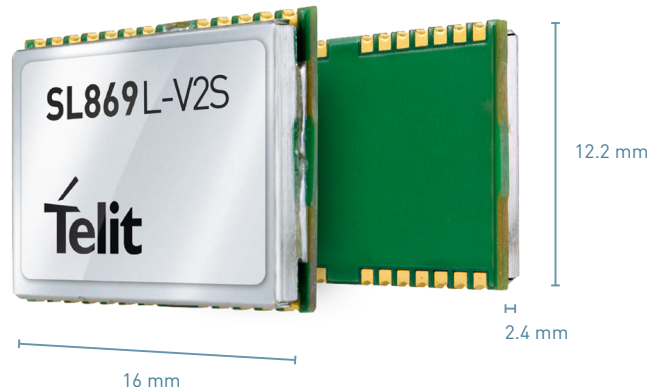


## JUPITER SL869L-V2S Series

GPS Module

GPS Embedded



### Product Description

The Jupiter SL869L-V2S is the new evolved variant of the SL869-V2S. Based on the enhanced low power consumption Mediatek MT3337E core. The new SL869L-V2S shares the same pinout and command interface of the standard SL869-V2S but in addition it features an additional LNA, a DC block in the RF front end, plus second communication UART port. Moreover, the new SL869L-V2S embeds also a switching power supply that down the total power consumption improving the battery-life span.

The SL869L-V2S shares the classic SL869's 12.2 x 16 mm form factor and has been designed to be p2p compatible with Telit xL869 family. The highest commonality is with SL869-V2/S family. The SL869L-V2S supports GPS and QZSS L1. Position data is delivered using NMEA protocol through a standard UART.

The SL869L-V2S can replace the JN3, SL869 and especially the SL869-V2/V2S family with the observance of a few simple application rules. It supports ephemeris file injection (A-GPS) as well as Satellite Based Augmentation System (SBAS) to increase position accuracy. Its onboard software engine is able to locally predict ephemeris three days in advance starting from ephemeris data broadcast by GNSS satellites, received by the module and stored in the host flash memory.

### Key Features

- Based on the Mediatek MT3337E core
- GNSS standards and bands supported: GPS L1, GLONASS L1, Galileo E1, BeiDou B1
- 16 x 12.2 x 2.4 mm LCC package
- Supply voltage range: 3 - 3.6 VDC
- Additional LNA and RF DC-Block
- Jamming detection /removal
- Assisted GPS
- Default 1 Hz up to 10 Hz Navigation, SBAS, QZSS, 1PPS
- Ports: 2 UARTs

### Key Benefits

- Multi-constellation allows accurate navigation in obscuring environments such as urban canyons
- A-GPS by means of Extended Ephemeris injection as well as Extended Ephemeris on-board generation provides for faster TTFF
- Compatible with the JN3 and SL869 in popular 12 x 16 mm 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 16 x 12.2 mm, 24-pad, LCC package supporting GPS, GLON-ASS, 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 QZSS, and ready for Galileo and Compass/Beidou. Valuable features such as Dead-reckoning, Precision Timing, as well as speed and reliability ensured by simultaneous multi-constellation navigation, provide additional benefits to 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. Multiconstellation positioning products applied together with our eCall /ERA-GLONASS compliant cellular modules can bring you ready to-use emergency automotive tracking solutions the European and Russian markets. Typical applications include fleet management systems, European GPS assisted road tolling, cellular base stations, in-car navigation, automotive telematics, and GPS-based personal sports training monitors.

Combine your GNSS module with

Cellular modules



Short Range modules



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Model	Constellations				Power Consumption		Interfaces	Features					Sensitivity	
	GPS/QZSS	GLONASS	Galileo	BDS	Acq (mW)	Track (mW)		Serial Port	LNA	DC block	Ant ON	Ant sense	Flash	Acq
<b>SL869L-V2</b>	•	•	•	•	<b>86</b>	<b>80</b>	<b>UART + I2C</b>	•	•	•	•	•	<b>-148</b>	<b>-162</b>
SL869-V2	•	•	•	•	103	81	UART					•	-145	-161
<b>SL869L-V2S</b>	•				<b>56</b>	<b>53</b>	<b>UART + UART</b>	•	•	•			<b>-148</b>	<b>-162</b>
SL869-V2S	•				74	64	UART						-144	-160

## JUPITER SL869L V2S Series

GPS Module

### Product Features

- Standards: NMEA
- 66 acquisition channels
- Positional Accuracy (CEP50): 2.5 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
- EGNOS, WAAS and MSAS
- Additional LNA
- Embedded RF DC Block

### Electrical & Sensitivity

- Current
  - Acquisition: typ 56 mW
  - Tracking: typ 53 mW
  - Standby: <23 mW
- Power supply
  - VCC: 3.0 - 3.6 V
- Sensitivity
  - Acquisition: -148 dBm
  - Navigation: -161 dBm
  - Tracking: -162 dBm

### Environmental

- Dimensions: 16 x 12.2 x 2.4 mm
- Weight: 1 g
- 24-pad LCC package
- Temperature Range
  - Operating temperature: -40 to +85°C
  - Storage temperature: -40 to +85°C

### Interfaces

- 2 UARTs
- 1PPS for precise timing

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