

LNA Series

10KHz – 2000MHz Low Noise Amplifier

Features

- Frequency: 10KHz - 2000MHz
- Gain: 26dB
- P_{1dB}: +10dBm
- IP3: +23dBm
- Noise Figure: 3.2dB
- Internally Voltage Regulated
- Reverse Voltage Protected
- DC Power: 12V/45mA
- SMA Connector

Picture



Description

LNA-2000 is a wideband Low Noise Amplifier operates with frequency range from 10KHz to 2000MHz.

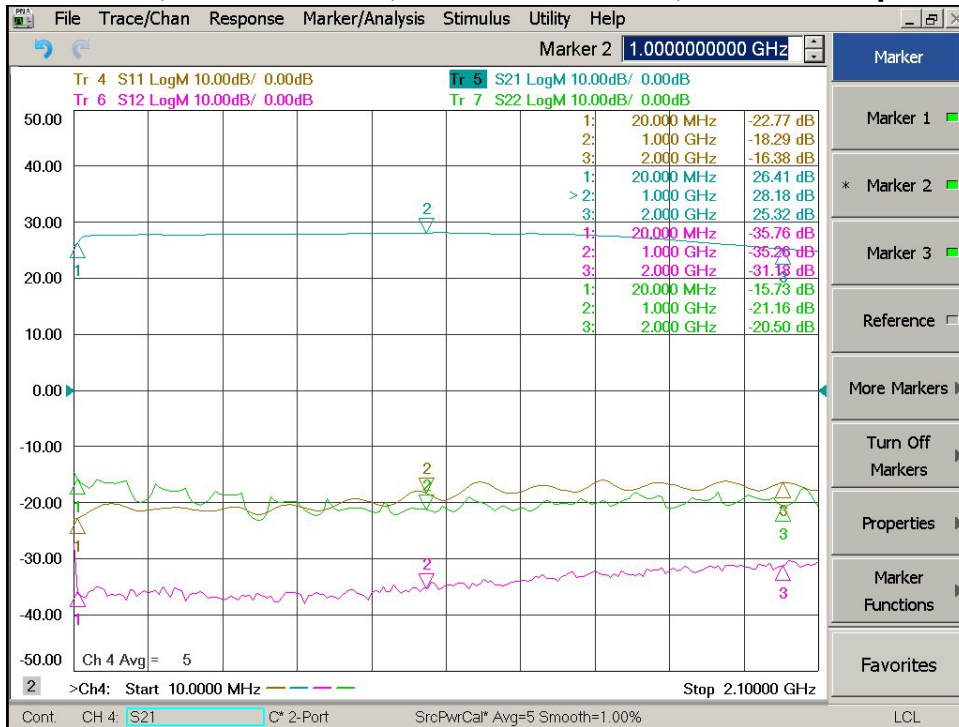
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.01		2000
Gain S ₂₁	f = 10KHz	dB	22	24
	f = 20MHz	dB	24	26
	f = 1000MHz	dB	26	28
	f = 2000MHz	dB	23	25
Gain Flatness	dB		± 2.0	± 2.5
P _{1dB}	f = 1000MHz	dBm	+10	+13
IP3	f = 1000MHz	dBm	+21	+23
Noise Figure	f = 1000MHz	dB	3.2	3.9
Reserve Isolation S ₁₂	f = 1000MHz	dB	-30	-35
Input VSWR S ₁₁	f = 1000MHz		1.5:1	2.0:1
Output VSWR S ₂₂	f = 1000MHz		1.4:1	2.0:1
DC Power Supply	V	11	12	18
Supply Current	mA		45	55

