Product Description

The Cinterion® TX62 IoT Module delivers global LTE-M, NB-IoT (NB1 and NB2) connectivity from a single SKU and it is the first product to adopt the revolutionary “Things” footprint. The compact form factor has been engineered to facilitate the design of small, battery-operated LPWA cellular devices such as small payment terminals, connected sensors, track and trace solutions, metering application, monitoring for smart homes, cities and agriculture.

Key features

The highly efficient Cinterion TX62 delivers global LPWAN LTE connectivity from a single SKU leveraging mature Rel. 14 second generation Cat. M1/NB1/NB2. The ultra-integrated IoT module's unique architecture allows the flexibility to run applications with a host processor or inside the module itself using the integrated processor dedicated to customer application for onboard processing, which optimizes the size and cost of your solution. TX62 supports optimized 3GPP power modes PSM and eDRx revolutionizing design possibilities for battery-operated cellular devices. State of the art security features include trusted identities pre-integrated in the root of the module during manufacturing plus secure key storage and certificate handling to protect the device and data and enable trustful enrollment in cloud platforms. An optional integrated eSIM further simplifies manufacturing and logistics while providing flexibility in the field with easy remote provisioning and dynamic subscription updates. All this combined to Integrated GNSS support (GPS/Galileo/GLONASS) provides a steady stream of timing and location information for precision positioning data anywhere in the world, making TX62 perfect also for small trackers devices.

Things footprint revolutionizes small, battery-operated industrial IoT

The tiny 15 x 15 mm Things footprint is revolutionizing possibilities for exceptionally small, battery-operated cellular IoT devices. The footprint design features an optimized, pad position and pitch to prevents PCB warpage while taking full advantage of affordable PCB technology. In addition, the position of antennas and ground maximizes RF performance.

Cinterion IoT Embedded Processing

TX62 device features an integrated processor with Real-Time Operating System (RTOS) enabling hostless architecture offered with an SDK to build and run your entire application on the small feature-packed module.

Optional eSIM simplifies and secures IoT connectivity

A embedded SIM strengthens security, authenticates devices, encrypts data and supports secure remote cellular connectivity provisioning. It works seamlessly with subscription management solution to manage connectivity for the lifecycle of devices. All this simplifies integration, manufacturing and logistics and lowers TCO.

Connectivity Solutions

NExT™ powered by Telit Cinterion is a cloud native core network. Telit Cinterion is a full tier 1 MVNO, enabling new and enhanced turnkey connectivity solutions and device management services. With this IoT network, you can deploy powerful, intelligent Global roaming with multi-IMSI and localization capabilities (eUICC) on more than 600 mobile carriers in 200+ countries in 2G/3G/4G/CAT-M/NB-IoT & 5G. The NExTPro management tool provides full visibility, monitoring & analytics.

In addition, Telit Cinterion offers Connectivity Activation, a remote SIM provisioning service that leverages latest eSIM technology to simplify and optimize connectivity provisioning and M(V)NO selection. Connectivity Activation digitalizes SIM provisioning and makes the IoT journey seamless and efficient for your devices, from the factory to the last day of operation.
Product Features

- 3GPP Rel.14 Compliant Protocol
- LTE Cat. M1/NB1/NB2
  - TX62-W: Power Class 20 dBm
  - TX62-W-B: Power Class 23 dBm
  - TX62-W-C: Power Class 23 dBm and 26 dBm¹
- Compatible with Cinterion® Things footprint
- FDD-LTE Bands:
  - TX62-W, TX62-W-B: Band 1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 27, 28, 66, 71, 85.
  - TX62-W-C: Band 1, 3, 8, 20, 28, and 450 MHz band 31 and 721
- Data only
- LTE Cat.M1
  - DL: max. 300 kbps, UL: max. 1.1 Mbps
- LTE Cat.NB1
  - DL: max. 27 kbps, UL: max. 63 kbps
- LTE Cat.NB2
  - DL: max. 124 kbps, UL: max. 158 kbps
- Dimension:
  - TX62-W: 15.3 x 15.3 x 2.9mm
  - TX62-W-B: 20.9 x 15.3 x 2.3mm
  - TX62-W-C: 20.9 x 15.3 x 2.9mm
- eDRX (0.8mA 81.92s eDRx and PSM 4.5μA)
- 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
- Secure boot
- Integrated GNSS support (GPS/BeiDou/Galileo/GLOBAL"
- 2 High-speed 8 line serial interface
- UICC and U/SIM card interface 1.8V (embedded MIM option)
- SPI, I2C, PWM signal line, GPIO’s
- ADC interface
- NExT™ connectivity with external SIM
- Connectivity Activation remote SIM provisioning service

¹TX62-W-C has Bd 1,3,8,20,28 (on 23dBm), and 450 MHz band 31 and 72 (on cat M at 26 dBm, and on cat NB at 23 dBm)