant



Making machines talk.®

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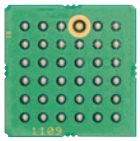

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Interfaces

- UART 4.8 – 230 k Baud Rate
- PPS for precise timing
- EGNOS, WAAS and MSAS capability embedded. Correction of positional errors due to ionospheric and orbital disturbances
- RTC for efficient power management

Approvals and Conformity Assessment

- CE mark
- IEC 60950 (2005)
- ETSI EN 300 440-2 (v.1.2.1)
- EN 301 489-3 (v.1.4.1)

Additional features

- A-GPS: ephemeris file injection
- Pre-Fetched ephemeris

Order-No.

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

Telit wireless solutions

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