

13.1-14.1GHz/10Watt/Module

Model Number: KN13600M40A

The model KN13600M40A is a multi-octave high power amplifier operating between 13.1GHz and 14.1GHz and offering a wide dynamic Range with 10 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, Ku linear applications.

FEATURES:

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

ELECTRICAL SPECIFICATIONS @ +12.0VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	13100		14100	MHz
RF Output Power P1	P1	10			Watt
Power Gain	Gp		40		dB
Small Signal Gain Flatness	ΔG_{SS}		± 2		dB
Input Return Loss	S11			-10	dB
Harmonics @10W	H		-10	-5	dBc
Spurious Signals	Spur		-60	-50	dBc
Switch On/Off@10-90% Time	TON/OFF		2	5	μ S
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	10	12	14	Volt
DC Current @10W	IDD		8	10	Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	150x90x25 [5.9x3.55x0.98]	mm [inch]	Maximum
Weight	1.2 [2.64]	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	-40		65	°C	Storage
Relative Humidity (non-condensing)			95	%	

Absolute Maximum Rating

Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ POUT =5W	∞ @ 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

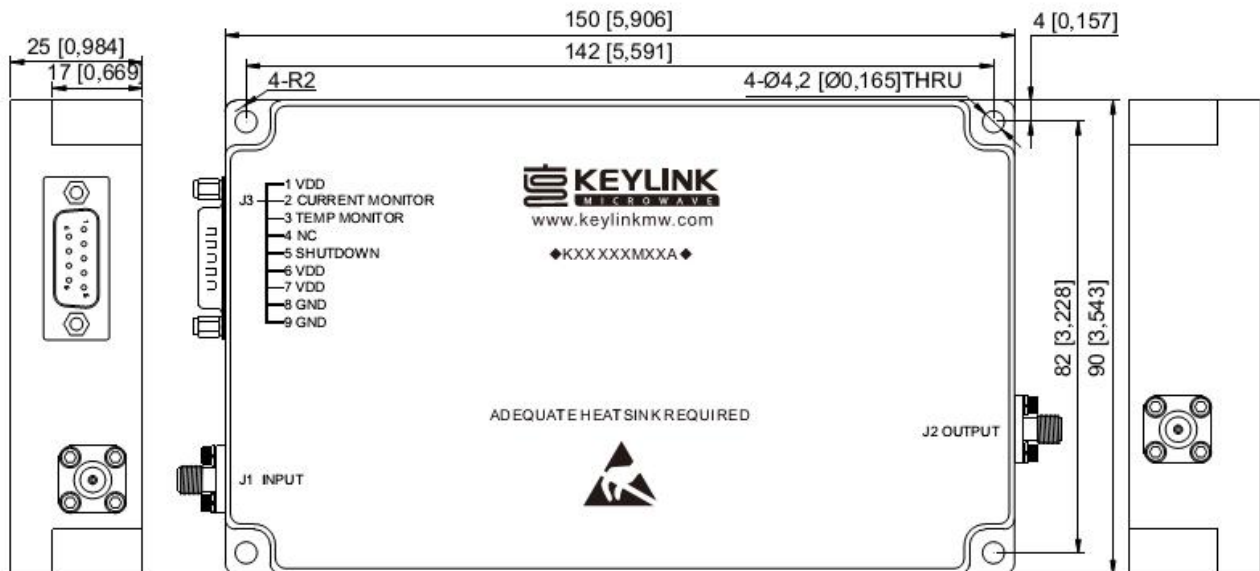
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,6,7	VDD	12V _{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])



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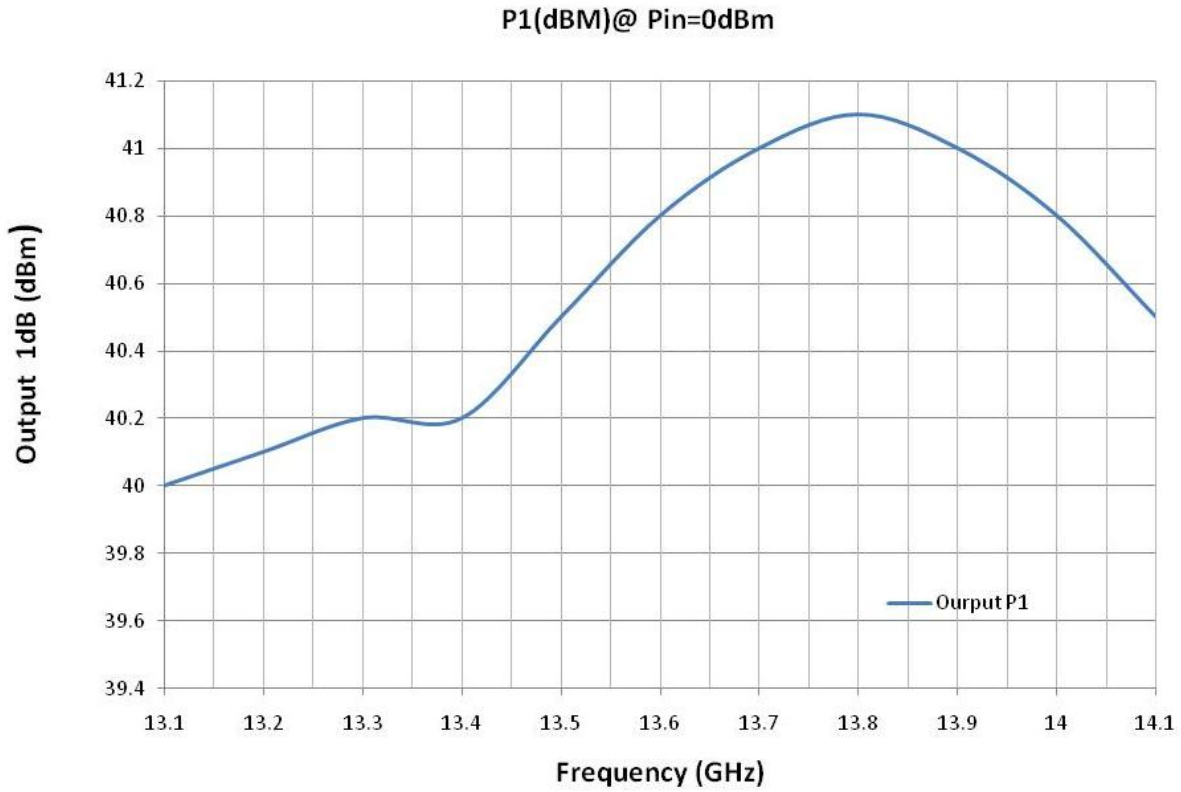
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TYPICAL PERFORMANCE PLOTS



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