

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 5087-003

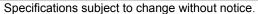
10 kHz - 200 MHz 250 WATTS LINEAR POWER RF AMPLIFIER

# Solid State Broadband High Power RF Amplifier

The 5087 is a 250-Watt amplifier broadband covers the 10 kHz - 200 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide 3<sup>rd</sup> an excellent 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 5087 comes with an extended multiyear warranty.

	<u>Parameter</u>	Specification @ 25° C
<u>Electrical</u>		
1	Frequency Range	0.01 – 200 MHz
2	Saturated Output Power	250 Watts typical
3	Power Output @ 1dB Comp.	175 Watts min
4	Small Signal Gain	+55 dB min
5	Power Gain Flatness	<u>+</u> 2.0 dB max
6	IP <sub>3</sub>	+60 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-15 dBc typical @ 175 Watts
9	Spurious Signals	< -60 dBc typical @ 175 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	2,000 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
16	External Interlock control*	9 Pin D-sub female connector (rear panel)
<u>Mechanical</u>		
17	Dimensions	19" x 8.75" x 20"
18	Weight	80 lb. max
19	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





**FE MODEL SHOWN** 

#### **ORDERING MODELS:**

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

#### **External interlock control:**

\*Pin **5** is GND, Pin **1** is the control line: If Pin 1 = open, RF is in the standby condition If Pin 1 = ground (closed to Pin 5), RF is enabled



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#### 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, 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