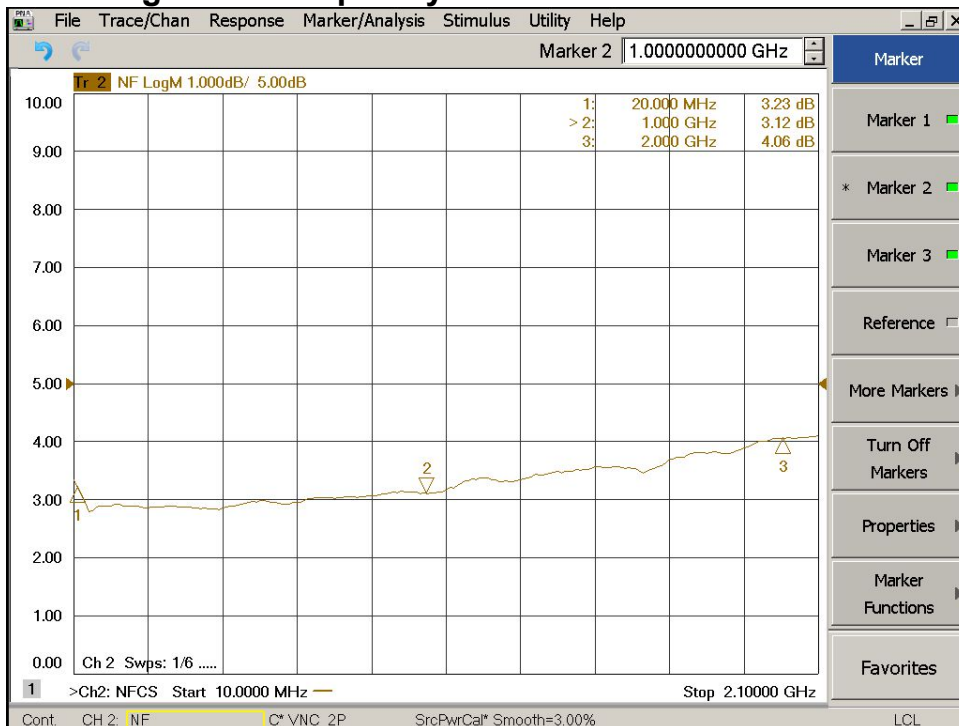
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



