

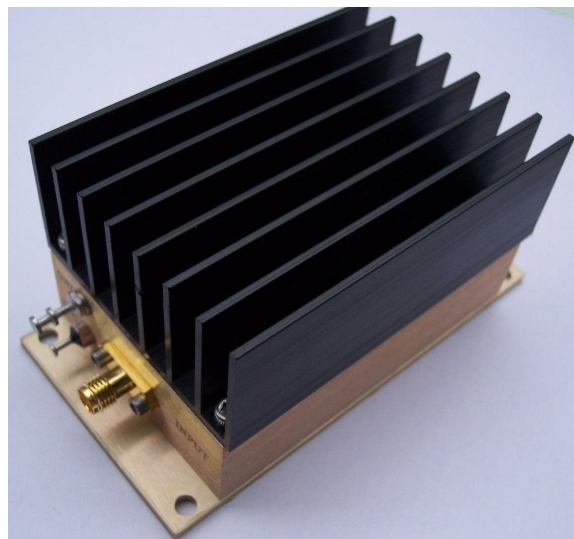
## MPA Series

## 2400-2500MHz 2W RF Power Amplifier

### Features

- Frequency Range: 2400-2500MHz
- Gain: 30dB
- P<sub>out</sub>: +33dBm (2Watt)
- IP3: +43dBm
- Noise Figure: 8dB
- DC Power: +12V
- DC Reverse Protected
- Internal Voltage Regulated
- SMA Connector

### Picture



### Description

MPA-24-33 is a 2Watt (+33dBm) output RF Power Amplifier operating from single 12V DC power supply with frequency from 2400MHz to 2500MHz.

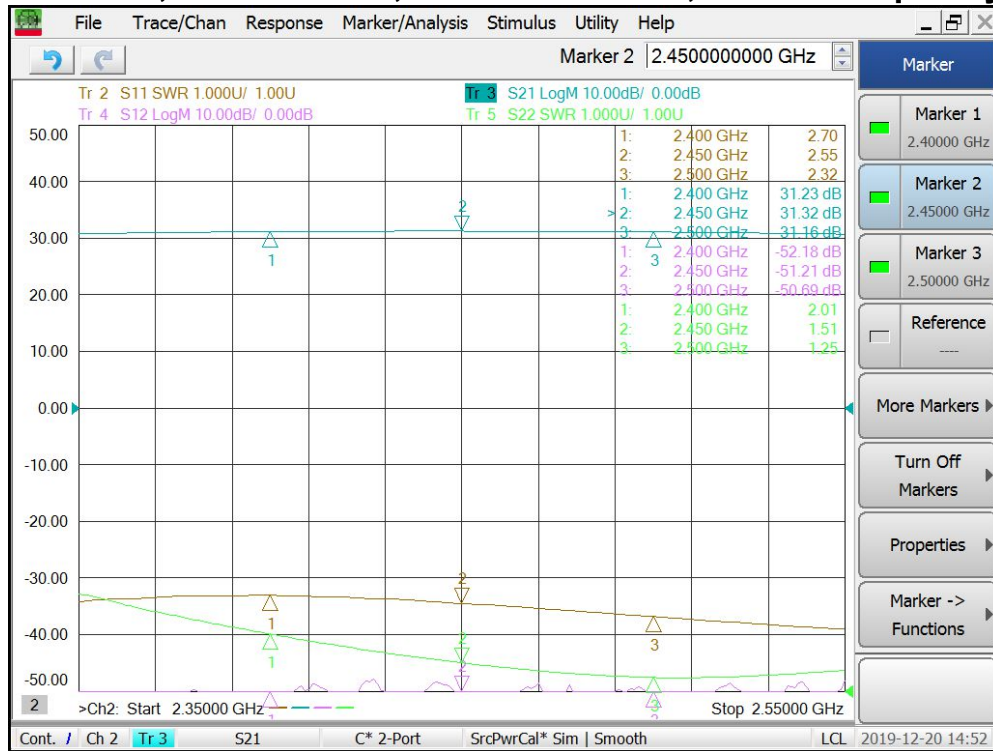
### Electrical Specifications @ +25°C, Z<sub>IN</sub> = Z<sub>OUT</sub> = 50Ω, DC Supply = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	2400		2500
Small Signal Gain S <sub>21</sub> f = 2450MHz	dB	30	31	
Gain Flatness	dB		± 0.1	± 0.3
Output Power P <sub>3dB</sub> f = 2450MHz	dBm	+32	+33	
Output IP3 f = 2450MHz	dBm	+42	+43	
Reverse Isolation S <sub>12</sub>	dB	-47	-50	
Noise Figure	dB		8.0	9.0
VSWR Input VSWR S <sub>11</sub>			2.5:1	3.0:1
Output VSWR S <sub>22</sub>			1.5:1	2.0:1
DC Power Supply	V	9	12	15
Quiescent Current with No Input	mA		300	400
Current @ P <sub>out</sub> = +33dBm	mA		1200	1500
Size (Excluding SMA Connector)	inch	3.750" x 2.000" x 1.813"		
Weight	Oz.	8		

