



# PM1030-1090-1100P

## 1030 and 1090MHz – 1100W

### Solid State Broadband

### High Power Amplifier Module

*Preliminary*

The PM1030-1090-1100P is a 1100W 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.

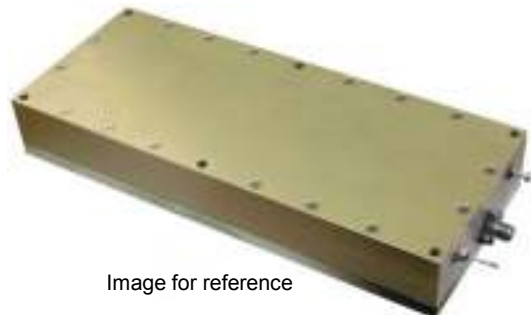


Image for reference

Operating Specifications				
(Pout 1100W peak, Vsupply=+46V <sub>DC</sub> , I <sub>dq</sub> = 0.2A, TBase=25°C)				
Parameter	Min.	Typ.	Max.	Units
Frequency	1030, $\pm 3$		1090, $\pm 3$	MHz
Peak Output Power	1100			Watts
Gain	16.3	17.1		dB
Power In		21		Watts
Duty Cycle		0.1	4	%
Pulse Width	500n		32 $\mu$	Seconds
Pulse train		32 $\mu$		Seconds
Droop @ 1100W 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 1.1kW bursts		50A		Amps
Drain Current between 1.1kW bursts		0.2		Amps
Efficiency during 1.1kW bursts		48		%
Input Return Loss			-14	dB
Second Harmonic		-35		dBc
Third Harmonic		-40		dBc
Baseplate Temp.	-40		+85	°C
	<small>Non condensing</small>			
Dimensions	144.8mm x 241.3mm x 57.2mm 5.7"W x 9.5"L x 2.25"H			

## Features

- 1100 Watts peak minimum output power
- 17.1 dB Gain typical
- Load Mismatch  $\infty : 1$
- 50 ohms input/output
- No circuit tuning or RF assembly

Absolute Maximum Ratings	
Parameter	Value
Input Voltage	+46V DC
Bias Current	0.5A
Average Drain Current	2.5A
Load Mismatch All phase angles, average drain current limited to 2.5A for 15 seconds.	$\infty : 1$
Baseplate Temperature	+85° C

Power Module Technology • 3107 N. Deer Run Road, Suite 20, Carson City, Nevada 89701 USA.

Tel: +1.775.883.1122 e-mail: [sales@pmtrf.com](mailto:sales@pmtrf.com) web: <http://www.pmtrf.com>

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