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## **MODEL 5124R-900**

20 - 1000 MHz 20 WATTS LINEAR POWER RF AMPLIFIER

## Solid State Broadband High Power RF Amplifier

The 5124R-900 is a 20 Watt broadband amplifier that covers the 20 – 1000 MHz frequency range. This amplifier utilizes Class A/AB 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 5124R-900 comes with an extended multiyear warranty.

|                      | <u>Parameter</u>         | Specification @ 25° C         |  |
|----------------------|--------------------------|-------------------------------|--|
| Electrical           |                          |                               |  |
| 1                    | Frequency Range          | 20 – 1000 MHz                 |  |
| 2                    | Saturated Output Power   | 20 Watts typical              |  |
| 3                    | Power Output @ 1dB Comp. | 13 Watts min                  |  |
| 4                    | Small Signal Gain        | +44 dB min                    |  |
| 5                    | Gain Flatness            | <u>+</u> 1.5 dB max           |  |
| 6                    | IP <sub>3</sub>          | +47 dBm typical               |  |
| 7                    | Input VSWR               | 2:1 max                       |  |
| 8                    | Harmonics                | -20 dBc typical @ 10 Watts    |  |
| 9                    | Spurious Signals         | < -60 dBc typical @ 10 Watts  |  |
| 10                   | Input/Output Impedance   | 50 Ohms nominal               |  |
| 11                   | AC Input Power           | 300 Watts max                 |  |
| 12                   | AC Input                 | 100 – 240 VAC, single phase   |  |
| 13                   | RF Input                 | 0 dBm max                     |  |
| 14                   | RF Input Signal Format   | CW/AM/FM/PM/Pulse             |  |
| 15                   | Class of Operation       | AB                            |  |
| <u>Mechanical</u>    |                          |                               |  |
| 16                   | Dimensions               | 19" x 5.25" x 20"             |  |
| 17                   | Weight                   | 35 Lbs.                       |  |
| 18                   | Connectors               | Rear Panel, 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
- ♦ Over Current
- ♦ Over Voltage

## **FEATURES:**

- ♦ Customer Specific Front Panel
- ♦ Rear RF Connectors (N-Type)
- ♦ Rear Panel Mounted DB9-Female for External RF Enable / Standby Control

NOTE: Pin **5** is GND, Pin **1** is the Control Line.

- IF Pin 1: OPEN RF Standby Condition (Nominal Gain 30dB min.)
- IF Pin 1: GND RF Enabled (Amplifier in Normal Operation) ( < 100mA to Activate )

| Approved By | Date: |
|-------------|-------|
|             |       |