3.0-3.3GHz/25Watt/Module

Model Number: KN3150M44A

The model KN3150M44A is a multi-octave high power amplifier operating between 3.0GHz and 3.3GHz and offering a wide dynamic Range with 25Watts typical saturated power. The employment of advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency.

FEATURES:

- Narrowband & High power;
- High Efficiency;
- Great Linearity;
- Small Size & Light Weight;
- Low Distortion

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	3.0		3.3	GHz
RF Output Power	P_{sat}		25		Watt
Power Gain	Gp		44		dB
Power Gain Flatness	Δ Gp		±1.5		dB
Input Return Loss	S_{11}			-10	dB
Harmonics @20W	H		-15		dBc
Spurious Signals	Spur		-55		dBc
Switch On/Off@10-90% Time	TON/OFF		2		μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	24	28	32	Volt
DC Current @25W	IDD		3.5		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	150x90x25 [5.9x3.55x0.98]	mm [inch]	Maximum
Weight	1.2 [2.6]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	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	-25		65	°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 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

Focus on Your Application

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Specifications subject to change without notice

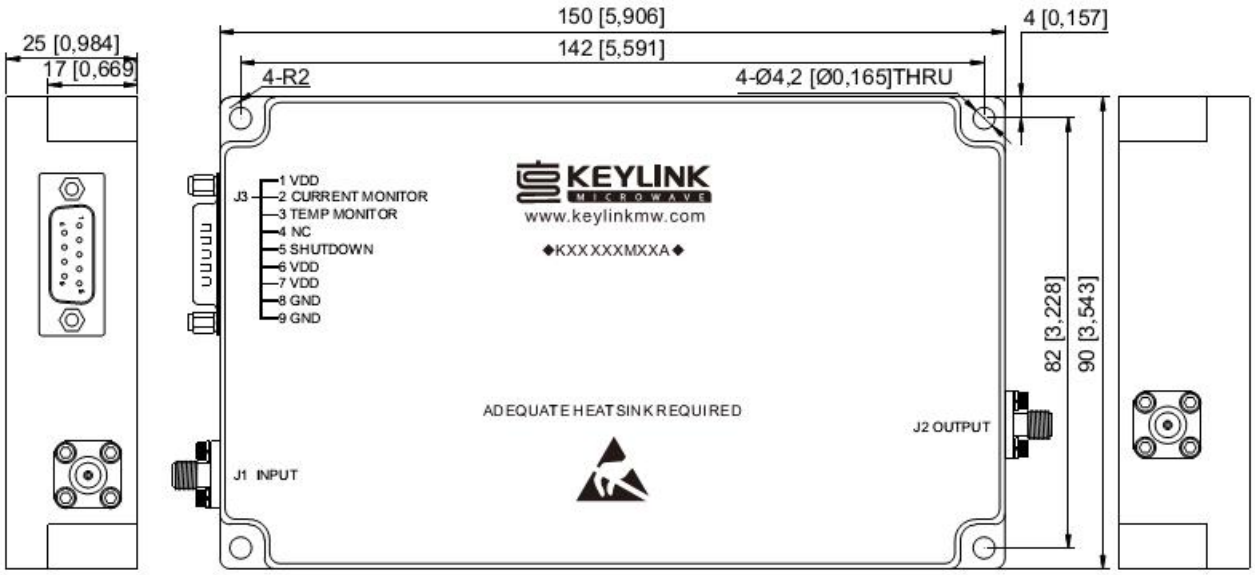
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DC INTERFACE CONNECTOR

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

OUTLINE DRAWING (All dimensions in mm [inch])



