THALES

Thales Defense & Security, Inc.



Products

22605 Gateway Center Drive
Clarksburg, MD 20871

CAGE Code 23386

Low Cost Data Architecture **(LOCODA)**

Radio Adaptable Transport (RAT)



The Thales LOCODA RAT 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 RAT provides secure (SBU-E) voice and data utilizing the widely fielded Tactical Scalable MANET (TSM)™ waveform. The system supports the 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 the simultaneous support of additional radios, amplifiers, or mission modules to extend communication ranges and expand transport options.

ITAR Controlled

Capabilities

Key Features

- Modular Vehicle Communications Integration
- Reuse of Existing Vehicle Infrastructure
- Multi-Transport Voice and Data Connectivity
- SBU-E 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

Technical Specifications

Physical Parameters

Width: 6.30 in

Height: 3.40 in

Depth: 9.0 in (excluding knobs and connectors)

Weight: 4.25 lb

Environmental Specifications

Operating Temperature: -20 °C to +55 °C

Storage Temperature: -20 °C 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 MHz – 450 MHz, U-UHF: 698 MHz – 970 MHz L/S Bands: 1250 MHz – 2600 MHz

Simultaneous Voice, Data and PLI

Instantaneous Bandwidth: 1.2 MHz – 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

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DoD/Federal

CERTIFIED
ISO 9001 · AS 9100

Specifications are subject to change without notice.

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