



Tactical Radio Products

RF-5800U-MP

FALCON® II

ADVANCED TACTICAL
RADIO SYSTEM

reliable ground-to-air

communications;

software reprogrammable;

Havequick I/II capability

The RF-5800U-MP is a member of the Falcon II family of multiband tactical radio systems. This advanced software programmable digital radio supports continuous operation across the **90 MHz to 420 MHz** frequency range. The RF-5800U-MP meets the need for both military and civilian ground-to-air communication in rugged, compact package.

Voice Communications are provided in a variety of formats and channel spacing to ensure interoperability with existing ground, air, air traffic control, and Land Mobile Radio (LMR) systems.

Built-In **Multimedia Data Communications** are fast and flexible. The standard 16 kilobit per second modem uses FSK or ASK modulation and is compatible with many older data communication systems. The optional high-speed modem supports rates up to 64 Kbps for added throughput and reduced on-air time.

Optional **Electronic Protection Measures (EPM)** protect communications from hostile interference using frequency hopping techniques. Multiple waveforms are supported, including Harris Quicklook 1A, HaveQuick I/II, and Rockwell Collins TALON™.

The Harris Citadel ASIC provides high-speed 128-bit **digital encryption** for both voice and data traffic. Customer-unique Citadel algorithms are available.

Local position information is provided via an optional **internal GPS** receiver. The internal GPS receiver (or an external PLGR compatible receiver) may be used to directly obtain HaveQuick Time-of-Day.

Falcon II radios are **easy to use**. The removable Keypad/Display Unit provides total control when on the move with a full function on-the-body remote control capability. The simple, menu-driven interface makes operation easy. Net presets simplify operation by combining operating mode, frequency, COMSEC/TRANSEC keys, and modem settings under one of 100 user-defined net names. Switching from a ground tactical VHF net to a UHF ground-to-air net is as simple as pressing a button. Radio-to-radio preset cloning makes deployment quick and mistake-free.

The RF-5800U-MP is **interoperable** with many standard radios, including AN/PRC-113 (functional replacement), URC-200, and many other standard radios.



New!

Ask about secure ground/air interoperation with Rockwell Collins airborne radios



Specifications for the RF-5800U-MP

General

Frequency Range	90 to 420 MHz
Net Presets	100, fully programmable
Frequency Stability	$\pm 1.0 \times 10^{-6}$
Channel Spacing	5, 6.25, 8.33, 12.5, 25 (kHz)
Emission Modes	FM Analog Voice, AM Voice ASK/FSK 16 kbps CVSD Voice ASK/FSK 16 kbps Data TCM 48 & 64 kbps data (option)
RF Input/Output	
Impedance	50 ohm nominal, unbalanced
Power Input	26 VDC (20.5 to 32 VDC)
Data Interface	Synchronous or asynchronous 75 bps – 115 kbps (RS-232C; MIL-188-114A; RS-422)
Dimensions	10.5W x 3.2H x 13.5D in, with batteries (26.7W x 8.1H x 34.3D cm)
Radio Weight	9.0 lb without batteries

Receiver

Sensitivity: FM	-116 dBm minimum for 10 dB SINAD
AM	-110 dBm for 70% modulation, 10 dB SINAD
Audio Output	12 mW at 1000 ohm to external handset
Squelch	Front panel adjustable, quieting or tone squelch selectable
Image Rejection	Greater than 60 dB
IF Rejection	Greater than 75 dB
AGC	Mode dependent, automatically selected

Transmitter

Max Power Output	VHF HIGH FM: 20 W VHF HIGH AM: 10 W Avg. UHF FM: 20 W UHF AM: 10 W Avg.
Audio Input	2.6 mV at 150 ohm or 0 dBm at 600 ohm for full rated output
Harmonic Suppression	Greater than 40 dBc
Local Oscillator	
Radiation	Less than -70 dBm
Spurious Outputs	-50 dBc typical (Greater than 200 kHz from Fc)

Environmental

Test Method	Per MIL-STD-810E
Vibration	Ground Tactical
Immersion	3 feet (1 meter)
Operating Temperature	-40°C to +70°C

Additional Features

Swept frequency beacon
8.33 kHz channel support
CTCSS/CDCSS tone support for LMR repeater interoperability
Radio-to-radio preset cloning
Multiband net scanning

Options

Digital Voice/ Data Encryption*	Citadel-Based Digital Encryption Option
GPS	Internal 12-Channel GPS Receiver
High Speed Modem	48 and 64 kbps modem option
EPM Modes*	Harris Quicklook 1A HaveQuick I/II TALON™
Remote Control	RF-5800R-RC001 Remote Control System RF-3045B Remote Control System - Audio

*Contact Harris for custom waveforms

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Specifications subject to change without notice.

