

2000-18000MHz/5Watt/Module

Model Number: KB20180M37B

The model KB20180M37B is a multi-octave high power amplifier operating between 2 GHz and 18 GHz and offering a wide dynamic range with 5 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 is ideal for multi-octave broadband high power RF C&Ku applications.

FEATURES:

- Broadband & High power
- High Efficiency
- Small Size & Light Weight
- Low Distortion

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	2		18	GHz
RF Output Saturated Power	Psat		5		Watt
Power Gain @Psat	Gp		37		dB
Power Gain Flatness	ΔGp		±2		dB
Input Return Loss	S ₁₁			-10	dB
2nd Harmonics @2 W	H		-12		dBc
Spurious	Spur		-55		dBc
Switch On/Off@10-90% Time	TON/OFF		10		μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	26	28	30	Volt
DC Current @5W	IDD		2		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	120*80*22[4.7*3.1*0.8]	mm[inch]	Maximum
Weight	1.2[2.64]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector 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)
Load VSWR @ Pout =2 W	10:1 @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

Focus on Your Application

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Specifications subject to change without notice

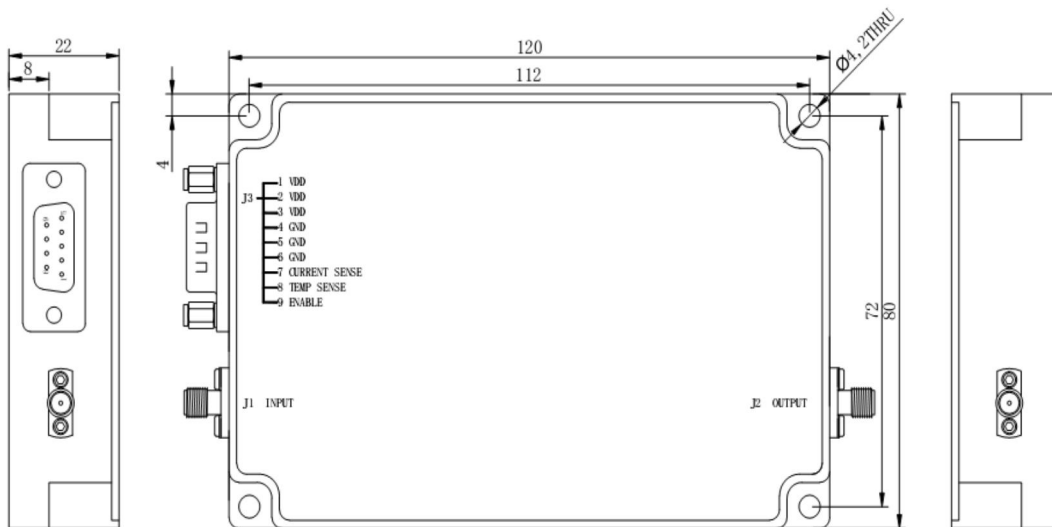
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DC INTERFACE CONNECTOR

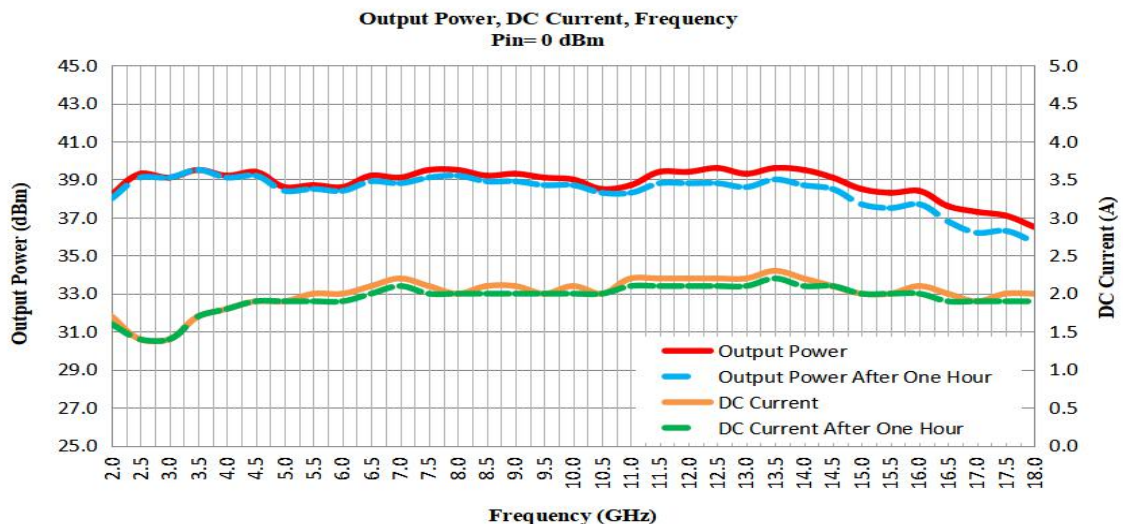
Pin #	Description	Specifications
1, 2, 3	VDD	28VDC
4, 5, 6	GND	Ground
7	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
8	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
9	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)

