Telit Cinterion

MV32

5G/LTE

Product Description

The Cinterion MV32-W is the latest generation of 3GPP release 16 compliant 5G modem cards, a new addition to the MV series after the success of the first generation MV31. TheMV32 further improves on class-leading thermal efficiency and enables unrivalled throughput performance in an extremely compact card form factor with an integrated eSIM inside.

With 3GPP Release 16 support, the MV32 modem card, stays at the forefront of the 5G technological evolution, combining both enhanced mobile broadband (eMBB) and ultra-reliable low latency communication (URLLC) to serve high bandwidth and mission critical applications such as industrial router/gateways, 8K video stream security and camera applications, smart manufacturing, robotics and private network implementations.

The smallest of its kind, this compact solution supports the entire 5G spectrum with extended Sub6 and millimeter wave frequencies, surpassing previously known performance levels with blistering fast data speeds in both downlink and uplink, plus fallback to LTE and 3G networks. The MV32 promises to provide the most secure 5G connectivity anywhere and everywhere on the globe.

Key Benefits

The MV32-W is offered as a single global variant delivering connectivity for 5G, with LTE Cat. 20 and 3G fallback. It brings extreme technological complexity into one super compact, pluggable and convenient form factor to simplify the move to the latest 5G technology, enabling an easy migration from both LTE and first generation 5G.

With the eSIM inside (optional dual external SIM support as well), the MV32-W strengthens security, simplifies manufacturing, and streamlines logistics while providing flexibility in the field with 5G connectivity activation easy remote provisioning and dynamic subscription management. This helps to simplify IoT solution design and logistics while lowering Total Cost of Ownership (TCO)

 Housed in an ultra-rugged, compact 42mm x 30mm x 2.6mm M.2 form factor, it further improves the award winning MV31 design, with both PCIe and USB on the same SKU and support for up to 4x mmWave antennas. The step type shielding and the unique PCB design coupled with an industry-leading temperature management system ensures better thermal characteristics and longer operation under heavy duty conditions. The advanced positioning technology with dual-frequency GNSS supports GPS, Glonass, Beidou and Galileo for precise positioning anywhere in the world.

All Cinterion IoT connectivity solutions come with global customer support, Full Type Approval (FTA), and mobile network operator certification to support a fast time to market. The MV32-W simplifies 5G connectivity implementation significantly and promises outstanding expert support for every step from design to approval.

AVAILABLE FOR

Worldwide

General Features

- 5G SA and NSA (3GPP Release 16)
  - FDD: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n30, n66, n70, n71
  - TDD: n38, n40, n41, n48, n53, n77, n78, n79
  - SDL: n75, n76

- LTE Advanced-Pro (3GPP Release 15)
  - FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17,
  - B18, B19, B20, B25, B26, B28, B29, B30, B32, B66, B71, B75, B76
  - TDD: B34, B38, B39, B40, B41, B42, B43, B46, B48

- UMTS/HSPA+ (3GPP Release 8):
  - FDD Bands 1, 2, 4, 5, 8

- Integrated Dual Frequency GNSS:

- L1 (GPS, Glonass, Beidou, Galileo)

- L5 (GPS, Beidou, Galileo)

- SIM Application Toolki

- Supply voltage: 3.3V typical

- Dimensions: 30mm x 42mm x 2.6 mm

- Temperature range -40°C to +85°C

- Weight: approx. 8g

- Data only, VoNR TBC

Specifications

- 5G FR1 Max DL/UL: TBC

- 5G FR2 Max DL/UL: TBC

- LTE Adv.-Pro DL Cat. 20 / UL Cat. 13, Max DL/UL: 2.0 Gbps/211 Mbps*

- 4x4 MIMO DL / 2x2 MIMO UL

- HSPA+ Dual Carrier DL Cat. 24 / UL Cat. 6, Max DL/UL: 42 Mbps/11 Mbps*

  *Theoretical maximum data rates

Approvals

- RED (RoHS, REACH), FCC, GCF, PTCRB, ISED, RCM, JATE/TELEC, NCC

- Global MNO Approvals – AT&T incl. Firstnet, VzW, TMO-US, Vodafone, Telstra, NTT, KDDI, Softbank

Interfaces

- PCIe3.0/4.0 and USB 3.1 on the same SKU

- 4x MHF4 onboard connectors for Sub6GHz 4x4

- SIM/USIM interfaces supporting 1.8/3V

- 4x connectors for mmWave antennas

Drivers

- Windows® 11

- Linux® Kernel 5.10.x+

- Android 11+

Special & Security Features

- Dual SIM support with Dual-SIM Single Standby (DSSS)

- SIM Switching between internal eSIM or external SIM

- Secure Boot

- Advanced Device Security