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**MODEL 4111**  
**2400 MHz**  
**500 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF  
 Amplifier**

The 4111 is a 500 Watt band specific amplifier that covers the 2400 MHz frequency range. This small and lightweight 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 Model 4111 comes with a five (5) year warranty backed by Ophir RF's commitment to total customer satisfaction.

	<u>Parameter</u>	<u>Specification @ 25° C</u>
<b><u>Electrical</u></b>		
1	Frequency Range	2400 ± 5% MHz
2	Saturated Output Power	500 Watts Minimum
3	Power out at 1dB compression	350 Watts Minimum
4	Small Signal Gain	+58 dB min
5	Power Flatness	+/- 2.5 dB max
6	IP <sub>3</sub>	+61 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-20 dBc typical @ 350W
9	Spurious Signals	< -60 dBc typical @ 350W
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	2,000 Watts Maximum
12	AC Input	180 – 240 VAC, single phase
13	RF Input	<b>0 dBm max</b>
14	RF Input Signal Format	CW/AM/FM/PM/Pulse
15	Class of Operation	Class A
<b><u>Mechanical</u></b>		
16	Dimensions	19" x 5.25" x 26"
17	Weight	60 Lbs.
18	RF Connectors	Type-N
19	Grounding	Chassis
20	Cooling	Internal Forced Air
<b><u>Environmental</u></b>		
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

*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 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 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 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**

