

LNA Series

40 – 3000MHz 3V Low Noise Amplifier

Features

- Frequency Range: 40-3000MHz
- Gain: 16dB
- P_{1dB}: +7dBm
- IP3: +22dBm
- Noise Figure: 1.3dB
- DC Power: +3V/18mA
- SMA Connector

Picture



Description

LNA-3000A is a 3V Low Power 1.3dB Noise Figure Wideband Low Noise Amplifier operates with frequency range usable from 40 to 3000MHz.

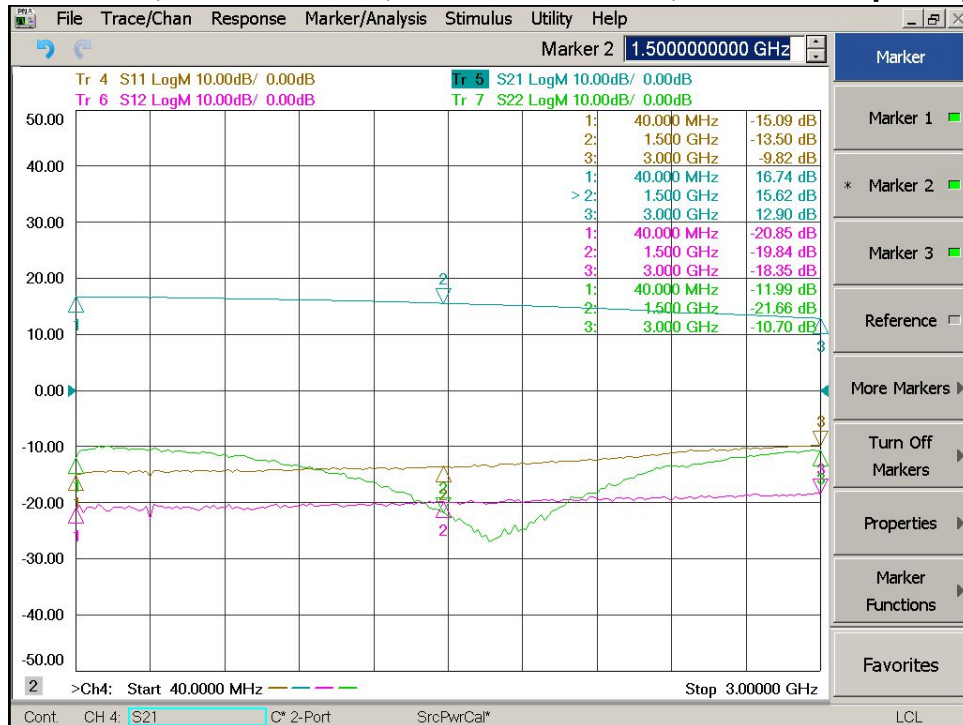
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +3V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	40		3000
Gain S ₂₁ f = 40MHz	dB	14	16	
f = 1500MHz	dB	14	16	
f = 3000MHz	dB	11	13	
Gain Flatness	dB		± 1.6	± 2.0
P _{1dB} f = 1500MHz	dBm	+5	+7	
IP3 f = 1500MHz	dBm	+20	+22	
Noise Figure f = 1500MHz	dB		1.3	1.8
Reverse Isolation S ₁₂ f = 1500MHz	dB	-15	-20	
Input VSWR S ₁₁ f = 1500MHz			1.5:1	2.0:1
Output VSWR S ₂₂ f = 1500MHz			1.5:1	2.0:1
DC Power Supply	V	2.7	3.0	3.3
Supply Current	mA		18	25

