



FALCON III® MULTIBAND NETWORKING HANDHELD

RF-7850M-HH

- > Wideband Networking (ANW2Ce)
- > Narrowband Networking (TNW)
- > Advanced ECCM and Free Channel Search
- > Falcon II® and Falcon III® Interoperability
- > Software Defined Radio

The RF-7850M multiband networking handheld offers forward deployed teams operating in dynamic environments a full suite of communications capabilities that give them the ability to communicate more information, with greater speed and detail— crucial to achieving information superiority on the battlefield. Meanwhile, commanders get access to advanced real-time situational information that enables them to make faster, more informed decisions. The RF-7850M handheld is the new defacto Combat Net Radio (CNR), combining the functionality and performance previously found only in a manpack into a platform that is extremely rugged and highly portable.

Providing continuous coverage from 30 to 512 MHz with up to 10 watts of output power, the RF-7850M allows long range inter-squad and ground-to-air communications. The RF-7850M has a familiar user interface and embedded applications that make field-base dissemination of information a reality, while eliminating cost and complexity associated with in-field data terminals, such as PDAs and PCs. The RF-7850M-HH is a multi-mission radio that combines next generation functionality and advanced capabilities to meet the requirements of network-centric warfare.

BENEFITS

- > Advanced Networking Wideband Waveform (ANW2Ce) delivers information superiority on the battlefield in an ad-hoc, self-forming, self-healing network.
- > Harris' narrowband TDMA Networking Waveform (TNW) helps area commanders visualize the operating environment and take informed decisive action by allowing up to 64 users on a net to simultaneously communicate voice and time critical situational awareness.
- > The Quicklook ECCM waveform suite and Free Channel Search enable covert communications, render enemy radio-jamming devices ineffective and ensure operation in high-noise environments.
- > Interoperable with the Harris Falcon II® family of HF, VHF and multiband radios including the RF-5800V-HH, RF-5800H-MP, RF-5800M-HH, as well as the Falcon III® RF-7800M-MP, RF-7850A, RF-7850S and RF-7800V.
- > Future proof architecture enables planned product improvements to be implemented as software only upgrades in most cases.
- > Battlefield proven ANW2Ce providing simultaneous voice, situational awareness, video, and IP data.

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SPECIFICATIONS FOR: RF-7850M-HH

GENERAL

Frequency Range	30-512 MHz
Net Presets/Channels	25 total/13 Selectable from switch
RF Input/Output Impedance	50 Ohms
Transmission Modes	AM/FM Analog Voice FSK/ASK MELP Voice FSK/ASK CVSD Voice ASK Data FSK/TCM Data GMSK/QPSK Data ECCM

SPECIFICATIONS

GENERAL

Dimensions	2.94 W x 9.71 H x 2.43 D in. (7.5 W x 24.7 H x 6.1 D cm)
Weight	2.0 lbs (<1.0 kg) with battery
Color	Green (RF-7850M-HH001) Black (RF-7850M-HH002) Tan (RF-7850M-HH003)

TRANSMITTER

Power	Selectable 0.25, 1, 2, 5 and up to 10 Watts
Frequency Stability	± 1 ppm
Harmonic Suppression	> 50 dBc typical
Spurious Suppression	> 50 dBc typical

RECEIVER

Squelch	Selectable: off, noise, tone, CTCSS, digital
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ENVIRONMENTAL (MIL-STD-810)

Operating Temperature	-30° C to +60° C (-22°F to +140°F) with battery -25° C to +60° C (-13°F to +140°F)
Humidity	95%
Shock	Drop
Vibration	Loose cargo
Immersion	5 meters

STANDARD FEATURES (RF-7850M-SW001)

COMSEC	128 & 256 bit Harris proprietary and AES Customer Algorithm Modification (CAM)
GPS	Internal
Vocoder	MELP, CVSD
Data Interface	USB 2.0, Sync, Async, Ethernet, RNDIS
Bandwidth	8.33 KHz (AM), 12.5 KHz (AM) and 25 KHz
ECCM	Quicklook 1A, Quicklook 2, Quicklook 3, Free Channel Search and Mixed Mode
Data Communications	IP and DTE
Simultaneous Voice and Data Support	Yes
Dual Net PTT Support	Yes
Direct Connection to LAN and USB Devices	Yes

ADVANCED FEATURES (RF-7850M-SW002)

Advanced Networking Waveforms	ANW2Ce (1.2 MHz) TNW (25 kHz) FSK/TCM (75 kHz) Quicklook-Wide (75 kHz)
Telephony	Voice over IP (VOIP) and SIP Telephony and RF-6010 Base station
Network Management	SNMP v1.0, v2.0C and v3.0

STANDARD KIT INCLUDES

12011-2710-03, Whip Antenna
12011-2730-01, Tape Antenna
12041-6650-01, GPS Antenna
12041-2200-XX, High-Capacity Li-Ion Rechargeable Battery
10515-0461-4100, Quick Reference Guide
RF-7850MH-SW001, Communications Programming Application and Operations Manual/ Soft Copy

For optional accessories, please refer to the Product Catalog



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