

1700-1900MHz/100Watt/Module

Model Number: KN1800M50A

The model KN1800M50A is a narrowband high power amplifier operating between 1700 MHz and 1900 MHz and offering a wide dynamic Range with 100 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.

FEATURES:

- Small Size and light weight;
- Instantaneous ultra-broadband;
- 50 Ohms input and Output matched;
- Built-in control and protection circuits.

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

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1700		1900	MHz
RF Output Power	Psat	100			Watt
Power Gain	Gp		50		dB
Power Gain Flatness	Δ Gp		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @80W	H		-15		dBc
Spurious Signals	Spur		-55		dBc
In/Output Impedance			50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
DC Current @100W	I _{DD}		16		Amp
Switching Time @1kHz TTL	Ton/off		5		uSec

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	170x130x30 [6.69x5.12x1.18]	mm [inch]	Maximum
Weight	2 [4.4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	Type-N, Female		
DC Interface Connector	Hybrid,D-sub 7 Pin, Male		
Cooling	External Heatsink (Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		80	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

Absolute Maximum Rating

Input RF drive level without	+10 dBm (Max)
Load VSWR @ P _{OUT} =50W	∞ @ all load phase & amplitude for duration of 3 minute; 3:1 @ all load phase & amplitude continuous
Thermal Overload	85°C @ heatsink [restored @ 60°C]

Focus on Your Application

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Specifications subject to change without notice

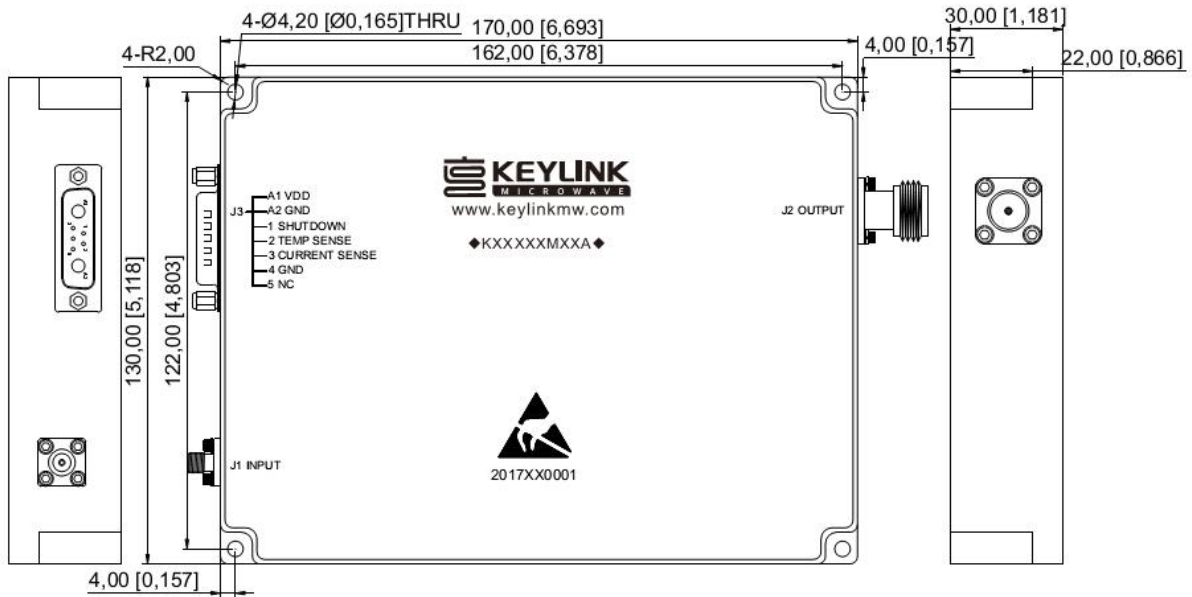
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	28V _{DC}
A2	GND	Ground
1	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
3	CURRENT SENSE	Analog voltage relative to I _{DD} @ 100mV per Ampere
4	GND	Ground
5	NC	No electrical connection

OUTLINE DRAWING (All dimensions in mm [inch])



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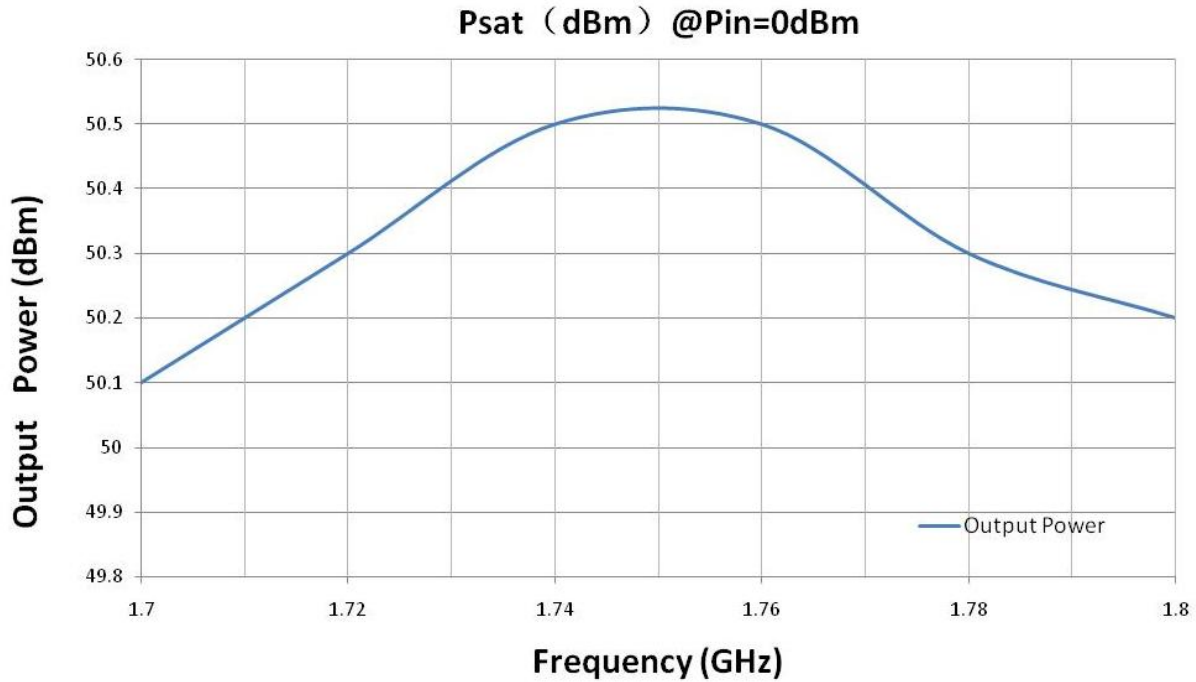
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TYPICAL PERFORMANCE PLOTS (for reference)



Note:

1. Adequate heatsink required.
2. This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with KeyLink sales team if you have any question.

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