

LPA Series

100KHz – 10GHz RF Amplifier

Features

- Frequency: 100KHz -10GHz
- Gain: 27dB
- P_{1dB}: +13dBm
- IP3: +26dBm
- Noise Figure: 5dB
- Internally Voltage Regulated
- DC Voltage Reverse Protected
- SMA Female Connector

Picture



Performance measured @ 5GHz

Description

LPA-10-20 is a wideband RF Amplifier operates with frequency range from 100KHz to 10GHz.

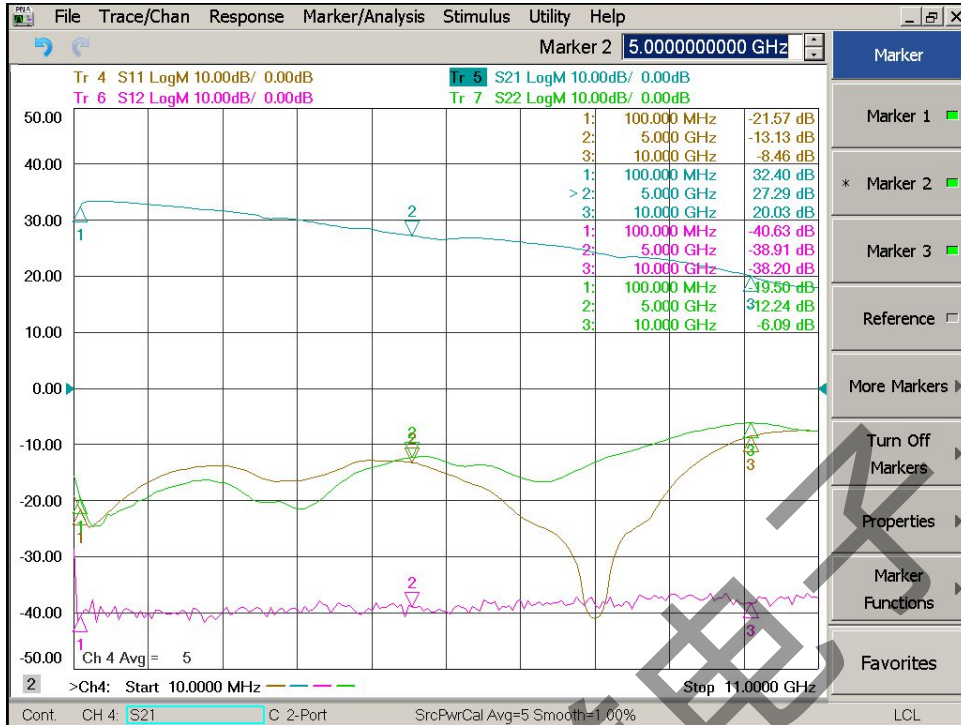
Electrical Specifications @ +25 °C, Z_{in}=Z_{out}=50Ω, DC Voltage=+12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.1		10,000
Gain S ₂₁ f = 100KHz	dB	27.0	29.0	
f = 10MHz	dB	28.0	30.0	
f = 100MHz	dB	30.0	32.5	
f = 5GHz	dB	25.0	27.0	
f = 10GHz	dB	18.0	20.0	
Gain Flatness	dB		± 6.5	± 7.5
P _{1dB} f = 5GHz	dBm	+11	+13	
IP3 f = 5GHz	dBm	+24	+26	
Noise Figure f = 5GHz	dB		5.0	6.0
Reverse Isolation S ₁₂ f = 5GHz	dB	-33	-39	
Input VSWR S ₁₁ f = 5GHz			1.7:1	2.0:1
Output VSWR S ₂₂ f = 5GHz			1.7:1	2.0:1
DC Power Supply	V	10	12	18
Supply Current	mA		110	

