

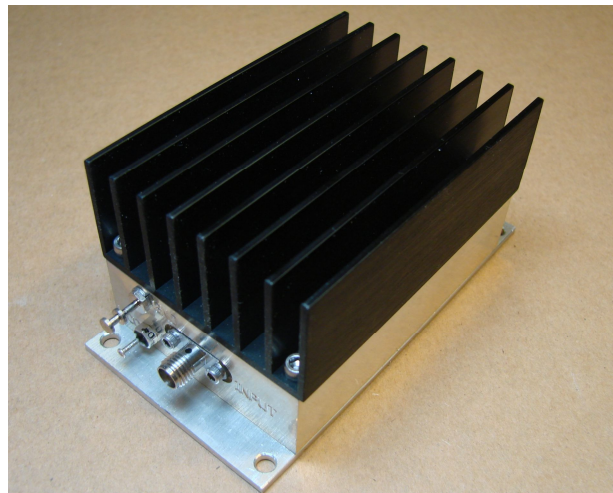
MPA Series

5000-6000MHz 1W RF Power Amplifier

Features

- Frequency Range: 5000-6000MHz
- Gain: 25dB
- P_{out}: +30dBm (1Watt)
- IP3: +40dBm
- Noise Figure: 7dB
- DC Power: +12V
- DC Reverse Protected
- Internal Voltage Regulated
- SMA Connector

Picture



Description

MPA-55-30 is a 1Watt (+30dBm) output RF Power Amplifier operating from single 12V DC power supply with frequency from 5000MHz to 6000MHz.

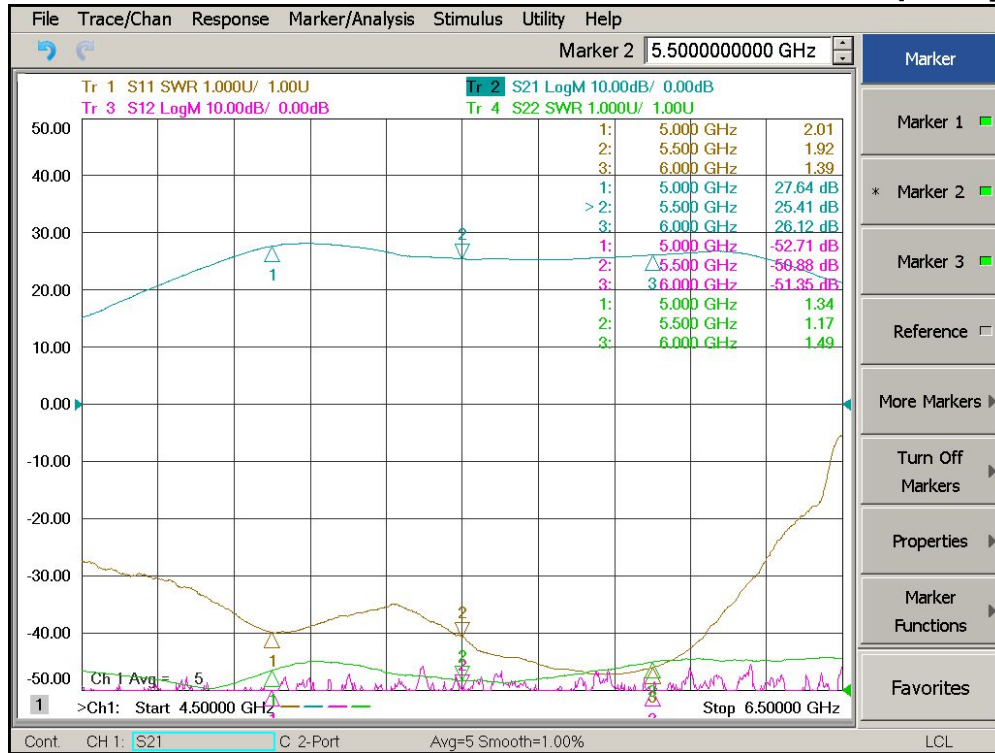
Electrical Specifications @ +25°C, Z_{IN} = Z_{OUT} = 50Ω, DC Supply = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	5000		6000
Small Signal Gain S ₂₁ f = 5500MHz	dB	23	25	
Gain Flatness	dB		± 1.5	± 2.0
Output Power P _{3dB} f = 5500MHz	dBm	+30	+32	
Output Power P _{SAT} f = 5500MHz	dBm	+33	+34	
Output IP3 f = 5500MHz	dBm	+40	+42	
Reverse Isolation S ₁₂	dB	-45	-50	
Noise Figure	dB		7.0	9.0
VSWR Input VSWR S ₁₁			2.0:1	2.5:1
Output VSWR S ₂₂			1.5:1	2.0:1
DC Power Supply	V	9	12	15
Quiescent Current with No Input	mA		370	450
Current @ P _{out} = +30dBm	mA		920	1200
Current @ P _{SAT} = +33dBm	mA		1300	2000
Size (Excluding SMA Connector)	inch	3.750" x 2.000" x 1.813"		
Weight	Oz.	8		

