

LNA Series

10 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 10-1000MHz
- Gain: 30dB
- P_{1dB}: +12dBm
- IP3: +23dBm
- Noise Figure: 2.0dB
- DC Power: +12V
- Internally Voltage Regulated
- DC Voltage Reverse Protected
- SMA Female Connector

Picture



Description

LNA-1000 is a wideband Low Noise Amplifier operates with frequency range usable from 10 to 1000MHz.

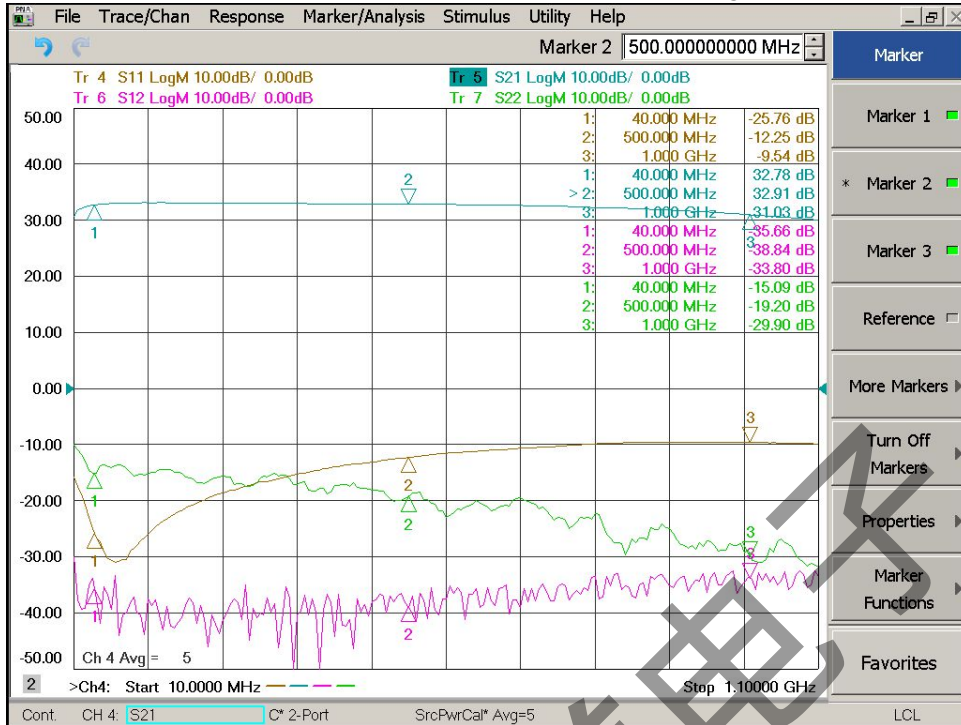
Electrical Specifications @ +25 °C, Z_{in}=Z_{out}=50Ω, DC Voltage=+12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		1000
Gain S ₂₁	f = 40MHz	30	32	
	f = 500MHz	30	32	
	f = 1000MHz	29	31	
P _{1dB}	f = 40MHz	+10	+12	
	f = 500MHz	+10	+12	
	f = 1000MHz	+8	+10	
IP3	f= 500MHz	+20	+23	
Noise Figure	f = 40MHz		2.0	2.5
	f = 500MHz		2.0	2.5
	f = 1000MHz		2.4	3.0
Isolation S ₁₂	dB	-30	-33	
Input VSWR S ₁₁	f=500MHz		1.6:1	2.0:1
Output VSWR S ₂₂	f=500MHz		1.5:1	2.0:1
DC Power Supply	V	11	12	15
Supply Current	mA	30	40	50

