

500-2000MHz/100Watt/Module

Model Number: OC-PA05-2K100W

The model OC-PA05-2K100W is a multi-octave high power amplifier operating between 500 MHz and 2000 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. It is ideal for multi octave broadband high power RF, P & L linear applications.

FEATURES:

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

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	500		2000	MHz
RF Output Power	P _{out}	80	100		Watt
Power Gain	G _p		50		dB
Power Gain Flatness	Δ GP		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @80W	H		-10	-8	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	24	28	32	Volt
DC Current @80W	IDD		13		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	180x90x25 [7x3.55x0.99]	mm [inch]	Maximum
Weight	2 [4.4]	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		55	°C	
Non-operating Temperature	-40		60	°C	Storage
Relative Humidity (non-condensing)			95	%	

Absolute Maximum Rating

Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ P _{OUT} =70W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

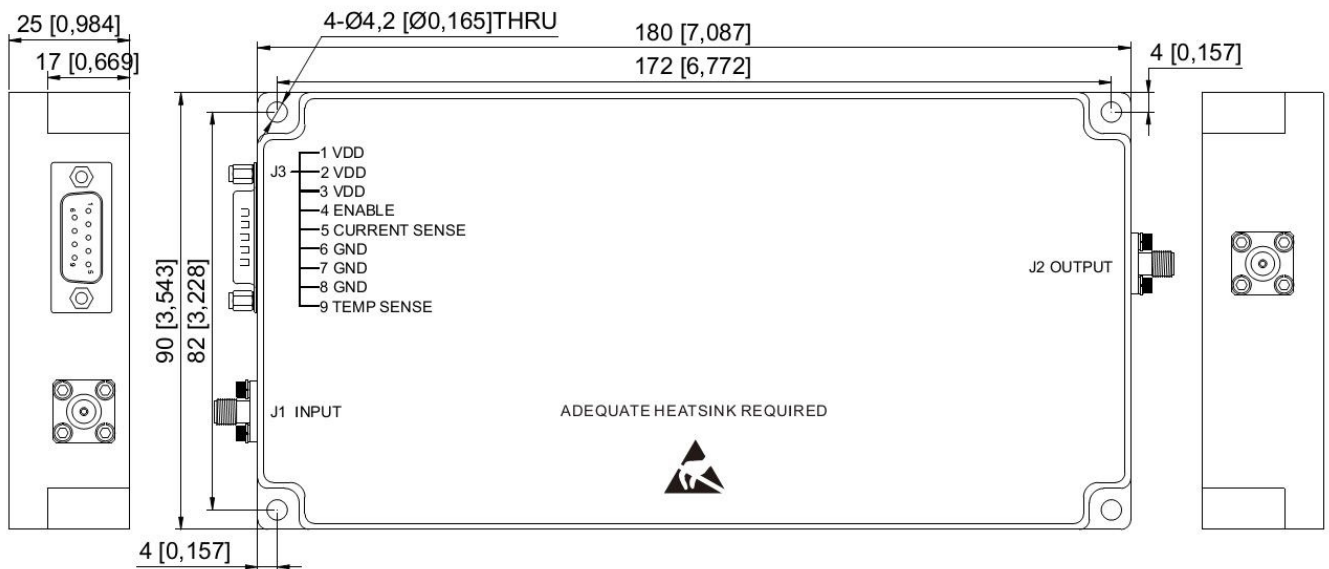
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1	VDD	28VDC
2	VDD	28VDC
3	VDD	28VDC
4	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
5	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C

OUTLINE DRAWING (All dimensions in mm)



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TYPICAL PERFORMANCE PLOTS (For reference only)

