



HARRIS FALCON III[®] RF-7850M-HH MULTIBAND NETWORKING HANDHELD

LONG-RANGE WIDEBAND NETWORKING

BENEFITS

High-speed wideband and narrowband networking

Secured with Harris Citadel™ and AES encryption

Manpack performance in a handheld

High-rate ECCM and Free Channel Search

Harris Falcon II and Falcon III interoperability

Software Defined Radio (SDR) architecture

The Harris RF-7850M-HH combines the small-profile portability of a handheld, with the power and long-range performance of a manpack. Equipped with enhanced Falcon III[®] wideband and narrowband capabilities, the Multiband Networking Handheld is also interoperable with the Harris Falcon II[®] radio family.

The RF-7850M-HH is ideal for traditional CNR missions, ground-to-air, and company and below voice and data communications. When used with the optional 50W Power Amplifier, the 7850M-HH also plays a key role at the mid-tier level of any tactical network.

The RF-7850M-HH leverages the TDMA Networking Waveform (TNW) family for true simultaneous voice and data services over wideband, narrowband and ECCM channels. This waveform family is also available in the Falcon III[®] VHF, Airborne,

and Soldier radios supporting seamless communications across the battlefield.

The large multilingual display and built-in WebUI applications deliver maximum mission flexibility. Now, capabilities such as text and file transfer can be accessed directly from the radio, further reducing soldier payload. The optional WebUI provides additional applications including friendly force tracking, video streaming, remote control and others, for use at all levels of the battlefield.

SPECIFICATIONS FOR: **HARRIS FALCON III® RF-7850M-HH MULTIBAND NETWORKING HANDHELD**

GENERAL

RT Nomenclature	RF-7850M-HH
Frequency Range	30-512 MHz
Channel Spacing/Bandwidth	8.33 kHz (AM only), 12.5 kHz (AM only), 25 kHz, 75 kHz*, 1.2 MHz*
Net Presets	25 total/13 selectable from switch
GPS	Internal and external option
Frequency Stability	± 1 ppm

TRANSMITTER

Power Output	Selectable 0.25, 1, 2, 5 and up to 10 Watts
Harmonic Suppression	> -50 dBc
Audio output	Variable and fixed level

RECEIVER

Sensitivity	FM: -116dBm @ 12dB SINAD AM: -103.5dBm @ 10dB SINAD
Squelch	Selectable: off, noise, tone, CTCSS, digital
IF Rejection	> 70 dB
Image Rejection	> 70 dB

POWER

Power Input	10V to 13V
Power Consumption	35 Watts

About Harris Corporation

Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately \$7.5 billion in annualized revenue and supports customers in more than 100 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

SECURITY

Encryption	128 & 256 bit Harris proprietary (CITADEL) and AES Customer Algorithm Modification (CAM)
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MODES AND WAVEFORMS

Narrowband Waveforms	Quicklook 1A, Quicklook 2, Quicklook 3, Free Channel Search, Quicklook Wide*, TNW* Export SINGARS with Pavillion encryption (optional)
Wideband Waveforms	M-TNW*
Voice and Data Modes	AM/FM Analog Voice FSK/ASK MELP Voice FSK/ASK CVSD Voice ASK Data FSK/TCM Data GMSK/QPSK Data ECCM
Telephony	Voice over IP (VoIP) and SIP Telephony and RF-6010 Base Station*

PHYSICAL

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

ENVIRONMENTAL

Temperature	-30°C to +60°C (-22°F to +140°F) with battery -25°C to +60°C (-13°F to +140°F)
Immersion	5 meters
Shock and Vibration	MIL-STD 810G
Sand/Dust/Salt Fog/Rain	MIL-STD 810G
Humidity	MIL-STD 810G

INTERFACES

Data	IP, USB RNDIS, Serial, PPP
Audio	Standard 6 Pin, IP
Antenna Port	TNC; 50 Ohms
Programming	USB, Ethernet
Remote Control	IP, Serial

STANDARD KIT INCLUDES

12011-2710-03	Whip Antenna
12011-2730-01	Tape Antenna
12041-2400-XX	High-Capacity Li-Ion Rechargeable Battery
10515-0461-4100	Quick Reference Guide
RF-7850MH-CD001	Communications Programming Application and Operators Manual

*Indicates RF-7800V-SW002 software option
Please visit Harris.com for added information
Multi-lingual options available

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