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MODEL 5303021A-002

**500 - 1000 MHz
20 WATTS
LINEAR POWER RF AMPLIFIER**

Solid State Broadband High Power RF Amplifier

The 5303021A-002 is a 20 Watt broadband amplifier that covers the 500 – 1000 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd order intercept point, high gain, and a wide dynamic range. This RF Amplifier incorporates both a high speed blanking function and a 3dB Digital Step Attenuator all controlled by CMOS Compatible TTL Lines

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_{RF} amplifiers, the 5303021A-002 comes with an extended multiyear warranty.

	Parameter	Specification @ 25° C
Electrical		
1	Frequency Range	500 – 1000 MHz
2	Saturated Output Power	20 Watts typical
3	Small Signal Gain	+38 dB min
4	IP ₃	+47 dBm typical
5	Input VSWR	2:1 max
6	Harmonics	-20 dBc typical @ 13 Watts
7	Spurious Signals	> -60 dBc typical @ 13 Watts
8	Input/Output Impedance	50 Ohms nominal
9	DC Input Current	4 Amps max
10	DC Input	28 VDC nominal
11	RF Input	+6 dBm nominal
12	RF Input Signal Format	CW/AM/FM/PM/Pulse
13	Class of Operation	AB
14	Blanking Speed (CMOS TTL High =Enabled, Low =Blanked)	Rise/Fall Time 100uSec
15	3dB Digital Step Attenuator 1dB, 2dB, 1dB+2dB	1dB, 2dB, 3dB TTL High Attenuator = Off TTL Low Attenuator = On
Mechanical		
16	Dimensions	6" x 3" x 1.1"
17	Weight	2 lb. max
18	Connectors	SMA female
19	Grounding	Chassis
20	Cooling	Adequate Heatsink Required
Environmental		
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



Approved By: _____ Date: _____