

LNA Series

20 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 20 - 1000MHz
- Gain: 30dB
- P_{1dB}: +18dBm
- IP3: +32dBm
- Noise Figure: 1.3dB
- Internally Voltage Regulated
- Reverse Voltage Protected
- DC Power: 12V/140mA
- SMA Connector

Picture



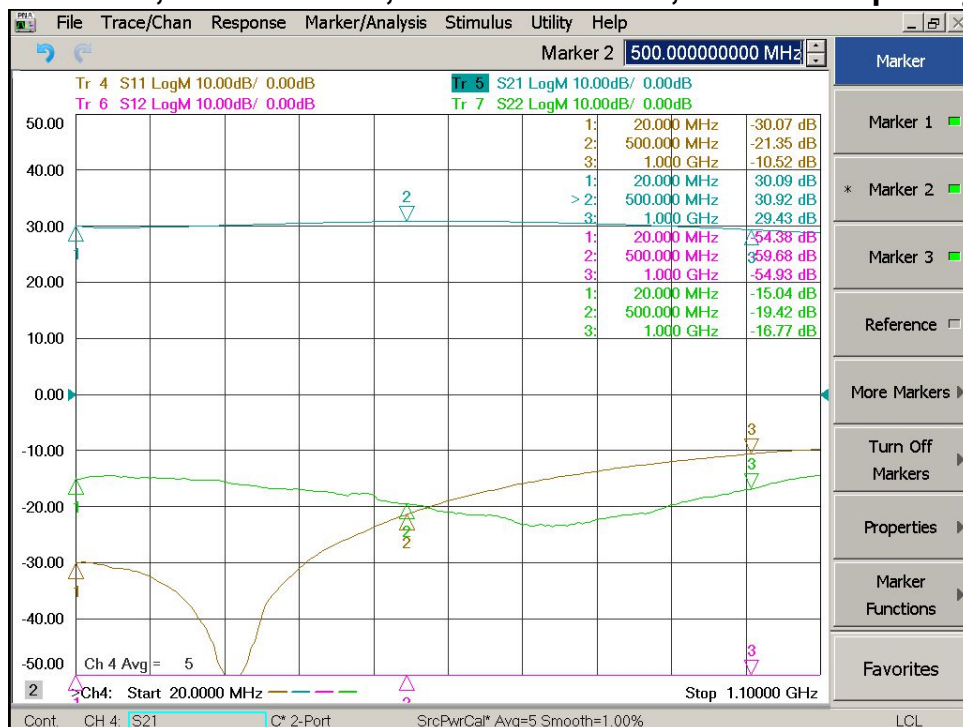
Description

LNA-1030 is a 1.3dB Noise Figure Low Noise 30dB Gain Amplifier operates with frequency range from 20 to 1000MHz.

