



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 5165-004

**700-3800MHz**  
**250 WATTS**  
**LINEAR POWER RF AMPLIFIER**

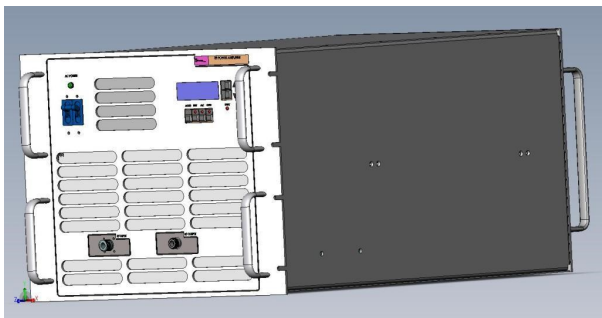
### Solid State Broadband High Power RF Amplifier

The 5165-004 is a 250 Watt broadband amplifier that covers the 700 -3800 MHz frequency range. This amplifier utilizes Class A 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 5165-004 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

|                             | Parameter                  | Specification @ 25° C                                               |
|-----------------------------|----------------------------|---------------------------------------------------------------------|
| <b><u>Electrical</u></b>    |                            |                                                                     |
| 1                           | Frequency Range            | 700-3800 MHz                                                        |
| 2                           | Saturated Output Power     | 250 Watts Minimum 0.7-3.2GHz<br>200 Watts Minimum 3.2-3.8GHz        |
| 4                           | Small Signal Gain          | +55 dB min                                                          |
| 5                           | Small Signal Gain Flatness | +/- 2.5 dB max with no ALC<br>+/- 1.0 dB max with internal leveling |
| 6                           | IP <sub>3</sub>            | +60 dBm Minimum                                                     |
| 7                           | Input VSWR                 | 2:1 max                                                             |
| 8                           | Harmonics                  | -20 dBc Maximum @ 200 Watts                                         |
| 9                           | Spurious Signals           | -60 dBc Maximum                                                     |
| 10                          | Noise Figure               | 10dB Maximum                                                        |
| 11                          | Input/Output Impedance     | 50 Ohms nominal                                                     |
| 12                          | AC Input Power             | 3000 Watts max                                                      |
| 13                          | AC Input                   | 180 – 264 VAC, single phase                                         |
| 14                          | RF Input                   | +10 dBm max                                                         |
| 15                          | RF Input Signal Format     | CW/AM/FM/PM/Pulse                                                   |
| 16                          | Class of Operation         | A/AB                                                                |
| <b><u>Mechanical</u></b>    |                            |                                                                     |
| 17                          | Dimensions                 | (7U) 19" x 12.25" x 26"                                             |
| 18                          | Weight                     | 150 lb. max                                                         |
| 19                          | Connectors                 | Type-N                                                              |
| 20                          | Grounding                  | Chassis                                                             |
| 21                          | Cooling                    | Internal Forced Air                                                 |
| <b><u>Environmental</u></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



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 5165-002

700-3800MHz

250 WATTS

LINEAR POWER RF AMPLIFIER

### 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 (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**



Certified to  
ISO 9001:2008



Precisely Right.