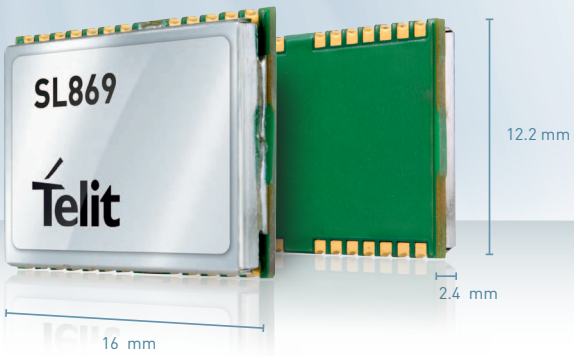
Telit wireless solutions
Making machines talk.

JUPITER **SL869** Series

GNSS Standalone

GNSS Embedded



Product Description

The Jupiter SL869 offers the best multi-constellation coverage solution in the same form factor and compatible pin-out as the Jupiter JN3. It can therefore function as a top level, extension replacement at a reduced integration cost. The SL869 can easily replace JN3 in all bundled cellular plus positioning solutions when high-level features like: multi-constellation, Dead Reckoning or Timing are required.

Key Features

- Based on the STM Teseo II core
- GNSS supported: GPS L1, Glonass L1, Galileo E1
- 16x12.2x2.4mm LLC package
- Supply voltage range: 3 - 3.6 VDC
- High RF sensitivity and Jamming detection/removal
- Assisted GPS
- 10Hz Navigation, SBAS, TRAIM, 1PPS
- Ports: UART, I2C, USB, CAN Bus interfaces

Key Benefits

- Multi-constellation allows accurate navigation in hash environments such as urban canyons
- The SL869 supports AGPS by means of Extended Ephemeris injection as well as Extended Ephemeris on-board generation for fastest TTFF
- Dead Reckoning support allows easy integration with MEMS using I2C and CAN bus
- Compatible with JN3 and popular 12x16mm footprint industry standard

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 16x12.2 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 STOP.
ONE SHOP. NOW, INNOVATE!

	Constellations					Voltage (V)		Interfaces				Features			
	GPS	Glonass	Galileo	QZSS	BDS	1.8	3.0	CAN	UART	I2C	USB	DR	Timing	DGPS	Flash
SL869	●	●	●	●			●		●	●	●			●	●
SL869-DR	●	●	●	●			●	●	●	●	●	●		●	●
SL869-T	●	●	●	●			●		●	●	●		●		●

JUPITER **SL869** Series

GNSS Standalone

Product Features

- Frequency Band: GPS (L1), Glonass (L1, FDMA), Galileo (E1)
- Standards: NMEA, RTCM 104
- 32 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

Electrical & Sensitivity

- Current consumption
  - Acquisition: 67mA (GPS+GLO)
  - Tracking: 42mA (GPS+GLO)
  - Low power Nav: 23mA (GPS+GLO)
  - STby: 73uA
- Power supply
  - VCC: 3.0 - 3.6 V
  - Battery: 2.5 - 3.6 V
- Sensitivity
  - Acquisition: -146 dBm
  - Navigation: -158 dBm
  - Tracking: -162 dBm

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 for precise timing
- EGNOS, WAAS and MSAS
- USB
- 2nd UART for debbug/DGPS
- CAN BUS
- I2C

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