

LNA Series

50 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 50 - 1000MHz
- Gain: 18dB
- P_{1dB}: +16dBm
- IP3: +32dBm
- Noise Figure: 1.0dB
- Internally Voltage Regulated
- Reverse Voltage Protected
- DC Power: 12V/70mA
- SMA Connector

Picture



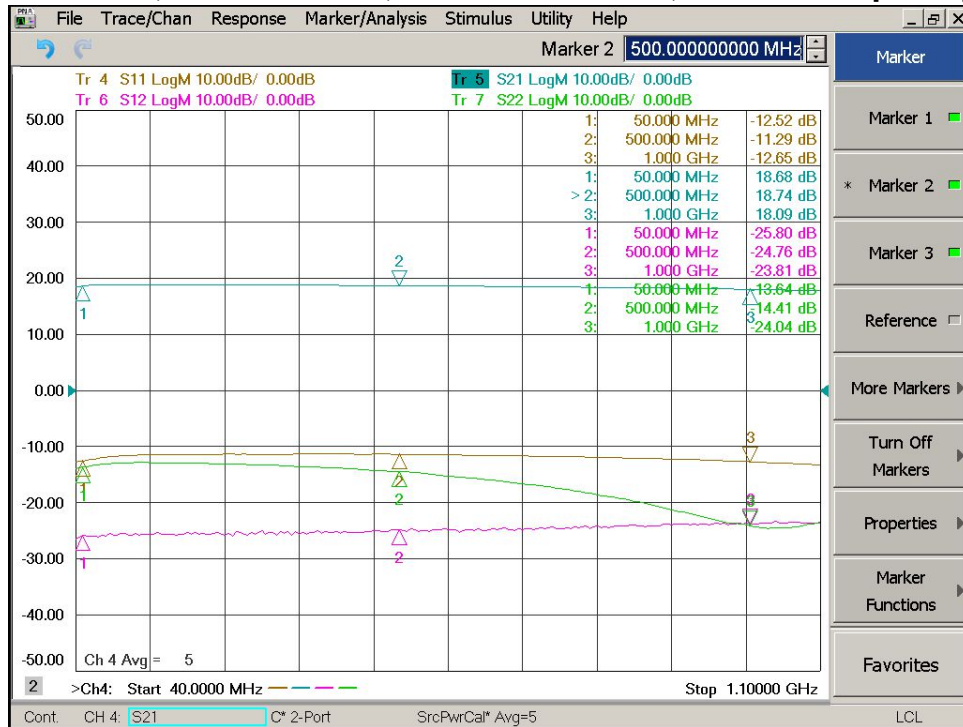
Description

LNA-1018 is a 1.0dB Noise Figure Low Noise 18dB Gain Amplifier operates with frequency range from 50 to 1000MHz.

