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 5006

**200 - 500 MHz**
**500 WATTS**
**LINEAR POWER RF AMPLIFIER**

## Solid State Broadband High Power RF Amplifier

The 5006 is a 500 Watt broadband amplifier that covers the 200 – 500 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 5006 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

| | Parameter | Specification @ 25º C |
|---|---|---|
| **Electrical** | | |
| 1 | Frequency Range | 200 – 500 MHz |
| 2 | Saturated Output Power | 500 Watts Minimum |
| 3 | Power at P1dB | 350 Watts Minimum |
| 4 | Small Signal Gain | +58 dB Minimum |
| 5 | Gain Flatness | ± 2.0 dB Maximum |
| 6 | $IP_3$ | +64 dBm typical |
| 7 | Input VSWR | 2:1 max |
| 8 | Harmonics | -20 dBc Min @ 350 Watts |
| 9 | Spurious Signals | < -60 dBc typical @ 350 Watts |
| 10 | Input/Output Impedance | 50 Ohms nominal |
| 11 | AC Input Power | 3,000 Watts Maximum |
| 12 | AC Input | 180 – 240 VAC, single phase, 47-63 Hz |
| 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 (3RU) | 19" x 5.25 x 26" |
| 17 | Weight | 71 Lbs. |
| 18 | Connectors | Type-N |
| 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*

**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 (dBm or Watts)
◊ Reflected Power Monitoring (dBm or Watts)
◊ Gain Control (20 dB dynamic range)
◊ 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 A steady RF output level 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 20 dB 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

Made in the U.S.A.

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