

2000-6000MHz/10Watt/Module

Model Number: MCW2060M40A

The model MCW2060M40A is a multi-octave high power amplifier operating between 2000MHz and 6000MHz and offering a wide dynamic Range with 10Watts 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's suitable for multi-octave broadband high power RF, MF & HF & VHF linear applications.

FEATURES:

- Broadband & High power
- High Efficiency
- Great Linearity
- Extraordinary Harmonic Control
- Smaller Size and Lighter Weight
- Low Distortion

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency(Full Band)	Bw	2000		6000	MHz
RF Output Power	P _{out}		10		Watt
Power Gain	G _p		40		dB
Power Gain Flatness	Δ G _p		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @8W	H		-10		dBc
Spurious	Spur		-60		dBc
In/Output Impedance	Impedance	-	50		Ω
Operating Voltage	V _{DC}	26	28	30	Volt
DC Current @8W	I _{DD}		2		Amp
Switch On/Off @10-90% Time	T _{ON/OFF}		2	3	uS

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	150x 90 x 25 [5.91x3.54x0.98]	mm [inch]	Max
Weight	1.2[2.64]	kg [lbs]	Max
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	+5 dBm (Max)
VSWR protection	∞ @all load phase & amplitude for duration of 1 minutes; 3:1 @all load phase & amplitude continuous
Over Temperature	85°C @heatsink [restored @65°C]

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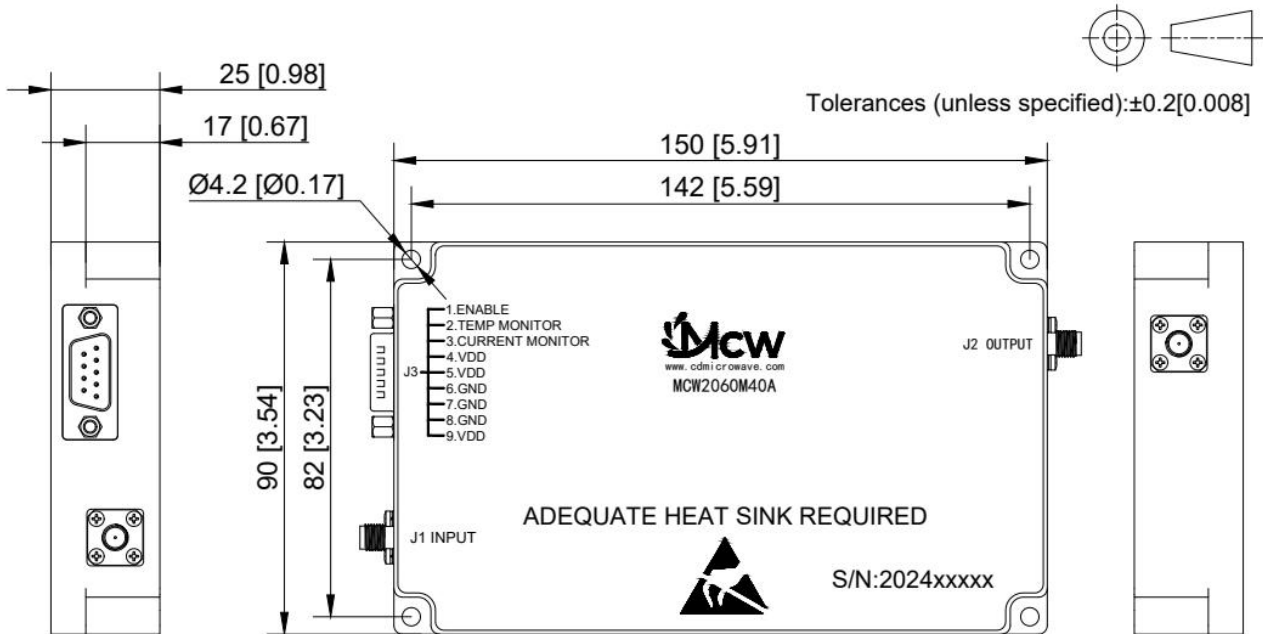
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DC INTERFACE CONNECTOR

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

OUTLINE DRAWING (All dimensions in mm)



