



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 4146
500-2500 MHz
400 WATTS
LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 4146 is a 400 Watt broadband amplifier that covers the 500-2500 MHz frequency range. This amplifier utilizes Class A/AB linear power devices that provide low harmonics, high gain, and excellent stability

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 4146 comes with an extended multi-year warranty backed by Ophir RF's commitment to total customer satisfaction.

	<u>Parameter</u>	<u>Specification @ 25° C</u>
<u>Electrical</u>		
1	Frequency Range	500-2500 MHz
2	Saturated Output Power	400 Watts Nominal
3	Power at P1dB	200 Watts Nominal
4	Small Signal Gain	+56 dB Minimum
5	Gain Flatness	± 3.5 dB Maximum
6	IP ₃	+59 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-20dBc Minimum @ 200 Watts
9	Spurious Signals	< -60dBc Nominal @ 200 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	3500 Watts Maximum
12	AC Input	180 – 240 VAC, single phase
13	RF Input	0 dBm max
14	RF Input Signal Format	CW/AM/FM/PM/Pulse
15	Class of Operation	Class A/AB
<u>Mechanical</u>		
16	Dimensions (5RU)	19" x 14.0" x 26"
17	Weight	165 lb. max
18	Connectors	Type-N RF Input Type 7/16 RF Output
19	Grounding	Chassis
20	Cooling	Internal Forced Air
<u>Environmental</u>		
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



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	<u>Parameter</u>
<u>Front Panel Controller</u>	
25	Forward Power Monitoring
26	Reflected Power Monitoring
27	Gain Control (25 dB dynamic range of adjustment)
28	Fault Status
29	Full Protection Of any VSWR Condition, Open or Short, any Phase.
30	Remote Control Access via the Ethernet, RS-232, or IEEE-488 Communications ports
31	Integrated Automatic Leveling Control to allow end-user to maintain output even with variances in temperature, or input RF level
32	Standby/Enable Control
33	Front Panel Display for easy viewing of System Status Locally
34	Keypad buttons for full local control
<u>Circuit Protections</u>	
35	Thermal Overload
36	Over Current
37	Over Voltage
38	Open or Short VSWR Conditions
<u>Circuit Control</u>	
39	Standby (amplifier disable)
40	Gain/power setting with 25dB range
41	VSWR protection Reset
42	ALC On/ Off
<u>Circuit Indications</u>	
43	Forward Power
44	Reflected power
45	VSWR Fault
46	Temp Fault
47	Gain Setting (VVA) percentage



0520 Approved By: _____ Date: _____



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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