

Narrowband High Power Amplifier Module (SSPA)

2400-2500MHz/50Watt/Module

Model Number: KN2450M47A

The model KN2450M47A is a narrowband high-power amplifier operating between 2.4GHz and 2.5GHz with 50Watts 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 narrowband high-power RF and linear applications.

FEATURES:

- Narrowband & 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	2.4		2.5	GHz
RF Output Saturated Power	PSAT		50		Watt
Power Gain	Gp		47		dB
Power Gain Flatness	Δ Gp		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @30W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time,1kHz	TON/OFF		2		μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	24	28	32	Volt
DC Current @50W	IDD		7		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	150x90x25 [5.91x3.54x0.98]	mm [inch]	Maximum
Weight	1.0 [2.2]	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	-20		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 @ POUT =20W	∞ @ 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

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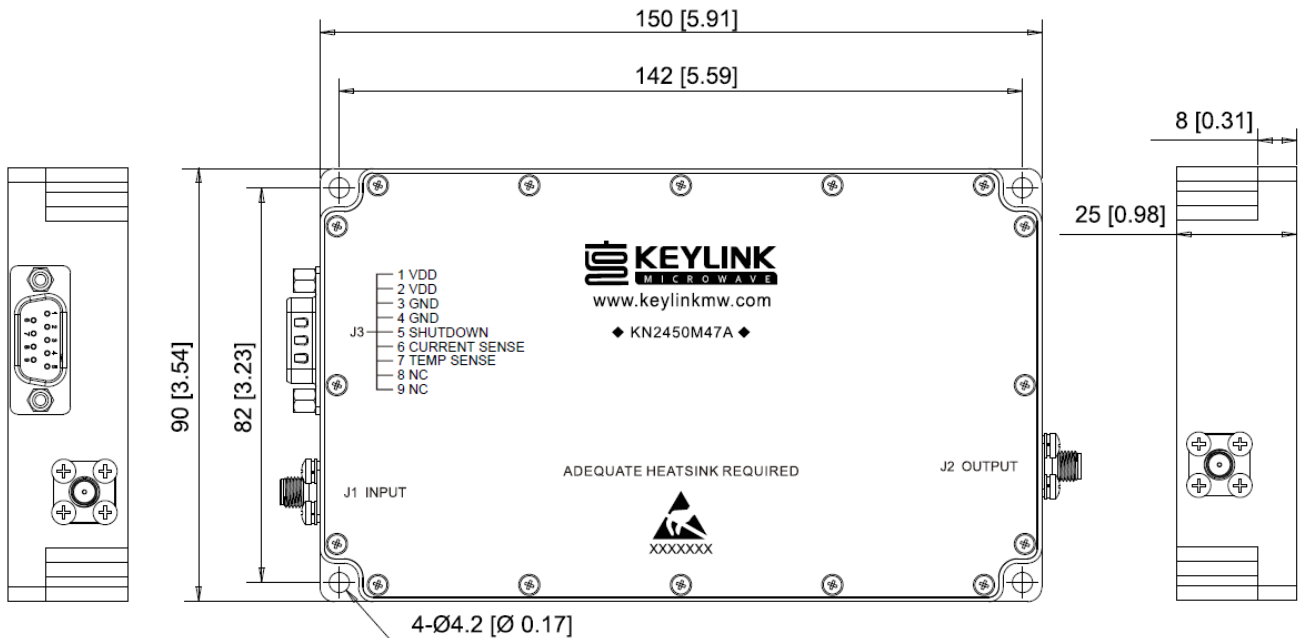
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,2	VDD	28V _{DC}
3,4	GND	Ground
5	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
6	CURRENT SENSE	Analog voltage relative to I _{DD} @ 100mV per Ampere
7	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
8	NC	No electrical connection
9	NC	No electrical connection

OUTLINE DRAWING (All dimensions in mm [inch])



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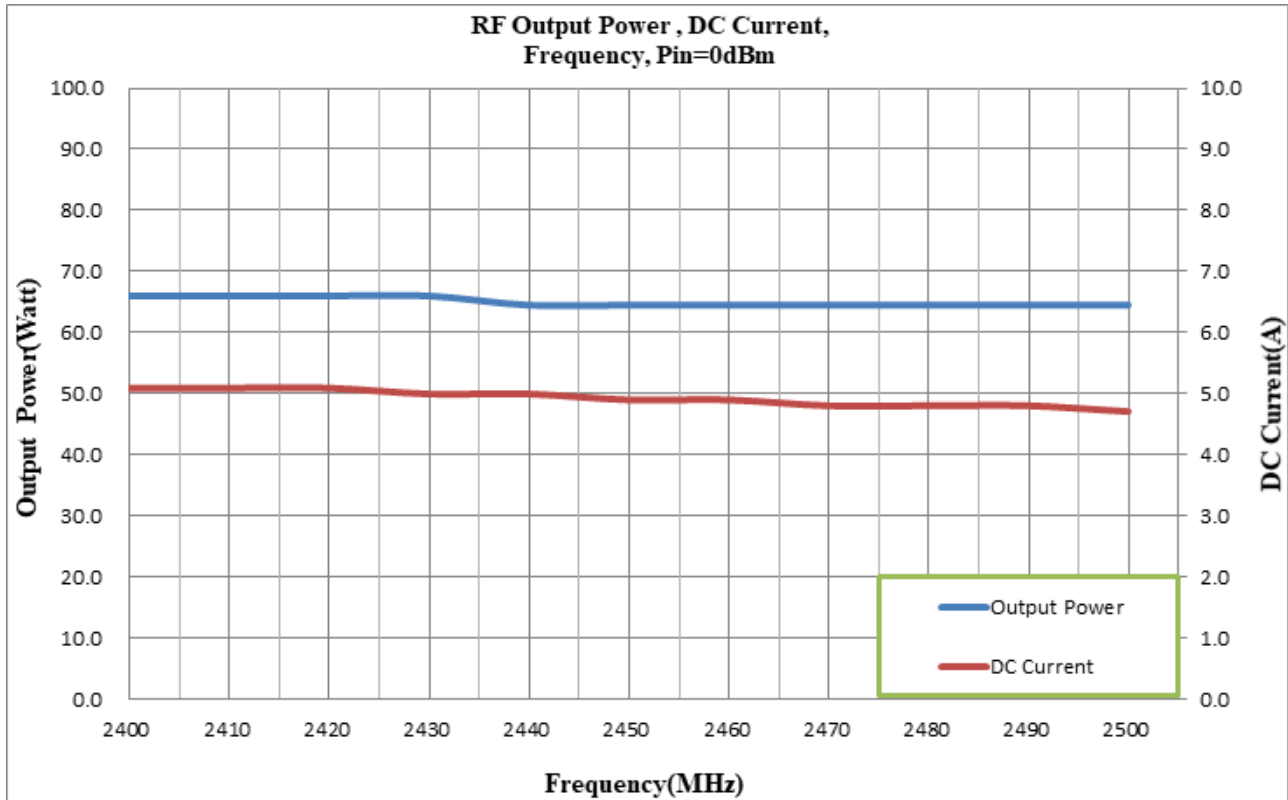
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TYPICAL PERFORMANCE PLOTS(FOR REFERENCE ONLY)



Note: Adequate heatsink required.

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