



20-1000MHz/80Watt/Module

Model Number: OC-PA002-1K80W

The model OC-PA002-1K80W is a high power amplifier operating between 20MHz and 1000MHz and offering a wide dynamic range with 80 watts typical saturated power. The employment of LDMOS and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

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	20		1000	MHz
RF Output Power	P _{out}	60	80		Watt
Power Gain	G _p		49		dB
Power Gain Flatness	Δ G _p		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @50W	H		-10		dBc
Spurious Signals	Spur		-55		dBc
In/Output Impedance			50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
DC Current @80W	I _{DD}		11	12.5	Amp
Efficiency @80W	η		30		%

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	150x90x25 [5.9x3.5x1]	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 (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	+10 dBm	Maximum
Load VSWR @ P _{OUT} = 30W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous	
Thermal Overload	85°C ± 5°C shutdown	Maximum

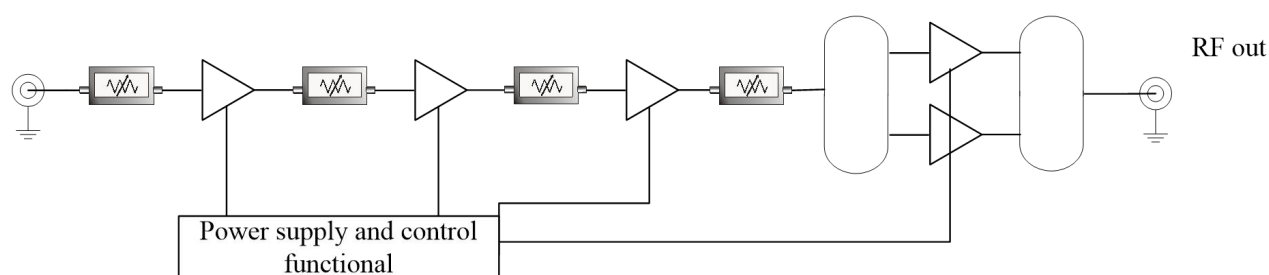
20-1000MHz/80Watt/Module

Model Number: OC-PA002-1K80W

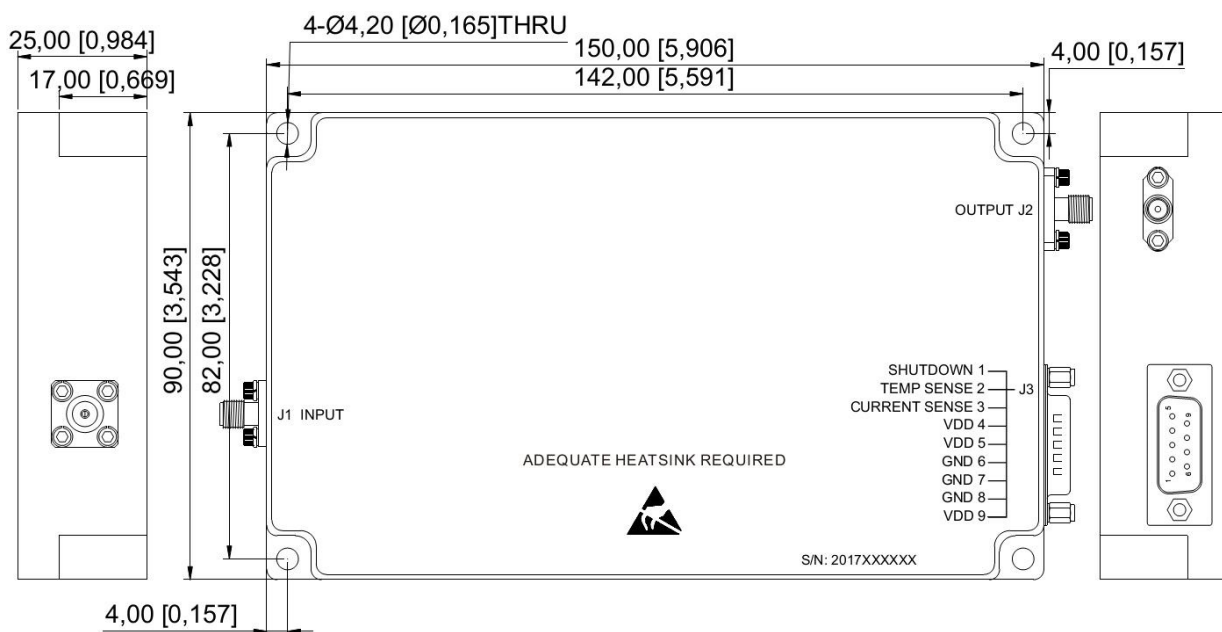
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
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
4,5,9	VDD	28V _{DC}
6,7,8	GND	Ground

