



5200 Beethoven Street, Los Angeles, CA 90066  
 TEL: (310)306-5556 • FAX: (310)821-7413  
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**MODEL 5296**  
**700 - 6000 MHz**  
**300 WATTS**  
**RF POWER AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5296 is a very high power broadband amplifier that covers the 700 – 6000 MHz frequency range. This amplifier utilizes Class A linear power devices that provide an excellent 3<sup>rd</sup> order intercept point, high gain, a wide dynamic range, and an industry leading P1dB performance.

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 5296 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

|                             | <u>Parameter</u>          | <u>Specification @ 25° C</u>  |
|-----------------------------|---------------------------|---|
| <b><u>Electrical</u></b>    |                           |   |
| 1                           | Frequency Range           | 700-6000 MHz  |
| 2                           | Power at P <sub>SAT</sub> | 300 Watts Typical   |
| 3                           | Power at P <sub>1dB</sub> | 200 Watts Minimum   |
| 4                           | Small Signal Gain         | +57 dB Minimum  |
| 5                           | Gain Flatness             | ± 5.0 dB Maximum  |
| 6                           | IP <sub>3</sub>           | +59 dBm typical   |
| 7                           | Input VSWR                | 2:1 max   |
| 8                           | Harmonics                 | -20 dBc min @ P <sub>1dB</sub> Compression  |
| 9                           | Spurious Signals          | < -60 dBc typical @ P <sub>1dB</sub> Compression  |
| 10                          | Input/Output Impedance    | 50 Ohms nominal   |
| 11                          | AC Input Power            | 7,000 Watts Maximum   |
| 12                          | AC Input                  | 208 VAC Phase to Phase, 120 VAC Phase to GND; 50/60 Hz, 3Ø, 4-wire<br><b>Single Phase is optional</b> |
| 13                          | RF Input                  | 0 dBm nominal<br><b>+3 dB Maximum</b>   |
| 14                          | RF Input Signal Format    | CW/AM/FM/PM/Pulse   |
| 15                          | Class of Operation        | Class A   |
| <b><u>Mechanical</u></b>    |                           |   |
| 16                          | Dimensions                | 31" x 24" x 31"(H x W x D)  |
| 17                          | Weight                    | 400 lbs. / 182 Kg   |
| 18                          | RF Connectors             | Type-N Female Input and Output  |
| 19                          | Grounding                 | Chassis   |
| 20                          | Cooling                   | Internal Forced Air   |
| <b><u>Environmental</u></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  |



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|                                      | <u>Parameter</u>   |
|--------------------------------------|--|
| <b><u>Front Panel Controller</u></b> |  |
| 25                                   | Forward Power Monitoring (dBm or Watts)  |
| 26                                   | Reflected Power Monitoring (dBm or Watts)  |
| 27                                   | Gain Control (25 dB dynamic range of adjustment)   |
| 28                                   | Fault Status   |
| 29                                   | Full Protection Of any VSWR Condition, Open or Short, any Phase.   |
| 30                                   | Remote Control Access via the Ethernet, RS-232, or IEEE-488 Communications ports   |
| 31                                   | Integrated Automatic Leveling Control to allow end-user to maintain output even with variances in temperature, or input RF level |
| 32                                   | Standby/Enable Control   |
| 33                                   | Front Panel Display for easy viewing of System Status Locally  |
| 34                                   | Keypad buttons for full local control  |
| <b><u>Circuit Protections</u></b>    |  |
| 35                                   | Thermal Overload   |
| 36                                   | Over Current   |
| 37                                   | Over Voltage   |
| 38                                   | Open or Short VSWR Conditions  |
| <b><u>Circuit Control</u></b>        |  |
| 40                                   | Standby (amplifier disable)  |
| 41                                   | Gain/power setting with 25 dB range  |
| 42                                   | VSWR protection Reset  |
| 43                                   | ALC On/ Off  |
| <b><u>Circuit Indications</u></b>    |  |
| 44                                   | Forward Power  |
| 45                                   | Reflected power  |
| 46                                   | VSWR Fault   |
| 47                                   | Temp Fault   |
| 48                                   | Gain Setting (VVA) percentage  |

