TRASNA

Lexi-R42

Ultra compact LTE-M/NB-IoT/
EGPRS module

Product summary

Version 2

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.

Formed through the integration of several established specialist IoT players, Trasna delivers the full cellular IoT value chain from chip to cloud. This foundation gives us unmatched control, efficiency, and innovation across the stack. 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 **03** **in cellular modules**
Excl. China

20 bn **secure connections**
without breach

250+ **clients**
in 80 countries

25+ **years'**
in cellular IoT

Lexi-R42

Lexi-R42 is a compact LTE-M / NB-IoT / EGPRS module with 2G fallback, designed to deliver global connectivity, strong performance, and low power operation in a 16 x 16 mm footprint. Ideal for data-centric IoT deployments, it supports dynamic antenna tuning, flexible positioning, and standard IoT protocols — enabling secure, cost-effective, and long-life device integration worldwide.

Same great cellular products and team, now powered by Trasna

16 × 16 × 2 mm

Benefits

Compact global connectivity
Provides LTE-M / NB-IoT coverage across 16 bands with 2G fallback for flexible worldwide deployment

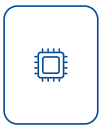
Guaranteed best coverage
Delivers LTE 23dBm output power for strong signal quality and reduced transmission retries, even at cell edges

Power-optimised operation
Extends battery life up to 10 years with PSM, eDRX

Hybrid geolocation
Supports multiple positioning sources for accurate location, including CellLocate, plus u-blox solutions: external GNSS via control interface and AssistNow via the internal client

Cost-effective integration
Eliminates the need for external power amplifiers and includes dynamic antenna tuning to optimise performance

Highlights



Compact form factor
16 x 16 x 2 x 2 mm module enables ultra-compact designs and pairs seamlessly

Multi-mode cellular connectivity
Supports LTE-M, NB-IoT, and 2G fallback with 23 dBm output power for reliable global coverage

Power efficiency
Includes PSM, eDRX to minimise energy use and extend battery life

Positioning integration
Compatible with CellLocate

Dynamic antenna tuning
Optimises RF performance through a configurable interface that adjusts matching circuitry by frequency

Trusted security
Runs only authorised firmware using hardware-based security features provisioned in a secure environment

Flexible integration
Offers multiple I/O options and a built-in IP stack for easy deployment across diverse IoT devices

Reliable, data communication
Supports secure, efficient data transfer with integrated IP protocols and lightweight MQTT communication

Use cases

- Telematics and onboard diagnostics (OBDs)
- Industrial monitoring and automation
- Smart city and smart building systems
- Payment terminals and micromobility
- Connected health and wearables
- Personal and pet tracking

Product features

		Lexi-R42
Grade	Automotive	
	Professional	•
	Standard	
Regions		Global
Access technology	LTE bands	1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 28, 66, 85
	Data rate	Q
	LTE Power class	M1/NB2
	LTE Power class	23 dBm
Positioning	External Trasna GNSS control via modem	•
Compatible Trasna services	AssistNow™	•
	CellLocate®	•
Interfaces	UART	2
	USB (for diagnostics and FW updates)	1
	I2C	1
	USIM	1
	GPIO	6
Features	Secure boot, updates, production	•
	Jamming detection	•
	Last gasp	•
	Antenna detection	•
	LwM2M	•
	FW update via serial (FOAT)	•
	eDRX and power save mode	•
	Deep sleep mode	•
	Dual stack IPv4/IPv6	•
	Embedded MQTT / MQTT-SN	•
	Embedded TCP/UDP stack	•
	Embedded HTTPS, FTPS	•
	Embedded TLS / DTLS	•
	Embedded CoAP/DTLS	•
	Antenna dynamic tuning	•

M1 = LTE Cat M1 (up to 588 kb/s DL, 1119 kb/s UL)
NB2 = Cat NB2 (up to 127 kb/s DL, 158.5 kb/s UL)
Q = Quad-band

Features	LTE	**3GPP Release 13 LTE Cat M1 and NB1** **3GPP Release 14 LTE Cat M1:** Uplink TBS of 2984b, CIoT optimizations, and Release Assistance Indication (RAI) **3GPP Release 14 LTE Cat NB2:** Higher data rate (TBS of 2536b), mobility enhancement (RRC connection re-establishment), two HARQ processes, release assistant, random access on non-anchor carrier Cat M1 half-duplex, up to 588 kb/s DL, 1119 kb/s UL Cat NB1 half-duplex, 27.2 kb/s DL, 62.5 kb/s UL Cat NB2 half-duplex, up to 127 kb/s DL, 158.5 kb/s UL
	GSM	GPRS / EGPRS Multi-Slot Class 33
	SMS	MT/MO PDU / text mode SMS over SG/NAS
Software features	Protocols	Dual stack IPv4 and IPv6 Embedded TCP/IP, UDP/IP, FTP, HTTP Embedded secure MQTT, MQTT-SN Embedded HTTPS, FTPS, TLS, DTLS
	Device mgmt.	Direct access to external u-blox GNSS via module
	Functionalities	Antenna dynamic tuning Last gasp Jamming detection
	Security	Secure boot Secure updates Secure production
	Firmware upgrade	Via UART (FOAT) or FOTA (Firmware upgrade over the air)
Compatible Trasna services	Location	AssistNow CellLocate
Electrical data	Power supply	3.8 V nominal, range 3.2 V to 4.5 V
	Power consumption	Power save mode (PSM): 3 µA Low Power Mode (eDRX): 100 µA
Interfaces	Serial	2 UART 1 USB, for diagnostics and FW update 1 DDC (I2C)
	GPIO	Up to 6 GPIOs, configurable
	(U)SIM	Supports 1.8 V, SIM toolkit
Package	133 pin LGA	16.0 x 16.0 x 2.0 mm, < 1.5 g
Environmental data, quality & reliability	Operating temperature	−40 °C to +85 °C
	RoHS compliant	Lead-free
	Trasna qualification policy	Based on AEC-Q104 standard
	Manufactured	IATF 16949 certified production sites
Certifications and approvals	Lexi-R422	ANATEL, FCC, ISED, NCC, RCM, RED, UKCA, GCF, PTCRB, Deutsche Telekom, Vodafone
Support products	EVK-Lexi-R42	Evaluation kit for Lexi-R42
Product variants	Lexi-R42	LTE-M, NB-IoT and EGPRS module for multiregional use

Take the next step

Grow your business with Trasna Lexi-R42.
Contact your account manager to learn more.

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