Functional Diagram



OUTLINE DRAWING (All dimensions in mm [inch])

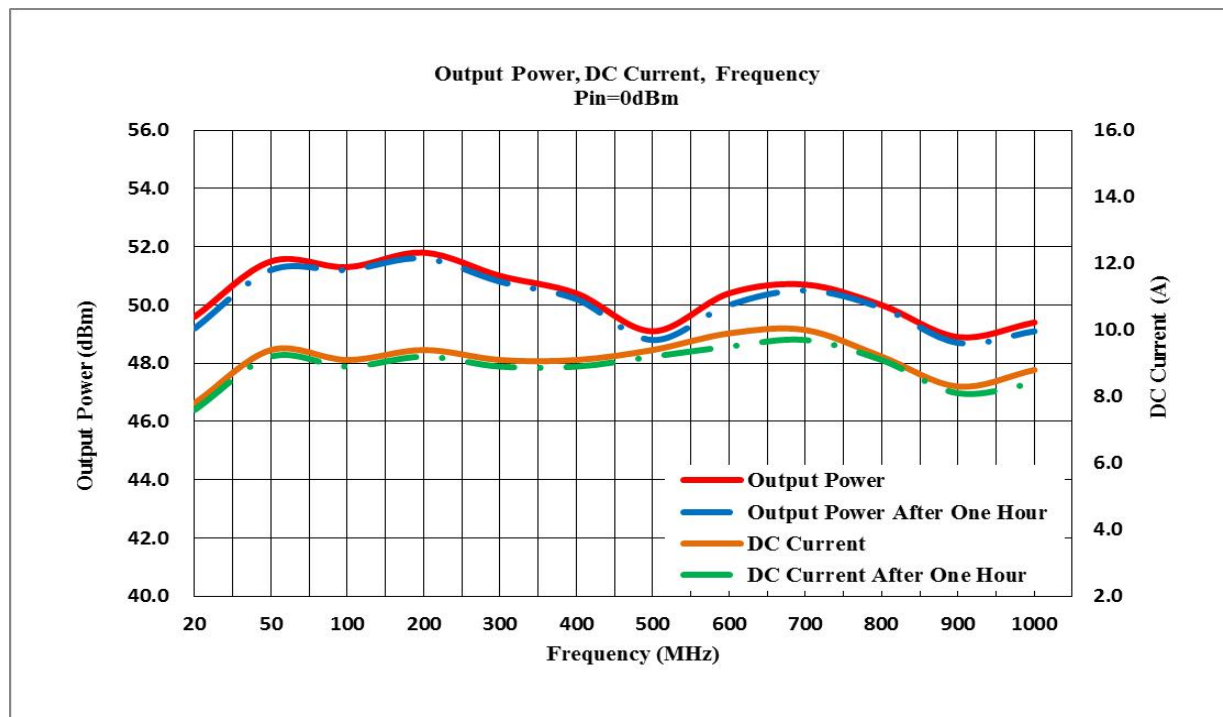


20-1000MHz/80Watt/Module

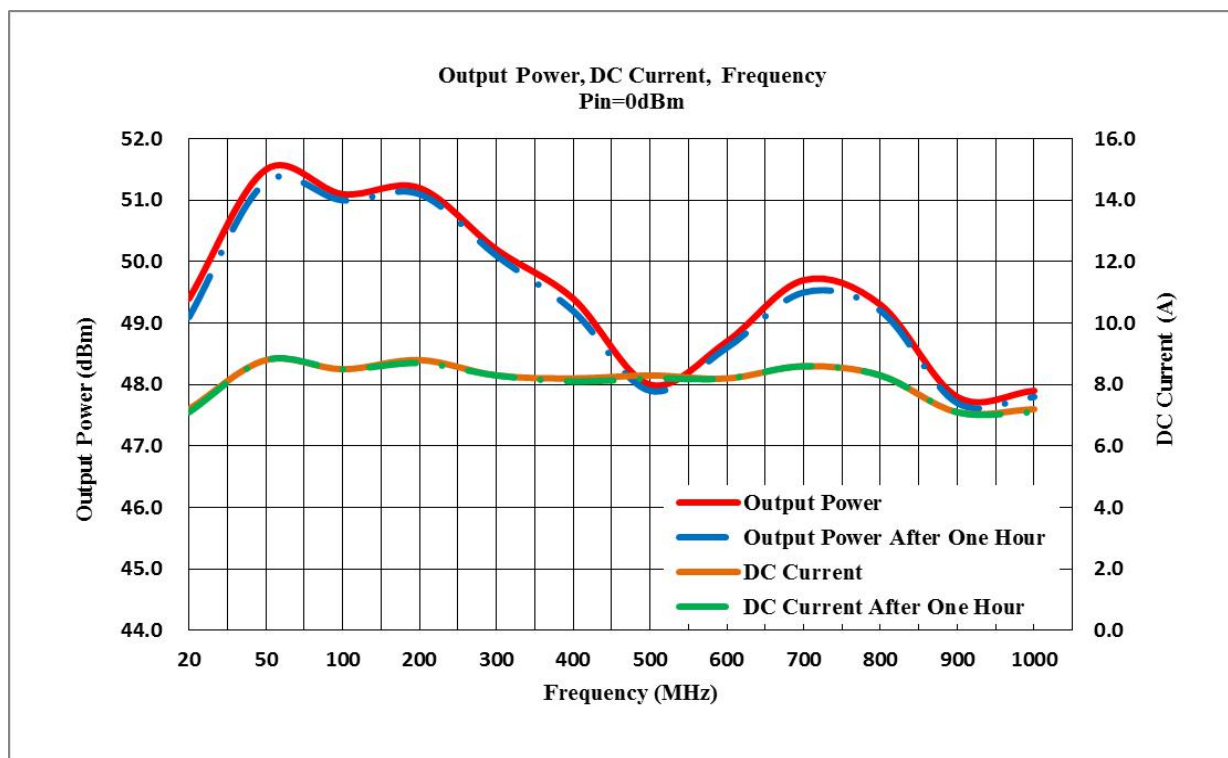
Model Number: OC-PA002-1K80W

TYPICAL PERFORMANCE PLOTS

Graph1: Output Power(Low temp.-20±3°C)



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

