



assuredcommunications™

FALCON® II
RF-5800H-MP

High-Frequency
Manpack Radio



High-frequency. Communications at its best



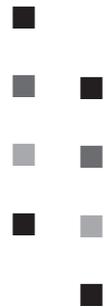
The RF-5800H-MP is the ultimate combination of leading edge performance and combat-proven reliability.

Harris Corporation's RF-5800H-MP FALCON® II manpack is the most advanced, upgradeable, user-friendly HF system we've ever built. No other digital HF manpack on the market can match its performance for communications reliability, range, security features, and mission life.

Leader of the Pack

The radio is the clear industry leader. It is the most advanced and integrated HF radio in the world. The RF-5800H includes Automatic Link Establishment (ALE), data rates up to 9600 bps with advanced error-free protocols, an embedded GPS receiver, MELP digital voice, Citadel® encryption, digital ECCM, and a built-in Internet Protocol (IP) interface. Where applicable, these capabilities conform to U.S. and NATO standards.

The RF-5800H, a member of Harris' FALCON® II family, is a third-generation software-defined radio. The radio platform contains the memory and processing power to accommodate new capabilities. Harris has developed and fielded numerous major features and waveforms since the initial deliveries of the product.





High-performance voice and data operations

A true digital radio, the RF-5800H-MP manpack outperforms conventional units in both voice and data operations. Covering the 1.6 to 60 MHz spectrum in 10 Hz steps, it goes beyond the standard HF band, making it a highly versatile HF-SSB/VHF-FM transceiver. The built-in multi-waveform modem and 600/2400 bps vocoder provide high data throughput and secure digital voice over the most challenging HF channels. The receiving radio automatically detects and processes the received waveform, whether it's voice or data. Multiple-tone excision filtering further enhances operation under high traffic and interference conditions. Embedded second and third generation of Automatic Repeat Request (ARQ) protocols are employed for error-free transmission of data.

Harris has been the industry leader in ALE technology for 15 years and the FALCON® II radios are the beneficiaries. The RF-5800H-MP includes MIL-STD-188-141B, Appendix A, and the new third-generation STANAG 4538. It is optimized for performance in tactical environments and provides faster and more robust linking under difficult channel conditions.

Advanced ECCM waveform

The FALCON® II HF radio incorporates a state-of-the-art digital ECCM waveform. Based on serial-tone modem technology, the advanced ECCM operation delivers both secure voice and data in the presence of jamming and high channel congestion. A 600 bps vocoder is used with digital encryption to extend communications range. Data rates of 75 to 2400 bps are supported in ECCM mode.

Automated time-of-day synchronization is accomplished using the accurate time standard from the embedded GPS receiver. Alternatively, broadcast and request/response synchronization protocols may be used in the absence of GPS coverage. Late-net-entry is accomplished using a hailing channel for reliable net reconstitution.

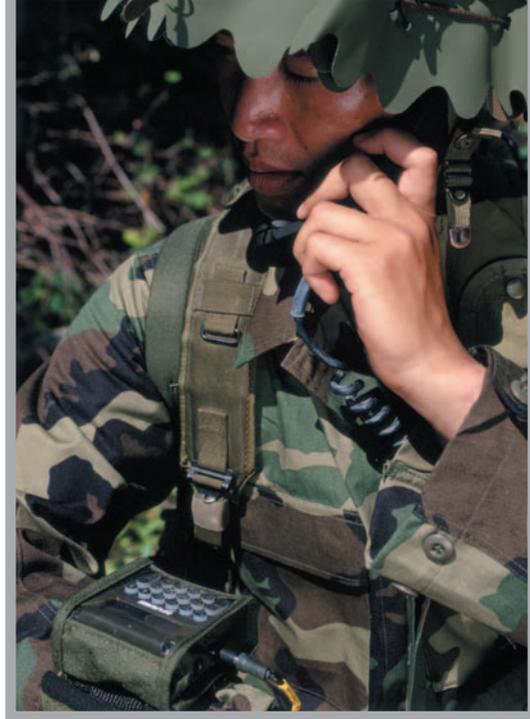
Extended mission life

Few things are more important to today's warfighter than mission life. Using advanced power management techniques, the unit is kept in a low-power standby mode whenever signal processing is not required. Advanced 3.3 volt components, custom ASICs, the latest power control techniques, and battery technology are combined to further extend the radio's mission time.

