ME910G1 Mini PCIe Series

LTE Cat M1/NB2 mPCIe Data Cards

51 mm

30 mm

2.2 mm
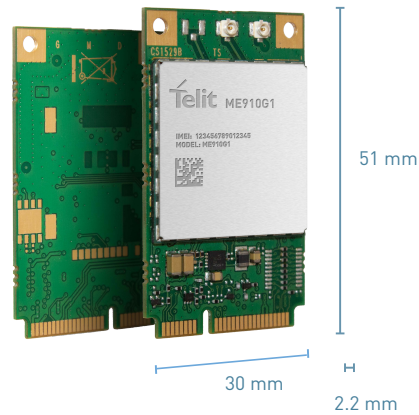
Product Description

The ME910G1 series mini PCIe (mPCIe) modules are optimized for Rel. 14 LTE-M and NB-IoT networks and are available with 2G fallback options. The ME910G1 series modules are interchangeable with other modules in the xE910 mPCIe family.

Key Benefits

- Standard mini PCIe data card form factor
- Best-in-class 3GPP Rel. 14 platform
- Easy to integrate with peripherals and actuators using USB 2.0 HS, UART and user-definable GPIOs
- Battery-friendly 1.8 V GPIO
- Internet friendly with integrated TCP/IP and UDP/IP stacks
- Simple drop-in migration and technology design reuse path to 2G and 3G with any xE910 module
- Firmware Over-the-Air (FOTA) update
- Benefit from Rel. 13 and 14 features for LTE-M and NB-IoT, such as Power Saving Mode (PSM), extended Discontinuous Reception (eDRX), enhanced coverage, higher LTE-M and NB-IoT data rates

Family Concept

Longevity and cost-efficiency are built into the developer's product architecture with the Telit family "design once, use anywhere philosophy. Designers looking to add LTE capabilities to commercial and industrial computing devices benefit from the simple yet powerful mPCIe form factor with the flexibility to choose another technology best suited for the application environment from any one of the other models in the xE910 mPCIe series.

OneEdge™ Features

Telit offers ME910G1 mini PCIe with OneEdge, a software suite integrated with deployment and management tools to address the complexity expected with the exponential growth in the number of IoT devices. The following key components are included:

- **Lightweight M2M protocol** enables comprehensive device management, FOTA updates and application enablement of low-power devices with the goal of more robust and secure connections.
- T**elit simWISE™**, a module-embedded SIM technology, enables reduced footprint, streamlined manufacturing and logistics, and secure communications for connected devices.
- **Telit IoT AppZone** can run code and applications directly inside the Telit module.
- **Location services** provide the position of devices even in the absence of a GNSS connection.

Variants

Cat M1/NB2 with 2G fallback for worldwide deployments

AVAILABLE

WORLDWIDE

ONEEDGE™

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

IoT Modules   Connectivity Plans   Software & Platforms

	ME910G1-WW
Market	Worldwide
4G Bands (MHz)	B1, B2, B3, B4, B5, B8, B8_US**, B12,B13, B18, B19, B20, B25, B26, B27, B28,B66, B71, B85, B86**
2G Bands (MHz)	B2, B3, B5, B8
Approvals	PTCRB, GCF, FCC/IC, RED, ANATEL, RCM, JATE/TELEC, KC, CCC, SRRC, NCC,IMDA, AT&T, FirstNet, Verizon, Sprint, T-Mobile US, TELSTRA, SKT, NTT DOCOMO, KDDI, Deutsche Telecom

*** Available only on dedicated ordering code*

ME910G1 Mini PCIe Series

Product Features

- LTE UE Cat M1/NB2
- 3GPP Rel. 14 compliant
- Half-duplex FDD
- Single Rx, single antenna
- 3GPP Rel. 12 PSM
- 3GPP Rel. 13 eDRX
- 3GPP Rel. 13 extended coverage
- Control via AT commands according to 3GPP TS 27.005, 27.007 and customized AT commands
- SIM application tool kit 3GPP TS 51.01
- SMS
- IPv4/IPv6 stack with TCP and UDP protocol
- OMA Lightweight M2M (LwM2M)
- Firmware Over-the-Air Update (FOTA) using delta upgrade techniques
- Telit application development environment: AppZone C
- TLS 1.3
- Embedded GNSS (GPS, GLONASS, Beidou, Galileo)

Data

LTE Cat M1 (Rel.14)
- Uplink up to 1 Mbps
- Downlink up to 588 Kbps

LTE Cat NB2 (Rel. 14)
- Uplink up to 160 kbps
- Downlink up to 120 kbps

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

Environmental

- Dimensions: 51 x 30 x 3.2 mm
- Temperature Range:
  -40 °C to +85 °C
- REACH and RoHS compliant

Interfaces

- 181-pin LGA interface
- 10 I/O ports (1.8V) including multifunctional I/Os
- USB 2.0 HS
- UART
- SPI
- 1.8 V SIM interface

Electrical

- Supply voltage
  - Nominal: 3.3 V dc