

1-3GHz/45Watt/Module

Model Number: KB1030M47A

The model KB1030M47A is a multi-octave high power amplifier operating between 1 GHz and 3 GHz and offering a wide dynamic Range with 45 Watts typical saturated power @1dB Gain Compression. 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 jamming, EMC, test and measurement applications.



FEATURES: Small size and light weight; Instantaneous ultra broadband; 50 Ohms input and output matched; Built-in control and protection circuits.

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

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1000		3000	MHz
RF Output Power @ 1dB Gain Compression	P _{1dB}		45		Watt
Power Gain	G _p		46		dB
Power Gain Flatness	Δ G _p		±2.5		dB
Third Order Intercept Point 2-Tone @ 30dBm/Tone, 1MHz Spacing	IP ₃		56		dBm
Input Return Loss /Output Return Loss	S ₁₁ / S ₂₂			-10	dB
Harmonics @20W	H		-10		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance			50		Ω
Operating Voltage	V _{dc}	24	28	32	Volt
DC Current @45W	I _{DD}		10		Amp
Switching Time @1kHz TTL (10% to 90%)	T _{on/off}		2		uSec

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	180x120x25 [7.08x4.72x0.098]	mm [inch]	Maximum
Weight	2 [4.4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N-Type, Female		
DC Interface Connector	D-Sub 9-Pin, Male		
Cooling	External Heatsink (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	Maximum
Load VSWR @ P _{OUT} =25W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous	
Thermal Overload	85°C shutdown	Typical

Focus on Your Application

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Specifications subject to change without notice

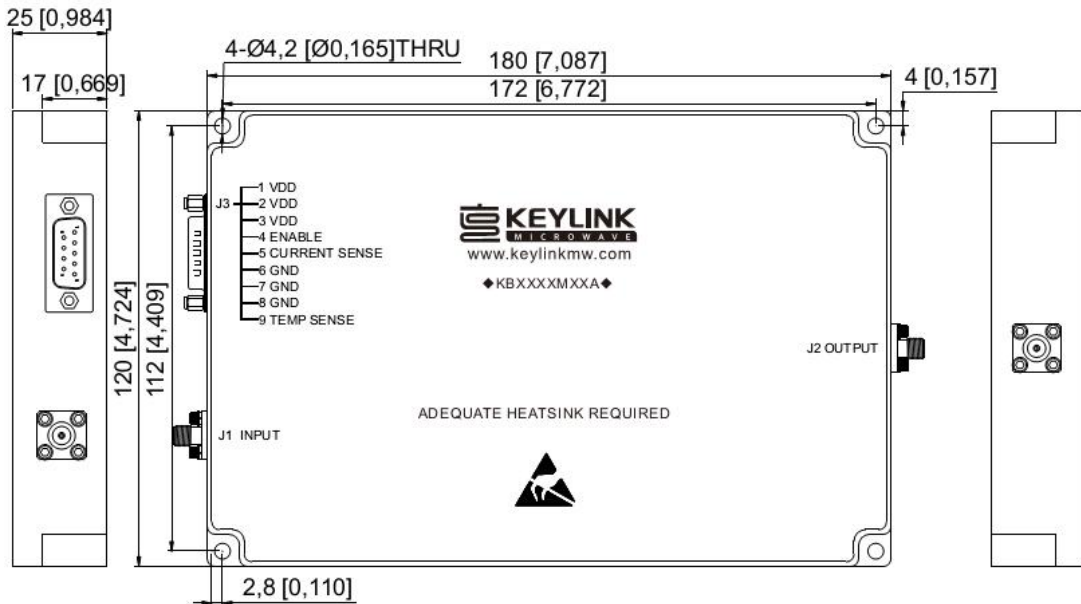
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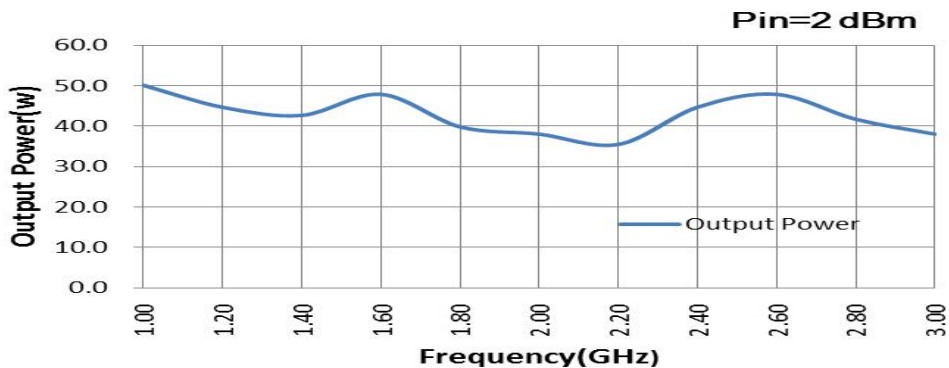
DC INTERFACE CONNECTOR

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

OUTLINE DRAWING (All dimensions in mm [inch])



TYPICAL PERFORMANCE PLOTS (For Reference Only)



Note:
 This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different.
 Please check with KeyLink sales team if you have any question.

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