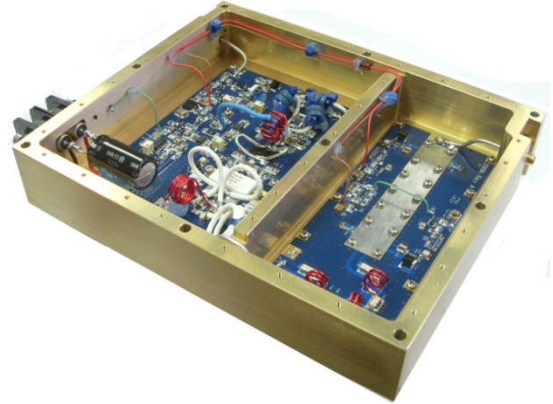




PM225-400-50 225-400 MHz – 50W Solid State Broadband High Power Amplifier Module

The PM225-400-50 is a 50W amplifier module for the 225-400MHz band. Superior performance is provided offering high gain, efficiency and power using advanced broadband RF matching networks and the finest Gold LDMOS/MOSFET transistors available on the market today. The amplifier's gain is reduced 10dB when VSWR >3:1 is detected and will automatically return to normal operation when VSWR drops below 3:1. Matched for 50 ohms input and output, PM225-400-50 operates Class A/AB making this the natural choice for your high power linear broadband communications applications.



Specifications (Vsupply=+28Vdc, Idq=1.3A, Tbase=25°C) Pout = 50W				
Parameter	Min.	Typ.	Max.	Unit
Frequency	225		400	MHz
Pout (CW)@P1dB	47			dBm
Small Signal Gain	35			dB
Gain Flatness	-0		+2	dB
Power In			12	dBm
Drain Current		5.8		Amps
Harmonics			-50	dBc
Input Return Loss		-20	-10	dB
Operating Temperature	0		+70	°C
Impedance In/Out		50		Ohm
Dimensions w/o connectors	165 mm W x 200mm L x 37mm H			

Features

- 50 Watts minimum P1dB
- Class A/AB
- Disable (+5VDC), Enable (ground or float),
- 50 ohms input/output
- Thermal tracking bias
- Output protection
- No circuit tuning or RF assembly
- All Gold LDMOS/VMOS transistors for highest MTBF

Maximum Ratings	
Parameter	Value
Input Voltage	+32 VDC
Bias Current	2.0 Amps.
Drain Current	8 Amps.
Baseplate Temp.	+70 Deg. C
Storage Temp.	-40°C to +105°C

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Tel: +1.775.883.1122 e-mail: sales@pmtrf.com web: <http://www.pmtrf.com>

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PM225-400-50
225-400 MHz – 50W
Solid State Broadband
High Power Amplifier Module

Parameter	Typical
Stability	Stable at all loads of VSWR <3:1
Output Protection	The amplifier will operate under VSWR loads up to 3:1, and withstand loads >3:1. For VSWR >3:1 the amplifier 's gain is attenuated 10dB. The amplifier shall return to normal operation in less than 1ms after the VSWR drops <3:1 without any user intervention.
Pulsed Operation	The amplifier shall provide a control pin for pulsed operation. During "Off" state, current consumption shall be less than 0.5A. Timing diagram per page 3.
Weight	3lbs. 3 oz.
RF Connectors	SMA In/Out

Control interface	Feed Thru Pin SYFER's SFAJC5000101MCO or equivalent.
DC Power Connector	Panel Mount Terminal Block (Spectrum Control P/N 52-160-002-A) or equivalent .
Cooling	Customer supplied heat sink
Heat sink operating temperature	Min. -30 Deg. C, max. +70 Deg. C. The amplifier will be mounted n a heat sink with an interfacing layer of heat conducting paste, and secured with nine screws.
Cold Start	Min. -30 Deg. C non condensing
Hot Start	Max. +55 Deg. C
Storage Temp.	Min. -40 Deg. C, Max. +85 Deg. C

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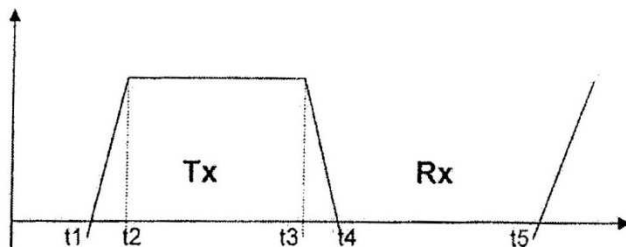
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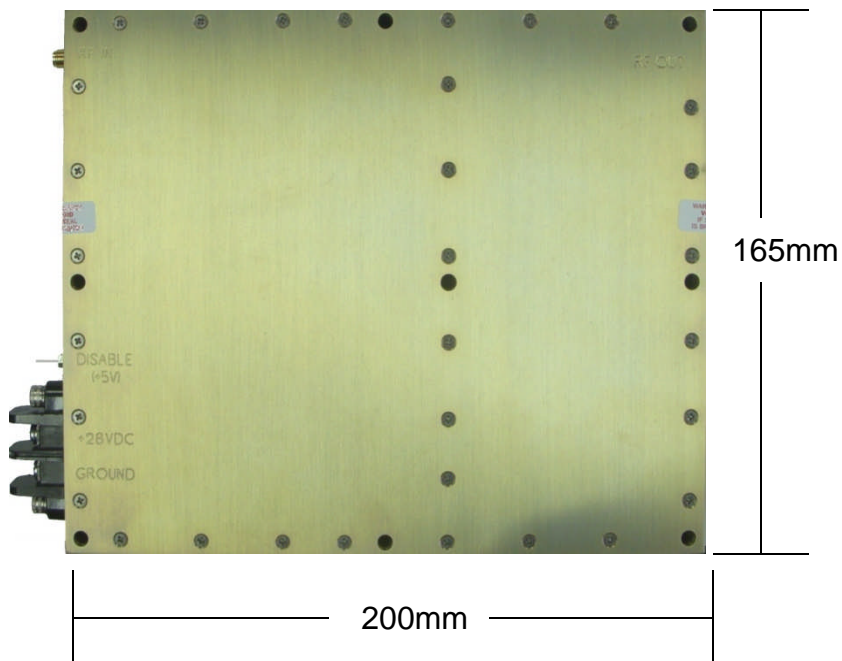
PM225-400-50 225-400 MHz – 50W Solid State Broadband High Power Amplifier Module

Timing Diagram for Amplifier Pulsed Operation



- | | |
|-------------------------------------|--|
| t_1 | Enable On |
| $t_2=t_1+100\mu s$ | Amplifier Ready |
| $t_3=t_2+(2,5ms \text{ OR } 5ms)$ | RF OFF, Enable Off |
| $t_4-t_3 < 100\mu s$ | Enable Off |
| $t_5-t_4 < (2,5ms \text{ OR } 5ms)$ | Enable Off, max DC power dissipated 0,5A@28V |

Dimensions



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225-400 MHz – 50W
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Revision History: 10/01/10 Data Sheet

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If there is any information within this document that you feel is wrong, unclear or Missing, please give us your feedback as it will help us to continuously improve The quality of this document. Please send your suggestions (including a reference To this document) to:
Bob.Todd@PMTRF.com
To request other information please call 1-775-883-1122

Attention please:

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For further information on technology, delivery terms, conditions and prices, please Contact the sales department at PMT headquarters at 1-775-883-1122

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