

JUPITER **SL869**-V3 GNSS Standalone



### Product Description

The SL869-V3 has been designated without compromise to give the best pure GNSS tracking performances. The SL869-V3 is equipped with Teseo 3 core and is able to track GPS, Glonass, Beidou and Galileo constellations. Moreover, it supports A-GNSS onboard generation as well as A-GNSS server-generated file injection.

SL869-V3 is provided with multiple communication ports like UART, I2C and optionally Also USB. The I2C port is available to support external sensors.

The embedded flash memory allows FW upgrades and customization.

The embedded TCXO ensure stable top level performances over the whole temperature range.

The Jupiter SL869-V3 has been designed as a pure GNSS companion module of the SL869-3DR. The SL869-V3 is also pin-to-pin compatible with the SL869 and SL869-V2. While SL869-3DR is equipped with Dead Reckoning software and internal 6-axis MEMS sensor, the SL869-V3 is equipped with a pure GNSS navigation engine and does not have embedded MEMS in order to provide a low cost solution that enable customer to scale down the application keeping the same command interface of SL869-3DR.

The SL869-V3 is the best platform for high demanding applications like Automotive, Telematics, Metering.

#### **Key Features**

- GPS, Glonass, Galileo and Beidou compatible
- 16 x 12.2 x 2.4 mm LLC package
- Supply voltage range: 3 3.6 VDC
- Assisted GPS
- 10Hz Navigation, SBAS, 1PPS
- UART, I2C



Key Benefits

- Multi-constellation allows accurate navigation in hash environments such as urban canyons
- AGPS support via Extended Ephemeris injection as well as Extended Ephemeris on-board generation for fastest TTFF
- Compatible with JN3 and popular 12 x 16 mm industry standard footprint

#### Family Concept

The xL869 is Telit's GNSS Unified Form Factor family which allows customers to select among different GNSS technologies. Modules in this family are offered in a 16 x 12.2 mm, 24-pad, LCC package supporting GPS, GLONASS, Galileo, and QZSS constellations.

Our positioning product portfolio is the result of over twenty years of experience in GNSS applications. Telit has developed a range of products compatible with the wellknown GPS constellation as well as its Russian counterpart GLONASS. Moreover, our portfolio is fully aligned with the upcoming service launch of Europe's Galileo constellation. Valuable features such as Dead Reckoning, Precision Timing, as well as speed and reliability assured by multiconstellation coverage, provide additional benefits for your application.

Your application development effort can also benefit significantly from the seamless integration between Telit's cellular and positioning modules. This bundling of cellular and positioning modules significantly reduces development complexity without adding costs. Multi-constellation positioning products applied together with our eCall / ERA-GLONASS compliant cellular modules bring you ready-to-use emergency automotive tracking solutions for the European and Russian markets.

Typical applications include fleet management systems, European GPS-assisted road tolling systems, cellular base stations, in-car navigation systems, automotive telematicssystems, and GPS-based personal sports training monitors.

#### **Combine** your GNSS module with









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## JUPITER SL869-V3

**GNSS** Standalone

#### **Product Features**

- Frequency Band: GPS (L1), GLONASS (L1, FDMA), Galileo (E1), Beidou (B1)
- Standards: NMEA, RTCM 104
- 48 Channel GNSS architecture
- Positional Accuracy (CEP50): 1.5 m
- Time To First Fix (@ -130 dBm)
  - Hot Start: 1 s
  - Cold Start: < 35 s
- A-GPS: local ephemeris prediction
- A-GPS: server predicted ephemeris
- Jammer rejection

#### Environmental

- Dimensions: 16 x 12.2 x 2.4 mm
- Weight: 1.8 g
- 24-pad LCC package
- Temperature Range
- Operating temperature: -40 to +85°C
- Storage temperature: -40 to +85°C

#### Interfaces

- 3 UARTs
- 1PPS
- EGNOS, WAAS and MSAS
- 12C

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Telit Communications S.p.A. Via Stazione di Prosecco, 5/B I-34010 Sgonico (Trieste), Italy Phone +39 040 4192 200 Fax +39 040 4192 383 E-Mail EMEA@telit.com

Telit Wireless Solutions Inc. 3131 RDU Center Drive, Suite 135 Morrisville, NC 27560, USA Phone +1 888 846 9773 or +1 919 439 7977 +1 888 846 9774 or +1 919 840 0337 Fax E-Mail NORTHAMERICA@telit.com

Telit Wireless Solutions Inc. Rua Paes Leme, 524, Conj, 126 05424-101, Pinheiros São Paulo-SP-Brazil Phone +55 11 3031 5051 Fax +55 11 3031 5051 E-Mail LATINAMERICA@telit.com

Telit Wireless Solutions Co., Ltd. 8th Fl., Shinyoung Securities Bld. 6, Gukjegeumyung-ro8-gil, Yeongdeungpo-gu Seoul, 150-884, Korea Phone +82 2 368 4600 Fax +82 2 368 4606 E-Mail APAC@telit.com

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#### **Electrical & Sensitivity**

- Current consumption
- Acquisition: 46 (GPS+GLO) - Tracking: 42 (GPS+GLO)
- Power supply - VCC: 3.0 - 3.6 V
- Battery: 2.5 - 3.6 V
- Sensitivity
- Acquisition: -146 dBm
- Navigation: -158 dBm
- Tracking: -162 dBm