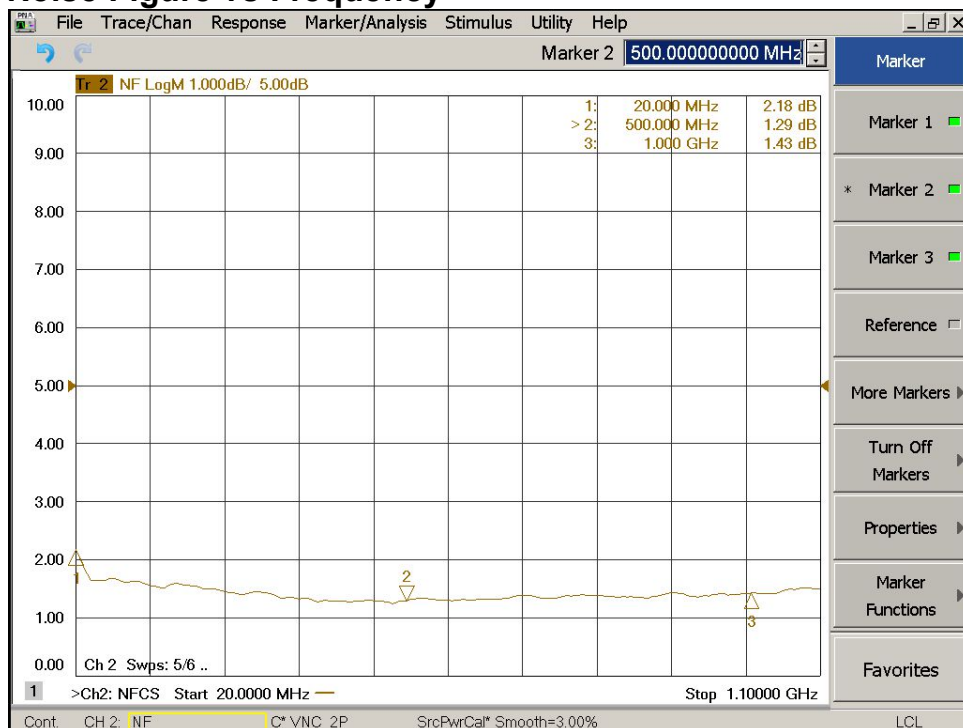
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		1000
Gain S ₂₁ f = 20MHz	dB	28	30	
f = 500MHz	dB	28	30	
f = 1000MHz	dB	27	29	
Gain Flatness	dB		± 0.5	± 0.8
P _{1dB} f = 500MHz	dBm	+16	+18	
IP3 f = 500MHz	dBm	+30	+32	
Noise Figure f = 500MHz	dB		1.3	1.7
Reverse Isolation S ₁₂ f = 500MHz	dB	-50	-57	
Input VSWR S ₁₁ f = 500MHz			1.2:1	1.7:1
Output VSWR S ₂₂ f = 500MHz			1.2:1	1.7:1
DC Power Supply	V	10	12	18
Supply Current	mA		140	160

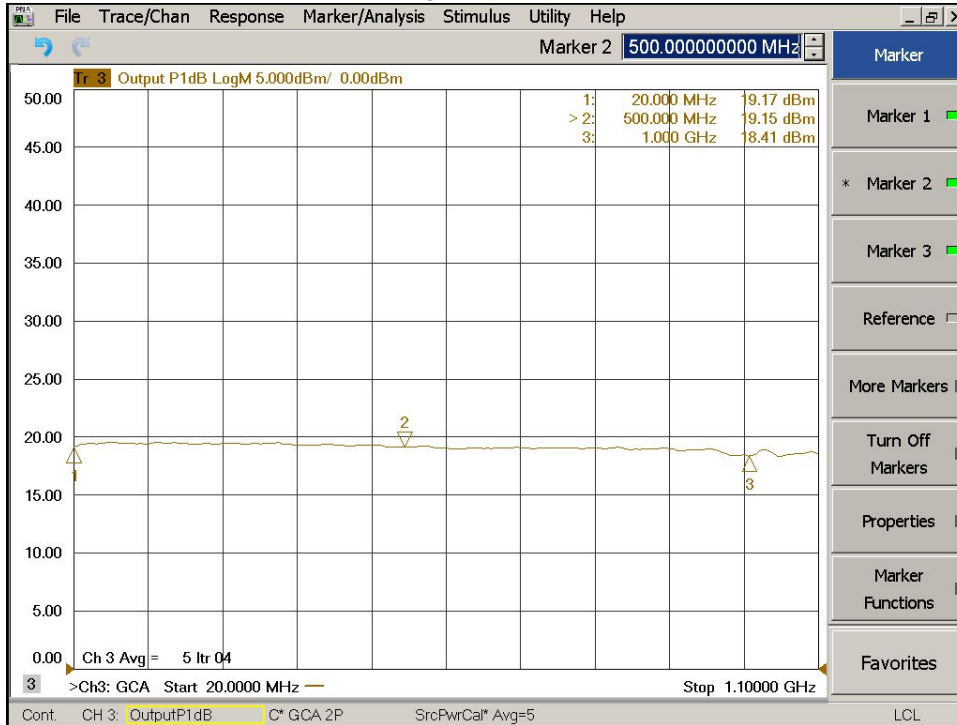
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



