

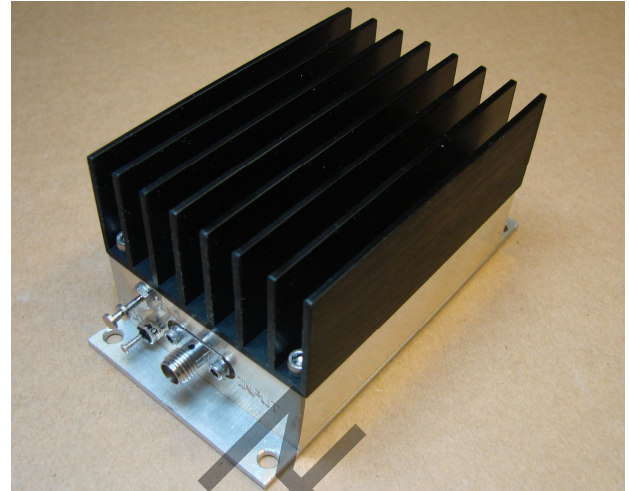
## MPA Series

## 2000-6000MHz 1W RF Power Amplifier

### Features

- Frequency Range: 2000-6000MHz
- Gain: 33dB
- $P_{sat}$ : +30dBm (1Watt)
- IP3: +40dBm
- Noise Figure: 4dB
- DC Power: +28V
- DC Reverse Protected
- Internal Voltage Regulated
- SMA Connector

### Picture



### Description

MPA-2-6G is a 1Watt (+30dBm) output RF Power Amplifier operating from single 28V DC power supply with frequency from 2000MHz to 6000MHz.

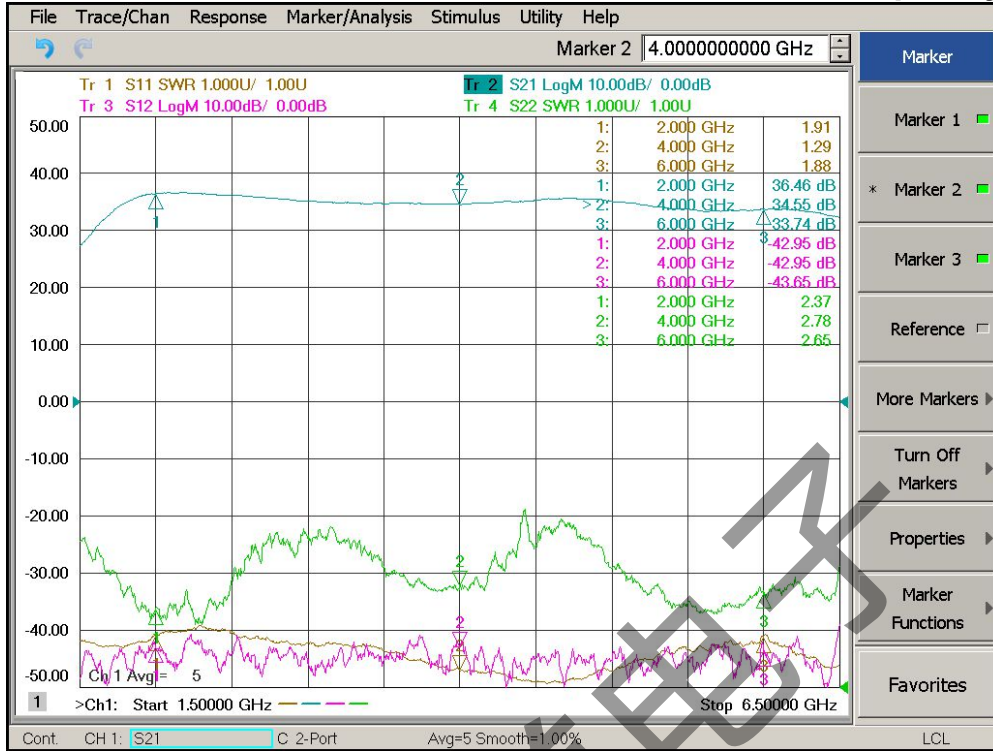
### Electrical Specifications @ +25°C, $Z_{IN} = Z_{OUT} = 50\Omega$ , DC Supply = +28V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	2000		6000
Small Signal Gain $S_{21}$ $f = 4000\text{MHz}$	dB	30	33	
Gain Flatness	dB		$\pm 1.5$	$\pm 2.0$
Output Power $P_{sat}$ $f = 4000\text{MHz}$	dBm	+30	+32	
Output IP3 $f = 4000\text{MHz}$	dBm	+40	+42	
Reverse Isolation $S_{12}$	dB	-38	-43	
Noise Figure	dB		4.0	5.0
VSWR Input VSWR $S_{11}$			2.0:1	2.5:1
Output VSWR $S_{22}$			2.5:1	3.5:1
DC Power Supply	V	26	28	30
Quiescent Current with No Input	mA		180	220
Current @ $P_{out} = +30\text{dBm}$	mA		330	450
Size (Excluding SMA Connector)	inch	3.750" x 2.000" x 1.813"		
Weight	Oz.	8		

