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**MODEL 5303007**  
**225 - 450 MHz**  
**125 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5303007 is a 125 Watt broadband amplifier that covers the 225 – 450 MHz frequency range. This small and lightweight 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 5303007 comes with an extended multiyear warranty.

|                             | <u>Parameter</u>         | <u>Specification @ 25° C</u>  |
|-----------------------------|--------------------------|-------------------------------|
| <b><u>Electrical</u></b>    |                          |                               |
| 1                           | Frequency Range          | 225 – 450 MHz                 |
| 2                           | Saturated Output Power   | 125 Watts typical             |
| 3                           | Power Output @ 1dB Comp. | 80 Watts min                  |
| 4                           | Small Signal Gain        | +11 dB min                    |
| 5                           | Gain Flatness            | ± 1.5 dB max                  |
| 6                           | IP <sub>3</sub>          | +55 dBm typical               |
| 7                           | Input VSWR               | 2:1 max                       |
| 8                           | Harmonics                | -20 dBc typical @ 80 Watts    |
| 9                           | Spurious Signals         | < -60 dBc typical @ 80 Watts  |
| 10                          | Input/Output Impedance   | 50 Ohms nominal               |
| 11                          | DC Input Current         | 14 Amps max                   |
| 12                          | DC Input                 | 28 VDC nominal                |
| 13                          | RF Input                 | +42 dBm                       |
| 14                          | RF Input Signal Format   | CW/AM/FM/PM/Pulse             |
| 15                          | Class of Operation       | AB                            |
| <b><u>Mechanical</u></b>    |                          |                               |
| 16                          | Dimensions               | 6.9" x 3.5" x 1.1"            |
| 17                          | Weight                   | 2 lb. max                     |
| 18                          | Connectors               | SMA female                    |
| 19                          | Grounding                | Chassis                       |
| 20                          | Cooling                  | Adequate Heatsink Required    |
| <b><u>Environmental</u></b> |                          |                               |
| 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.