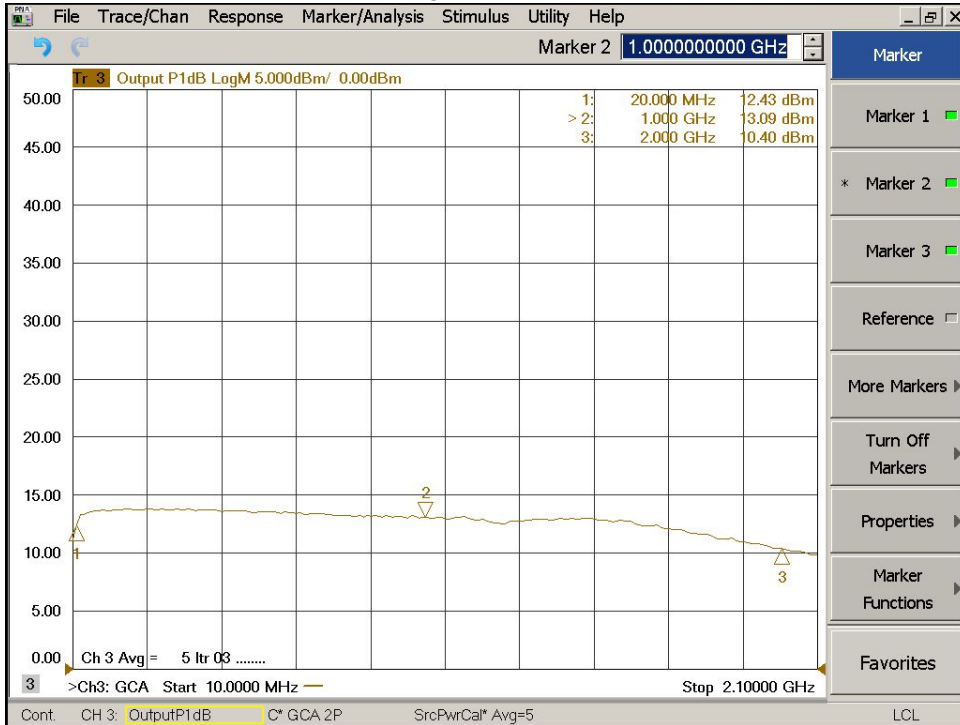
Noise Figure vs Frequency



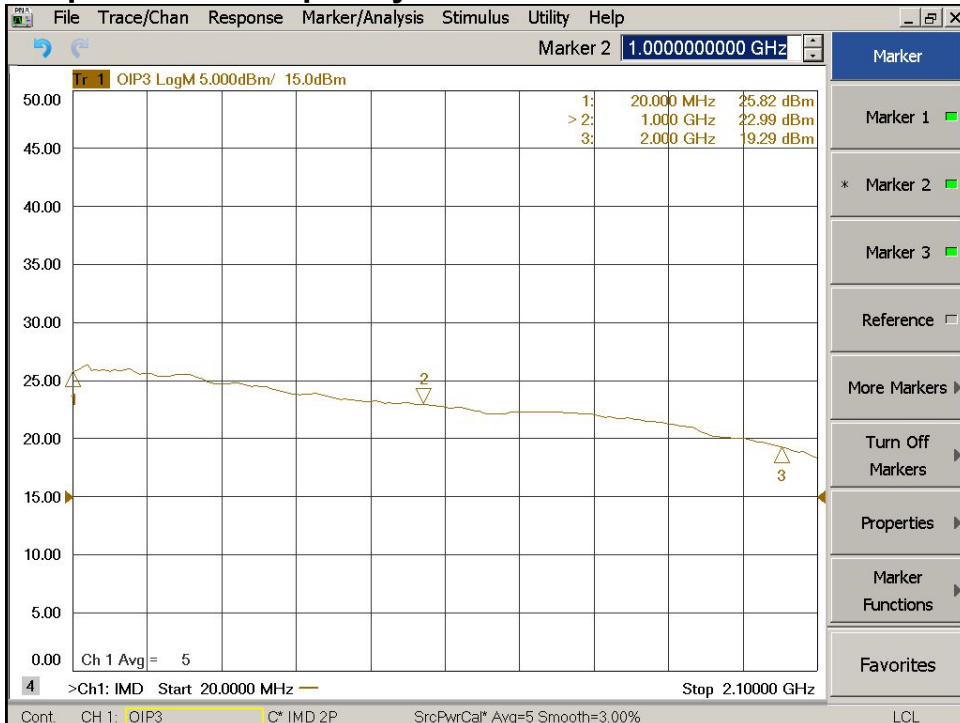
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Output P1dB vs Frequency



Output IP3 vs Frequency



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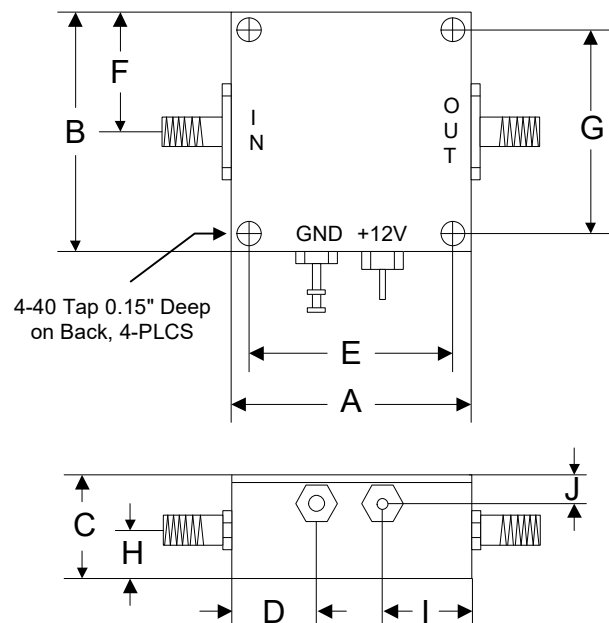
Absolute Maximum Ratings

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