

Joint Tactical Radio System HMS

AN/PRC-154 Rifleman Radio



Low-cost networking radio with embedded encryption and GPS

Brings the network to any warfighter on the extreme edge of the battlefield

Creates self-forming, ad hoc, voice and data networks in any battlefield scenario

Software-defined for upgradeability and interoperability

Streamlines procurement, logistics, maintenance and training; reduces life cycle cost

Overview

The Rifleman Radio delivers networking connectivity to the frontline soldier in a low-cost, lightweight, ruggedized, body worn device. The radio transmits voice and data simultaneously utilizing the Soldier Radio Waveform (SRW). The AN/PRC-154 is body worn, minimizing the warfighter's combat load while increasing functionality. Designed to bring secure (Type 2) inter-squad communications to any warfighter on the tactical edge of the battlefield, this radio also enables Team and Squad Leaders to track individual soldier GPS locations. This radio connects every warfighter to the combat network, emphasizing safety and enabling enhanced situational awareness and better decisions at the very edge of the battlefield.

Common Core Architecture Approach

Team General Dynamics uses a common core radio architecture, software and hardware design approach for all JTRS HMS products, including the AN/PRC-154 Rifleman Radio. Special emphasis on efficient design and aggressive power management lightens the soldier load and maximizes battery life. Our common architecture and use of common software and design enables easy technology upgrades and reduces cost and logistics tail.

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Technical Specifications –AN/PRC-154 Body Worn Radio

- Frequency Range
 - UHF band
 - L-Band
- Size
 - < 32 cu. in. with battery and antenna
 - 7.6”h x 2.5”w x 1.6”d
- Communication Range
 - >2 km (depending on environment)
- Weight
 - 1.7 lbs (with battery)
 - 0.92 lbs (without battery)
- Environmental Specifications
 - Operating Temperature: -32° to +55° C
 - Storage Temperature: -51° to +71° C
 - Immersion: 2m
- GPS
 - Integral GPS and antenna
 - External SAASM interface
- Programmable Channels
 - 50 presets
 - 3 talk groups per preset
- Waveforms/Modes of Operation
 - Soldier Radio Waveform (SRW)
- JTRS Compliance
 - Yes
- JTRS APIs
 - Yes
- Interfaces Supported
 - Standard Headset (H-250)
 - Nett Warrior
 - USB
 - RS-232
- Data Rate
 - SRW data modes supported
- Operational Battery life
 - >10 Hrs
- Programmable COMSEC & TRANSEC
 - Yes – Type II



Qualified Suppliers

- General Dynamics C4 Systems
- Thales Communications, Inc.

Features and Benefits

- Continuous transmission of Position Location Information (PLI) enables situational awareness and blue force tracking
- Supports hands-free display and external computer interface
- User-friendly audible HMI (i.e. audio indicators for preset, GPS position, and battery status)
- Actively participates in one voice talk call group while simultaneously monitoring other talk groups
- Software programmable/upgradeable
- Easy channel reprogramming and presets
- Easy frequency and talk group selection with presets
- Operates with a commercial battery and utilizes associated charger
- Operates with Talk-Group Select Switch, enabling simultaneous participation in multiple talk groups and use with Type 1 handheld for multiple security level operation
- Small, ruggedized, lightweight chassis that is EMI/EMC compliant
- Operates with standard USB and RS-232 devices for display use and radio control



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