Specifications subject to change without notice



**MADE IN USA**

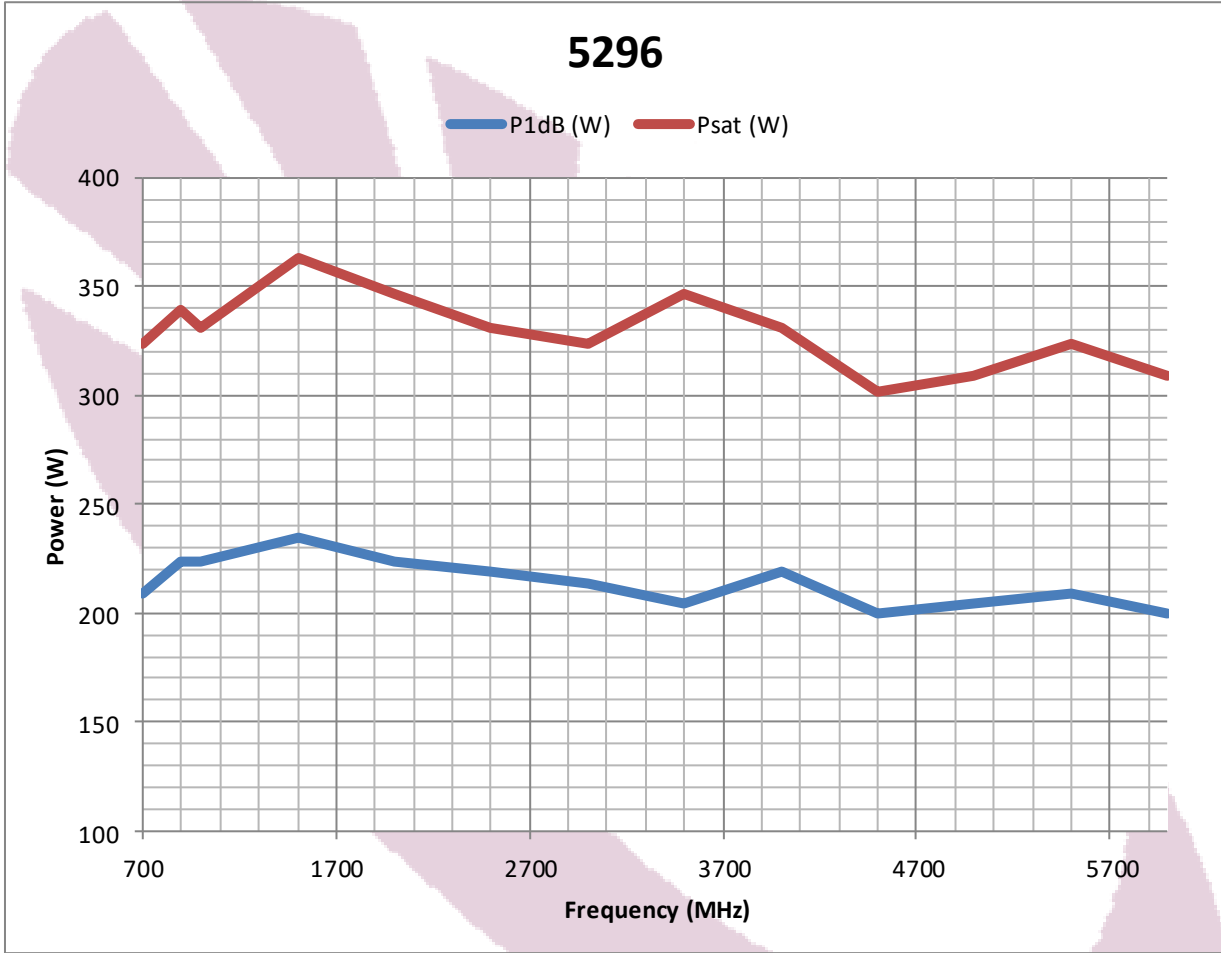
07/19 Approved By: \_\_\_\_\_

Date: \_\_\_\_\_



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### ORDERING MODELS

(Default Connector Configuration is "RE"):

- ◇ RE - Rear RF Connector model with Front Panel Controller Ethernet, IEEE-488 and RS232
- ◇ FE - Front RF Connector model with Front Panel Controller Ethernet, IEEE-488 and RS232
- ◇ R - Rear RF Connector model
- ◇ F - Front RF Connector model