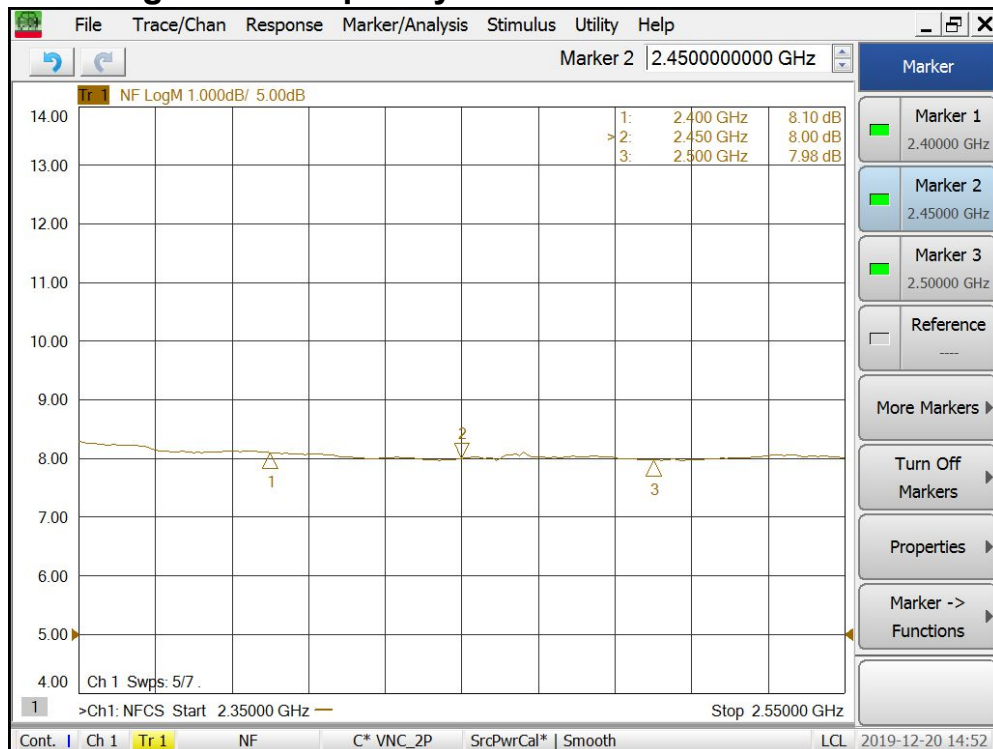
**MPA Series**

**2400-2500MHz 2W RF Power Amplifier**

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



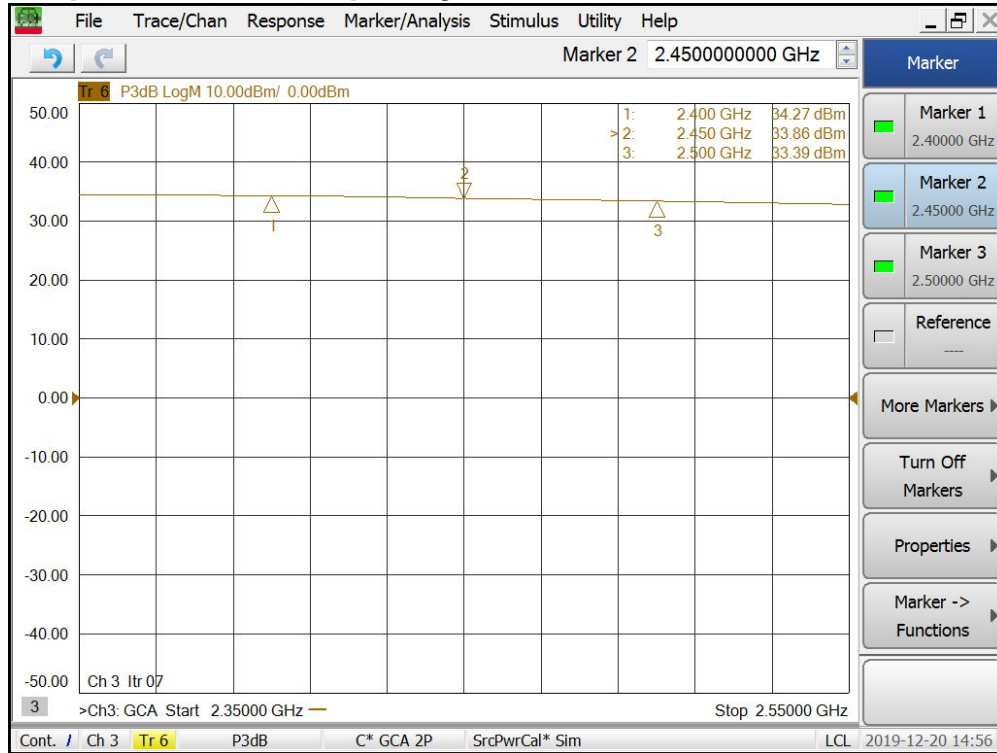
**Noise Figure vs Frequency**



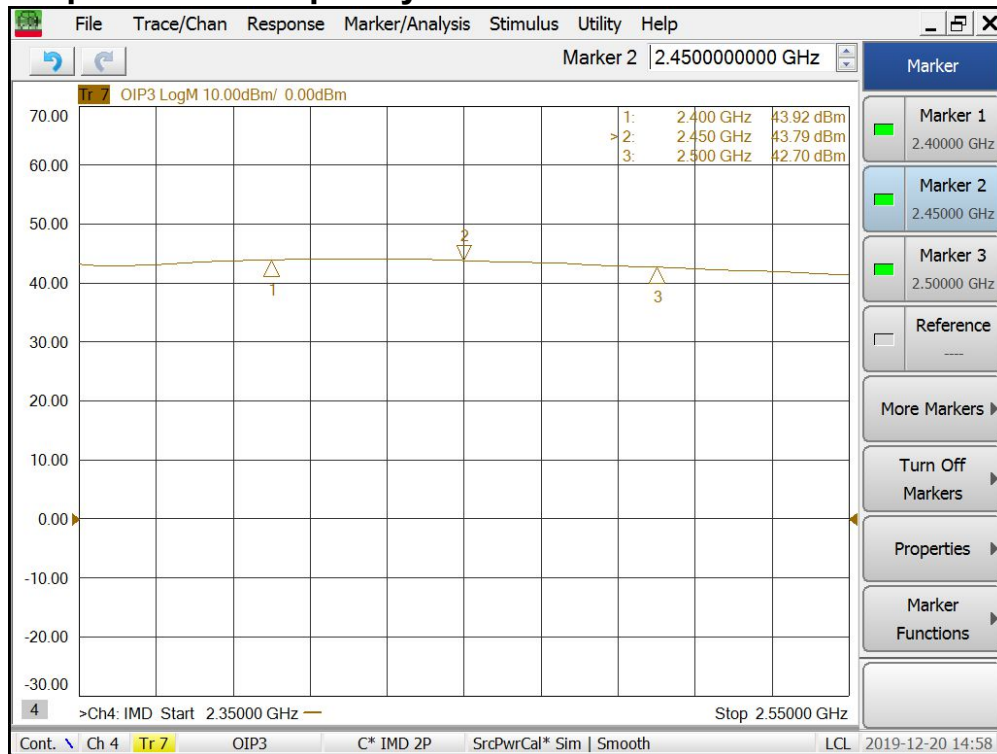
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**Output P3dB vs Frequency**



