TRASNA

Lexi-R10

Ultra-compact LTE Cat 1bis module

A product born from

u-blox

Upgrade your IoT future with Trasna

Trasna supports over 250 leading brands across 80+ countries with end-to-end IoT connectivity hardware and software solutions for SIM, eSIM, iSIM/SoC, cellular IoT modules, and device management. We deliver the full mobile IoT value chain from chip to cloud with unmatched control, efficiency and innovation. By partnering with us, clients gain maximum value and a strong competitive edge.

Complete control

Enjoy end-to-end security. Everything starts and finishes with us, so you always have complete visibility and accountability at every stage

Complete efficiency

Our end-to-end solutions are designed to deliver optimal efficiency at every stage, reducing costs, time, and resources whilst ensuring fast, easy implementation
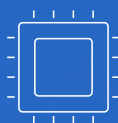
Complete innovation

We deliver cutting-edge, scalable technology, future-proofing your business with solutions that drive rapid growth and capitalise on emerging opportunities

u-blox cellular IoT is now Trasna

In March 2025, Trasna acquired u-blox's cellular IoT modules enabling it to strengthen its IoT connectivity chip-to-cloud offering in the OEM sector. This moved included u-blox's cellular module technology IP, product portfolio, and engineering team. This strengthened Trasna's position as a comprehensive cellular IoT solutions provider, offering end-to-end capabilities spanning semiconductor chip design, SIM and eSIM manufacturing, and cloud-based remote SIM and device management services.

Chip design   (e)SIM   Device mgmt   Cellular IoT modules

Trasna
in numbers

Top
02
in cellular modules
Excl. China

20bn
secure connections
without breach

250+
clients
in 80 countries

25+
years'
in cellular IoT

Lexi-R10

Lexi-R10 is the world's smallest LTE Cat 1bis module, designed for compact, power-sensitive IoT applications. With global and regional variants, low energy consumption, and hybrid positioning via Wi-Fi scan and CellLocate, it delivers reliable connectivity in a 16 x 16 mm footprint making it ideal for asset tracking, wearables, and smart devices where space and efficiency matter.

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Same great cellular products and team, now powered by Trasna
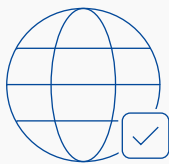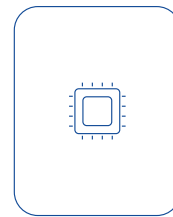
Standard

Professional

Automotive

16 × 16 × 2 mm

Benefits

Space-efficient design
As the smallest LTE Cat 1bis module available
it enables compact device integration

Certified global and regional variants
Ensures reliable connectivity with regulatory and
operator-approved modules for global and regional
deployments
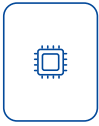
Ultra-low energy consumption
Extends device battery life with support for eDRX,
CDRX, PSM, and deep sleep power-saving modes

Anywhere tracking
Delivers tracking in any location through
embedded Wi-Fi scanning and CellLocate
services

Highlights

Compact form factor
Industry's smallest LTE Cat 1bis module with a 16 x 16 x 2 mm footprint, integrates dynamic antenna tuning to ensure strong performance in compact or embedded applications

Flexible deployment
Certified variants for global, Americas, and EMEA/APAC markets, including approvals from AT&T, Verizon, and FirstNet

Onboard application processing
The integrated uCPU enables users to run applications directly on the chipset, eliminating the need for an external MCU

Reliable LTE connectivity
Fast 10 Mbps downlink, low latency, and worldwide LTE Cat 1bis coverage — including Band 25 for Starlink D2C support

Hybrid location features
Enables indoor and outdoor positioning with integrated Wi-Fi scanning and support for CellLocate

Power efficiency
Designed with eDRX, PSM, and deep sleep modes to minimise energy use and extend battery life

Connectivity & integration
Comprehensive I/O (dual UART, USB, 10 GPIOs) and broad protocol support (MQTT, HTTP, TCP/IP, IPv4/IPv6) to simplify integration and accelerate time-to-market

End-to-end security
Offers secure boot, firmware-over-the-air updates (FOTA), TLS 1.3/DTLS encryption

