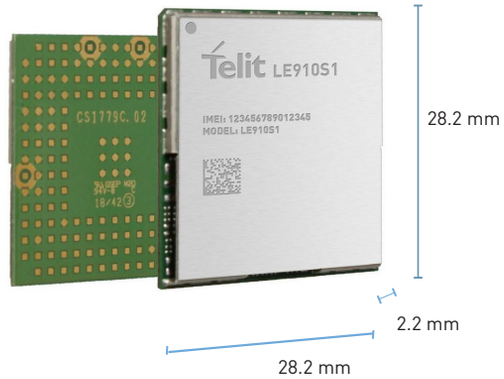
LE910S1

LTE Cat.1 10/5 Embedded



Product Description

The LE910S1-EA is an industrial-grade, cost-optimized LTE Cat 1 module ideal for IoT applications that need data and voice transmission, including devices requiring full mobility throughout the extended European region.

LE910S1-EA supports 2G fallback and connecting devices in remote areas where LTE networks have not rolled out yet and voice use cases in the absence of Voice over LTE (VoLTE).

LTE Cat 1 is a well-proven, widely deployed and affordable solution for IoT applications that need a smooth migration from legacy 2G and 3G cellular technologies as networks are being switched off but still need higher performance compared to Cat M1 and NB-IoT in terms of data rate, latency, mobility and voice support.

Mobile network operators worldwide estimate they will continue to operate and support the LTE Cat 1 standard well into the 5G rollout era. It is also the best fit for IoT deployments in regions where the new 3GPP low-power wide-area (LPWA) technologies are not yet activated.

The use of a single antenna brings significant cost savings compared to LTE Cat 1 with two antennas. It allows for the reduction of the overall device dimensions, making it possible to serve IoT applications with stringent size requirements.

The optional embedded GNSS receiver makes the LE910S1-EA ideal for all-in-one tracking use cases in which more precise, faster-refreshing, satellite-based positioning and navigation must complement cellular-based positioning.

The LE910S1-EA is a new member of Telit's flagship xE910 module family delivering 4G radio access technology in the 28.2 × 28.2 × 2.2 mm family form factor. The Telit xE910 unified form factor family comprises 2G, 3G and 4G products that share a form factor and electrical and programming interfaces, allowing developers to implement a "design once, use anywhere" strategy.

AVAILABLE FOR

EMEA

APAC

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

IoT Modules | Connectivity Plans | Software & Platforms

	LE910S1-EA	LE910S1-EAG	LE910S1-ELG
Market	EMEA, APAC	EMEA, APAC	EMEA, APAC, LATAM
Frequencies			
4G bands (MHz)	B1, B3, B5, B7, B8, B20, B28, B38, B40, B41	B1, B3, B5, B7, B8, B20, B28, B38, B40, B41	B1, B2, B3, B4, B5, B7, B8, B20, B28, B38, B40, B41
3G bands (MHz)	-	-	-
2G bands (MHz)	B3, B8	B3, B8	B2, B3, B4, B8
GNSS	-	Yes	Yes

LE910S1

Product Features

- LTE FDD Cat.1. 3GPP release 9 compliant
- Single LTE antenna
- VoLTE support
- SMS over IMS
- 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 Custom AT commands
- SIM application Tool Kit 3GPP TS 51.014
- GNSS support

Data

LTE Cat. 1

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

Environmental

- Dimensions 28.2 x 28.2 x 2.2mm
- Temperature Range Industrial: -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
- I2C
- 1.8 V / 3V SIM interface

Approvals

- RED/GCF (Europe)

Electrical & Sensitivity

- Output power
  - Class 3 (0.2 W, 23 dBm) @ LTE
- Supply voltage range:
  - Nominal: 3.8 VDC
  - Range: 3.4 - 4.2 VDC

GNSS

- GPS, GLONASS, Galileo and BeiDou navigation system
- Satellite Augmentation system (SBAS)
- GPS L1, GLONASS L1, Galileo E1, BeiDou B1
- Sensitivity (GPS):
  - Acquisition: -147 dBm
  - Tracking: -160 dBm
- Time To First Fix (GPS @ -130 dBm):
  - Hot Start: < 1 s
  - Cold Start: < 28 s

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