6000-18000MHz/2Watt/Module

*Model Number: **OC-PA6-18K2W***

The model OC-PA6-18K2W is a multi-octave high power amplifier operating between 6 GHz and 18 GHz and offering a wide dynamic Range with 2 Watts typical saturated power. The employment of advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency. It is ideal for multi octave broadband high power RF, C&Ku linear applications.

FEATURES:

- Broadband & High power;
- High Efficiency;
- Great Linearity;
- Small Size & Light Weight;
- Low Distortion

ELECTRICAL SPECIFICATIONS @ +12.0VDC, 25°C, 50Ω;

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	6		18	GHz
RF Output Saturated Power	P_{sat}	2	3		Watt
RF Output P_{1dB} Power	P_{1dB}	1.5	2		Watt
Power Gain @Psat	Gp		34		dB
Power Gain Flatness	Δ Gss		±2.5		dB
Input Return Loss	S_{11}			-10	dB
2nd Harmonics @2 W	H		-15		dBc
Spurious	Spur		-55		dBc
Switch On/Off@10-90% Time	TON/OFF		3	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	10	12	14	Volt
DC Current @2W	IDD		2.5		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	120x80x22[4.7*3.1*0.8]	mm[inch]	Maximum
Weight	1.2[2.64]	kg[lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	D-Sub 9-Pin, Male		
Cooling	External Heats ink 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 @ POUT =2 W	10:1 @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heat sink [restored @ 60°C]

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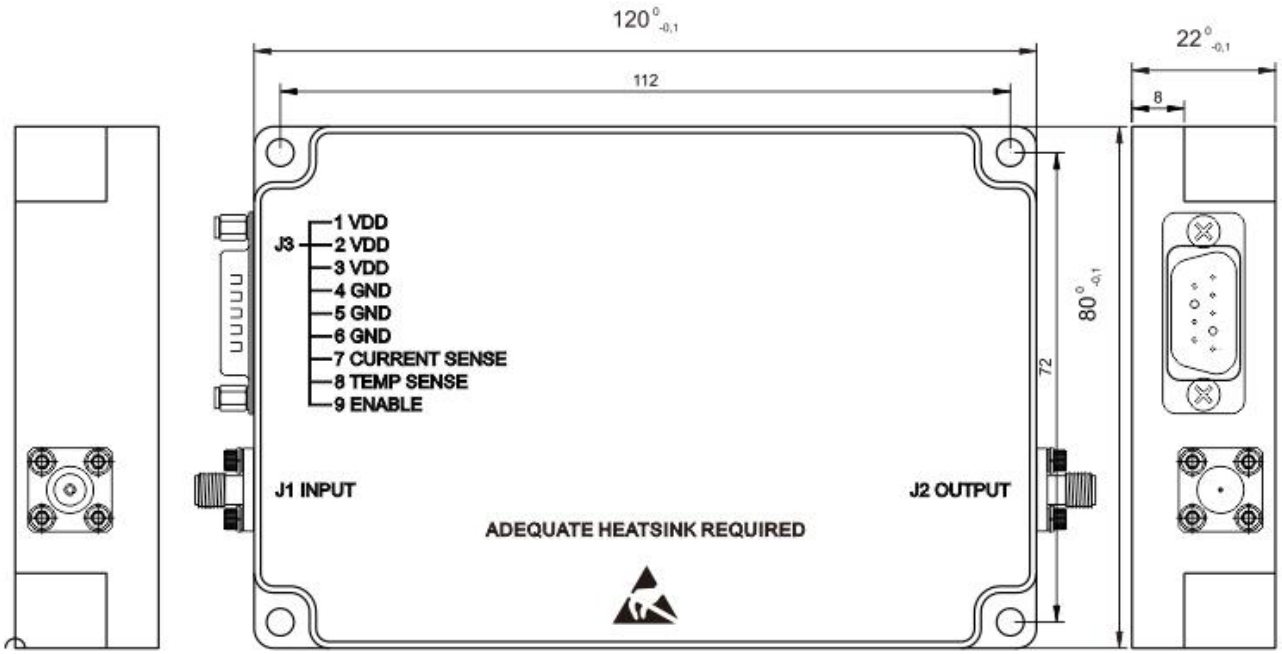
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,6,7	VDD	12V_{DC}
4,5,6	GND	Ground
7	CURRENT SENSE	Analog voltage relative to I_{DD} @ 100mV per Ampere
8	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
9	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)

