






# 1000-2000MHz/100Watt/Module

Model Number: MCW1020M50A

The model MCW1020M50A is a high power amplifier operating between 1000MHz and 2000MHz and offering a wide dynamic Range with 100Watts typical saturated power. The employment of advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency. It is ideal for broadband high power, linear applications.

### FEATURES:

-  Broadband & High power
-  High Efficiency
-  Great Linearity
-  Small Size & LightWeight
-  Low Distortion

### ELECTRICAL SPECIFICATIONS @ +28.0VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	1000		2000	MHz
RF Output Power	Pout	100			Watt
Power Gain	Gp		50		dB
Power Gain Flatness	Δ Gp		±2		dB
Input Return Loss	S11			-10	dB
Harmonics @50W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time	TON/OFF		2	4	μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	24	28	32	Volt
DC Current @80W	IDD		12	15	Amp

### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	170x120x25 [6.70x4.72x0.98]	mm [inch]	Maximum
Weight	2 [4.4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	D-Sub 9-Pin, Male		
Cooling	External Heatsink Required (Not Supplied)		

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-20		55	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity ( non- condensing )			95	%	

### ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm (Max)
Load VSWR @ POUT =50W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heat sink [restored @ 60°C]

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# Broadband High Power Amplifier Module (SSPA)

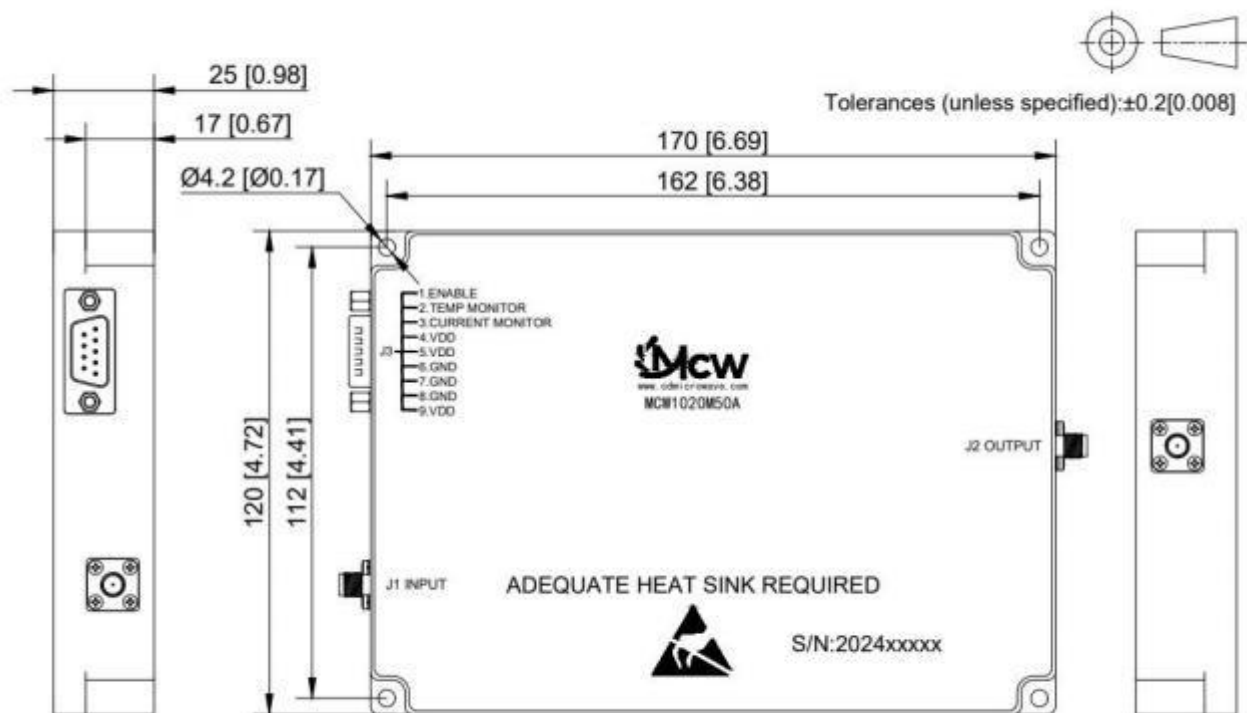
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## DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1	ENABLE	Amplifier ENABLE: TTL Logic High (3 . 3V) ( Internally Pulled- Low)
2	TEMP MONITOR	Analog voltage relative to Module' s Temperature @ 10 mV/° C
3	CURRENT MONITOR	Analog voltage relative to IDD @ 100 mV per Ampere
4	VDD	28 VDC
5	VDD	28 VDC
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	VDD	28 VDC