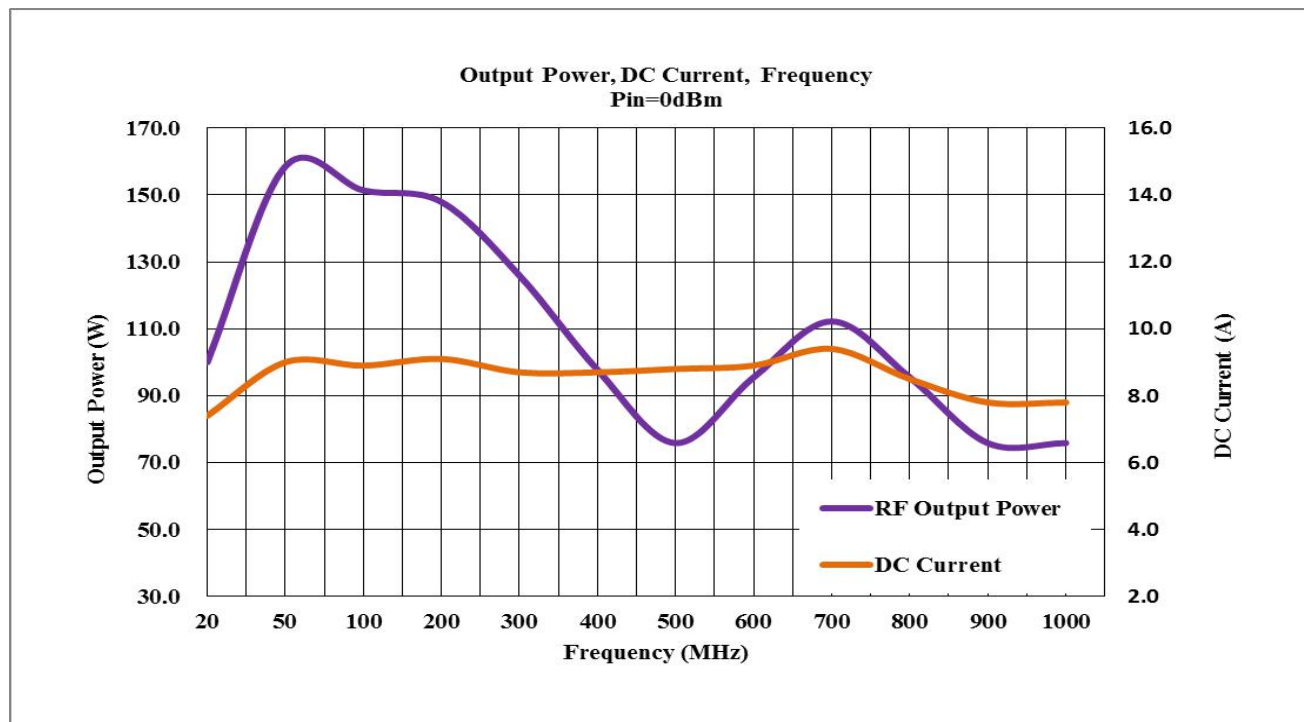




20-1000MHz/80Watt/Module

Model Number: OC-PA002-1K80W

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



Power Gain:



**20-1000MHz/80Watt/Module***Model Number: OC-PA002-1K80W*

Input Return Loss:

**Note:** Adequate heat sink required.