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**MODEL 5310295**  
**2.065 - 2.215 GHz**  
**50 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5310295 is a 50 Watt broadband amplifier that covers the 2.065 – 2.215 GHz 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 5310295 comes with an extended

|                      | Parameter                | Specification @ 25° C         |
|----------------------|--------------------------|-------------------------------|
| <b>Electrical</b>    |                          |                               |
| 1                    | Frequency Range          | 2.065 – 2.215 GHz             |
| 2                    | Saturated Output Power   | 50 Watts typical              |
| 3                    | Power Output @ 1dB Comp. | 40 Watts min                  |
| 4                    | Small Signal Gain        | +47 dB min                    |
| 5                    | Gain Flatness            | ± 0.75 dB max*                |
| 6                    | IP <sub>3</sub>          | +56 dBm typical               |
| 7                    | Input VSWR               | 2:1 max                       |
| 8                    | Harmonics                | -20 dBc typical @ 40 Watts    |
| 9                    | Spurious Signals         | < -60 dBc typical @ 40 Watts  |
| 10                   | Input/Output Impedance   | 50 Ohms nominal               |
| 11                   | DC Input Current         | 12 Amps max                   |
| 12                   | DC Input                 | 12 VDC nominal                |
| 13                   | RF Input                 | +10 dBm max                   |
| 14                   | RF Input Signal Format   | CW/AM/FM/PM/Pulse             |
| 15                   | Class of Operation       | A/AB                          |
| <b>Mechanical</b>    |                          |                               |
| 16                   | Dimensions               | 6.6" x 4.0" x 1.1"            |
| 17                   | Weight                   | 2 lb. max                     |
| 18                   | Connectors               | SMA female                    |
| 19                   | Grounding                | Chassis                       |
| 20                   | Cooling                  | Adequate Heatsink 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        |

\* ± 0.25 dB @ 2.11 – 2.17 GHz      Specifications subject to change without notice.

