



JUPITER SL869-3DR GNSS Standalone

GNSS Embedded



Product Description

The Jupiter SL869-3DR is a new representative of the SL869 family equipped with Dead Reckoning software, internal 6-axis sensor MEMS and a new powerful core. The SL869-3DR provides the host application with accurate estimates of PVT solution by combining speed and heading sensor data coming from the internal MEMS sensor, the wheel tick input is not mandatory. When wheel tick input is connected it is used in the solution computation and improves the accuracy.

The embedded 6-axis MEMS sensor in conjunction with Telit's Dead Reckoning solution provides user with an unparalleled portable turn-key solution that is able to output a reliable PVT solution whenever GNSS coverage is missing or compromised without the need to connect the device to the vehicle's sensors.

Dead Reckoning boosts the accuracy in areas with adverse GNSS conditions like urban canyons, tunnels, parking garages, etc.

The SL869-3DR is able to track GPS, Glonass, Beidou and Galileo constellations and supports A-GNSS onboard generation as well as A-GNSS server-generated file injection.

The SL869-3DR provides a fully portable gap-free navigation solution that compensates for possible difficult GNSS conditions for different applications like Automotive, telematics, aftermarket, and fleet tracking.

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
- 6-axis embedded MEMS sensor
- 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
- Odometer-Less provides fully portable DR solution
- 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 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 GNSS module with

- Cellular modules 
- Short Range modules 

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ONE SHOP. NOW, INNOVATE!



●● JUPITER SL 869-3DR 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
- Dead Reckoning software
- Embedde 6-axis MEMS sensor (3D Gyro+3D accelerometer)
- ODO (Wheel Tick pulse) input
- reverse input

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

- UART
- 1PPS
- EGNOS, WAAS and MSAS
- 2nd UART for debug
- I2C

Electrical & Sensitivity

- Current consumption
 - Acquisition: TBD (GPS+GLO)
 - Tracking: TBD (GPS+GLO)
 - Low power Nav: TBD (GPS+GLO)
 - Standby: TBD
- Power supply
 - VCC: 3.0 - 3.6 V
 - Battery: 2.5 - 3.6 V
- Sensitivity
 - Acquisition: -146 dBm
 - Navigation: -158 dBm
 - Tracking: -162 dBm



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