ME910G1 Series

PRELIMINARY

LTE Cat M1/NB2 **Embedded**

28.2 mm

28.2 mm

2.2 mm
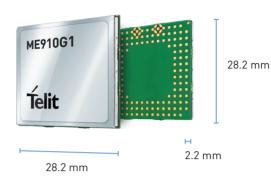
Product Description

Enabling a new generation of massive low-cost IoT device deployments numbering in the hundreds of thousands or millions, the ME910G1 is the Category M1/NB2 evolution of the brand new Telit xE910 product family. Exceeding market demands for optimized power consumption and enhanced quality of coverage, Cat M1/NB2 devices are specifically tailored for low data throughput IoT applications. This model further enriches the widely deployed Telit xE910 family of 28 x 28 mm LGA modules.

Compliant with 3GPP Release 14, the ME910G1 LTE UE CatM1/NB2 module enables increased power saving for IoT applications using Power Saving Mode (PSM) and extended Discontinuous Reception (eDRX), allowing devices to wake up periodically, delivering only the smallest amounts of data necessary before returning to sleep mode. Enhanced coverage, enabled by maximum coupling loss (MCL) of up to +15dB/+20dB, provides superior in-building penetration compared to earlier cellular LTE standards. LTE CatM1/NB2 devices are optimized in cost, size and power consumption compared to higher UE categories. 3GPP Release 14 further improves these features by adding techniques to increase the date rate for LTE-M and NB-IoT. These advantages make the ME910G1 ideal for enabling quick implementation of LTE technology where low cost and low power are more relevant than high speed.

The ME910G1 series enables OEMs and enterprise to easily create regional variants for application such as smart metering, security & surveillance, point of sales, health monitoring, fleet management, asset tracking and wearable devices. The ME910G1 series is offered with global frequency bands configuration for global deployment. It supports dual mode Cat M1/NB2 (NB-IoT) capability and 2G fallback. The ME910G1 series is highly recommended for new designs and is also ideal as a migration path for existing GPRS or CDMA devices. Both brand-new and updated designs benefit from a significant extension in life cycle with LTE Cat M1/NB2.

Key Benefits

- Design once and deploy globally with the xE910 form factory family
- Ideal solution for global IoT applications such as smart metering, security & surveillance, point of sales, health monitoring, fleet management, asset tracking and wearable devices
- Compliant to 3GPP Release 14 Cat M1/NB2, tailored for IoT devices

Family Concept

The ME910G1 is a member of Telit's flagship xE910 module family delivering 4G radio access technology in the 28.2 x 28.2 x 2.2mm family form factor. The Telit xE910 Unified Form Factor Family is comprised of 2G, 3G, and 4G variants that are 3GPP and 3GPP2 products sharing a common form factor as well as electrical and programming interfaces which allows developers to implement a "design once, use anywhere" strategy.

AVAILABLE

WORLDWIDE

**Complete,
Ready to Use Access**
to the Internet of Things

IoT Modules   IoT Connectivity   IoT Platforms

ME910G1 Series

Variants

Market	ME910G1-W1	ME910G1-WW
Market	Worldwide	Worldwide
4G bands	B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85	B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85
2G bands	-	B2, B3, B5, B8
Output power	LTE: 20 dBm (Power Class 5)	LTE: 23 dBm (Power Class 3) GSM/GPRS: 33 dBm (Power Class 4)

Product Features

- LTE UE Category M1(1.4 MHz) / NB2 (200 KHz)
- 3GPP release 14 compliant
- Half Duplex FDD
- Single Rx, single antenna
- 3GPP Rel. 12 Power Saving Mode (PSM)
- 3GPP Rel. 13 Extended Discontinuous Reception (eDRX)
- 3GPP Rel. 13 Extended coverage
- Control via AT commands according to 3GPP TS27.005, 27.007 and customized Telit AT commands
- SIM application Tool Kit 3GPP TS 51.01
- VoLTE (planned)
- SMS over NAS
- IPv4/IPv6 stack with TCP and UDP protocol
- TLS/DTLS
- Embedded GNSS (GPS, GLONASS, Beidou, Galileo)
- OMA Lightweight M2M (LWM2M)
- Over-the-Air firmware update

Data

LTE Category M1 (Rel.14)
- Uplink up to 1Mbps
- Downlink up to 365 Kbps

LTE Category NB2 (Rel.14)
- Uplink up to 160 Kbps
- Downlink up to 120 Kbps

EGPRS
- Uplink up to 210 Kbps
- Downlink up to 264 Kbps

Environmental
- Extended temperature range -40°C to +85°C

Interfaces

- Dimensions: 28.2 x 28.2 x 2.2mm
- 10 I/O ports maximum including multifunctional I/Os
- 1.8V SIM Interface
- USB 2.0 HS
- UART
- SPI
- I2C

Approvals

- FCC/IC (in process)
- RED (in process)
- GCF (in process)
- PTCRB (in process)
- AT&T (in process)
- Verizon (in process)

Electrical & Sensitivity

- Supply voltage
  - Nominal: 3.8 VDC

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