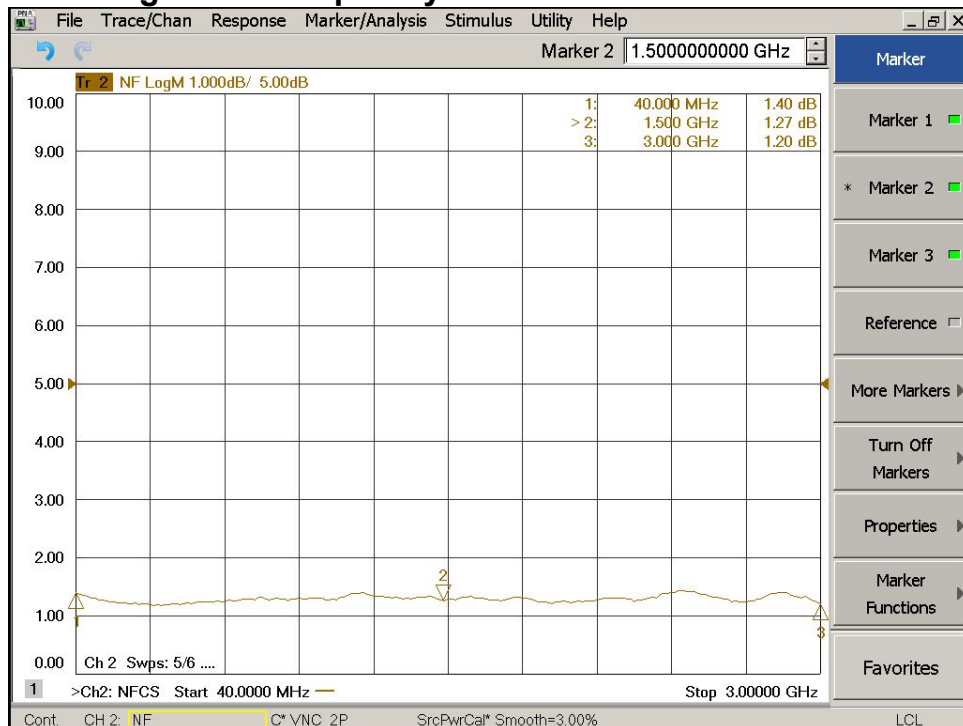
LNA Series

40 – 3000MHz 3V Low Noise Amplifier

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



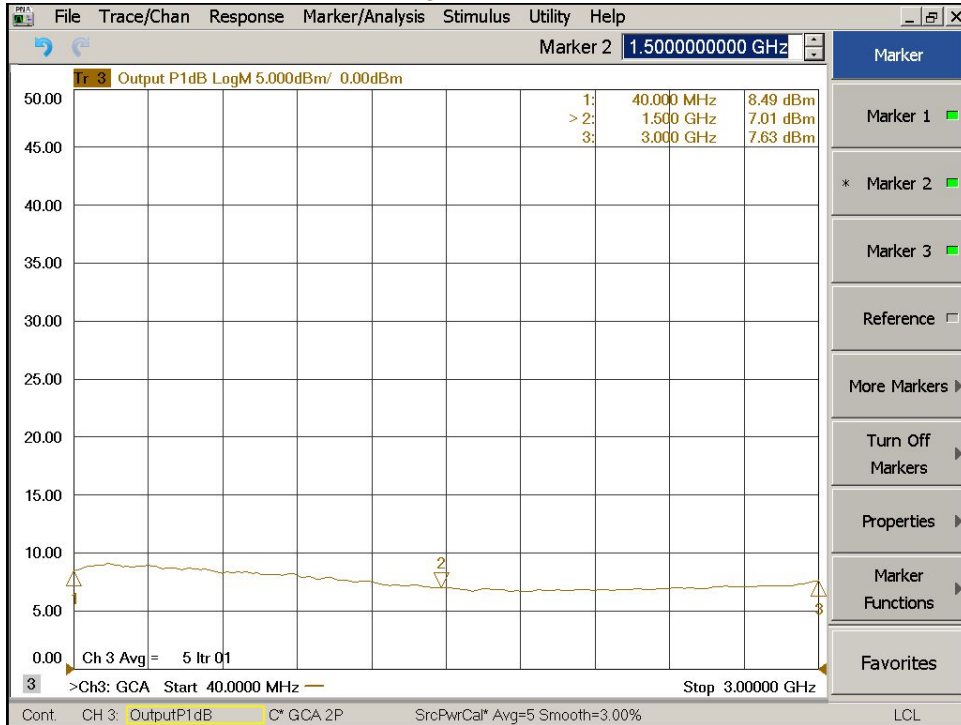
Noise Figure vs Frequency



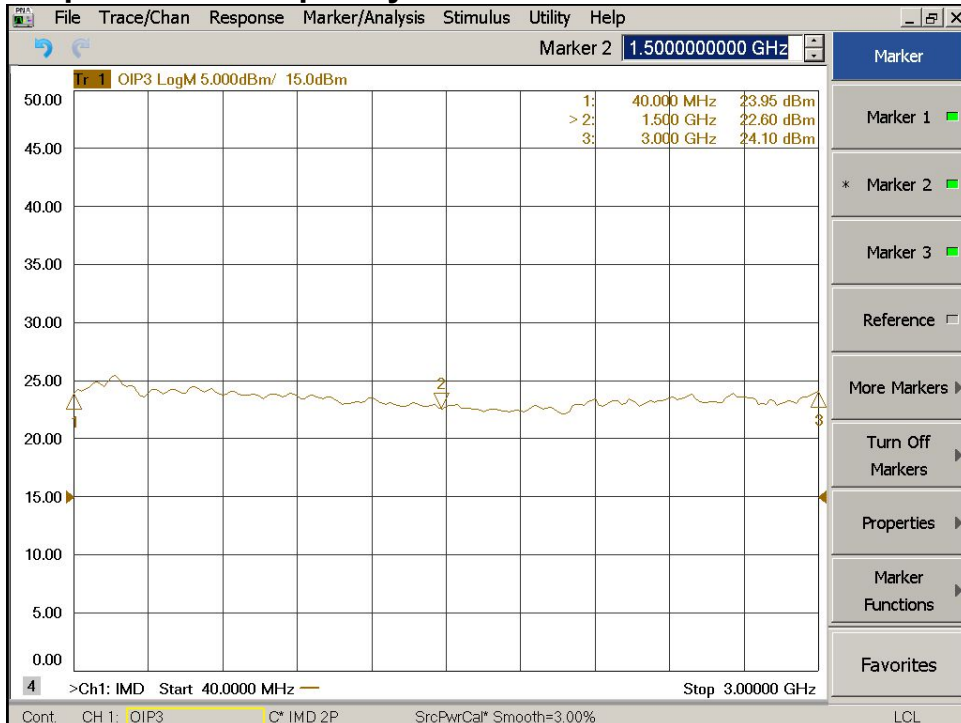
LNA Series

