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MODEL 5228-001

400 - 1000 MHz
1000 WATTS
LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 5228-001 is a 1000 Watt broadband amplifier that covers the 400 – 1000 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 5228-001 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 | 400 – 1000 MHz |
| 2 | Saturated Output Power | 1000 Watts Minimum |
| 3 | Power at P1dB | 630 Watts Minimum |
| 4 | Small Signal Gain | +68 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 @ 630 Watts |
| 9 | Spurious Signals | < -60 dBc typical @ 630 Watts |
| 10 | Input/Output Impedance | 50 Ohms nominal |
| 11 | AC Input Power | 10,000 Watts Maximum 12,000 KVA Maximum |
| 12 | AC Input | 240 VAC, three phase 3Ø |
| 13 | RF Input | 0 dBm max |
| 14 | RF Input Signal Format | CW/AM/FM/PM/Pulse |
| 15 | Class of Operation | Class A |
| <u>Mechanical</u> | | |
| 16 | Dimensions | 31" x 24" x 26" (H x W x D) 79 x 61 x 67 (H x W x D) cm |
| 17 | Weight | 275 lb. max 125 Kg max |
| 18 | RF Connectors | Type-N Female Input Type 7/16 Female 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

ORDERING MODELS

- ◇ RE - Rear RF Connector model with Ethernet, IEEE488 and RS232
- ◇ FE - Front RF Connector model with Ethernet, IEEE488 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)*