OUTLINE DRAWING (All dimensions in mm)



TYPICAL PERFORMANCE PLOTS(FOR REFERENCE ONLY)

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



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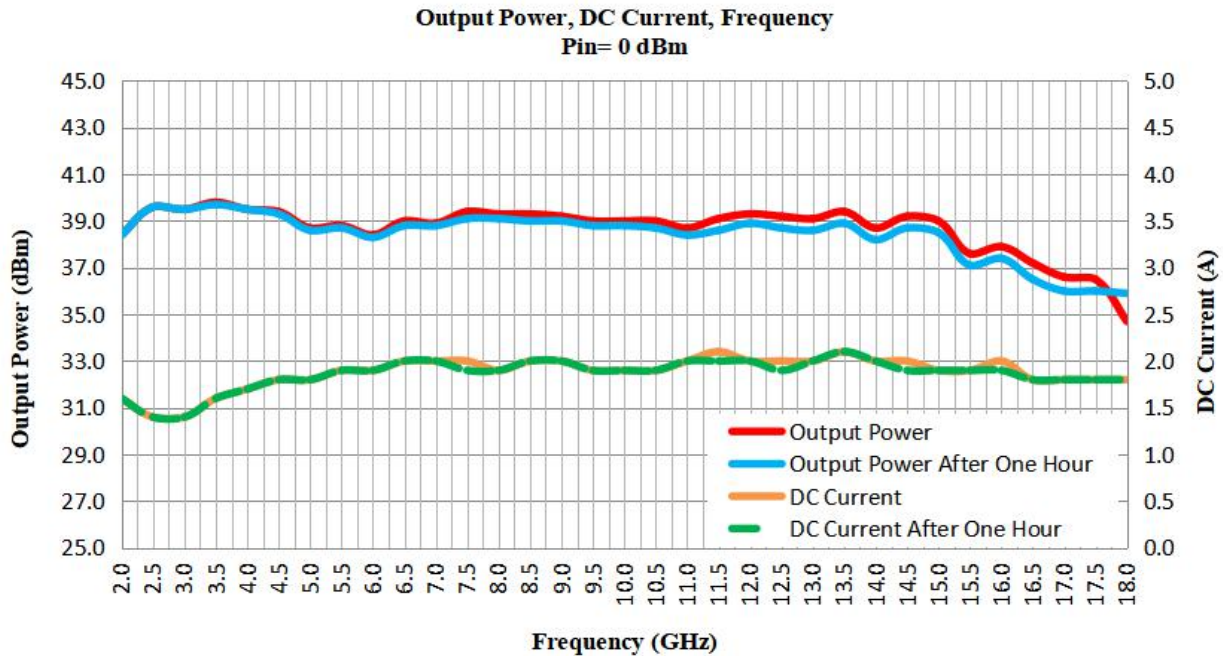
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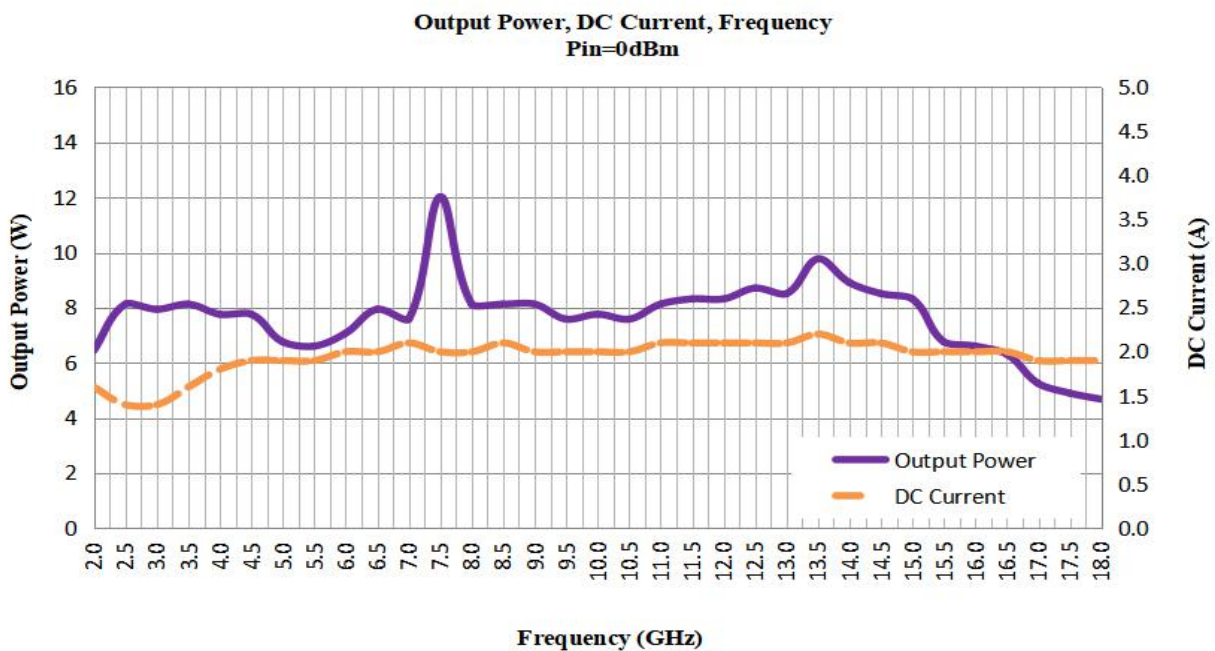
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Graph2: Output Power (High temp. +60±3°C)



