LE920A4 Series
AUTO

LTE 150/50 | **DC-HSPA+** 42.0/5.76 | Embedded

34 mm

40 mm

2.8 mm
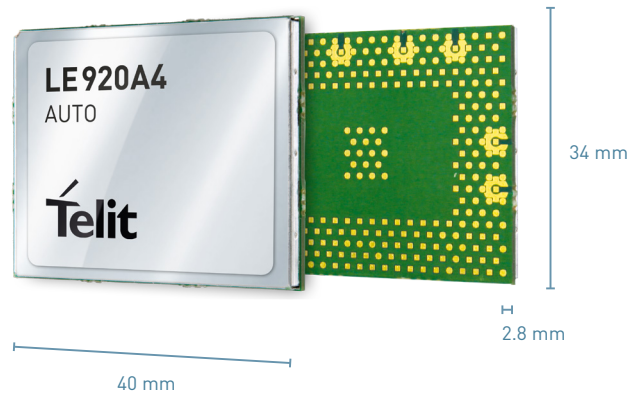
Product Description

The LE920A4 is part of Telit's xE920 form factor family conceived to address stringent requirements of quality assurance and traceability as well as extended environmental tolerance for OEM automotive and for harsh environment application areas.

The LE920A4 Series combines two high-speed cellular modes: LTE delivering 150 Mbps downlink and 50 Mbps uplink data rates and full fallback compatibility with HSPA+ delivering up to 42 Mbps downlink and 5.76 Mbps uplink rates. With 2.5G support, the LE920A4 is also fully backward-compatible with existing EDGE and GSM | GPRS networks to ensure that it can connect even in remote areas without 4G or 3G coverage.

The LE920A4 Series is comprised of band-combination variants designed to address regional market requirements for North America, Europe, China and more.

Key Benefits

- ISO TS16949 compliant
- Enabling customers to develop proprietary Software applications based on Telit unique Software Application Development Framework
- Powerful application processor with most of its resources free for running customer software applications
- World-wide GNSS support – GPS, GLONASS, GALILEO, BEIDOU, QZSS
- GNSS receiver available for applications requiring fast and accurate fixes in any environment
- Regional variants covering different groups of LTE and HSPA bands
- Ethernet and other advanced interfaces
- Design once and select between 4G LTE and HSPA pin-compatible products. Non-LTE variant can be offered.

Family Concept

The xE920 family is Telit's new generation of automotive grade modules in LTE and HSPA+ cellular technologies. The 34 x 40 mm, 316-pad LGA package is a ruggedized, mechanical robust module with excellent thermal design for effective heat dissipation. It is suitable for demanding applications and environments, and provides a cost effective mounting solution.

In addition, xE920 modules are designed and manufactured according to ISO TS16949 processes to ensure quality and compliance with supply chain requirements of automotive applications and car OEMs.

ENABLING THE IOT
IS WHAT WE DO.

Region Variant	LTE FDD	LTE TDD	HSPA+	2G	TD-SCDMA
LE920A4-NA	2, 4, 5, 7, 12	•	2, 4, 5	2, 5	•
LE920A4-EU	1, 3, 7, 8, 20, 28	•	1, 3, 5, 8	3, 8	•
LE920A4-CN	1, 3, 5, 8, 26	38, 39, 40, 41	1, 5, 8	3, 8	34, 39
HE920A-EU	•	•	1, 3, 5, 8	2, 3, 5, 8	•

LE920A4 Series
AUTO

Product Features

Supported frequency bands: Refer to the table above for North America, Europe and China variants; additional region variants are under consideration.

- Dedicated CPU A7 @1.2GHz, ~2300 DMIPS
- Embedded Linux
- Optional Java virtual machine support
- Security
- GPS, GLONASS, Galileo, Beidou, QZSS and optional Dead Reckoning support
- Rx Diversity
- Manufactured under TS16949 Quality specifications
- SIM Access Profile
- 3GPP release 10 compliant
- SIM application Tool Kits 3GPP TS 51.014
- Digital voice
- Analog voice (optional embedded codec)
- IP stack with TCP and UDP protocols
- Standard and extended AT command set
- e-Call compliant

Data

LTE
- Uplink up to 50 Mbps
- Downlink up to 150 Mbps

HSPA+
- Uplink up to 5.76 Mbps
- Downlink up to 42.0 Mbps

UMTS
- Uplink/Downlink up to 384 kbps

EDGE
- Uplink/Downlink up to 236 kbps

GPRS
- Uplink/Downlink up to 85.6 kbps

Environmental

- Dimensions 34 x 40 x 2.8 mm
- Temperature Range
  -40°C to +85°C (operation)
  -40°C to +105°C (storage)

Interfaces

- 316-pin LGA Interface
- Ethernet SGMII
- HSIC
- 2 SDIO
- USB 2.0 with OTG support
- SPI
- I2C
- 2 UART
- Audio I/F – I2S/PCM and analog
- Dedicated 8 GPIO/15 GPIO multiplexed with other signals
- 2x SIM interface (1.8 V / 3 V)
- Antenna pads – 2x Cellular, 1x GNSS
- ADC – up to 3 inputs

Approvals

- CE, GCF (Europe)
- FCC, PTCRB, IC (North America)
- RoHS Compliant
- CCC (China)

Electrical

- Output power
  - Class 4 (2 W, 33 dBm)   @ GSM 850 / 900
  - Class 1 (1 W, 30 dBm)   @ GSM 1800 /1900
  - Class E2 (0.5 W, 27 dBm) @ EDGE 850 / 900
  - Class E2 (0.4 W, 26 dBm) @ EDGE 1800/1900
  - Class 3 (0.25 W, 24 dBm) @ UMTS
  - Class 3 (0.2 W, 23 dBm)   @ LTE
- Supply voltage
  - Nominal: 3.8 VDC
  - Range: 3.4 - 4.2 VDC

Join the Telit Technical Forum

For a quicker and more rewarding integration experience join the Telit Technical Forum. There you can browse the first open forum covering all IoT topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing IoT community and exchange experiences.