SCALABLE, HIGH-DATA RATE NETWORKING ON THE MOVE

KEY BENEFITS

High-data throughput for up-to-the-moment Situational Awareness

Jamming-resistant with low probability of communications detection and interception

Rapidly scales from small to large MANET networks

Open-architecture for easy integration with COTS equipment

Wideband and narrowband modes for optimum access to RF spectrum

HARRIS RF-7880NR
ENHANCED HIGH-CAPACITY DATA RADIO (ENHCDR)

The Harris RF-7880NR is the most advanced Mobile Ad-hoc Networking (MANET) radio in service today. This in-vehicle solution combines high-capacity radio capabilities with latest mobile LTE technology to deliver an eight-fold increase in user data throughput. It’s equipped with self-managing network connectivity, requiring little user intervention during rapidly changing scenarios.

Ruggedized for robust and reliable performance in the most demanding environments, the Harris RF-7880NR features open-standard interfaces for ease of integration with existing Commercial Off-The-Shelf (COTS) equipment. Communications are secured through embedded AES encryption and additional technologies to prevent jamming and channel blocking attempts by hostile forces.

The RF-7880NR quickly scales from small to large mobile networks with up to 240 nodes, automatically adjusting to maximize real-time sharing of Situational Awareness up and down echelon. The radio is also equipped with wideband and narrowband modes, giving networked forces a broader spectrum for mission-critical communications.
### GENERAL
- **Nomenclature**: RF-7880NR
- **Frequency Range**: 225 – 450 MHz
- **Channel Spacing/Bandwidth**: Wideband 625 kHz spacing – 4 MHz channel, Narrowband 125 kHz spacing – 660 kHz channel
- **Net Presets**: 4
- **GPS**: Accepts external GPS input
- **Key Management System**: HCM5/CMMS
- **Frequency Tuning**: Phase locked loop
- **Software Environment**: Proprietary
- **Frequency Stability**: +/- 0.5 ppm

### TRANSMITTER
- **Power Output**: Adaptive up to 20 W
- **Harmonic Suppression**: -67 dBC
- **Spurious Suppression**: -80 dBC (+/-5% of carrier frequency)
- **Audio Output**: Not applicable

### RECEIVER
- **Sensitivity**: -101 dBm
- **Adjacent Channel Rejection**: -29 dBm @ +/- 4 MHz
- **Squelch**: Not applicable
- **Noise Floor (NF)**: -166 dBmHz
- **Audio Input**: Not applicable
- **IF Rejection**: 107 dB
- **Image Rejection**: 107 dB
- **AGC**: -105 dBm to -2 dBm

### PHYSICAL
- **Power Output**: Adaptive up to 20 W
- **Harmonic Suppression**: -67 dBC
- **Spurious Suppression**: -80 dBC (+/-5% of carrier frequency)

### ENVIRONMENTAL (MIL-STD-810)
- **Temperature**: Storage: -67° F to +160° F (-55° C to +71° C), Operational: -13° F to +160° F (-25° C to +71° C)
- **Shock and Vibration**: Def Stan 00-35
- **Sand/Dust/Salt Fog/Rain**: Def Stan 00-35
- **Humidity**: Def Stan 00-35

### INTERFACES
- **Data**: IPv4, IPv6, OSPT, IGMP, SNMP
- **Audio**: None
- **Antenna Port**: N Type
- **Programming**: Dedicated software download port
- **Function Knob**: Yes
- **Remote Control**: Yes

### SECURITY
- **Encryption**: Embedded COMSEC (AES 256), Embedded TRANSEC

### MODES AND WAVEFORMS
- **Narrowband Waveforms**: 660 kHz
- **Wideband Waveforms**: 4 MHz
- **UHF SATCOM Waveforms**: No
- **Voice and Data Modes**: Data radio, Telephony

### SPECIFICATIONS FOR: HARRIS RF-7880NR ENHANCED HIGH-CAPACITY DATA RADIO (ENHCDR)

### OPTIONS
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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.

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