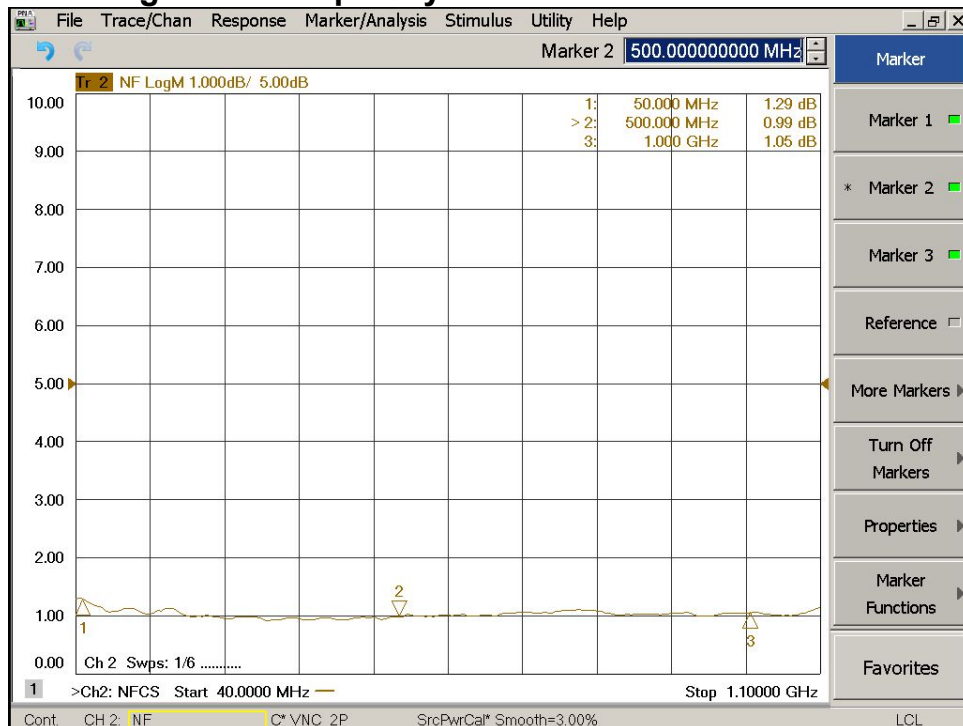
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		1000
Gain S ₂₁	dB	17	18	
Gain Flatness	dB			± 0.5
P _{1dB} f = 500MHz	dBm	+14	+16	
IP3 f = 500MHz	dBm	+30	+32	
Noise Figure f = 500MHz	dB		1.0	1.2
Reverse Isolation S ₁₂ f = 500MHz	dB	-20	-24	
Input VSWR S ₁₁ f = 500MHz			1.8:1	2.2:1
Output VSWR S ₂₂ f = 500MHz			1.4:1	2.0:1
DC Power Supply	V	10	12	18
Supply Current	mA		70	80