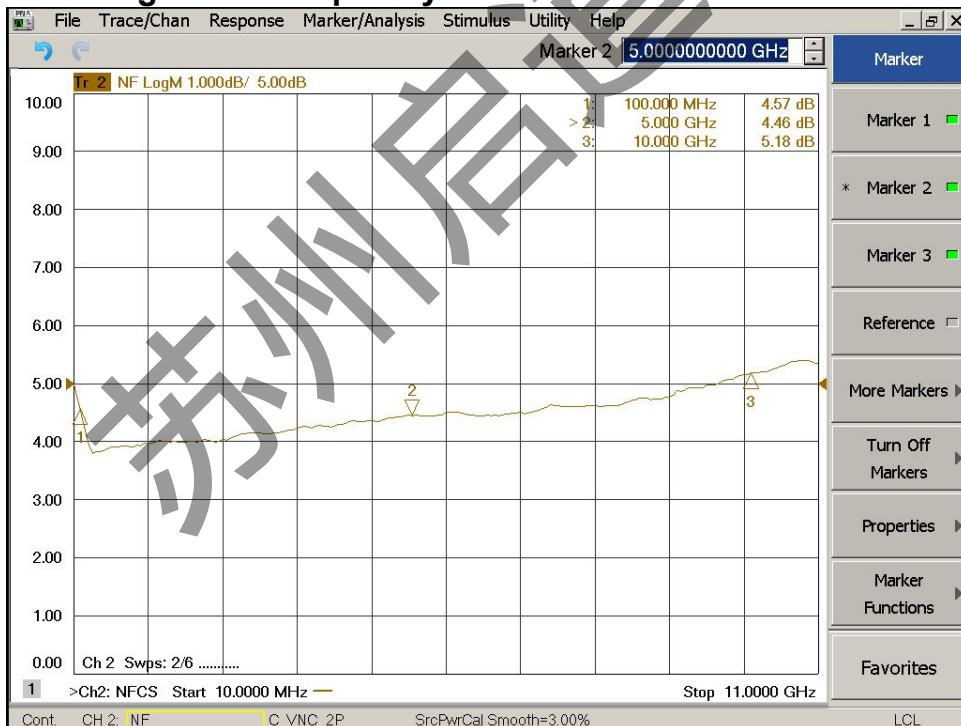
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



