

# AN/PRC-148D IMBITR® 2-Channel Handheld Radio

Simultaneous 2-Channel  
Communications





# AN/PRC-148D IMBITR®

The AN/PRC-148D 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. Both narrowband and wideband communications are Type-1 protected. The wideband channel operates the WREN-TSM™ waveform from TrellisWare® Technologies, Inc., delivering 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 Type 1 WREN-TSM Waveform for SAB or SBU Security Level
- Optimized for RF Challenged Environments
- Improved Narrowband Tx/Rx Co-site Performance Parameters
- Improved SATCOM Performance
- 10W Burst Mode for SATCOM
- 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)

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Specifications are subject to change without notice.

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**Weight:** 2.26 pounds (1026 g) — radio and battery (1043 g)

### Environmental Specifications

**Operating Temperature:** -30° to +55° C

**Storage Temperature:** -30° to +71° C

**Immersion:** 2M/20M

### Waveforms/Modes of Operation Dependent on Configuration of Radio

#### WREN-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)

HAVEQUICK I and II

MIL-STD-188-181C, -182B, -183B (SATCOM IW)

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:** Type 1 CNSA

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

**Occupied Bandwidth:** 1.2–40 MHz

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



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