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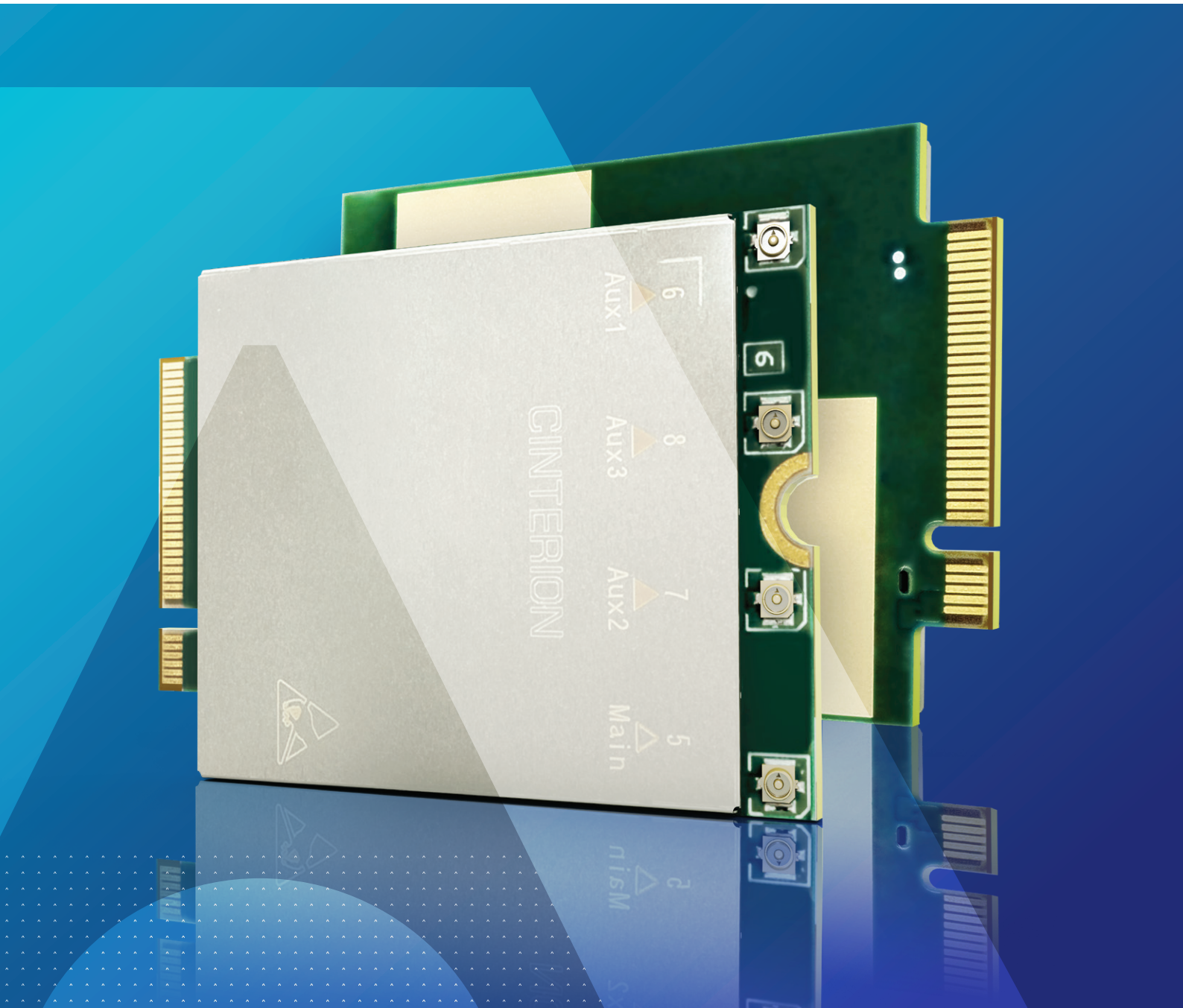
THALES
Building a future we can all trust

Global High Speed IoT

Cinterion® MLP31-W

LTE Advanced Pro M.2 Modem Card



Global High Speed IoT

Cinterion® MLP31-W

LTE Advanced Pro M.2 Modem Card

Compact, flexible, future-proof

- One global SKU for worldwide coverage
- Compact size for design flexibility

Custom, Always-On Connectivity

- Flexible SIM support: eSIM for maximum connectivity resilience
- Simplifies integration, manufacturing and logistics

Key Features

With the proven Cinterion Industrial form factor, Thales' high speed LTE IoT module MLP31-W features LTE Category 16 Multi-mode with 3G fallback. It's designed to be compatible with other Cinterion IoT LTE and 5G M.2 modem cards and optimized for the most demanding high-speed applications. The latest in high speed LTE connectivity provides one global SKU for worldwide coverage, compact size, eSIM and reliable connectivity in a flexible form factor.

The MLP31-W has been designed with dedicated support of key features in mind. The MLP31-W adds support for CBRS, enabling private network deployments and unclicensed spectrum usage with Licensed-assisted access (LAA). Being Firstnet approved, it is also the ideal solution for providing connectivity to first responder, mission critical use cases.

