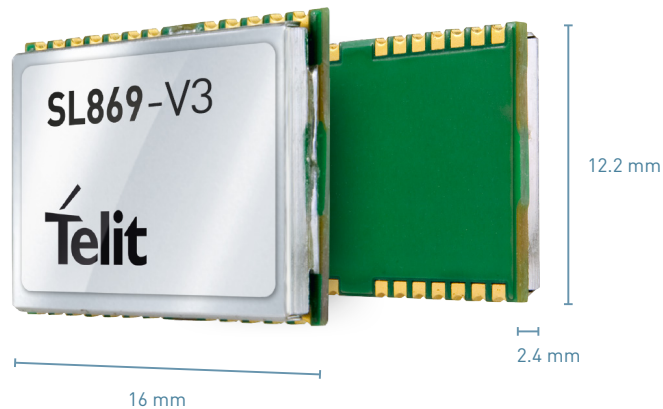


JUPITER SL869-V3

GNSS Standalone

GNSS Embedded



Product Description

The SL869-V3 has been designed without compromise to give the best pure GNSS tracking performances. The SL869-V3 is equipped with Teseo 3 core and can track GPS, Glonass, Beidou and Galileo constellations.

The embedded flash memory allows onboard AGPS storage, FW upgrades and customization. The RF frontend has an additional LNA and a SAW filter for enhanced performances. The embedded TCXO ensure stable and high performances over the whole temperature range.

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

The Jupiter SL869-V3 has been designed as a pure GNSS companion module of the SL869-ADR. While SL869-ADR 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 to provide a low-cost solution that enable customer to scale down the application keeping the same command interface of SL869-ADR.

The SL869-V3 is the best platform for high demanding applications like Automotive aftermarket, fleet management systems, European GPS-assisted road tolling systems.

Key Features

- GPS, Glonass, Galileo and Beidou compatible
- 24-pad 16.0 x 12.2 x 2.4 mm Industry Standard LCC castellated edge package (Surface mountable by standard SMT equipment)
- Supply voltage range: 3 - 3.6 VDC
- Assisted GPS
- 1Hz to 10Hz Navigation,
- SBAS supported
- eCall and ERA/GLONASS compliant
- 1PPS - UART, I2C
- AEC-Q100 qualified chipset

Key Benefits

- Multi-constellation allows accurate navigation in harsh 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, SL869, SL869-V2 and popular 12 x 16 mm industry standard footprint
- eCall and ERA/GLONASS compliant
- RED and RoHS compliant design
- TELIT NMEA commands
- Antenna sense, Antenna on detection.

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 well-known 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 multi-constellation 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 telematics-systems, and GPS-based personal sports training monitors.

Combine your Cellular module with

Short Range modules



GNSS modules



www.telit.com



JUPITER SL869-V3

GNSS Standalone

Product Features

- Frequency Band: GPS (L1), GLONASS (L1, FDMA), Galileo (E1), Beidou (B1)
- Standards: NMEA, RTCM 104
- TELIT NMEA commands
- 48 tracking channels + 2 fast acquisition channels
- SBAS capable (WAAS, EGNOS, MSAS, GAGAN)
- Configurable fix reporting. Default: 1Hz, Max: 10 Hz
- A-GPS: local ephemeris prediction
- A-GPS: server predicted ephemeris
- Jammer rejection
- Geofencing
- Additional LNA
- Supports active or passive antenna

Environmental

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

Interfaces

- 1PPS output
- 3 UART ports
- 1 I²C port
- Antenna on (Output signal)
- Antenna sense (Input signal)

Approvals

- RoHS compliant
- RED

Electrical & Sensitivity

- Power supply
 - VCC: 3.0 - 3.6 V
 - Battery: 2.5 - 3.6 V
- Current consumption: GPS + GLO
 - Acquisition: 171mW
 - Tracking: 147mW
 - Stand-by (Vbatt): 25uW
- Sensitivity: GPS + GLO
 - Acquisition: -146 dBm
 - Tracking: -159 dBm
 - Stand-by (Vbatt): -161 dBm
- Positional Accuracy (CEP50): GPS + GLO
 - 1.5 m
- Time To First Fix (@ -130 dBm): GPS +GLO
 - Hot Start: 1.9 s
 - Warm start: 25s
 - Cold start: 34s

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