

LE910R1

LTE Cat.1 bis 10/5



Product Description

The LE910R1 is an industrial-grade, cost-optimized LTE Cat 1 bis module. It is ideal for IoT applications that need data and voice transmission, including devices requiring full mobility throughout the extended European, LATAM and APAC regions.

LE910R1 supports 2G fallback and connecting devices in remote areas where LTE networks have not yet rolled out and voice use cases in the absence of Voice over LTE (VoLTE).

LTE Cat 1 bis is a proven and affordable solution. It is suitable for IoT applications that need a smooth migration from sunseting 2G and 3G networks. This standard is also ideal for use cases that require higher performance compared to Cat M1 and NB-IoT in terms of:

- Data rate
- Latency
- Mobility
- Voice support

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

Using a single antenna brings significant cost savings compared to LTE Cat 1, which has two antennas. It allows overall device dimension reduction, making it possible to serve IoT applications with stringent size requirements.

The LE910R1 is a member of Telit's flagship xE910 module family. It delivers 4G radio access technology in the 28.2 x 28.2 x 2.2 mm 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. This allows developers to implement a "design once, use anywhere" strategy.

AVAILABLE FOR

EMEA

APAC

LATAM



LE910R1

Variants

	LE910R1-EU	LE910R1-EA	LE910R1-EAG
Market	EMEA	EMEA, APAC	EMEA, APAC
Frequencies			
4G bands (MHz)	B1, B3, B7, B8, B20, B28	B1, B3, B5, B7, B8, B20, B28, B38, B40, B41	B1, B3, B5, B7, B8, B20, B28, B38, B40, B41
3G bands (MHz)	-	-	-
2G bands (MHz)	B3, B8	B3, B8	B3, B8
GNSS	-	-	Yes

Product Features

- LTE FDD Cat 1 bis 3GPP Release 13 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 toolkit 3GPP TS 51.01

Hardware and Electrical Specifications

- Dimensions 28.2 x 28.2 x 2.2 mm
- 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
- Industrial 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

Approvals

- RED, UKCA, RCM, IMDA, GCF, DTAG

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