



assuredcommunications®

## **RF-7800S-TR**

**SECURE PERSONAL RADIO**

**Secure voice, data, and  
position for every  
team member**

**Completely automatic and  
hands-free operation**

**Seamless voice and  
data integration with  
upper-echelon networks**

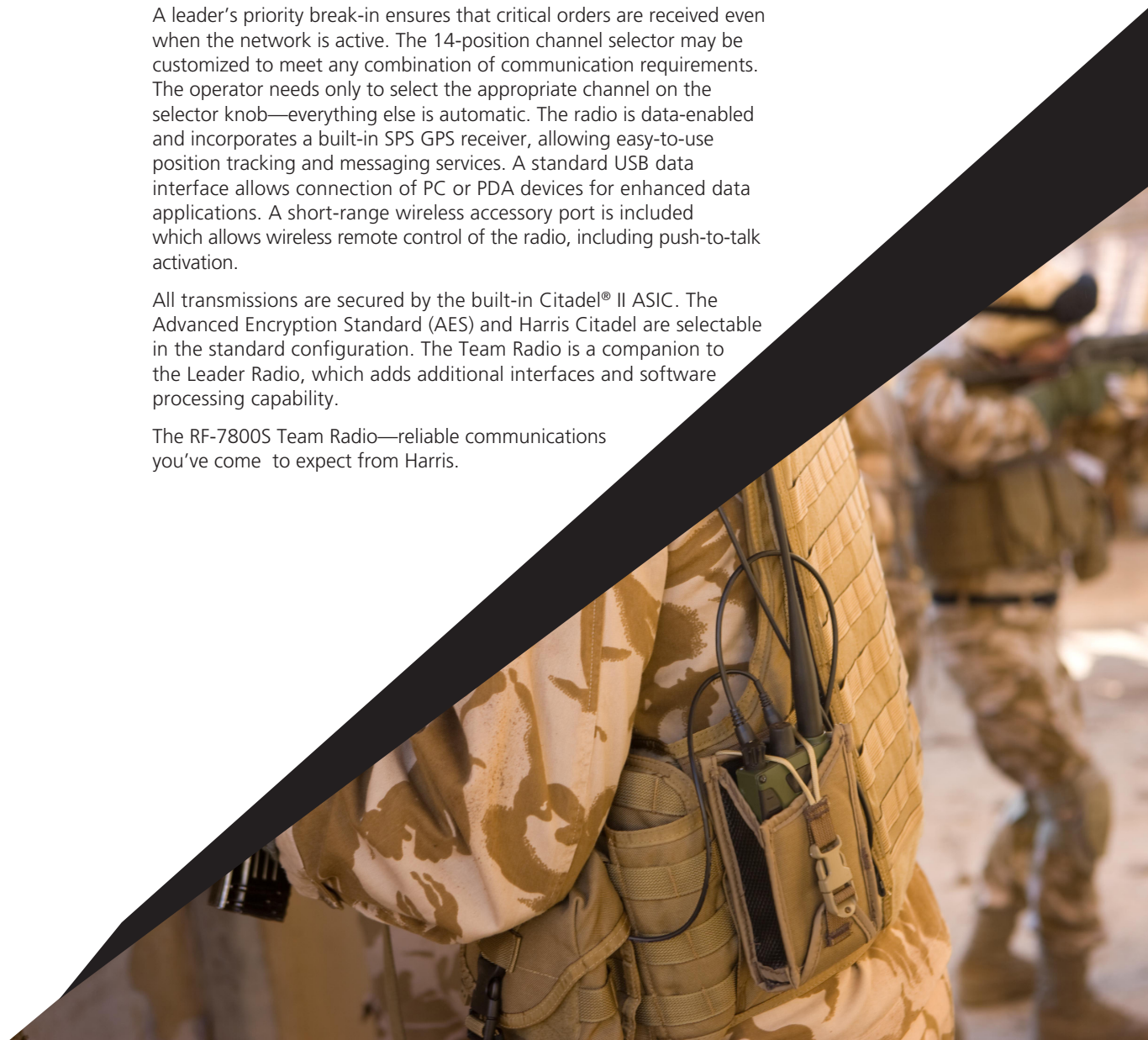
The RF-7800S-TR provides secure, digitized voice and data communications to every member of the team without distracting his or her attention from the task at hand. The radio's small, lightweight design fits easily in a pocket, and may be powered by a rechargeable lithium-ion battery or an optional primary battery holder using commercially available AA batteries.

A unique digital wireless network allows reliable communications even when backbone and trunk services are not available or out of range. The network is designed to provide robust, long-range operation even 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 leader's priority break-in ensures that critical orders are received even when the network is active. The 14-position channel selector may be customized to meet any combination of 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 SPS GPS receiver, allowing easy-to-use position tracking and messaging services. A standard USB data interface allows connection of PC or PDA 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. The Advanced Encryption Standard (AES) and Harris Citadel are selectable in the standard configuration. The Team Radio is a companion to the Leader Radio, which adds additional interfaces and software processing capability.

The RF-7800S Team Radio—reliable communications you've come to expect from Harris.



## Specifications for the RF-7800S-TR

### General

<b>Frequency Range</b>	350 to 450 MHz
<b>Channel Spacing</b>	25 KHz, 500 KHz or 1.2 MHz
<b>Net Presets</b>	14 programmable presets with talkgroups
<b>Modulation</b>	FSK or GMSK
<b>Voice Operation</b>	Full duplex, up to 6 simultaneous talkers Unlimited listeners Priority break-in Selectable VOX or push-to-talk
<b>Data Operation</b>	Simultaneous data and voice USB RNDIS Device
<b>Location (self)</b>	Built-in GPS with automatic position report
<b>Alerts</b>	Audible status, language programmable
<b>Battery</b>	Rechargeable, 12-hour life, optional alkaline battery pack
<b>Range</b>	Open terrain: 2-3 km Urban: up to 800 m Jungle: up to 1 km
<b>Software Architecture</b>	Upgradeable via USB port
<b>Encryption</b>	Selectable FIPS-197 AES 256-bit Citadel 256-bit and 128-bit
<b>Color</b>	Black (FED-STD-595B 37038) or Green (FED-STD-595B 34094)
<b>Environmental</b> (MIL-STD-810F)	
<b>Shock/Vibration</b>	Ground portable
<b>Immersion</b>	2 meters
<b>Size with Battery</b>	Approx. 171 (h) x 78 (w) mm (280 cc)
<b>Radio Weight</b>	300g
<b>Temperature</b>	-30 to +65 C

### Interfaces

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

### Transmitter Specifications

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

### Receiver Specifications

<b>Sensitivity</b>	0 to 75 dbA with standard headphone
<b>Audio Output</b>	0 to 75 dbA with standard headphone

### Standard Features

Simultaneous, full-duplex voice for multiple speakers  
Automatic Whisper Mode  
USB digital data interface  
Embedded GPS  
256-bit encryption

### Included with Transceiver

Small whip antenna  
Rechargeable Li-ion battery  
Operator's card

### Optional Accessories

Additional batteries  
Lightweight headset  
Configuration kit  
Li-ion battery charger