L3HARRIS FALCON III®
RF-7800M-MP

Portable Ad-Hoc Networking

The L3Harris RF-7800M-MP employs next-generation ANW2®C and/or the M-TNW wideband waveform to seamlessly link dismounted soldiers with upper echelons through a self-forming, self-healing mobile ad-hoc network.

Leveraging wideband and narrowband interoperability, the radio covers the 30 MHz to 2 GHz range with 20 watts of transmit power, and is capable of fixed-site, vehicular and man-portable battery operation.

TALON CUID and HAVEQUICK waveforms are also available for reliable ground-to-air communications and interoperability with fielded airborne platforms.

This battle-proven manpack stores and operates on multiple mission fill files so soldiers can switch waveforms or networks on the move. An embedded 12-channel GPS receiver enhances Situational Awareness with automatic friendly-force Position Location Information and provides hopping waveform Time-of-Day synchronization.

The L3Harris Wideband Networking Manpack Radio is software defined, ensuring rapid upgrades to future waveforms and capabilities. Quicklook ECCM ensures communications in high-noise environments.

Key Benefits

- Mobile ad-hoc networking powered by ANW2C and/or M-TNW waveform
- Wideband and narrowband capable
- Interoperable with fielded airborne platforms
- Software defined with SCA v2.2.2 platform
- Communications secured through Acropolis™ II Type 3 encryption
L3Harris Falcon III® RF-7800M-MP Wideband Networking Manpack Radio
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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers’ mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

GENERAL

**Frequency Range**
30-2000 MHz
Narrowband: VHF 30-225 MHz
UHF: 225-512 MHz
SATCOM: RX 243-270 MHz and TX 292-318 MHz
Wideband: UHF/L-band: 225-2000 GHz

**Channel Spacing/Bandwidth**
Narrowband: 8.33 kHz, 12.5 kHz, 25 kHz
SATCOM: 25 kHz
Wideband: 500 kHz, 1.2 MHz, 2.5 MHz, 5 MHz
FM deviation: 5 kHz, 6.5 kHz, 8 kHz

**Net Presets**
99 system presets

**GPS**
Internal Commercial Jupiter JF2 GPS

**Management Tool**
Windows®-based Communications Planning Application (CPA)

**Frequency Tuning**
Front panel: 100 Hz
ASCII remote: 1 Hz
Highband: 5 kHz
ANW2C: 5 kHz

**Software Environment**
SCA v2.2.2 (compatible)

**MODES AND WAVEFORMS**

**Narrowband Waveforms**
AM/FM, VHF/UHF LOS, HAVEQUICK I/II (optional), Quicklook I/II, TALON (optional)

**Wideband Waveforms**
ANW2PC, ROVER III L-band receive (optional)

**UHF SATCOM Waveforms**
Satellite Time-Division Multiple Access Capability (STC) (optional)

**Voice and Data Modes**
Simplex or half duplex, CVSD, MELP, full duplex capable

**Transmission Modes**
AM, ASK, FM, FSK, PSK, GSMK

**PHYSICAL**

**Dimensions (no handles)**
7.4 W x 3.4 H x 8.8 D in (without battery)
(18.8 W x 8.5 H x 22.4 D cm)
7.4 W x 3.4 H x 13.5 D in (with battery)
(18.8 W x 8.5 H x 34.2 D cm)

**Volume**
155 in³ (without battery)
235 in³ (with battery)

**Weight**
7.9 lbs (3.58 kg) (without battery)

**Color**
34094 (green) per FED-STD-595B

**SHOCK AND VIBRATION**
MIL-STD-810G for tracked vehicles, wheeled vehicles, shipboard

**Immersion**
3.3 feet (1 meter) of water

**Temperature**
Operating: -40°F to +158°F (-40°C to +70°C)
Storage: -40°F to +185°F (-40°C to +85°C)

**EMI/RFI**
MIL-STD-461F

**INTERFACES**

**External Data**
USB, RNDIS, Ethernet, RS-232, RS-422

**Audio**
Standard 6-pin

**Antenna Port**
J5 LB: 50-ohm (TNC) J7 SAT: 50-ohm (BNC)
J8 HB: 50-ohm (N-type)

**Programming**
USB

**Function Knob**
OFF, CT, PT, LD, Z

**Remote Control**
USB, RS-232, Remote Keypad Display Unit (RKDU), Software Keypad Display Unit (SKDU)

See L3Harris Product Catalog for accessories.