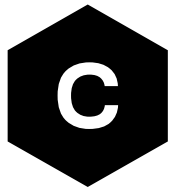


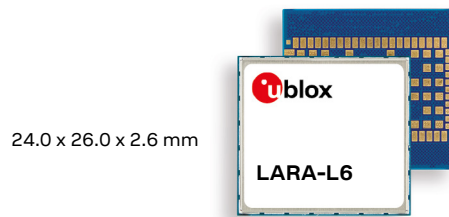
LARA-L6 series



Single or 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

- Reduce logistics complexity with two product variants and extensive MNO certifications
- 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



Product description

LARA-L6 series modules with data rates up to 150 Mbit/s in downlink and 50 Mbit/s in uplink provide global and multi-regional coverage in a very small form factor, thereby reducing logistics complexity and increasing design flexibility. Two product variants provide flexibility for band use and access technology by region, and include all relevant MNO certifications.

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-L6004D 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.

LARA-L6404D provides an ideal LTE Cat 4 solution for North America, as it supports all relevant LTE bands and is designed for use on AT&T, Verizon, FirstNet, or T-Mobile. Managing a single SKU for the North American market simplifies logistics and reduces associated costs.

With two LTE Cat 4 variants and 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 and streaming data. They include industrial gateways, routers, alarm panels, video surveillance, telematics, fleet management, connected health, and point-of-sale terminals.

	LARA-L6004D	LARA-L6404D
Grade		
Automotive		
Professional	•	•
Standard		
Regions		
	Global	North America
Access Technology		
LTE FDD bands	1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28	2, 4, 5, 12, 13, 14, 66, 71
LTE TDD bands	38, 39, 40, 41	
UMTS/HSPA bands	850, 900, 1900, 2100	
GSM/GPRS bands	Q	
Data rate	Cat 4	Cat 4
Positioning		
GNSS via modem	•	•
Compatible with u-blox Services		
AssistNow™	•	•
CellLocate®	•	•
Interfaces		
UART	2	2
USB	1	1
I2C	1	1
I2S	1	1
GPIO	9	9
Features		
Power save mode	<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		
☐ = Available in future FW		

LARA-L6 series



Features

LTE	LTE Cat 4 (150 Mbit/s DL, 50 Mbit/s UL) 3GPP Release 10 – LARA-L6004D (Global) – LARA-L6404D (North America) Power saving features: – Rel 12 LTE power save mode, PSM *
UMTS	HSDPA category 8, HSUPA category 6 Bands (in MHz): – LARA-L6004D: 850/900/1900/2100
GSM	GPRS/EDGE multi-slot class 33 Bands (in MHz): – LARA-L6004D: 850/900/1800/1900
SMS	MT/MO PDU / Text mode SMS over IMS and via SMS-C

* = Future FW releases

Compatible with 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)	
Qualification according to AEC-Q104	
Manufactured at ISO 9001 / 14001 certified production site	

Certifications and approvals

LARA-L6004D	PTCRB ¹ , GCF ¹ , FCC, ISED, RED, NCC, RCM, Giteki, AT&T ¹ , Anatel ¹ , NTT DoCoMo ¹ , SBM ¹ , KDDI ¹ , Vodafone ¹ , Deutsche Telekom ¹ , Verizon ¹ , Telefonica ¹ , KC ¹
LARA-L6404D	PTCRB, GCF, FCC, ISED, AT&T, Verizon, T-Mobile, FirstNet

1 = Planned certifications

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 12.0 and previous versions
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Product variants

LARA-L6004D	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-L6404D	LTE Cat 4 module for North America LTE FDD bands: 2, 4, 5, 12, 13, 14, 66, 71

Further information

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

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

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