

## **FALCON III® RF-7800V-V51X**

### VHF Networking Vehicular Radio

The L3Harris RF-7800V-V51X 50-watt radio is engineered for space-constrained platforms that require increased power for high-speed, long-range tactical communications. Equipped with enhanced Falcon III wideband and narrowband capabilities, the VHF Networking Vehicular Radio is also interoperable with the L3Harris Falcon II® radio family and the RF-7800I Intercom System.

The RF-7800V-V51X is ideal for traditional CNR missions, ground-to-air, and Company and Below voice and data communications. The RF-7800V-V51X leverages the 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 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 TDMA Networking Waveform (TNW) mesh network
- > L3Harris Falcon II and Falcon III interoperability
- > Low-profile design for space-constrained platform
- > Industry standard protocols (USB, SIP, VoIP, SNMP, etc.)
- > 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-V51X
Frequency Range	30-108 MHz
Channel Spacing/Bandwidth	25 kHz, 75 kHz*
Net Presets	25 total
GPS	Internal GPS Accepts external GPS input

TRANSMITTER	
Power Output	30-108 MHz: 5 W, 20 W, 50 W (user selectable)
Harmonic Suppression	>-60 dBc typical
Audio Output	Variable and fixed level
Frequency Stability	±1 ppm

RECEIVER	
Sensitivity	-112 dBm @ 12 dB SINAD
Squelch	Off, noise, tone and digital
IF Rejection	> 70 db
Image Rejection	> 70 db

POWER	
Power Input	20 VDC-32 VDC
Power Consumption	Max 450 watts

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

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

PHYSICAL	
Dimensions	7.48 H x 7.87 W x 13.5 D in (20.0 x 19.0 x 34.3 cm)
Weight	< 28.0 lbs (< 13.6 kg)
Color/Finish	CARC Green CARC Black CARC Tan

ENVIRONMENTAL		
Temperature	Storage: -22°F to +158°F (-30°C to +70°C) Operation: -22°F to +140°F (-30°C to +60°C)	
Immersion	1 meter	
MIL-STD 810G	Altitude Storage Rapid Decompression Solar Radiation Humidity Sand and Dust Vibration Shock, Crash Hazard Fungus	Altitude Operation Thermal Shock Blowing Rain Salt Fog Explosive Atmosphere Functional Shock Icing/Freezing Rain

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

STANDARD KIT INCLUDES	
12112-6027-01	Mounting Plate Assembly
10570-0720-01	Install Kit, DC Power
10515-0397-4200	System Install & Maintenance Manual

\*Indicates software option

Please visit [L3Harris.com](http://L3Harris.com) for added information

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