

2000-6000MHz/10Watt/Module

Model Number: KB2060M40A

The model KB2060M40A is a multi-octave high power amplifier operating between 2000 MHz and 6000 MHz and offering a wide dynamic Range with 10 Watts 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 [5.9x3.5x0.98]	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]

Focus on Your Application

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Specifications subject to change without notice

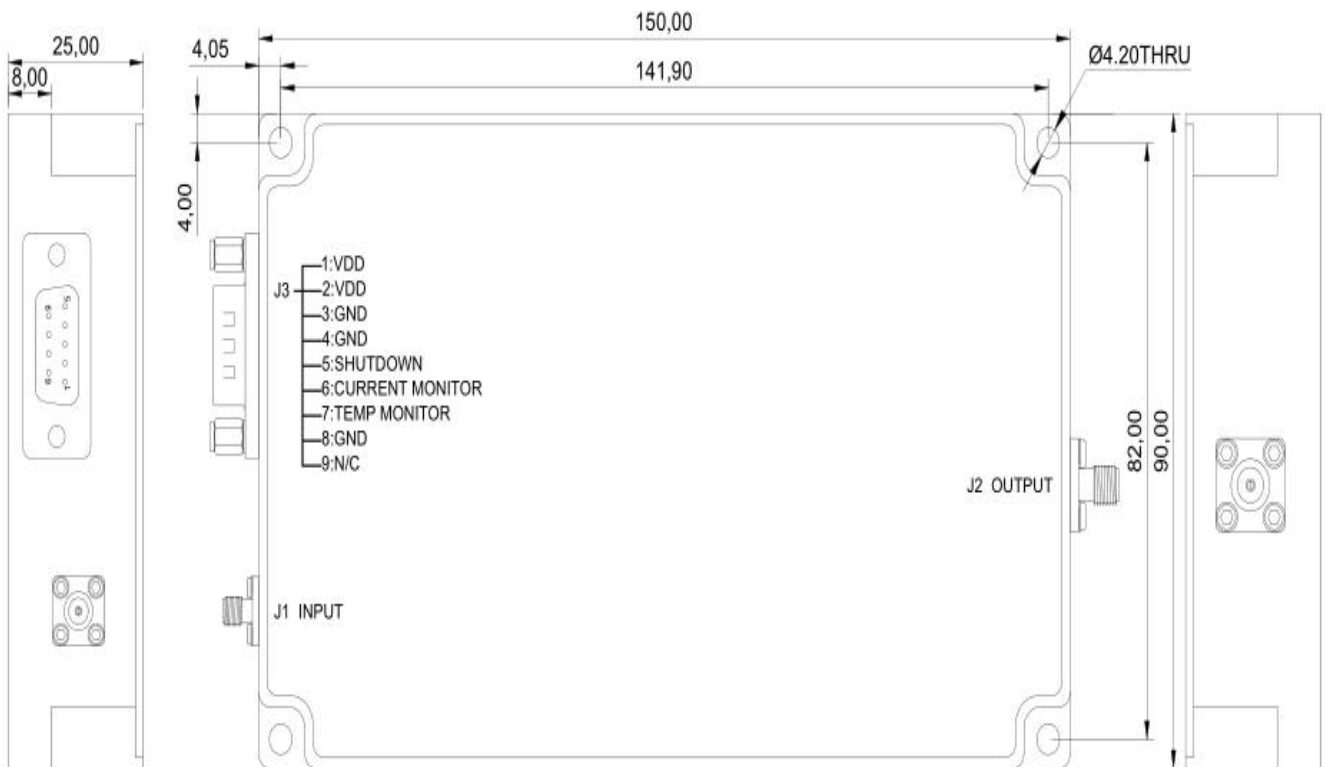
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1.2	VDD	28 ± 2VDC
3.4.8	GND	Ground
5	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
6	CURRENT MONITOR	Analog voltage relative to IDD @100mV per Ampere
7	TEMP MONITOR	Analog voltage relative to Module's Temperature @10 mV/°C
9	NC	No electrical connection

OUTLINE DRAWING (All dimensions in mm)