Focus on Your Application

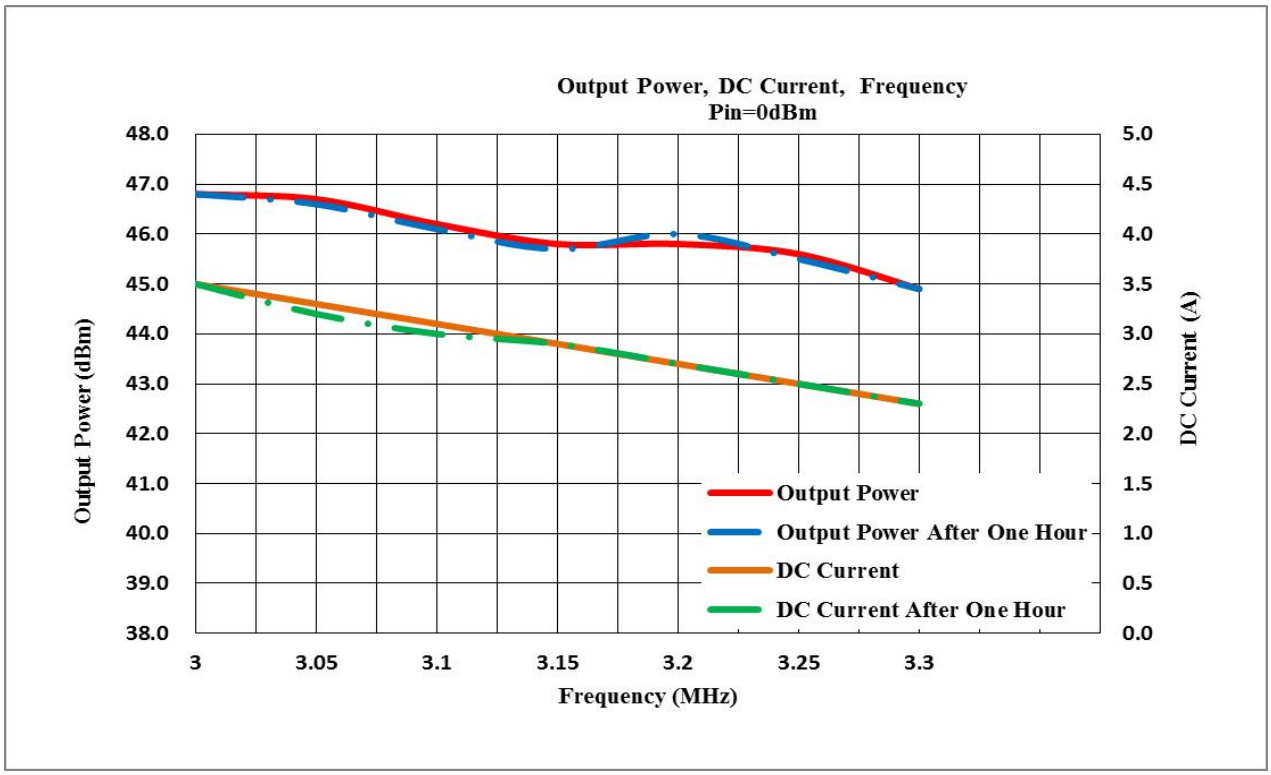
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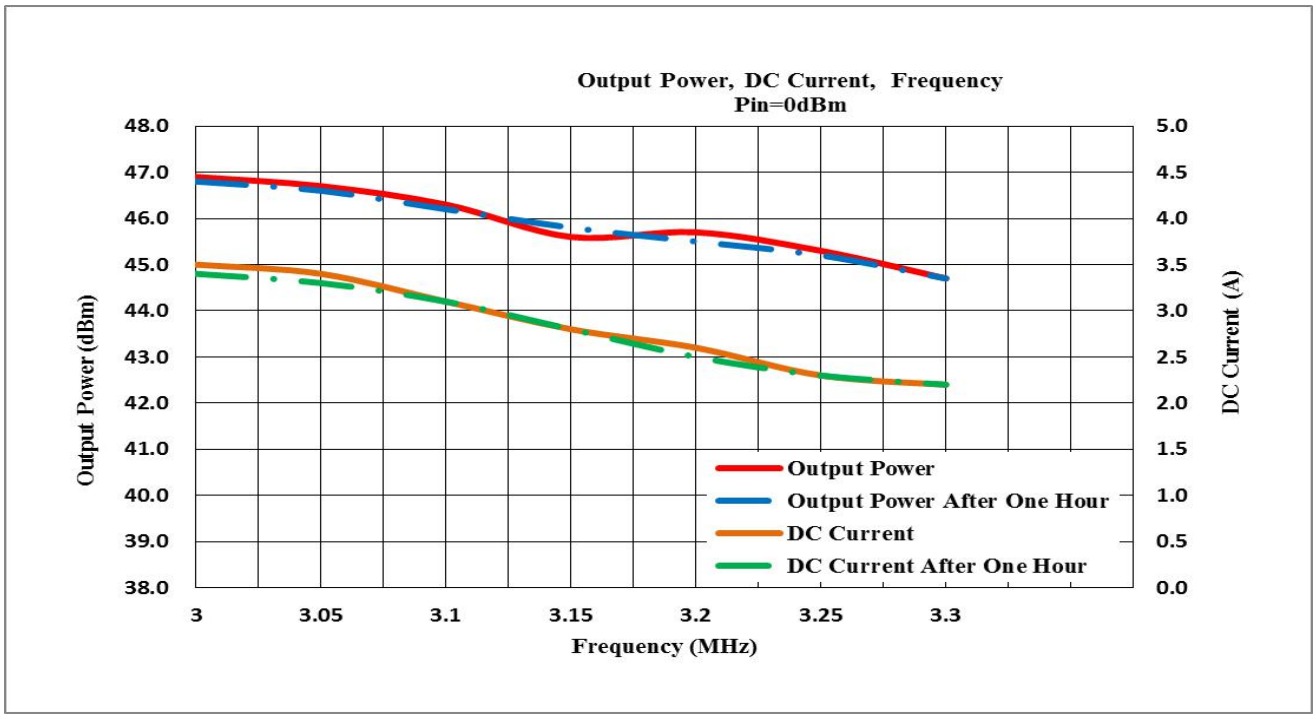
Model Number: KN3150M44A

