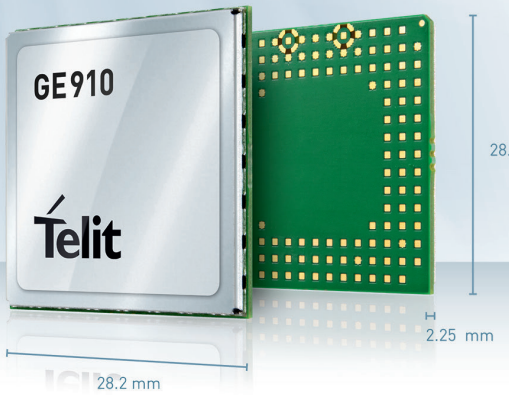
Telit wireless solutions
Making machines talk.

GE910-QUAD

GSM | GPRS Embedded



m2mAIR READY
SIM CHIP CAPABLE

Product Description

The GE910-QUAD is a 2.5G data module designed to be fully compatible with Telit's HSPA and EV-DO products, also member of the compact, and connector-less xE910 unified form factor family. This allows you to design your application once and take advantage of global coverage by replacing the module with an UMTS, HSPA+, 1xRTT, EV-DO, or LTE alternate for your next market or for higher data rates. The LGA (Land-Grid Array) package enables an ultra-low profile, integrated solution while at the same time providing enhanced mechanical resistance to shock. An on-board ARM11 processor lets you deploy even the most demanding applications with high processing power requirements.

The GE910 is Telit first GSM/GPRS series of cellular modules to provide USB 2.0 Full Speed interface. Furthermore, the GE910 makes it possible to run the customer's applications inside the module using Python Script Interpreter, thus making it one of the smallest, complete platforms for m2m solutions. The GE910 supports embedded SIM chip as a mounting option, making it the ideal solution for durable and rugged designs, and reducing BOM cost and size on the customer's application.

The m2mAIR SIM chip provides an all-in-one connectivity solution. The GE910-GNSS variant of the GE910 series is a competitively priced GSM/GPRS & GNSS combined solution that supports both GPS and GLONASS location. The dual constellation capability significantly boosts the receiver's overall performance enabling new location aware applications in segments such as OEM automotive, fleet management, PDA's, mobile computing, livestock tracking.

Key Benefits

- Design once and deploy globally, thanks to the xE910 unified form factor
- Ideal platform for medium-to-high-volume m2m applications, as well as location based application thanks to its on-board GNSS capabilities (GE910-GNS)
- Superior performance processor suitable for applications requiring high computing capacity

Family Concept

The xE910 Unified Form Factor family is comprised of pin-to-pin compatible modules in Telit's broadest range of cellular air interfaces and band combinations making it a pillar of the concept "design once and deploy globally".

A one-time design and integration effort enables worldwide or regional device re-use across different data rates and wireless technologies with air interfaces in GSM/GPRS, UMTS/HSPA+, 1xRTT, EV-DO, and LTE (pre-release). The xE910 family was conceived to enable applications to be easily upgraded in a number of ways. For example: migrating from 2G to 3G or 4G; or upgrading from 2 bands to 3, 4, or more. The family fully preserves the core design of the application or device from launch to phase-out with modules packaged in a common 28.2x28.2 mm LGA footprint. It is recommended for mid to high-volume, compact sized applications.

Telit m2mLOCATE

m2mLOCATE is a Telit cloud-based service that provides a device's position based on observed cellular Cell-IDs. Accessing a database of over 40 million cell-IDs globally, m2mLOCATE can provide a position for every use-case including indoors/underground, outdoors, and boundary situations.

m2mAIR Ready

This product is capable of supporting the extensive suite of m2mAIR value-added services and connectivity you can use to enhance your application and boost your competitive advantage.

Find more information on www.m2mair.com

AVAILABLE FOR

- EMEA
- North America
- Latin America
- APAC
  - Korea
- Australia

Combine your **Cellular** module with

- Short Range modules
- GNSS modules

www.telit.com

Complete, Ready to Use Access to the Internet of Things

Telit Modules + m2mAIR
Value-Added Services including Connectivity

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QUALITY
INVESTMENT PROTECTION
BUSINESS SCALABLE
EASE OF INTEGRATION

ONE STOP.
ONE SHOP. NOW, INNOVATE!

