THALES

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- Leap-ahead technology: 2 radios in 1 form factor
- Simultaneous 2-channel (Narrowband and Wideband) operations
- Adds a second Wideband channel to the AN/PRC-148 to provide networking, data, and video capability
- Retains the existing AN/PRC-148 JEM Type 1 capabilities and waveforms
- Embedded GPS
- Supports fielded ancillaries

AN/PRC-148B MBITR2®

THE NEXT GENERATION MULTIBAND INTER/INTRA TEAM RADIO

AN/PRC-148B MBITR2®

The AN/PRC-148B MBITR2 builds on the legacy of the smallest, lightest, most power-efficient multiband, tactical, handheld radio in use today. By leveraging technologies based on the leading narrowband AN/PRC-148 tactical handheld radio and the leading wideband AN/PRC-154 tactical handheld radio, the AN/PRC-148B MBITR2 provides the dismounted warfighter with the ability to integrate into the wideband tactical IP and voice network via the Soldier Radio Waveform (SRW) wideband channel while simultaneously maintaining legacy reach-back via the narrowband channel.

The AN/PRC-148B MBITR2 retains interoperability with existing fielded radios and addresses tomorrow's requirements for a next generation, wideband, networking handheld radio. A low-risk and cost-effective approach to fielding is provided through an upgrade path for the more than 200,000 AN/PRC-148s currently deployed. Further, the common look and feel of the AN/PRC-148B MBITR2 minimizes training, provides for common logistics support, and retains compatibility with the existing installed base of ancillaries.

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 supports same capabilities as AN/PRC-154 Rifleman Radio
  - Wideband channel also supports L-Band frequencies
- 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
  - Remote GPS Unit
  - Side connector cables: serial data, GPS, USB
  - 6.8 Ah Battery (older battery may limit operational performance)
- Improved narrowband performance over AN/PRC-148
  - Improved narrowband Tx/Rx co-site performance parameters
  - SATCOM performance
    - 10W burst mode
    - Improved SATCOM noise figure
- Assured SRW interoperabilty with production AN/PRC-154 Rifleman Radio
- COMSEC
  - Up to Top Secret (TS) Type 1 Narrowband
  - Secret And Below (SAB) Wideband

Batteries
- Rechargeable Lithium-Ion
  - 6.8 Ah

Evironmental Specifications
- Operating Temperature: -31° to +55° C
- Storage Temperature: -33° to +71° C
- Immersion: 2m or 20m

Physical Parameters
- Length:
  - 8.50 inches (excluding antennas) (21.59 cm)
  - 8.65 inches (20M version) (21.97 cm)
- Width: 2.65 inches (6.73 cm)
- Depth: 1.75 inches (4.45 cm)
- Displacement Volume: 36 cubic inches (including radio brick and battery but excluding antennas)
- Weight: 2.70 lb. - Total (1224.7 g)
  - 2.13 lb. - Radio and battery
    - 1.20 lb. - Radio brick
    - 0.93 lb. - 6.8 Ah metal battery
  - 0.22 lb. - Broadband NB antenna
  - 0.35 lb. - Tri-Band WB antenna

Waveforms/Modes of Operation
Dependent on configuration of radio
- Soldier Radio Waveform (SRW)
- MIL-STD-188-241-1/-2 (SINCGARS - Standard/ FH2 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) - Both Narrowband and Wideband
- Situational Awareness, SRW supports VMF, Narrowband supports COT and MGRS
- Retransmission - – Both Narrowband and Wideband
- AM Swept Tone Beacon

NARROWBAND CHANNEL

Frequency Characteristics
- Frequency Range: 30 MHz – 512 MHz
- 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)

Receiver Characteristics
- Noise Figure: 7 dB non-SATCOM operation, 4.5 dB SATCOM operation
- Receiver Intermodulation Rejection at rf of 10% and 20% : 70 dB
- Receiver Spurious Response Rejection: 60 dB minimum

Transmitter Characteristics
- Transmit Power: 5 Watt in all frequencies, 10 Watt in SATCOM
- Transmit Spurious: -60 dBc
- Transmit Phase Noise: <-140 dBc/Hz

WIDEBAND CHANNEL
(Soldier Radio Waveform (SRW))

Frequency Characteristics
- Frequency Range: 225 MHz – 450 MHz, 1250 MHz –1390 MHz, 1750 MHz – 1850 MHz
- Tuning Step: 25 kHz
- RF Channel Bandwidth: 1.2 MHz, (5 MHz Future)

Receiver Characteristics
- Noise Figure: 9 dB in UHF, 10 dB in L-Band

Transmitter Characteristics
- Transmit Power: 5 Watt for UHF and L-Band
- Harmonic Suppression: >50 dB

- Non-U.S. Government sales are subject to U.S. Government approval.
- Specifications are subject to change without notice.

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