TYPICAL PERFORMANCE PLOTS

Graph1: Output Power(Low temp.-20±3℃)



Graph2: Output Power(High temp.+60±3℃)



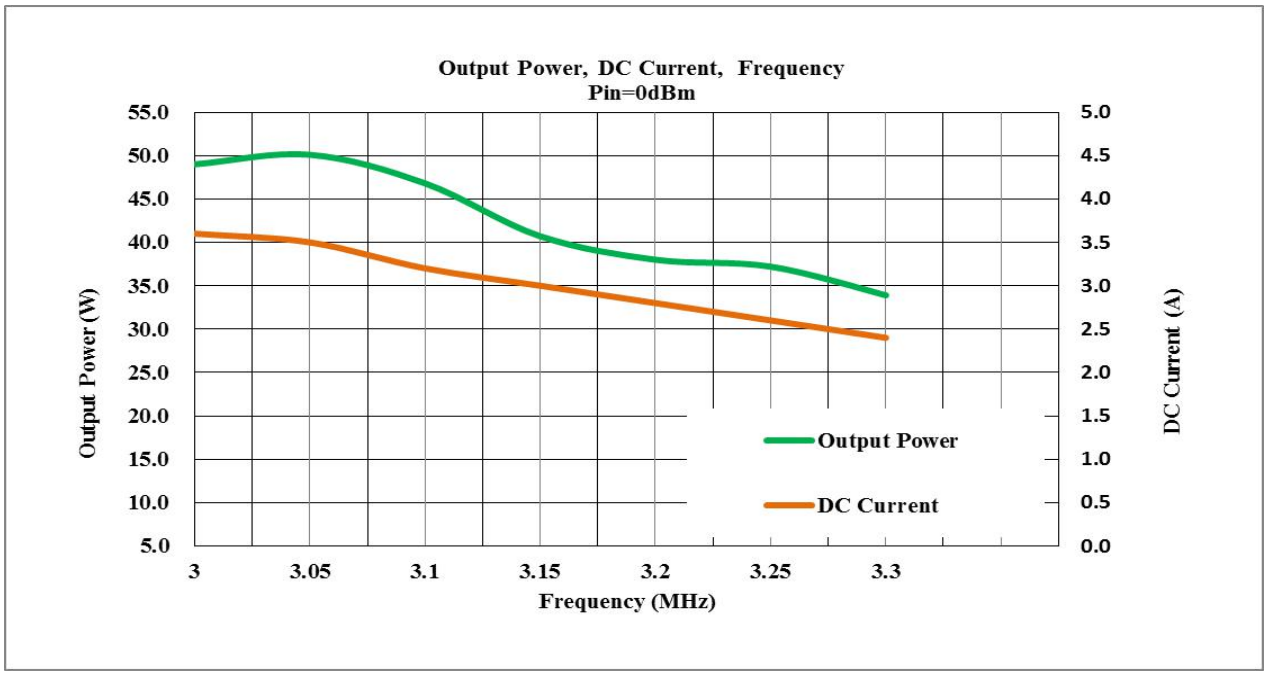
