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**MODEL 5183**  
**2.0 - 4.0 GHz**  
**50 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5183 is a 50 Watt broadband amplifier that covers the 2.0 – 4.0 GHz 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 5183 comes with an extended multiyear warranty.

|                      | Parameter                  | Specification @ 25° C         |
|----------------------|----------------------------|-------------------------------|
| <b>Electrical</b>    |                            |                               |
| 1                    | Frequency Range            | 2.0 – 4.0 GHz                 |
| 2                    | Saturated Output Power     | 50 Watts typical              |
| 3                    | Power Output @ 1dB Comp.   | 40 Watts min                  |
| 4                    | Small Signal Gain          | +48 dB min                    |
| 5                    | Small Signal Gain Flatness | ± 2.0 dB max                  |
| 6                    | IP <sub>3</sub>            | +56 dBm typical               |
| 7                    | Input VSWR                 | 2:1 max                       |
| 8                    | Harmonics                  | -20 dBc typical @ 40 Watts    |
| 9                    | Spurious Signals           | > -60 dBc typical @ 40 Watts  |
| 10                   | Input/Output Impedance     | 50 Ohms nominal               |
| 11                   | AC Input Power             | 600 Watts max                 |
| 12                   | AC Input                   | 100 – 240 VAC, single phase   |
| 13                   | RF Input                   | +10 dBm max                   |
| 14                   | RF Input Signal Format     | CW/AM/FM/PM/Pulse             |
| 15                   | Class of Operation         | A/AB                          |
| <b>Mechanical</b>    |                            |                               |
| 16                   | Dimensions                 | 19" x 5.25" x 20"             |
| 17                   | Weight                     | 48 lb. max                    |
| 18                   | Connectors                 | Type-N                        |
| 19                   | Grounding                  | Chassis                       |
| 20                   | Cooling                    | Internal Forced Air           |
| <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.

**CIRCUIT PROTECTIONS**

- ◇ Thermal Overload
- ◇ Over Current

**ORDERING MODELS**

- ◇ R - Rear Panel Connectors
- ◇ F - Front Panel Connectors
- ◇ RE - R model w/Control Option
- ◇ FE - F model w/Control Option
- ◇ RT - RE model w/Ethernet Interface
- ◇ FT - FE model w/Ethernet Interface **RE Model Shown**



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