

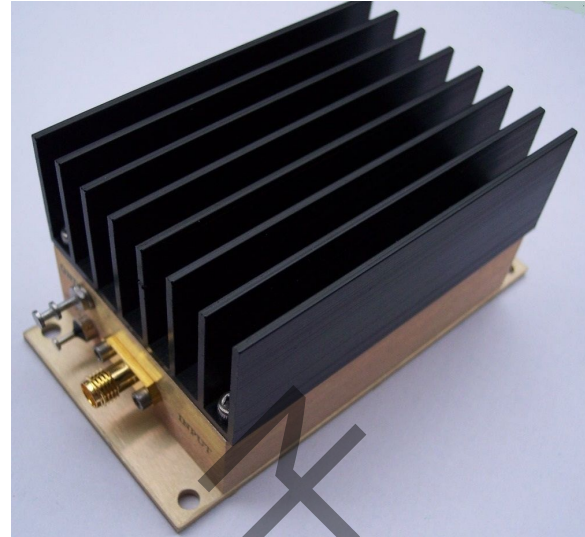
MPA Series

2400-2500MHz 2W RF Power Amplifier

Features

- Frequency Range: 2400-2500MHz
- Gain: 30dB
- P_{out}: +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.

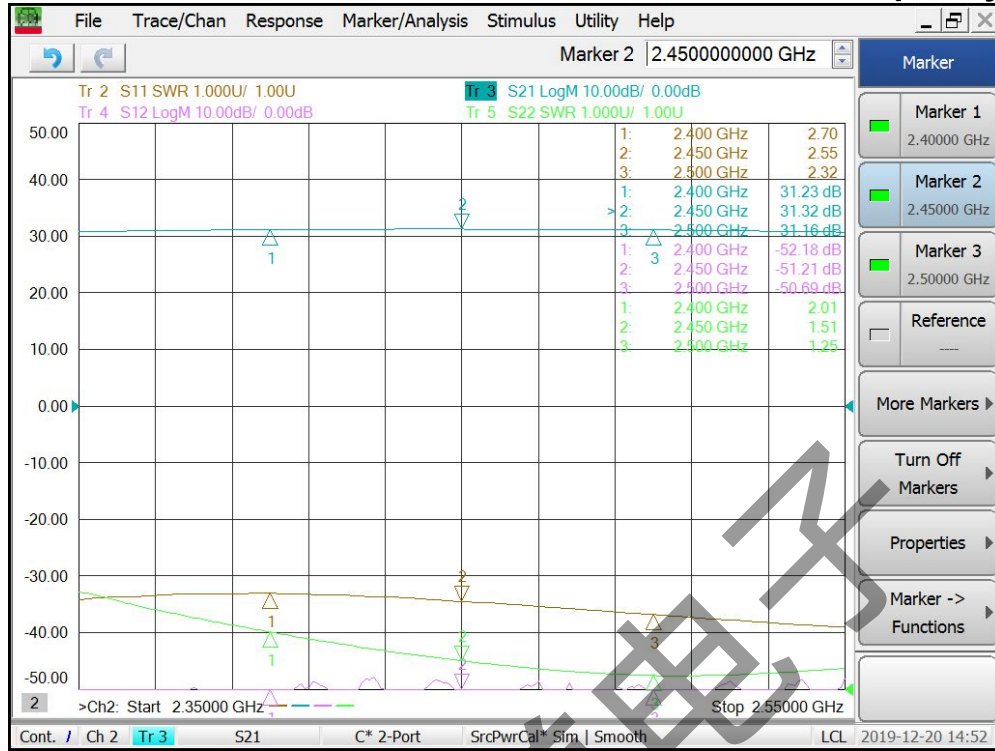
Electrical Specifications @ +25°C, Z_{IN} = Z_{OUT} = 50Ω, DC Supply = +12V

