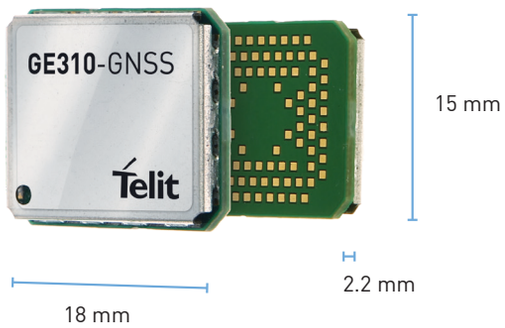
GE310-GNSS

PRELIMINARY

GSM | GPRS Embedded



Product Description

The GE310-GNSS is the first IoT module on the brand new Telit xE310 form factor. A tiny and and future proof LGA packaging, suitable to accomodate future requirements of Mobile IoT and to support the next generations of chipset and features.

The GE310-GNSS combines a quad band GSM|GPRS module with ARM7 core, a Bluetooth transceiver and a multi-constellation GNSS receiver in a compact 15x18 mm package.

The GE310-GNSS's embedded GNSS receiver is able to navigate with GPS, GLONASS, Galileo and Beidou. GE310-GNSS can navigate with up to three constellations concurrently (GPS+GLONASS+Galileo or GPS+Beidou+ Galileo.

Moreover GE310-GNSS supports SBAS and A-GPS.

The product is highly recommended for new designs requiring quad band GSM|GPRS coverage in a compact and robust LGA package delivering easy integration and reduced impact on final application costs

Key Benefits

- Automated manufacturing process friendly miniature and futureproof footprint
- BT 4.0 Transceiver
- GPS, GLONASS, Galielo and Beidou navigation
- Ideal solution for applications such as asset management, utilities and telematics
- Battery friendly operation with 2.8V GPIOs

AVAILABLE FOR

EMEA

LATAM

APAC

Complete,
Ready to Use Access
to the Internet of Things

IoT Modules IoT Connectivity IoT Platforms

GE310-GNSS

PRELIMINARY

Product Features

- LGA form factor
- Quad band GSM | GPRS 850/900/1800/1900 MHz
- Control via AT commands according to 3GPP TS 27.005, 27.007
- TCP/IP stack access via AT MTK commands
- SIM application toolkit 3GPP TS 51.014
- Telephony, emergency call
- Half rate, full rate, enhanced full rate and adaptive multi rate voice codecs (HR, FR, EFR, AMR)
- Point-to-point mobile originated and mobile terminated SMS
- Concatenated SMS supported
- SMS cell broadcast
- Text and PDU mode
- SMS over GPRS
- Network LED support
- IRA, GSM, 8859-1 and UCS2 character set

GNSS

GPS, GLONASS, Galileo and Beidou navigation

- Satellite Augmentation system (SBAS)
- A-GPS file injection from server (14 days)
- On-board ephemeris computation up to 3 days
- GPS L1, GLONASS L1, Galileo E1, BDS B1
- Pre-select SAW filter
- Cold start at -148dBm

Bluetooth

- Fully compliant with BT 4.0 specification
- Low out-of Band spurious emissions support simultaneous operations with GPs and GSM/ GPRS radio system
- Low-IF architecture with high degree of linearity and high order channel filter
- Fully integrated PA provides 7.5dBm output power
- -95dBM sensitivity with excellent inteference rejection performance
- Hardward AGC dynamically adjust receiver performance in changing environments
- Up to 4 simultaneous active ACL links
- Up to 1 simultaneous SCO or eSCO link with CSVD coding
- Scatter net support Up to 4 piconets simultaneously with background inquiry/ page scan
- Support sniff mode
- Ultra-low power consumption states

Data

- V.110
- GPRS class 12
- Mobile station class B
- Coding scheme 1 to 4

Environmental

- Dimensions: 15 x 18 x 2.2mm
- Extended temperature range
  -40°C to +85°C (operational)
  -40°C to +85°C (storage temperature)

Interfaces

- 6 I/O ports maximum 2.8 V (logical level)
- Analog audio
- 1 A/O converter
- 1 DAC
- ITU-T V.24 serial link through CMOS UART
  - band rate from 300 to 115,200 bps

Approvals

- RED directive
- GCF

Electrical & Sensitivity

- Output power
  - Class 4 (2W) @ 850/900 MHz
  - Class 1 (1W) @ 1800/1900 MHz
- Supply voltage range
  - 3.4 - 4.2V DC (3.8V DC recommended)

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