High-Speed LTE Data Card

The LN920 M.2 data card is part of the family of Telit high-speed data cards. Designed in M.2 (NGFF) form factor, it is the natural evolution toward 5G technology.

The LN920 is available as LTE Category (Cat) 12 (600 Mbps peak data rate DL, 150 Mbps UL) and Cat 6 (300 Mbps peak data rate DL, 50 Mbps UL). This data card supports a broad set of LTE frequency bands and carrier combinations and includes 3G/HSPA+ legacy technology and a GNSS receiver, making it ideal for worldwide deployments.

Compatible with 3GPP Release (Rel) 12, it is certified for global deployments across EMEA, the Americas and APAC, including specific MNO certifications in regions requiring them like APAC and NA.

The LN920 series is designed for global use and suitable for both high-performance industrial and consumer applications, including fixed wireless access, enterprise routers and gateways, indoor and outdoor CPE, and mobile computing (e.g., notebooks, tablets).

Key Benefits

- Standard M.2 (NGFF) form factor
- Same form factor and pinout available as 4G Cat 12 and Cat 6
- 3G/HSPA+ Rel 8 for fallback to legacy networks
- Broad frequency band support, ideal for worldwide deployments and private LTE networks
- Certified with leading MNOs
- Single-side printed circuit board for optimal heat dissipation
- High-speed USB 3.0 port
- Support of up to 3xCA DL (Cat 12)
- Up to three independent firmware images onboard selectable at boot to support various network operator requirements
- State-of-the-art GNSS receiver with separate RF connector
- Internal GNSS L1 LNA, allowing the use of less expensive passive antennas and lowering the total cost of ownership
- Advanced security features: SELinux, secure boot
- Full industrial operating temperature range
- Drivers support: Windows 10, Linux
- 2 x 2 MIMO
**Key Specifications**

- M.2 form factor
- Chipset: Qualcomm® SDX12

**Product Features**

- Available as Cat 12 (LN920A12-WW) or Cat 6 (LN920A6-WW)
- 3GPP Rel 12 compliant
- Control via AT commands according to 3GPP TS27.005, 27.007 and custom AT commands
- SIM application toolkit 3GPP TS51.014
- SMS over SG and IMS
- Firmware over-the-air (FDTA) update
- Embedded GNSS (GPS, GLONASS, Beidou, Galileo) receiver with dedicated RF connector
- Dual-SIM interface (dual-SIM, single standby)
- Secure boot to prevent unauthorized code from being executed on the modem
- SELinux (Security-Enhanced Linux) architecture to guarantee maximum data protection

**Modem Features**

- Data-only module
- LN920A12-WW:
  - 3GPP Rel 12, 600 Mbps DL, 150 Mbps UL
  - LTE FDD/TDD, up to 3xCA DL (600 Mbps, 60 MHz)
  - LTE FDD/TDD, up to 2xCA UL (150 Mbps, 40 MHz)
  - LTE 256-QAM DL, 64-QAM UL
- LN920A6-WW:
  - 3GPP Rel 12, 300 Mbps DL, 50 Mbps UL
  - LTE FDD/TDD, up to 2xCA DL (300 Mbps, 40 MHz)
  - LTE 64-QAM DL, 16-QAM UL
  - 3G DC-HSPA+ legacy technology
  - LwM2M support

**Physical & Environmental**

- Dimensions: 30 x 42 x 2.4 mm
- Full industrial operating temperature range: 40 to +85 °C (operating and storage)

**Interfaces**

- GPIOs
- USB 3.0
- Two 1.8 V/3 V SIM interfaces

**Electrical**

- 3.3 V nominal
- Range: 3.1–3.6 V

**Drivers**

- Windows 10
- Linux

**Approvals**

- Regulatory: CE/RED, FCC, IC, Jate/Telec
- Industry standard: GCF, PTCRB
- MNOs: AT&T, KDDI, NTT Docomo, Softbank, T-Mobile U.S., Telus, Telstra, Verizon

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