



5200 Beethoven Street, Los Angeles, CA 90066

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MODEL 5228-004

80 - 1000 MHz

500 WATTS

LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 5228-004 is a very high power broadband amplifier that covers the 80 – 1000 MHz frequency range. This amplifier utilizes Class A linear power devices that provide an excellent 3rd order intercept point, high gain, a wide dynamic range, and an industry leading P1dB performance.

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 5228-004 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.



	Parameter	Specification @ 25° C
<u>Electrical</u>		
1	Frequency Range	80 – 1000 MHz
2	Power at P _{1dB}	500 Watts Minimum
3	Small Signal Gain	+63 dB Minimum
4	Gain Flatness	± 5.0 dB Maximum
5	IP ₃	+64 dBm typical
6	Input VSWR	2:1 max
7	Harmonics	-20 dBc min @ P _{1dB} Compression
8	Spurious Signals	< -50 dBc typical @ P _{1dB} Compression
9	Input/Output Impedance	50 Ohms nominal
10	AC Input Power	5,000 Watts Maximum
11	AC Input	200 – 240 VAC, single phase 47-63 Hz
12	RF Input	0 dBm max
13	RF Input Signal Format	CW/AM/FM/PM/Pulse
14	Class of Operation	Class A
<u>Mechanical</u>		
15	Dimensions	31" x 24" x 26" (H x W x D) 79 x 61 x 67 (H x W x D) cm
16	Weight	339 lbs / 154 Kg
17	RF Connectors	Type-N Female Input Type 7/16 Female Output
18	Grounding	Chassis
19	Cooling	Internal Forced Air
<u>Environmental</u>		
20	Operating Temperature Storage Temperature	0° C to +45° C -20° C to +85° C
21	Operating Humidity	95% Non-condensing
22	Operating Altitude	Up to 2000 m Above Sea Level
23	Shock and Vibration	Normal Truck Transport

Specifications subject to change without notice

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
- ◇ 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**