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**Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency**



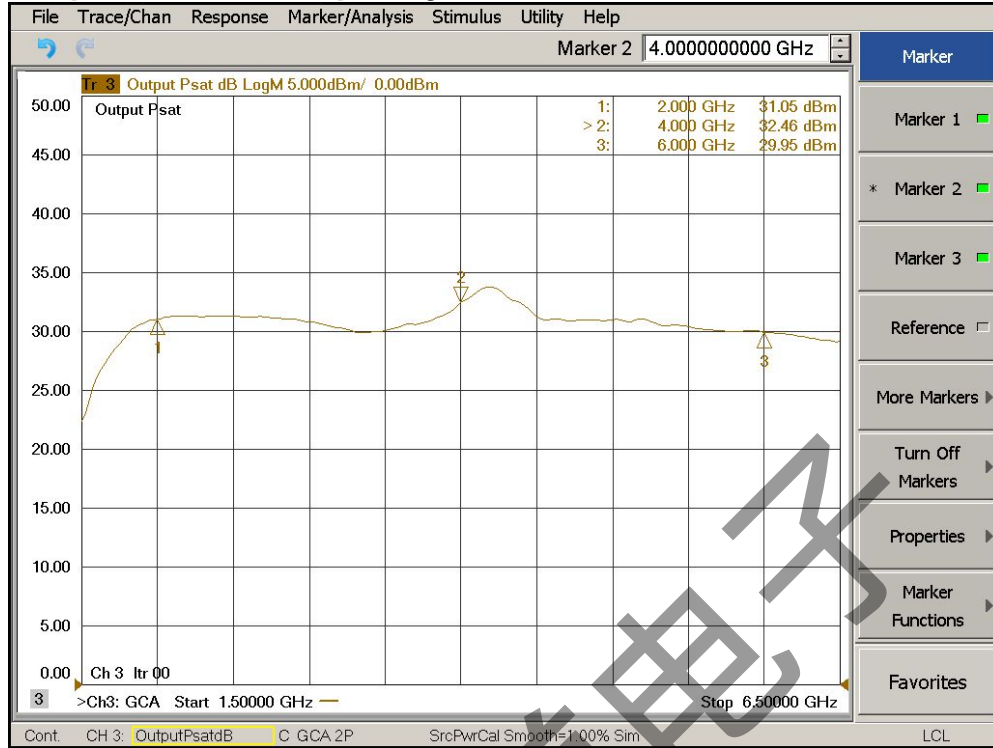
**Noise Figure vs Frequency**



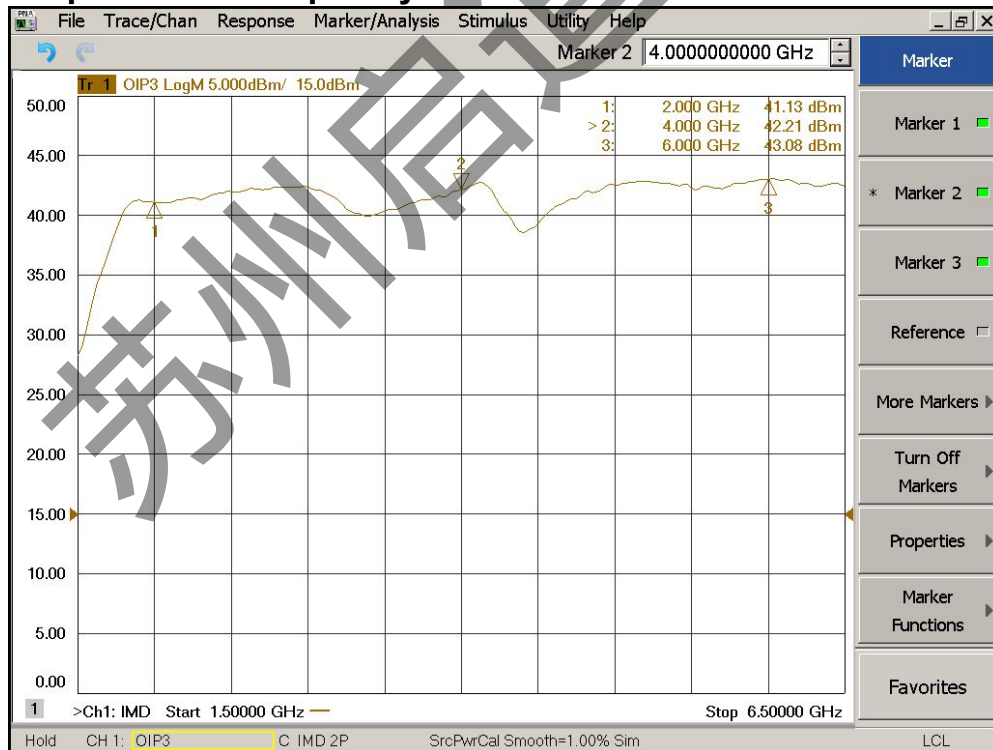
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**Output Pout vs Frequency**



