

RF-7800S-TR

Secure Personal Team 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 infrastructureless 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 including interoperable voice communications with standard two-way radios and wireless intercom operation. 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

Frequency Range	350 to 450 MHz
Channel Spacing	25 KHz, 500 KHz or 1.2 MHz
Net Presets	14 programmable presets with talkgroups
Modulation	16 kbps FSK or 135/338 kbps GMSK
Voice Operation	Full duplex, 3 simultaneous talkers Unlimited listeners Priority break-in Selectable VOX or push-to-talk
Data Operation	Simultaneous data and voice USB RNDIS Device
Location (self)	Built-in GPS with automatic position report
Alerts	Audible network warnings
Battery	Rechargeable, 8-hour life, optional alkaline battery pack
Aux Power	DC input for charging / external power pack
Range	Open terrain: 1-2 km Urban: 500-800 m Jungle: up to 500 m
Software Architecture	Upgradeable via USB port
Encryption	Selectable FIPS-197 AES 256-bit Citadel 256-bit
Color	Black (FED-STD-595B 37038) or Green (FED-STD-595B 34094)
Environmental (MIL-STD-810F)	
Shock/Vibration	Ground portable
Immersion	2 meters
Size with Battery (maximum envelope)	171 x 80 x 35 mm (max)
Radio Weight	300g
Temperature	-30 to +65 C

Interfaces

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

Transmitter Specifications

Power Output	2 watts, adjustable to 1 W, 0.25 W
Frequency Stability	+/- 1 ppm

Receiver Specifications

Sensitivity	
Audio Output	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

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