THALES

Thales Defense & Security, Inc.

2026 Products

22605 Gateway Center Drive
Clarksburg, MD 20871

CAGE Code 23386

Low Cost Data Architecture **(LOCODA)**

Mission Adaptable Radio System

The Thales LOCODA platform provides a modular vehicle communications capability designed to simplify integration and support evolving mission requirements. By enabling reuse of existing vehicle infrastructure and supporting embedded radios, external mission modules, and third-party transport solutions, the system delivers flexible, multi-transport voice and data connectivity within a scalable, future-ready architecture.

Thales LOCODA platform (or Thales MARS) provides secure (SBUe) voice and data utilizing the widely fielded Tactical Scalable Manet (TSM)™ waveform. The system supports integration of wideband and narrowband radio waveforms and provides standardized vehicle and radio interfaces for power, GPS, audio, and data connectivity. Its modular design enables simultaneous support of additional radios, amplifiers, or mission modules to extend communication range and expand transport options. Thales LOCODA platform (or Thales MARS) is developed using a commercial-off-the-shelf and non-developmental-item approach to support continuous capability growth.

ITAR Controlled

Technical Specifications

Physical Parameters

Width: 6.3″

Height: 3.4″

Depth: 9.0″ (excluding knobs and connectors)

Weight: 4.25 pounds

Environmental Specifications

Operating Temperature: -20° to +55° C

Storage Temperature: -20° to +71° C

Immersion: 2M

Waveforms/Modes of Operation

- TSM™
- High Data Rate Mode
- Katana™ NB Waveform Option Available
- Interoperable with WREN-NB and WREN-TSM at SBU level
- Single-Channel, Multi-Channel, Multi-Transport modes
- Seamless Integration with Amplifiers
- Full integration with vehicle-mounted power

Transmit Power: Up to 2 watts

Operating Frequencies: L-UHF: 225–450 MHz, U-UHF: 698–970 MHz L/S Bands: 1250–260 MHz

Simultaneous Voice, Data and PLI

Third-Party System Integration Capability

COTS/NDI-Based Architecture Supporting Scalable Production

Intercom mode

Multi-Vendor compatibility across TSM radios

Instantaneous Bandwidth: 1.2–20 MHz

Network Throughput: up to 50 Mbps in High Data Rate mode

Encryption Security: AES-256

Multi-hop: Supports 26 miles (41.8 km) per hop and over 205 miles (330 km) per hop in Long Range Mode

Scalability: Up to 800 nodes in a single subnet

Dedicated PTT Voice Channels: supports up to 32 talk groups, AMR 5.9 or MELPe

Katana — Narrowband (Optional)

- Resilient long range narrowband waveform with ECCM capabilities
- Instantaneous bandwidth: 50 khz
- Frequency Hopping up to 200 Mhz
- Scalability up to 250 nodes in a single data network

Capabilities

Key Features

> Modular Vehicle Communications Integration

> Reuse of Existing Vehicle Infrastructure

> Multi-Transport Voice and Data Connectivity

> SBUe Communications

> External Radio and Mission Module Expansion

> Standardized Vehicle and Radio Interfaces

> Third-Party System Integration Capability

> COTS/NDI-Based Architecture Supporting Scalable Production

> Intercom mode

> Multi-Vendor compatibility across TSM radios

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DoD/Federal

CERTIFIED
ISO 9001 · AS 9100

Specifications are subject to change without notice.

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