

LPA Series

10KHz – 3000MHz RF Amplifier

Features

- Frequency Range:0.01-3000MHz
- Gain: 13dB
- P_{1dB}: +12dBm
- IP3: +26dBm
- Noise Figure: 4dB
- DC Power: 15V/47mA
- SMA Connector

Performance at 3000MHz

Description

LPA-3-13 is a wideband RF Amplifier operates with frequency range from 10KHz to 3000MHz.

Picture



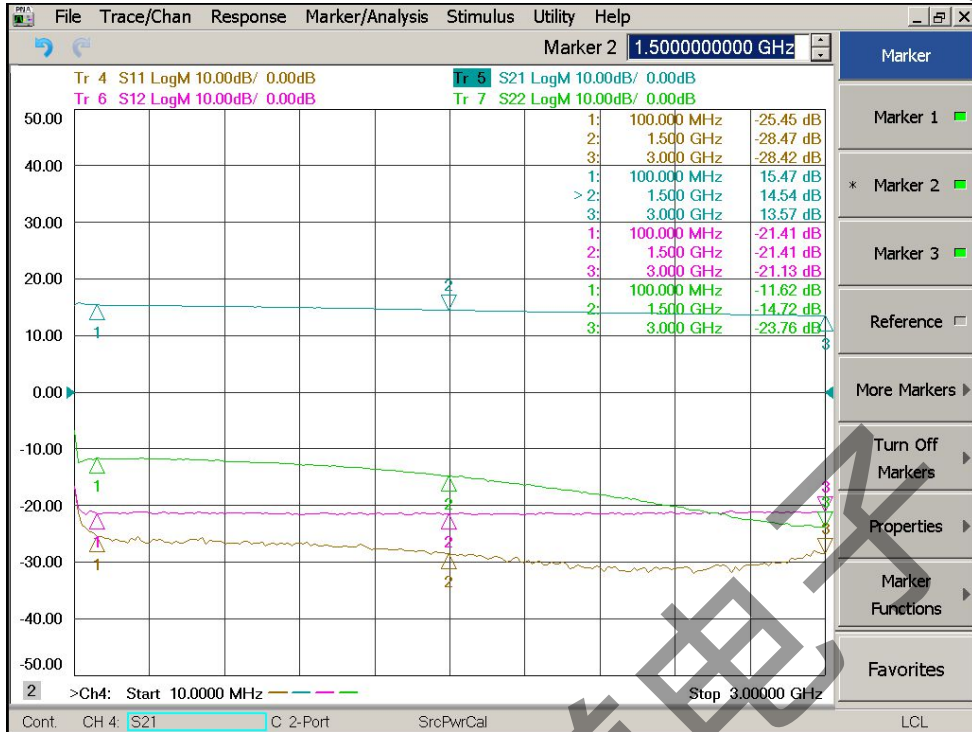
Electrical Specifications @ +25 °C, Z_{in}=Z_{out}=50Ω, DC Supply=+15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.01		3000
Gain S ₂₁	f = 1KHz	dB	14.0	16.0
	f = 1MHz	dB	14.0	16.0
	f = 100MHz	dB	13.5	15.5
	f = 1500MHz	dB	12.5	14.5
	f = 3000MHz	dB	11.5	13.0
Gain Flatness	dB		±1.5	±2.0
P _{1dB}	f = 3000MHz dBm	+10	+12	
IP3	f = 3000MHz dBm	+24	+26	
Noise Figure	f = 3000MHz dB		4.0	5.0
Reverse Isolation S ₁₂	f = 3000MHz dB	-17	-20	
Input VSWR S ₁₁	f = 3000MHz		1.2:1	1.5:1
Output VSWR S ₂₂	f = 3000MHz		1.5:1	1.8:1
DC Power Supply	V	14	15	16
Supply Current	mA		47	60

