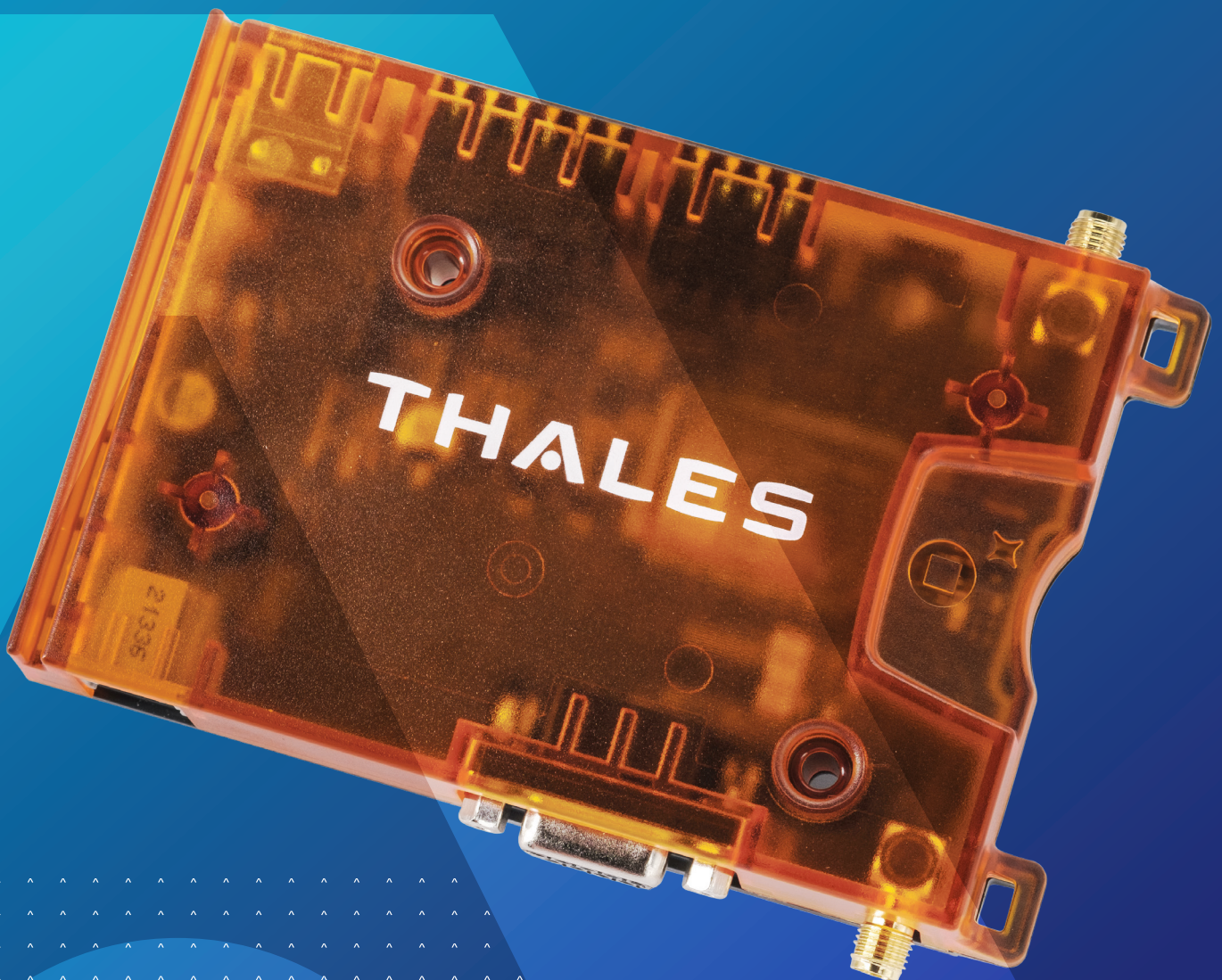


Plug-n-Play LTE IoT

Cinterion® SGX31

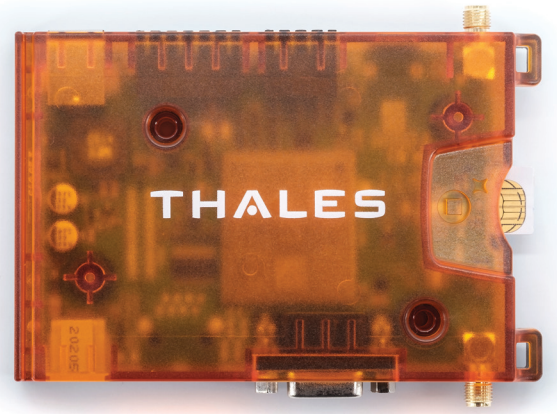
Smart Gateway for Edge Computing



Plug-n-Play LTE IoT

Cinterion® SGX31

Smart Gateway for Edge Computing



Key Features:

