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**MODEL 5300796**  
**20 - 500 MHz**  
**100 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5300796 is a 100 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 5300796 comes with an extended multiyear warranty.

|                      | Parameter                | Specification @ 25° C                                    |
|----------------------|--------------------------|--|
| <b>Electrical</b>    |                          |  |
| 1                    | Frequency Range          | 20 – 500 MHz   |
| 2                    | Saturated Output Power   | 100 Watts typical  |
| 3                    | Power Output @ 1dB Comp. | 60 Watts min   |
| 4                    | Small Signal Gain        | +52 dB min   |
| 5                    | Gain Flatness            | +/- 1.5dB max @ small signal<br>+/- 1dB typical @ power  |
| 6                    | IP <sub>3</sub>          | +56 dBm typical  |
| 7                    | Input VSWR               | 2:1 max  |
| 8                    | Harmonics                | -15 dBc minimum @ 60 Watts<br>-20 dBc typical @ 60 Watts |
| 9                    | Spurious Signals         | < -60 dBc typical @ 60 Watts                             |
| 10                   | Input/Output Impedance   | 50 Ohms nominal  |
| 11                   | DC Input Current         | 11 Amps max<br>1 Amp max @ blanked                       |
| 12                   | DC Input                 | 28—29 Vdc nominal  |
| 13                   | RF Input                 | 0 dBm max  |
| 14                   | Blanking - definition    | On = 5.0 +/- 0.1 Vdc<br>Off = <0.5 Vdc                   |
| 15                   | Blanking Speed           | ≤ 100µs  |
| <b>Mechanical</b>    |                          |  |
| 16                   | Dimensions               | 6" x 3.75" x 1.25"                                       |
| 17                   | Weight                   | 2 lbs.   |
| 18                   | Connectors               | SMA female   |
| 19                   | Grounding                | Chassis  |
| 20                   | Cooling                  | Adequate Heatsink Required                               |
| <b>Environmental</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      | Normal Truck Transport                                   |

Specifications subject to change without notice.

