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**MODEL 5303084**  
**500-3000 MHz**  
**50 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5303084 is a 50 Watt broadband amplifier that covers the 500-3000 MHz frequency range. This amplifier utilizes Class AB linear power devices that provide an excellent 3<sup>rd</sup> order intercept point, high gain, and a wide dynamic range. This RF Amplifier is Specifically Designed for the medical industry

Due to robust engineering and employment of the most advanced devices and components, this model achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> amplifiers, the 5303084 comes backed by Ophir RF's commitment to total customer satisfaction.



|                      | Parameter              | Specification @ 25° C                             |                                   |         |                   |
|----------------------|------------------------|---------------------------------------------------|-----------------------------------|---------|-------------------|
|                      |                        | Minimum                                           | Nominal                           | Maximum | Unit              |
| <b>Electrical</b>    |                        |                                                   |                                   |         |                   |
| 1                    | Frequency Range        | 500                                               |                                   | 3000    | MHz               |
| 2                    | Power @ PSAT           | 45                                                | 50                                |         | Watts             |
| 3                    | Power @ P1dB           | 20                                                | 25                                |         | Watts             |
| 4                    | Small Signal Gain      | 48                                                |                                   |         | dB                |
| 5                    | Gain Flatness          |                                                   |                                   | 2.0     | +/- dB            |
| 6                    | IP <sub>3</sub>        |                                                   | +52                               |         | dBm               |
| 7                    | VSWR                   |                                                   |                                   | 2:1     | :                 |
| 8                    | Harmonics @ 20 Watts   |                                                   |                                   | -15     | dBc               |
| 9                    | Spurious Signals       |                                                   | -60                               |         | dBc               |
| 10                   | Input/Output Impedance |                                                   | 50                                |         | Ohms              |
| 11                   | TTL Blanking           |                                                   | 5                                 |         | µS                |
| 12                   | Remote On/Off          |                                                   | 0V<br>5V                          |         | Disable<br>Enable |
| 13                   | DC Power Consumption   |                                                   |                                   | 300     | Watts             |
| 14                   | DC Input               | 28                                                | 36                                | 42      | VDC               |
| 15                   | RF Input               |                                                   | 0                                 |         | dBm               |
| 16                   | RF Input Signal Format | CW/AM/FM/PM/Pulse                                 |                                   |         | -                 |
| 17                   | Class of Operation     | A/AB                                              |                                   |         | -                 |
| 18                   | Temperature Monitor    | Analog Voltage: 100mV per 10°C                    |                                   |         |                   |
| 19                   | Current Monitor        | Analog Voltage                                    |                                   |         |                   |
| 20                   | Reset Pin              | Connect pin to ground for 1 second to reset fault |                                   |         |                   |
| <b>Mechanical</b>    |                        |                                                   |                                   |         |                   |
| 21                   | Dimensions             | Length 6.0" x Width 5.0" x Height 1.1"            |                                   |         | Inches            |
| 22                   | Weight                 |                                                   |                                   | 2.0     | Lbs               |
| 23                   | Connectors             | RF Input -SMA Female                              | DC Input -Filtered Feed Thru      |         |                   |
|                      |                        | RF Output -SMA Female                             | Curr. Monitor -Filtered Feed Thru |         |                   |
|                      |                        | Reset -Filtered Feed Thru                         | Temp. Sense -Filtered Feed Thru   |         |                   |
|                      |                        | Blanking -Filtered Feed Thru                      | Ground -Ground Pin                |         |                   |
| 24                   | Grounding              | Chassis                                           |                                   |         | -                 |
| 25                   | Cooling                | Adequate Heatsink Required                        |                                   |         | -                 |
| <b>Environmental</b> |                        |                                                   |                                   |         |                   |
| 26                   | Baseplate Temperature  | -20°                                              | +50°                              | +75°    | °C                |
| 27                   | Operating Humidity     |                                                   |                                   | 95%     | %                 |
| 28                   | Operating Altitude     |                                                   |                                   | 3000    | Meters            |
| 29                   | Shock and Vibration    | MIL-STD-810F Method 516.5                         |                                   |         | -                 |

Specifications subject to change without notice.



0214 Approved By: \_\_\_\_\_ Date: \_\_\_\_\_