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



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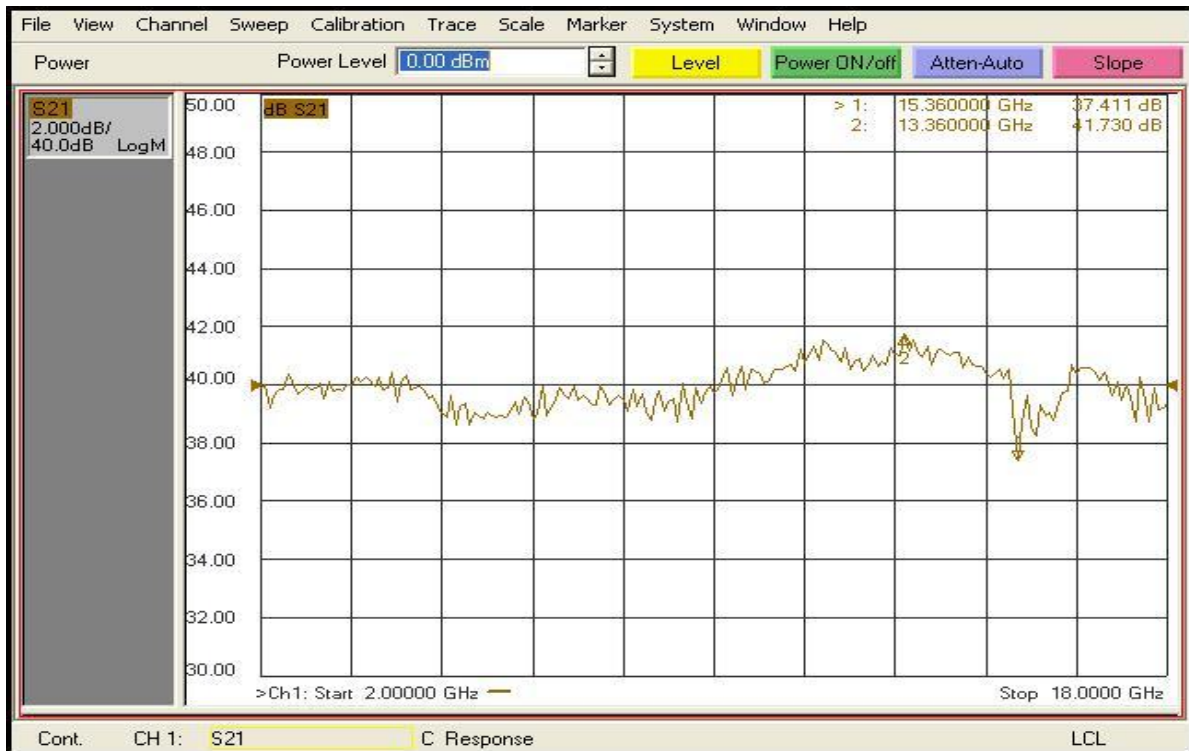
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Power Gain:



Input Return Loss:



Note: Adequate heatsink required.

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