

FALCON III® AN/PRC-117G(V)1(C)

Multiband Networking Manpack Radio

The L3Harris 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 the 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 associated with maintaining, training on and supporting 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 simultaneous SATCOM voice and data.

When paired with L3Harris RF-7800B Broadband Global Area Network terminals, the manpack delivers automatic SATCOM BLOS range extension along with internet and remote private network access.

The Multiband Networking Manpack features the Second Generation Anti-Jam UHF Radio for NATO (SATURN) waveform, which is the most up-to-date ground-to-air technology for avoiding enemy interference. Voice and data are secure up to TOP SECRET through the Sierra™ II encryption module, which also supports all JTRS COMSEC and TRANSEC requirements.



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
- > SATURN waveform protects communications against enemy interference
- > Future-proof with SCA v2.2.2 compliance (no waivers)
- > L3Harris Sierra II encryption for secure voice and data up to TOP SECRET
- > Embedded SAASM GPS receiver enhances Situational Awareness through Friendly Force Position Location Information

GENERAL	
RT Nomenclature	RT-1949x(P)(C)
Frequency Range	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 MHz
Channel Spacing/Bandwidth	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
Net Presets	99 system presets
Internal GPS	SAASM receiver (commercial GPS optional)
Management Tool	Windows-based Communications Planning Application (CPA); JENM Compatible, ATOM Compatible
Frequency Tuning	Front panel: 100 Hz ASCII remote: 1 Hz Highband: 5 kHz ANW2: 5 kHz
Software Environment	SCA v2.2.2 (JTEL Certified)
Frequency Stability	± 0.5 parts per million

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

POWER	
Power Input	21-34.4 VDC Full Specifications 18-21 VDC Reduced Specifications
Power Consumption	Primary Battery ≤ 2.5A at 26.0 VDC 54.6 W max (≤ 3.0A at 26.0 VDC 65 W max) Rechargeable battery/vehicular power 65 W max
Battery Types	BA-5590/U, BA-5390/U, BB-2590/U, BB-590/U, BB-390/U

SECURITY	
Encryption	Sierra II-based, Type 1 encryption for WB/NB NSA-certified Top Secret and below
Encryption Modes	KY-57 (VINSON), KYV-5 (ANDVT), KG-84C, FASCINATOR, TSV-A, TSV-B, TTAM, HAIPE (PPK/FFV, APPK for NINE), AES (Type 1 & 3), Type 3 DES
Key Fill Device Compatibility	AN/CYZ-10 DTD, KOI-18, KYK-13, KYX-15, MX-18290, AN/PYQ-10 (SKL), KIK-11 (TKL), KIK-20, KVL-3000/4000

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

MODES AND WAVEFORMS	
Narrowband Waveforms	AM/FM, VHF/UHF LOS, SINCGARS, HAVEQUICK I/II, SATURN ED4 (optional), APCO P25 (optional), P25 OTAR (optional)
Wideband Waveforms	SRW, ANW2®C, ROVER III L-Band Receive (optional)
UHF SATCOM Waveforms	MIL-STD-188-181B dedicated channel MIL-STD-188-182A, 183A DAMA MIL-STD-188-181C, 183B IW Phase I HPW/IP STC (optional) MUOS (optional)
Voice and Data Modes	Simplex or half duplex MIL-STD-188-113 CVSD STANAG 4198 LPC-10e STANAG 4591 MELPe Full duplex capable
Transmission Modes	AM, ASK, FM, FSK, PSK, CPM, GMSK

PHYSICAL	
Dimensions	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 13.6 D in (9.3 H x 18.7 W x 34.3 D cm)
Volume	Without battery: 155 in³ (2540 cm³) With battery: 235 in³ (3850 cm³)
Weight	Without battery: 8.1(3.67 kg) With battery: 11 lbs (4.98 kg)
Color	CARC Green 383

ENVIRONMENTAL	
Shock and Vibration	MIL-STD-810G for tracked and wheeled vehicles
Immersion	1 meter (3.3 ft) of water
Temperature	Operating: -40°C to +70°C Storage: -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 low band 30-512 MHz, 50-ohm (TNC) J8 high band 225-2000 MHz, 50-ohm (N-type) J7 SATCOM 243-320 MHz, 50-ohm (BNC)
Programming	USB
Function Knob	OFF, CT, PT, LD, Z
Remote Control	USB, RS-232, Remote Keypad Display Unit, Software Keypad Display Unit/SNMP

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