5200 Beethoven Street, Los Angeles, CA 90066
TEL: (310)306-5556 • FAX: (310)821-7413
WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

# MODEL 5159

**1000-2500 MHz**
**2000 WATTS**
**LINEAR POWER RF AMPLIFIER**

## Solid State Broadband High Power RF Amplifier

The 5159 is a 2000 Watt broadband amplifier that covers the 1000-2500 MHz frequency range. This amplifier utilizes Class A 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 5159 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

| | Parameter | Specification @ 25º C |
|---|---|---|
| **Electrical** | | |
| 1 | Frequency Range | 1000-2500 MHz |
| 2 | Saturated Output Power | 2000 Watts Minimum |
| 3 | Power at P1dB | 1000 Watts Minimum |
| 4 | Small Signal Gain | +71 dB Minimum |
| 5 | Gain Flatness | ± 4.0 dB Maximum |
| 6 | $IP_3$ | +64 dBm typical |
| 7 | Input VSWR | 2:1 max |
| 8 | Harmonics | -15 dBc typical @ 1200 Watts |
| 9 | Spurious Signals | < -60 dBc typical @ 1200 Watts |
| 10 | Input/Output Impedance | 50 Ohms nominal |
| 11 | AC Input Power | 20,000 Watts Maximum<br>24,000 KVA Maximum |
| 12 | AC Input | 240 VAC, three phase 3Ø |
| 13 | RF Input | 0 dBm max |
| 14 | RF Input Signal Format | CW/AM/FM/PM/Pulse |
| 15 | Class of Operation | Class A |
| **Mechanical** | | |
| 16 | Dimensions (Each Cabinet)<br>Two Cabinets | 74" x 24" x 26"(H x W x D)<br>188 x 61 x 67 (H x W x D) cm |
| 17 | Weight (Each Cabinet) | 875 lb. max<br>397 Kg max |
| 18 | RF Connectors | Type-N Female Input<br>Type 7/16 Female Output |
| 19 | Grounding | Chassis |
| 20 | Cooling | Internal Forced Air |
| **Environmental** | | |
| 21 | Operating Temperature | 0º C to +50º 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

ANAB ACCREDITED
Certified to ISO 9001:2008
TÜVRheinland Precisely Right.

0811 Approved By: _____ Date: _____

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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, 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

◊ Standby (amplifier disable)
◊ Gain/power setting with 20dB range
◊ VSWR protection Reset
◊ ALC On/ Off

## CIRCUIT INDICATIONS

◊ 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


0811 Approved By: _____ Date: _____