The Harris RF-7800M-MP employs next-generation ANW2®C and/or 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.

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

- **Frequency Range**
  - Narrowband: VHF 30-225 MHz
  - UHF: 225-512 MHz
  - SATCOM: RX 243-270 MHz and TX 292-318 MHz
  - Wideband: UHF: 225-2000 GHz
- **Channel Spacing/Bandwidth**
  - Narrowband: 8.33 kHz, 12.5 kHz, 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)

### Transmitter

- **Power Output**
  - Narrowband: 10 W
  - SATCOM: 20 W
  - Wideband: 20 W peak/5 W average (max)
- **Antenna Outputs**
  - Narrowband: 30-512 MHz (J5)
  - SATCOM: 243-318 MHz (J7)
  - Wideband: 225-2000 GHz (J8)
- **Harmonic Suppression**
  - > 50 dBc
- **Frequency Stability**
  - 0.5 ppm

### Receiver

- **Sensitivity (for 10db SINAD)**
  - LOS FM: 30-152 MHz; -118 dBm
  - LOS AM: 30-512 MHz; -110 dBm with 70% modulation
  - TACSAT FM: 243-270 MHz; -120 dBm
- **Adjacent Channel Rejection**
  - > -40 dB
- **Squelch**
  - Noise, tone, digital (CDCSS, CTCSS), none

### Power

- **Power Input**
  - 19-34 VDC
- **Power Consumption**
  - 55W max
- **Battery Types**

### Security

- **Encryption**
  - Acropolis™ II
- **Encryption Modes**
  - Type 3 AES, Type 3 DES, Citadel® I / II
- **Key Fill Device Compatibility**
  - Windows-based Communications Planning Application (CPA)
- **Key Storage**
  - Up to 180
- **Modes**
  - USB

### Modes and Waveforms

- **Narrowband Waveforms**
  - AM/FM, VHF/UHF LOS, HAVEQUICK I / II (opt.), Quicklook I / II, TALON (opt.)
- **Wideband Waveforms**
  - ANW2C, ROVER III L-band receive (opt.)
- **UHF SATCOM Waveforms**
  - Satellite Time-Division Multiple Access Capability (STC) (opt.)
- **Voice and Data Modes**
  - Simplex or half duplex, CVSD, MELP, full duplex capable
- **Transmission Modes**
  - AM, ASK, FM, FSK, PSK, GMSK

### 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

### Environmental

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

### 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 Harris Product Catalog for accessories