



# HARRIS FALCON III<sup>®</sup> AN/PRC-117G(V)1(C) MULTIBAND NETWORKING MANPACK RADIO

**ADVANCED  
MULTIBAND NETWORK  
PERFORMANCE**

## KEY BENEFITS

Expands mission effectiveness with wideband, SATCOM and legacy narrowband

30% smaller and 35% lighter than any similar manpack currently in field

MUOS-ready hardware

Industry's only radio with NINE Suite B encryption

Future-proof with SCA v2.2.2 compliance (no waivers)

Harris Sierra II encryption for secure voice and data up to TOP SECRET

The Harris AN/PRC-117G delivers breakthrough wideband data speed and legacy narrowband performance. Equipped with MUOS-ready hardware, this manpack is 30% smaller and 35% lighter than any other currently in field. The AN/PRC-117G is also the industry's first and only tactical radio with NINE Suite B encryption, allowing sovereign nations to securely interoperate with the U.S., NATO and regional tactical partners. This eliminates the time and expense of maintenance, training and logistical support for two separate radio systems.

Software defined, with a JTEL-certified Software Communications Architecture (SCA), the fully JTRS-compliant Multiband Networking Manpack supports in-field upgrades as new capabilities emerge. The AN/PRC-117G is MUOS-ready, extending critical communications Beyond-Line-Of-Sight (BLOS) with abilities for simultaneous SATCOM voice and data transmission. When paired with Harris RF-7800B Broadband Global Area Network terminals, the manpack delivers automatic

range extension of SATCOM BLOS communications along with Internet and remote private network access.

Situational awareness is enhanced with friendly force position locations delivered by an embedded SAASM GPS receiver. Voice and data are secure up to TOP SECRET through the Sierra™II encryption module, which also supports all JTRS COMSEC and TRANSEC requirements.

SPECIFICATIONS FOR: **HARRIS FALCON III® AN/PRC-117G(V)1(C) MULTIBAND NETWORKING MANPACK RADIO**

GENERAL	
<b>RT Nomenclature</b>	RT-1949x(P)(C)
<b>Frequency Range</b>	30-2000 MHz Narrowband: VHF: 30-225 MHz; UHF: 225-512 MHz Legacy SATCOM: RX: 243-270 MHz; TX: 292-318 MHz MUOS: Uplink: 300-320 MHz; Downlink: 360-380 MHz Wideband: UHF/L-BAND: 225-2000 GHz
<b>Channel Spacing/Bandwidth</b>	Narrowband: 8.33 kHz, 12.5 kHz, 25 kHz SATCOM: 5 kHz, 25 kHz Wideband: 500 kHz, 1.2 MHz, 2.5 MHz, 5 MHz FM deviation: 5 kHz, 6.5 kHz, 8 kHz
<b>Net Presets</b>	99 system presets
<b>Internal GPS</b>	SAASM receiver (commercial GPS optional)
<b>Management Tool</b>	Windows-based Communications Planning Application (CPA); JENM Compatible
<b>Frequency Tuning</b>	Front panel: 100 Hz ASCII remote: 1 Hz Highband: 5 kHz ANW2: 5 kHz
<b>Software Environment</b>	SCA v2.2.2 (JTEL Certified)
<b>Frequency Stability</b>	± 0.5 parts per million

TRANSMITTER	
<b>Power Output</b>	Narrowband: 10 W SATCOM: 20 W Wideband: 20 W peak/5 W average (max)
<b>Harmonic Suppression</b>	Greater than 50 dBc

RECEIVER	
<b>Sensitivity (for 10 db SINAD)</b>	LOS FM: 30-152 MHz; -118 dBm LOS AM: 90-512 MHz; -110 dBm with 70% modulation TACSAT: -120 dBm
<b>Adjacent Channel Rejection</b>	Greater than -40 dB
<b>Squelch</b>	Selectable tone, noise, digital (CDCSS, CTCSS), none

POWER	
<b>Power Input</b>	19-34 VDC
<b>Power Consumption</b>	≤2.5 amps at 24.5 VDC (≤60 W at 24.5 VDC)
<b>Battery Types</b>	BA-5590/U, BA-5390/U, BB-2590/U, BB-590/U, BB-390/U

**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).

SECURITY	
<b>Encryption</b>	Sierra II-based, Type 1 encryption for WB/NB NSA-certified TOP SECRET and below
<b>Encryption Modes</b>	KY-57 (VINSON), KYV-5 (ANDVT), KG-84C, FASCINATOR, TSVCS, HAIFE (PPK/FFV, APPK for NINE), AES (Type 1 & 3), Type 3 DES
<b>Key Fill Device Compatibility</b>	AN/CYZ-10 DTD, KOI-18, KYK-13, KYX-15, MX-18290, AN/PYQ-10 (SKL), KIK-11 (TKL), KIK-20, KVL-3000/4000
<b>Key Storage</b>	Up to 300
<b>Modes</b>	DS101, DS102, MODE 2/3, USB

MODES AND WAVEFORMS	
<b>Narrowband Waveforms</b>	AM/FM, VHF/UHF LOS, SINCGARS, HAVEQUICK III, SATURN (optional), APCO P25 (optional), P25 OTAR (optional)
<b>Wideband Waveforms</b>	SRW, ANW2°C, ROVER III L-BAND RECEIVE (optional)
<b>UHF SATCOM Waveforms</b>	MIL-STD-188-181B dedicated channel MIL-STD-188-182A, 183A DAMA MIL-STD-188-181C, 183B IW Phase I HPW STC (optional) MUOS (optional)
<b>Voice and Data Modes</b>	Simplex or half duplex MIL-STD-188-113 CVSD STANAG 4198 LPC-10e STANAG 4591 MELPe Full duplex capable
<b>Transmission Modes</b>	AM, ASK, FM, FSK, PSK, CPM, GMSK

PHYSICAL	
<b>Dimensions (no handles)</b>	Without battery: 3.7 H x 7.4 W x 8.8 D in (9.3 H x 18.7 W x 22.3 D cm) With battery: 3.7 H x 7.4 W x 8.8 D in (9.3 H x 18.7 W x 34.3 D cm)
<b>Volume</b>	Without battery: 155 in <sup>3</sup> (2540 cm <sup>3</sup> ) With battery: 235 in <sup>3</sup> (3850 cm <sup>3</sup> )
<b>Weight</b>	Without battery: 8.2 lbs (3.72 kg) With battery: 12 lbs (5.44 kg)
<b>Color</b>	CARC Green 383

ENVIRONMENTAL	
<b>Shock and Vibration</b>	MIL-STD-810G for tracked and wheeled vehicles
<b>Immersion</b>	1 meter (3.3 ft) of water
<b>Temperature</b>	Operating: -40° C to +70° C Storage: -40° C to +85° C
<b>EMI/RFI</b>	MIL-STD-461F
<b>Sand/Dust/Salt/Fog/Rain</b>	MIL-STD-810F

INTERFACES	
<b>External Data</b>	USB, RNDIS, Ethernet, RS-232, RS-422
<b>Audio</b>	Standard 6-pin
<b>Antenna Port</b>	J5 low band 30-512 MHz, 50-Ohm (TNC) J8 high band 225-2000 GHz, 50-Ohm (N-type) J7 SATCOM 243-320 MHz, 50-Ohm (BNC)
<b>Programming</b>	USB
<b>Function Knob</b>	OFF, CT, PT, LD, Z
<b>Remote Control</b>	USB, RS-232, Remote Keypad Display Unit, Software Keypad Display Unit

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