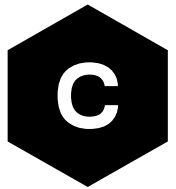


LARA-L6 series



Multi-mode LTE Cat 4 modules in smallest form factor

World's smallest LTE Cat 4 module with global coverage, ideal for size-constrained devices

- Focused product variants to reduce logistics complexity
- Any region, any band, any technology for simple roaming and deployment anywhere in the world
- Compatibility with LARA-R6 (LTE Cat 1)
- Secure by design to always keep your device running and updated



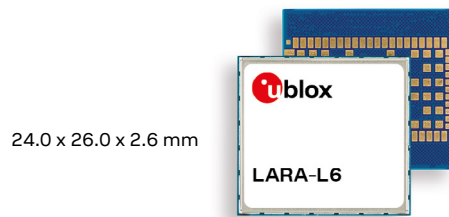
Standard



Professional



Automotive



24.0 x 26.0 x 2.6 mm

Product description

The LARA-L6 series are LTE Cat 4 modules with data rates up to 150 Mbit/s in downlink and 50 Mbit/s in uplink. They come in three variants: the LARA-L6004D global variant supports data-only services, the LARA-L6004 global variant is intended for voice and data applications, and the LARA-L6804D multi-regional variant supports data-only services. This allows more flexibility for product selection based on application needs.

The modules feature secure boot and secure updates. Security is regularly updated via maintenance releases to keep your device running and protected from attacks.

LARA-L6004 is the smallest LTE Cat 4 multi-mode module with global coverage available in the market. As a single SKU, it provides universal connectivity and greatly simplifies logistics. This truly global module has 18 LTE bands plus 3G/2G fallback. Thanks to compatibility with LARA-R6 (LTE Cat 1) you can maximize return on development efforts and ease of migration between variants, depending on application needs and regional targets. Versatile interfaces, features, multi-band, and multi-mode capabilities make LARA-L6 ideally suited for a wide range of applications that require high data speed, seamless connectivity, superior coverage, low latency, streaming data, and voice support. These include industrial gateways, routers, alarm panels, video surveillance, telematics, fleet management, connected health, and point-of-sale terminals.

	LARA-L6004	LARA-L6004D*	LARA-L6804D*
Grade			
Automotive			
Professional	•	•	•
Standard			
Regions			
	Global	Global	Multi-region
Access Technology			
LTE FDD bands	1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28	1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28	1, 2, 3, 4, 5, 7, 8, 18, 19, 20, 26, 28
LTE TDD bands	38, 39, 40, 41		
UMTS/HSPA bands	850, 900, 1900, 2100		
GSM/GPRS bands	Q		
Data rate	Cat 4		
Positioning			
GNSS via modem	•	•	•
Compatible u-blox Services			
AssistNow™	•	•	•
CellLocate®	•	•	•
Interfaces			
UART	2	2	2
USB	1	1	1
I2C	1	1	1
I2S	1		
GPIO	9	9	9
Features			
VoLTE/CSFB	•		
Power saving mode	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure boot / update	•	•	•
Rx Diversity and MIMO	•	•	•
FW update via serial (FOAT)	•	•	•
FOTA/uFOTA	•	•	•
Last gasp	•	•	•
Jamming detection	•	•	•
Antenna and SIM detection	•	•	•

Cat 4 = 150 Mbit/s DL, 50 Mbit/s UL
Q = Quad-band

* = Data-only variant
 = Available in future FW

LARA-L6 series



Features

LTE	LTE Cat 4 (150 Mbit/s DL, 50 Mbit/s UL) 3GPP Release 10 – LARA-L6004(D) (Global) – LARA-L6804D (Multi-region) Power saving features: – Rel 12 LTE power saving mode, PSM ¹
UMTS	HSDPA category 24, HSUPA category 8 Bands (in MHz): 850/900/1900/2100
GSM	GPRS/EDGE multi-slot class 33 Bands (in MHz): 850/900/1800/1900
SMS	MT/MO PDU / Text mode SMS over IMS and via SMS-C

¹ = Future FW releases

Compatible u-blox services

Location	AssistNow CellLocate
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Software features

Protocols	eSIM and Bearer Independent Protocol
GNSS Interfaces	Direct access to u-blox GNSS via module
Firmware upgrade	Via UART (FOAT) and USB (FOAT and EasyFlash) FOTA / uFOTA client/server solution (Firmware upgrade Over the Air)
Security	Secure boot Secure updates

Interfaces

Serial	2 UART 1 USB 2.0 (high-speed, 480 Mbit/s) 1 I2C
GPIO	Up to 9 GPIOs, configurable
(U)SIM	Supports 1.8 V and 3.0 V, SIM toolkit

Package

100 pin LGA (Land Grid Array): 24.0 x 26.0 x 2.6 mm, < 4 g

Environmental data, quality & reliability

Operating temperature	–40 °C to +85 °C
RoHS compliant (lead-free)	
u-blox qualification policy (based on AEC-Q104 standard)	
Manufactured at ISO 9001 / 14001 certified production site	

Certifications and approvals¹

LARA-L6004	FCC, UKCA, ISED, RED, NCC, RCM, Giteki
LARA-L6004D	PTCRB, GCF, FCC/ISED, RED, UKCA, NCC, RCM, Giteki, Anatel, AT&T, Verizon, Telefonica, Telstra, DT
LARA-L6804D	GCF, RED, UKCA, NCC, RCM, Giteki, NTT, SBM, KDDI

¹ = Contact u-blox for a list of achieved certification approvals

Electrical data

Power supply	3.8 V nominal, range 3.3 V to 4.5 V Extended range 3.1 V to 4.5 V
Power consumption	Active Idle Mode: ~1.1 mA

Support products

EVK-L6	Evaluation kits for LARA-L6 series RIL software available for Android 13.0 and previous versions
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Product variants

LARA-L6004 (LARA-L6004D data-only variant)	Global LTE Cat 4 module LTE FDD bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28 LTE TDD bands: 38, 39, 40, 41 3G bands: 1, 2, 5, 8 2G bands: Quad-band
LARA-L6804D	LTE module for multi-regional use, data-only LTE FDD bands: 1, 2, 3, 4, 5, 7, 8, 18, 19, 20, 26, 28 3G bands: 1, 2, 5, 8; 2G bands: Quad-band

Further information

For contact information, see www.u-blox.com/contact-u-blox.

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

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