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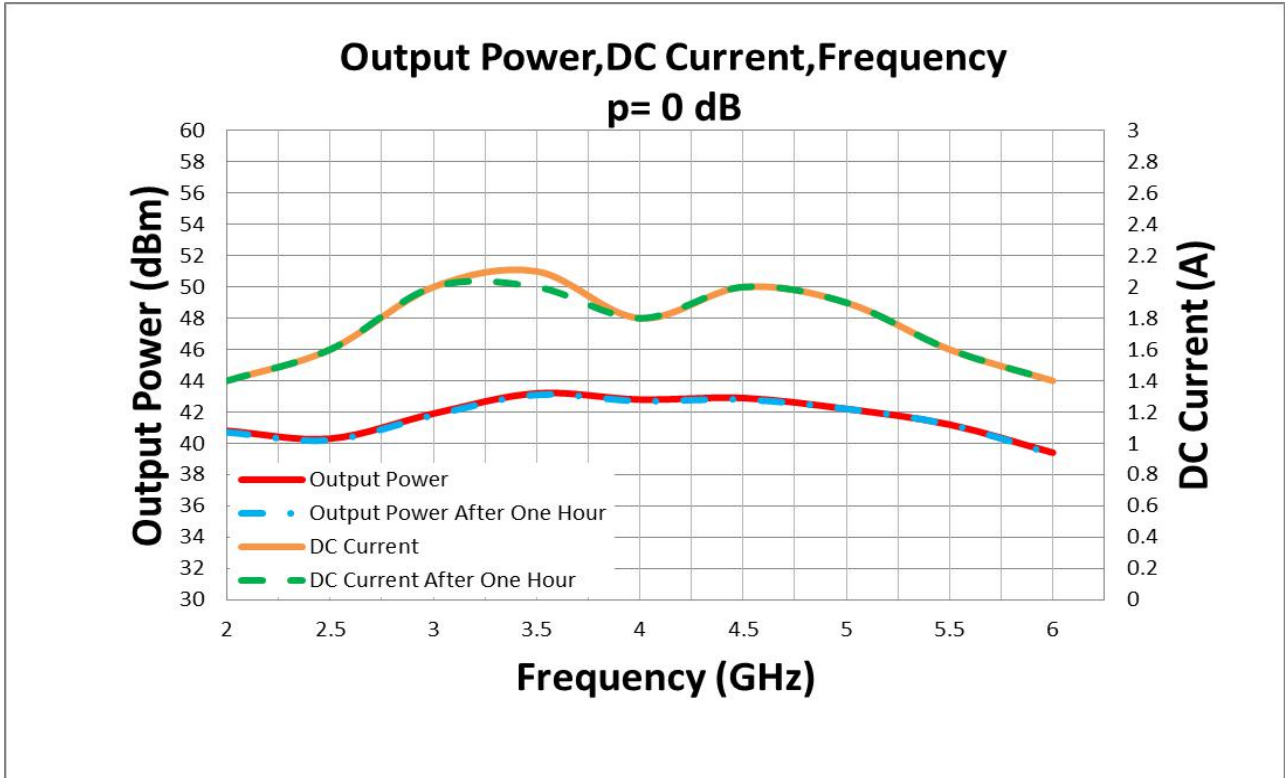
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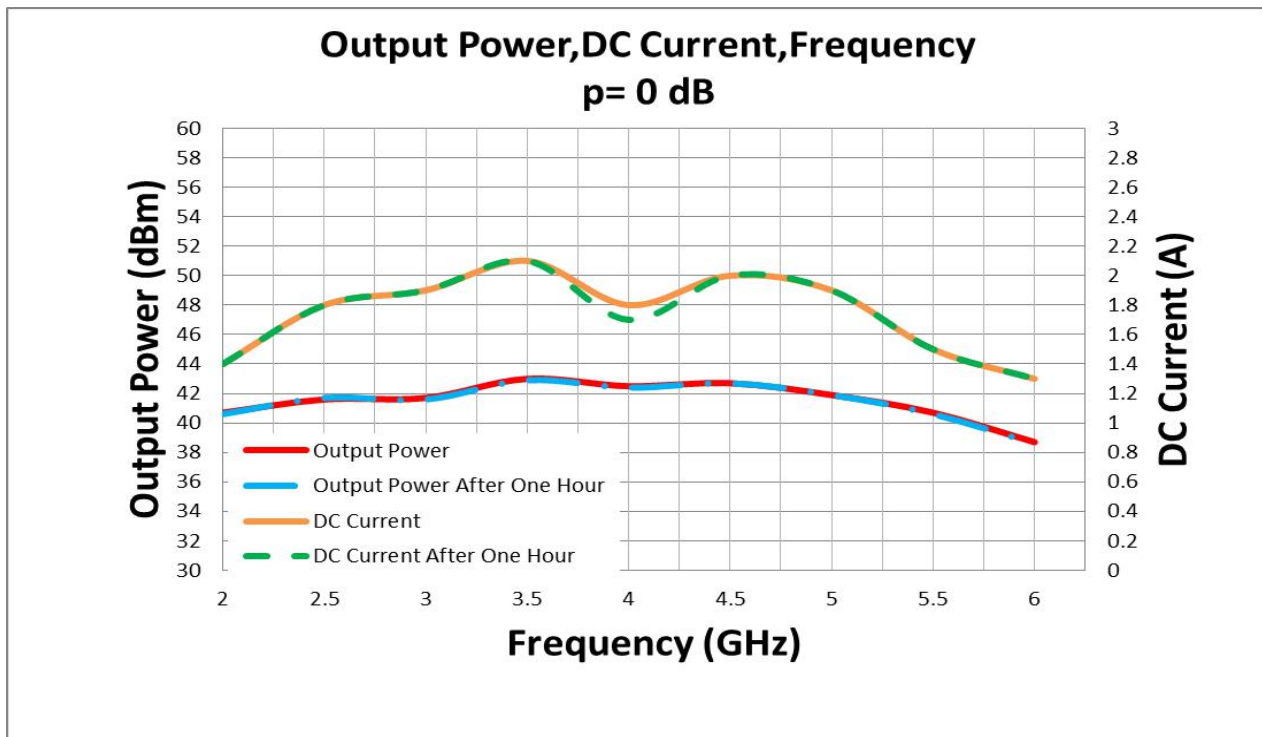
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TYPICAL PERFORMANCE PLOTS (For reference only)

