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**MODEL 5089**  
**10 kHz - 200 MHz**  
**1000 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5089 is a 1000 Watt broadband amplifier that covers the 0.01-200 MHz frequency range. This amplifier utilizes Class 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 5089 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	0.01 – 200 MHz
2	Saturated Output Power	1000 Watts typical
3	Power Output @ 1dB Comp.	500 Watts min
4	Small Signal Gain	+61 dB min
5	Gain Flatness	± 4.0 dB min
6	IP <sub>3</sub>	+63 dBm min
7	Input VSWR	2:1 max
8	Harmonics	-15 dBc typical @ 500 Watts
9	Spurious Signals	-60 dBc typical @ 500 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	5000 Watts max
12	AC Input	186 – 264 VAC single phase
13	Nominal RF Input	0 dBm
14	RF Input Overdrive	+10 dBm max
15	RF Input Signal Format	CW/AM/FM/PM
16	Class of Operation	AB
<b>Mechanical</b>		
17	Dimensions* (W x H x D)	19" x 26.25" x 26" 3 5RU Chassis
18	Weight*	360 lb. max
19	RF Connectors	Type-N
20	Grounding	Chassis
21	Cooling	Internal Forced Air
<b>Environmental</b>		
22	Operating Temperature	0° C to +50° C
23	Operating Humidity	95% Non-condensing
24	Operating Altitude	Up to 10,000' Above Sea Level
25	Shock and Vibration	Normal Truck Transport

Specifications subject to change without notice



**FE MODEL SHOWN**

**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



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### **FRONT PANEL CONTROLLER FEATURES (Optional)**

- ◇ Forward Power Monitoring
- ◇ Reflected Power Monitoring
- ◇ Gain Control (20 dB dynamic range of adjustment)
- ◇ 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, 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**