OUTLINE DRAWING (All dimensions in mm [inch])



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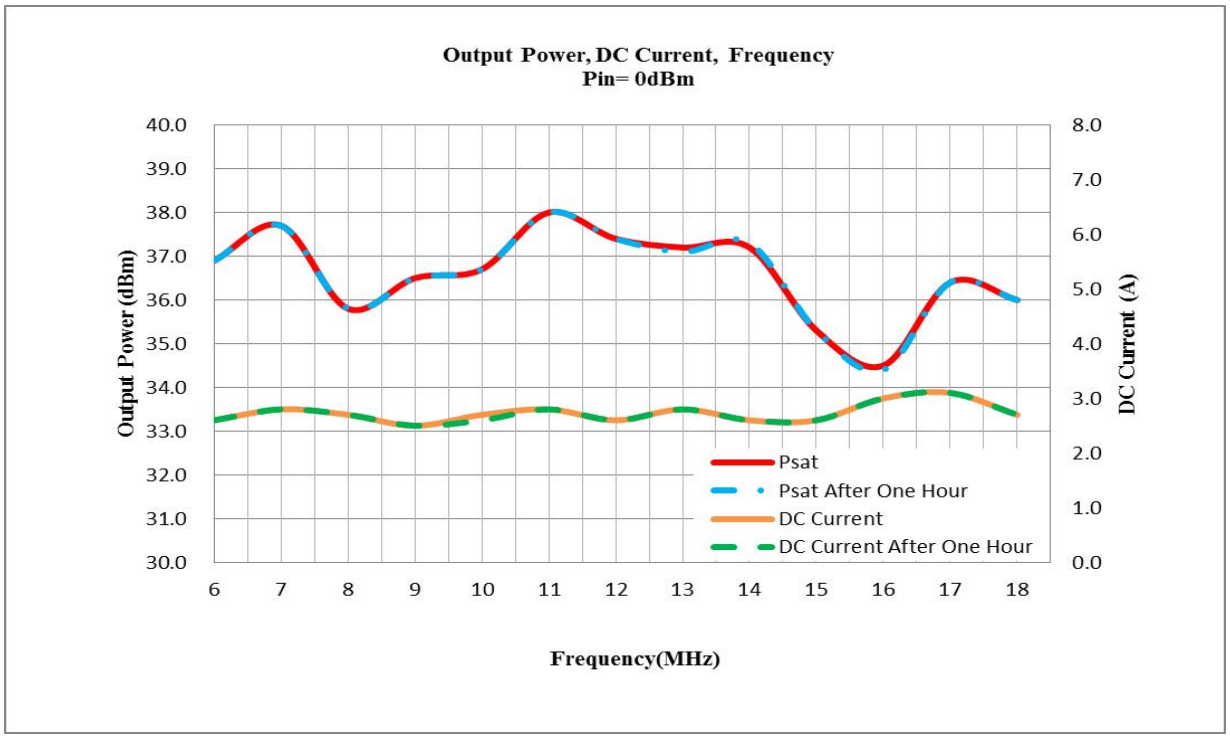
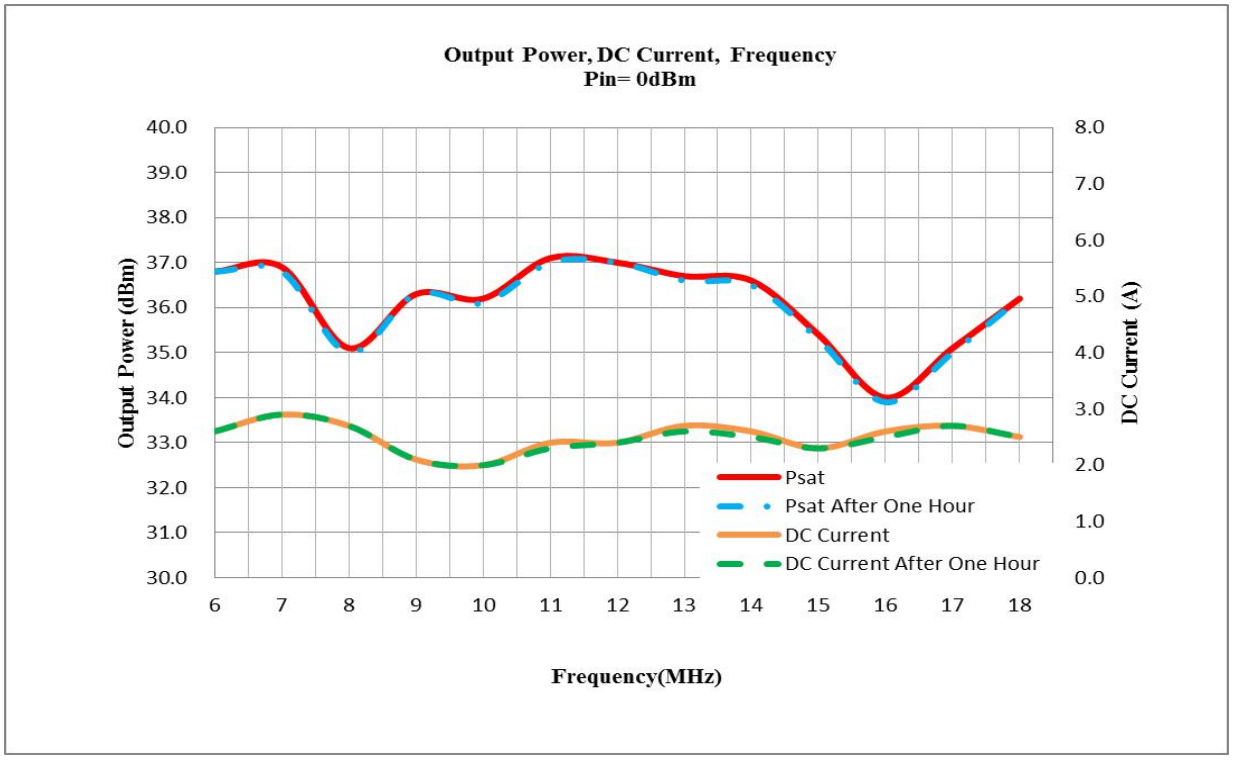
TYPICAL PERFORMANCE PLOTS (for reference only)