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

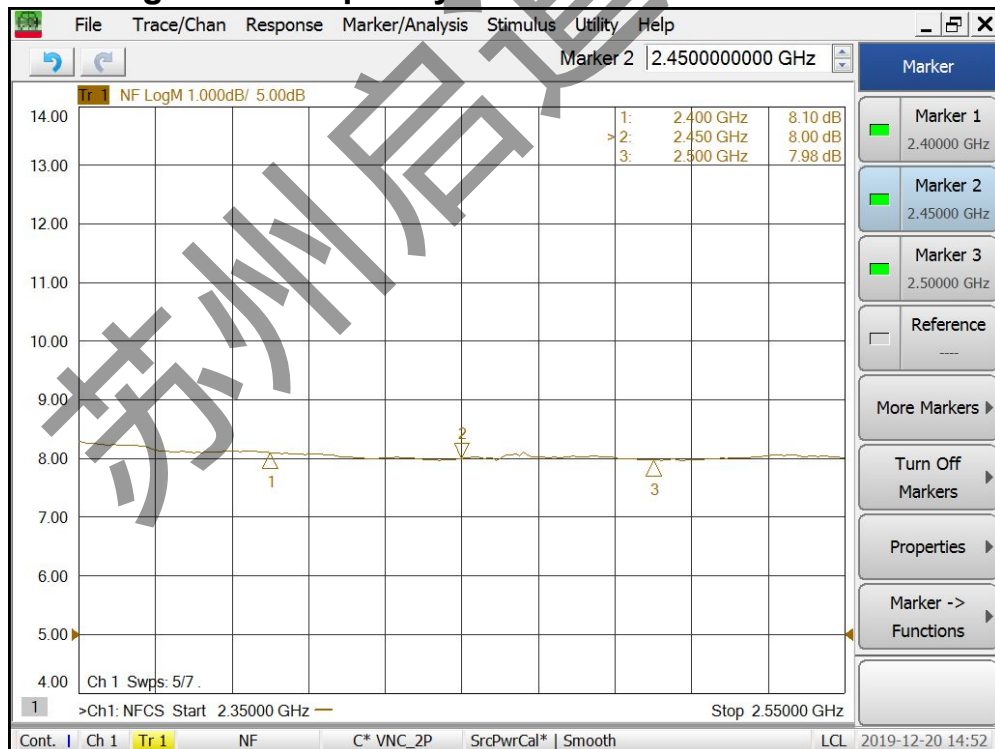
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



