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**MODEL 5305001**  
**1.0-2.0 GHz**  
**30 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State Broadband High Power RF Amplifier**

The 5305001 is a 25 Watt broadband amplifier that covers the 1.0-2.0 GHz frequency range. This small and lightweight amplifier utilizes Class AB linear Gallium Nitride (GaN) 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 gallium nitride (GaN) devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> amplifiers, the 5305001 comes backed by Ophir RF's commitment to total customer satisfaction.

	Parameter	Specification @ 25° C			Unit of Measure
		Minimum	Nominal	Maximum	
<b>Electrical</b>					
1	Frequency Range	1.0		2.0	GHz
2	Output Power P <sub>SAT</sub>	25	30		Watts
3	Output Power P <sub>1dB</sub>	10	12		Watts
4	Small Signal Gain	45			dB
5	Gain Flatness			3.0	dB
6	IP <sub>3</sub>		48		dBm
7	Input VSWR	2:1			Ratio
8	Harmonics @ 12 Watts		20		dBc
9	Spurious @ 12 Watts		60		dBc
10	Input/Output Impedance		50		Ohms
11	DC Input Current @ 25W			8	Amps
12	DC Input		26	28	VDC
13	RF Input for Rated Power		<b>0</b>	<b>+3</b>	<b>dBm</b>
14	Blanking (Rise/Fall)		2.5	5	µSec
15	RF Input Signal Format	CW/AM/FM/PM/Pulse			
16	Class of Operation				
<b>Mechanical</b>					
17	Dimensions (L x W x H)	6" x 3" x 1"			
18	Weight		2.0		Lbs.
19	RF Input Connector	SMA female			
20	RF output Connector	SMA Female			
21	Grounding	Chassis			
22	Cooling	Adequate Heatsink Required			
<b>Environmental</b>					
23	Operating Temperature BasePlate	0		50	°C
24	Operating Humidity, Non Condensing			95	%
25	Operating Altitude			10,000	Feet above sea Level
26	MIL-STD 810G Shock and Vibration	Shock Method 514.5 Vibration Method 516.5			

Specifications subject to change without notice.



1223 Approved By: \_\_\_\_\_ Date: \_\_\_\_\_