

5000-5500MHz/20Watt/Module

Model Number: OC-NPA5-5.5K20W

The model OC-NPA5-5.5K20W is a multi-octave high power amplifier operating between 5.0 GHz and 5.5GHz and offering a wide dynamic Range with 20 Watts typical saturated power. The employment of gallium arsenide (GaAs) 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	5000		5500	MHz
RF Output Power@P1dB	P ₁	20			Watt
Power Gain	G		43		dB
Small Gain Flatness	Δ G		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @10W	H		-15		dBc
Spurious Signals	Spur		-55		dBc
In/Output Impedance			50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
DC Current @20W	I _{DD}		5		Amp
Switching Time@10kHz TTL	Ton/Toff		2	5	Us

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	180x150x25 [7x5.9x1]	mm [inch]	Maximum
Weight	1.5 [3.3]	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} =10W	∞ @ all load phase & amplitude for duration of 30 minute; 3:1 @ all load phase & amplitude continuous	
Thermal Overload	85°C shutdown	Maximum

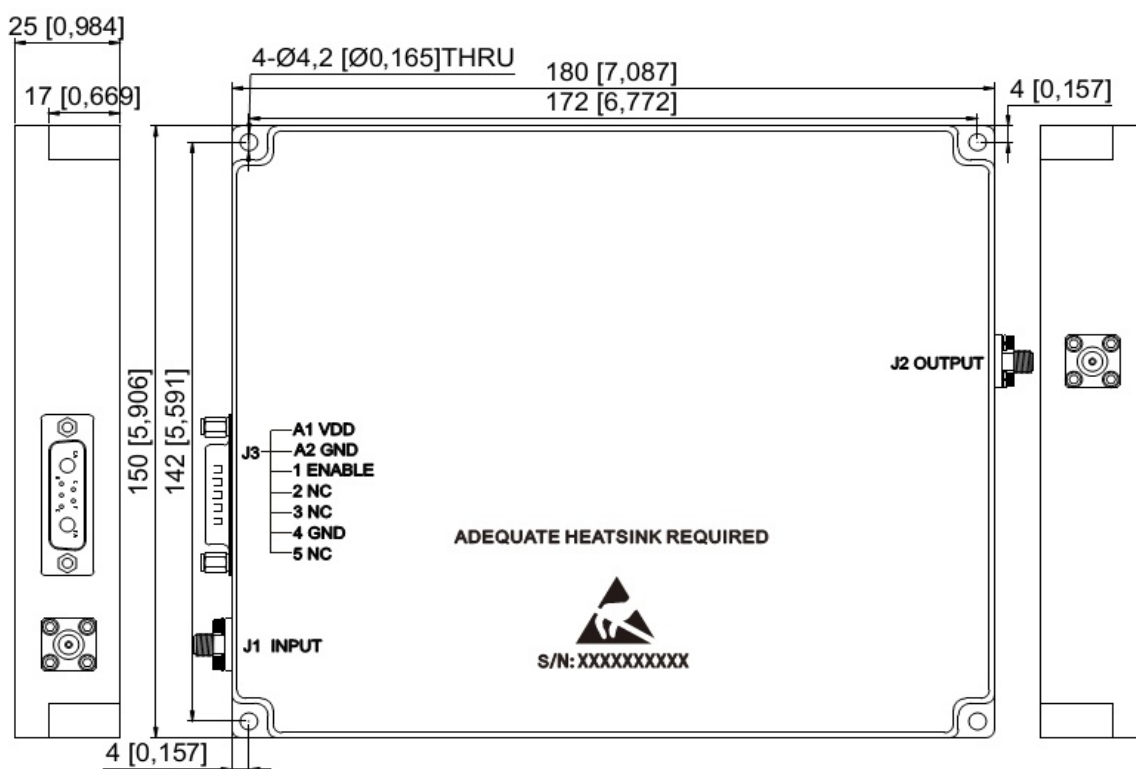
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DC INTERFACE CONNECTOR

