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## MODEL 5300689

**2.0-4.0 GHz  
7 WATTS  
LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5300689 is a 7 Watt broadband amplifier that covers the 2.0-4.0GHz 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 5300689 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   | 7 Watts typical               |
| 3                    | Power Output @ 1dB Comp. | 7 Watts min                   |
| 4                    | Compressed Signal Gain   | +5 dB min                     |
| 5                    | Gain Flatness            | ± 1.5 dB max                  |
| 6                    | IP <sub>3</sub>          | +46 dBm typical               |
| 7                    | Input VSWR               | 2:1 max                       |
| 8                    | Harmonics                | -20 dBc minimum               |
| 9                    | Spurious Signals         | < -60 dBc minimum             |
| 10                   | Input/Output Impedance   | 50 Ohms nominal               |
| 11                   | DC Input Current         | 5 Amps max                    |
| 12                   | DC Input                 | 13 VDC nominal                |
| 13                   | RF Input for rated power | +30 dBm nominal               |
| 14                   | RF Input Signal Format   | CW/AM/FM/PM/Pulse             |
| 15                   | Class of Operation       | A/AB                          |
| <b>Mechanical</b>    |                          |                               |
| 16                   | Dimensions               | 6.5" x 3.5" x 1.0"            |
| 17                   | Weight                   | 3 lb. max                     |
| 18                   | Connectors               | SMA female                    |
| 19                   | Grounding                | Chassis                       |
| 20                   | Cooling                  | Adequate Heatsink Required    |
| <b>Environmental</b> |                          |                               |
| 21                   | Baseplate Temperature    | 0° C to +50C                  |
| 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.

### Application Notes

- ◇ Requires drive level of at 30dBm nominal. Will require driver model 5303075 for full rated output power with 0 dBm nominal input from signal source
- ◇ Adequate Heatsink Required: Recommend Ophir RF Model HTS00002
- ◇ Adequate Airflow required consult factory for fans
- ◇ Heatsink and Fans can be incorporated to this module from Ophir RF. Change part number to 5800689. Consult factory for incorporating driver to the Heatsink/Fan Assembly



Sample Module

09/09 Approved By: \_\_\_\_\_ Date: \_\_\_\_\_