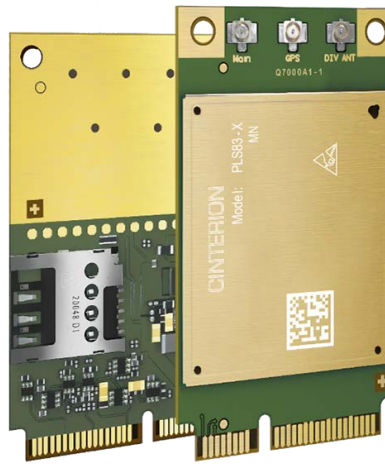# Telit Cinterion

mPLS83 Series

LTE Cat 4

Product Description

The Cinterion® mPLS83-W IoT Modem Card simplifies global high speed cellular IoT connectivity providing instant access to LTE Cat.4 networks with 2G/3G fallback from a single SKU. A targeted regional mPLS83-X variant is avaible for North American markets where global coverage is not needed. Offering high speeds of 150Mbit/s download and 50Mbit/s uplink, the mPLS83 IoT Modem Card is extremely easy to integrate by simply plugging into an existing Mini PCIe™ express card slot. It's ideal for high bandwidth industrial applications such as transportation, industrial automation and gateways that need the longevity and stability of LTE networks along with continuous coverage in regions where 4G is not available

Key Benefits

The Cinterion PLS83-W IoT Modem Card offers global cellular connectivity from a simple, plug-and-play device delivering a combination of 18 Band FDD and TDD LTE Cat.4, Eight Band 3G UMTS/WCDMA and Quad Band GSM. A regional variant provides more targeted coverage for NORAM. The feature-packed device comes in a Mini PCIe™ format and includes integrated IP connectivity, voice over LTE (VoLTE) and circuit-switched voice, plus a comprehensive AT command set for simplified device control. Integrated GNSS support (GPS/BeiDou/Galileo/GLONASS) provides precise positioning and timing data which is essential for global transportation and track and trace applications. Optional embedded eSIM technology strengthens security, reduces deployment complexity and simplifies logistics providing MNO flexibility offering easy remote provisioning, dynamic subscription management and MNO flexibility in the field. What's more, optional embedded processing further streamlines design and development while strengthening processing capabilities and optimizing the total cost of ownership. Advanced security features including a secure boot, secure storage and key lifecycle management protect data and devices. Housed in a compact 50.95mm x 30.00mm x 4.70mm mPCIe form factor, the modem card supports plug and play deployment and easy migration from 2G and 3G through to LTE. This greatly improves implementation agility and simplifies evolution as technology needs change.

All Cinterion IoT connectivity solutions integrate seamlessly with the Cinterion® IoT Suite offering OTA software updates and lifecycle management, trusted digital identity management and secure cloud interworking, plus zero-touch connectivity activation. Additionally, they all come with global customer support, Full Type Approval (FTA), and mobile network operator certification to support a fast time to market.

eSIM simplifies and secures IoT connectivity

An optional embedded eSIM together with subscription management reduces total TCO by easing integration, ensuring in-field flexibility on connectivity, and by simplifying manufacturing and logistics.

Efficiency, reliability and anytime, anywhere connectivity

An advanced power management system delivers efficiency while ensuring always on, 24/7 connectivity. Based on the mature LTE technology, the module ensures global reliability with fallback to 3G/2G if needed.

State of the art security suite protects devices and data

The secure boot feature protects the integrity of the firmware and guards against attacks and unauthorized firmware loading. The advanced key management platform not only secures key storage but also enables easy enrollment towards main cloud platforms. Moreover, the support for Cinterion IoT Suite allows remote update, device and connectivity management.

AVAILABLE FOR

Worldwide

mPLS83 Series

Product Features

- 3GPP Rel.10 Compliant Protocol Stack
- FDD-LTE: bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28, 66
- TD-LTE: bands 38, 40, 41
- UMTS (WCDMA/FDD): bands 1, 2, 3, 4, 5, 6, 8, 19
- Quad Band GSM: 850, 900, 1800, 1900 MHz
- Integrated GNSS support (GPS/BeiDou/ GLONASS/Galileo)
- SIM Application Toolkit, letter classes b, c, e with BIP and RunAT support
- Control via standardized and extended AT commands (Hayes, TS 27.007 and 27.005)
- Embedded IP stack with IPv4 and IPv6 support
- TCP/IP stack access via AT command and transparent TCP/UDP services
- Secure Connection with TLS/DTLS
- Internet Services TCP/UDP server/client, DNS, Ping, HTTP, SMTP, FTP client
- Supply voltage range: 3.0 - 4.5 V
- Dimension: 50.95 x 30.00 x 4.70 mm
- Operating temperature: -40°C to +95°C
- Data and Voice

Specifications

- FDD-LTE Cat.4
  DL: max. 150 Mbps, UL: max. 50 Mbps
- HSPA+ Cat.8 data rates
  DL: max. 7.2 Mbps, UL: max. 5.76 Mbps
- E/GPRS Class 12
  DL: max. 237 kbps, UL: max. 237 kbps
- SMS text and PDU mode support
- Multiple Operator VoLTE support, CSFB (circuit-switched fallback)
- High quality narrow and wideband voice support for a handset, headset and hands-free operation (HR, FR, EFR and AMR-WB)

Special Features

- USB Interface features a composite mode, compliant to Windows, Linux and Mac
- Firmware update via USB and ASC
- RLS Monitoring (Jamming detection)
- Informal Network Scan
- Cell ID based Location Support
- Module Services
- Embedded Processing (optional)
- eSIM

Approvals

- RED, GCF, CE, FCC, PTCRB, IC, UL, CCC, IFETEL, UKCA, Anatel, JATE, TELEC
- AT&T (Firstnet), Verizon, Telstra, NTT Docomo, KDDI

Interfaces (52pin edge connector)

- USB 2.0, UART
- 4 GPIO lines
- 3FF UICC card holder (USIM IF#1)
- 2 Hirose 3mm U.FL onboard connectors for Main and RX-Diversity antennas
- GNSS
- Digital audio interface (PCM and I2S modes)

Drivers

- USB, MUX driver for Microsoft® Windows 7™, Microsoft® Windows 8™ and Microsoft ® Windows 10™
- RIL Driver for Android
- Ofono for Linux