

2-6GHz/50Watt/Module

Model Number: KBP2060M47A

The model KBP2060M47A is a S/C-band high power pulsed amplifier operating between 2GHz and 6GHz and offering pulse width up to 10μs with duty cycle up to 10%. The amplifier provides 50 Watts peak output power into a 50 Ohm load. 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 high power pulse applications or radar system.

FEATURES:

- Broadband & High power
- Small Size & Light Weight
- 50 Ohms Input and Output Matched
- Built-In Control and Protection Circuits

ELECTRICAL SPECIFICATIONS @ +30.0VDC, pulse width 10us,duty cycle 10%,25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	2		6	GHz
RF Output Power@Pin=0dBm	PPK		50		Watt
Duty Cycle	Duty Cycle		10	100	%
Pulse Width	PWIDTH	0.2		CW	μS
PRI	PRI		1000		uS
Power Gain	Gp		47		dB
Power Gain Flatness	Δ Gp		±3		dB
Rise /Fall time (Pulse Performance)	T _{RISE/FALL/OFF(10-90)}		100		nS
Power droop	Droop			1	dB
Input Return Loss	S ₁₁			-10	dB
Spurious Signals	Spur		-60		dBc
Harmonics@20W	H		-10		dBc
Switch On/Off@10-90% Time,1kHz	T _{ON/OFF}		2		μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	28	30	32	Volt
DC Current @50W	I _{DD}		3		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	160x100x25 [6.20x3.90x0.98]	mm [inch]	Maximum
Weight	2[4.4]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector Output	SMA, Female		
DC Interface Connector	Hybrid, D-Sub 7-Pin, Male		
Cooling	External Heatsink Required(Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		60	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

Focus on Your Application

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Specifications subject to change without notice

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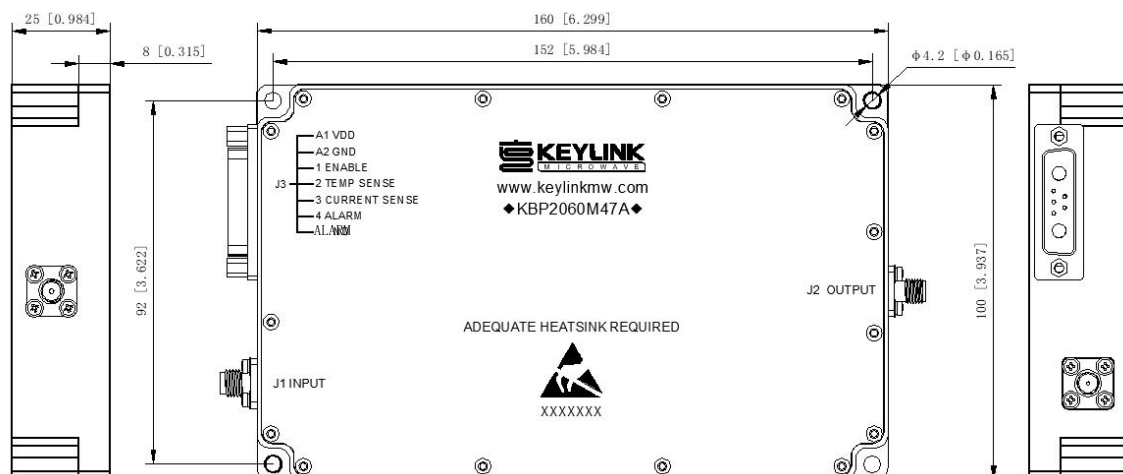
ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5dBm (Max)
Load VSWR @ POUT=30W	∞ @ all load phase & amplitude for duration of 1 minute 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

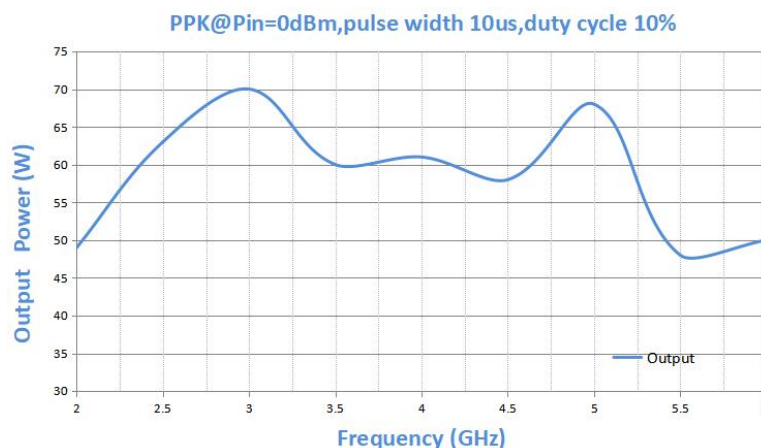
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	30VDC
A2	GND	Ground
1	ENABLE	Amplifier Enable: TTL Logic High (3.3-5V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to temperature@0.5V+10mV / °C
3	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
4	ALARM	Amplifier Alarm indicator: Normally TTL Low
5	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch],dimensional tolerance:±0.2mm)



TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)



Note: Adequate heatsink required.

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