



5300 Beethoven Street, Los Angeles, CA 90066  
 TEL: (310)306-5556 • FAX: (310)577-9887  
 WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

## MODEL 5303006A-012

**20 - 500 MHz**  
**50 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5303006A-012 is a 50 Watt broadband amplifier that covers the 20 – 500 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.

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 5303006A-012 comes with an extended multiyear warranty.

	Parameter	Specification @ 25° C
<b><u>Electrical</u></b>		
1	Frequency Range	20 – 500 MHz
2	Saturated Output Power	50 Watts typical @ 20 to 500 MHz 50 Watts min @ 290 to 320MHz
3	Power Output @ 1dB Comp.	30 Watts min
4	Small Signal Gain	+37 dB min
5	Gain Flatness	+/-1.5 dB max @ 20 to 500 MHz +/-0.75 dB max @ 290 to 320 MHz
6	IP <sub>3</sub>	+51 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-20 dBc typical @ 30 Watts
9	Spurious Signals	> -60 dBc typical @ 30 Watts
10	Noise Figure	5dB max I Include all attenuation settings
11	DC Input Current	10 Amps max
12	DC Input	28 VDC nominal
13	Digital step attenuator	Included after 1st LNA
14	Digital Attenuator setting	3 bits, 1dB, 2dB, 4dB
15	Blanking	Enable - 5V "High" Disable - 0V "low"
16	Blanking Speed	On to Off - 5uS max Off to On - 50uS max
<b><u>Mechanical</u></b>		
17	Dimensions	6" x 3" x 1.1"
18	Weight	2 lb. max
19	Connectors	SMA female for RF Filtered Feed thru for other
20	Grounding	Chassis
21	Cooling	Adequate Heatsink Required
<b><u>Environmental</u></b>		
22	Baseplate Temperature	0° C to +50° C
23	Operating Humidity	95% Non-condensing
24	Operating Altitude	Up to 10,000' Above Sea Level
25	Shock and Vibration	Normal Truck Transport

