

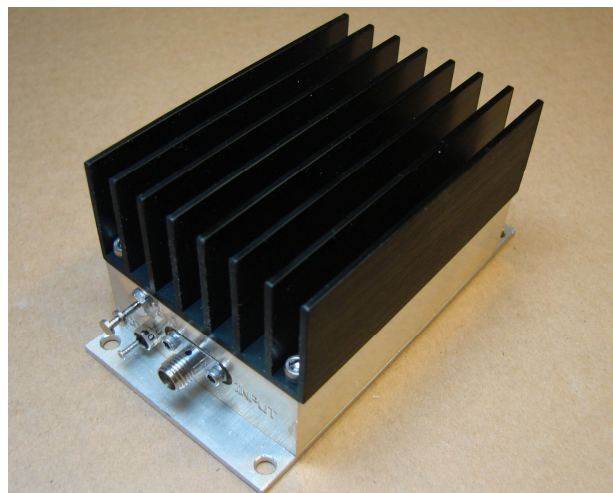
## MPA Series

## 5000-6000MHz 1W RF Power Amplifier

### Features

- Frequency Range: 5000-6000MHz
- Gain: 27dB
- P<sub>out</sub>: +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.

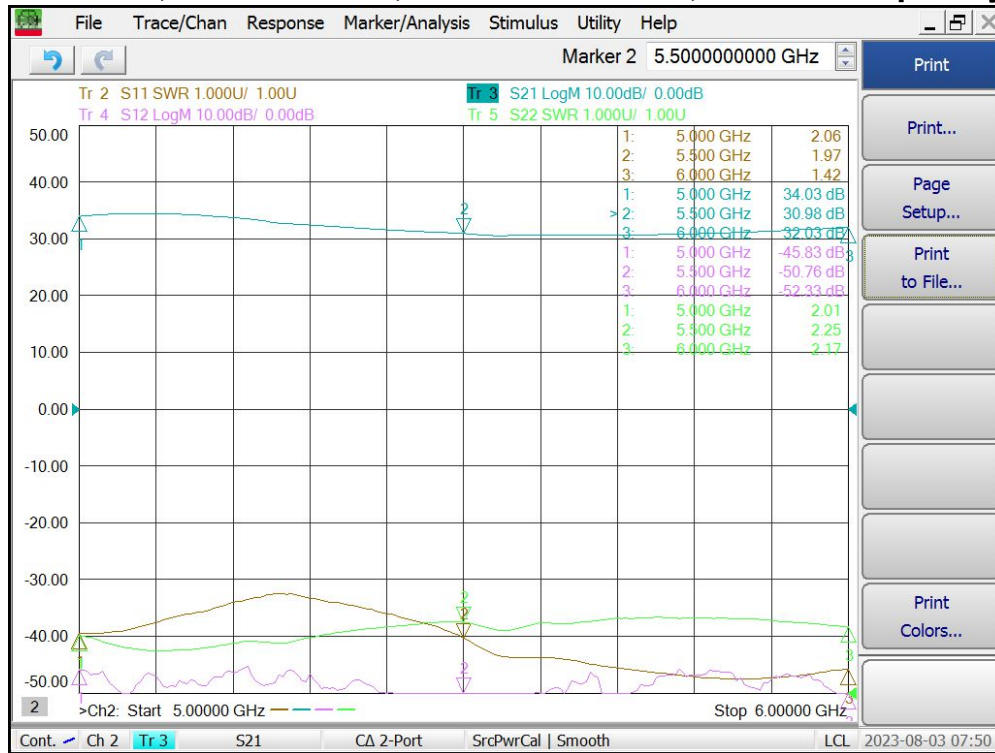
### Electrical Specifications @ +25°C, Z<sub>IN</sub> = Z<sub>OUT</sub> = 50Ω, DC Supply = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	5000		6000
Small Signal Gain S <sub>21</sub> f = 5500MHz	dB	27	30	
Gain Flatness	dB		± 1.5	± 2.0
Output Power P <sub>3dB</sub> f = 5500MHz	dBm	+30	+32	
Output Power P <sub>SAT</sub> f = 5500MHz	dBm	+33	+34	
Output IP3 f = 5500MHz	dBm	+40	+42	
Reverse Isolation S <sub>12</sub>	dB	-45	-50	
Noise Figure	dB		7.0	9.0
Input VSWR S <sub>11</sub> f = 5500MHz			2.0:1	2.5:1
Output VSWR S <sub>22</sub> f = 5500MHz			2.5:1	3.0:1
DC Power Supply	V	9	12	15
Quiescent Current with No Input	mA		370	450
Current @ P <sub>out</sub> = +30dBm	mA		920	1200
Current @ P <sub>SAT</sub> = +33dBm	mA		1300	2000
Size (Excluding SMA Connector)	inch	3.750" x 2.000" x 1.813"		
Weight	Oz.	8		