Graph1: Output Power (Low temp. -20±3°C)



Graph2: Output Power (High temp. +60±3°C)



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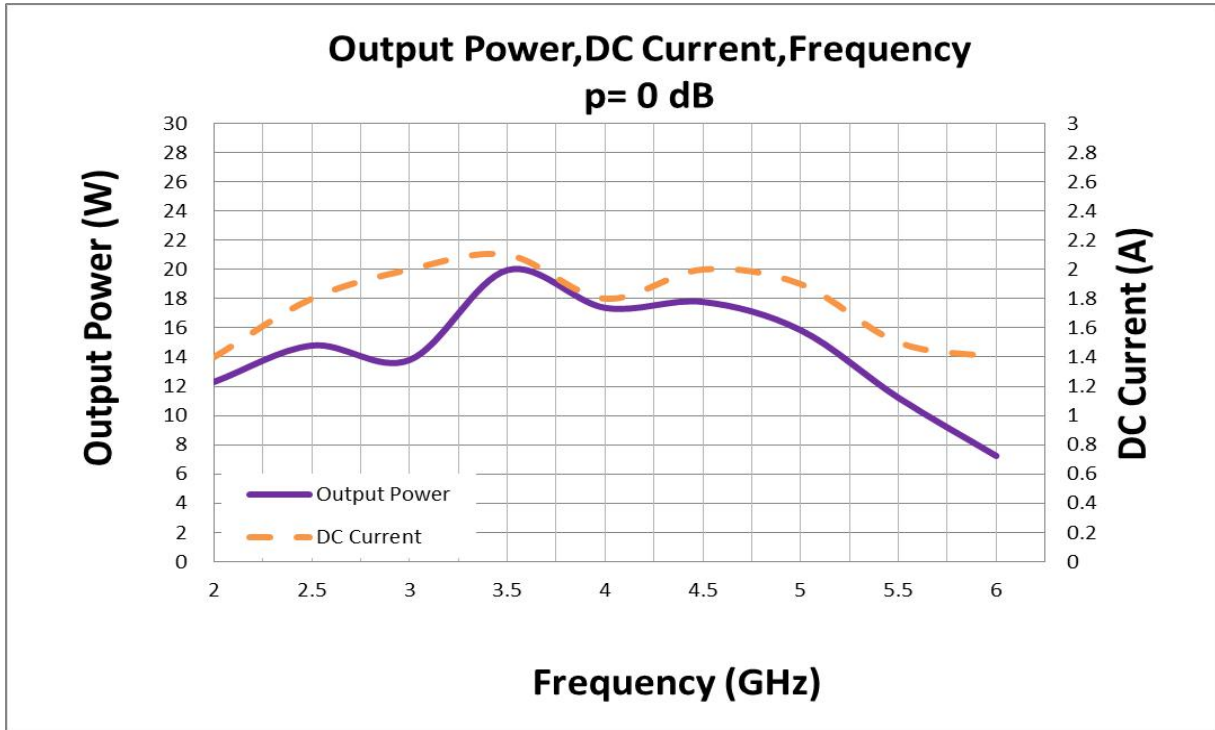
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Graph3: Output Power (Normal temp. +25±3°C)



Power Gain:



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Input Return Loss:



Note: Adequate heatsink required.

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