HAMR

L3Harris Airborne Multi-channel Radio

Compact and versatile, the L3Harris Airborne Multi-channel Radio (HAMR) brings powerful networking capabilities to the aerial tier.

The HAMR is a Software Defined Radio with a JTRS-approved, SCA-compliant architecture which can accommodate changing mission needs and emerging waveforms with simple software upgrades.

It is interoperable with all Falcon III radios, legacy VHF/UHF radio systems, UHF SATCOM waveforms, public safety radios, and Soldier Radio Waveform (SRW) systems. With its optimized SWaP, the L3Harris Multi-channel Airborne Radio readily adapts to mission needs, whether UAV or manned aircraft operations.

The HAMR has appropriate accessories to meet specific battlefield scenarios, including power amplifiers with LNAs and tunable cosite filters.

The HAMR repackages Falcon III® AN/PRC-152A radios into an avionics-ruggedized form factor, with two wideband channels and maximized interoperability for air-to-air and air-to-ground communications.

This airborne solution employs the industry-leading L3Harris Advanced Networking Wideband Waveform (ANW2®C) to deliver high-speed IP-networked data and Full Motion Video. It also features the familiar Falcon III tactical radio user interface for more intuitive operation.
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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**GENERAL**

**Frequency Range**
- 30 – 520 MHz, 762 – 870 MHz (narrowband)
- 225 – 450 MHz (wideband)
- L-band support with optional PA

**Channel Spacing/Bandwidth**
- Narrowband: 8.33 kHz, 12.5 kHz, 25 kHz
- SATCOM: 5 kHz, 25 kHz
- Wideband: 1.2 MHz
- FM Deviation: 5 kHz, 6.5 kHz, 8 kHz

**Net Presets**
- 99 fully programmable system presets

**External GPS Compatibility**
- PLGR, DAGR, NMEA

**Management Tool**
- Windows Communications Planning Application (CPA); JENM compatible

**Software Environment**
- SCA v2.2.2 (JTEL Certified); SCA (compatible)

**Frequency Stability**
- 1x10^-6 (drift ±0.5 ppm over one year)

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**TRANSMITTER**

**Power Output**
- 250 mW to 5 W, 5 W SATCOM

**Harmonic Suppression**
- 40 dB

**Audio Input**
- Intercom or handset/headset

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**RECEIVER**

**Sensitivity**
- LOS FM: 30 – 512 MHz; -116 dBm @ 12 dB SINAD
- LOS AM: 90 – 512 MHz; -103.5 dBm @ 10 dB SINAD with 30% modulation

**Squelch**
- Selectable tone, noise, digital (C_DCSS, C_TCSS), none

**Audio Output**
- Intercom and handset/headphone outputs

**Adjacent Channel Rejection**
- ≥ -40 dB

**Overload Protection**
- +34 dBm w/ 50 Ohm source for up to 1 minute duration

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**POWER**

**Power Input**
- 28 VDC per MIL-STD-704

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**SECURITY**

**Encryption**
- Sierra™ II-based Type 1 Encryption (Suite A/B)
- NSA-certified Secret and Below

**Encryption Modes**
- KY-57, ANDVT/KYV-5, KG-84C, FED-STD-1023, AES5, KY-99, KGV-8 and HAIP

**Key Fill Device Compatibility**
- DS-101, DS-102, and Mode 2/3;
- SKL (AN/PYQ-10), DTD2000 (SDS, KJK-20),
- DTD (AN/CY2-10), KYX-15, KYX-13 KIK-11 (TK1)

**Key Storage**
- 25 keys per waveform and per crypto mode

**Modes**
- DS-101, DS-102, Mode 2/3, USB

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**MODES AND WAVEFORMS**

**UHF SATCOM Waveforms**
- MIL-STD-188-181B dedicated channel (standard)
- MIL-STD-188-182A, 183A DAMA (optional)
- High Performance Waveform (HPW) & HPW IP (optional)

**Voice and Data Modes**
- Simplex or Half-Duplex and Plain Text
- Analog Voice
- SINCGARS ECCM (30.0-87.975 MHz)
- HAVEQUICK ECCM (225.0-399.975 MHz)
- Wideband CT Digital Voice (16 kbps; CVSD; KY-57)
- Narrowband CT Digital Voice (2.4 kbps; LPC-30, ANDVT)
- MELP for Adaptive Networking
- Wideband Waveform (ANW2C)

**Transmission Modes**
- AM, ASK, FM, FSK, PSK, CPM, GMSK

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**PHYSICAL**

**Dimensions**
- 6.0 W x 6.2 H x 8.9 D in (15.24 W x 15.75 H x 22.61 D cm)

**Volume**
- 331.1 in³ (5425.76 cm³)

**Weight**
- 11 lb (176 oz); 5 kg

**Color**
- Black enamel (Color No. 37030, IAW FED-STD-595)

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**ENVIRONMENTAL**

**Shock and Vibration**
- Tailored MIL-STD-810G for fixed- and rotary-wing aircraft

**Temperature**
- Operating: -40°F to 131°F (-40°C to +55°C)
- Storage: -67°F to 185°F (-55°C to +85°C)

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**EMI/RFI**

**MIL-STD-461F (tailored)**

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**Environmental Report**
- Full environmental test report available upon request

**Salts Fog**
- MIL-STD-810G, Method 509.5

**Dripping Rain**
- MIL-STD-810G, Method 506.5, Procedure I, (DRIP)

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**INTERFACES**

**Data**
- USB, USB RNDIS host and device, Ethernet, RS-232

**Audio**
- Standard 6-Pin ADF

**Antenna Port**
- TNC

**Programming**
- USB or Ethernet

**Remote Control**
- USB, RS-232, Ethernet, Remote Keypad Display Unit (RKDU), Various software Keypad Display Units

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**STANDARD KIT INCLUDES**

**RF-HAMR-CD001**
- CPA for HAMR (includes HAMR User Manual)

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**OPTIONAL ACCESSORIES**

**2021734-101**
- Spare Hold Up Battery

**3237220-103**
- Cable Adapter Kit for Bench-top Programming