Every security advantage is built in

Our Citadel® encryption ASIC provides high-speed data encryption and customer-unique algorithms to ensure the highest level of security. The secure voice and data modes of the RF-5800H manpack are interoperable with the VHF and VHF/UHF Multiband FALCON® II radios operating in the 30-60 MHz frequency band.

In addition to encryption and ECCM capabilities, the RF-5800H-MP also includes link protection for second-generation (MIL-STD) ALE and third-generation (STANAG 4538) ALE.



Interoperability with other forces

The RF-5800H-MP includes a multitude of standardized waveforms to make it the most interoperable HF radio available. It includes modems, vocoders, and ALE protocols with link protection that conforms to NATO and U.S. military standards.

Networking makes a good thing *even better*

All FALCON[®] II radios are built upon a common digital platform with an integrated network controller, allowing the radios to provide communications for network-based applications such as situational awareness, mapping, messaging, and information management. The embedded encryption and the extensive use of standard Internet Protocols assure that tactical communications will be simple, seamless, and secure.

Superior support products

The Radio Programming Application (RPA) software is included with the radio to make the generation and downloading of configuration and set-up parameters easy. The RPA helps eliminate programming errors which may occur from manual data entry.

The RF-5800H-MP also includes "Tactical Chat." This Windows application provides instant messaging and file transfer using the third-generation data capabilities of the radio.

Harris offers a complete line of HF radio accessories, including power amplifiers, antennas and antenna tuners, power supplies, and remote controls. Email, imaging, and situational awareness software are also available.

Keep looking forward. We've got your back.

Strategy. Planning. Mission Execution. Defense forces can leave nothing to chance. And, neither does Harris. Our products are meticulously designed and field-tested to meet the most demanding requirements. When you buy Harris, you don't just buy a product. You buy a team. Our engineers, sales force, and customer support teams are second-to-none. For every move you make on the field, be assured that Harris is right behind you.

Constantly Redefining State of the Art



*The result of **20 years**
of tactical technology leadership and innovation*

Embedded Encryption

Citadel® encryption provides secure voice and data.

Programmable hardware platform

Supports high-performance waveforms today and tomorrow.

Advanced ECCM waveforms

Serial-tone frequency hopping greatly improves communications reliability in a jammed environment.

High-speed data

The STANAG 4539 and MIL-STD-188-110B compliant, 9600 bps serial tone modem maximizes the throughput of messages, images, situational awareness, and other data.

Removable keypad display unit

Provides radio control for operations on the move.

Embedded GPS receiver

An embedded GPS receiver delivers accurate position reports and provides time synchronization for ECCM and ALE waveforms.

Intuitive Man-Machine Interface (MMI)

Programmable system presets for "one-button" operation.

Automatic antenna tuning

Internal tuning unit automatically matches a wide variety of whip, dipole, and long-wire antennas.

Automatic Link Establishment (ALE)

Advanced ALE simplifies HF operation by quickly and automatically selecting an acceptable channel.

Robust digital voice

Advanced MELP digital voice significantly improves secure communications range, reliability, and quality.



RF Communications

Government

Broadcast

Microwave



Communications solutions for today and beyond

Harris RF Communications Division is a leading supplier of secure voice and data communications products, systems, and networks to military, government, and commercial organizations worldwide.

Harris Corporation is an international communications technology company focused on providing *assured communications*[™] products, systems and services for government and commercial customers. The company's operating divisions serve markets for government communications, tactical radio, broadcast, and microwave systems. Harris provides systems and service to customers in more than 150 countries. Additional information about Harris Corporation is available at www.harris.com.