

FALCON III® AN/PRC-160(V)

Wideband HF/VHF Tactical Radio System

The L3Harris Falcon III AN/PRC-160(V) is the smallest, lightest, fastest, High Assurance certified HF manpack available today. Engineered for advanced security and performance, the Wideband HF/VHF Tactical Radio System features industry-leading encryption, breakthrough data performance and interoperability with fielded Falcon II® and international HF radios, including the L3Harris AN/PRC-150(C) and RF-7800H manpack radios.



This SWaP-optimized manpack delivers continuous coverage from 1.5 to 60 MHz with a single battery while providing 20 watts HF and 10 watts VHF power. With its high-speed wideband waveform, the AN/PRC-160(V) transmits data in bandwidths from 3 kHz to 24 kHz (48 kHz capable). Data rates of up to 120 kbps are supported through technology that optimizes channel selection and adapts the selected channel to real-time conditions.

The NSA crypto modernization-compliant RT-2060(C)/U and RT-2061(C)/U, components of the AN/PRC-160(V)1 and AN/PRC-160(V)2, will protect the confidentiality of legacy and modern voice and data up to the U.S. TOP SECRET level with L3Harris Sierra™ II software programmable encryption.

This wideband manpack supports secure interoperability with Coalition and Partnership for Peace forces through modern algorithms, including the L3Harris proprietary Citadel® and AES encryption.

The AN/PRC-160 also offers current and legacy automatic link establishment (ALE) MIL-STD and NATO Standards, including 2G, 3G and 4G ALE, providing interoperability and ease of use with high performance and reliability. The embedded SAASM or commercial GPS receiver ensures accurate position location information for enhanced situational awareness.



ADVANCED SECURITY AND POWER IN A LIGHTWEIGHT MANPACK

KEY BENEFITS

- > World's first and only High Assurance HF manpack meeting NSA crypto-modernization requirements to include TSVCIS 3.1.1
- > Market-leading resilient waveform offerings
- > First 4G ALE wideband HF manpack
- > Data rates up to 10 times greater than previous generation radios
- > Secure interoperability among U.S., Coalition and Partnership for Peace forces
- > Supports immediate system upgrade, while utilizing existing legacy L3Harris HF accessories and mounting solutions
- > Smallest, lightest, fastest, High Assurance certified HF manpack available today
- > WebUI simplifies radio network management and user interface via Android and Windows end-user devices

GENERAL	
RT Nomenclature	RT-2060(C)/U part of AN/PRC-160(V)1 (SAASM GPS version) RT-2061(C)/U part of AN/PRC-160(V)2 (Commercial GPS version)
Frequency Range	1.5-59.999 MHz
Net Presets	99, fully programmable
RF Input/Output Impedance	50 ohm nominal, unbalanced
Frequency Hopping	Serial tone ECCM Falcon II interoperable
Automatic Link Establishment (ALE)	STANAG 4538, MIL-STD-461, MIL-STD-188-141D, 2G/3G/4G ALE compliant
Frequency Stability	$\pm 1 \times 10^{-6}$
Power Input	26 VDC (21.5-35 VDC)

TRANSMITTER	
Power Output	HF: 1, 5, 20 watts PEP, -1/+1 dB VHF: 1, 5, 10 watts FM
Audio Input	1.5 mV at 150 ohm or 0 dBm at 600 ohm for full rated output
Carrier Suppression	> 60 dB below PEP output (J3E mode)
Undesired Sideband Suppression	> 60 dB below PEP output
Antenna Tuning Capability	OE-505 10-foot (3 m) whip RF-1941 dipole, random wires, long wires
Vocoder	HF: LPC-10-52E (600/2400) MELP (600/1200/2400) VHF: CVSD

RECEIVER	
Sensitivity	SSB: -113 dBm (0.5 μ V) for 10 dB SINAD
Audio Output	12 mW at 1000 ohm to external handset
Squelch	Front panel adjustable, active squelch selectable
IF Rejection	> 80 dB
Image Rejection	> 80 dB (1st IF image)
AGC	Mode dependent, automatically selected
Intermodulation Distortion	-80 dB or better for two -30 dBm signals separated 30 kHz or more
Overload Protection	Receiver protected to 32 VRMS

SECURITY	
Encryption Modes	Supports legacy and modern algorithms, crypto modernization-compliant
Encrypted Data	HF: MIL-STD-188-110D App. D, App. C, and main body serial-tone waveforms, STANAG 4415, STANAG 4539 VHF: WBFsk (16 kbps)

PHYSICAL	
Dimensions	3.3H x 7.9W x 9.2D in (8.3H x 20W x 23.4D cm)
Weight	9.1 lbs (4.1 kg) without batteries
Color/Finish	CARC green

MODES AND WAVEFORMS	
Emission Modes	J3E (single sideband, upper or lower, suppressed carrier telephony) H3E (compatible AM single sideband plus full carrier) A1A, J2A (compatible CW), selectable; F3E (FM) and HF ECCM, STANAG 4444 based
Wideband HF Data	MIL-STD-188-110D Appendix D and Wideband HF Internet Protocol Data

ENVIRONMENTAL	
Shock and Vibration	MIL-STD-810H for ground tactical
Immersion	1 meter of water (3 ft)
Temperature	-40°F to +159°F (-40°C to +71°C)
Sand/Dust/Salt/Fog/Rain	MIL-STD-810G

INTERFACES	
Data Interfaces	USB and Ethernet with adapter, and synchronous
Networking	Narrowband and wideband HF IP, SNMP, Automatic Position Reporting (PLI)
GPS	Internal and External GPS Options (Commercial and SAASM)
Management Tool	Windows based Communications Planning Application (CPA) WebUI for network monitoring and management

INCLUDED ACCESSORIES	
Various PNs	Supporting manuals and reference guides
RF-3070-AT242	GPS antenna for AN/PRC-160(V)1
12006-0017-02	GPS antenna for AN/PRC-160(V)2
10372-0240-02	OE-505 manpack antenna kit
10372-1260-01	Antenna assembly adapter
10372-1270-01	Dismount dipole adapter
10075-1399	H-250/U lightweight handset (modified)
12043-4800-01	Battery box
10303-1008-01	Ground stake kit
12043-2850-A006	Cable assembly program/data (USB)
RF-6705	Tactical Chat IP

OPTIONAL ACCESSORIES	
Various PNs	Resilient waveform options
RF-5910-PS005	Falcon III battery eliminator
10553-0100-02	KDU remote control kit
12083-0707-A003	USB/Ethernet® adapter cable
RF-6706	Tactical Chat IP with ATAK proxy
RF-6760W	Wireless Message Terminal (WMT)

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