

# MBITR

# AN/PRC-148(V)(C)

## Multiband Inter/Intra Team Radio

- **30-512 MHz Contiguous Frequency Coverage**
- **AM/FM; Voice/Data**
- **Selectable RF Output Power (100 mwatts to 5 watts)**
- **US Type 1 COMSEC**
- **Immersion**
  - **20 Meter Maritime Version**
  - **2 Meter Urban Version**
- **Less than 2 Pounds, 34 Cubic Inches**
- **Optional SINGARS SIP, HAVEQUICK II, ANDVT and Retransmit**

The MBITR is more capable than any hand held radio available today. In a ruggedized package weighing less than two pounds, the MBITR provides unprecedented interoperability with existing military legacy systems and commercial radios, while ensuring future operation with the next generation of communication equipment. Seven programmable devices, supported by flash memory, are incorporated into the MBITR architecture, creating a truly software-based hand held radio. With MBITR's combination of software upgradeability, Type 1 encryption and 30-512 MHz AM/FM RF capability, you benefit from a radio that satisfies both current and future communications requirements. MBITR, the hand held radio of the 21<sup>st</sup> century, is here today.



**The Most Capable Hand Held Radio in the World**

**THALES**

# MBITR - AN/PRC-148(V)(C)

## Multiband Inter/Intra Team Radio

### Technical Specifications

**Frequency Range**  
30-512 MHz Contiguous  
5 and 6.25 kHz Step Size

**Modulation Types**  
AM and FM (Software)

**Frequency Stability**  
Less than  $\pm 2.5$  PPM

**Receive Sensitivity**  
FM: -116 dBm 12 dB SINAD  
AM: < 1.5  $\mu$ V 10 dB SINAD

**Adjacent Channel Rejection**  
Greater than 48 dB at  $\pm 25$  kHz

**Spurious & Image Rejection**  
Greater than 58 dB

**Third Order Intercept Point**  
Greater than +5 dBm

**Receive Audio Distortion**  
Less than 10% at Rated Audio Power

**Acoustic Output Power**  
Greater than 74 dB SPL

**Transmit Output Power**  
0.1, 0.5, 1.0, 3.0 & 5.0 watts (FM)  
1.0 & 5.0 watts (AM)  
User Selectable

**Transmit Characteristics**  
Spurious Output: Less than -13 dBm  
Audio Distortion: Less than 10%  
FM Hum & Noise: Greater than 34 dB  
AM Hum & Noise: Greater than 34 dB

**Reliability**  
MTBF: > 11,400 hours  
MTTR: < 8 minutes

**Interoperability**  
AN/PRC-77, AN/VRC-12  
AN/PRC-68, AN/PRC-117  
AN/PRC-119  
AN/PRC-113, AN/PRC-139  
Motorola MX300 Series  
Motorola Saber

**Emergency Beacons and GPS**  
AM Swept Tone Beacon  
GPS Interface to PLGR

**Programmable Channels**  
100 Memory Preset Channels  
Menu Selectable Groups  
Clear/Encrypted Mode Selection on a  
Channel-by-Channel Basis  
User Programmable from:  

- Front Panel Menu
- PC Programmer
- Radio-to-Radio Cloning

**Controls**  
On/Off/Volume/Whisper/Zeroize Knob  
16-Position Channel Select Knob  
Large Tactile Push-To-Talk Switch  
Squelch Override Push-button  
Backlit 7-Button Keypad (NVG  
Compatible)  
2 Software Configurable Option Keys

**Indicators**  
32 x 80 Pixel Backlit LCD (NVG  
Compatible)  
Intuitive Menu Driven User Interface  

- Channel Name/Frequency
- Group Name
- Clear/Secure Mode
- Key Location
- Battery Capacity
- Transmit Power

**Connectors**  
50 Ohm TNC Antenna  
10-Pin Multi-Function Immersion  
Sealed Top Connector (20 Meter)  
6-Pin Multi-Function Top Connector  
(2 Meter)  
18-Pin Side Connector for Extended  
Capabilities and Upgrades

**COMSEC**  
US Type 1  
VINSON & FED STD-1023  
Selective Key Zeroization  
Panic Radio Zeroization with Mechanical  
Interlock Protection  
Receive OTAR Compatible  
6 Key Locations

**TEMPEST Compliance**  
NSTISSM TEMPEST/1-92

**Physical Parameters (with battery)**  
Length: 8.44 inches (21.44 cm)  
Width: 2.63 inches (6.68 cm)  
Depth: 1.52 inches (3.86 cm)  
Volume: 33.74 cubic inches  
(552.8 cubic cm)  
Weight: 30.6 ounces (867.5 gm)

**Finish**  
NBC Compatible  
Matte Black, Non-Reflective

**Environmental Specifications**  
Temperature:  
Operating: -31° to +60° C  
Storage: -33° to +71° C  
Humidity: 95% Non-condensing  
Shock: EIA-603-1992  
Vibration: EIA-603-1992  
Altitude: 30,000 Feet  
Immersion:  
AN/PRC-148(V)1(C) 20 Meter Version  
AN/PRC-148(V)2(C) 2 Meter Version

**Batteries**  
Rechargeable Lithium-Ion  

- 3000 mAh
- >8 Hours Life at 5 watts\*

Non-Rechargeable Battery Holder  

- Commercial Lithium Cells
- 10 Hour Life at 5 watts\*

\*Standard Duty Cycle (8:1:1)

**Antenna Set**  
30-90 MHz  
30-512 MHz

**Accessories**  
Vehicle Adapter  
Radio Holster  
Radio System Carrying Bag  
AC Powered Single Battery Charger  
AC/DC Powered 6-Way Battery Charger  
Specialized Audio Accessories  
GPS, Cloning & Data Cables  
PC Programmer  
Special Power Adapter Interface

QUALITY SYSTEM  
CERTIFIED  
ISO 9001



*Specifications are subject to change without notice.*

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