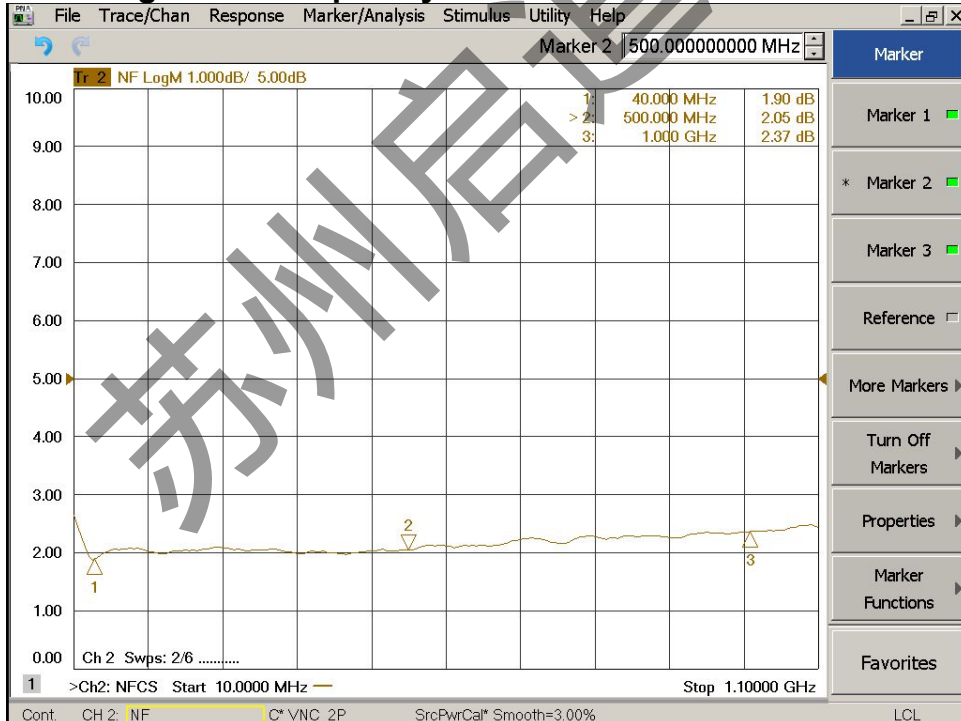
LNA Series

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Gain S21, Return Loss S11, S22 vs Frequency