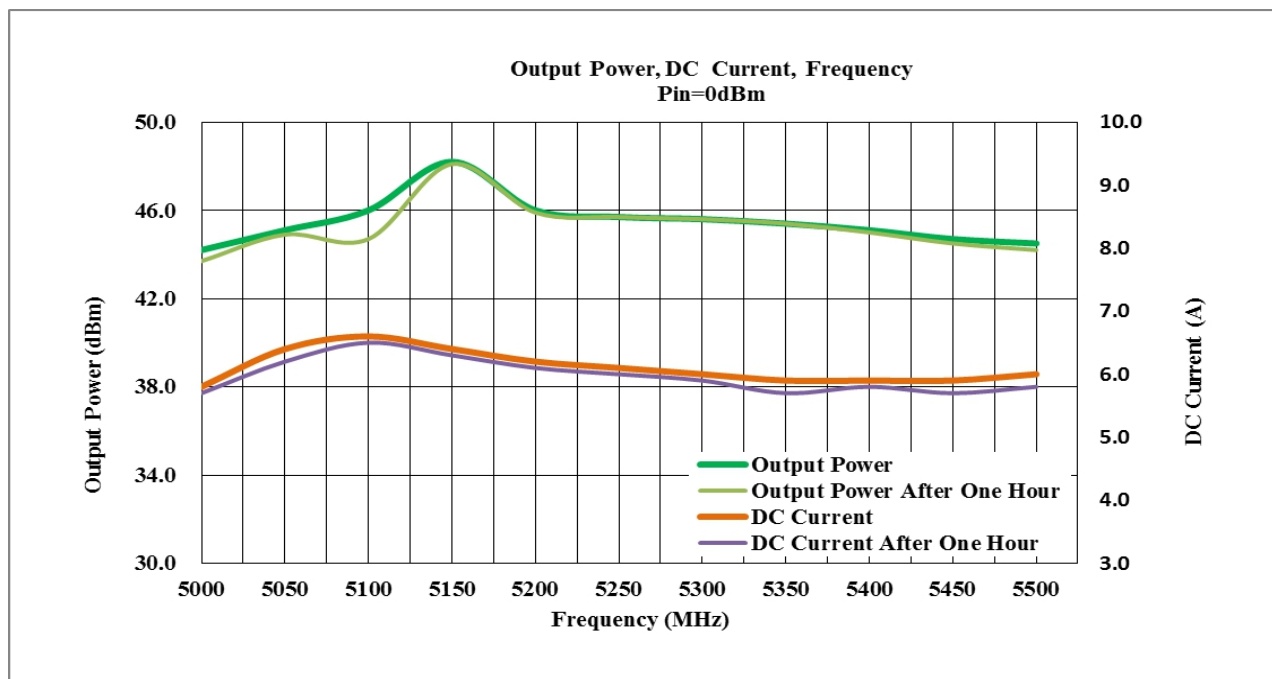
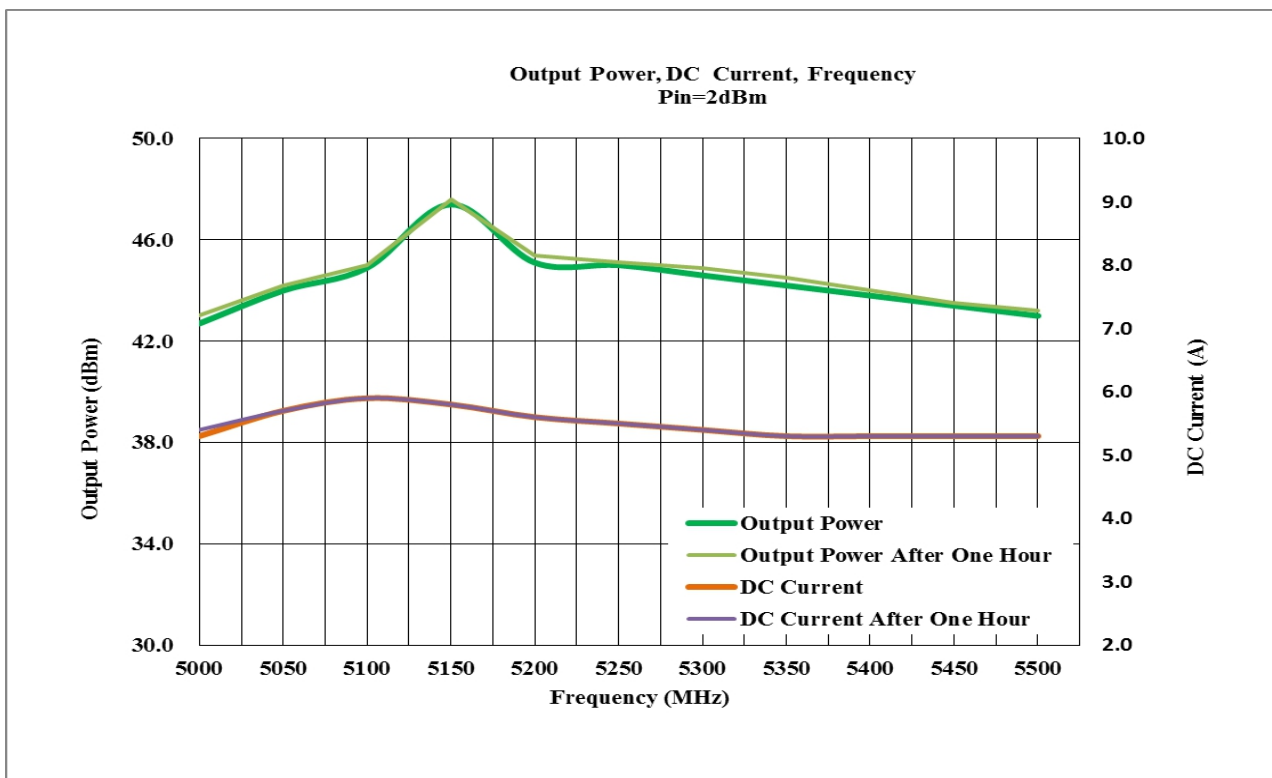
Pin #	Description	Specifications
A1	VDD	28V _{DC}
A2	GND	Ground
1	ENABLE	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	NC	No electrical connection
3	NC	No electrical connection
4	GND	Ground
5	NC	No electrical connection

