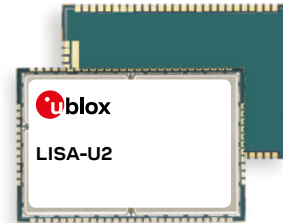


# LISA-U2 series



## HSPA(+) modules with 2G fallback



22.4 × 33.2 × 2.6 mm

### Worldwide UMTS/HSPA(+) and GPRS/EDGE coverage

- HSDPA 21.1 Mbit/s, HSUPA 5.76 Mbit/s
- Easy migration between u-blox 2G, 3G and 4G modules
- Supports eCall, ERA-GLONASS, CellLocate® indoor positioning, and GNSS / A-GNSS integration
- Extended temperature range of -40 °C to +85 °C

### Product description

With 6-band W-CDMA(UMTS) and quad-band GPRS/EDGE, the LISA-U2 modules are suited for networks worldwide. Features include data-rates of up to 21.1 Mbit/s (downlink), a rich set of internet protocols, very small footprint, very low power consumption and extended operating temperature range. LISA-U2 modules provide fully integrated access to u-blox positioning products. Antenna diversity permits the LISA-U2 modules to provide the highest data speeds.

LISA-U2 modules are ideal for consumer/industrial applications requiring high-speed data transmission, and machine-to-machine applications. They are the perfect choice for mobile internet terminals, tablets, in-car infotainment, connected navigation systems, security and surveillance systems, eCall, fleet management, metering, anti-theft systems,

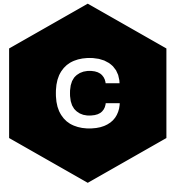
and other automotive applications.

The compact SMT package enables easy manufacturing, and migration from u-blox SARA, LEON, and other LISA modules is simple. This allows customers to take maximum advantage of their hardware and software investments, and provides very short time-to-market. An extensive set of national regulatory and operator certificates is available. RIL software for Android is available free of charge.

LISA-U2 modules are manufactured in ISO/TS 16949 certified sites. Each module is tested and inspected during production. The modules are qualified according to ISO 16750 - Environmental conditions and electrical testing for electrical and electronic equipment for road vehicles.

### Product selector

Model	Technology	Bands	Positioning	Interfaces	Audio	Features	Grade
	HSUPA [Mbit/s] HSDPA [Mbit/s]	UMTS/HSPA [MHz] GPRS/EDGE quad-band	GNSS via modem AssistNow software CellLocate®	UART SPI USB GPIO DDC for u-blox GNSS	Analog audio Digital audio	Network indication Antenna supervisor Jamming detection Embedded TCP/UDP Embedded HTTP, FTP Embedded SSL FOTA FW update via serial eCall/ERA-GLONASS Rx diversity	Standard Professional Automotive
LISA-U200	5.76 7.2	800/850/900/1700/1900/2100	• • • •	1 1 1 14 1	2	• • • • • • • •	•
LISA-U201	5.76 7.2	800/850/900/1900/2100	• • • •	1 1 1 14 1	2	• • • • • • • •	• •
LISA-U230	5.76 21.1	800/850/900/1700/1900/2100	• • • •	1 1 1 14 1	2	• • • • • • • •	•
LISA-U260	5.76 7.2	850/1900	• • • •	1 1 1 14 1	2	• • • • • • • •	•
LISA-U270	5.76 7.2	900/2100	• • • •	1 1 1 14 1	2	• • • • • • • •	•
LISA-U200 FOTA	5.76 7.2	800/850/900/1700/1900/2100	• • • •	1 1 1 14 1	2	• • • • • • • •	•
LISA-U201 FOTA	5.76 7.2	800/850/900/1900/2100	• • • •	1 1 1 14 1	2	• • • • • • • •	•