Compact, affordable solution

The Cinterion MLP31-W offers affordable LTE connectivity with data speeds up to 1 Gbps for applications requiring the fastest data speeds in a compact package and standard M.2 footprint. Ideal for routers, laptops and tablets, the MLP31-W comes with embedded eSIMs, in a M.2 footprint, and 4x4 MIMO (4 antenna interfaces),. Designed to operate in extended temperatures of -40° - +85° C for industrial applications, the LTE modems feature integrated GNSS (GPS/GLONASS/Beidou/Galileo), a USB 3.0 interface and driver support for Windows 10/11, Linux and Android.

General Features

Data Only

- LTE Advanced-Pro (3GPP Release 13)
  - FDD-LTE Bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 32, 66
  - TD-LTE Bands: 38, 39, 40, 41, 42, 43, 46 (LAA), B48
- UMTS/HSPA+ (3GPP Release 8):
  - FDD Bands: 1, 2, 4, 5, 6, 8, 19
- Integrated GNSS:
  - GPS, Glonass, Beidou, Galileo
- 4x4 MIMO selected CA; 4x2 MIMO 5x CA
- Flexible CA combinations
- SIM Application Toolkit
- Supply voltage range 3.1-4.4V
- Compact: Size: 30mm x 42mm x 2.3 mm; Weight ~6g
- Extended temperature range: -40°C to + 85°C

Specifications

- LTE Cat.16
- Max throughput:
  - DL: 1.0 Gbps / 256 QAM / 100 MHz CA
  - UL: 150 Mbps / 64 QAM / 40 MHz CA
- LAA Band (upto 80 MHz of unlicensed)
- HSPA+ Dual Carrier DL Cat. 24 / UL Cat. 6, DL/UL max: 42 Mbps / 11 Mbps

Approvals

- CE/RED, FCC, GCF, PTCRB, REACH, JATE/TELEC, ISED, RCM, UKCA
- NTT Docomo/KDDI
- AT&T & Firstnet
- VzW* TMO-US* Telstra*

Interfaces

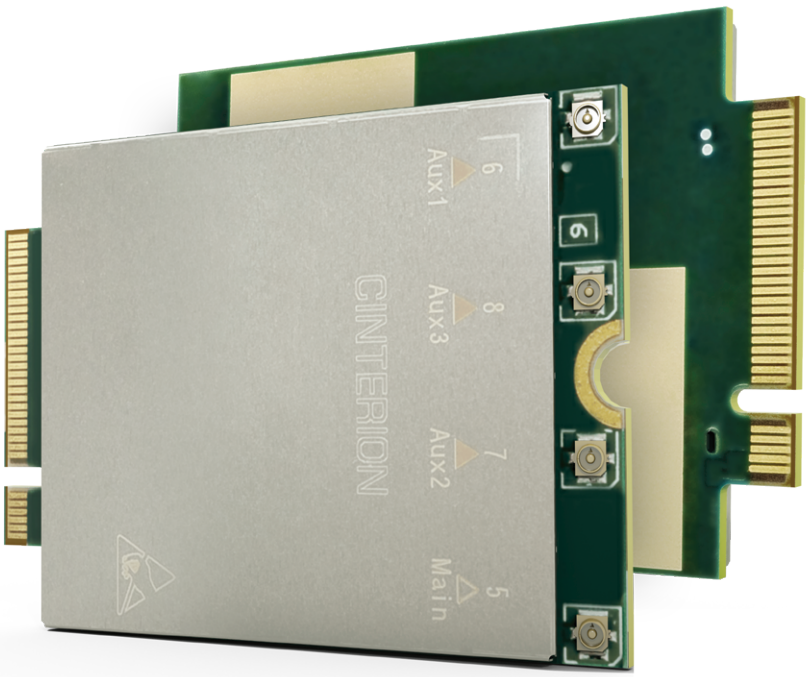
- USB 3.0
- Antenna MAIN, AUX, MIMO1 and MIMO2 interfaces

Drivers

- Windows® 10 and 11
- Linux®
- Android*

Special Features

- Dual SIM support with Single Standby (DSSS)
- Support for LAA
- Mission critical use cases supported with Firstnet
- CBRS support



Thales in IoT:
Driving digital transformation today and harnessing the power of 5G

Thales delivers innovative IoT technology that simplifies and speeds enterprise digital transformation. For more than 20 years, our customers – in a wide range of industries – trust our IoT solutions to seamlessly connect and secure their IoT devices, maximise field insights, and accelerate their global business success.

Thales solutions:

- **Connect** assets to wireless networks and cloud platforms
- **Manage** the long lifecycle of IoT solutions
- **Secure** devices and their data
- **Analyse** real-time data transforming it into business intelligence that improves decision making

Thales has unrivalled expertise in mastering complexities throughout the design process with strong support to help ensure your project runs smoothly. Our 360° approach provides the essential building blocks needed to simplify design, streamline development and accelerate time-to-market.

For more information, please visit **www.thalesgroup.com/IoT** or follow **@ThalesIoT on Twitter.**

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