

## **L3HARRIS 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 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 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<br>Narrowband: VHF: 30-225 MHz; UHF: 225-512 MHz<br>Legacy SATCOM: RX: 243-270 MHz; TX: 292-318 MHz<br>MUOS: Uplink: 300-320 MHz; Downlink: 360-380 MHz<br>Wideband: UHF/L-BAND: 225-2000 GHz |
| Channel Spacing/Bandwidth | Narrowband: 8.33 kHz, 12.5 kHz, 25 kHz<br>SATCOM: 5 kHz, 25 kHz<br>Wideband: 500 kHz, 1.2 MHz, 2.5 MHz, 5 MHz<br>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                                                                                                                                  |
| Frequency Tuning          | Front panel: 100 Hz<br>ASCII remote: 1 Hz<br>Highband: 5 kHz<br>ANW2: 5 kHz                                                                                                                               |
| Software Environment      | SCA v2.2.2 (JTEL Certified)                                                                                                                                                                               |
| Frequency Stability       | ± 0.5 parts per million                                                                                                                                                                                   |

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

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

| POWER             |                                                     |
|-------------------|-----------------------------------------------------|
| Power Input       | 19-34 VDC                                           |
| Power Consumption | ≤2.5 amps at 24.5 VDC (≤60 W at 24.5 VDC)           |
| 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<br>NSA-certified Top Secret and below                                       |
| Encryption Modes              | KY-57 (VINSON), KYV-5 (ANDVT), KG-84C, FASCINATOR, TSVICIS, 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                    |

| SECURITY    |                             |
|-------------|-----------------------------|
| Key Storage | Up to 300                   |
| Modes       | DS101, DS102, MODE 2/3, USB |

| MODES AND WAVEFORMS  |                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Narrowband Waveforms | AM/FM, VHF/UHF LOS, SINCGARS, HAVEQUICK I/II, SATURN (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<br>MIL-STD-188-182A, 183A DAMA<br>MIL-STD-188-181C, 183B IW Phase I<br>HPW/IP<br>STC (optional)<br>MUOS (optional) |
| Voice and Data Modes | Simplex or half duplex<br>MIL-STD-188-113 CVSD STANAG 4198 LPC-10e<br>STANAG 4591 MELPe<br>Full duplex capable                                        |
| Transmission Modes   | AM, ASK, FM, FSK, PSK, CPM, GMSK                                                                                                                      |

| PHYSICAL                |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions (no handles) | 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)<br>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) |
| Volume                  | Without battery: 155 in³ (2540 cm³)<br>With battery: 235 in³ (3850 cm³)                                                                       |
| Weight                  | Without battery: 8.2 lbs (3.72 kg)<br>With battery: 12 lbs (5.44 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<br>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)<br>J8 high band 225-2000 GHz, 50-Ohm (N-type)<br>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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