





1000-2000MHz/50Watt/Module

Model Number: MCW1020M47A

The model MCW1020M47A is a multi-octave high power amplifier operating between 1000MHz and 2000MHz and offering a wide dynamic Range with 50Watts typical saturated power. The employment of gallium nitride (GaN) and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for broadband high power RF applications.

FEATURES:

-  Broadband and High Power
-  Small Size and Light Weight
-  50 Ohms Input and Output Matched
-  Built-in Control and Protection Circuits

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	1000		2000	MHz
RF Output Power	P _{out}	50			Watt
Power Gain	G _p		48		dB
Power Gain Flatness	Δ G _p		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @40W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switching Speed	T _{ON/OFF}		2	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
Current Consumption @ P _{OUT} = 50W	I _{DD}			7	Amp
Current Consumption @ Shutdown	I _{SD}		0.2		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	170x90x25 [6.69x3.54x0.98]	mm [inch]	Maximum
Weight	0.65 [1.43]	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		60	°C	
Non-operating Temperature	-25		65	°C	Storage
Relative Humidity (non-condensing)			95	%	

Absolute Maximum Rating

Input RF drive level without damage	+10 dBm (Max)
Load VSWR @ P _{OUT} =30W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous

Chengdu Microwave Technology Co., Ltd

>>1st Floor, Building 3#, Huidu Science Park, No.5 Xixin Avenue, High-tech West District, Chengdu, China 611731

>>Tel:+86(28)87872669*0

>>Fax:+86(28)87882925

>>Mobile/WhatsApp:+86-181 8078 9271

>>Email: info@cdmicrowave.com

>>www.cdmicrowave.com

Broadband High Power Amplifier Module (SSPA)

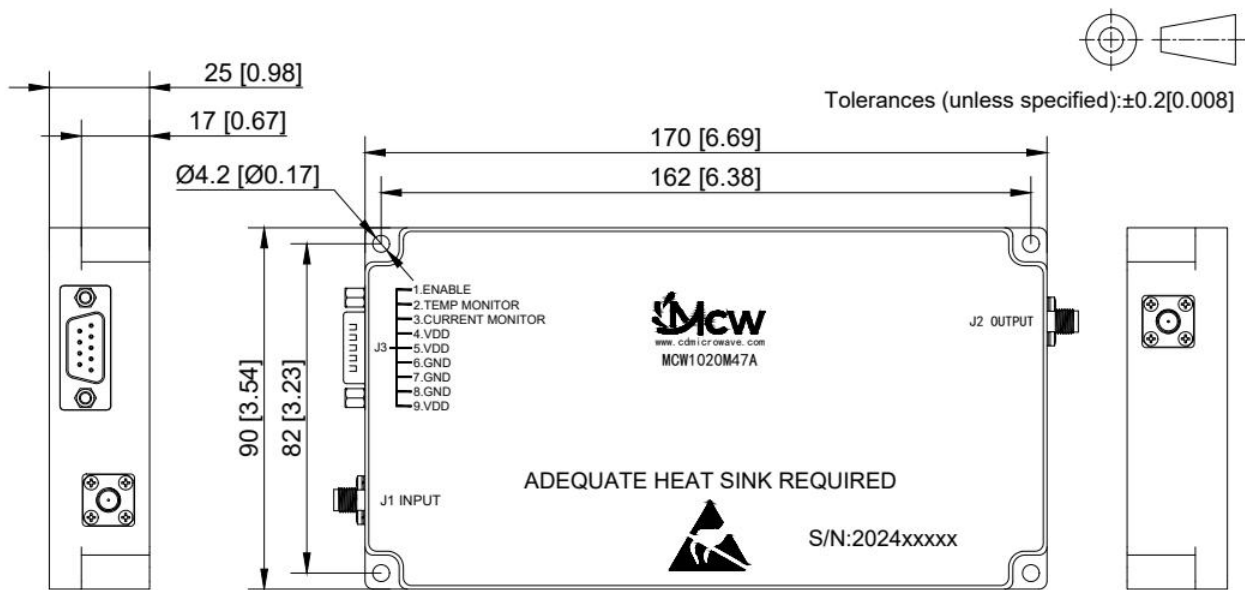
1000-2000MHz/50Watt/Module

Model Number: MCW1020M47A

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	28VDC
5	VDD	28VDC
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	VDD	28VDC

OUTLINE DRAWING (All dimensions in mm [inch])



