

4000-8000MHz/100Watt/Module

Model Number: KB4080M50B

The model KB4080M50B is a high-power amplifier operating between 4000 MHz and 8000 MHz and offering a wide dynamic range with 100 Watts minimum 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 applications.

FEATURES:

- Broadband & High Power
- Small Size & 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	4		8	GHz
RF Output Power @Pin=0dBm	P _{SAT}	100			Watt
Power Gain	G _p	50			dB
Power Gain Flatness	Δ G _p		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @80W	H		-25		dBc
Spurious Signals	Spur		-60		dBc
Switching On/Off@10-90% Time, 1kHz	T _{ON/OFF}		2		μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
DC Current @100W	I _{DD}		22		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	240x130x30[9.45x5.12x1.18]	mm [inch]	Maximum
Weight	2.2[4.85]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector Output	N, Female		
DC Interface Connector	J29A-25ZKP		
Cooling	External Heatsink Required(Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Min	Typ	Max	Units	Notes
Ambient Temperature	-40		60	°C	Operating case temperature up to +85°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 @ POUT =50W	∞ @ all load phase & amplitude for duration of 1 minute 3:1 @ all load phase & amplitude continuous
Over Temperature	95°C @ heatsink [restored @ 60°C]

Focus on Your Application

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Specifications subject to change without notice

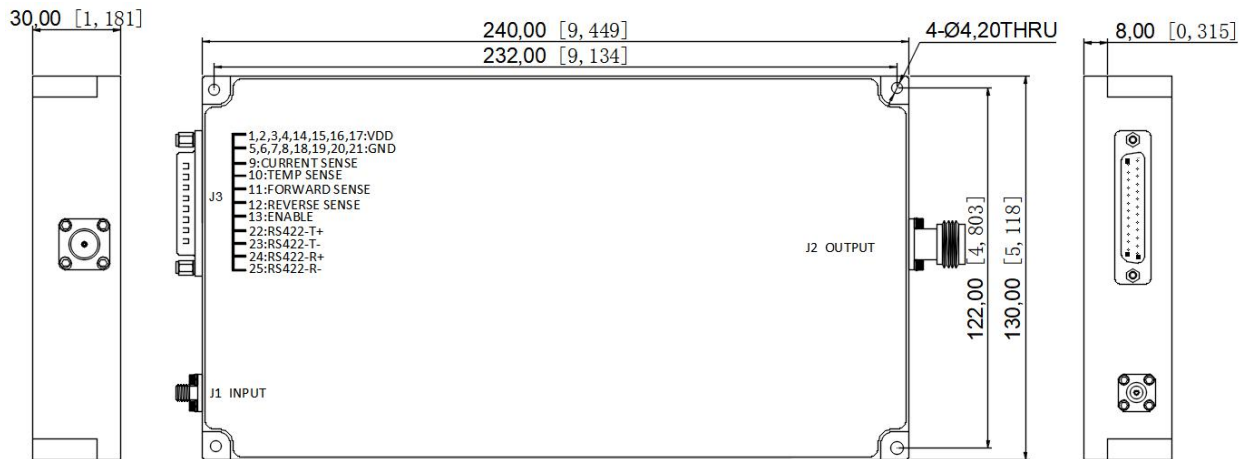
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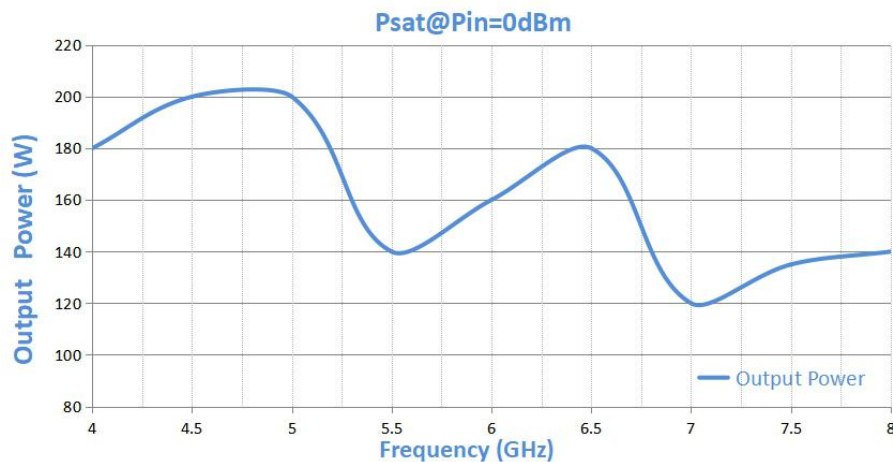
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,2,3,4,14,15,16,17	VDD	+28.0VDC
5,6,7,8,18,19,20,21	GND	Ground
9	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
10	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
11	FORWARD SENSE	Analog voltage relative to forward power level
12	REVERSE SENSE	Amplifier voltage relative to reflected power level
13	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
22	RS422-T+	Include: ENABLE (Switching On/Off Time); CURRENT SENSE, TEMP SENSE, VOLTAGE SENSE, FORWARD SENSE, REVERSE SENSE, CURRENT ALARM, TEMP ALARM, VOLTAGE ALARM, VSWR ALARM
23	RS422-T-	
24	RS422-R+	
25	RS422-R-	

OUTLINE DRAWING (All dimensions in mm [inch])



TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)



Note: Adequate heatsink required.

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