L3HARRIS RF-7880NR

Enhanced High-Capacity Data Radio (EnHCDR)

The L3Harris 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.

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.

Ruggedized for robust and reliable performance in the most demanding environments, the L3Harris 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.

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

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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	HCMS/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 dBm/Hz
Audio Input	Not applicable
IF Rejection	107 dB
Image Rejection	107 dB
AGC	-105 dBm to -2 dBm

POWER

Power Input	24-volt vehicle
Power Consumption	< 120 W for 40/40/20 Tx/Rx/Idle

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	VoIP

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

STANDARD KIT INCLUDES

92300100	RF-7880NR
F01000-00	Vehicle mount RF-7880NR
X01006	Power cable
Manuals	User manual

OPTIONAL ACCESSORIES

X14022	Antenna, UHF
X14023	Antenna base, UHF
043049	Mounting antenna, UHF
X12001	Elevation antenna, UHF

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FAST. FORWARD.

Non-Export Controlled Information

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.

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