

800-3000MHz/50Watt/Module

Model Number: KB0830M47C

The model KB0830M47C is a multi-octave high power amplifier operating between 800 MHz and 3000 MHz 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 broadband high power RF, P&L&S applications.

FEATURES:

- Broadband & High power
- High Efficiency
- Small Size & Light Weight
- Built-in Control and Protection Circuits

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	800		3000	MHz
RF Output Power @PIN=0dBm	Psat		50		Watt
Power Gain @ PSAT	Gp		47		dB
Input Power for Rated PSAT	PIN		0		dBm
Power Gain Flatness	Δ Gp		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Noise Figure @ Max Gain	NF		11		dB
Third Order Intercept Point2-Tone @ 41dBm/Tone, 1MHz Spacing	IP3		+50		dBm
Harmonics @20W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time	T _{ON/OFF}		2	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
Current Consumption @ Shutdown	I _{SD}			0.3	Amp
DC Current @50W	I _{DD}		9		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	162.56x86.36x25 [6.4 x 3.4 x 0.98]	mm[inch]	Maximum
Weight	1 [2.20]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors 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	-40		60	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm (Max)
Load VSWR @ P _{OUT} =40W	∞ @ all load phase & amplitude for duration of 1 minutes; 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.

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761

>> Fax: +86(28)87883266

>> Email: sales@keylinkmw.com

>> www.keylinkmw.com

Specifications subject to change without notice

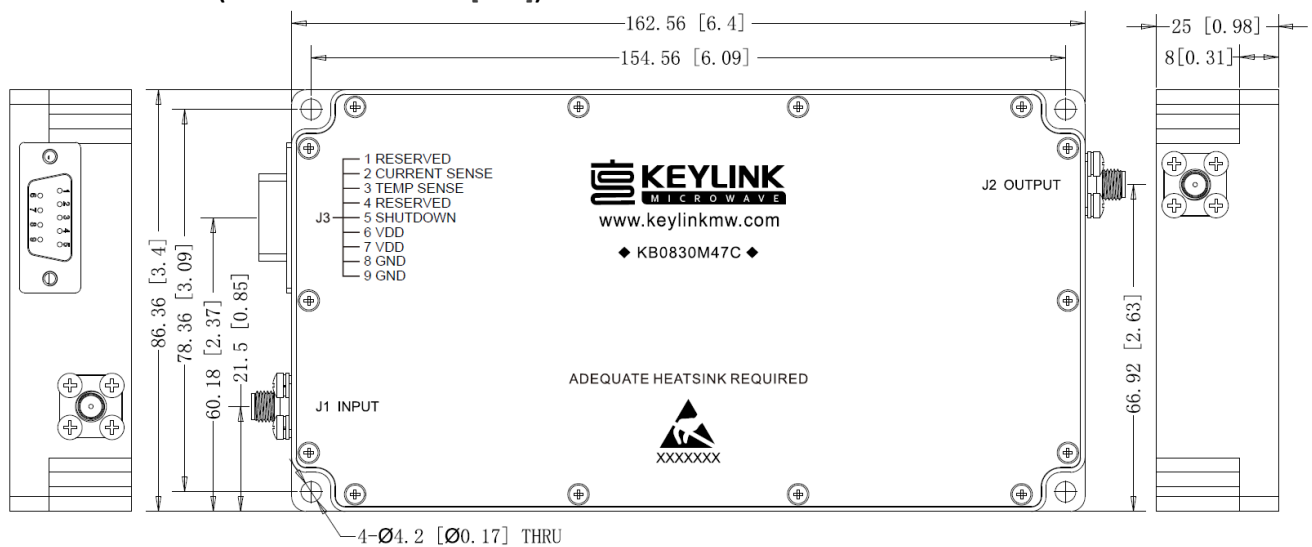
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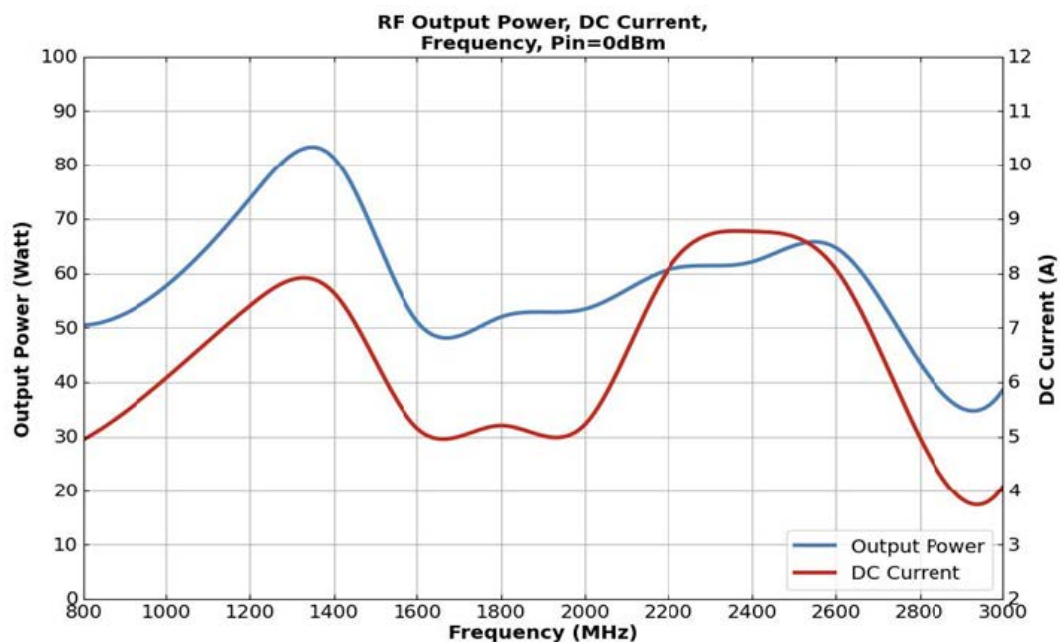
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1	Reserved	No Connection
2	Current Sense	Analog voltage relative to IDD @ 100mV per Ampere
3	Temp Sense	Analog voltage relative to module temperature @ 0.5V+10mV/°C
4	Reserved	No Connection
5	Shutdown	Amplifier Disable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
6,7	VDD	+28.0VDC
8,9	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch])



TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)



Note: Adequate heatsink required.

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