

9000-10000MHz/50Watt/Module

Model Number: KN9500M47A

The model KN9500M47A is a narrowband high power amplifier operating between 9000 MHz and 10000 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 high power X Band linear applications.

FEATURES:

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

ELECTRICAL SPECIFICATIONS @ +24.0VDC, 25°C, 50Ω, 100 uS, Duty Cycle=25%

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	9000		10000	MHz
RF Output Power [CW]	P _{out}		50		Watt
Power Gain	G _p		47		dB
Power Gain Flatness	Δ G _p		±2		dB
Power Droop	PD		0.5	1	dB
Duty Cycle	DC	1	30		%
Pulse Width	PW	2	300		uS
Input Return Loss	S ₁₁			-10	dB
Harmonics @50W	H		-25		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time	TON/OFF		2	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	22	24	26	Volt
DC Current @40W [CW]	IDD		11		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	160x120x22 [6.3x4.7x0.86]	mm [inch]	Maximum
Weight	2 [4.4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	Hybrid, D-Sub 7-Pin, Male		
Cooling	External Heat sink 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 @ P _{OUT} =30W	5:1 @ 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

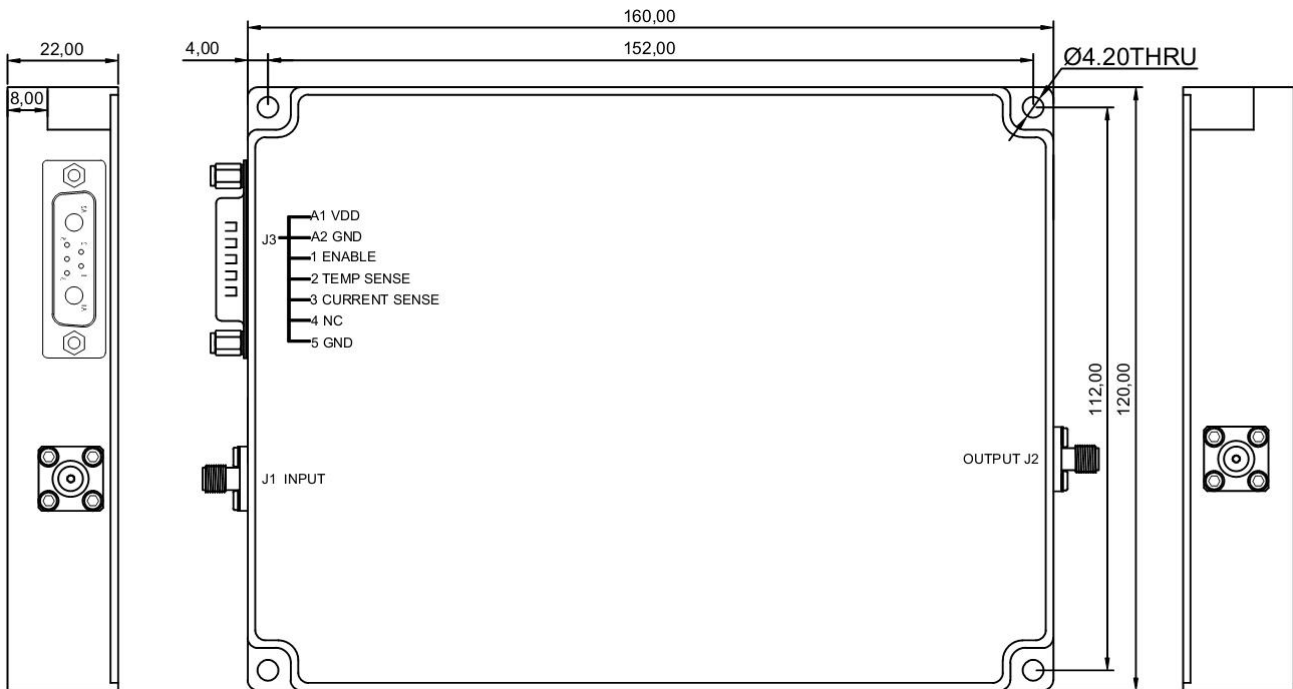
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	24Vdc
A2	GND	Ground
1	ENABLE	Amplifier Enable: 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	NC	No electrical connection
5	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch])



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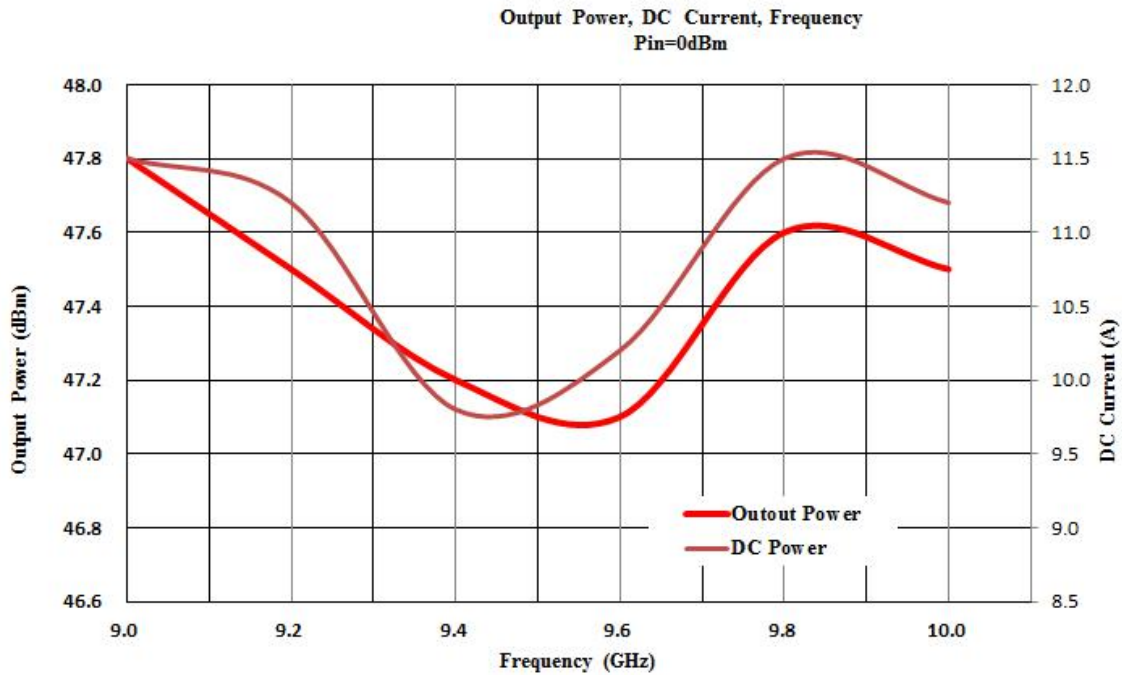
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TYPICAL PERFORMANCE PLOTS



Note: Adequate heat sink required.

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