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## Solid State Broadband High Power RF Amplifier

The 5083-010 is a 250 Watt broadband amplifier that covers the 240-320 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3<sup>rd</sup> order intercept point, high gain, and a wide dynamic range.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> amplifiers, the 5083-010 comes with an extended multiyear warranty.

## MODEL 5083-010

240-320 MHz

250 WATTS

LINEAR POWER RF AMPLIFIER

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	240-320 MHz
2	Saturated Output Power	250 Watts min
3	Power Output @ 1dB Comp.	150 Watts min
4	Small Signal Gain	+54 dB min
5	Small Signal Gain Flatness	± 1.5 dB max
6	IP <sub>3</sub>	+57 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-20 dBc typical @ 150 Watts
9	Spurious Signals	< -60 dBc typical @ 150 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	800 Watts max
12	AC Input	100 – 240 VAC, single phase
13	RF Input	0 dBm max
14	RF Input Signal Format	CW/AM/FM/PM/Pulse
15	Class of Operation	AB
<b>Mechanical</b>		
16	Dimensions	19" x 5.25" x 20"
17	Weight	45 lb. max
18	Connectors	Type-N
19	Grounding	Chassis
20	Cooling	Internal Forced Air
<b>Environmental</b>		
21	Operating Temperature	0° C to +50° C
22	Operating Humidity	95% Non-condensing
23	Operating Altitude	Up to 10,000' Above Sea Level
24	Shock and Vibration	Normal Truck Transport

Specifications subject to change without notice.

## ORDERING MODELS

- ◊ RE - Rear RF Connector model with Front Panel Controller Ethernet, IEEE-488 and RS232
- ◊ FE - Front RF Connector model with Front Panel Controller Ethernet, IEEE-488 and RS232
- ◊ R - Rear RF Connector model
- ◊ F - Front RF Connector model



F Model Shown



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## MODEL 5083-009

240-320 MHz  
250 WATTS  
LINEAR POWER RF AMPLIFIER

### FRONT PANEL CONTROLLER FEATURES

- ◊ 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
- ◊ Manual Front Panel Gain Control
- ◊ **Consult Factory with Specific Requirements**

