

FALCON III[®] RF-7800V-HH

VHF Networking Handheld

The L3Harris RF-7800V-HH combines the small-profile portability of a handheld with the power and long-range performance of a manpack. Equipped with enhanced Falcon III narrowband capabilities, it is also interoperable with the L3Harris Falcon II[®] radio family.

The VHF Networking Handheld is ideal for traditional CNR missions, ground-to-air and company and below voice and data communications. When used with the optional L3Harris 50 W Power Amplifier, this handheld also plays a key role at the mid-tier level of any tactical network.

The RF-7800V-HH leverages the TDMA Networking Waveform family for true simultaneous voice and data services over narrowband and ECCM channels. This waveform family is also available in the Falcon III Multiband, 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.



LONG-RANGE, HIGH-SPEED, COMBAT NET RADIO (CNR)

KEY BENEFITS

- > High-speed narrowband networking
- > Secured with L3Harris Citadel™ and AES encryption
- > Manpack performance in a handheld
- > High-rate ECCM and Free Channel Search
- > L3Harris Falcon II and Falcon III interoperability
- > Software Defined Radio (SDR) architecture
- > Available ARROW™ waveform enables resilient interoperability with L3Harris RF-7850M/A/D, AN/PRC-158, AN/PRC-163 and AN/PRC-167 radios.

GENERAL	
RT Nomenclature	RF-7800V-HH
Frequency Range	30-108 MHz
Channel Spacing/Bandwidth	25 kHz, 75 kHz*
Net Presets	25 total/13 selectable from switch
GPS	Internal GPS Accepts external GPS input
Software Environment	Software Defined Radio

TRANSMITTER	
Power Output	Selectable .25, 1, 2, 5 watts High + Power-out mode 10 watts +1/-2db
Harmonic Suppression	> -50 dBc typical
Audio Output	Variable and fixed level
Frequency Stability	+/- 1 parts per million

RECEIVER	
Sensitivity	FM: -116dBm @ 12dB SINAD
Squelch	Selectable: Off, noise, tone, digital
IF Rejection	> 70 db

POWER	
Power Input	10V to 13V
Power Consumption	35 watts

SECURITY	
Encryption	128 & 256 bit L3Harris proprietary and AES Customer Algorithm Modification (CAM)

MODES AND WAVEFORMS		
Voice and Data Modes	FM Analog Voice	FSK/TCM Data
	FSK MELP Voice	ECCM
	FSK CVSD Voice	
ECCM	Quicklook 1A, 2, 3 and Quicklook-Wide*	
Narrowband Networking	TDMA Networking Waveform (TNW) 25K* and 75K*	
Optional Waveforms	SINGGARS with Pavilion encryption ARROW	

PHYSICAL	
Dimensions	9.71 H [10.6 with GPS] x 2.94 W x 2.77 D in (24.7 H [26.9 with GPS] x 7.5 W x 7 D cm)
Weight	2.41 lbs (1.09 kg) with battery
Color/Finish	Green (RF-7800V-HH101) Black (RF-7800V-HH102) Tan (RF-7800V-HH103)

ENVIRONMENTAL		
Temperature	Operation: -30°C to +60°C (-22°F to +140°F) Storage: -40°C to +85°C (-40°F to +185°F)	
Immersion	5 meters	
MIL-STD 810G	Altitude storage Rapid decompression Solar radiation Humidity Sand and dust Vibration Transit drop Fungus	Altitude operation Thermal shock Blowing rain Salt fog Explosive atmosphere Functional shock Icing/freezing rain

INTERFACES	
Data	IP, USB RNDIS, Serial, PPP, WPAN
Audio	Standard 6-Pin, IP
Antenna Port	TNC; 50 Ohms
Programming	USB, Ethernet
Remote Control	IP, Serial
Web UI	IP, Web Browser(Chrome, FireFox)

STANDARD KIT INCLUDES	
Part Number	Description
12011-2600-01	Whip Antenna
12041-2400-XX	High-Capacity Li-Ion Rechargeable Battery
10515-0363-4100	Quick Reference Guide

*Indicates RF-7800V-SW002 software option
Please visit l3harris.com for added information

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