**Output IP3 vs Frequency**



## MPA Series

## 2400-2500MHz 2W RF Power Amplifier

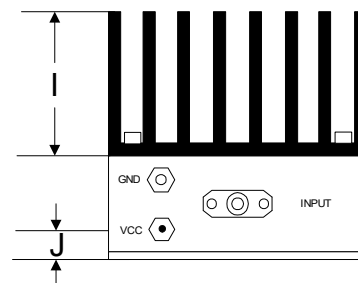
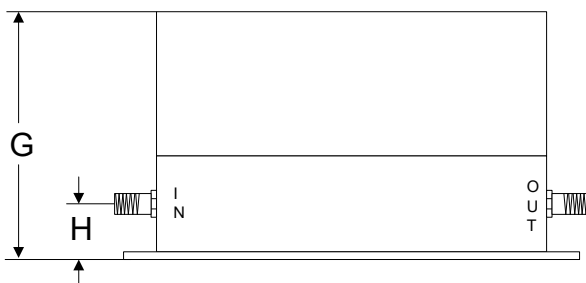
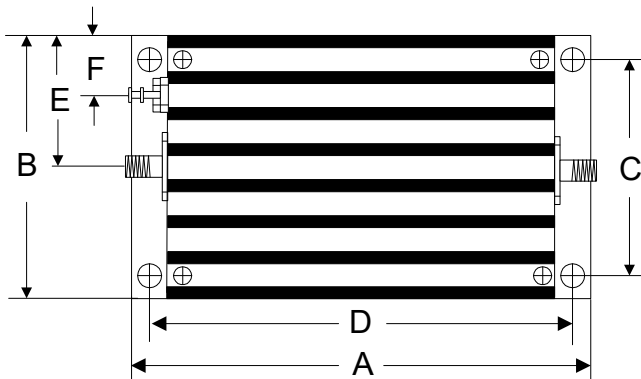
### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
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