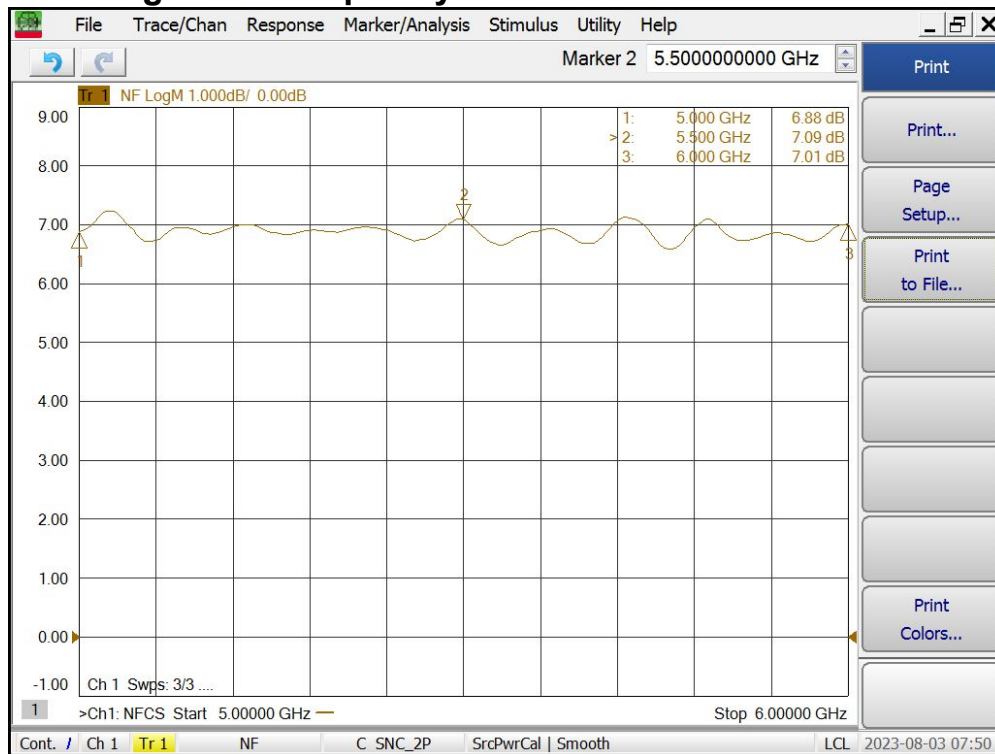
**MPA Series**

**5000-6000MHz 1W RF Power Amplifier**

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



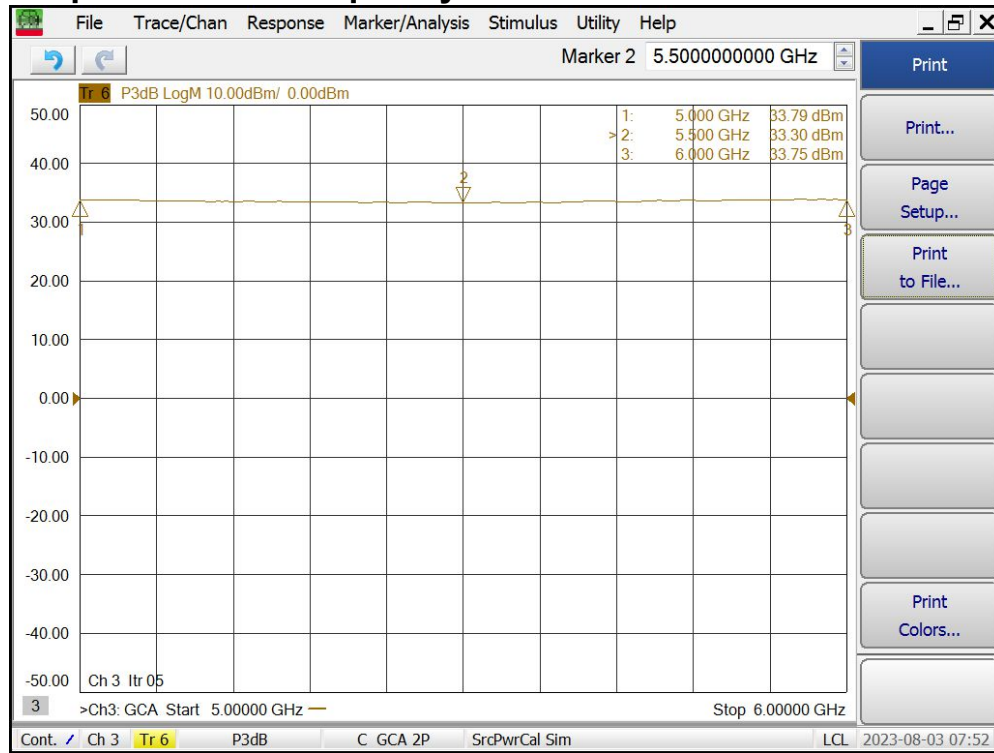
**Noise Figure vs Frequency**



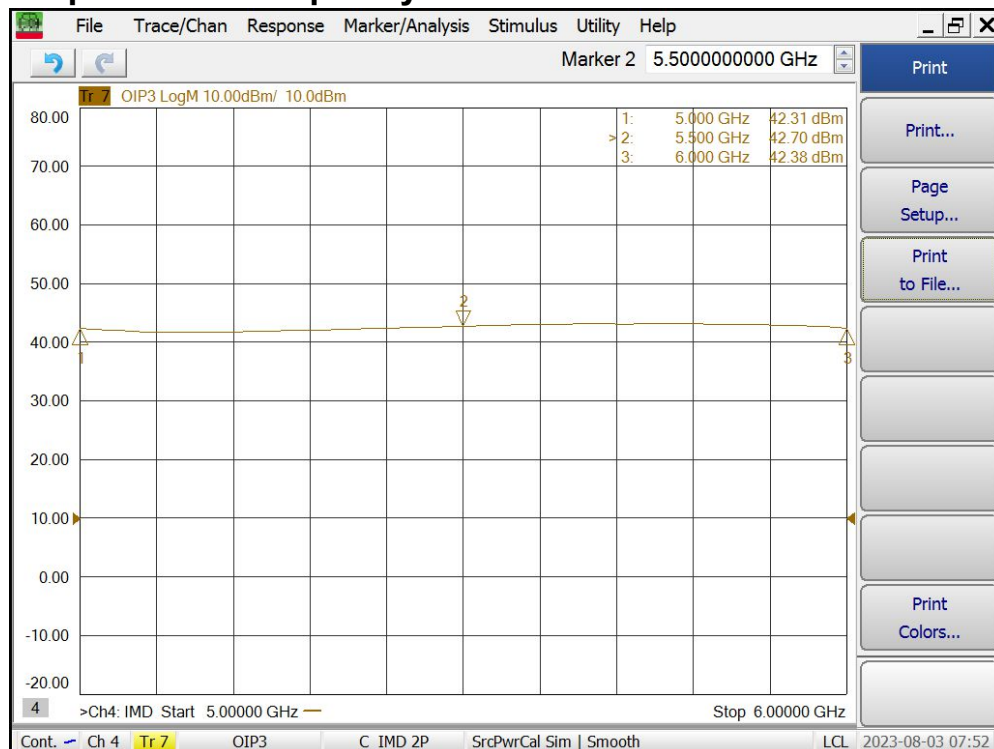
**MPA Series**

**5000-6000MHz 1W RF Power Amplifier**

