

RF-5800M-HH

ADVANCED MULTIBAND SECURE SQUAD RADIO

an advanced multiband

handheld radio

which provides reliable

secure tactical

communications

The RF-5800M-HH is the handheld companion to the RF-5800M Multiband Transceiver family that provides interoperable, multiband, multimission, secure voice and data communications to lower echelons and dismounted troops.

The radio is available in standard green or 20-meter submersible black anodized finish. With Citadel® digital encryption and Quicklook 1A frequency hopping options, the RF-5800M-HH extends the outstanding performance of the Falcon II Tactical Family down to the squad level with a minimal burden on the soldier. It maintains many of the features of the Falcon II Multiband manpack including continuous operation from 30 to 512 MHz, simplified operation using channel presets, automatic voice/data detection, and channel scanning.

The embedded digital voice and data encryption is provided by the Citadel digital chip-set, ensuring high-grade security for critical ground-to-ground and ground-to-air message traffic. Optional customer-unique algorithms can also be provided.

The optional Quicklook 1A (VHF) ECCM algorithm ensures reliable voice and data communications in a jammed environment, even under the stress of battle. User operation in ECCM mode is virtually identical to that of fixed-frequency operation, simplifying the workload on the soldier.

The RF-5800M-HH uses a rechargeable Lithium-ion battery pack for extended mission life. The radio has user-selectable RF power output settings from 0.1 to 5 watts. A built-in whisper mode allows operation in forward reconnaissance applications.

FSK/ASK data rates of 1.2, 2.4, and 16 kbps are standard for the RF-5800M-HH in both fixed-frequency and ECCM modes. The data can be secured with the Citadel digital encryption chip.

A simple, menu-driven, man-machine interface makes operation easy. The operator selects the desired radio frequency and mode using the alphanumeric preset displayed on the night vision compatible LCD display.

Radio-to-radio fill is available with the optional cloning cable.



General

Frequency Range	30 to 512 MHz
Preset Channels	100 Maximum
Preset Channels/ Preset Group	16 (selected by rotary switch)
Preset Groups	10
Emission Modes	FM/AM Analog Voice FSK/ASK CVSD Voice at 16 kbps FSK/ASK data at 1.2, 2.4, and 16 kbps
Frequency Hopping	Harris Quicklook 1A (optional)
Digital Security	Harris Citadel Digital Encryption (optional)
RF-Input/Output Impedance	50 ohm nominal, unbalanced
Power Input	Clip-on rechargeable battery pack
Data Interface	Synchronous or Asynchronous (RS-232)
Operating Temperature	-31 to +60° C Standard Operation
Shock/Vibration	TIA/EIA-603-1992
Leakage	TIA/EIA-603-1992
Humidity	TIA/EIA-603-1992
Dimensions	2.7W x 8.8H x 1.5D inches, with battery (6.7W x 22.4H x 3.7D cm)
Radio Weight	< 2.3 lb (1.1 kg) (typical) with battery
Receiver	
FM Sensitivity	-113 dBm for 12 dB SINAD
AM Sensitivity	1.5 μ V at 30% modulation for 10 dB SINAD
Transmitter	
Power Output	0.1, 0.5, 1, 3, and 5 watts FM 1 and 5 watts AM PEP (user selectable)
Frequency Stability	5 ppm (-31 to +60° C)
Harmonic Suppression	-47 dBc

Features

- 30 to 512 MHz (continuous)
- 5 watts high power RF output
- Quicklook 1A ECCM
- Citadel digital encryption
- Interoperable with other FALCON® II products
- 1.2, 2.4, and 16 kbps data rates
- AM swept tone beacon
- 10-channel multiband scan
- User-friendly man-machine interface
- Small and lightweight
- Immersible and highly ruggedized
- Built-in speaker/microphone

Optional Accessories

- Holster
- H-250/U Handset
- Headset
- Single bay battery charger
- AC/DC six- bay battery charger
- Additional batteries
- Commercial battery (CR123) cassette
- Special Power Adapter Interface (SPAI) (operate/charge from DC source)
- Soft pack for radio, spare battery, commercial battery cassette, handset, antennas, and SPAI
- RS-232 Serial Interface Data cable
- Cloning cable
- Radio programming application for PC

Included with Transceiver

- 30 to 512 MHz broadband antenna
- 30 to 88 MHz blade antenna
- Rechargeable Lithium Ion battery
- Operator's card