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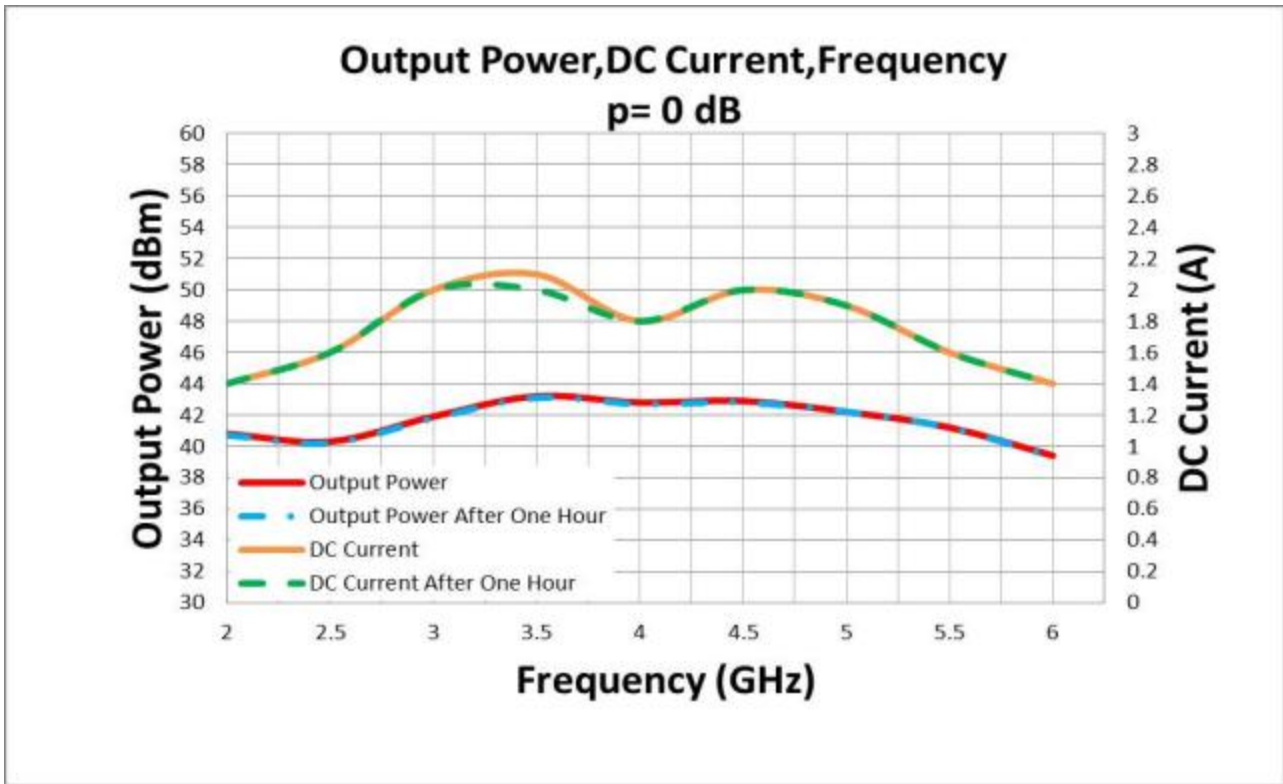
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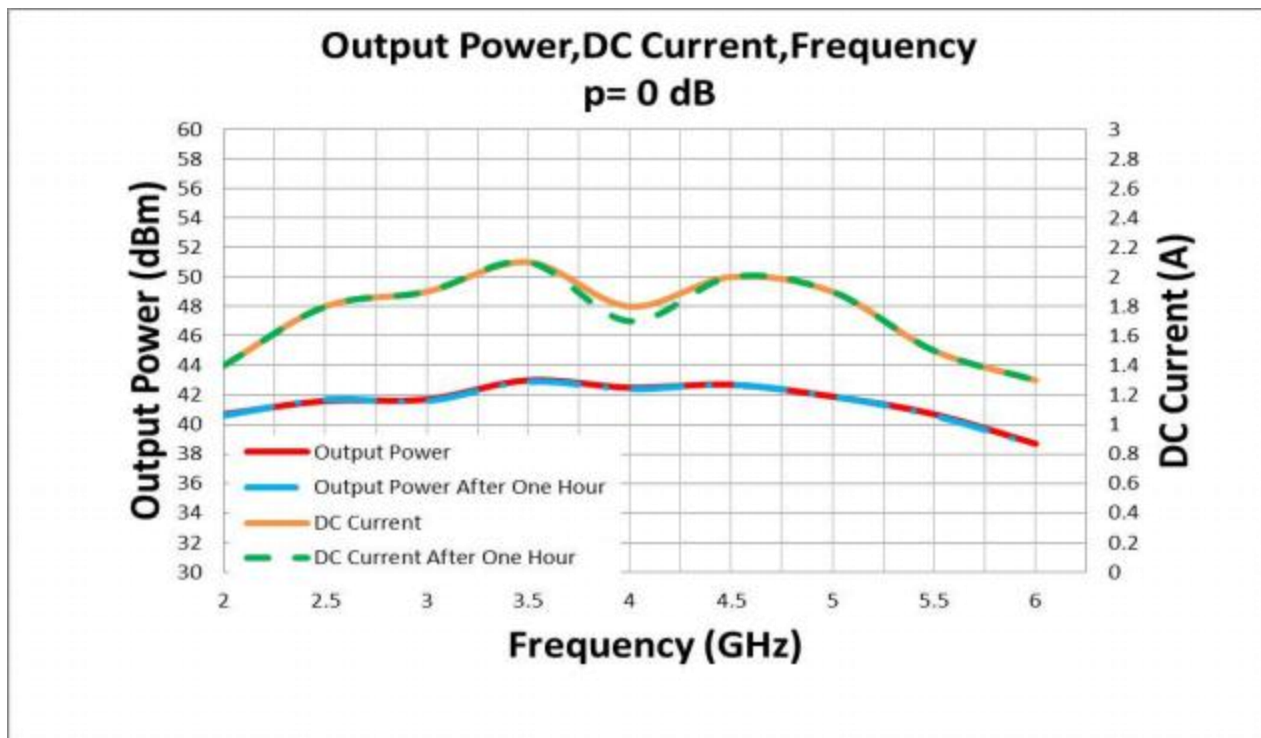
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TYPICAL PERFORMANCE PLOTS (For reference only)

