



5300 Beethoven Street, Los Angeles, CA 90066
TEL: (310)306-5556 • FAX: (310)821-7413
WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

MODEL 5239

30 - 88 MHz

500 WATTS

LINEAR POWER RF AMPLIFIER

Solid State Band-specific High Power RF Amplifier

The XRF742 is a 500 Watt band-specific amplifier that covers the 30 – 88 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd order intercept point, high gain, and a wide dynamic range.

	Parameter	Specification @ 25° C
Electrical		
1	Frequency Range	30 – 88 MHz
2	Peak Output Power	500 Watts min
3	Small Signal Gain	+57 dB min
4	Small Signal Gain Flatness	± 1dB max
5	IP ₂ at 2 tones with < 200KHz spacing , each tone at 125W each	≥ +80 dBm avg
6	IP ₃ at 2 tones with < 200KHz spacing , each tone	≥ +66 dBm RMS
7	Input VSWR	2:1 max
8	Spurious Signals with no RF input	-20 dBm max
9	Input/Output Impedance	50 Ohms nominal
10	Gain adjustment via an internal VVA	20 dB min
11	Noise Figure	20 dB max at max gain setting
12	AC Input Power	2500 Watts max
13	AC Input	180 to 260V, single phase
14	Composite RF Input	0 dBm typical
15	RF Input Signal Format	Multi tone with 50W average power
16	Class of Operation	A/AB
17	Remote Control, Indications, Protection Interface	RS232, GPIB, Ethernet
18	Manual Control, Indications, Protection Interface	Front panel display and key pad
Mechanical		
19	Dimensions	19" x 8.75" x 26"
20	Weight	100 lb. max
21	RF, AC, and Interface	Rear configuration
22	Grounding	Chassis
23	Connectors	BNC female - RF in 7/16 DIN - RF out RJ45 - Ethernet DB9 - RS232 Standard GPIB - IEEE488 AC plug <i>Other Connector types available!</i>
24	Cooling	Internal Forced Air
Environmental		
25	Operating Temperature	-10° C to +40° C
26	Operating Humidity	95% Non-condensing
27	Operating Altitude	Up to 10,000' Above Sea Level
28	Shock and Vibration	Normal Truck Transport



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FRONT PANEL CONTROLLER FEATURES (*Optional*)

- ◇ Forward Power Monitoring
- ◇ Reflected Power Monitoring
- ◇ Gain Control (Continuously Variable VVA 20dB)
- ◇ Fault Status
- ◇ Full Protection Of any VSWR Condition, Open or Short, into any Phase Angle
- ◇ Remote Control Access via the Ethernet, RS-232, or IEEE-488 Communications ports
- ◇ Integrated Automatic Leveling Control to allow end-user to maintain output even with variances in temperature, phase or input RF level
- ◇ Standby/Enable Control
- ◇ Front Panel Display for easy viewing of System Status Locally
- ◇ Keypad buttons for full local control

CIRCUIT CONTROL (*WITH FRONT PANEL CONTROLLER*)

- ◇ Standby (amplifier disable)
- ◇ Gain/power setting with 20dB range
- ◇ VSWR protection Reset
- ◇ ALC On/ Off

CIRCUIT INDICATIONS (*WITH FRONT PANEL CONTROLLER*)

- ◇ Forward Power
- ◇ Reflected power
- ◇ VSWR Fault
- ◇ Temp Fault
- ◇ Gain Setting (VVA) percentage

CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage
- ◇ Open or Short VSWR Conditions (*With Front Panel Controller*)

RFPA SYSTEM OPTIONS

- ◇ Switched Filter Bank
- ◇ Input Power Requirements
- ◇ Ruggedized Version
- ◇ Cabinet Requirements
- ◇ Outdoor Version
- ◇ Sample Ports
- ◇ Racking Options
- ◇ Many More!
- ◇ **Consult Factory with Specific Requirements**

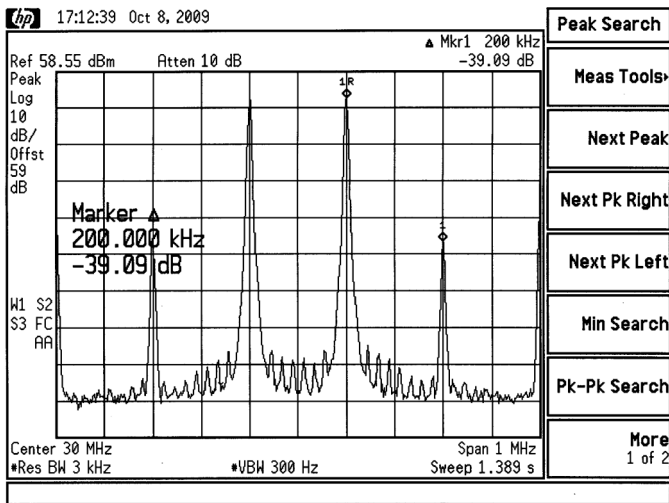




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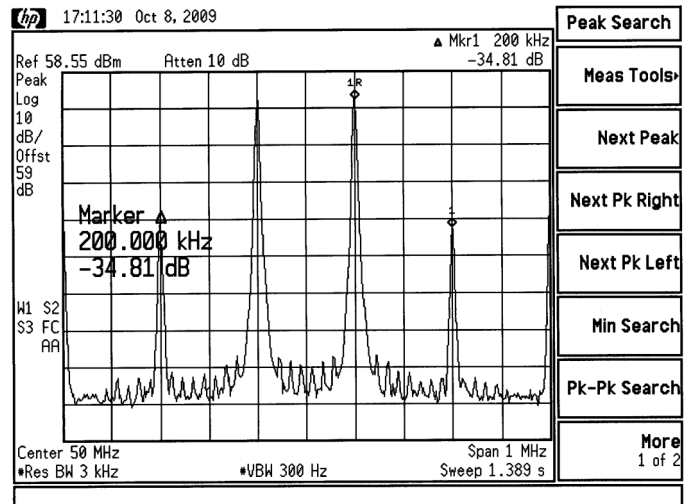
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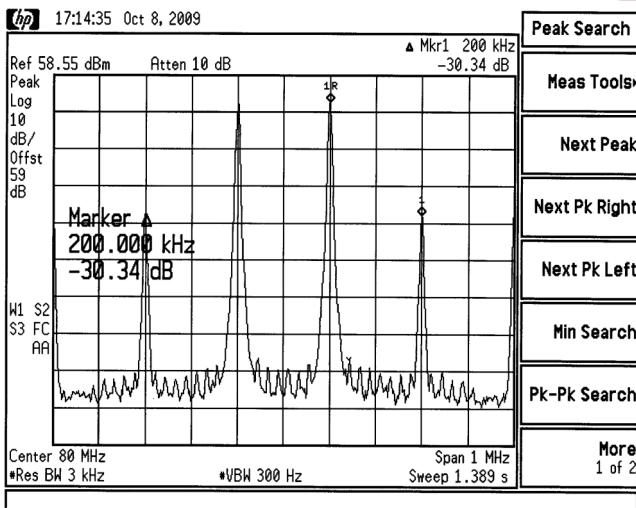
30MHz IP3

2-tone @ 51dBm out.
per tone.



50MHz IP3

2-tone @ 51dBm out
per tone



80MHz IP3

2-tone @ 51dBm out
per tone