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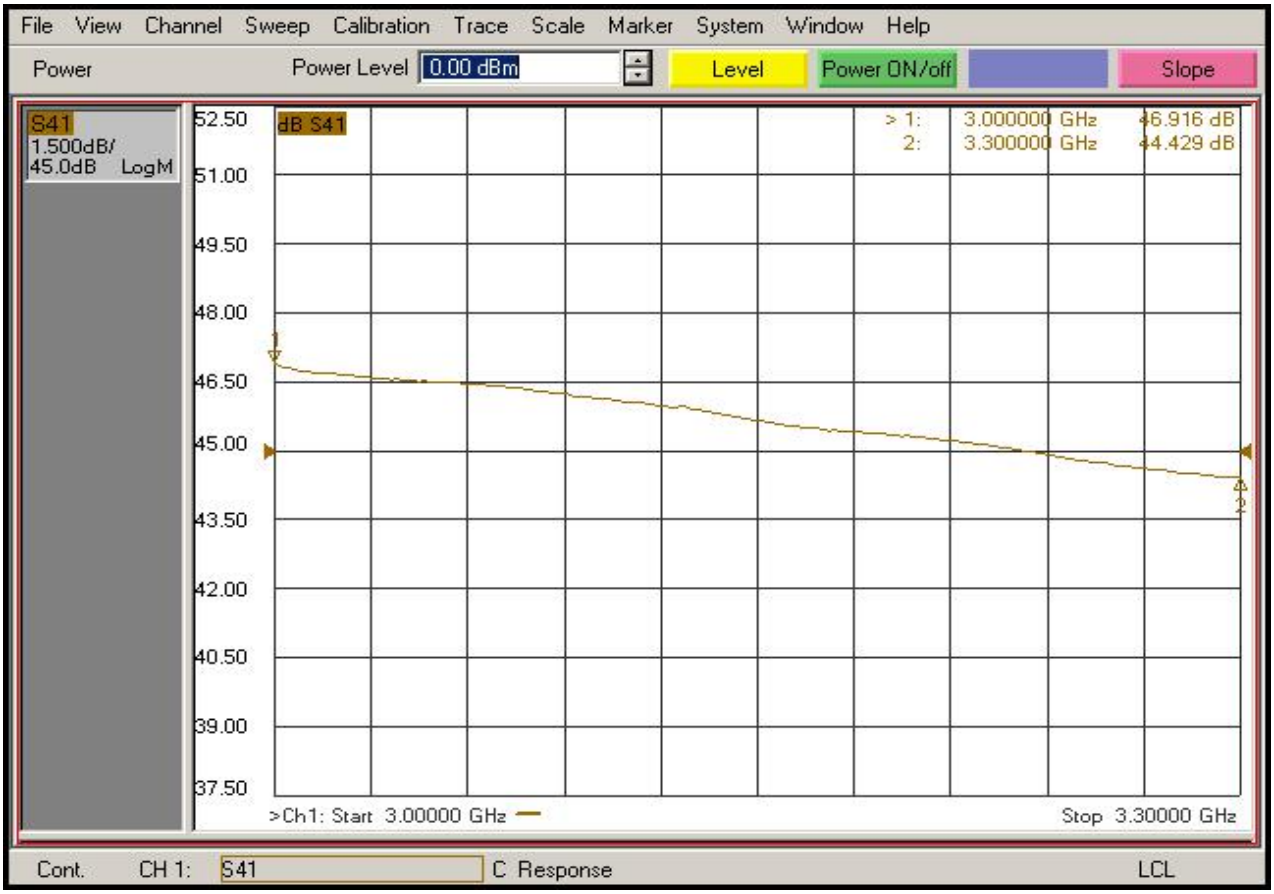
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Graph3: Output Power(Normal temp.+25±3℃)



