



MODEL MPM1214P60A
1.2 ~ 1.4GHz
1000 WATTS
L-BAND PULSED POWER RF AMPLIFIER

Advantages:

- Operating Frequency :1.2~1.4GHz
- Power Gain:60dB Typical
- Psat:1000W Typical
- Supply Voltage:+50V
- 50 Ohms Input and Output Matched

ELECTRICAL SPECIFICATIONS @ +50.0VDC, 25°C, 50μS, 10%, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	1.2		1.4	GHz
RF Output Power	P _{PK}	800	1000		Watt
Duty Cycle	Duty Cycle			20	%
Pulse Width	P _{WIDTH}	2		50	μS
PRI	PRI	200		1000	μS
RF Input Power @ Pout = 1000W	PIN		0		dBm
Harmonics @ Pout = 800W	H		-20		dBc
Spurious Signals	Spur		-55		dBc
Input Return Loss	S ₁₁			-10	dB
Rise /Fall time (Pulse Performance)(10-90%)	TRISE/FALL/OFF		100		ns
Switch On/Off@10-90% Time,1kHz	T _{ON/OFF}		2		μS
Power droop	Droop		1		dB
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	48	50	52	Volt
Peak Current Consumption @ Pout =1000W	I _{DD}			30	Amp
Average Current Consumption @ Pout = 1000W	I _{DD}		16		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	300x200x25 [11.81x7.87x0.98]	mm [inch]	Maximum
Weight	4[8.82]	kg [lbs]	Maximum
RF Connectors Input	Type-SMA, Female		
RF Connectors Output	Type-N, Female		
DC Interface Connector	Hybrid, D-Sub 7-Pin, Male		
Cooling	External Heat sink Required (Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		60	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ P _{OUT} =500W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85° C @ heatsink [restored @ 60° C]

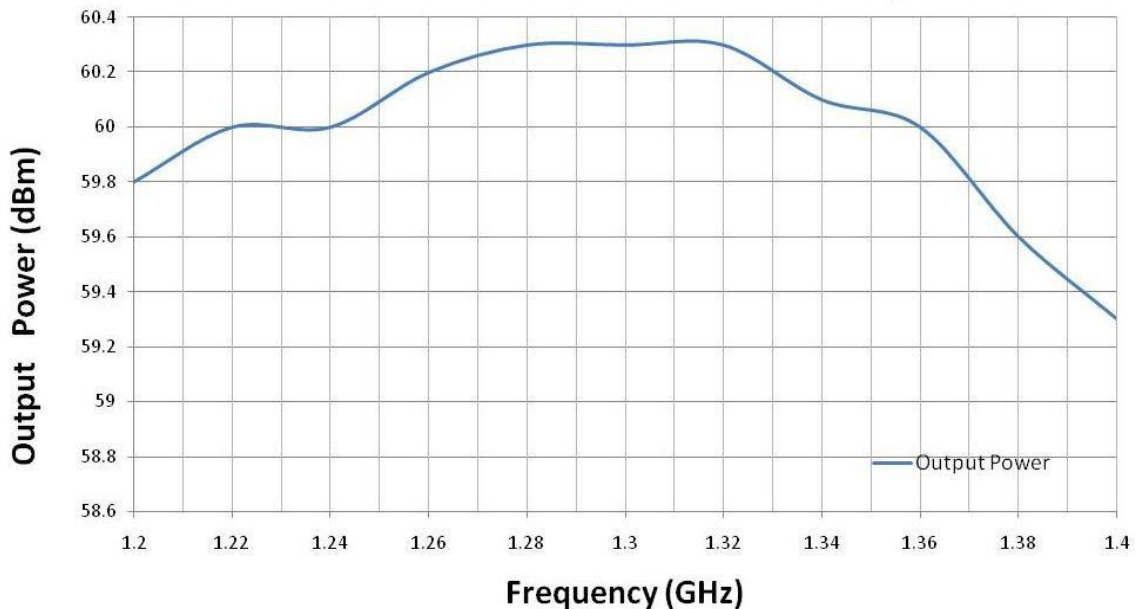
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

Pin #	Description	Specifications
A1	GND	Ground
A2	VDD	28V _{DC}
1	ENABLE	Amplifier Enable: TTL Logic High(3.3V~5V) (Internally Pulled-Low)
2	RF ON/OFF	RF On: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
3	CURRENT SENSE	Analog voltage relative to I _{DD} @ 100mV per Ampere
4	TEMP SENSE	Analog voltage relative to Module's Temperature @0.5V+10 mV/°C
5	UNIT RESET	Amplifier Reset: TTL Logic High (3.3~5V)

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.