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## **MODEL 5096**

1.35 - 1.85 GHz 150 WATTS

## Solid State Broadband High Power RF Amplifier

The 5096 is a 150 Watt broadband amplifier that covers the 1.35 - 1.85 GHz frequency range. This small lightweight amplifier and utilizes Class A/AB linear power devices that provide 3<sup>rd</sup> excellent an 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 5096 comes with an extended multiyear

|                      | <u>Parameter</u>           | Specification @ 25° C                            |
|----------------------|----------------------------|--|
| <u>Electrical</u>    |                            |  |
| 1                    | Frequency Range            | 1.35 – 1.85 GHz                                  |
| 2                    | Saturated Output Power     | 150 Watts typical                                |
| 3                    | Power Output @ 1dB Comp.   | 120 Watts min                                    |
| 4                    | Small Signal Gain          | +17 dB min                                       |
| 5                    | Small Signal Gain Flatness | <u>+</u> 1.5 dB max                              |
| 6                    | IP <sub>3</sub>            | +61 dBm typical                                  |
| 7                    | Input VSWR                 | 2:1 max  |
| 8                    | Harmonics                  | -20 dBc typical @ 120 Watts                      |
| 9                    | Spurious Signals           | > -60 dBc typical @ 120 Watts                    |
| 10                   | Input/Output Impedance     | 50 Ohms nominal                                  |
| 11                   | AC Input Power             | 1000 Watts max                                   |
| 12                   | AC Input                   | 100 – 240 VAC, single phase                      |
| 13                   | RF Input                   | +10 dBm max                                      |
| 14                   | RF Input Signal Format     | CW/AM/FM/PM/Pulse                                |
| 15                   | Class of Operation         | A/AB   |
| <u>Mechanical</u>    |                            |  |
| 16                   | Dimensions                 | 19" x 7.0" x 20"                                 |
| 17                   | Weight                     | 60 lb. max                                       |
| 18                   | Connectors                 | Type-N   |
| 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. |

## **CIRCUIT PROTECTIONS**

- ♦ Thermal Overload
- ♦ Infinite Load VSWR

## **ORDERING MODELS**

- ♦ R Rear Panel Connectors
- ♦ F Front Panel Connectors
- ♦ RE R model w/Control Option
- ♦ FE F model w/Control Option
- ♦ RT RE model w/Ethernet Interface
- ♦ FT FE model w/Ethernet Interface



**RE Model Shown**