



Tactical Radio Products

RF-5800V-PA

FALCON® II VHF

50 WATT

POWER AMPLIFIER

*high performance and
reliability for the most
demanding applications*

The RF-5800V-PA is a high performance VHF power amplifier for use in vehicle or base station radio systems. The power amplifier complements a Falcon II VHF manpack or handheld transceiver by supplying additional RF power for increased range and link reliability.

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

When used with the RF-5800V-HH, the power amplifier may be mounted up to 25 feet (7.5 m) away from the transceiver. This allows full control of the radio system from a location convenient to the operator. The handheld transceiver mount has a small footprint to maximize the operator's workspace.

The RF-5800V-PA provides "jerk and run" operation: the manpack or handheld transceiver can be quickly removed and used as a stand-alone radio. An audio speaker interface and an Ethernet interface for connection to Local Area Networks (when used with an RF-5800V-MP) are also included.

RF-5800V 50-watt systems support all modes and features of the Falcon II VHF radios, including fast frequency hopping and packet data mode. The radio systems are designed for easy installation in tactical vehicles or operation centers to provide secure voice services and complement information systems such as e-mail, situational awareness, image/video transmission, and file transfer.



Specifications for the RF-5800V-PA

General

Frequency Range	30 to 108 MHz
Power Input	20 to 32 VDC, MIL-1275 compliant
Dimensions	18 H x 24 W x 26 L cm (minimum) 18 H x 24 W x 35 L cm (maximum dimensions including shock tray)
Weight	7.5 kg
Finish	Flat green powder coat (per FED-STD-595B)
RF Interface Collocation	50 ohm nominal, unbalanced Multiple transceivers can operate in the same vehicle with 1.5 meter antenna separation and 9% frequency separation
Reliability	5000 hours MTBF
Maintainability	35 minutes MTTR (module level)

Receiver Performance

Sensitivity	-115 dBm @ 12 dB SINAD -110 dBm @ 12 dB SINAD with collocation filters enabled
Image Rejection	Greater than 80 dB
IF Rejection	Greater than 80 dB

Transmitter Performance

Power Output	50 Watts, user selectable to 10 watts or 1 watt
Power Output (Bypass)	Manpack: 10, 4 and 1 watts Handheld: 5, 2 and 0.25 watts
Spurious Suppression	Greater than 80 dBc
Harmonic Suppression	Greater than 50 dB

Environmental

Operating Temperature	-40° to +70°C
Relative Humidity	90% non-condensing @ 50°C per MIL-STD-810
Immersion	1 m per MIL-STD-810
Shock/Vibration	Functional per MIL-STD-810 (ground mobile wheel & tracked vehicle)
Sand & Dust	Per MIL-STD-810

Vehicle and Base Station Kits

Transceiver not included

RF-5800V-V201	Vehicular system (manpack)
RF-5800V-V221	Vehicular system (handheld)
RF-5800V-B201	Base station system (manpack)
RF-5800V-B221	Base station system (handheld)

Options

- DC power cable
- Handheld Remote Cable (up to 25 ft, 7.5 m)
- Fan Kit
- Shock isolator tray