



## SECURE PERSONAL LEADER RADIO

### RF-7800S-LR

#### RADIO FEATURES

- > Secure voice, data, and situational awareness for every soldier
- > Completely automatic and hands-free operation
- > Seamless voice and data integration with upper-echelon networks
- > Simultaneous, full-duplex voice for multiple speakers
- > USB digital data interface
- > Embedded GPS and PDA

#### PDA FEATURES

- > 256MB DDR Ram and NAND Flash
- > WinCE 6 OS
- > Internal 4GB fixed flash disk (not user replaceable)

The RF-7800S-LR Secure Personal Leader Radio is a modular upgrade to the Team Radio, adding additional input/output facilities and a mobile application environment for embedded user applications. An optional VGA display connects via a standard link, providing user interface. The mobile operating system provides a standard platform for application development. The flexibility of the standard operating system enables messaging applications or porting of various mapping or messaging applications.

An RS-232 interface port also enhances the Leader Radio for connection to a variety of external devices, such as augmented GPS receivers or network connections for integration into standardized IP based networks. The Leader Radio provides secure, digitized voice and data communications to every member of the team without distracting attention from the task at hand. The Leader Radio's small, lightweight design fits easily in a pocket, and may be powered by a rechargeable lithium-ion battery or an optional external battery interface.

A unique digital wireless network that does not require infrastructure provides reliable communications, even in situations where traditional backbone and trunk services are not available or are out of range. The network is designed to provide robust operation in the most challenging urban terrain. Full duplex, priority-based voice conferencing allows several simultaneous talkers on the net with an unlimited number of listeners—resulting in a more natural, dynamic operating environment, free from the constraints of a traditional half-duplex radio.

A priority break-in feature ensures that critical orders are heard even in the middle of a high intensity operation. The Leader Radio is data-enabled and incorporates a built-in GPS receiver, allowing easy-to-use situational awareness, position tracking and messaging services.

A standard USB interface allows connection of external devices for enhanced data applications. All transmissions are secured by the built-in Citadel® II ASIC. The Advanced Encryption Standard (AES) and Harris Citadel are selectable in the standard configuration.

The Secure Personal Radio — reliable and secure connectivity for every soldier, assured by Harris.



# SPECIFICATIONS FOR: RF-7800S-LR

## GENERAL

<b>Frequency Range</b>	350-450 MHz
<b>Bandwidth</b>	25 kHz, 500 kHz or 1.2 MHz
<b>Net Presets</b>	14 programmable presets with flexible talkgroups
<b>Modulation</b>	FSK or GMSK
<b>Voice Operation</b>	Full duplex, up to 6 simultaneous talkers Up to 256 kbp
<b>Data Operation</b>	Simultaneous data and voice USB 2.0 full speed connection to serial, or Ethernet devices
<b>Location (self)</b>	Built-in GPS with automatic position reporting
<b>Location (others)</b>	Displayed on graphical interface
<b>Alerts</b>	Audible status, language programmable Displayed warnings
<b>Battery</b>	Rechargeable, 8-hour life, optional soldier battery pack
<b>Range</b>	Open terrain: 2-3 km Urban: up to 1000 meter Light Jungle: up to 800 meter
<b>Software Architecture</b>	Software-defined, upgradeable via USB port
<b>Encryption</b>	Selectable FIPS-197 AES 256-bit and 128 bit Citadel 256-bit and 128-bit

## SPECIFICATIONS

<b>Dimensions</b>	108 x 78 x 70 mm (without battery)
<b>Weight</b>	500 g
<b>Color</b>	Black (FED-STD-595B 37038) Green (FED-STD-595B 34094)

## INTERFACE

<b>USB 2.0 Multi-function</b>	1x Standard USB, 1x On the Go USB; for data, configuration/control, and external devices
<b>RS-232</b>	Asynchronous, PPP interface
<b>Display Output</b>	VGA 640 x 480; Default supported: 800 x 600, 1024 x 768, 1280 x 1024
<b>Control</b>	Local via USB port or wireless control interface
<b>RF</b>	SMA, 50 ohm nominal, unbalanced

## TRANSMITTER SPECIFICATIONS

<b>Power Output</b>	2 watts, adjustable to 1W, 0.25W
<b>Frequency Stability</b>	± 2 ppm

## RECEIVER SPECIFICATIONS

<b>Sensitivity Audio Output</b>	0-75 dBA with standard headset
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## ENVIRONMENTAL (MIL-STD-810)

<b>Shock/Vibration</b>	Ground portable
<b>Immersion</b>	2 meters
<b>Temperature</b>	-30 to +60 C Operating

## ACCESSORIES

Small Whip Antenna  
Rechargeable Li Ion Battery  
Operators Card

## OPTIONAL

Additional Batteries and Soldier Battery Adapters  
Lightweight Headset  
VGA Display  
Configuration Kit  
Li Ion Battery Charger



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