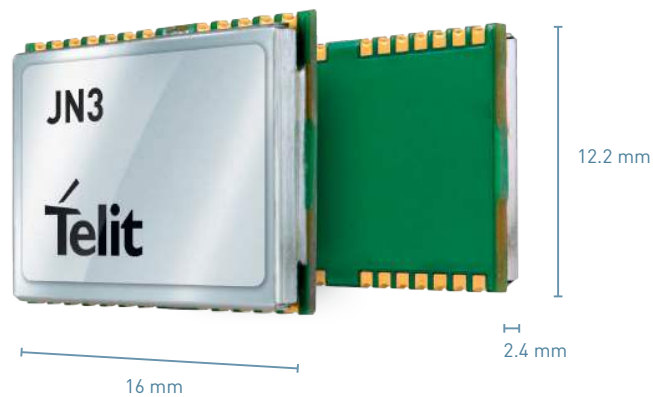


JUPITER JN3

GPS Embedded



Product Description

The JN3 is the companion module to JF2. It employs LCC packaging and a 3 V power supply and is interoperable with Telit cellular modules providing ready-to-use solution bundles at no additional integration effort or cost. This feature is particularly evident when integrating with the GL865 family of sub-compact LCC cellular modules.

The JN3 is also designed to be a low-cost, drop-in replacement for the SL869 when multi-constellation support is not required. It supports A-GPS injection as well as A-GPS on-board generation. The A-GPS integration effort is negligible when JN3 is bundled with a Telit module.

Key Features

- Based on the SiRFstar!VTMcore
- GNSS supported: GPS L1
- 16 x 12.2 x 2.4 mm LCC package
- Flash, EEPROM or ROM based versions
- Supply voltage range: 2.9 - 3.6 VDC
- Very low power consumption
- Assisted GPS
- High RF sensitivity with jamming detection and removal
- Ports: 1PPS, UART
- Compatible with the SL869 and popular 12 x 16 mm footprint industry standard

Key Benefits

- Supports A-GPS using Extended Ephemeris injection as well as Extended Ephemeris on-board generation for fastest TTFF
- Easy integration in cellular/GNSS bundle solutions combined with Telit cellular modules
- LCC package allows manual soldering/rework

- Pin-to-pin compatibility with SL869 allows customers to dial in their desired GNSS capabilities with low-end (GPS only) and high-end (GPS+Glonass+Galileo +QZSS) variants using the same motherboard

Family Concept

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 GNSS 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



www.telit.com

JUPITER JN3

Product Features

- Frequency Band: GPS L1 Band, C/A Code
- Standards: NMEA and OSP
- 48 Channel GPS architecture
- Positional Accuracy (CEP50):
Autonomous Positional Error < 2.5 m
- Accuracy
 - Speed: < 0.01 m/s
 - Heading: < 0.01 deg
- Time To First Fix (90% @ -130 dBm)
 - Hot Start: 1 s
 - Cold Start: < 35 s
- A-GPS: local ephemeris prediction
- A-GPS: server predicted ephemeris file injection

Environmental

- Dimensions: 16 x 12.2 x 2.4 mm
- Weight: 1.8 g
- 24-pad LCC package, requiring only 2 Layer PCB
- Temperature Range
 - Operating temperature: -40 to +85°C
 - Storage temperature: -40 to +85°C

Interfaces

- UART, I2C (only for MEMS) interfaces
- PPS for precise timing
- EGNOS, WAAS, GAGAN and MSAS capability embedded with correction of positional errors due to ionospheric and orbital disturbances
- RTC for efficient power management

Electrical & Sensitivity

- Current consumption
 - Hibernate mode: 40 uA
 - Low power mode (Tracking 1Hz): 10 mA
 - Full power Tracking: 32 mA
- Flexible power supply
 - Range from 2.85 up to 3.6 V
- Sensitivity
 - Acquisition: -147 dBm
 - Navigation: -160 dBm
 - Tracking: -163 dBm



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For a quicker and more rewarding integration experience join the Telit Technical Forum. There you can browse the first open forum covering all IoT topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing IoT community and exchange experiences.