Power Gain:



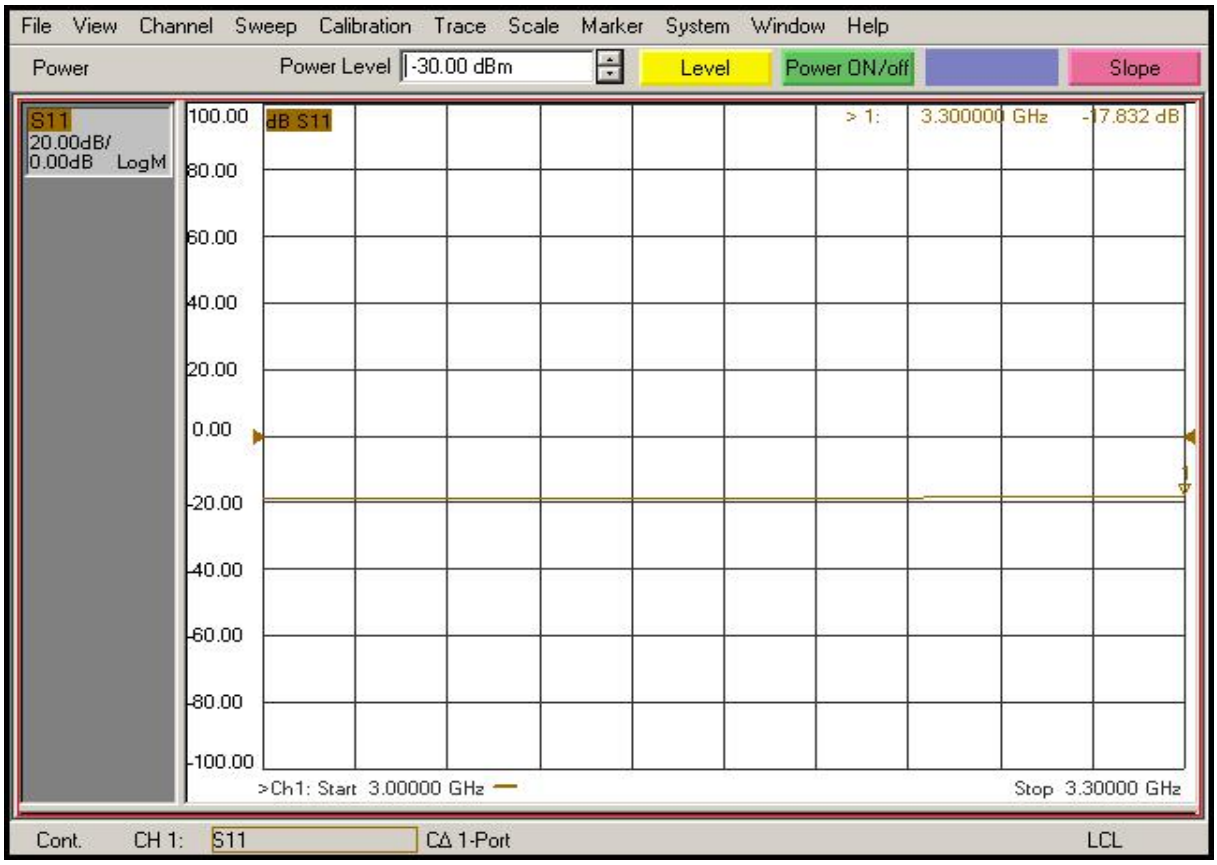
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Input Return Loss：



Note: Adequate heatsink required.

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