

L3HARRIS HAMR

Airborne Multi-channel Radio

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



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.

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 HAMR 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.



NEXT-GEN INTEROPERABILITY IN AIRBORNE NETWORKING

KEY BENEFITS

- > Dual radio channels in the same SWaP as a traditional single-channel narrowband radio
- > Features Falcon® technology with the most reliable SATCOM connectivity available today
- > Networked waveforms extend battlespace networks Beyond-Line-Of-Sight without consuming satellite bandwidth
- > Easily integrated into a wide variety of legacy and future platforms to support multiple missions, users and waveforms

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)

TRANSMITTER	
Power Output	250 mW to 5 W, 5 W SATCOM
Harmonic Suppression	40 dB
Audio Input	Intercom or handset/headset

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 (CDCSS, CTCSS), 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

POWER	
Power Input	28 VDC per MIL-STD-704

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, AES, KY-99, KGV-8 and HAIPE
Key Fill Device Compatibility	DS-101, DS-102, and Mode 2/3; SKL (AN/PYQ-10), DTD2000 (SDS, KIK-20), DTD (AN/CYZ-10), KYX-15, KYK-13 KIK-11 (TKL)
Key Storage	25 keys per waveform and per crypto mode
Modes	DS-101, DS-102, Mode 2/3, USB

MODES AND WAVEFORMS	
Narrowband Waveforms	AM/FM, VULOS, SINCGARS & HAVEQUICK I/II (standard); HPW, HPW IP, APCO P25 (optional)
Wideband Waveforms	ANW2 [®] C (optional), SRW (optional)

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-10, ANDVT) MELP for Adaptive Networking Wideband Waveform (ANW2C)
Transmission Modes	AM, ASK, FM, FSK, PSK, CPM, GMSK

PHYSICAL	
Dimensions	6.2 H x 6.0 W x 8.9 D in (15.75 H x 15.24 W x 22.61 D cm)
Volume	331.1 in ³ (5425.76 cm ³)
Weight	11 lb (176 oz); 5 kg
Color	Black enamel (Color No. 37030, IAW FED-STD-595)

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)
EMI/RFI	MIL-STD-461F (tailored)
Environmental Report	Full environmental test report available upon request
Salt Fog	MIL-STD-810G, Method 509.5.
Dripping Rain	MIL-STD-810G, Method 506.5, Procedure I, (DRIP)

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

STANDARD KIT INCLUDES	
RF-HAMR-CD001	CPA for HAMR (includes HAMR User Manual)

OPTIONAL ACCESSORIES	
2021734-101	Spare Hold Up Battery
12219-0360-01	Cable Adapter Kit for Bench-top Programming

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1025 W. NASA Boulevard
Melbourne, FL 32919