

0.8-1GHz/50Watt/Module**Model Number: KB0810M47B**

The model KB0810M47B is a high power amplifier operating between 0.8 GHz and 1 GHz and offering a wide dynamic range with 50 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 high power applications.

FEATURES:

- Small Size and Light Weight
- 50 Ohms Input and Output Matched
- Built-In Control and Protection Circuits, Including Over-Temperature Protection, Over-Current Protection, and Over-Voltage Protection.

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	0.8		1	GHz
RF Output Power @Pin=0dBm	P _{SAT}	50			Watt
RF Output Power @P1	P _{1dB}	30			Watt
Power Gain	G _p		47		dB
Power Gain Flatness	ΔG _p		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @25W	H		-20		dBc
Switch On/Off@10-90% Time,1kHz	T _{ON/OFF}		2	5	μS
Spurious Signals	Spur		-60		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
DC Current @50W	I _{DD}		7		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	160x90x25 [6.30x3.54x0.98]	mm [inch]	Maximum
Weight	1.2 [2.6]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	J30J-15Pin,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	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ P _{OUT} =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]

Focus on Your Application***Chengdu KeyLink Wireless Technology Co., Ltd.***

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Specifications subject to change without notice

Broadband High Power Amplifier Module (SSPA)

Version.1.0_2025.03.06

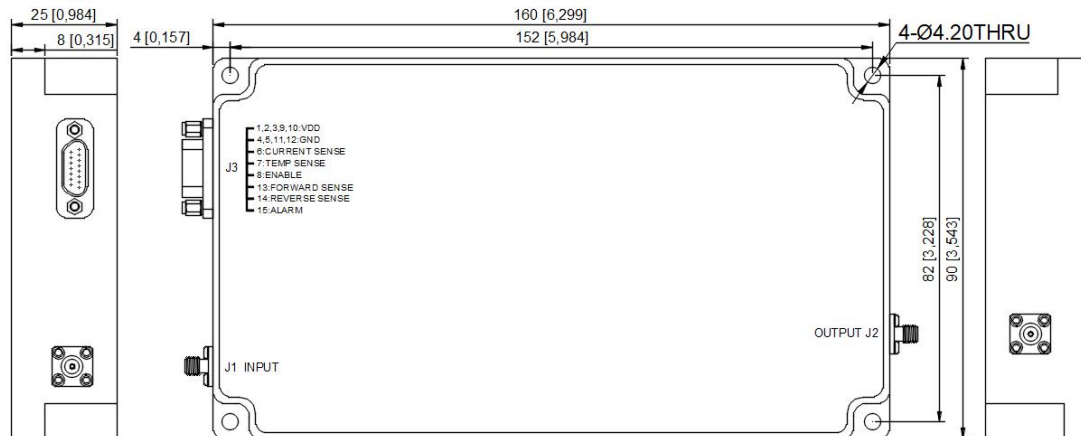
0.8-1GHz/50Watt/Module

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POWER & CONTROL INTERFACE CONNECTOR

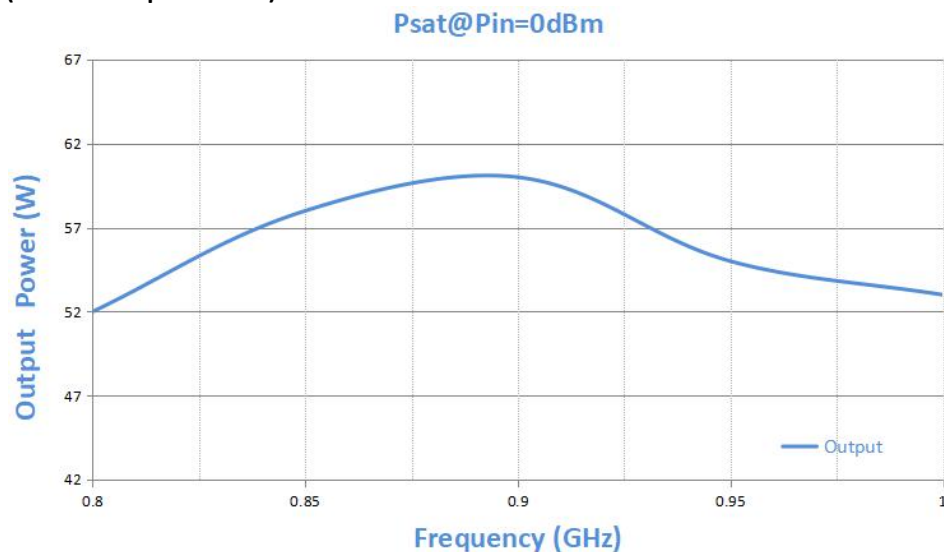
Pin #	Description	Specifications
1,2,3,9,10	VDD	28VDC
4,5,11,12	GND	Ground
6	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
7	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
8	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
13	FORWARD SENSE	Analog voltage relative to forward power level
14	REVERSE SENSE	Analog voltage relative to reflected power level
15	ALARM	Amplifier Alarm indicator: Normally TTL Low

OUTLINE DRAWING (All dimensions in mm [inch],dimensional tolerance:±0.2mm(0.008 inch))



TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.

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