

SI 8711

GNSS



Product description

The SL871L is the new evolved variant of the SL871 family of modules based on the low-power Mediatek MT3333. The new SL871L shares the same pinout and command interface of the standard SL871 but it features an additional LNA, a DC block in the RF front end, and a second communication port selectable between I2C and UART. The new SL871L also includes a switching power supply that reduces the total power consumption allowing a superior battery-life span.

Like the SL871, the SL871L is designed to support GPS, QZSS, GLONASS, Beidou and Galileo. The SL871 can track three different constellations concurrently (GPS + Galileo + GLONASS or GPS + Galileo + Beidou).

The SL871L is packaged in a 9.7x 10.1mm LCC package and provides navigation position through standard UART. The SL871L can replace the Telit SL871 with the observance of a few simple application rules.

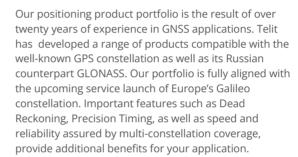
The SL871L supports Assisted GPS (A-GPS), in autonomous as well as server-based modes. Satellite Based Augmentation System (SBAS) is also implemented to increase position accuracy.

The SL871L features extremely low power consumption and better performance in all operational conditions.

Key Benefits

- · GPS, Glonass, Beidou and Galileo
- Supply voltage range: 2.8 4.3 VDC
- High sensitivity
- · Low Power Modes
- Assisted GPS
- · 1Hz to 10Hz Navigation,
- · SBAS, QZSS supported
- 1PPS
- UART, I2C

Family concept



Your application development effort can also benefit sig-nificantly from the seamless integration with Telit cellular modules. This bundling of cellular and positioning modules significantly reduces development complexity without add-ing 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.











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Product Features

- Frequency Band: GPS (L1), GLONASS (L1, FDMA), Galileo (E1), Beidou (B1)
- Standards: NMEA
- TELIT NMEA commands
- 99 search and 33 tracking channels
- SBAS capable (WAAS, EGNOS, MSAS, GAGAN), QZSS
- Configurable fix reporting. Default: 1Hz, Max: 10 Hz
- GPS: local ephemeris prediction
- GPS: server predicted ephemeris
- Jammer rejection
- DC-DC block + Additional LNA
- Supports active or passive antenna
- · GNSS Low Power (GLP) mode
- Low Power Periodic Mode
- · Antenna Sense
- Odometer

Environmental

- Dimensions: 10.1 x 9.7 x 2.4 mm, 18-pad, Industry Standard LLC castellated edge package
- Surface mountable by standard SMT equipment
- Weight: 1 g
- Temperature Range:
 - Operating temperature: -40 to +85°C
 - Storage temperature: -40 to +85°C

Interfaces

- · 1PPS output for precise timing
- 1 UART port
- 1 I²C port

Approvals

- RoHS compliant
- · RED, UKCA

Electrical & Sensitivity

- · Power supply:
- VCC: 2.8 4.3 V
- Typ: 3.0 3.6 V
- Current consumption: GPS + GLO
 - Acquisition: 93 mW
 - Tracking: 76 mW
 - Stand-by (Vbatt): 50 uW
- Sensitivity: GPS+GLO
 - Acquisition: -148 dBm
 - Navigation: -163 dBm
 - Tracking: -165 dBm
- Positional Accuracy (CE50): GPS + GLO
 - 2.5 m
- Time To First Fix (@ -130 dBm): GPS + GLO
- Hot Start: 1 s
- Warm start: 28 s
- Cold Start: < 31 s

QUESTIONS? VISIT WWW.TELIT.COM/CONTACT-US