Graph1: Output Power (Low temp. $-20\pm 3^{\circ}\text{C}$)



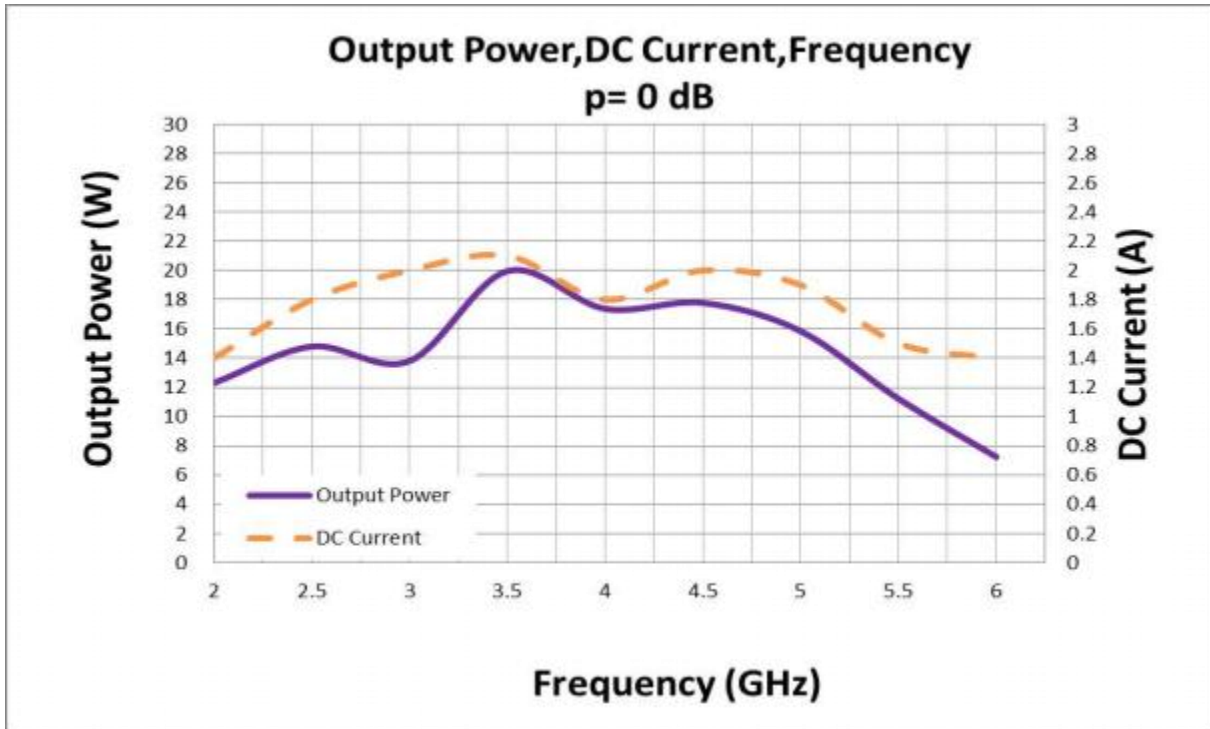
Graph2: Output Power (High temp. $+60\pm 3^{\circ}\text{C}$)



