

2700-3100MHz/1000Watt/Module

Model Number: OC-PPA2.7-3.1K1000W

The model OC-PPA2.7-3.1K1000W is a high power pulsed amplifier operating between 2700 MHz and 3100 MHz and offering a dynamic range with 1000 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 radar applications.

FEATURES:

- High power;
- Small Size and light weight;
- Great Linearity ;
- Extraordinary Harmonic Control;
- Low Distortion.

ELECTRICAL SPECIFICATIONS @ +48.0VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	2700		3100	MHz
RF Output Power	P _{out}	1000(100Usec,5%)			Watt
Power Gain	G		60		dB
Small Signal Gain Flatness	Δ G _{ss}		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @500W	H		-20		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance			50		Ω
Operating Voltage	V _{DC}	46	48	50	Volt
DC Current @1000W	I _{DD}		6		Amp
Switch On/Off @10-90% Time	T _{on/off}		2	5	μS

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	300x 250 x 30 [11.81x9.84x1.18]	mm [inch]	Maximum
Weight	5 [11.02]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	Type N, 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		60	°C	
Non-operating Temperature	-25		65	°C	Storage
Relative Humidity (non-condensing)			95	%	

Absolute Maximum Rating

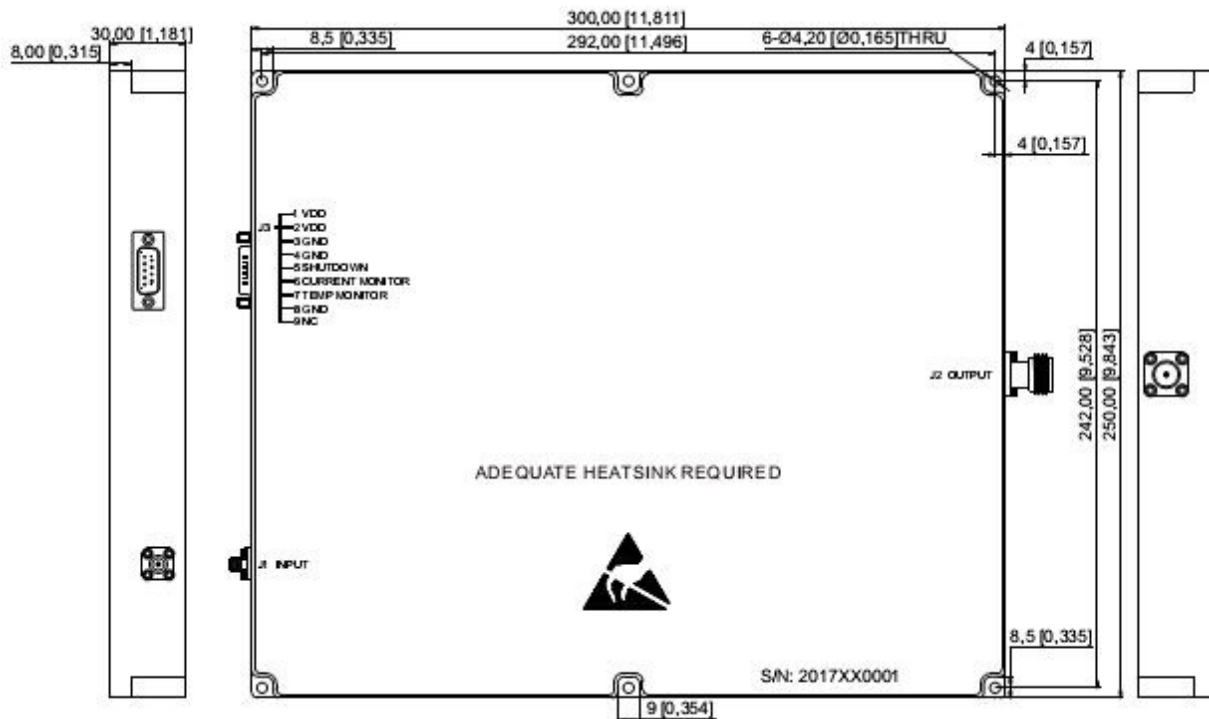
Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ P _{OUT} =500W	5:1 @ amplitude for duration of 1 minutes; 3:1 @ amplitude continuous
Over Temperature	85°C @ heats ink [restored @ 60°C]

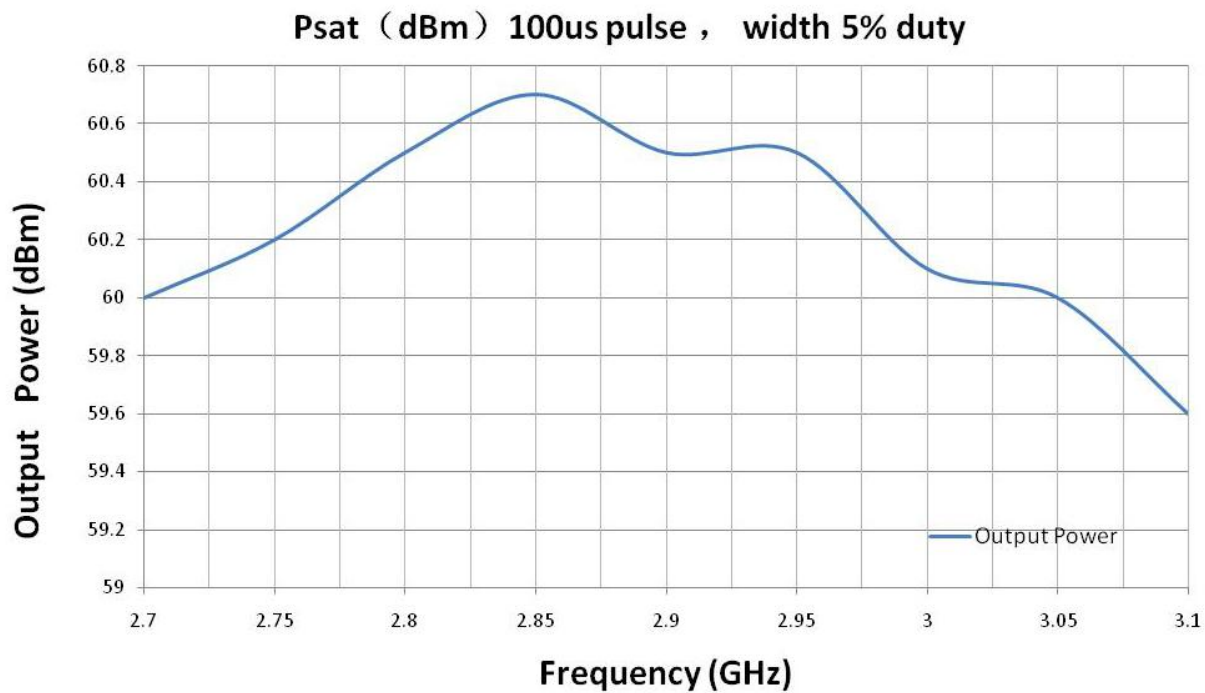
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,2	VDD	48±2VDC
3,4,8	GND	Ground
7	TEMP MONITOR	Analog voltage relative to Module's temperature @10mV/°C
9	N/C	No electrical connection
5	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V) Internally Pulled-Low)
6	CURRENT MONITOR	Analog voltage relative to IDD@100mV/A

OUTLINE DRAWING (All dimensions in mm [inch])

**2700-3100MHz/1000Watt/Module****Model Number: OC-PPA2.7-3.1K1000W****TYPICAL PERFORMANCE PLOTS (FOR REFERENXE)**

Note:

1. Adequate heat sink required.