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**MODEL 5304023**  
**800-3000 MHz**  
**100 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

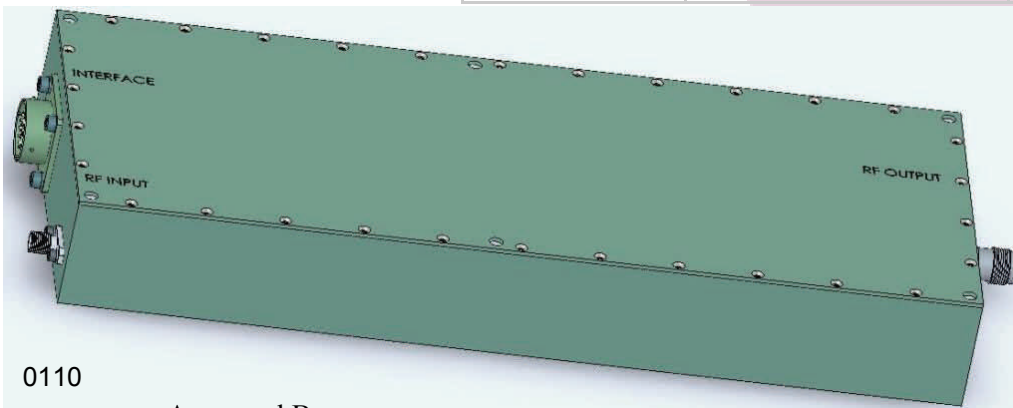
The 5304023 is a 100 Watt broadband amplifier that covers the 800-3000 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3<sup>rd</sup> order intercept point, high gain, and a wide dynamic range.

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 5304023 comes with an extended multiyear warranty.

Specifications subject to change without notice

	Parameter	Specification @ 25° C
<b><u>Electrical</u></b>		
1	Frequency Range	800-3000 MHz
2	Output Power CW (P <sub>SAT</sub> )	100 Watts Min
3	Output Power CW (P <sub>1dB</sub> )	60 Watts Min
4	Small Signal Gain	+51 dB min
5	Gain Flatness	± 2.5 dB max
6	IP <sub>3</sub>	+54 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-25 dBc typical
9	Spurious Signals	< -60 dBc typical
10	Noise Figure	< 10 dB
11	Input/Output Impedance	50 Ohms nominal
12	DC Input	28 VDC nominal
13	RF Input	+0 dBm max
14	RF Input Signal Format	CW/AM/FM/PM/Pulse
15	Class of Operation	A/AB
<b><u>Mechanical</u></b>		
16	Dimensions	3.4" x 6.9" x 1.5"
17	Weight	2.0 lb. max
18	Connectors	(RF Input) SMA female (RF Output) N female
	DC & Control Connector	ITT, Cannon Series II # MS27499E12B35P
19	Grounding	Chassis
20	Cooling	Adequate Heatsink Required
<b><u>Environmental</u></b>		
21	Baseplate Temperature	-40° C to +85° C
22	Operating Humidity	95% Non-condensing
23	Operating Altitude	Up to 40,000' Above Sea Level
24	Shock and Vibration	MIL-STD-810F (Method 516.5)

**DC Blanking**  
 ◇ Rise/Fall Time < 5uSec



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



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Interface Connector	Mil-Std 38999 Male Connector	MS27499E12B35P ITT/CANNON
PIN #	DESCRIPTION	SPECIFICATIONS
2,3,4,5,6, 16,17	VDD	+28VDC
1,7,8,15, 18,21,22	GND	GROUND
9	Amplifier Present Indication	TTL High (Logic 1)
10	Amplifier Fault Indication	Amplifier Operational (Logic 0) Amplifier Fault (Logic 1)
11	Amplifier Enable/Disable Command	TTL (Input) Enable (Logic 1) Disable (Logic 0) Fault Reset (Logic 0, then Logic 1)
12	Amplifier OPR/STBY Indicator	Operate (Logic 1) Standby (Logic 0)
13	Amplifier Blanking Command	TTL (Input) Amplifier Enable (Logic 1) Amplifier Blank (Logic 0)
14,19	No Connection	
20	Amplifier Blanking Indicator	Amplifier Transmitting (Logic 1) Amplifier Blanked (Logic 0)