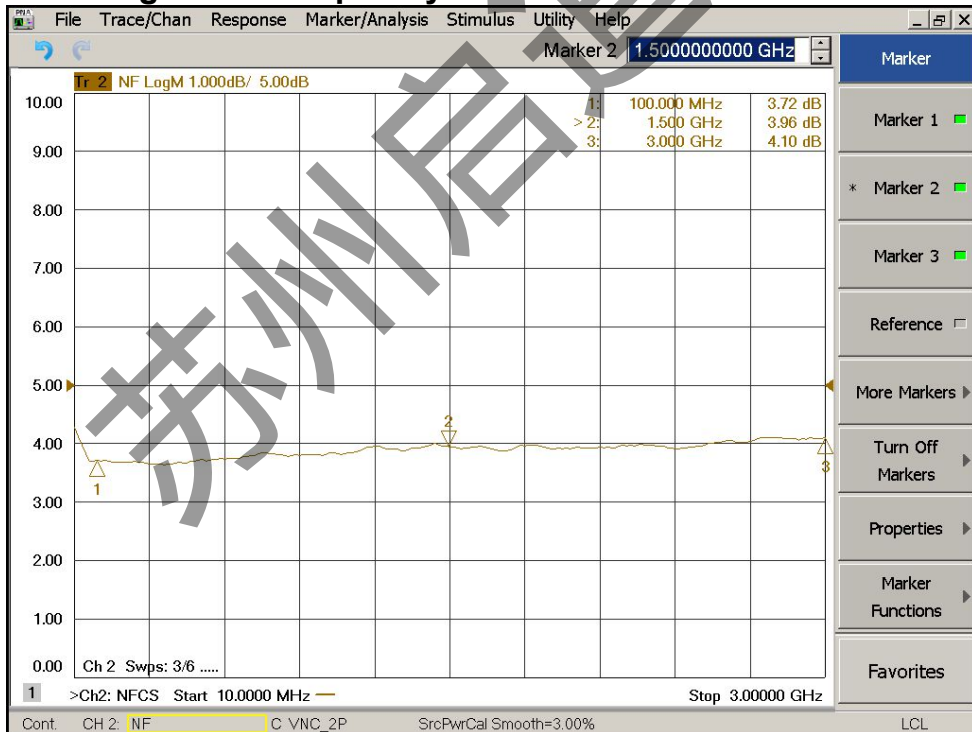
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



