

- Leap-ahead Technology: Simultaneous 2-Channel Operations
- Embedded Commercial GPS
- Retains the Existing Narrowband AN/PRC-148 JEM Type 1 Capabilities and Waveforms
- Wideband Channel Operating the TSM™ Waveform from TrellisWare® Technologies
 - AES 256 Encryption
 - Optimized for RF Challenged Environments
- 2M/20M Immersible



AN/PRC-148C IMBITR





AN/PRC-148C IMBITR

The Thales AN/PRC-148C solution is a significantly enhanced version of the widely fielded AN/PRC-148 JEM radio. The AN/PRC-148C offers all of the existing functionality of the current JEM radio with the addition of the TrellisWare® TSM wideband networking waveform capability. Within a single, small, lightweight, rugged package, the user is provided simultaneous narrowband and wideband communications capabilities necessary to support tactical command and control communications in a variety of challenging radio operating environments.

The AN/PRC-148C provides wideband MANET coverage, regardless of the environment and ensures interoperability with users that operate both TrellisWare® and Thales radio systems.

The robust TSM provides superior voice and data communications across harsh multipath and highly dynamic environments, such as shipboard, caves and urban operational settings.

TECHNICAL SPECIFICATIONS

Key Features

- 2-Channel handheld radio
 - JEM/MBITR-like form factor
 - Simultaneous narrowband and wideband operation
 - Narrowband channel supports same capabilities as AN/PRC-148 JEM
 - Wideband channel currently supports the TrellisWare TSM Waveform
- Embedded GPS
- Backward compatible with most fielded AN/PRC-148 accessories in narrowband operation
 - AN/VRC-111 Vehicle Adapter (VA) (with minor field modifications)
 - Side and top audio accessories
 - External GPS interface
 - Side connector cables: serial data, GPS, USB
- Improved narrowband performance over AN/PRC-148
 - Improved narrowband Tx/Rx co-site performance parameters
 - Improved SATCOM performance
 - 10W burst mode for SATCOM
 - Improved SATCOM noise figure
- COMSEC
 - Up to Top Secret (TS) Type 1 Narrowband

Batteries

- Rechargeable Lithium-Ion
 - 6.8 Ah

Environmental Specifications

- Operating Temperature: -31° to +55° C
- Storage Temperature: -33° to +71° C
- Immersion: 2M/20M

Physical Parameters

- Length:
 - 8.50 inches (21.59 cm) (excluding antennas)
 - 8.65 inches (21.97 cm) (20M version)
- Width: 2.65 inches (6.73 cm)
- Depth: 1.75 inches (4.45 cm)
- Displacement Volume: 36 cubic inches (including radio brick and battery) (589.93 cubic cm)
- Weight: 2.30 lb – Radio and Battery (1043 g)

Waveforms/Modes of Operation

Dependent on configuration of radio

- TSM
 - Infrastructure-less MANET
 - High-speed wireless IP networking
 - Self-Forming, self-healing
 - Scalable to 200+ nodes
 - Robust in harsh environments
 - Fast, seamless network join/merge
 - Instant adaptation to network topology change
- MIL-STD-188-241-1/-2 (SINCGARS - Standard/ FH2E EOM)
- MIL-STD-188-181C, -182B, -183B (SATCOM IW)
- HAVEQUICK I and II
- ANDVT (LPC-10, MELP)
- AM/FM
- Project 25
- Over-The-Air-Cloning (OTAC) - NB only
- Situational Awareness
- Retransmission - NB only
- AM Swept Tone Beacon

NARROWBAND CHANNEL

Characteristics

- Frequency Range: 30 MHz – 512 MHz
- Transmit Power: 5 Watt in all frequencies, 10 Watt in SATCOM
- Step Size: 5 kHz and 6.25 kHz
- RF Channel Bandwidth: 25 kHz and 12.5 kHz
- Channel Spacing: 5 kHz, 12.5 kHz, 25 kHz (8.33 kHz Future Waveform)

WIDEBAND CHANNEL

- Transmit Power: 100 mW, 250 mW, 500 mW, 1 W, 2 W
- Expanded Option: L-UHF: 225-450 MHz, U-UHF: 698-970 MHz, L/S Bands: 1250-2600 MHz
- Network Throughput: up to 8 Mbps Expanded Option: up to 16 Mbps
- Encryption Security: AES-256
- Dedicated PTT Voice Channels: Up to 16 independent voice channels, AMR 5.9 or MELPe
- Occupied Bandwidth: 1.2 - 20 MHz Expanded Option: 1.2 - 40 MHz
- Net entry time <1 sec
- Supports up to 8 hops for voice and data
- Scalable to 200+ nodes in a single RF channel
- Unicast, Multicast, Broadcast IP data support
- Multiple simultaneous streaming videos
- Position Location Information (PLI) support with Cursor-on-Target (CoT)
- OTA Remote Control

- TrellisWare is the registered trademark and TSM is the trademark of TrellisWare Technologies, Inc.
- Specifications are subject to change without notice.

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