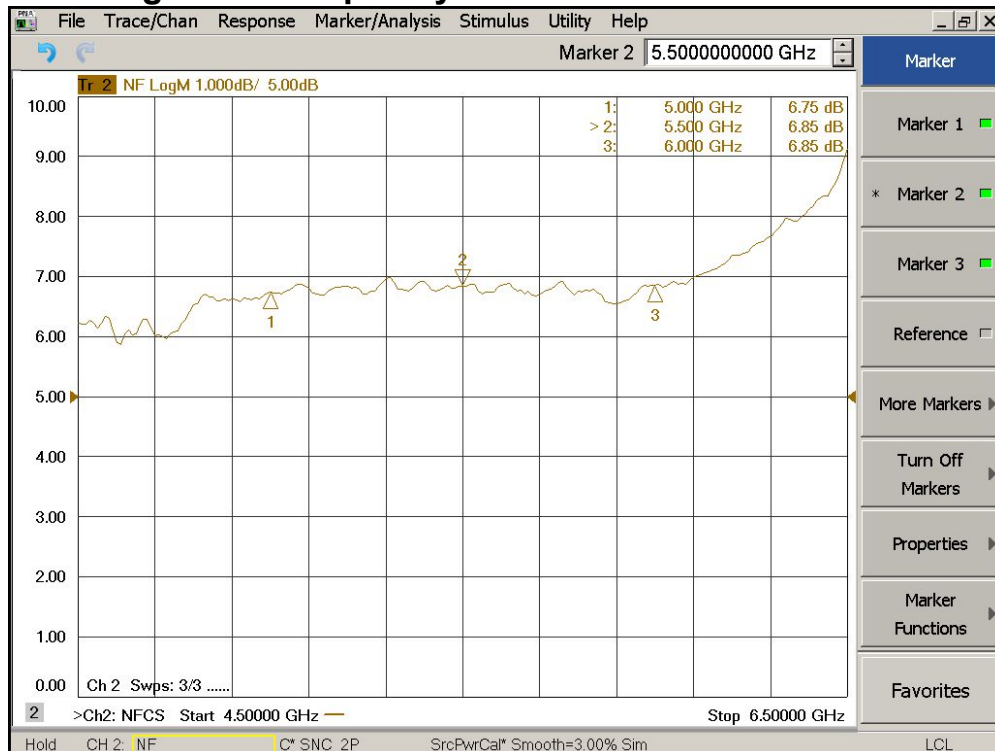
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



