

**RF-5833H-PA001 /  
RF-5833H-PA002  
150 WATT HF/VHF  
POWER AMPLIFIERS**

*solid-state design,  
modular construction, and  
conservatively rated  
components provide a  
high level of reliability in a  
“Jerk-and-Run” package*



The Harris 150-watt power amplifiers increase the output of their respective receiver-transmitters to 150 watts PEP/Average in the HF portion of the frequency range (1.6 to 29.99999 MHz) and 60 watts PEP/Average for the VHF portion (30 to 59.99999 MHz). The RF-5833H is used with the FALCON® II RF-5800H-MP and AN/PRC-150(C) radios.

The RF-5833H Power Amplifier operates in applications that require medium-power, medium-range communications. These include mobile, boat, or base station installations for general-purpose HF-SSB and VHF-FM voice and data communications.

Continuous coverage is provided over the 1.6 to 60 MHz range. Independent outputs are available for separate HF and VHF antenna configurations.

The power amplifier amplification section is a broadband design requiring no tuning or adjustment. When used with the RF-5382H and the RF-382A Series Antenna Couplers, the output of the power amplifier is automatically matched to the specified antenna and requires no special operator procedures.

Built-in self-test features permit operators or maintenance personnel to check the R/T and associated power amplifier performance down to the module level. Fault conditions are indicated on the radio's front-panel display.

Power output is adjustable via the transceiver front panel or remote control.

The RF-5833H-PA002 includes an embedded RF-5245 Pre/Postselector for collocated environments.

The robust design and construction of these power amplifiers guarantee continuous high performance and reliability in the most severe environments.



## Specifications for the RF-5833H-PA

### General

<b>Frequency Range</b>	1.600000 to 59.99999 MHz
<b>Modes of Operations</b>	J3E (single sideband, upper or lower, suppressed carrier telephony) H3E (compatible AM single sideband plus full carrier telephony) F3E (FM Telephone) A1A, J2A, selectable (compatible CW)
<b>RF Input/Output Impedance</b>	50 ohm nominal, unbalanced
<b>RF Output</b>	50 ohm nominal load impedance unbalanced HF connector: Type N VHF connector: Type BNC
<b>Power Input</b>	+28.0 VDC nominal, @20 Amps. maximum
<b>Temperature Range</b>	-40°C to +70°C
<b>Shock/Vibration</b>	MIL-STD-810E
<b>Leakage</b>	MIL-STD-810E (1 meter depth for PA without cooling fan)
<b>Humidity</b>	MIL-STD-810E (0 to 95%)
<b>Size</b>	RF-5833H-PA001: 10.4W x 15.5D x 6.6 inches (26.4W x 39.4D x 16.8H cm) RF-5833H-PA002: 12.8W x 15.5D x 6.6 inches (32.5W x 39.4D x 16.8H cm)
<b>Weight</b>	27 lbs (12 kg)
<b>Power Amplifier</b>	
<b>Power Output</b>	150 watts PEP/average into 50 ohm $\pm 1$ dB (1.6 MHz to 29.99999 MHz) 60 watts PEP/Average into 50 ohm (30.0 MHz to 59.99999)
<b>RF Drive Requirements</b>	Nominal 100 mW (+20 dBm)
<b>Intermodulation Distortion</b>	-25 dB from either tone of a two-tone envelope at 150 watts PEP
<b>Harmonic Output</b>	-45 dBc below 150 watt PEP

### Classification

<b>RF-5833H-PA001</b>	150-Watt Power Amplifier
<b>RF-5833H-PA002</b>	150-Watt Power Amplifier with embedded (25 dB) Pre/postselector

### Accessories

<b>RF-5245</b>	Pre/Postselector Option for the RF-5833H-PA001
<b>RF-5382H</b>	150-Watt Fast Tune Antenna Coupler
<b>RF-382A</b>	400-Watt Fast-Tune Antenna Coupler
<b>RF-5073VSM</b>	Vehicular Shock Mount
<b>RF-5833H-SK001</b>	Site Spares Kit for the RF-5833H-PA001
<b>RF-5833H-SK002</b>	Site Spares Kit for the RF-5833H-PA002
<b>RF-5051PS</b>	Power Supply
<b>SB-V</b>	Whip Antenna Series
<b>RF-398-02</b>	VHF Vehicular Antenna
<b>10497-0360-02</b>	Low Pass Filter Kit
<b>10497-0870-01</b>	Security Locking Kit
<b>10535-0720</b>	RF-5833H to RF-5800H/AN/PRC-150(C) Control Cable
<b>10181-9824</b>	RF-5833H to RF-5800H/AN/PRC-150(C) RF Coax Cable
<b>10181-9826</b>	RF-5833H to Vehicle DC Power Cable
<b>10497-5036-01</b>	RF-5833H to Audio Cable
<b>10181-9833</b>	RF-5833H to RF-5051PS for DC Power Cable

### Systems

<b>RF-5800H-V001</b>	150-Watt Vehicular Adapter
<b>RF-5800H-V002</b>	150-Watt Vehicular Adapter with Collocation Filter
<b>RF-5800H-B001</b>	150-Watt Base Station Adapter
<b>RF-5800H-B002</b>	150-Watt Base Station Adapter with Collocation Filter
<b>RF-5800H-TM001</b>	150-Watt Mini-Transit Case Adapter
<b>RF-5800H-TM002</b>	150-Watt Mini-Transit Case Adapter with Collocation Filter



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