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 Combat Net Radio missions, ground-to-air and Company and Below voice and data communications. When used with the optional 50 W Power Amplifier, the RF-7850M-HH plays a key role at the mid-tier level of any tactical network.

The RF-7850M-HH leverages the TDMA Networking Waveform 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.
### General

**RT Nomenclature**
RF-7850M-HH

**Frequency Range**
- Narrowband: 30 - 512 MHz
- Wideband: 225 - 512 MHz
  - AM: 108 - 512 MHz

**Channel Spacing/Bandwidth**
- AM: 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 GPS
Accepts external GPS input

**Management Tool**
Communications Programming Applications

**Software Environment**
Software Defined Radio

**RF Input/Output Impedance**
50 Ohms

### Power

**Power Input**
10-13 VDC

**Power Consumption**
35 watts

### Security

**Encryption**
1128 & 256 bit Harris proprietary Citadel®
AES 128 & 256
Customer Algorithm Modification

### Modes and Waveforms

**Voice and Data Modes**
- AM/FM Analog Voice
- FSK/ASK MELP Voice
- FSK/ASK CVSD Voice

**FSK/TCM Data**
- GMSK/QPSK Data*
- ECCM

**ECCM**
Quicklook 1A, 2, 3 and Quicklook-Wide*

**Narrowband Networking**
- TDMA Networking Waveform (TNW) 25K* and 75K*

**Wideband Networking**
- M-TNW*, ANW2®C (optional)

**Optional Waveforms**
- Export SPG GARS with Pavillon encryption
- Satellite Tactical Communications
- HAVEQUICK II

### Physical

**Dimensions**
2.94 W x 9.71 H x 2.43 D in
(7.5 W x 24.7 H 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)

**Shock and Vibration**
- MIL-STD-810G

**Humidity**
- MIL-STD 810G

**Sand/Dust/Salt Fog/Rain**
- MIL-STD 810G

**Immersion**
- 5 meters

### Interfaces

**Data**
- USB 2.0, USB RNDIS, Synchronous, and Ethernet

**Audio**
- Analog, fixed level, and Internet Protocol

**Antenna Port**
- 50 Ohm TNC

**Programming**
- Communications Programming Applications

**Remote Control**
- ASCII and Ethernet (Web API)

**Web UI**
- WEB UI

### 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

*Indicates RF-7850M-SW002 software option

See Harris Product Catalog for accessories

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**About Harris Corporation**

Harris Corporation is a leading technology innovator, solving customers’ toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world.

Learn more at [harris.com](http://harris.com)

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