



PM1030-1090-60P

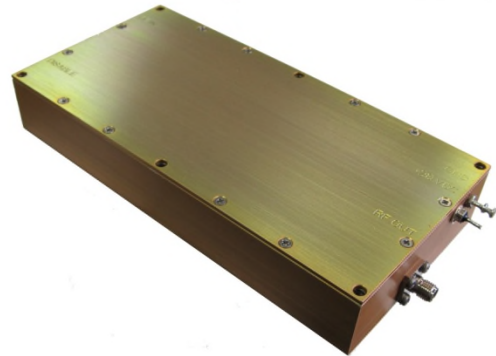
1030 and 1090MHz – 60W

Solid State Broadband

High Power Amplifier Module

Preliminary

The PM1030-1090-60P is a 60W peak power amplifier module designed for the IFF 1030MHz and 1090MHz frequencies. This all solid state Class AB amplifier module features gold LDMOS power transistors to maximize MTBF. 50 ohms input and output allows ease of integration. Thermal tracking bias affords superior performance providing high gain and power in a small module footprint making this a great choice for your IFF applications.



Operating Specifications				
(Pout 60W peak, Vsupply=+28V _{DC} , I _{dq} = 0.6A, TBase=25°C)				
Parameter	Min.	Typ.	Max.	Units
Frequency	1030 ±3		1090 ±3	MHz
Peak Output Power	60			Watts
Gain	43	46		dB
Power In		1.5		mW
Duty Cycle		0.1	4	%
Pulse Width	500n		32µ	Seconds
Pulse train		32µ		Seconds
Droop @ 60W Peak			0.5	dB
Droop @ all power levels			1	dB
Rise time			25n	Seconds
Fall Time			20n	Seconds
Supply Voltage		28		VDC
Drain Current <small>during 60W bursts</small>		5.6		Amps
Drain Current <small>between 60W bursts</small>		0.6		Amps
Efficiency <small>during 60W burst</small>		38		%
Input Return Loss			-14	dB
Second Harmonic		-40		dBc
Third Harmonic		-50		dBc
Baseplate Temp.	-40 <small>Non condensing</small>		+85	°C
Dimensions	3.20" x 6.50" x 1.06" 83.1mm x 165.1mm x 26.9mm			

Features

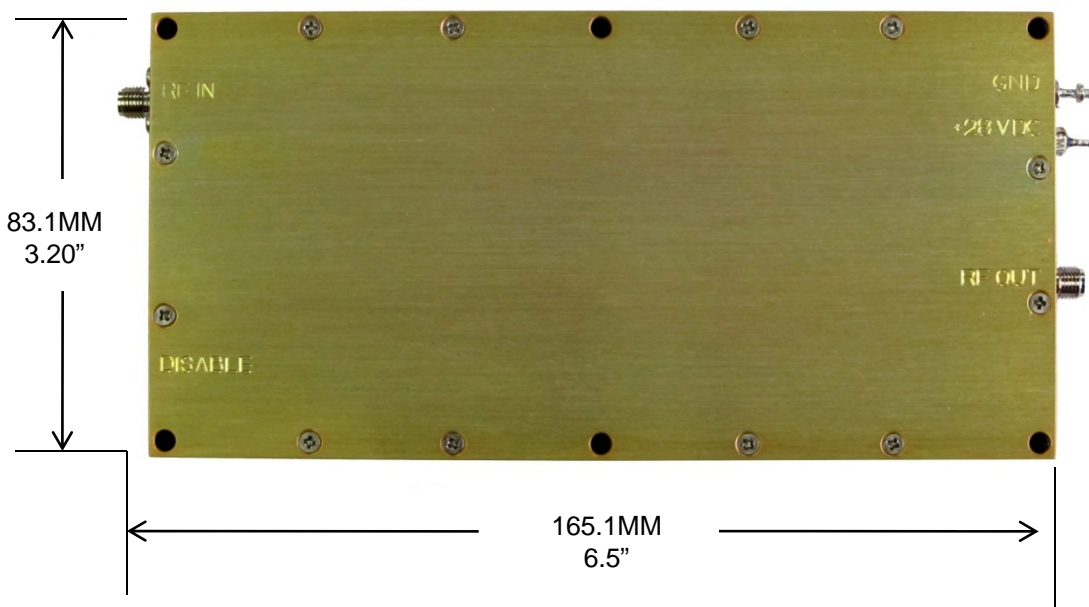
- 60 Watts peak minimum output power
- 46 dB Gain typical
- Load Mismatch 5:1
- 50 ohms input/output
- Optional Disable (+5VDC)
- No circuit tuning or RF assembly

Absolute Maximum Ratings	
Parameter	Value
Input Voltage	+30V DC
Bias Current	0.6A
Average Drain Current	1.0A
Load Mismatch: All phase angles, 32µsec.apulse width, 4% duty cycle, average drain current limited to 1.0A for 15 seconds.	5:1
Baseplate Temperature	+85° C

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Reference circuit size (not to scale)

For optional enable/disable use model # PM1030-1090-60P - Opt. 1

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Revision History: 09/12/11 Preliminary Data Sheet

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