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



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



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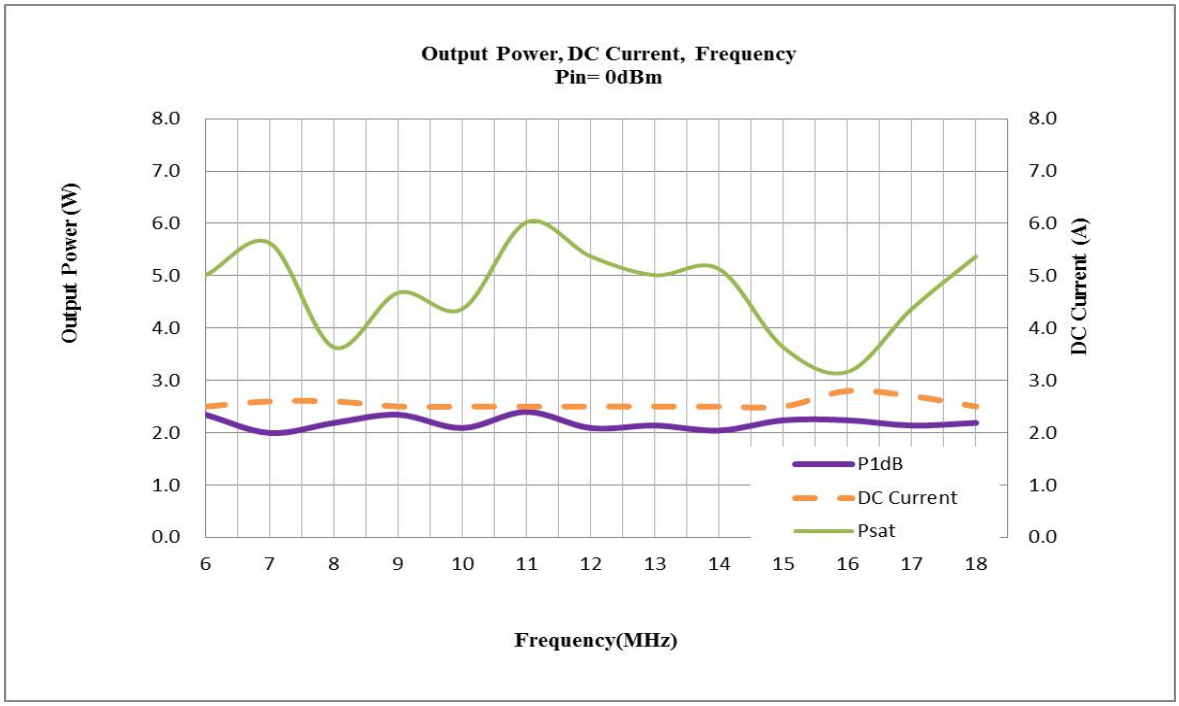
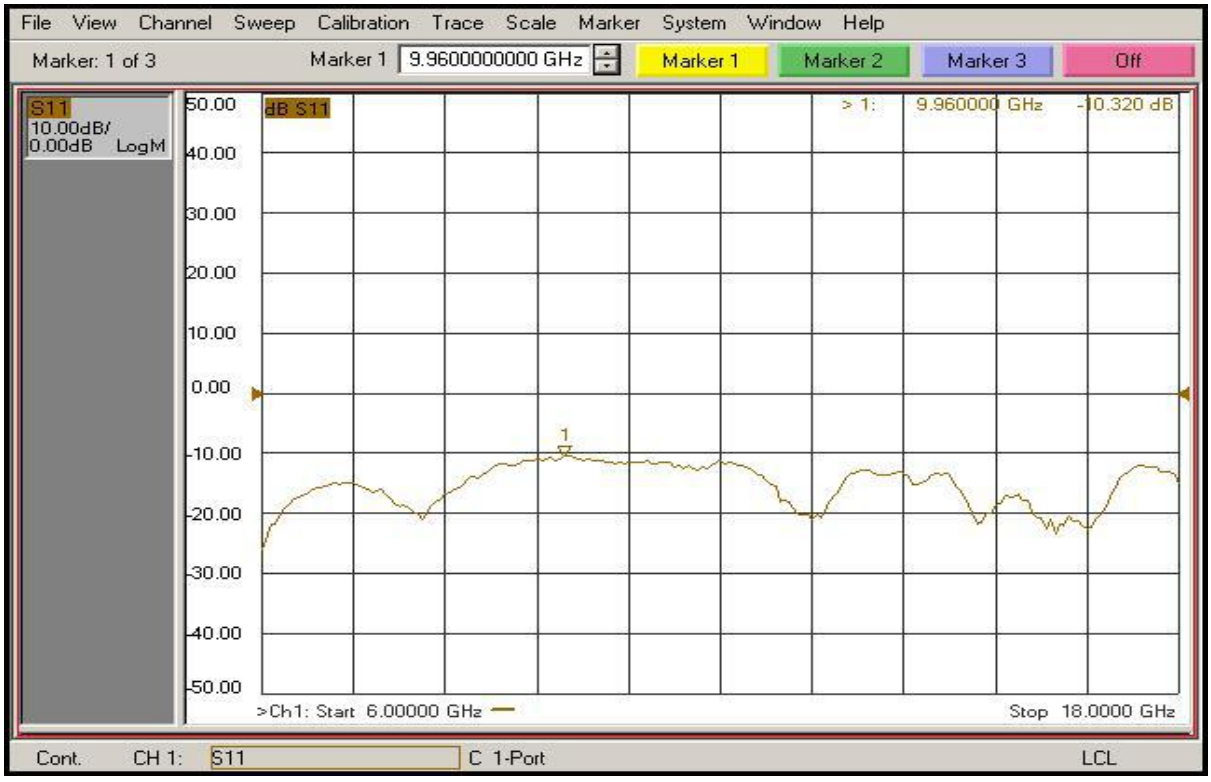
Graph3: Output Power (Normal temp. +25±3℃)



Input Return Loss:



Note: Adequate heatsink required.