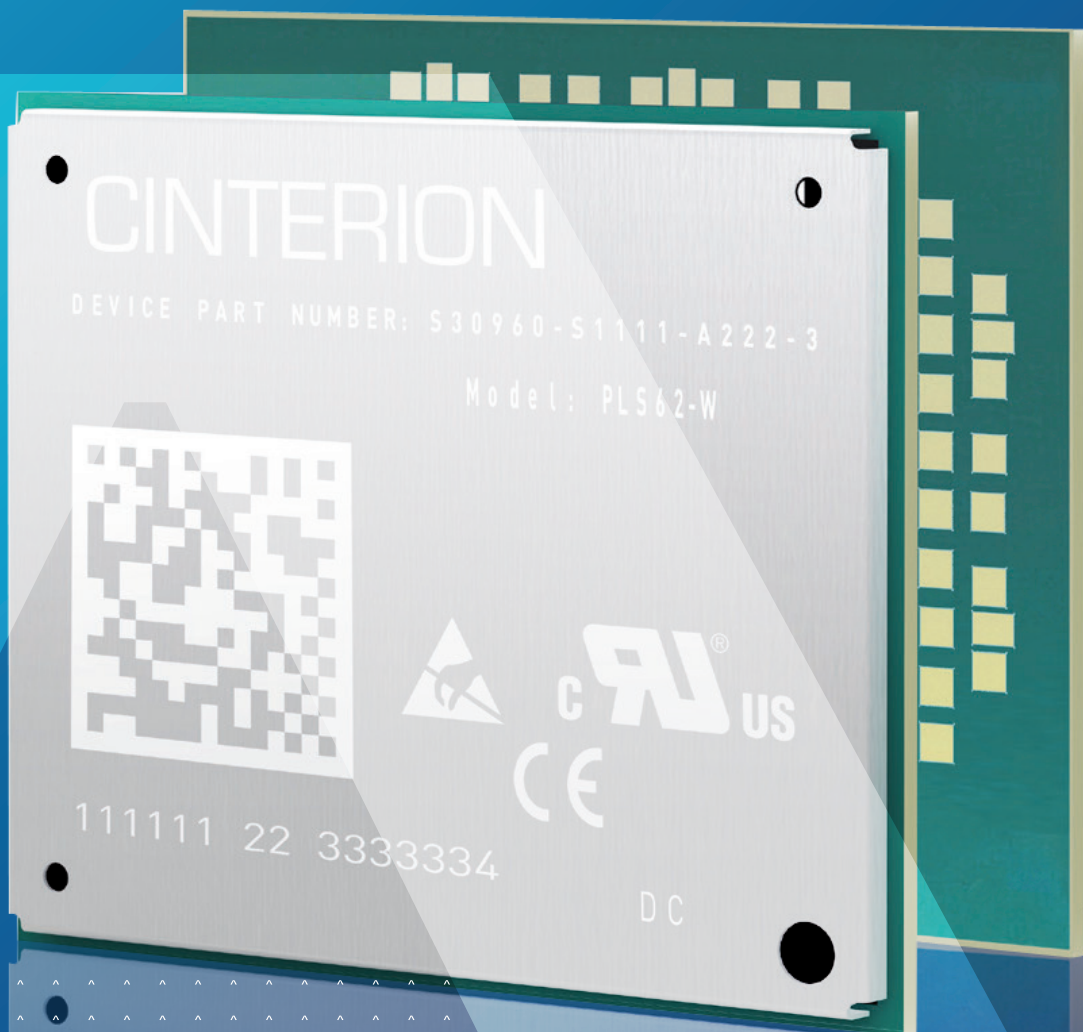THALES

# Cinterion® PLS62-W
# Wireless Module

## Global Connectivity with Multi Band LTE Cat 1 and 2G / 3G Fallback

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## Global Connectivity with Multi Band LTE Cat 1 and 2G / 3G Fallback

## PLS62-W

- **4G** — 12 Band LTE Cat 1
- Seven Band 3G HSPA Quad Band 2G GSM Design
- USB 2.0 High Speed Compatible
- Embedded TCP/IP Stack
- Incremental FOTA
- JAVA embedded
- RLS Monitoring (Jamming Detection)
- Multi Design Capability (LGA)
- Cell ID for On-Demand Positioning

The Thales Cinterion® PLS62-W wireless module delivers seamless global connectivity providing highly efficient, Multi Band LTE Cat 1 communications plus fallback to 2G and 3G when needed. The leading edge solution enables M2M optimized speeds of 10Mbit/s down-load and 5Mbit/s uplink making it ideal for industrial IoT applications that require the longevity of LTE networks along with reliability in regions where 4G is still emerging. The PLS62-W module is well suited for applications such as global track and trace, smart metering, and fleet management solutions.
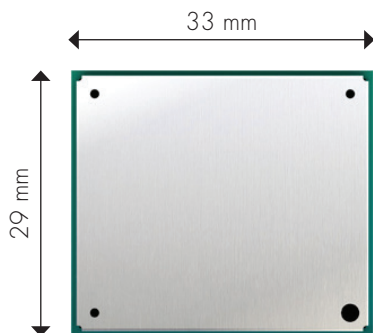
## Key Features

The PLS62-W provides worldwide coverage and reliability through roaming over various global wireless networks. It offers 12 Band FDD-LTE, Seven Band 3G HSPA/UMTS (WCDMA/FDD) and Quad Band 2G GSM. A powerful Java® embedded system leverages the latest Java ME 3.2 platform enabling fast and easy application development by sharing internal resources such as memory, a large existing code base and proven software building blocks. This helps reduce total cost of ownership (TCO) and time to market.