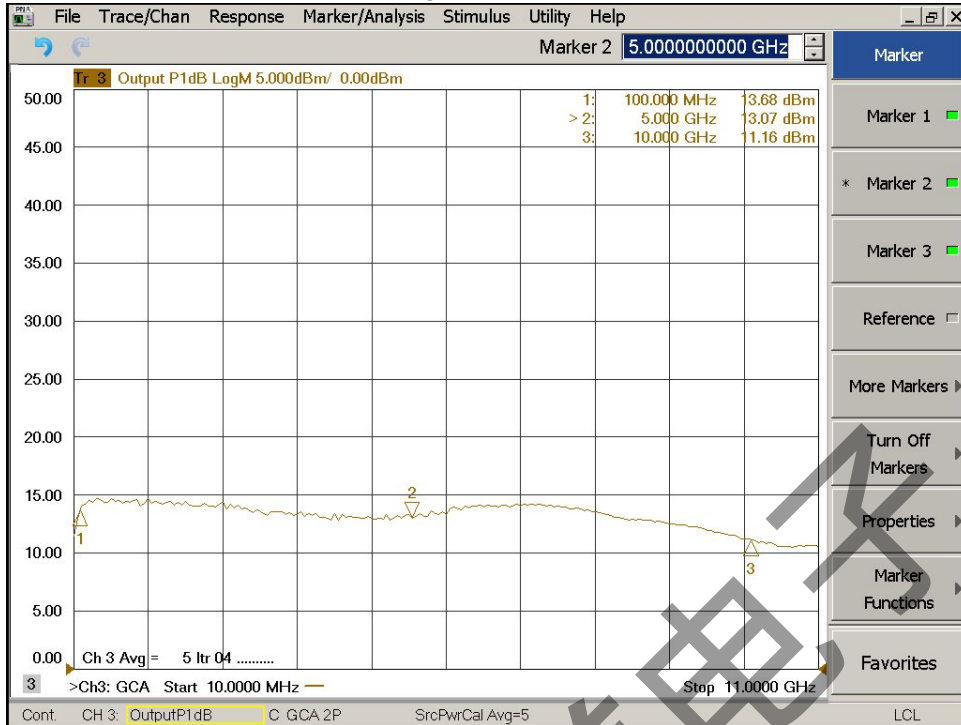
Noise Figure vs Frequency



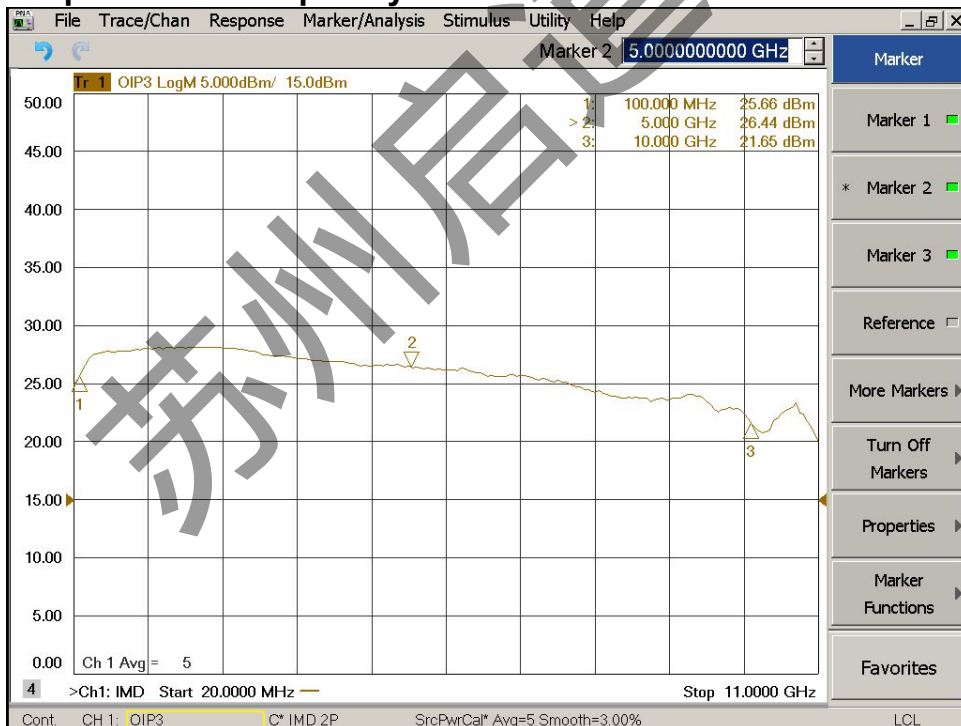
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Output P1dB vs Frequency



Output IP3 vs Frequency



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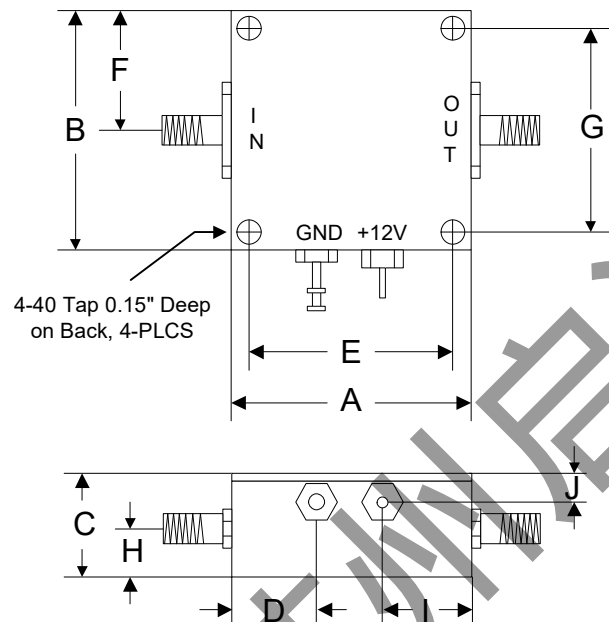
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+25V
RF Input Power	+15dBm
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