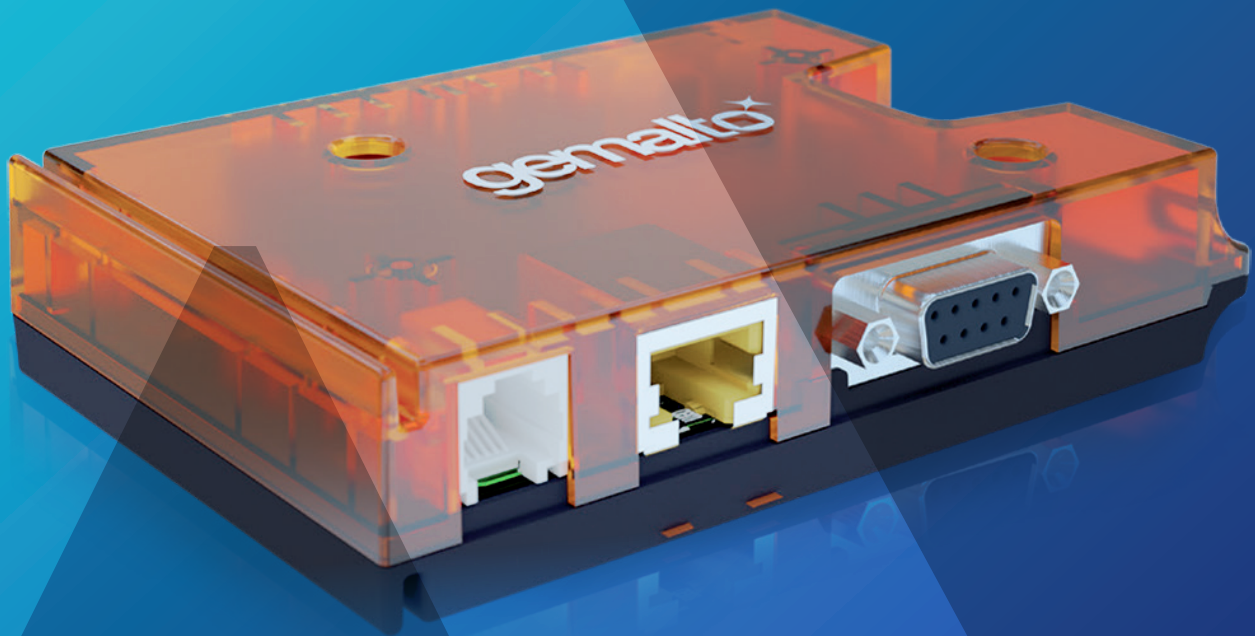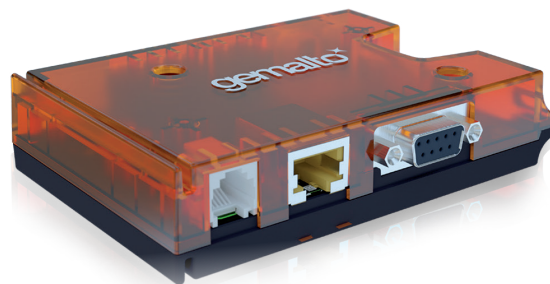THALES

TERMINALS
Cinterion® 4G LTE Terminals
LTE Cat 1 with 2G/3G fallback optimized for M2M IoT Solutions

Java
POWERED

Cinterion®
4G LTE Terminal

LTE Cat 1 IoT Gateway powered
by Java

4G LTE Terminals

Multi Band LTE Cat 1

Ethernet Interface (ELS61T only)

Embedded TCP / IP Stack

FOTA configurable & royalty-free

USB 2.0 (PLS62T-W only)

3G HSPA 2G GSM

Java embedded

Advanced Temperature Managment

RLS Monitoring (Jamming Detection)

Flexible Mounting

Thales's new suite of Cinterion LTE Cat1 Smart Terminals brings new simplicity to M2M. Leveraging Thales's next-generation Java embedded technology, the plug-and-play solutions powered by the multi-band LTE Cat-1 basebands with seamless fallback to 3G and/or 2G enable secure wireless TCP/IP connectivity anywhere in the world for a variety of industrial applications such as metering, remote monitoring, transportation, security and many more. The Cinterion ELS61T gateways come in regional versions providing universal industrial interfaces e.g. Ethernet or serial RS232 are encased in a compact, unprecedented mounting options. They provide first time IoT developers and small-scale implementers with a flexible, cost effective solution to quickly launch enterprise optimization solutions that expand the Internet of Things. Optional features include embedded component SIM (MIM) and a cloud based SensorLogic application enablement platform that enable out-of-the-box M2M communication reducing integration complexity and Total Cost of Ownership. Like all Cinterion products, the SMART 3G terminals come with full type approval (FTA) and are certified by the largest carriers worldwide.

