



PM1030-1090-2000P 1030 and 1090MHz – 2000W Solid State Broadband High Power Amplifier Module

The PM1030-1090-2000P is a 2000W peak power amplifier module designed for the IFF 1030MHz and 1090MHz frequencies. This all solid state Class AB amplifier module features the latest generation LDMOS power transistors to maximize MTBF. 50 ohms input and output allows ease of integration. Thermal tracking bias affords superior performance providing high gain, efficiency, and power with circulator protection in a small module footprint making this a great choice for your IFF applications.

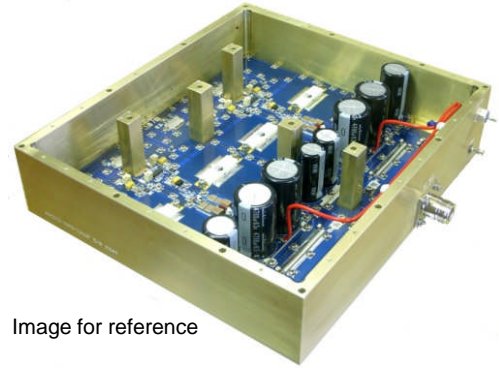


Image for reference

Operating Specifications

(Pout 2000W peak, Vsupply=+46V_{DC}, I_{dq}= 0.4A, TBase=25°C)

Parameter	Min.	Typ.	Max.	Units
Frequency	1030, ±3		1090, ±3	MHz
Peak Output Power	2000			Watts
Gain	16.0	16.8		dB
Power In		42		Watts
Duty Cycle		0.1	4	%
Pulse Width	500n		32μ	Seconds
Pulse train		32μ		Seconds
Droop @ 2000W Peak			0.5	dB
Droop @ all power levels			1	dB
Rise time			25n	Seconds
Fall Time			20n	Seconds
Supply Voltage		46		VDC
Drain Current during 2kW bursts		99		Amps
Drain Current between 2kW bursts		0.4		Amps
Efficiency during 2kW bursts		44		%
Input Return Loss			-14	dB
Second Harmonic		-45		dBc
Third Harmonic		-50		dBc
Baseplate Temp.	-40		+85	°C
Dimension	10.6"W X 10.5"L X 2.25"H 269.2mm X 266.7mm X 57.2mm			

Features

- 2000 Watts peak minimum output power
- 16.8 dB Gain typical
- Load Mismatch ∞ :1
- 50 ohms input/output
- No circuit tuning or RF assembly

Absolute Maximum Ratings

Parameter	Value
Input Voltage	+46V DC
Bias Current	1.0A
Average Drain Current	5.0A
Load Mismatch All phase angles, average drain current limited to 5.0A for 15 seconds.	∞ :1
Baseplate Temperature	+85° C

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