



5300 Beethoven Street, Los Angeles, Ca 90066  
 TEL: +1 (310)306-5556 FAX: +1 (310)821-7413  
 WEB: www.OphirRF.com E-MAIL: Sales@OphirRF.com

**Model 5293**  
 0.7-6.0 GHz  
 50 Watts  
 Linear Power RF Amplifier

## Solid-State High-Power RF Amplifier

The Model 5293 is a 50-Watt, broadband amplifier system that covers the 0.7-6.0 GHz frequency range. This amplifier utilizes Class A linear 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 GaN devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> amplifiers, the 5293 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

|               | Parameter                          | Specification @ 25° C                     |         |         |                  |
|---------------|------------------------------------|-------------------------------------------|---------|---------|------------------|
| Electrical    |                                    | Minimum                                   | Nominal | Maximum | Unit of Measure  |
| 1             | Frequency Range                    | 0.7                                       |         | 6.0     | GHz              |
| 2             | Output Power P <sub>SAT</sub>      | 50                                        | 60      |         | Watts            |
| 3             | Output Power P <sub>1dB</sub>      | 30                                        | 40      |         | Watts            |
| 4             | Small Signal Gain                  | 48                                        |         |         | dBm              |
| 5             | Gain Flatness                      |                                           |         | + 4.5   | dB               |
| 6             | IP <sub>3</sub>                    |                                           | +51     |         | dBm              |
| 7             | Input VSWR                         |                                           |         | 2:1     | Ratio            |
| 8             | Harmonics @ 30 Watts               |                                           | -20     |         | dBc              |
| 9             | Spurious @ 30 Watts                |                                           | -60     |         | dBc              |
| 10            | Input/Output Impedance             |                                           | 50      |         | Ohms             |
| 11            | AC Input Power                     | 90                                        |         | 240     | VAC single phase |
| 12            | AC Input Power                     |                                           |         | 1000    | Watts            |
| 13            | RF Input for Rated Power           |                                           |         | +0      | dBm              |
| 14            | RF Input Signal Format             | CW/AM/FM/PM/Pulse                         |         |         |                  |
| 15            | Class of Operation                 | A                                         |         |         |                  |
| Mechanical    |                                    |                                           |         |         |                  |
| 16            | Dimensions (W x H x D) (5RU)       | 19" x 5.25" x 21"                         |         |         |                  |
| 17            | Weight                             |                                           | 60      |         | Lbs.             |
| 18            | RF Connectors                      | Type N-Female                             |         |         |                  |
| 19            | Grounding                          | Chassis                                   |         |         |                  |
| 20            | Cooling                            | Internal Forced Air                       |         |         |                  |
| Environmental |                                    |                                           |         |         |                  |
| 21            | Operating Temperature              | 0                                         |         | 50      | °C               |
| 22            | Operating Humidity, Non-Condensing |                                           |         | 95      | %                |
| 23            | Operating Altitude Above Sea Level |                                           |         | 10000'  | Feet             |
| 24            | MIL-STD 810G Shock and Vibration   | Shock Method 514.5 Vibration Method 516.5 |         |         |                  |

Specifications Subject to change without notice





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

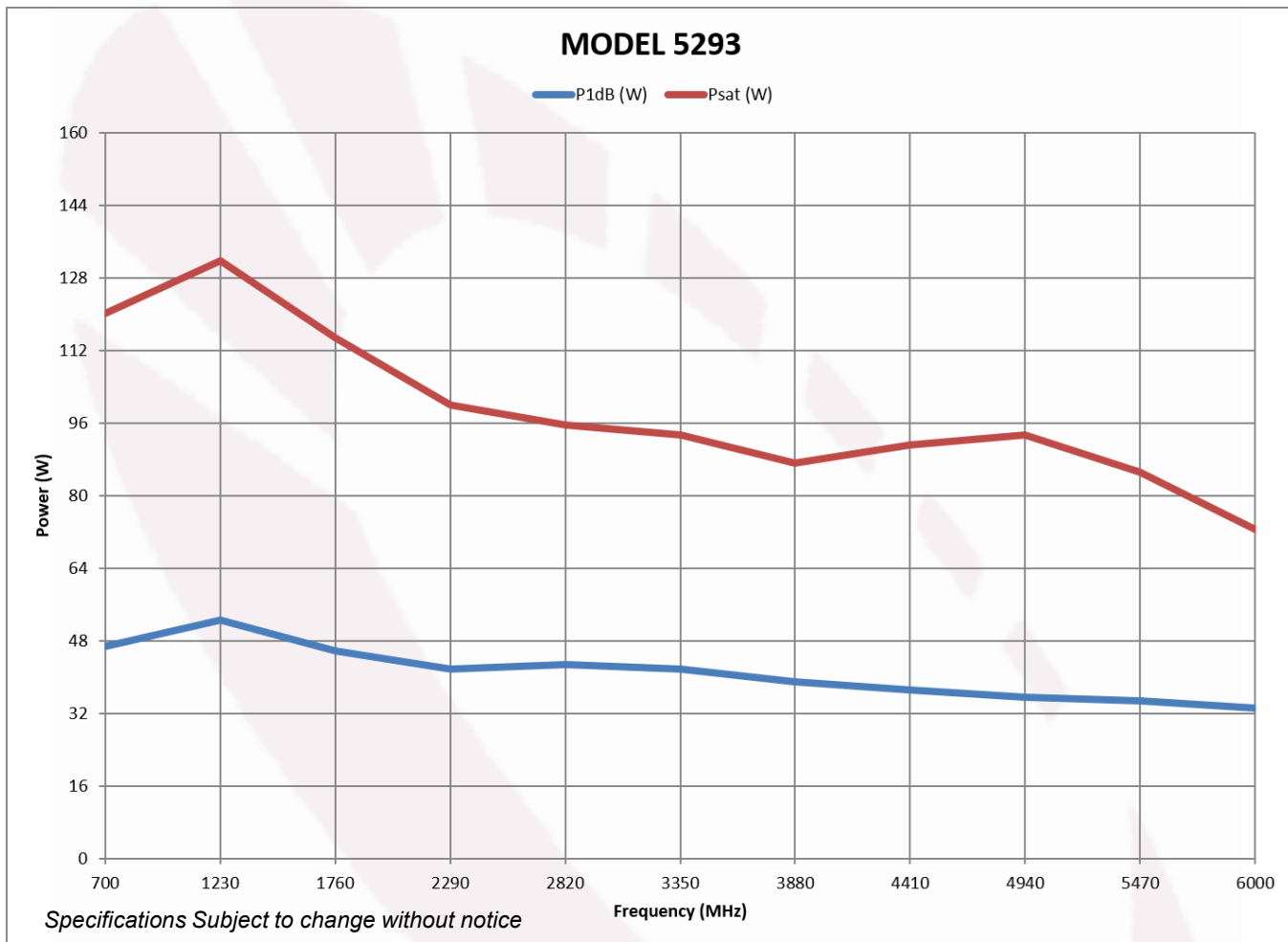
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### ORDERING MODELS

|    |                                                                                   |
|----|-----------------------------------------------------------------------------------|
| 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                                                          |