40 – 3000MHz 3V Low Noise Amplifier

Output P1dB vs Frequency



Output IP3 vs Frequency



LNA Series

40 – 3000MHz 3V Low Noise Amplifier

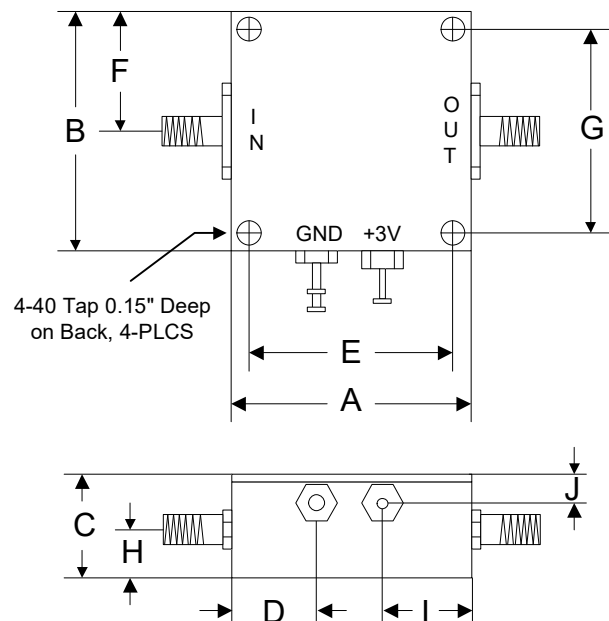
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+7V
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