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## MODEL 5803033-001

500 – 1000 MHz 200 WATTS LINEAR POWER RF AMPLIFIER

## Solid State Band-Specific High Power RF Amplifier

The 5803033-001 is a heatsink assembly which consists of a driver module and a final stage module.

This system provides 200 Watts across the 500 – 1000 MHz frequency range. This small and lightweight system 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 Like all OPHIR<sub>RF</sub> reliability. amplifiers, the 5803033-001 comes with an extended warranty.

| 1                    |                            |  |
|----------------------|----------------------------|--|
|                      | <u>Parameter</u>           | Specifications @ 25° C                   |
| <u>Electrical</u>    |                            |  |
| 1                    | Frequency Range            | 500 – 1000 MHz                           |
| 2                    | Saturated Output Power     | 200 Watts typical                        |
| 3                    | Power Output @ 1dB Comp.   | 125 Watts min                            |
| 4                    | Small Signal Gain          | +53 dB min                               |
| 5                    | Gain Flatness              | <u>+</u> 1.5 dB max                      |
| 6                    | IP <sub>3</sub>            | +56 dBm typical                          |
| 7                    | Input VSWR                 | 2:1 max                                  |
| 8                    | Harmonics                  | -20 dBc typical @ 125 Watts              |
| 9                    | Spurious Signals           | -60 dBc typical @ 125 Watts              |
| 10                   | Input/Output Impedance     | 50 Ohms nominal                          |
| 11                   | DC Input Current           | 30 Amps                                  |
| 12                   | DC Inputs                  | 28 VDC                                   |
| 13                   | RF Input                   | 0 dBm max                                |
| 14                   | RF Input Signal Format     | CW/AM/FM/PM/Pulse                        |
| 15                   | Class of Operation         | AB                                       |
| <u>Mechanical</u>    |                            | · ·                                      |
| 16                   | Dimensions (with Heatsink) | 9.8" x 16.0" x 4.1"                      |
| 17                   | Weight (with Heatsink)     | 25 lbs. max                              |
| 18                   | RF Connectors              | SMA female input<br>Type N female output |
| 19                   | Grounding                  | Chassis                                  |
| 20                   | Cooling                    | Adequate Airflow 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                   |
|                      |                            |  |

## **SPECIAL FEATURES**

- ♦ Over Current Protection
- ♦ Terminal Block for easy DC Connections
- ♦ Fans
- ♦ Heatsink



Specifications subject to change without notice

| 1210 | Approved By:  | Date: |
|------|---------------|-------|
|      | ripproved by. | Date. |