



5300 Beethoven Street, Los Angeles, CA 90066  
TEL: (310)306-5556 • FAX: (310)821-7413  
WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

## MODEL 5803138A-001

**1200-1600 MHz**  
**200 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5803138A-001 is a 200 Watt broadband amplifier that covers the 1200-1600 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.

The 5803108A comes with Heatsink and Fan. (Fans operate on 12VDC).

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability.

Specifications subject to change without notice

|                             | Parameter                  | Specification @ 25° C                                                                                |
|-----------------------------|----------------------------|------------------------------------------------------------------------------------------------------|
| <b><u>Electrical</u></b>    |                            |                                                                                                      |
| 1                           | Frequency Range            | 1200-1600 MHz                                                                                        |
| 2                           | Output power @ Psat        | 200 Watts typical*                                                                                   |
| 3                           | Output power @ P1dB        | 100 Watts min*                                                                                       |
| 4                           | Small Signal Gain          | +55 dB min                                                                                           |
| 5                           | Small Signal Gain Flatness | +/-2.0 dB max                                                                                        |
| 6                           | Input /Output VSWR         | 2:1 max                                                                                              |
| 7                           | Harmonics                  | -20 dBc max @ 100 W                                                                                  |
| 8                           | Spurious Signals           | -60 dBc max @ 100 W                                                                                  |
| 9                           | Input/Output Impedance     | 50 Ohms nominal                                                                                      |
| 10                          | DC Input Power             | 15A max @ 48 Vdc                                                                                     |
| 11                          | DC Input                   | 36 - 48 Vdc                                                                                          |
| 12                          | RF Input Power             | 0 dBm nominal                                                                                        |
| 13                          | RF Input Signal Format     | CW/AM/FM/PM/Pulse                                                                                    |
| 14                          | Class of Operation         | A/AB                                                                                                 |
| 15                          | Interface                  | D-sub                                                                                                |
| 17                          | Module Enable              | TTL : 5V for enable                                                                                  |
| 18                          | Temperature Indication     | LM35: 0.1V/10°C                                                                                      |
| <b><u>Mechanical</u></b>    |                            |                                                                                                      |
| 19                          | Dimensions                 | 17" x 6.5" x 5"                                                                                      |
| 20                          | Weight                     | 25 lb. max                                                                                           |
| 21                          | Connectors                 | SMA for RF input<br>Type-N for RF Output<br>D-sub for control & indications<br>Ground lug for Ground |
| 22                          | Grounding                  | Chassis                                                                                              |
| 23                          | Cooling                    | Adequate Heatsink Required                                                                           |
| <b><u>Environmental</u></b> |                            |                                                                                                      |
| 24                          | Ambient Temperature        | 0° C to +40° C                                                                                       |
| 25                          | Operating Humidity         | 95% Non-condensing                                                                                   |
| 26                          | Operating Altitude         | Up to 10,000' Above Sea Level                                                                        |
| 27                          | Shock and Vibration        | Normal Truck Transport                                                                               |

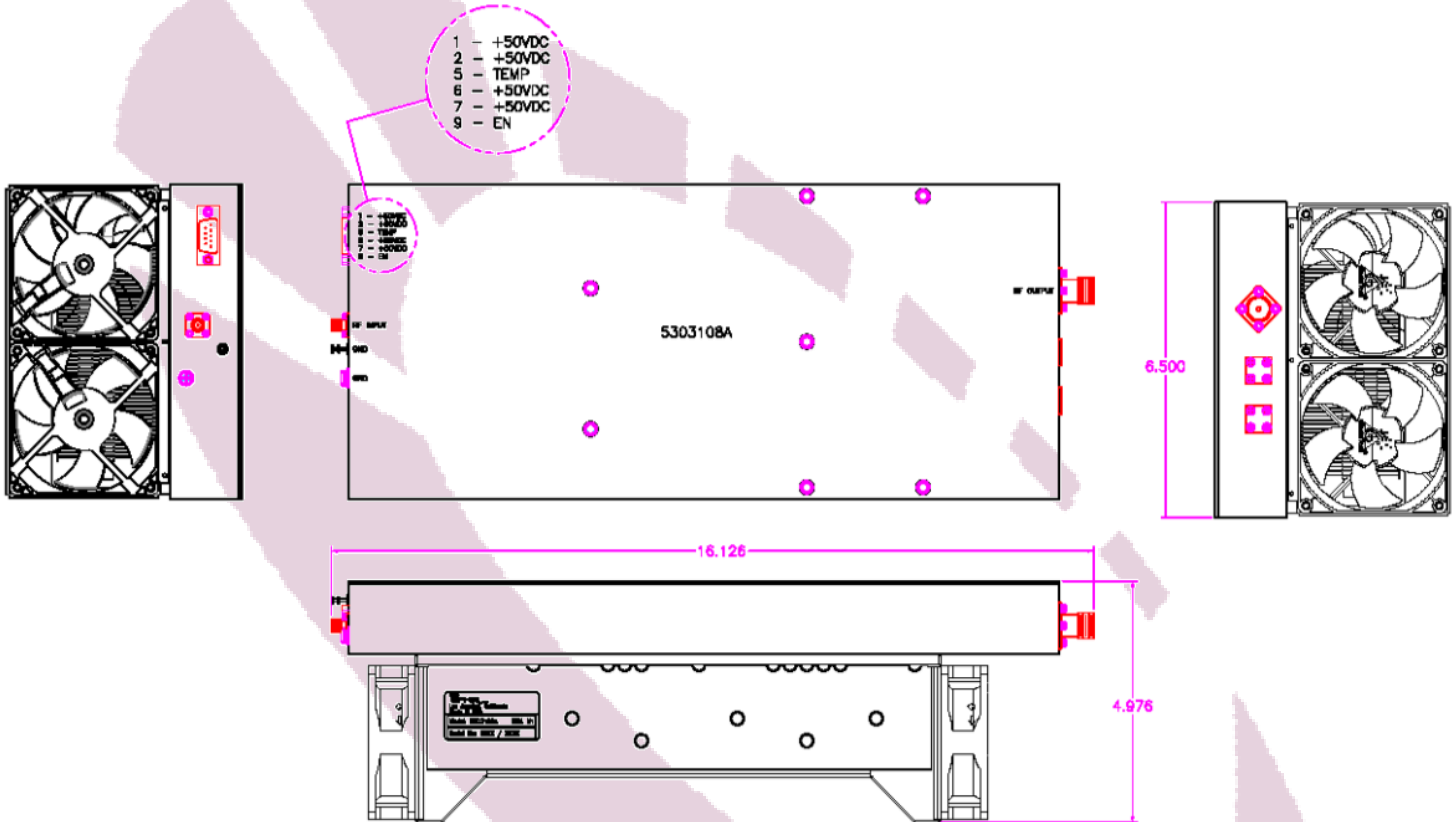
\* data taken at 42 Vdc input



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\*\*Drawing is a representation of Module

| Pin | Description     |
|-----|-----------------|
| 1   | +42-50 V        |
| 2   | +42-50 V        |
| 3   | NC              |
| 4   | NC              |
| 5   | Temp Indication |
| 6   | +42-50 V        |
| 7   | +42-50 V        |
| 8   | NC              |
| 9   | Enable          |



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