Plug-and-Play with Most Flexible Mounting
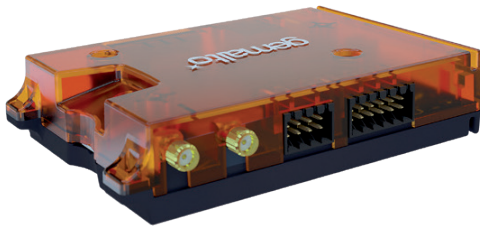
Plug & Play

ELS61 Terminal is a simple and reliable plug-and-play communication device that allows new M2M implementers to quickly connect their industrial applications using wireless technology. With very little integration and approval efforts, it provides a cost effective, swift solution for enterprise optimization technology. Alternative Power over Ethernet (PoE) for the ELS61T offers two additional benefits: further cost savings and flexibility of device placement. Because PoE runs data and power together over the same cable to each device attached to the local area network (LAN), devices can be installed without additional power supply and without concern for the proximity to individual AC outlets.

Embedded Java™

Java offers easy and fast application development, a broad choice of tools, high code reusability, easy maintenance, a proven security concept, on-device debugging as well as multi-threading programming and program execution.

Highly Flexible Mounting Concept

Encased in robust plastic housing, the miniaturized terminal works in virtually any application providing secure 24-7 connectivity. For quick and easy implementation, the terminal is compatible with a variety of mounting schemes including: IN rail mounting, C-rail mounting, Screw fixing or use of cable ties.

Terminal Variants

Productname	Region	Ethernet	USB	Java™	Frequency Bands
ELS61T-E LAN	EMEA	•		•	LTE (1,3,8,20,28), 2G Dual Band
ELS61T-US LAN	USA (AT&T)	•		•	LTE (2,4,5,12), 3G (2,4,5)
ELS31T-V LAN	USA (Verizon)	•			LTE (4 ,13)
ELS61T-AUS LAN	Australia	•		•	LTE (3,5,8,28), 3G (1,5,8)
ELS31T- J LAN	Japan	•			LTE (1,18 ,19)
PLS62T-W USB	Global		•	•	LTE (1,2,3,4,5,7,8,12(17),18,19,20,28), 3G (1, 2, 4, 5, 8, 9, 19), 2G Quad Band

Common to all are multiple GPIO's, RS-232, I²C and SPI via Weidmüller connector.

Cinterion® 4G LTE Terminals Features

General Features

- 3GPP Rel.7 Compliant Protocol Stack
- Mulit Band LTE Cat1 3G, 2G depending on variant
- SIM Application Toolkit, letter class "b", "c", "e"
- Control via standardized and extended
- AT commands (Hayes, TS 27.007 and 27.005)
- TCP/IP stack access via AT command and transparent TCP services
- Secure Connection for client IP services
- Internet Services TCP/UDP server/client, DNS, Ping, FTP client, HTTP client
- PoE - Power over Ethernet, optional

- Supply voltage range 8 – 30 V
- Dimension: 115 x 86 x 26 mm (incl. connectors)
- Weight: approx 130g
- Operating Temperature: -30 °C to +65 °C

Specifications

- LTE Cat.1 date rates
  DL: max 10.3Mbps UL: max. 5.2 Mbps
- HSPA+ Cat.8 (ELS61-US) data rates
  DL: max. 7.2 Mbps, UL: max. 5.76 Mbps
- GPRS Class 12 data rates
  DL: max. 85.6 kbps, UL: max. 85.6 kbps
- SMS text and PDU mode support

Special Features

- Ethernet interface (NATP) with optional Power over Ethernet (PoE)
- Real time clock with alarm functionality
- Multiplexer according 3GPP TS 27.010
- RLS Monitoring (Jamming detection)
- Informal Network Scan
- Programmable hardware watchdog
- Flexible mounting concept
- Integrated FOTA, configurable and royalty free
- Embedded SIM as an option (MIM)

Java Open Platform (ELS61T / PLS62T)

- Java™ ME
- Secure data transmission with HTTPS/SSL
- Multi-Threading programming and
- Multi-Application execution
- 18 MB RAM and 31 MB Flash File System

Interfaces

- Antenna Connector SMA (female) for GSM/WCDMA
- Diversity antenna (LTE) SMA connector
- 20 pin header (Weidmüller) with GPIO's, power, SPI, I²C
- Mini SIM card reader, 1,8V and 3,0V
- Embedded SIM as an option (MIM)
- 2 operating status LED's
- High speed serial modem interface ASC0
- Plug-in power supply connector (6-pole Western jack)
- V.24/ V.28 RS-232 interface, up to 920kbps, autobauding (D-sub 9-pole female socket)
- Ethernet interface (NAPT)

Drivers

- USB, MUX driver for Microsoft® Windows 7 and 10
- RIL, USB driver for Microsoft® Windows Embedded Handheld™ >= 6.x

Approvals

- CE, RED, GCF, PTCRB, IC, UL
- AT&T and other local approvals and provider Certifications
- WEEE, EuP, RoHS and REACH compliant

Thales in IoT:
Driving digital transformation with the power of the IoT

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

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**

thalesgroup.com/iot