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GE910-QUAD

Product features

- 4 Bands GSM / GPRS: 850 / 900 / 1800 / 1900 MHz
- Quad Band GPRS class 10
- SIM Access Profile
- 3GPP release 4 compliant
- Control via AT commands according to 3GPP TS27.005, 27.007 and customized Telit AT commands
- Serial port multiplexer 3GPP TS27.010
- SIM application Tool Kits 3GPP TS 51.014
- Built in UDP/TCP/FTP/SMTP stack
- Voice and SMS
- Standard and extended AT command set
- A-GPS: ephemeris file injection
- Jammer rejection

Data

GPRS

- GPRS class 10
- Mobile station class B
- Coding scheme 1 to 4
- PBCCH support
- GERAN Feature Package 1 support (NACC, Extended TBF)

CSD

Environmental

- Dimensions 28.2 x 28.2 x 2.25 mm
- Weight: 3.6 grams
- Extended temperature range

Optional GPS | GLONASS Receiver

- Frequency Band: GPS (L1), Glonass (L1,FDMA), Galileo (E1)
- Standards: NMEA, RTCM
- 32 Channel GPS architecture
- Sensitivity
  - Acquisition: -146 dBm
  - Navigation: -160 dBm
  - Tracking: -162 dBm
- Positional accurancy (CEP50): 1.5 m
- Accurancy
  - Speed: ‹ 0.05 m/s
  - Heading: ‹ 0.01 deg
- Time to first fix (@ -130 dBm)
  - Hot Start: 1 s
  - Cold Start: ‹ 35 s

Interfaces

- 10 I/O ports maximum including multifunctional I/Os
- Analog and digital Audio
- USB 2.0 FS Device Mode
- 2 UART
- 1 I2C
- 1.8 V / 3 V SIM interface
- 1PPS for precise timing
- EGNOS, WAAS and MSAS

Approvals

- CE, GCF (Europe)
- FCC, PTCRB, IC (North America)
- ANATEL (Brazil)

Electrical & Sensitivity

- Output power
  - Class 4 (2 W, 33 dBm) @ GSM 850 / 900
  - Class 1 (1 W, 30 dBm) @ GSM 1800 / 1900
- Supply voltage
  - Nominal: 3.8 VDC
  - Range: 3.22 - 4.5 VDC
- Sensitivity
  - -107 dBm @ GSM 850 / 900 MHz
  - -107 dBm @ DCS1800 / PCS1900 MHz

Software

Python* application resources

- Python* script interpreter (module takes the application code directly in the Python* language)
- Memory: 2 MB of NV memory for the user scripts and 2 MB RAM for the Python* engine usage

AppZone application resources (Available soon)

- Programming language: C
- IDE: Eclipse
- Dedicated File System: 5 MB
- Separate App. RAM Space: 2 MB

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Telit Communications S.p.A.
Via Stazione di Prosecco, 5/B
I-34010 Sgonico (Trieste), Italy
Phone +39 040 4192 200
Fax +39 040 4192 383
E-Mail EMEA@telit.com

Telit Wireless Solutions Inc.
3131 RDU Center Drive, Suite 135
Morrisville, NC 27560, USA
Phone +1 888 846 9773 or +1 919 439 7977
Fax +1 888 846 9774 or +1 919 840 0337
E-Mail NORTHAMERICA@telit.com

Telit Wireless Solutions Inc.
Rua Paes Leme, 524, Conj, 126
05424-101, Pinheiros,
Sao Paulo-SP-Brazil
Phone +55 11 3031 5051
Fax +55 11 3031 5051
E-Mail LATINAMERICA@telit.com

Telit Wireless Solutions Co., Ltd.
12th Fl., Shinyoung Securities Bld.
34-12, Yeouido-dong, Yeongdeungpo-gu
Seoul, 150-884, Korea
Phone +82 2 368 4600
Fax +82 2 368 4606
E-Mail APAC@telit.com

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