



5300 Beethoven Street, Los Angeles, CA 90066  
 TEL: (310)306-5556 • FAX: (310)821-7413  
 WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

**MODEL 5304016**  
**20-500 MHz**  
**50 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5304016 is a 50 Watt broadband amplifier that covers the 20-500 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 5304016 comes with an extended multiyear warranty.

|                             | Parameter              | Specification @ 25° C         |
|-----------------------------|------------------------|-------------------------------|
| <b><u>Electrical</u></b>    |                        |                               |
| 1                           | Frequency Range        | 20-500 MHz                    |
| 2                           | Output Power @ P3dB    | 50 Watts min                  |
| 3                           | Small Signal Gain      | +48 dB min                    |
| 4                           | Gain Flatness          | ± 1.5 dB max                  |
| 5                           | IP <sub>3</sub>        | +52 dBm typical               |
| 6                           | Input VSWR             | 2:1 max                       |
| 7                           | Harmonics              | -20 dBc typical               |
| 8                           | Spurious Signals       | < -60 dBc typical             |
| 9                           | Noise Figure           | < 10 dB                       |
| 10                          | Input/Output Impedance | 50 Ohms nominal               |
| 11                          | Efficiency (PAE)       | >30%                          |
| 12                          | DC Input               | 28 VDC nominal                |
| 13                          | RF Input               | +0 dBm max                    |
| 14                          | RF Input Signal Format | CW/AM/FM/PM/Pulse             |
| 15                          | Class of Operation     | A/AB                          |
| <b><u>Mechanical</u></b>    |                        |                               |
| 16                          | Dimensions             | 2.5" x 6" x 1.1"              |
| 17                          | Weight                 | 2.0 lb. max                   |
| 18                          | Connectors             | SMA female                    |
| 19                          | Grounding              | Chassis                       |
| 20                          | Cooling                | Adequate Heatsink Required    |
| <b><u>Environmental</u></b> |                        |                               |
| 21                          | Baseplate 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    | MIL-STD-810F (Method 516.5)   |

Specifications subject to change without notice



**DC Blanking**

◇ Rise/Fall Time < 10uSec