

6-18GHz/30Watt/Module

Model Number: OC-PA6-18K30W

The model OC-PA6-18K30W is a multi-octave high power amplifier operating between 6 GHz and 18 GHz and offering a wide dynamic Range with 30 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 @ +28.0VDC, 25°C, 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	6000		18000	MHz
RF Output Power @PSAT	PSAT		30		Watt
Power Gain @PSAT	G _p		45		dB
Power Gain Flatness	Δ G _p		±2.5		dB
Input Return Loss	S ₁₁		-10		dB
Harmonics @20W	H		-20		dBc
Spurious Signals @20W	Spur		-60	-55	dBc
In/Output Impedance			50		Ω
Operating Voltage	V _{DC}	26	28	30	Volt
DC Current @30W	I _{DD}		8		Amp
Switching Time @1kHz TTL	T _{on/off}		2	3	uSec

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	200x95x22 [7.87x3.7x0.86]	mm [inch]	Maximum
Weight	2.5 [5.5]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	J30J-9ZKP, Male & Solder Pins		
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	-25		65	°C	Storage
Relative Humidity (non-condensing)			95	%	

Absolute Maximum Rating

Input RF drive level without damage	+10 dBm	Maximum
Load VSWR @ POUT =15W	6:1 @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous	
Over Temperature	85°C @ heat sink [restored @ 60°C]	

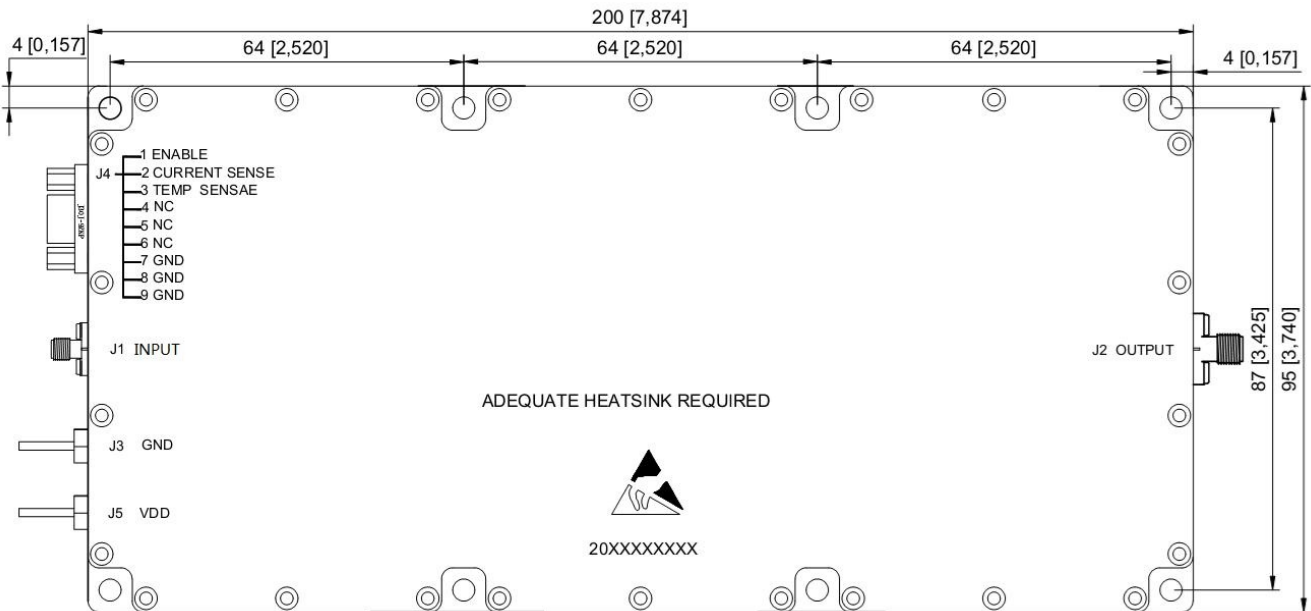
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	CURRENT SENSE	Amplifier current alarm: TTL Logic High (3.3V) (when amplifier over current)
3	TEMP SENSE	Amplifier temp. alarm: TTL Logic High (3.3V) (when amplifier over temperature)
4	NC	No electrical connection
5	NC	No electrical connection
6	NC	No electrical connection
7-9	GND	Ground

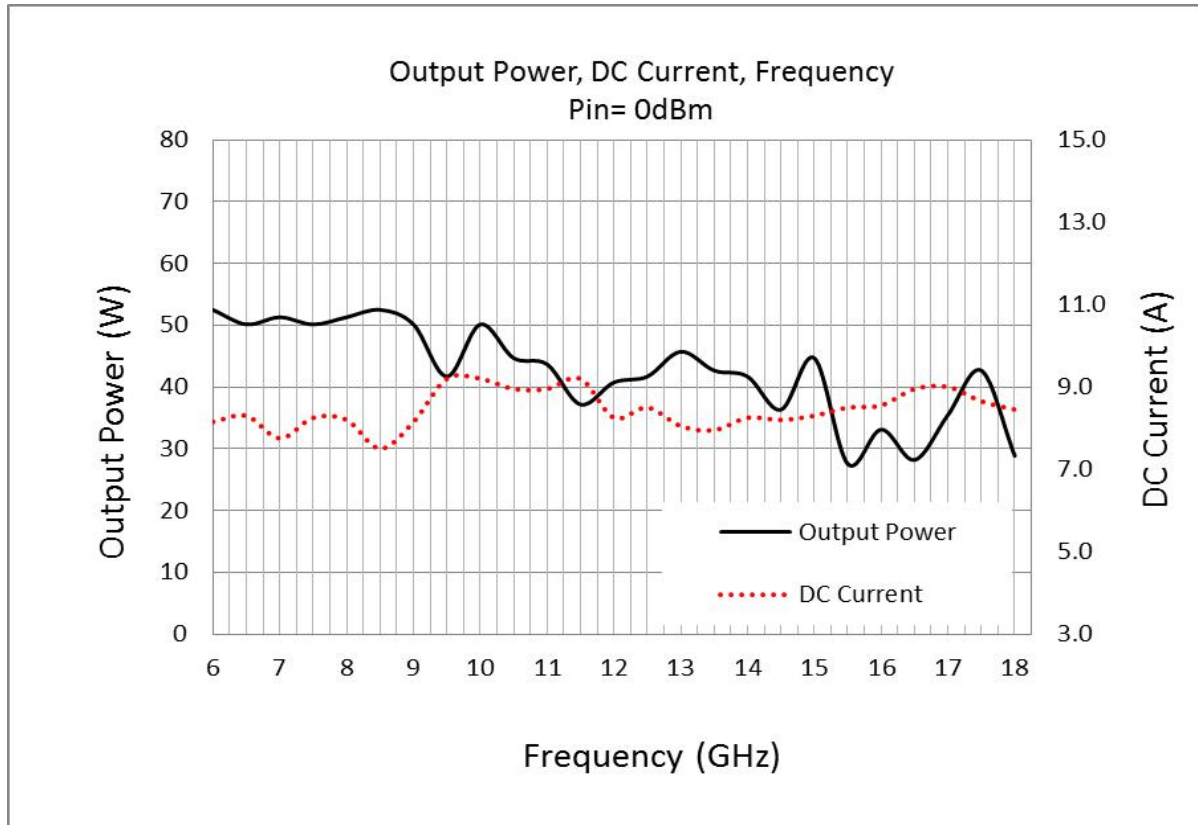
OUTLINE DRAWING [All dimensions in mm]



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TYPICAL PERFORMANCE PLOTS (for reference only)



Note: Adequate heatsink required.