Chengdu Microwave Technology Co., Ltd

>>1st Floor, Building 3#, Huidu Science Park, No.5 Xixin Avenue, High-tech West District, Chengdu, China 611731

>>Tel:+86(28)87872669*0

>>Fax:+86(28)87882925

>>Mobile/WhatsApp:+86-181 8078 9271

>>Email: info@cdmicrowave.com

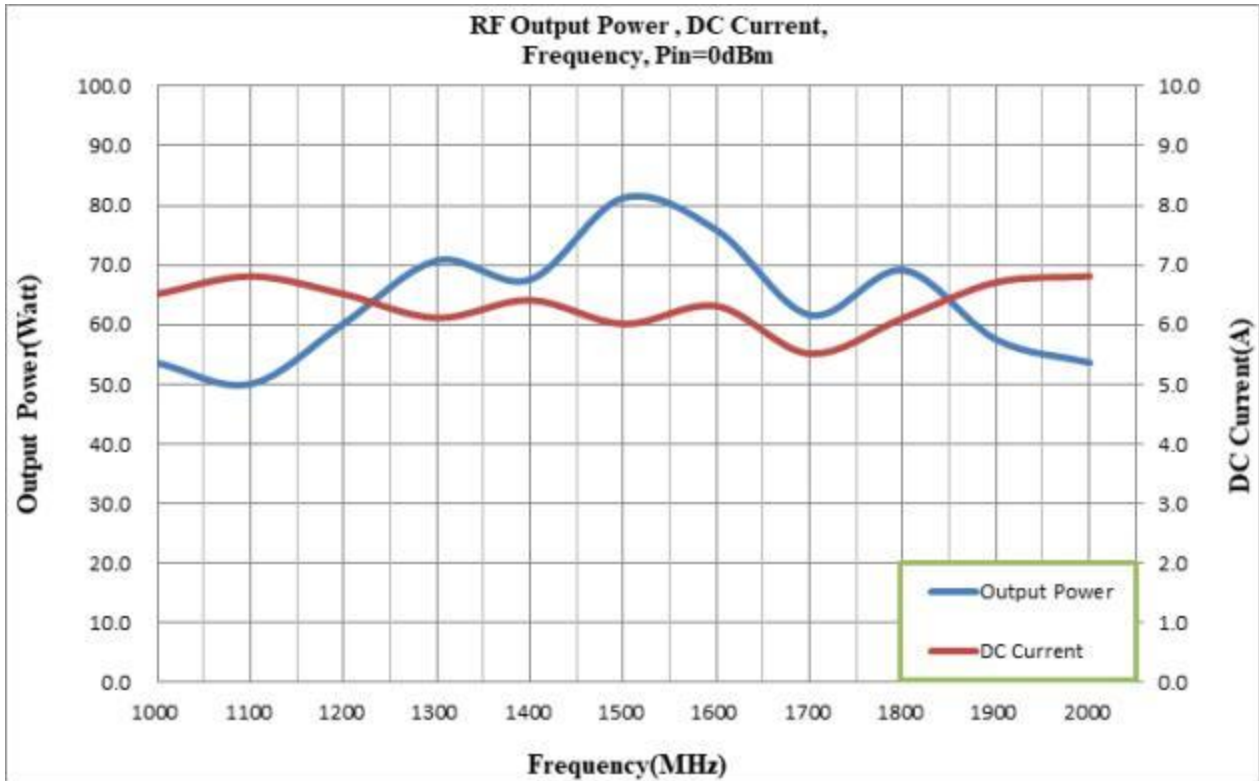
>>www.cdmicrowave.com

Broadband High Power Amplifier Module (SSPA)

1000-2000MHz/50Watt/Module

Model Number: MCW1020M47A

TYPICAL PERFORMANCE PLOTS (for reference only)



Important Note:

1. Adequate heatsink required.
2. This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with [Chengdu Microwave Technology Co., Ltd](http://ChengduMicrowaveTechnologyCo.,Ltd) sales team or E-mail to info@cdmicrowave.com if you have any more questions.

Chengdu Microwave Technology Co., Ltd

>>1st Floor, Building 3#, Huidu Science Park, No.5 Xixin Avenue, High-tech West District, Chengdu, China 611731

>>Tel:+86(28)87872669*0

>>Fax:+86(28)87882925

>>Mobile/WhatsApp:+86-181 8078 9271

>>Email: info@cdmicrowave.com

>>www.cdmicrowave.com