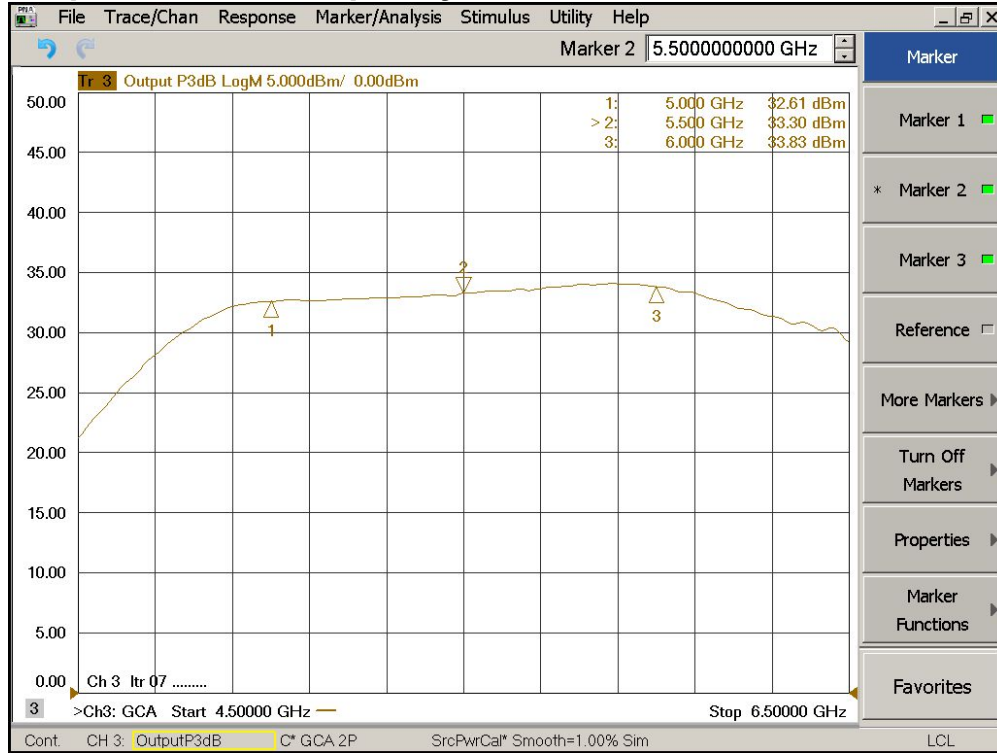
Noise Figure vs Frequency



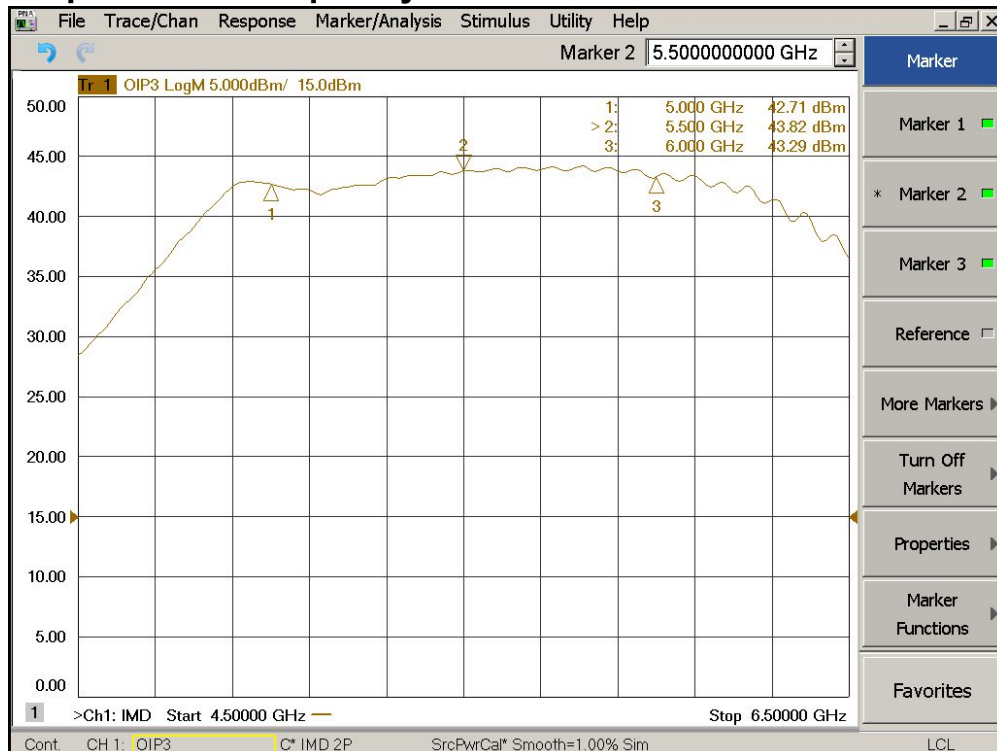
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Output P3dB vs Frequency



Output IP3 vs Frequency



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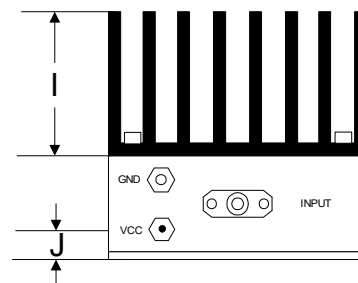
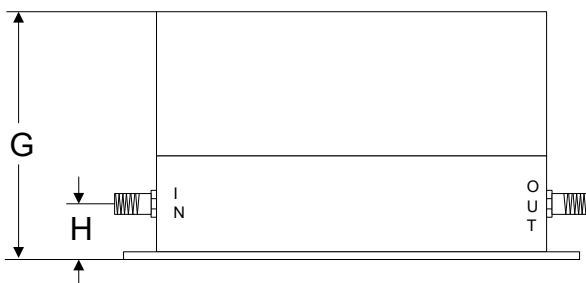
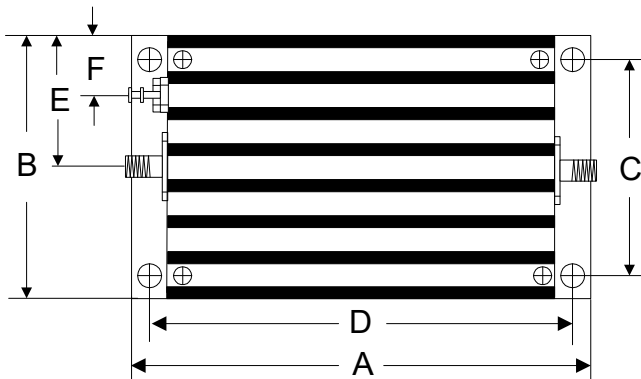
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+23dBm
DC Supply Voltage	+18V
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