

PRELIMINARY

LE310Q1

LTE Cat 1 bis 10/5 Mbps



Product Description

The LE310Q1 is an industrial-grade, cost-optimized 3GPP Release (Rel) 14 LTE Cat 1 bis module. It is ideal for multiple IoT applications that need data transmission, including:

- Asset tracking
- Vehicle telematics
- Remote monitoring

It is also suitable for devices that require global deployment and mobility across all continents, including North America.

LTE Cat 1 bis is a proven and affordable technology. It is ideal for IoT applications that need higher performance compared to Cat M1 and NB-IoT in terms of:

- Data rate
- Latency
- Mobility

Mobile network operators (MNOs) worldwide estimated they will continue to operate and support LTE Cat 1 bis for many years. It is also the best fit for IoT deployments in regions where 3GPP cellular low-power wide-area (LPWA) technologies are not yet activated.

Using one antenna brings significant cost savings compared to LTE Cat 1, which requires two antennas. It allows overall device dimension reduction and makes it possible to serve IoT applications with stringent size requirements.

The LE310Q1 is a member of Telit Cinterion's xE310 module family. It delivers 4G radio access technology in the 15 x 18 x 2.6 mm form factor.

The xE310 flexible perimeter footprint family includes pin-to-pin compatible 2G and Cat M1/NB2 products. These share a form factor and electrical and programming interfaces.

Our miniature xE310 family delivers great business and technical value for OEMs, integrators and IoT device designers. Integrators can design a single PCB layout and deploy any combination of 2G and 4G technologies.

AVAILABLE FOR

[EMEA](#)

[North America](#)

[LATAM](#)

[APAC](#)



Variants

	LE310Q1-WW	LE310Q1-SN	LE310Q1-EU
Market	Global	North America	Europe, APAC
4G Bands (MHz)	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B18, B19, B20, B25, B26, B28, B66, B71, B34, B38, B39, B40, B41	B2, B4, B5, B12, B13, B14, B25 B66, B71	B1, B3, B5, B7, B8, B20, B28, B34, B38, B39, B40, B41
Approvals	FCC/ISED, RED, RCM, Anatel*, JATE/TELEC*, NCC*, PTCRB, GCF, AT&T, FirstNet, Verizon, T-Mobile*	FCC/ISED, PTCRB, AT&T, FirstNet, Verizon, T-Mobile*	RED*, RCM*, GCF*, NCC*

**planned*

Product Features

- LTE FDD Cat 1 bis 3GPP Rel 14 compliant
- Single LTE antenna
- Built-in UDP, TCP, PPP, HTTP, HTTPS NTP, FTP stack
- IPv4/IPv6 stack
- Control via AT commands according to 3GPP
- TS 27.005, 27.007 and Telit Cinterion custom AT commands
- Wi-Fi scan
- Compliant with GSMA SGP.22 Remote SIM Provisioning (RSP) standard
- Validated against Telit Cinterion NExt SGP.22 eSIMs

Hardware and Electrical Specifications

- Dimensions 15 x 18 x 2.6 mm
- 94-pin LGA interface
- Six I/O ports (@ 1.8 V), including multifunctional I/Os
- USB 2.0 HS
- UART
- SPI
- I²C
- 1.8 V SIM interface
- Normal operating temperature range: -30° C to +65° C
- Extended operating temperature range: -40°C to +85°C
- REACH and RoHS compliant
- Output power:
 - Class 3 (0.2 W, 23 dBm) @ LTE
- Supply voltage range:
 - Nominal: 3.8 V dc
 - Range: 3.4-4.2 V dc

Data

LTE Cat 1 bis

- Uplink up to 5 Mbps
- Downlink up to 10 Mbps

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