

THALES

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- Contiguous 30 512 MHz Coverage
- Selectable RF Output Power (0.1– 5.0 Watts)
- 30.6 Ounces (867.5 gm)
- 33.7 Cubic Inches (552.8 cubic cm)
- DES/Type III and AES/256 bit Encryption Options
- 2 Meter and 20 Meter Immersible Variants
- New transceiver design with improved receive/transmit co site performance
- Cornerstone of a Complete Communications System for Mounted and Dismounted Operations

Advanced Multiband Capabilities in a Rugged, Lightweight Package



PRC6809 MBTR

MULTIBAND INTER/INTRA TEAM RADIO

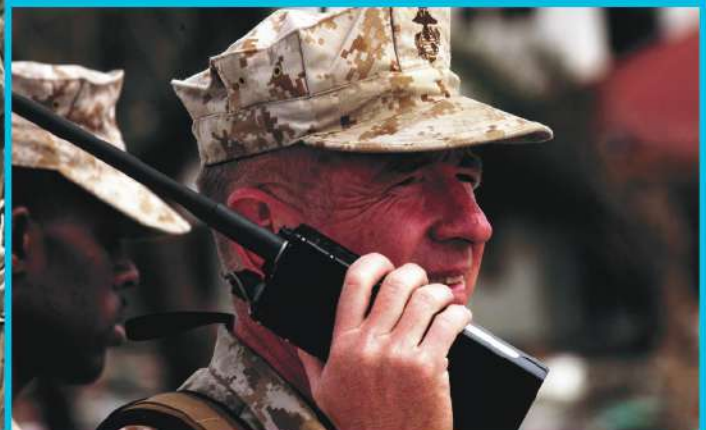




Photo Courtesy of Australian Government Department of Defence

PRC6809 MBITR

MULTIBAND INTER/INTRA TEAM RADIO

In a ruggedized package weighing approximately two pounds, the PRC6809 MBITR serves defense, allied, and coalition forces globally. Based on the combat proven AN/PRC 148 MBITR, the PRC6809 MBITR provides unprecedented interoperability with existing military and commercial legacy radio systems. And with software upgradeability, future operation with the next generation of communications equipment is ensured. The multi processor architecture of the PRC6809 MBITR creates a truly software based, handheld radio. The PRC6809 MBITR can be utilized with the full set of AN/PRC 148 system components for mounted and dismounted operations. (See page 3 for complete list.)

TECHNICAL SPECIFICATIONS

Frequency Range

- > 30 512 MHz Contiguous
- > 5 and 6.25 kHz Step Size
- > 8.33 kHz (118 137 MHz)

Modulation Types

- > AM and FM (Single Channel)
- > FM Narrowband (Single Channel)

Frequency Stability Over Temperature

- > ± 1.0

Receive Sensitivity

- > 116 dBm 12 dB SINAD (118 dBm typical)
- > AM: < 1.5 μ V 10 dB SINAD
- > 7dB noise figure

Adjacent Channel Rejection

- > Greater than 45 dB at ± 25 kHz

Receiver Spurious Response Rejection

- > 60 dB minimum

Receiver Intermodulation Rejection

- > 70dB at rf of 10% and 20%: 70dB

Receive Audio Distortion

- > Less than 10% at Rated Audio Power

Acoustic Output Power

- > Greater than 85 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 per channel

Transmit Characteristics

- > Transmit Spurious: 60dBc
- > Transmit Phase Noise: < 140 dBc/Hz
- > Audio Distortion: Less than 10%
- > Adjacent Channel Power Ratio: > 45 dBc

Reliability

- > MTBF: > 30,000 hours field measured
- > MTR: < 8 minutes

Emergency Beacons

- > AM Swept Tone Beacon

Encryption

- > Type III DES (Optional)
- > 256 bit AES (Optional)

Waveform/Mode Capabilities:

- > Standard Features
 - > AM/FM
 - > Voice/Data
 - > Retransmission
 - > Situational Awareness
- > Optional Features
 - > DES Encryption
 - > AES Encryption
 - > Enhanced Situational Awareness
 - > HAVEQUICK I/II
 - > Country Specific ECCM
 - > ATC 8.33 kHz

Interoperability (Plain Text)

- > AN/PRC 77, AN/PRC 113, AN/PRC 117A F, AN/PRC 139, AN/PSC 5C/D, AN/VRC 12 Series, RT 1523A F
- > MX300 Series, Saber Series, XTS 3000, XTS 5000
- > Thales 25, Thales Liberty™ Multiband Land Mobile Radio (LMR)

Connectors

- > 50 Ohm TNC Female (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

Programmable Channels

- 100 Memory Preset Channels
- Menu Selectable Groups
- Clear/Digital Voice 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 Knob
- 16 Position Channel Select Knob
- Large Tactile Push To Talk (PTT) Switch
- Squelch Override Push button
- Backlit 7 Button Keypad (NVG Compatible)
- Software Configurable Option Keys

Indicators

- 32 x 80 Pixel Backlit LCD (NVG Compatible)
- Intuitive Menu Driven User Interface
 - Channel Name/Frequency
 - Group Name
 - Clear/Digital Voice Mode
 - Battery Capacity
 - Transmit Power

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: 33.7 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:
 - PRC6809 ABR BAS 20 Meter Version
 - PRC6809 BBR BAS 2 Meter Version

Batteries

- Rechargeable Lithium Ion
 - 4800 mAh: >12 Hours Life at 5 Watts*
 - Optional: 5800 mAh: >15 Hours Life at 5 Watts*
 - Non Rechargeable Battery Holder
 - Commercial Lithium Cells
 - 8 Hour Life at 5 Watts+
- *Standard Duty Cycle (8:1:1)

Data

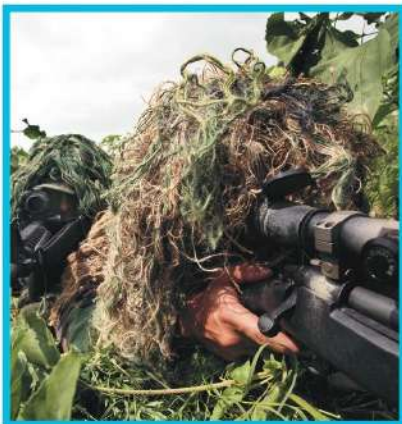
- 12 and 16 kbps synchronous

Antenna Set

- 30 90 MHz
- 90 512 MHz

AN/PRC 148 Family of Radio Equipment:

- Dismounted/Fixed Site:
 - 5 Watt Multiband Inter/Intra Team Radios
 - (AN/PRC 148 JEM, AN/PRC 148 MBITR, and PRC6809 MBITR)
 - 20 Watt Man Portable System
 - 20 Watt and 50 Watt Base Stations
 - 20 Watt Tactical Repeater
 - Modular Universal Battery Charger
- Vehicular:
 - 20 Watt and 50 Watt Vehicle Adapters
 - 20 Watt AN/VRC 111 Vehicle Adapter Amplifier
 - 50 Watt AN/VRC 111 Vehicle Adapter Amplifier – Dual Channel
 - 50 Watt Vehicle Adapter Amplifier – Single Channel
 - 50 Watt Low Profile Vehicle Adapter
 - 50 Watt AN/VRC 113 Cradle Vehicle Adapter
 - Mounted Soldier Cordless Communications System
- Accessories
 - Antennas
 - Audio Accessories
 - Batteries and Chargers
 - Cables and Connectors
 - Cases and Holsters
 - Spares Kits
 - Remote Control Unit with GPS



PRC6809 MBITR

MULTIBAND INTER/INTRA TEAM RADIO



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