## OUTLINE DRAWING (All dimensions in mm[inch])



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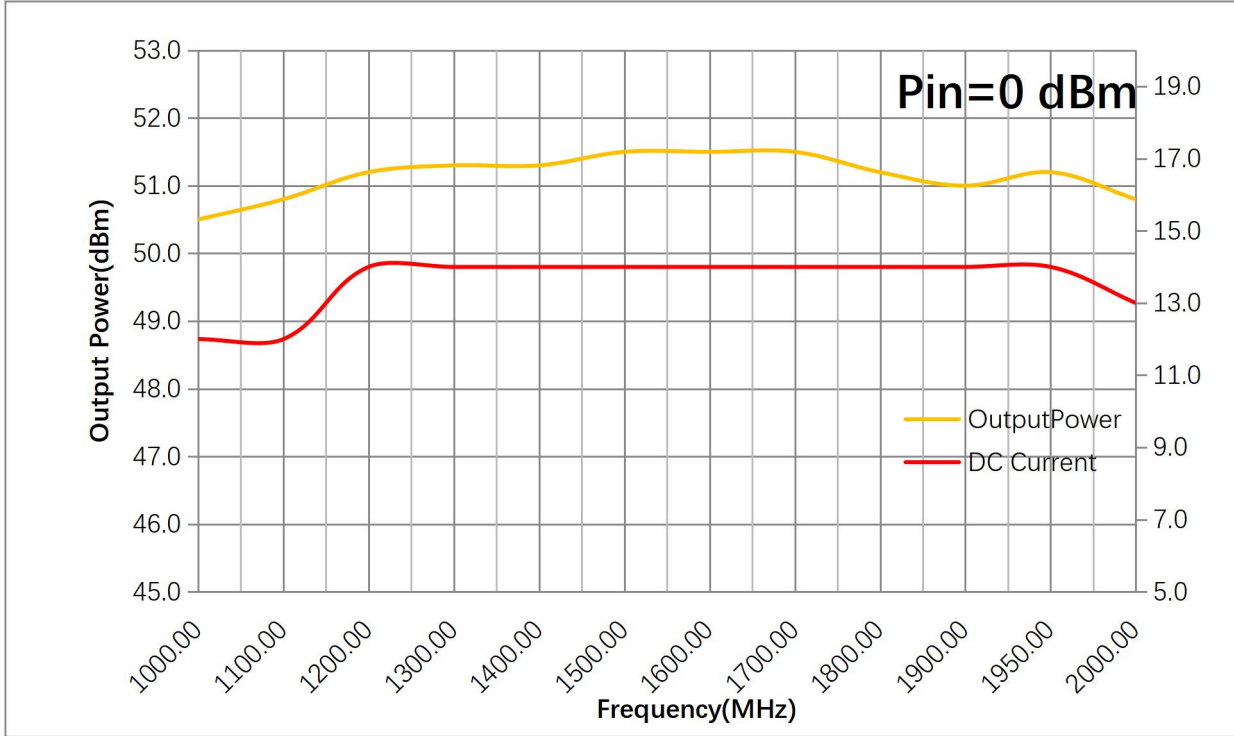
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TYPICAL PERFORMANCE PLOTS (ONLY FOR REFERENCE)



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