



PM1030-1090-600P

1030 and 1090MHz – 600W

Solid State Broadband

High Power Amplifier Module

Preliminary

The PM1030-1090-600P is a 600W 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.

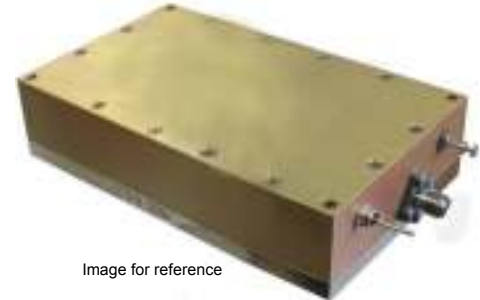


Image for reference

Operating Specifications				
(Pout 600W peak, Vsupply=+46V _{DC} , I _{dq} = 0.1A, TBase=25°C)				
Parameter	Min.	Typ.	Max.	Units
Frequency	1030, ±3		1090, ±3	MHz
Peak Output Power	600			Watts
Gain	16.6	17.4		dB
Power In		11		Watts
Duty Cycle		0.1	4	%
Pulse Width	500n		32µ	Seconds
Pulse train		32µ		Seconds
Droop @ 600W Peak			0.5	dB
Droop @ all power levels			1	dB
Rise time			25n	Seconds
Fall Time			20n	Seconds
Supply Voltage		46		VDC
Drain Current <small>during 600W bursts</small>		25		Amps
Drain Current <small>between 600W bursts</small>		0.1		Amps
Efficiency <small>during 600W burst</small>		52		%
Input Return Loss			-14	dB
Second Harmonic		-25		dBc
Third Harmonic		-30		dBc
Baseplate Temp.	-40 <small>Non condensing</small>		+85	°C
Dimensions	91.4MM x 203.2mm x 57.2mm 3.6"W x 8.0"L x 2.25"H			

Features

- 600 Watts peak minimum output power
- 17.4 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	0.25A
Average Drain Current	1.25A
Load Mismatch All phase angles, average drain current limited to 125A for 15 seconds.	∞:1
Baseplate Temperature	+85° C

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