The Cinterion® Smart Gateway builds on Thales' proven IoT gateway solution EGX81 and adds a GPIO connector for applications requiring sensor interfacing, actuator control, data processing or protocol translation at the edge. Thales' smart IoT gateway **SGX31** features out-of-the-box worldwide Cat-M or NB-IoT connectivity with 2G fallback for a flexible, cost-effective platform to connect industrial assets using the latest LPWA technology. The smart gateway adds support for USB, a dedicated GNSS antenna and embedded processing via the Cinterion SDK ThreadX. The 20-pin GPIO connector (GPIOs, SPI, I2C, PWM) enables a wider range of applications making SGX31 ideal for industrial monitoring, industrial sensors, asset tracking, security and agriculture applications.

Thales' gateway connects sensors, IoT modules, and smart devices to the cloud and gives devices access to the Internet with edge-computing. The plug-n-play SGX31 offers reliable and efficient worldwide coverage and is ideal for low-power applications.

Flexible, Affordable LTE Smart Gateway for industrial monitoring, sensors and more

The Cinterion SGX31 provides affordable LTE connectivity with data speeds up to 300 kbps for applications requiring cost effective, efficient data speeds. Designed to operate in extended temperatures of -30° - +75° C for industrial applications, the next-generation gateway features integrated GNSS (GPS/GLONASS/Beidou/Galileo), a USB2.0 interface, Driver for Windows® 10/11 and Linux distributions; as well as trusted identity for AWS and Azure and an optional eSIM. SGX31 reduces time to market with simplified integration, manufacturing and logistics for a wide range of applications. Remote management through the Cinterion IoT Suite helps keep your fleet secure and up-to-date.

General Features:

- LTE Cat. M1/NB1/NB2
 - FDD-LTE Bands for LTE Cat M1: 1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 27, 28, 66, 85
 - FDD-LTE Bands for LTE Cat NB1/NB2: 1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 28, 66, 71, 85
 - Quad-Band GSM: 850, 900, 1800 and 1900 MHz
 - Data only
- GNSS support (GPS, GLONASS, BeiDou, Galileo)
- SIM Application Toolkit with BIP
- Control via standardized commands (Hayes, TS 27.007 and 27.005) and Gemalto M2M AT commands
- Embedded IPv4 and IPv6 TCP/IP stack access via AT command and transparent TCP/UDP services
- Internet Services: TCP server/client, UDP client, DNS, Ping, HTTP client, FTP client, MQTT client
- Secure Connection with TLS/DTLS
- Supply voltage range: 5 - 30 V
- Dimension: 191 x 143 x 44 mm (excluding connectors)
- Operating temperature: -30°C to +75°C
- Weight: TBD

Specifications

- LTE-M, NB-IoT with 2G fallback
 - 3GPP Rel. 14 Compliant Protocol; Compliant to GSM phase 2/2+ 3GPP Release 99
 - E/GPRS Class 10
- LTE Cat. M1 Class 5(+20dBm \pm 2dB) for all supported LTE Cat. M1 bands
- LTE Cat. NB1/NB2 Class 5(+20dBm \pm 2dB) for all supported LTE Cat. NB1/NB2 bands
- LTE Cat. M1 (HD-FDD)
- DL: max. 300kbps, UL: max. 1.1Mbps
 - LTE NB1 (HD-FDD)
- DL: max. 27kbps, UL: max. 63kbps
 - LTE NB2 (HD-FDD)
- DL: max. 124kbps, UL: max. 158kbps
- Mobile Station class B
- SMS support (via NAS, via GSM)

Approvals:

- RED, CE, FCC, UKCA, IC, UL, CCC
 - GCF, PTCRB
- Local approvals and major MNO certifications
- REACH, RoHS and EuP compliant
- CTIA Cybersecurity

Interfaces:

- USB2.0
- 2 Antenna Connectors SMA (female) – Cellular and GNSS
- Mini-SIM card reader, 1.8V and 3.0V
- Plug-in power supply connector (6-pole Western jack)
- V.24 / V.28 RS-232 interface (D-sub 9-pole female socket)
- Operating status and Watchdog operation indication LED's

Drivers:

- Windows® 10 and 11
- Linux®



Special Features:

- Firmware update via serial interface/USB
- Firmware update over-the-air via Cinterion IoT Suite
- Cinterion IoT Suite Trusted Identities for secure IoT cloud enrollment
- Real time clock with alarm functionality
- Flexible mounting concept (DIN rail mounting, C-rail mounting, Screw fixing, use of cable ties)
- Configurable hardware watchdog which allows to configure the gateway in e.g. always on mode Integrated Embedded processing

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](https://twitter.com/ThalesIoT).