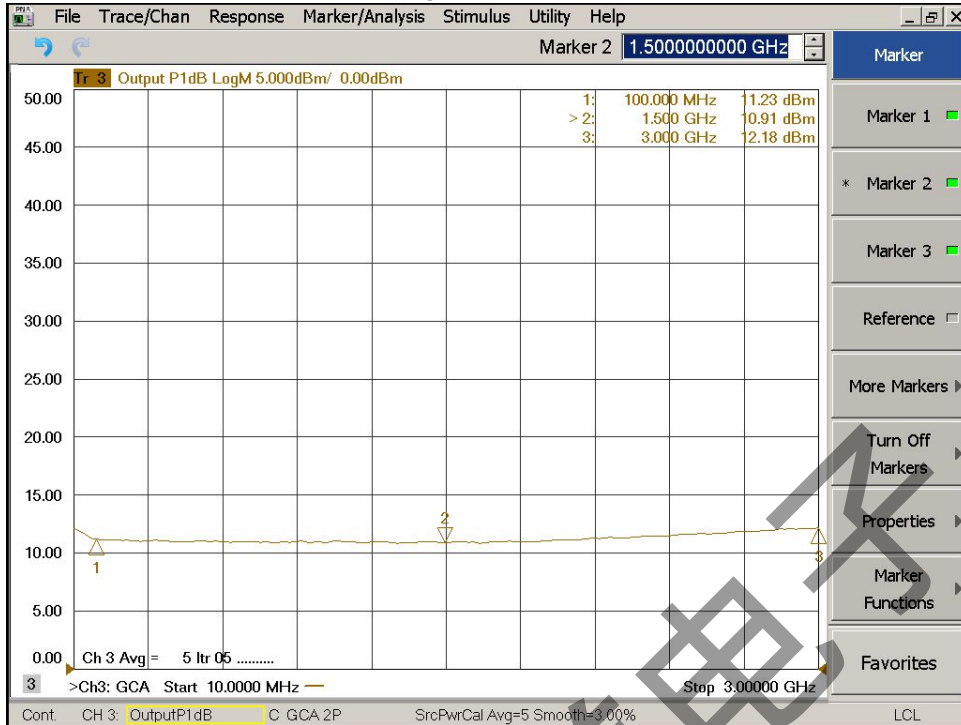
Noise Figure vs Frequency



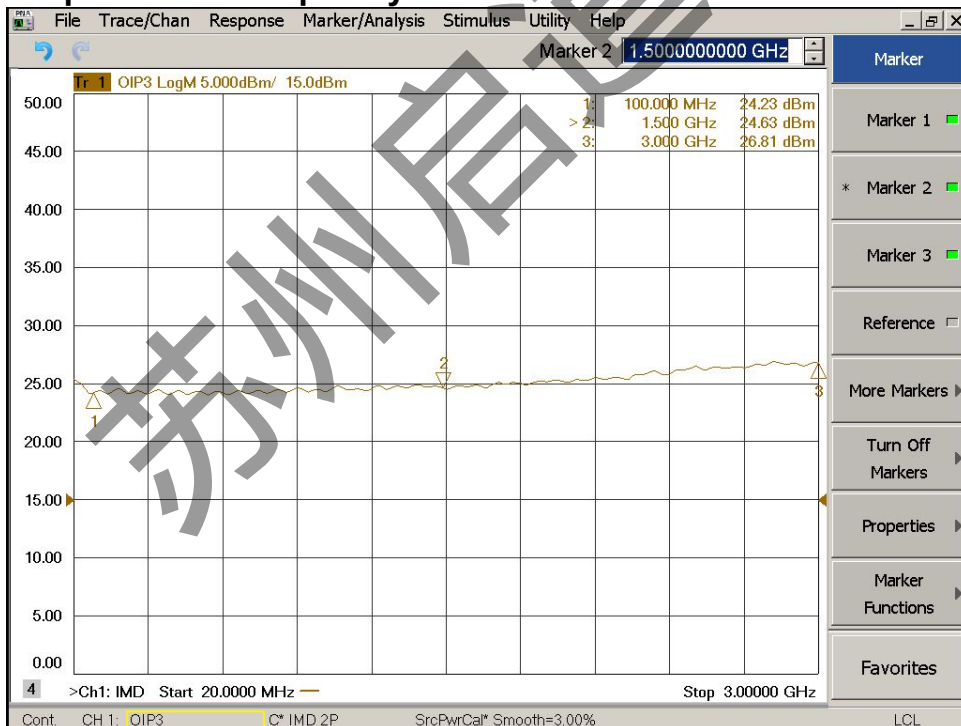
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Output P1dB vs Frequency



Output IP3 vs Frequency



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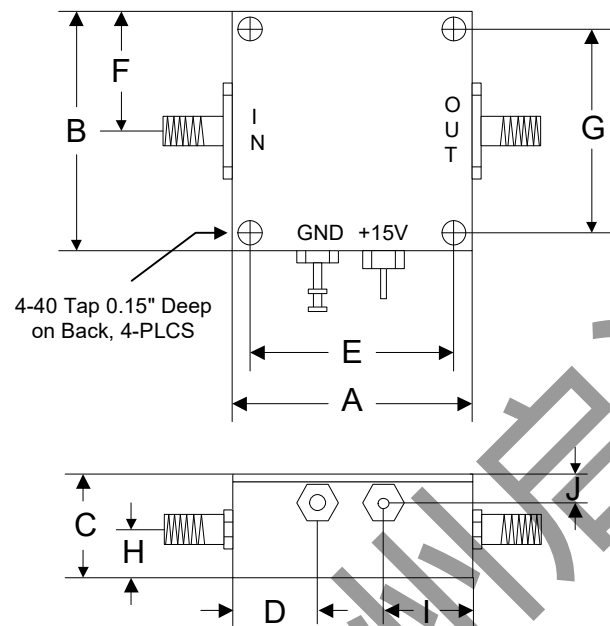
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+17V
RF Input Power	+10dBm
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	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76