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Graph3: Output Power (Normal temp. +25±3°C)



Power Gain:



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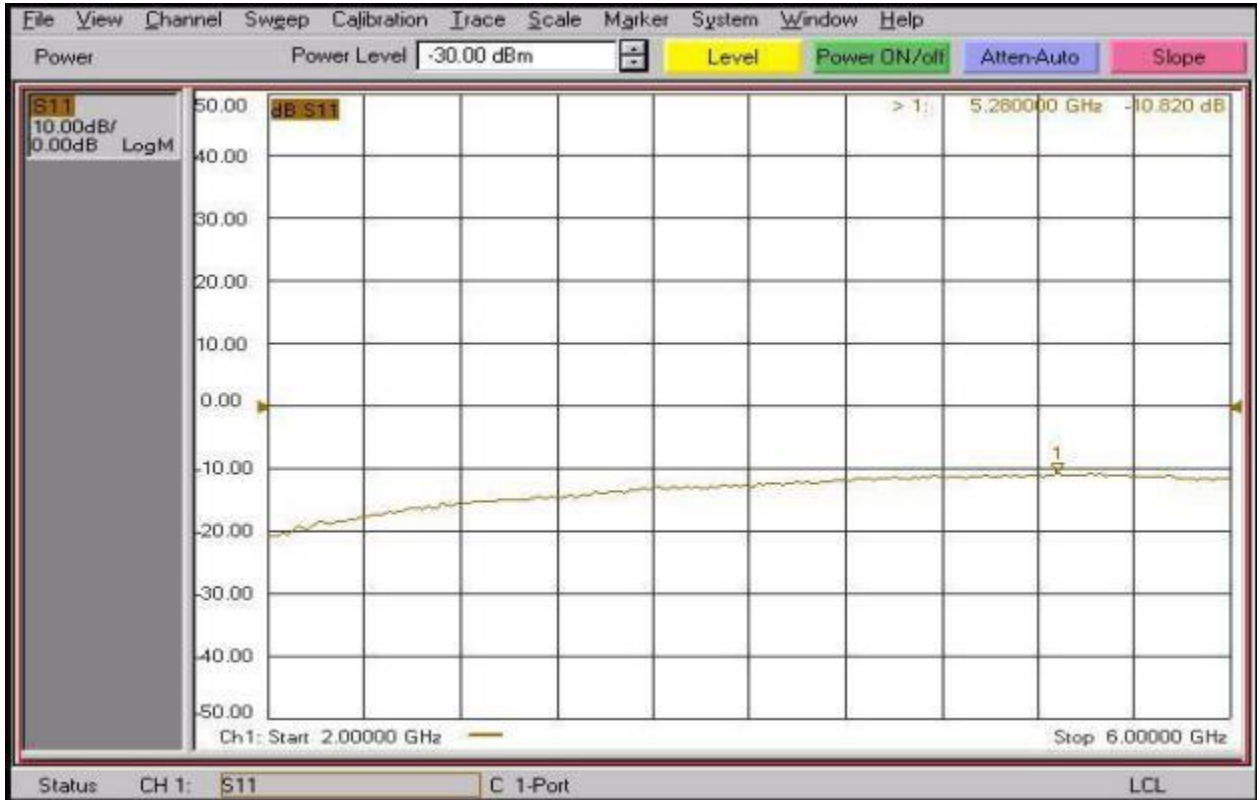
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Input Return Loss:



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 sales team or E-mail to info@cdmicrowave.com if you have any more questions.

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