



L3HARRIS®
FAST. FORWARD.

RF-7850M RADIO FAMILY

Versatile Wideband Interoperability



HIGH-SPEED MULTIBAND NETWORKING

Command, mid-tier and edge forces gain the tactical edge with the L3Harris RF-7850M Family of Radios. Forces can share more situational awareness, at faster speeds and over greater distances. The RF-7850M Handheld Multiband Vehicular Radio and “Hot Jerk-and-Run” Handheld Power Adapter leverage the TDMA Networking Waveform family to deliver true simultaneous voice, video and IP data over wideband, narrowband and ECCM channels. Each radio is engineered for ease of integration into current and evolving battle management, C4ISR and telephony networked systems.

SPEED DEPLOYMENT AND REDUCE COMPLEXITIES

Radios in the RF-7850M family have a shared architecture, providing significant cost and time savings. Their common interface allows users to be trained once and be able to operate all three radios. The same is true for technicians who use universal parts and service plans for the entire family.

GET FAST UPDATES TO NEW CAPABILITIES

The family’s software-defined architecture allows forces to quickly get in-field downloads for emerging technologies.

CONNECT ACROSS FORCES AND DOMAINS

A combat-proven portfolio of waveforms includes SATCOM capabilities and ground-to-air interoperability with L3Harris Falcon II® and Falcon III® radios, and compatibility with coalition, public safety and border patrol forces.

NETWORK SIMULTANEOUS VOICE, VIDEO AND IP DATA

Self-forming, self-healing MANET powers battlespace agility with no-latency speeds beyond-line-of-sight. The family’s networking technologies also support up to 128 user nodes and multiple talk groups over large theaters of operation.

STAY RESILIENT IN CONTESTED AND CONGESTED ENVIRONMENTS

Fast-hop ECCM technologies overcome high noise and hostile jamming attempts while free channel search dynamically selects the clearest frequency for communications.

STREAMLINED USER EXPERIENCE

Every aspect of the RF-7850M family of radios is engineered to maximize tactical capabilities while reducing warfighter burden. Large, multilingual displays and embedded applications allow text and file transfer capabilities to be accessed directly from the radio.

- > **Eliminate the need for additional devices:**
USB and Ethernet®/IP interfaces support compatibility with numerous applications
- > **Expand on-demand connectivity:**
Wi-Fi®, Bluetooth® and Wireless Personal Area Network capabilities (WPAN)
- > **Advanced Situational Awareness:**
WebUI applications provide Friendly Force Tracking (FFT), video streaming and soft KDU remote control support
- > **Quickly adjust to tactical changes:**
Over-the-air fill technologies support fast reprogramming of mission plans
- > **Keep Communications Secure:**
Lost or compromised radios can be remotely forced to send a GPS beacon. Their transmissions can be blocked and locked or completely zeroed out with over-the-air challenge technologies.



FLEXIBLE TECHNOLOGIES FOR MISSIONS ON THE MOVE

The RF-7850M Handheld Multiband Vehicular Radio and “Hot Jerk-and-Run” Handheld Power Adapter are ideal for combat net radio missions, ground-to-air, and company and below voice and data. Each is ruggedized to MIL-STD 810G, with communications secured through L3Harris Citadel® and AES encryption.



RF-7850M-HH

Multiband Networking Handheld

The RF-7850M-HH combines the small-profile portability of a handheld with the power and long-range performance of a manpack. When used with the optional 50 watt “Jerk-and-Run” Amplifier, the RF-7850M-HH plays a key role at the mid-tier level in tactical networks.

- > Exceptional performance in a low-profile, 1.1 kg handheld
- > 5-meter immersible dive mode supports safe underwater operations
- > 10 watts output power with continuous coverage from 30 to 512 MHz



RF-7850M-V51X

Multiband Networking Vehicular Radio

The RF-7850M-V51X is engineered for space-constrained platforms requiring increased power for high-speed, long-range tactical communications.

- > Easy to install, low-SWaP solution
- > Advanced RF and co-site performance
- > 50 watts output power VHF and SATCOM, 20 watts UHF



RF-7850M-V50X

Wideband Handheld Power Amplifier

The RF-7850M-V50X enhances narrowband range and link reliability for the RF-7850M Handheld. Designed for vehicular or base station use, the power amplifier supports simultaneous radio operation and battery charging.

- > Uninterrupted radio operation with “hot jerk-and-run” feature
- > Support for L3Harris RF-7800I Tactical Networking Intercom System
- > 50 watts output power VHF and SATCOM, 20 watts UHF



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RF-7850M Family Brochure

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