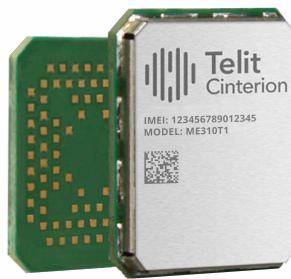


ME310T1

LTE Cat M1/NB2 LGA Module



Product Description

The ME310T1 is a next-generation member of our xE310 product family. This Category (Cat) M1 and NB2 module enables secure, massive, power efficient IoT device deployments and caters to low-data throughput IoT applications.

The ME310T1 offers ultralow power consumption and enhanced coverage quality. It's compliant with 3GPP Release 14. It features Power Saving Mode (PSM) and extended Discontinuous Reception (eDRX), which significantly increase the longevity of battery-operated devices. The ME310T1 enhances coverage and provides superior in-building penetration.

Best-in-class power consumption. This extends the service life of battery powered IoT devices to a decade or longer, which eliminates the expense of periodically replacing batteries.

The ME310T1 supports worldwide deployments with coverage for global bands. It's ideal for mass production and deployment use cases, including:

- Smart meters
- Asset tracking
- Industrial sensors
- Medical devices and wearables

Key Benefits

- Compact form factor, optimized for high yield and low cost manufacturing
- Global SKU
- Ultralow, best-in-class power consumption profile
- Flexible connectivity solutions with NExT™ data plans

AVAILABLE FOR
WORLDWIDE

Family Concept

The xE310 flexible perimeter footprint family includes pin-to-pin compatible 2G and Cat M1/NB2 modules. Integrators can design a single PCB layout and deploy any combination of 2G and 4G technologies.

Our miniature xE310 family delivers great business and technical value for OEMs, integrators and IoT device designers. They can leverage this form factor family to create low-power, cost-efficient devices with a small footprint and digitally transform their organization.

The 94-pad LGA footprint delivers comprehensive features with a reserve pad surplus. These can be used to future-proof the end device by adding Bluetooth® wireless technology and GNSS. The flexible perimeter space enables module family sizes to range from 300 mm² to below 200 mm².

The xE310 family allows for single- and multitechnology products (e.g., combination cellular, GNSS, etc.) and other fixed and mobile applications across various industries.



ME310T1

Variants

ME310T1-W1	
Market	Worldwide
LTE-M/NB-IoT	Dual-mode LTE-M/NB-IoT
4G Bands	B1, B2, B3, B4, B5, B8, B8.US, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85
Output Power	LTE: 23 dBm (Power Class 3)
Approvals	FCC/IC*, RED*, GCF*, PTCRB*

*Planned

Product Features

- LTE UE Cat M1 (1.4 MHz), NB2 (200 kHz)
- 3GPP Rel 14 compliant
- Half-duplex FDD
- Single Rx, single antenna
- PSM, eDRX, extended coverage
- Control via AT commands according to 3GPP TS 27.005, 27.007 and customized Telit Cinterion AT commands
- SIM application tool kit 3GPP TS 51.01
- SMS over NAS
- IPv4/IPv6 stack with TCP and UDP protocol
- TLS 1.3/DTLS
- OMA Lightweight M2M (LwM2M)
- Firmware over-the-air update (FOTA) using delta upgrade techniques
- NExT embedded connectivity

Hardware and Electrical Specifications

- Dimensions: 15 x 18 mm
- 6 I/O ports
- 1.8 V SIM interface
- UART
- SPI
- I2C
- Normal Operating temperature range: -40° C to +85° C
- Supply voltage:
 - Nominal: 3.8 V dc
 - Operating Voltage Range 2.5 V - 4.5 V
 - Extended Voltage Range 2.2 V - 4.5 V
- Power consumption
 - PSM: 1 μ A
 - eDRX 81.92s: 38 μ A

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

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