

- Leap-ahead technology: Supports both narrowband Joint Combat Waveform (JCW) and wideband enhanced Joint Networking Waveform (JNW)
- Retains the existing Thales MBITR capabilities and optional waveforms
- Supports porting of sovereign national narrowband and wideband waveforms
- Supports the full suite of fielded MBITR ancillaries



## TACTICAL INTERNATIONAL GROUND RADIO (TIGR)

THE NEXT GENERATION MULTIBAND, MULTIMODE INTERNATIONAL TEAM RADIO





# TIGR

The TIGR builds on the legacy of the smallest, lightest, most power-efficient multiband, tactical, handheld radio in use today. By leveraging technologies based on the exportable narrowband PRC-6809 MBITR tactical handheld radio, TIGR provides the dismounted warfighter with the ability to support tactical voice communications via the narrowband Joint Combat Waveform (JCW) or the ability to integrate into the wideband tactical IP data network via the Joint Networking Waveform (JNW). Further, upon USG export approval the TIGR can support narrowband tactical voice and data communications via HAVEQUICK, ECCM and DAMA SATCOM.

The TIGR retains interoperability with existing narrowband fielded radios and addresses tomorrow's requirements for a next generation, wideband, networking handheld radio. Further, the common look and feel of the TIGR minimizes training, provides for common logistics support, and retains compatibility with the existing installed base of PRC-6809 MBITR ancillaries.

## TECHNICAL SPECIFICATIONS

### Key Features

- Single channel multimode (NB/WB) radio
  - PRC-6809 MBITR like form factor
  - Selectable narrowband and wideband operation
  - Narrowband channel supports same capabilities as PRC-6809 MBITR
  - Wideband channel also supports L-Band frequencies
- Backward compatible with most fielded PRC-6809 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
- Improved narrowband performance over PRC-6809 MBITR
  - Improved narrowband Tx/Rx co-site performance parameters
  - Improved SATCOM performance
    - 10W burst mode for SATCOM
    - Improved SATCOM noise figure

### Physical Parameters

- Length:
  - 21.59 centimeters (excluding antennas)
  - 21.97 centimeters (20M version)
- Width: 6.73 centimeters
- Depth: 4.44 centimeters
  - Displacement Volume: 91 cubic centimeters (including radio brick and battery but excluding antennas)
- Weight: 1.22 kilograms - Total
  - 0.96 kilograms - radio and battery
    - 0.54 kilograms - radio brick
    - 0.42 kilograms - 6.8 Ah metal battery
  - 0.09 kilograms - Broadband NB antenna
  - 0.15 kilograms - Tri-Band WB antenna

### Batteries

- Rechargeable Lithium-Ion
  - 6.8 Ah

### Environmental Specifications

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

### Waveforms/Modes of Operation

- JCW
- JNW
- VULOS
- AM/FM
- Enhanced Situational Awareness and PLI
- Retransmission - NB only

### Optional Waveforms/Modes of Operation; Dependent on configuration of radio and USG export approval

- WB Data rates 150kbps-2Mbps
- NB Data rates up to 96kbps
- ANDVT (LPC-10, MELP)
- HAVEQUICK II Frequency Hopping ECCM Waveform
- SATURN
- Capability for country-specific ECCM waveforms

### NARROWBAND CHANNEL

- VULOS
- JCW

### 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
- Minimum Tuning Step: 1.25 kHz (8.33 kHz future waveform)

### Receiver Characteristics

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

### Transmitter Characteristics

- Transmit Power: 5 Watt in all frequencies
- Transmit Spurious: -60 dBc
- Transmit Phase Noise: <-140 dBc/Hz

### WIDEBAND CHANNEL

#### JNW

### 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

### 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

### Interoperability

- AN/PRC-77, AN/PRC-113, AN/PRC-117A-G, AN/PRC-139, AN/PSC-5C/D, AN/VRC-12 Series, RT-1523A-G, AN/PRC-148, PRC-6809, AN/PRC-152
- Rockwell Collins TruNet Family of Ground and Airborne Radios

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

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