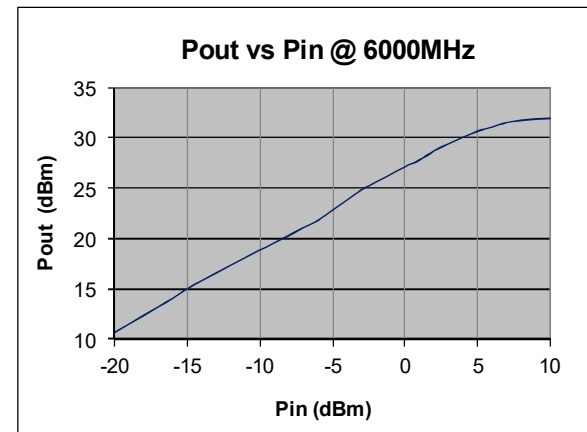
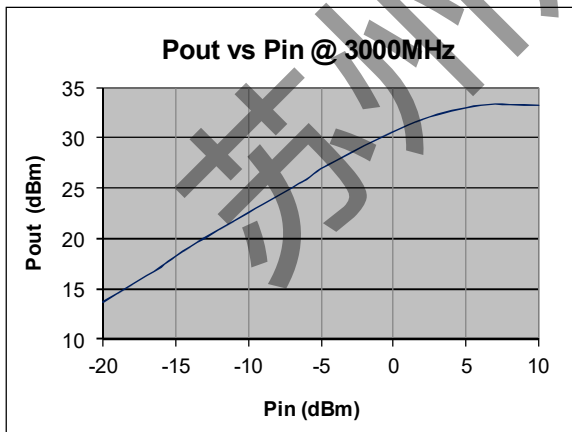
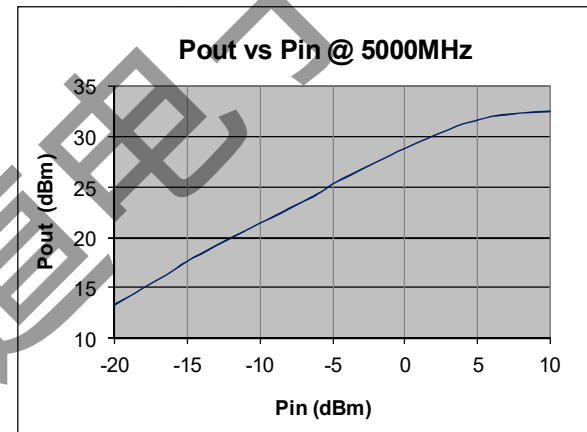
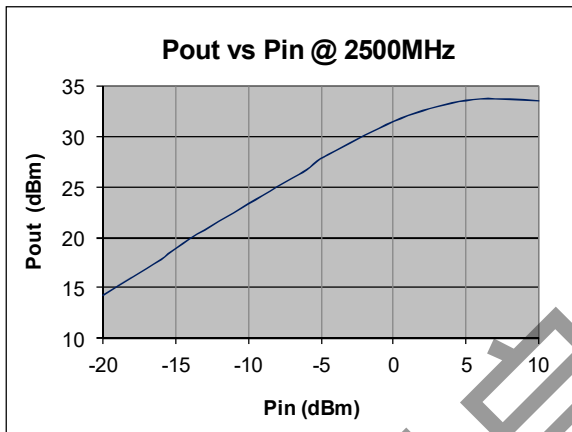
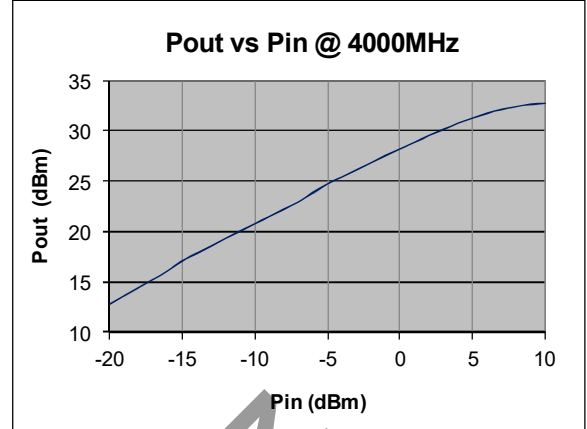
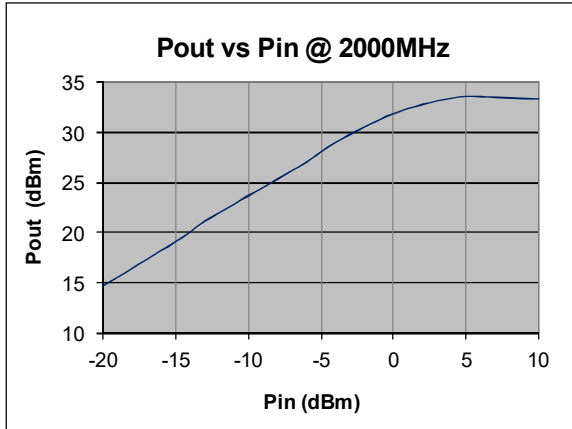
**Output IP3 vs Frequency**