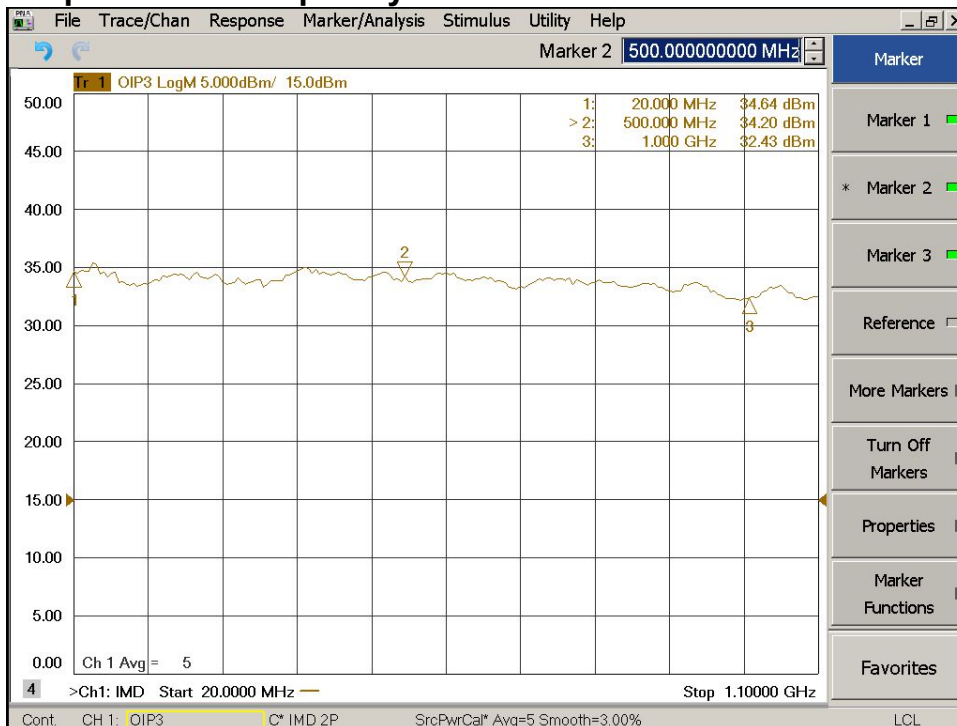
Noise Figure vs Frequency



Output P1dB vs Frequency



Output IP3 vs Frequency



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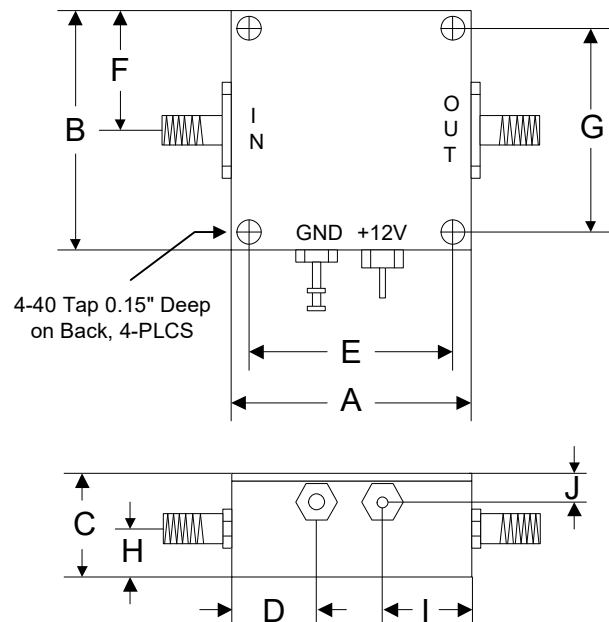
Absolute Maximum Ratings

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