



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 4005

30 - 88 MHz

500 WATTS

LINEAR POWER RF AMPLIFIER

Solid State Band-specific High Power RF Amplifier

The 4005 is a 500 Watt band-specific amplifier that covers the 30 – 88 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB 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 4005 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

Specifications subject to
Change without notice

	Parameter	Specification @ 25° C
<u>Electrical</u>		
1	Frequency Range	30 – 88 MHz
2	Peak Output Power	500 Watts min
3	Small Signal Gain	+57 dB min
4	Small Signal Gain Flatness	± 1dB max
6	Input VSWR	2:1 max
7	Spurious Signals with no RF input	-20 dBm max
8	Input/Output Impedance	50 Ohms nominal
9	Gain adjustment via an internal VVA	20 dB min
10	AC Input Power	2500 Watts max
11	AC Input	180 to 260V, single phase
12	Composite RF Input	0 dBm typical
13	Class of Operation	A/AB
14	Remote Control, Indications, Protection Interface	RS232, GPIB, Ethernet
15	Manual Control, Indications, Protection Interface	Front panel display and key pad
<u>Mechanical</u>		
16	Dimensions	19" x 8.75" x 26"
17	Weight	130 lb. max
18	RF, AC, and Interface	Rear configuration
19	Grounding	Chassis
20	Connectors	Type N Female - RF in Type N Female - RF out RJ45 - Ethernet DB9 - RS232 Standard GPIB - IEEE488 AC plug
21	Cooling	Internal Forced Air
<u>Environmental</u>		
22	Operating Temperature	-10° C to +40° C
23	Operating Humidity	95% Non-condensing
24	Operating Altitude	Up to 10,000' Above Sea Level
25	Shock and Vibration	Normal Truck Transport

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

- ◇ 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)*



FE MODEL SHOWN