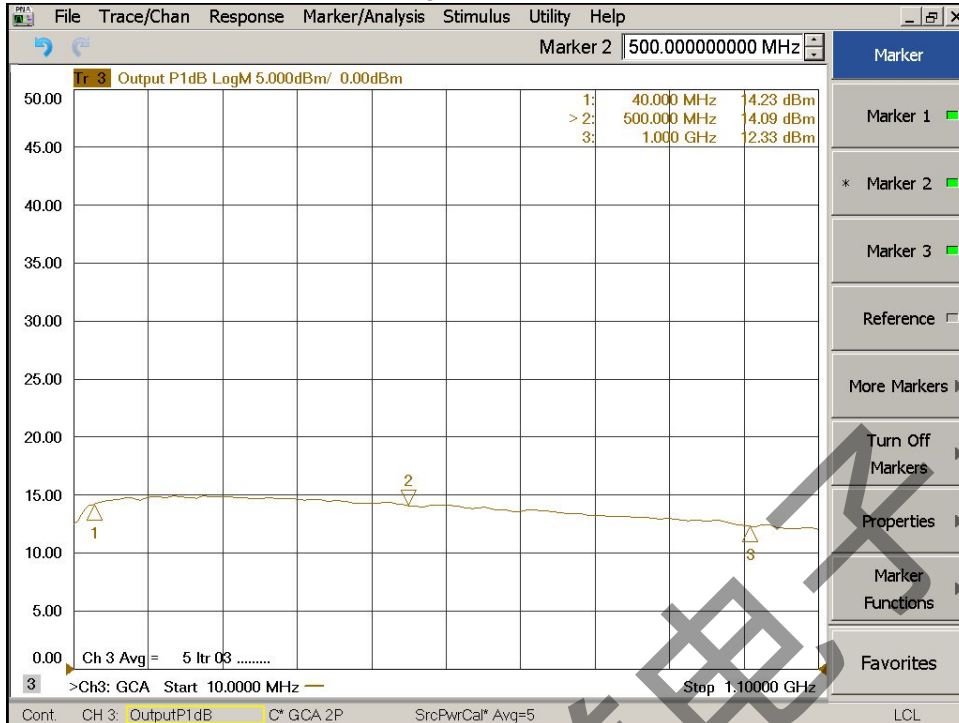
Noise Figure vs Frequency



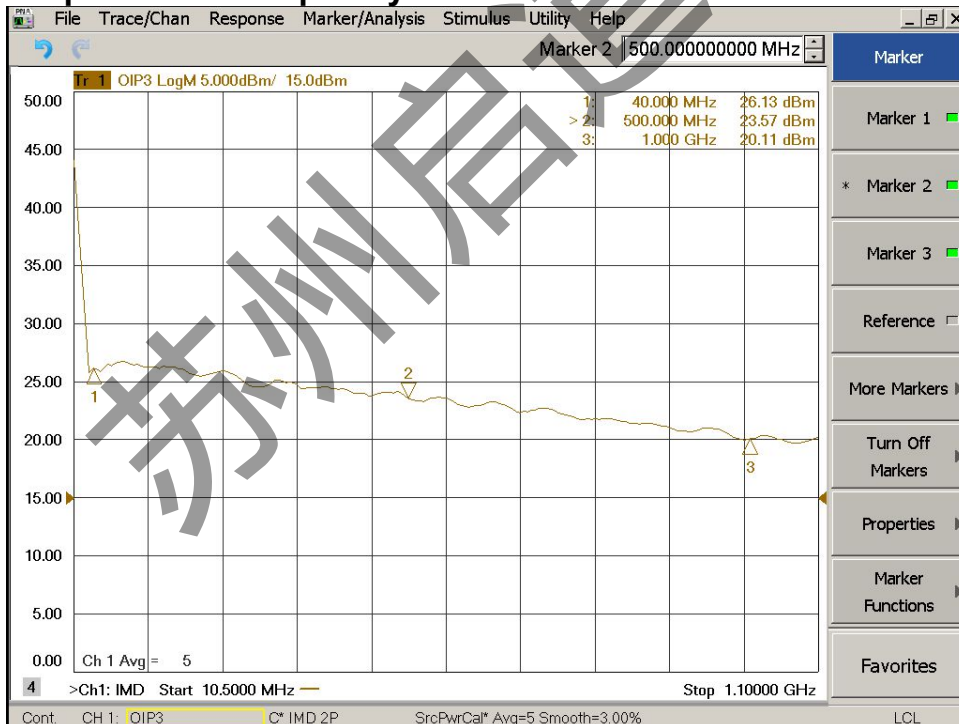
LNA Series

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Output P1dB vs Frequency



Output IP3 vs Frequency



LNA Series

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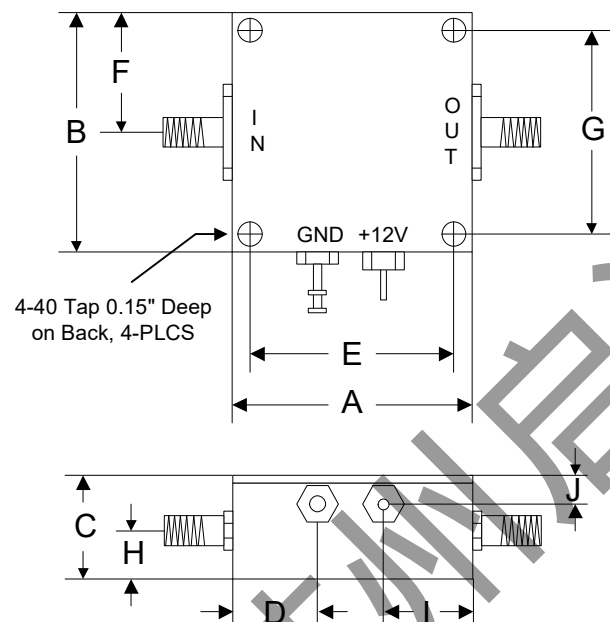
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+25V
RF Input Power	+13dBm
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