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### Typical Performance @ 25°C



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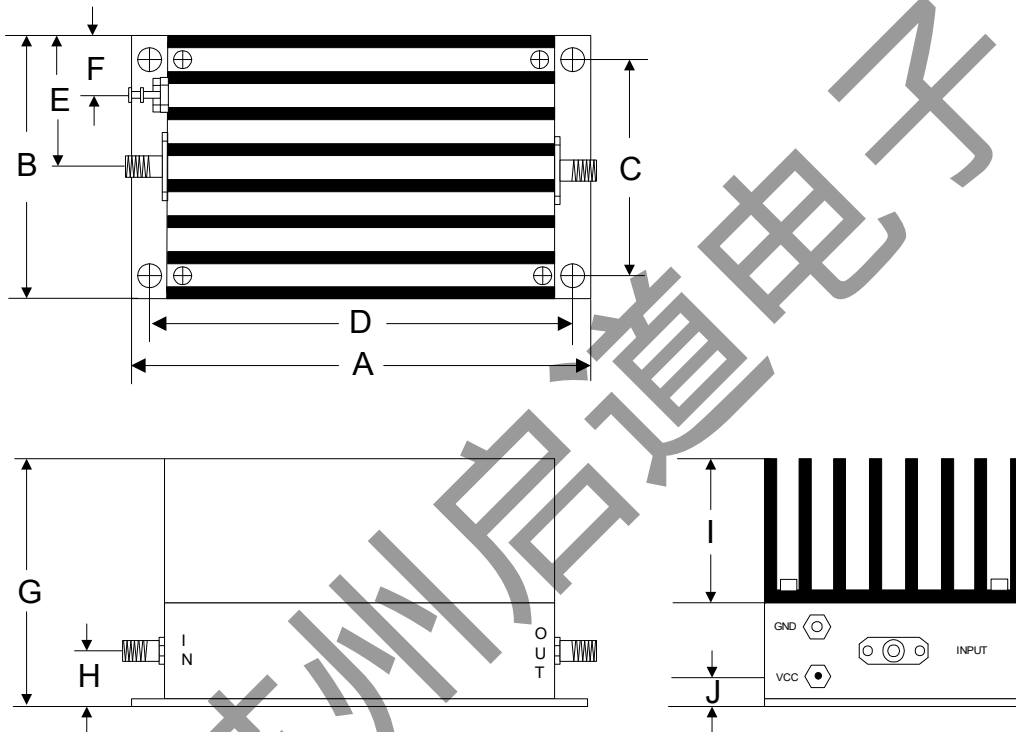
### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
DC Supply Voltage	+32V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline



	A	B	C	D	E	F	G	H	I	J
Inch	3.750	2.000	1.750	3.400	1.000	0.400	1.813	0.375	1.000	0.238
mm	92.25	50.80	44.45	86.36	25.40	10.16	46.05	9.53	25.40	6.03