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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 3rd 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_{RF} amplifiers, the 5089 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.



| | Parameter | Specification @ 25° C |
|-----------------------------|--------------------------|-------------------------------------|
| <u>Electrical</u> | | |
| 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 ₃ | +63 dBm min |
| 7 | Input VSWR | 2:1 max |
| 8 | Harmonics | -20 dBc typical @ 500 Watts |
| 9 | Spurious Signals | -60 dBc typical @ 500 Watts |
| 10 | Input/Output Impedance | 50 Ohms nominal |
| 11 | AC Input Power | 5,000 Watts max |
| 12 | AC Input | 186 – 264 VAC single phase |
| 13 | Nominal RF Input | 0 dBm |
| 14 | RF Input Overdrive | +3 dBm max |
| 15 | RF Input Signal Format | CW/AM/FM/PM |
| 16 | Class of Operation | A/AB |
| <u>Mechanical</u> | | |
| 17 | Dimensions* (W x H x D) | 19" x 26.25" x 26" 3 5RU Chassis |
| 18 | Weight* | 360 lbs. max |
| 19 | RF Connectors | Type-N |
| 20 | Grounding | Chassis |
| 21 | Cooling | Internal Forced Air |
| <u>Environmental</u> | | |
| 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

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 (dBm or Watts)
- ◇ - Reflected Power Monitoring (dBm or Watts)
- ◇ - 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 PROTECTIONS

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

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

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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| ACCREDITED MANAGEMENT SYSTEMS CERTIFICATION BODY | Certified to ISO 9001:2015 | TÜVRheinland® Precisely Right. |
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