**Output P3dB vs Frequency**



**Output IP3 vs Frequency**



## MPA Series

## 5000-6000MHz 1W RF Power Amplifier

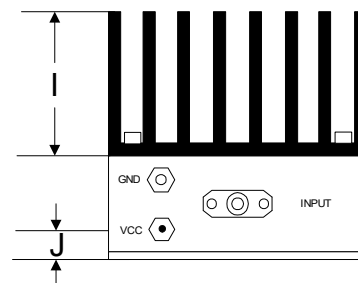
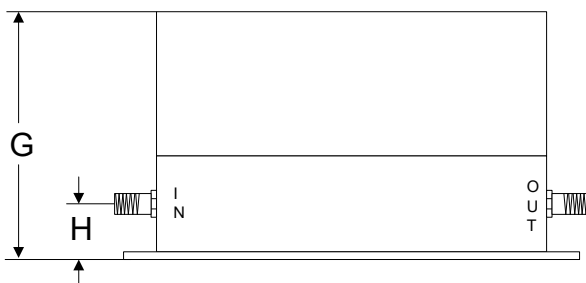
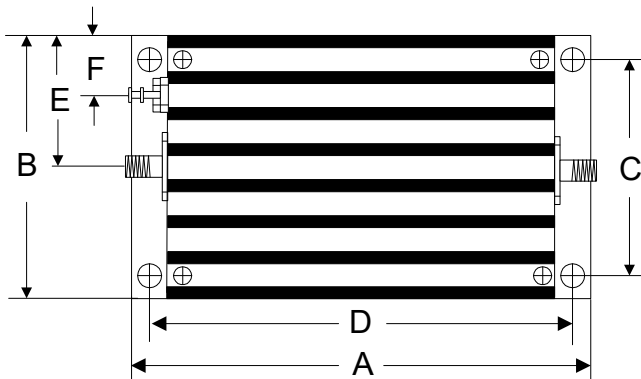
### Absolute Maximum Ratings

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