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## MODEL 5803084-025

**0.8 - 2.5 GHz**  
**50 WATTS**  
**POWER RF AMPLIFIER**  
**On Heatsink with Fans**

### Solid State Broadband High Power RF Amplifier

The 5803084 is a 50 Watt broadband amplifier that covers the 0.8 – 2.5 GHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent efficiency, 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.

|                      | Parameter              | Specification @ 25° C                                           |
|----------------------|------------------------|-----------------------------------------------------------------|
| <b>Electrical</b>    |                        |                                                                 |
| 1                    | Frequency Range        | 0.8– 2.5 GHz                                                    |
| 2                    | Saturated Output Power | 50 Watts typ                                                    |
| 4                    | Small Signal Gain      | +48 dB min                                                      |
| 5                    | Power Gain Flatness    | ± 2.0 dB max                                                    |
| 7                    | Input VSWR             | 2:1 max                                                         |
| 8                    | Harmonics              | -15 dBc typical                                                 |
| 9                    | Spurious Signals       | < -60 dBc typical                                               |
| 10                   | Remote shut down       | 5V to Enable<br>0V to Disable                                   |
| 11                   | Blanking               | TTL, 5uS On/Off                                                 |
| 11                   | DC Consumption         | 350W maximum                                                    |
| 12                   | DC Input Voltage       | 28V-48V                                                         |
| 13                   | Temp Indication        | Analog voltage reporting with LM35 or equivalent                |
| 14                   | Current Indication     | Analog voltage reporting                                        |
| 15                   | RF Input Signal Format | CW/AM/FM/PM/Pulse                                               |
| 16                   | Class of Operation     | A/AB                                                            |
| <b>Mechanical</b>    |                        |                                                                 |
| 17                   | Dimensions             | 10.5" x 6.1" x 4.5"                                             |
| 18                   | Weight                 | 8 lb. max                                                       |
| 29                   | Connectors             | SMA female for RF<br>Feed Thru for DC, control, and indications |
| 20                   | Grounding              | Chassis                                                         |
| 21                   | Cooling                | Adequate Heatsink Required                                      |
| <b>Environmental</b> |                        |                                                                 |
| 22                   | Baseplate Temperature  | -20° C to +85° C                                                |
| 23                   | Operating Humidity     | 95% Non-condensing                                              |
| 24                   | Operating Altitude     | Up to 10,000' Above Sea Level                                   |
| 25                   | Shock and Vibration    | MIL-STD-810F                                                    |

