

**HARRIS®**

*assuredcommunications™*

***FALCON® II***  
***RF-5800V***  
***Very-High-Frequency***  
***Manportable Radios***



# Complete VHF. Combat Net Radios.



The RF-5800V VHF radios  
are the most advanced  
combat net radios available.



The FALCON® II family of software-based tactical radios provides an unmatched level of secure interoperability for today's digital battlefield. Based on a common platform, FALCON II radios deliver reliable, high-speed voice and data communications.

The FALCON II family spans the 1.6 to 512 MHz frequency range, supporting a wide variety of military tactical operations, including ground-to-ground, ground-to-air, and ground-to-satellite communications. With such an expansive frequency range, troops can actually reduce the number of radios required to execute a mission. Logistics and operator training are simplified with the common platform approach.

The RF-5800V-MP VHF Manpack and RF-5800V-HH VHF Handheld are the FALCON II family's combat net radios (CNR). From traditional voice to advanced tactical networking, the Harris VHF combat radios meet the most demanding requirements.

## VHF Manpack

Harris' RF-5800V-MP VHF Manpack radio is the most advanced digital CNR available on the market today. Its advanced 64 kbps data capability easily handles the warfighter's changing needs on today's battlefield. The radio's built-in voice and data networking capability allows situational awareness and other Internet Protocol (IP)-based applications to run in the background of normal voice traffic.

The RF-5800V Manpack radio delivers information using fixed-frequency and ECCM techniques using the Harris Quicklook frequency-hopping algorithms. The Quicklook modes provide frequency hopping rates that are the highest in the industry.

The optional Citadel® encryption secures the communications information and includes options for country- or user-unique algorithms. An embedded GPS receiver is also available to provide local position information. The RF-5800V allows position reports to be automatically exchanged with other net members — providing an accurate picture of the battlefield.



## Additional Features

- 64-kbps modem
- 10-watt output to extend range
- 30 to 108 MHz extended frequency range
- Secure-channel scanning
- Compact and lightweight
- Removable Keypad/Display Unit
- Uses standard military batteries
- Quicklook 2 frequency hopping
- Automatic position reporting with built-in GPS option
- Wireless cloning

## VHF Handheld

When a more compact radio is needed, Harris offers the VHF Handheld. The RF-5800V-HH is the smallest and lightest digital CNR available. The RF-5800V-HH uses a high-capacity, rechargeable lithium ion battery with a quick-twist mount for easy connect and disconnect. Under typical operating conditions, a single battery provides more than 18 hours of mission life.

The Handheld has full CNR capabilities: frequency hopping (Quicklook 1A), secure digital voice and data (16 kbps), and high-output power (5 watts). The wireless cloning feature, allows radio configuration parameters to be transferred from handheld to handheld as well as from handheld to manpack or vehicular station. Software upgrades allow features to be added with ease.

## Additional Features

- Automatic whisper operation
- Secure-channel scanning
- Built-in speaker/microphone
- 50-watt base station/vehicular adapter (provides jerk-and-run operation)



## VHF Power Amplifier

Adding the VHF RF-5800V-PA Power Amplifier to a RF-5800V-MP VHF Manpack or RF-5800V-HH VHF Handheld radio converts the radio into a vehicular or base station configuration, increasing range and link reliability. The Power Amplifier includes an audio interface for an external speaker and an Ethernet interface for connection to Local Area Networks.

The RF-5800V-PA covers the 30 to 108 MHz frequency band and supplies a full 50 watts of forward power, even under demanding operational conditions. The unit contains frequency-agile RF filters to provide excellent collocation performance in both fixed-frequency and frequency-hopping modes.

RF-5800V 50-watt systems are designed for easy installation in tactical vehicles or fixed sites. They provide "jerk-and-run" operation, allowing the RF-5800V Manpack or Handheld to be quickly removed and configured for dismounted use.

## Tactical Networking

### Transparent IP

The Harris tactical networking system provides a transparent IP interface to the outside world. IP has gained worldwide acceptance as the standard network connection in commercial systems and provides many advantages to military users of the FALCON II radios including:

- Seamless extensions of existing Local and Wide Area Networks (LANs, WANs) to the tactical CNR network. The RF-6010 Network Access Hub provides a direct interface to other telecommunications and data networks.
- Use of commercial-off-the-shelf (COTS) applications such as e-mail, web, database browsers, or file exchange. It also provides a direct interface to customized IP-based applications providing command and control tactical messaging, situational awareness and fire-control systems capabilities.
- Elimination of expensive, single-source computer terminals, interface boxes, and cables.

### Voice, Data, and IP Packets on a Single Net

The Harris tactical networking system is the first to provide integrated management of voice, data terminal equipment (DTE) data support, and IP-packet traffic over a single network:

- Conventional all-informed-net and digital-selective call voice is supported.
- Streamed data is supported through the radio's front panel DTE interface.
- Transparent IP packet transfer is supported through both a front panel point-to-point protocol (PPP) interface as well as the Ethernet port available on the vehicular power amplifier.

Both voice and DTE data have transmission priority over IP-packet transmission. Whenever the radio is keyed from either the handset or DTE connector, the voice break-in feature automatically suspends and resumes IP traffic.

*Keep looking forward. We've got your back.*

Strategy. Planning. Mission Execution. Defense forces leave nothing to chance. And, neither does Harris. Our uniquely designed radios are field tested and meet the most exacting combat requirements. When you buy Harris radios, you don't just buy a product. You buy a team. Our engineers, sales force, and customer support team is second-to-none.

For every move you make on the field, Harris is right behind you.

# Be Secure in Your Decision



## Encryption

Harris embeds its Citadel® encryption module into the FALCON II radios to ensure you receive the highest military-grade encryption available to protect sensitive voice and data transmissions. Citadel's unique algorithm has been validated by an independent security agency, and the true 128-bit key length ensures message privacy. To meet specific customer needs, Harris offers optional customer-unique, Citadel-based algorithms.

## Frequency Hopping

Both Quicklook 1A and Quicklook 2 feature push-and-talk capabilities—just like fixed frequency. The radio operator is not required to perform additional synchronization actions.

- Harris Quicklook 1A frequency hopping
- Harris Quicklook 2 frequency hopping

## GPS

The radio's built-in optional position reporting system allows operators to send position information to other radios in the net without using a separate data terminal. Other operators can then display the position, distance, and bearing of each net member. The RF 5800V-MP maintains a list of positions of the other radios in the radio net and displays accurate position in a selectable grid or latitude/longitude format.

## Software Defined

As with all FALCON II radios, the RF-5800V is a software-defined radio that allows features to be added without changing any hardware. This extends the product life of your purchase, so you know you are getting a safe buy.

## Wireless Cloning

Harris' wireless cloning is the easiest way to fill a radio in the field because we've eliminated the cables. The wireless feature also allows one radio to fill multiple radios simultaneously so all radios for a specific mission can be configured very quickly.



## 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](http://www.harris.com).



RF Communications Division | 1680 University Avenue | Rochester, NY USA 14610 | Telephone 585-244-5830  
| [www.harris.com](http://www.harris.com) | 1-800-4-HARRIS ext. 3522