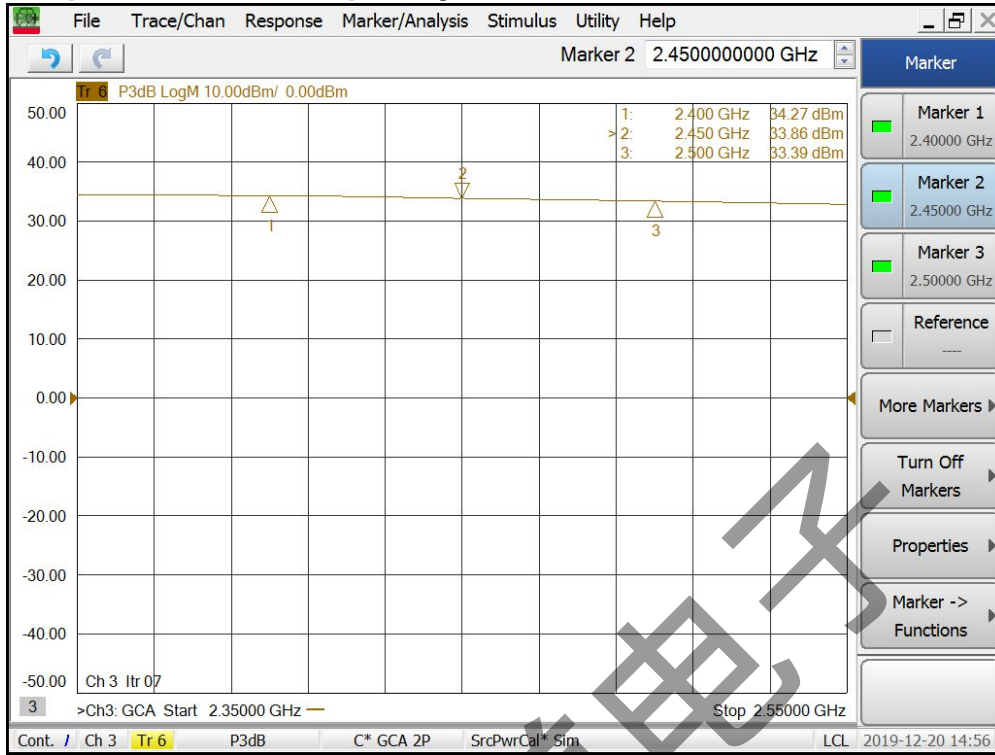
Noise Figure vs Frequency



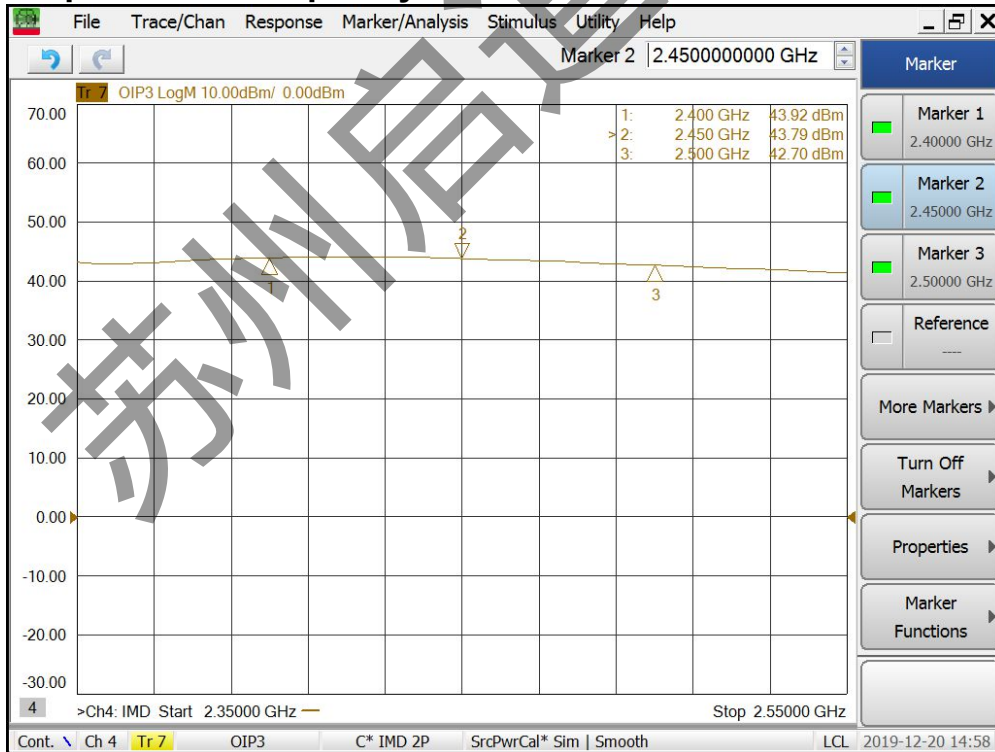
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Output P3dB vs Frequency



Output IP3 vs Frequency



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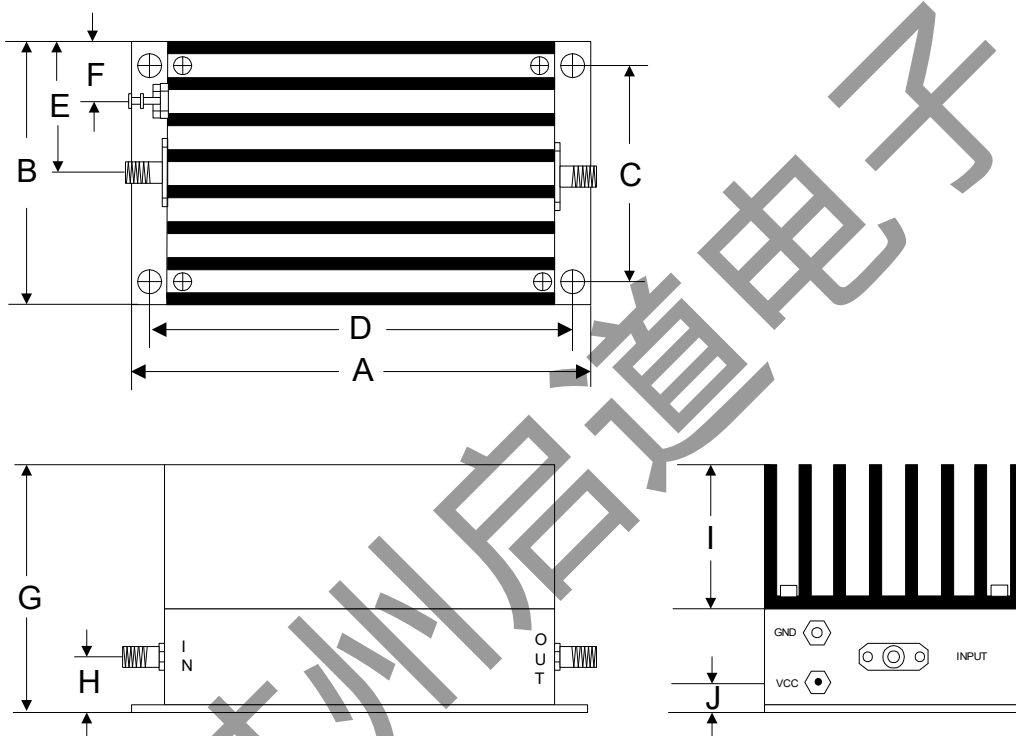
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+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