The module also uses multi-threading programming to simultaneously host and run multiple applications and protocols. An extended security concept with the latest TLS/SSL engine provides secure and reliable TCP/IP connectivity while an enriched internal flash file system enables free firmware updates over-the-air (FOTA) when required.

## Industrial Plus Famiy Benefits

The PLS62-W module is part of the Cinterion Industrial Plus family, which leverages the latest wireless standards to deliver IoT optimized data speeds, advanced voice features and multi band capabilities to ensure seamless global coverage. They share a common footprint providing a seamless migration path to protect your IoT investment and they are available in local and global variants including 2G, 3G, CDMA, LTE and LTE Advanced. They come with full type approval (FTA) and they are certified by the largest global network operators. All Cinterion modules are compatible with Thales's comprehensive suite of solutions, services and platforms that help enterprises Connect, Secure and Monetize IoT technology.

# Global Connectivity: Multi Band LTE Cat 1 with 3G / 2G Fallback

33 mm

29 mm

### Complete and Seamless Global IoT Connectivity

The PLS62-W delivers a complete global approach to IoT connectivity providing Multi Band LTE, Multi Band 3G HSPA/UMTS and Quad Band GSM for seamless coverage and roaming across different wireless networks.

### Embedded System

A powerful Java embedded system 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 multithreading programming and program execution.

### IoT Optimized Power Management

An advanced power management system ensures reliability and provides optimized sleep mode to preserve power end extend battery life.

## Thales Advantage:

Since 1996, Thales has been pioneering market-leading M2M and IoT products that keep our customers on the leading edge of innovation. Unique value added benefits include:

▌ Trusted partner to 450+ global MNOs ensures products evolve in sync with networks and modules are pre-certified for all global mobile networks

▌ Core competency in MIM, SIM and eUICC technology allows simplified integration with modules and lower Total Cost of Ownership

▌ Expert design consulting, local market engineering support and a skilled 24/7 help desk streamline development and deployment

▌ Global leader in digital security solutions and platforms

▌ Experienced provider of software solutions for Quality of Service and product lifecycle management

▌ Extensive RF test capabilities and GCF/PTCRB pretests to validate readiness for solution approval process

# Cinterion® PLS62-W Features

## General Features

▌ 3GPP Rel.9 Compliant Protocol Stack

▌ Twelve Bands FDD-LTE: 700, 800, 850, 900, 1700/2100 (AWS), 1800, 1900, 2100, 2600 MHz (bands 1, 2, 3, 4, 5, 7, 8, 12, 18, 19,20, 28)

▌ Seven Bands UMTS (WCDMA/FDD): 800, 850, 900, 1700/2100 (AWS), 1800, 1900 and 2100 MHz (bands 1, 2, 4, 5, 8, 9, 19)

▌ Quad Band GSM: 850, 900, 1800 and 1900 MHz

▌ SIM Application Toolkit, letter classes b, c, e with BIP and RunAT support

▌ Control via standardized and extended ATcommands (Hayes, TS 27.007 and 27.005)

▌ Embedded IP stack with IPv4 and IPv6 support

▌ TCP/IP stack access via AT command and transparent TCP/UDP services

▌ Secure Connection with TLS

▌ Internet Services TCP/UDP server/client,DNS, Ping, HTTP, SMTP, FTP client

▌ LGA pad soldering mount, MSL4

▌ Supply voltage range: 3.0 - 4.5 V

▌ Dimension: 33 x 29 x 2.3 mm

▌ Operating temperature: -40°C to +90°C

▌ RoHS compliant

## Specifications

▌ USB Interface features a composite mode, compliant to Windows, Linux and Mac

▌ RLS Monitoring (Jamming detection)

▌ Informal Network Scan

▌ Cell ID based Location Support

▌ FDD LTE Cat 1 DL: max. 10.2 Mbps, UL: max. 5.2 Mbps

▌ HSPA+ Cat 8 data rates DL: max. 7.2 Mbps, UL: max. 5.76 Mbps

▌ SMS text and PDU mode support

## Java Open Platform

- Java™ ME 3.2 embedded
- Multi-threading programming and multi-application execution
- 18 MB RAM and 31 MB Flash File System
- Secure data transmission with HTTPS/SSL

## Special Features

- Incremental firmware updates

## Interfaces (LGA Pads)

- Power supply for baseband and radio domain
- Pads for RX-diversity antennas/MIMO antennas
- USB 2.0 HS interface up to 480 Mbps
- High speed serial modem interface ASC0
- ADC and I2C interface
- Dual UICC and U/SIM card interface 1.8V / 3V
- 16 GPIO lines shared with DSR, DTR, DCD (all ASC0), ASC1 (RXD, TXD, RTS, CTS), SPI, fast-shutdown, network-status-indication, PWM, pulse-counter lines, TX-indicator, 700MHz indicator
- Lines for module-on and reset

## Drivers

- USB, MUX driver for Microsoft® Windows 7™, Microsoft® Windows 8™ and Microsoft® Windows 10™
- RIL driver for Android
- RIL, USB driver for Microsoft® Windows Embedded Handheld™

## Approvals

- RED, GCF, CE, FCC, PTCRB, IC, UL
- AT&T, Vodafone certification and other provider approvals

## 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**

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