OUTLINE DRAWING (All dimensions in mm [inch])



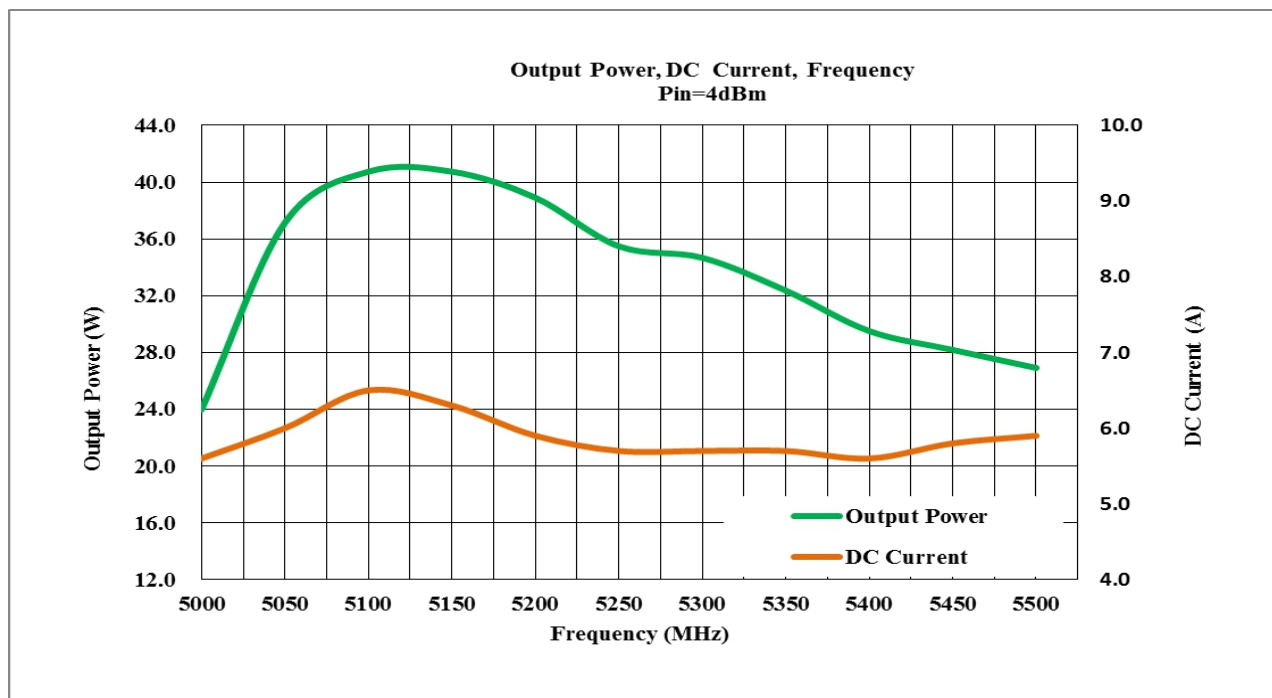
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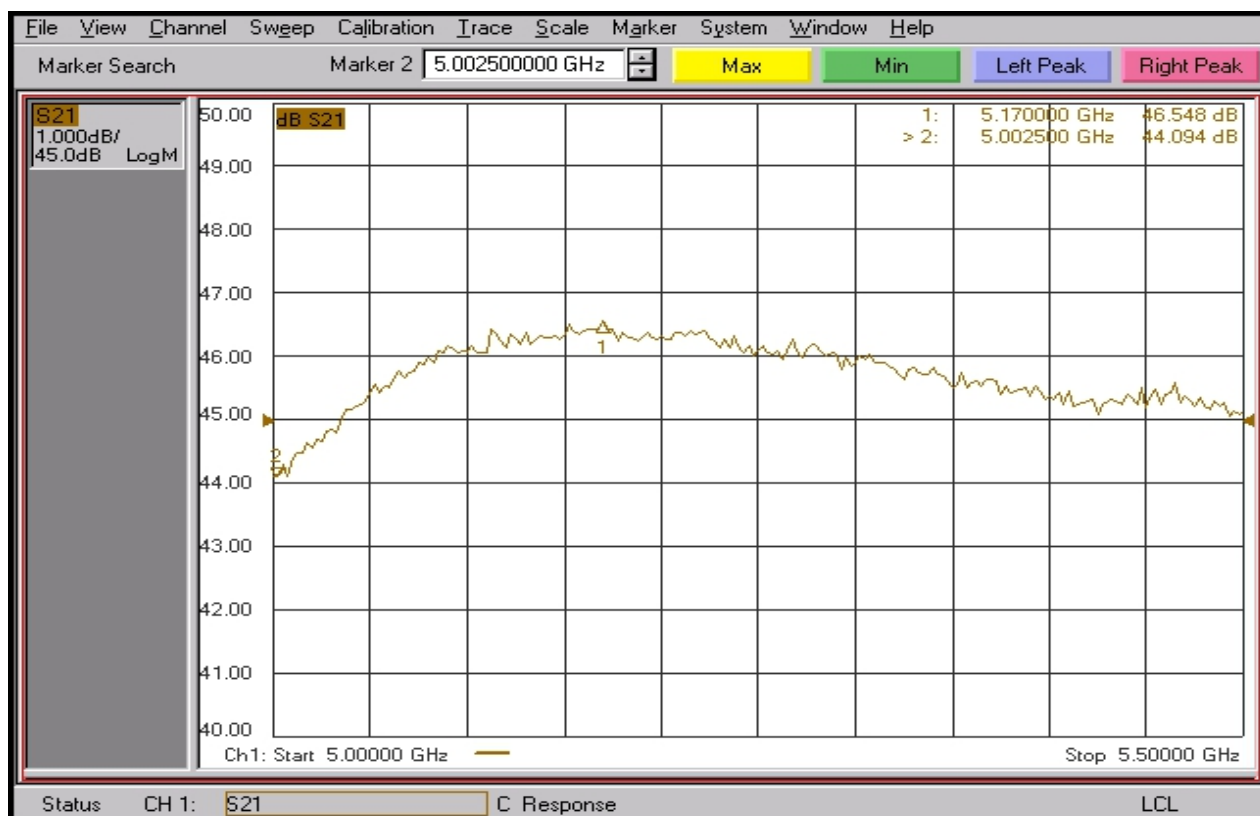
TYPICAL PERFORMANCE PLOTS (FOR REFERENCE)Graph 1: Output Power (Low temp. $-20\pm 3^{\circ}\text{C}$)Graph 2: Output Power (High temp. $+60\pm 3^{\circ}\text{C}$)

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Graph 3: Output Power (Normal temp. $+25\pm 3^{\circ}\text{C}$)

Power Gain:



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Input Return Loss:

