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## MODEL 5803031

500 - 1000 MHz  
100 WATTS

### Solid State Broadband High Power RF Amplifier

The 5803031 is a 100 Watt broadband amplifier that covers the 500 – 1000 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 5803031 comes with an extended

|                      | Parameter                | Specification @ 25° C         |
|----------------------|--------------------------|-------------------------------|
| <b>Electrical</b>    |                          |                               |
| 1                    | Frequency Range          | 500 – 1000 MHz                |
| 2                    | Saturated Output Power   | 100 Watts typical             |
| 3                    | Power Output @ 1dB Comp. | 60 Watts min                  |
| 4                    | Small Signal Gain        | +10 dB min                    |
| 5                    | Gain Flatness            | ± 1.5 dB max                  |
| 6                    | IP <sub>3</sub>          | +54 dBm typical               |
| 7                    | Input VSWR               | 2:1 max                       |
| 8                    | Harmonics                | -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                   |
| 12                   | DC Input                 | 28 VDC nominal                |
| 13                   | RF Input                 | +40 dBm                       |
| 14                   | RF Input Signal Format   | CW/AM/FM/PM/Pulse             |
| 15                   | Class of Operation       | AB                            |
| <b>Mechanical</b>    |                          |                               |
| 16                   | Dimensions               | 8.7" x 5.2" x 3.5"            |
| 17                   | Weight                   | 8 lb. max                     |
| 18                   | Connectors               | SMA female                    |
| 19                   | Grounding                | Chassis                       |
| 20                   | Cooling                  | Adequate Airflow Required     |
| <b>Environmental</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.



### FEATURES:

Heatsink and Fans Included (Not Shown)