

AN/PRC-148C IMBITR® 2-Channel Handheld Radio

Simultaneous
2-Channel
Communications



AN/PRC-148C IMBITR®

The AN/PRC-148C IMBITR is a small, lightweight, rugged 2-channel radio that equips Warfighters with simultaneous narrowband and wideband communications, as well as tactical command and control communications in a variety of challenging environments. Reliable wideband MANET coverage ensures interoperability on both the TrellisWare® and Thales radio systems, while the robust TSM™ waveform delivers superior voice and data communications across harsh multi-path and unpredictable dynamic areas, such as caves, on board ships, and urban operational settings.



Technical Specifications

Key Features

- Embedded GPS
- Retains the Existing Narrowband AN/PRC-148 JEM Type 1 Capabilities and Waveforms
- Wideband Channel Operating the TSM™ Waveform from TrellisWare® Technologies, Inc.
- AES 256 Encryption
- Optimized for RF Challenged Environments
- 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
- Type-1 Certified Programmable Encryption Engine (AIM)
- Rechargeable Lithium-Ion 7.0 Ah
- Compliant with the Universal Battery Charger (UBC) Family of Tactical Chargers

Physical Parameters

Length:

8.50 inches (21.59 cm) (with battery attached, excluding antennas) (2M version)
8.65 inches (21.97 cm) (with battery attached, excluding antennas) (20M version)

Width: 2.65 inches (6.73 cm)

Depth: 1.75 inches (4.45 cm)

Weight: 2.22 pounds (1007 g) — Radio and Battery (1043 g)

Environmental Specifications

Operating Temperature: -31° to +55° C

Storage Temperature: -33° to +71° C

Immersion: 20M/20M

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

Frequency Range: 30 MHz–512 MHz

Transmit Power: Up to 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: Up to 2 watt

Operating Frequencies: L-UHF: 225–450 MHz,
U-UHF: 698–970 MHz, L/S Bands:
1250–2600 MHz

Network Throughput: up to 16 Mbps

Encryption Security: AES-256

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

Occupied Bandwidth: 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

Specifications are subject to change without notice.

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