Use cases

- Asset tracking and logistics
- Smart wearables and personal safety devices
- Healthcare and remote monitoring
- Telematics and fleet management
- Smart city and infrastructure applications
- Voice-enabled IoT (e.g. VoIP streaming)

Product features

		Lexi-R10011D	Lexi-R10401D	Lexi-R10801D
Grade	Automotive			
	Professional	•	•	•
	Standard			
Regions		Global	Americas	EMEA, APAC, Brazil
Access technology	LTE FDD bands	1, 2, 3, 4, 5, 7, 8, 12, 13, 20, 25, 28, 66	2, 4, 5, 12, 13, 14, 66, 71	1, 3, 5, 7, 8, 20, 28
	LTE TDD bands	34, 38, 39, 40, 41		
	Data rate	Cat 1	Cat 1	Cat 1
Compatible Trasna services	CellLocate	•	•	•
Interfaces	UART	2	2	2
	USB	1	1	1
	GPIO	10	10	10
Features	eSIM	o		
	MQTT	•	•	•
	TCP/IP, UDP/IP	•	•	•
	HTTP	•	•	•
	TLS / DTLS	•	•	•
	Secure boot and updates	•	•	•
	Dual stack IPv4/IPv6	•	•	•
	FOTA	•	•	•
	eDRX	•	•	•
	PSM	•	•	•
	Deep sleep mode	•	•	•
	Backup/restore	•	•	•
	Wi-Fi scan	•	•	•
	Antenna dynamic tuning	•	•	•
	SNTP	•	•	•
	uCPU	o		

Cat 1 = 10 Mbit/s DL, 5 Mbit/s UL   o = Optional

Features	LTE	LTE Cat 1bis (10 Mbit/s DL, 5 Mbit/s UL) 3GPP Release 14 Power saving features: PSM, eDRX, and CDRX
	SMS	MT/MO PDU / Text mode SMS via SMS-C
Software features	Protocols	MQTT TCP/IP, UDP/IP HTTP, FTP* TLS / DTLS 1.2 and 1.3* GSMA SGP.01/02, SGP.21/22, SGP.31/32 ready (remote SIM provisioning)
	Firmware upgrade	Via FOAT and FOTA (Firmware upgrade Over The Air)
	uCPU	Open CPU environment to run customer applications directly in the module (supported in a dedicated SKU)
	* = From x1B ordering code	
Compatible Trasna services	Location	CellLocate®
Electrical data	Power supply	3.8 V nominal for the modem
	Power consumption	PSM: 3 µA eDRX (81.92s): 15 µA
Interfaces	Serial	2 UART 1 USB 2.0 (high-speed, 480 Mbit/s) 1 I2C (hardware-ready)
	GPIO	Up to 10 GPIOs, configurable
	(U)SIM	Supports 1.8 V and 3.0 V, SIM toolkit
Package	133-pin LGA (Land Grid Array)	16.0 x 16.0 x 2.0 mm
Environmental data, quality & reliability	Operating temperature	−40 °C to +85 °C
	RoHS compliant	Lead-free
	Trasna qualification policy	Based on AEC-Q104 standard
Certifications and approvals	Lexi-R10011D	PTCRB, GCF, FCC, ISED, RED, RCM, AT&T
	Lexi-R10401D	PTCRB, GCF, FCC, ISED, AT&T, Verizon, FirstNet
	Lexi-R10801D	RED, NCC, RCM, Anatel
Support products	EVK-Lexi-R10011D	Evaluation kit for Lexi-R10011D
	EVK-R10401D	Evaluation kit for Lexi-R10401D
	EVK-R10801D	Evaluation kit for Lexi-R10801D
Product variants	Lexi-R10011D	LTE Cat 1bis module for global use LTE FDD bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 20, 25, 28, 66 LTE TDD bands: 34, 38, 39, 40, 41
	Lexi-R10401D	LTE Cat 1bis module for Americas LTE FDD bands: 2, 4, 5, 12, 13, 14, 66, 71
	Lexi-R10801D	LTE Cat 1bis module for EMEA, APAC, and Brazil LTE FDD bands: 1, 3, 5, 7, 8, 20, 28

Take the next step

Grow your business with Trasna Lexi-R10.
Contact your account manager to learn more.

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