

1-6GHz/10Watt/Module

Model Number: OC-PA-1-6K10W

The model OC-PA-1-6K10W is a multi-octave high power amplifier operating between 1 GHz and 6 GHz and offering a wide dynamic Range with 10 Watts typical saturated power. The employment of gallium nitride (GaN) 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 @ +50.0VDC, 25°C, 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1000		6000	MHz
RF Output Power @PSAT	PSAT		10		Watt
Power Gain @PSAT	Gp	40	45		dB
Power Gain Flatness	Δ G		±3		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @5W	H		-10	-8	dBc
Spurious Signals	Spur		-60	-55	dBc
Minimum Operational Pulse width	PW	10	50	300	ns
Pulse Repetition Frequency	PRF	0.1		5	MHz
In/Output Impedance			50		Ω
Operating Voltage	V _{DC}	48	50	52	Volt
DC Current @10W	I _{DD}		1.5	2	Amp
Switching Time @1kHz TTL	T _{on/off}		5		uSec

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	150x90x25 [5.9x3.54x0.98]	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 (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	+5 dBm	Maximum
Load VSWR @ P _{OUT} =70W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous	
Thermal Overload	85°C ± 10°C shutdown	Typical

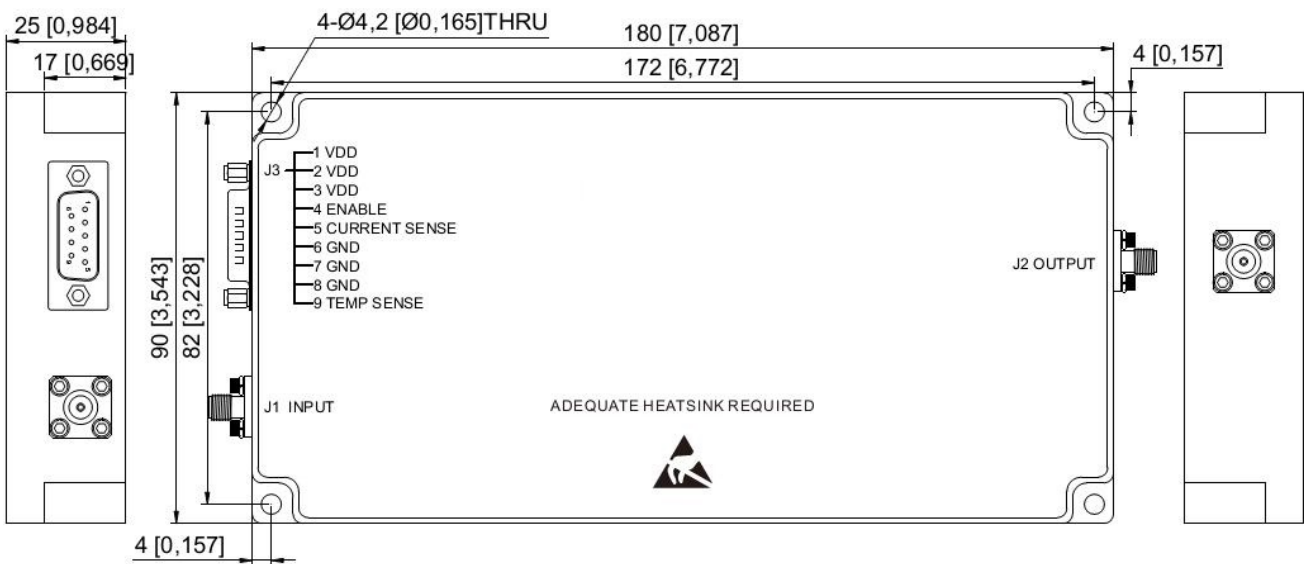
1-6GHz/10Watt/Module

Model Number: OC-PA-1-6K10W

DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1	VDD	50V _{DC}
2	VDD	50V _{DC}
3	VDD	50V _{DC}
4	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
5	CURRENT SENSE	Analog voltage relative to I _{DD} @ 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 [inch]]





1-6GHz/10Watt/Module

Model Number: OC-PA-1-6K10W

TYPICAL PERFORMANCE PLOTS