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



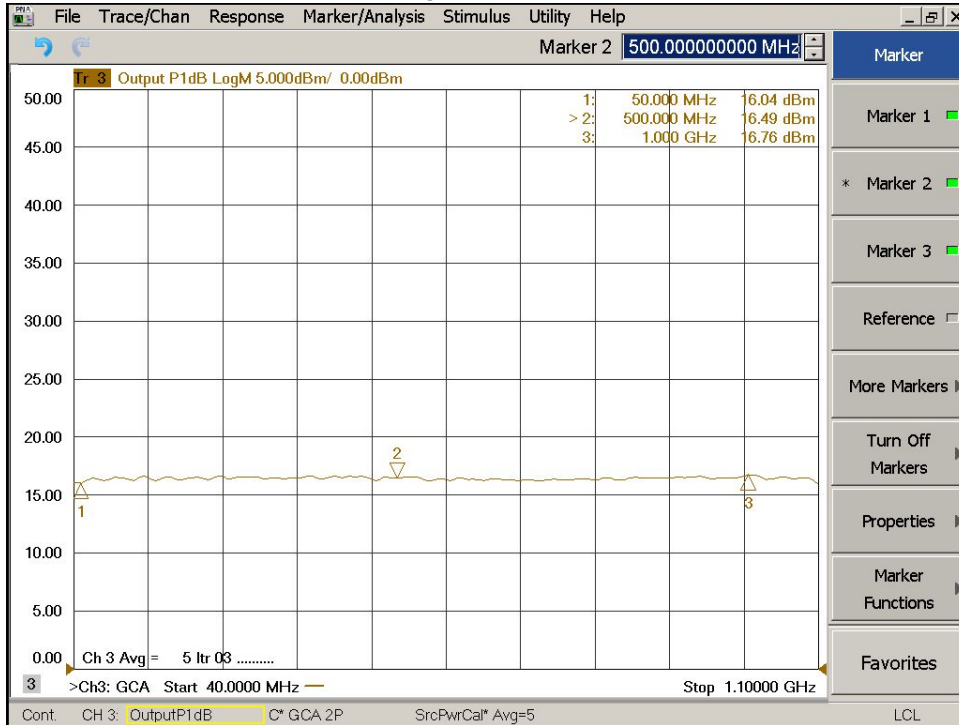
Noise Figure vs Frequency



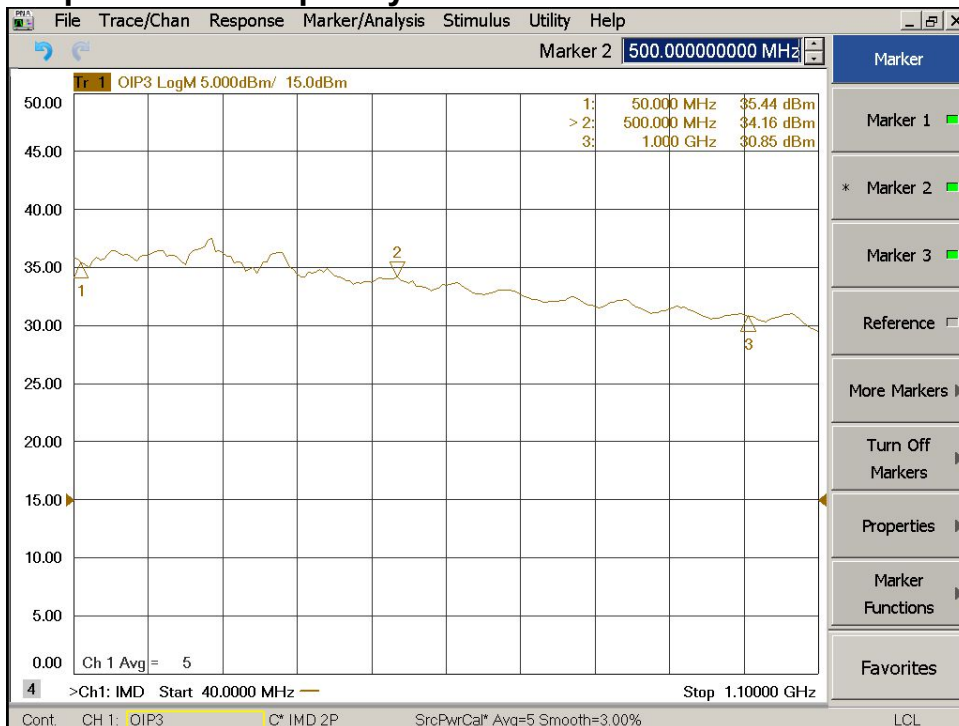
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Output P1dB vs Frequency



Output IP3 vs Frequency



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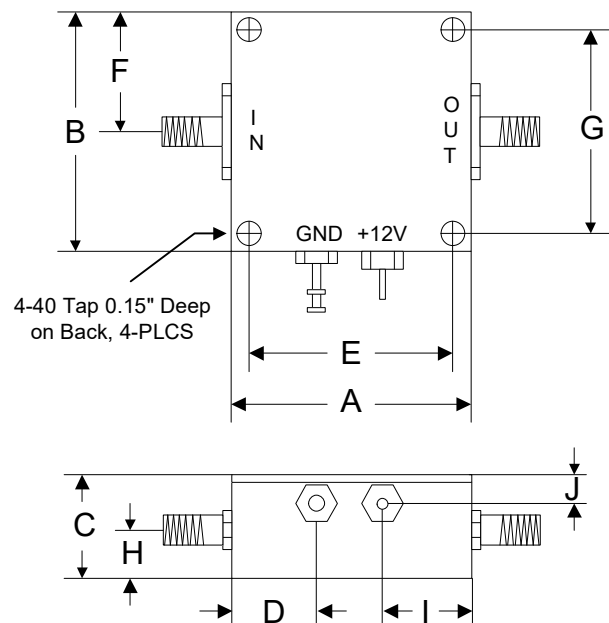
Absolute Maximum Ratings

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