



PERSONAL ROLE RADIO

Today's theatre of war is a dynamic, asymmetric battlespace, with forces on the ground often involved in simultaneous operations and with an increased emphasis on urban warfare. The Personal Role Radio (PRR) significantly enhances combat effectiveness by providing all informed communications to front line soldiers; replacing traditional methods based on hand signals and shouting.

Users on active service have described the introduction of PRR as having a profound effect on the operational effectiveness of infantry.

The PRR uses advanced 2.4GHz spread spectrum technology innovatively packaged to meet the demanding needs of the soldier. The PRR system is easy to use through its simple man machine interface, is unobtrusive and comfortable to wear yet is rugged enough to sustain the harshest environments presented by active front line operations.

MAIN FEATURES

- Simple to use
- Compact and lightweight design
- 50mW transmit power using Direct Sequence Spread Spectrum Modulation at 2.4GHz
- Typical operating range is 500m in open terrain, and through three floors of a building
- Wireless Press to Talk with up to 2m range
- 256 channels, 16 available directly to the user
- Operates from 2 x AA batteries for greater than 24 hours (1:7:16 Tx/Rx/Standby)
- Operates independently of any infrastructure
- NBC compatible
- Interface for Combat Radio

The modularity of the PRR design leads to flexibility and its use in many scenarios. It includes a unique wireless Press To Talk (PTT) that enables the user to operate the radio without removing his hands from his weapon. It has an interchangeable switch pack that allows configuration to different roles e.g., interface to a commanders radio, and audio ancillaries that can be tailored to suit user's needs.

OPERATIONAL BENEFITS

The use of PRR within infantry units greatly enhances all aspects of dismounted combat. Operations are much slicker, more effectively applied, better coordinated and safer. Key improvement areas are:

- Increased tempo of operations
- Improved situational awareness
- Improved targeting and direction of fire
- Element of surprise maintained, particularly in urban operations
- Improved survivability: reduced friendly fire
- Quicker briefings
- Better/quicker re-supply operations
- Better resource visibility.

ENHANCEMENTS OPTIONS

- Encryption
- Extended range
- Enhanced antenna
- Goose neck antenna
- Data enabled
- Rebroadcast station
- Base station for Command & Control posts
- Special-to-purpose ancillaries.

PTT switch packs

The PRR can be configured in two roles. The PRR body is fitted with one of two interchangeable PTT switch assemblies:

- Single PTT Switch Pack = 'Single user', operating the PRR only
- Dual PTT Switch Pack = Commander is able to connect to the PRR and Combat Net Radio (CNR)

An audio ancillaries socket is incorporated into the Switch Packs in which the Lightweight Headset, or alternative ancillaries, can be connected.

Dual switch interface

Audio from the CNR and PRR are both heard in the same earpiece, but not at the same time. If the section commander is talking on the PRR and the platoon commander calls, he will receive a 'call waiting' audible tone. Second radio interfaces can be provided for MBITR, Harris, SINCGARS, PR4G, Bowman, TETRA, ICOM, Motorola and other professional radios.

Data PRR

The emergence of small, low-power GPS systems and other sensors and target designators will enhance operational efficiency, assuming the information can be delivered to the right place quickly. To support data transfer within the infantry section, PRR has been enhanced to provide a data capability.

Ancillaries and headsets

- Specialist ancillaries capability for both overt and covert applications, supporting the PRR with a comprehensive range of equipment, including headsets for all applications including high noise, active noise reduction, in-the-ear, low profile, lightweight, discreet, covert tactical speaker-microphones and waterproof communications solutions, which meet the requirements of a diverse range of users.
- Fully integrated intercom systems, providing small footprint, fully featured, marinised, walk-on solutions.

NBC microphone adaptor

To communicate whilst wearing an NBC respirator, a Microphone Adaptor is available, which connects the Lightweight Headset's microphone to the NBC respirator, delivering a high level of speech clarity. The PRR and associated equipment is NBC compatible and can be worn outside an NBC suit.

Re-broadcast unit

PRR is designed to support operations performed by a deployed infantry section. However, there are operational scenarios where the infantry section is deployed over extended ranges or there are particularly demanding requirements placed upon the communications systems e.g. operations in enclosed spaces such as buildings or maritime platforms. A typical scenario is to provide communication between an internal building search team and external protection elements. The re-broadcast unit can also be used to overcome problems in difficult environments such as the jungle where heavy foliage and high humidity are common. For these situations the re-broadcast unit doubles the range provided by the standard PRR. The re-broadcast unit consists of two inter-linked PRR's and filters, packaged in a saddlebag. The physical configuration is small, light and easily deployed by operational troops. It also provides a flexible solution for a range of deployment scenarios.

Re-broadcast unit features

- Self-contained
- Selectable dual channel
- Interoperable with standard PRR
- Small dimensions
- Low weight
- Range extension
- Flexible deployments
- Jungle operations
- Building searches and clearance
- Maritime assaults
- Operations in tunnels
- Inter-section operations