

5300 Beethoven Street, Los Angeles, CA 90066 TEL: (310)306-5556 • FAX: (310)577-9887 WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

### **MODEL 5170**

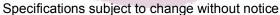
1.0 - 3.0 GHz 10 WATTS LINEAR POWER RF AMPLIFIER

## Solid State Broadband High Power RF Amplifier

The 5170 is a 10 Watt broadband amplifier that covers the 1.0 – 3.0 GHz 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 5170 comes with an extended multiyear warranty.

	<u>Parameter</u>	Specification @ 25° C		
Electrical				
1	Frequency Range	1.0– 3.0 GHz		
2	Saturated Output Power	10 Watts typical		
3	Power Output @ 1dB Comp.	7 Watts min		
4	Small Signal Gain	+38 dB min		
5	Small Signal Gain Flatness	<u>+</u> 1.5 dB max		
6	IP <sub>3</sub>	+48 dBm typical		
7	Input VSWR	2:1 max		
8	Harmonics	-20 dBc typical @ 7 Watts		
9	Spurious Signals	< -60 dBc typical @ 7 Watts		
10	Input/Output Impedance	50 Ohms nominal		
11	AC Input Power	200 Watts max		
12	AC Input	100 – 240 VAC, single phase		
13	RF Input	+10 dBm max		
14	RF Input Signal Format	CW/AM/FM/PM/Pulse		
15	Class of Operation	A/AB		
<u>Mechanical</u>				
16	Dimensions	19" x 5.25" x 20"		
17	Weight	43 lb. max		
18	Connectors	Type-N		
19	Grounding	Chassis		
20	Cooling	Internal Forced Air		
<u>Environmental</u>				
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		





**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**





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