

**RF-5800U-VAU****FALCON™ II****VEHICLE RADIO****COMMUNICATIONS****SYSTEM***reliable ground-to-air**communications;**software reprogrammable*

The RF-5800U-VAU is a member of the Falcon® II family of multiband tactical radio systems. This advanced software reprogrammable digital radio system supports continuous operation across the 90 MHz to 420 MHz band with 50 Watt transmit power and includes shock mounts for vehicle installation. The RF-5800U-VAU meets the need for both military and civilian ground-to-air communication while providing interoperability with Land Mobile Radio (LMR) systems.

Voice communications are provided in 8.33 and 25 kHz channels to support the evolving air traffic control standards. Digital voice is supported at 16 kbps using CVSD for interoperability with ground-to-air systems and land mobile radio systems. Digital data is supported at rates of 16 kbps standard (up to 64 kbps).

Standard features of the RF-5800U-VAU include 100 programmable radio presets, full RS-232 remote control support, multiband scan, wireless radio-to-radio preset cloning, a swept frequency distress beacon (available on any channel), and CTCSS tone support for LMR repeaters.

Quicklook 1A and HAVEQUICK II ECCM are available as software options. When coupled with the optional internal GPS receiver, HAVEQUICK TOD can be obtained directly without costly external devices.

A low band VHF option (30 MHz to 90 MHz) is available, which includes 50 Watt transmit capability. Collocation options are available for low band VHF (30 MHz to 90 MHz) and UHF (225 MHz to 420 MHz).

The optional Harris CITADEL® based encryption provides high speed digital encryption for either voice or data traffic and can be customized as required.

The RF-5800U-VAU is interoperable with the URC-200, AN/PRC-113, and AN/PRC-117 radios.



## Specifications for the RF-5800U-VAU

### General

<b>Frequency Range</b>	90 to 420 MHz
<b>Net Presets</b>	100, fully programmable
<b>Frequency Stability</b>	$\pm 1.0 \times 10^{-6}$
<b>Channel Spacing</b>	5, 6.25, 8.33, 12.5, 25 (kHz)
<b>Emission Modes</b>	FM Analog Voice, AM Voice ASK/FSK 16 kbps CVSD Voice ASK/FSK 16 kbps Data TCM 48/64 kbps Data option
<b>RF Input/Output</b>	
<b>Impedance</b>	50 ohm nominal, unbalanced
<b>Power Input</b>	26 VDC (22 to 32 VDC)
<b>Data Interface</b>	Synchronous or asynchronous 75 bps – 115 kbps (RS-232C; MIL-188-114A; RS-422)
<b>Dimensions</b>	15W x 9.90H x 13.98D inch
<b>Radio Weight</b>	60 lb

### Receiver

<b>Sensitivity: FM</b>	-116 dBm minimum for 10 dB SINAD (LNA on) -110 dBm minimum for 10 dB SINAD (LNA off) -110 dB for 70% modulation, 10 dB SINAD (LNA on)
<b>AM</b>	-104 dBm for 70% modulation, 10 dB SINAD (LNA off)
<b>Audio Output</b>	12 mW at 1000 ohm to external handset
<b>Squelch</b>	Front panel adjustable, quieting or tone squelch selectable
<b>Image Rejection</b>	Greater than 60 dB
<b>IF Rejection</b>	Greater than 75 dB
<b>AGC</b>	Mode dependent, automatically selected

### Transmitter

<b>Maximum Power Output</b>	VHF HIGH FM: 50 W VHF HIGH AM: 50 W PEP UHF FM: 50 W UHF AM: 50 W PEP VHF LOW FM: 50 W (Option)
<b>Audio Input</b>	2.6 mV at 150 ohm or 0 dBm at 600 ohm for full rated output

<b>Harmonic Suppression</b>	Greater than 40 dBc
<b>Local Oscillator Radiation</b>	Less than -70 dBm
<b>Spurious Outputs</b>	-50 dBc typical (Greater than 200 kHz from Fc)

### Environmental

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

### RF-5800U-VAU

#### Features\*

Full 50 W FM output power  
Full 50 W AM PEP output power  
Swept frequency beacon  
8.33 kHz channel support  
CTCSS tone support for LMR repeater interoperability  
Radio-to-radio preset cloning

### RF-5800U-VAU

#### Options

<b>ECCM</b>	HAVEQUICK II
<b>Digital Voice/Data Encryption</b>	Citadel-Based Digital Encryption Option
<b>GPS</b>	Internal 12-Channel GPS Receiver Option
<b>VHF Low Band* Collocation Filtering*</b>	30 - 90 MHz operation VHF Low Band (30 - 90 MHz) (Optional) UHF Band (225 - 400 MHz) (Optional)

\*Factory Installed Option

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