



## SECURE PERSONAL RADIO™ SPR™ TEAM RADIO

### RF-7800S-TR

#### 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
- 256-bit encryption

The RF-7800S-TR SPR™ Team Radio provides secure, digitized voice and data communications to every member of a team without distracting his or her attention from the task at hand. The radio's small, lightweight design fits easily in a pocket, and is powered by a rechargeable lithium-ion battery.

A unique team-based waveform and digital wireless network allows reliable communications in situations where traditional backbone and trunk services are not available or are out of range. The network is designed to provide robust, long-range operation even in the most challenging urban and tactical terrain. Full duplex, multi-group 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 traditional radio systems.

A priority break-in feature ensures that critical orders are heard even in the middle of a high intensity operation. The 14-position channel selector can be configured to meet the needs of changing communication requirements. The operator needs only to select the appropriate channel on the selector knob—everything else is automatic. The 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 data interface allows connection of Windows, Linux or Android computing devices for enhanced data applications. A short-range wireless accessory port is included which allows wireless remote control of the radio, including push-to-talk activation.

All transmissions are secured by the built-in Citadel® II ASIC, providing FIPS certified 256-bit encryption. The Advanced Encryption Standard (AES) and Harris Citadel are selectable in the standard configuration.

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



# SPECIFICATIONS FOR: RF-7800S-TR

## GENERAL

|                       |                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range       | 350 to 450 MHz                                                                                                                     |
| Bandwidth             | 25 kHz, 500 kHz or 1.2 MHz                                                                                                         |
| Net Presets           | 14 programmable presets with flexible talkgroups                                                                                   |
| Modulation            | FSK or GMSK                                                                                                                        |
| Voice Operation       | Full duplex, up to 6 simultaneous talkers<br>Unlimited listeners<br>Priority break-in<br>Selectable VOX or push-to-talk activation |
| Data Operation        | Simultaneous data and voice<br>Up-to 256 kbps                                                                                      |
| Location (self)       | Built-in GPS with automatic position reporting                                                                                     |
| Alerts                | Audible status, language programmable                                                                                              |
| Battery               | Rechargeable, 10-hour life                                                                                                         |
| Range                 | Open terrain: 2-3 km<br>Urban: up to 1000 meter<br>Jungle: up to 800 meter                                                         |
| Software Architecture | Software-defined, upgradeable via USB port                                                                                         |
| Encryption            | Selectable<br>FIPS-197 AES 256-bit<br>Citadel® 256-bit                                                                             |

## SPECIFICATIONS

|            |                                                                       |
|------------|-----------------------------------------------------------------------|
| Dimensions | Approx. 108 x 78 x 25 mm (166 cc) (without battery)                   |
| Weight     | 300 g                                                                 |
| Color      | Black (FED-STD-595B 37038) or<br>Green and Black (FED-STD-595B 34094) |

## INTERFACE

|                        |                                        |
|------------------------|----------------------------------------|
| USB 2.0 Multi-function | Data<br>Configuration/Control<br>RNDIS |
| RF                     | SMA, 50 ohm nominal, unbalanced        |

## TRANSMITTER SPECIFICATIONS

|                     |                                  |
|---------------------|----------------------------------|
| Power Output        | 2 watts, adjustable to 1W, 0.25W |
| Frequency Stability | ± 2 ppm                          |

## RECEIVER SPECIFICATIONS

|                          |                                   |
|--------------------------|-----------------------------------|
| Sensitivity Audio Output | 0 to 75 dbA with standard headset |
|--------------------------|-----------------------------------|

## ENVIRONMENTAL (MIL-STD-810)

|                       |                 |
|-----------------------|-----------------|
| Shock/Vibration       | Ground portable |
| Immersion             | 2 meters        |
| Operating Temperature | -30° to +60°    |
| MTBF                  | 28,000+ hrs     |

## ACCESSORIES

### INCLUDED

Small Whip Antenna  
Rechargeable Li Ion Battery

Operators Card

### OPTIONAL

Additional Batteries  
Lightweight Headset/Speaker Mic  
Wireless PPT  
Configuration Kit  
Li Ion Battery Charger



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