## Features

UMTS/HSPA	800/850/900/1700/1900/2100 MHz (Bands VI, V, VIII, IV, II, I) 3GPP Release 7 5.76 Mbit/s uplink, 21.1 Mbit/s downlink or 5.76 Mbit/s uplink, 7.2 Mbit/s downlink
GSM	GSM 850 / 900 / 1800 / 1900 MHz 3GPP Release 7, PBCCH support
GPRS	Class 12, CS1-CS4 – up to 86.5 kbit/s
EDGE	Class 12, MCS1-9 – up to 236.8 kbit/s
CSD	GSM max 9.6 kbit/s UMTS max 64 kbit/s
SMS	MT/MO PDU / Text mode
Voice	HR/FR/EFR/AMR/AMR-WB

## Software features

Protocols	Embedded TCP/IP, UDP/IP HTTP/FTP/SSL (Secure Socket Layer) SSL TLS 1.2 (for embedded TCP/IP) Ethernet over USB eSIM and Bearer-Independent-Protocol
Network	Jamming detection
GNSS Interfaces	Direct access to u-blox GNSS via LISA AssistNow software for fastest GNSS Time-to-First-Fix CellLocate® & Hybrid Positioning
Emergency calling	E911 (USA) European eCall, eMLPP
Other	Protect network from excessive signaling traffic
Firmware upgrade	Via UART, USB, and SPI Via FOTA for 83S versions

## Environmental data, quality & reliability

Operating temperature	-40 °C to +85 °C (extended range)
RoHS compliant (lead-free)	
Qualification according to ISO 16750	
Manufactured in ISO/TS 16949 certified production sites	

## Interfaces

GPIO	Up to 14 GPIOs, configurable
(U)SIM	Supports 1.8 V and 3.0 V, SIM toolkit
Serial	1 UART, 1 SPI, DCC, 1 USB 2.0 (high-speed, 480 Mbit/s)
Audio	2 digital

## Further information

For contact information, see [www.u-blox.com/contact-us](http://www.u-blox.com/contact-us).

For more product details and ordering information, see the [product data sheet](#).

## Package

76 pin LCC (Leadless Chip Carrier): 22.4 x 33.2 x 2.6 mm, < 7 g

## Electrical data

Power supply	3.3 V to 4.4 V	
Power consumption	Power Off	55 µA
	Idle (2G, DRX5)	1.3 mA
	Idle (3G, DRX7)	1.7 mA
	GSM Voice	175 mA (bands II & III)
	UMTS Voice	385 mA (band V)
	GPRS Data	175 mA (1 Tx slot, bands II & III) 400 mA (4 Tx slots, bands II & III)
	HSPA	500 – 800 mA (depends on frequency band)

## Certifications and approvals

RED (formerly known as R&TTE), ISED (formerly known as IC), PTCRB, GCF, FCC, Giteki (Japan), RCM (Australia), CCC (China), NCC (Taiwan), KCC (Korea), IDA (Singapore), ANATEL (Brazil), ICASA (S. Africa)

AT&T, DoCoMo, Softbank, SKT, Telstra (Australia), Vodafone, BellMobility, Telus, Rogers (Canada), ViVo (Brazil)

## Support products

EVK-U20 / EVK-U23	Evaluation kits for LISA-U2 series
RIL software	Android
USB driver	Embedded Windows 6.x, 7.x Windows XP, Vista, 7, Windows Mobile 6.5

## Product variants

LISA-U200	UMTS/HSPA, quad-band GPRS/EDGE, 800/850/900/1700/1900/2100 MHz
LISA-U201	UMTS/HSPA, quad-band GPRS/EDGE, 800/850/900/1900/2100 MHz
LISA-U230	UMTS/HSPA+, quad-band GPRS/EDGE, 800/850/900/1700/1900/2100 MHz
LISA-U260	UMTS/HSPA, quad-band GPRS/EDGE, 850/1900 MHz
LISA-U270	UMTS/HSPA, quad-band GPRS/EDGE, 900/2100 MHz
LISA-U200-83S	FOTA, UMTS/HSPA, quad-band GPRS/EDGE, 800/850/900/1700/1900/2100 MHz
LISA-U201-83S	FOTA, UMTS/HSPA, quad-band GPRS/EDGE, 800/850/900/1900/2100 MHz

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