

## LNA Series

## 10 – 1000MHz Low Noise Amplifier

### Features

- Frequency Range: 10-1000MHz
- Gain: 30dB
- P<sub>1dB</sub>: +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.

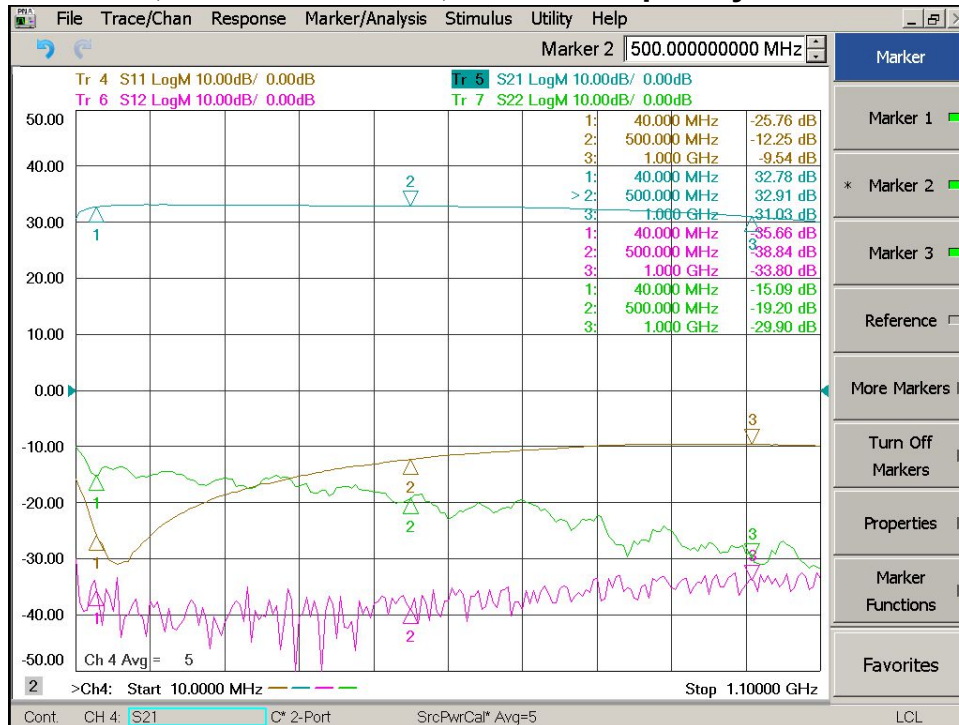
### Electrical Specifications @ +25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50Ω, DC Voltage=+12V

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

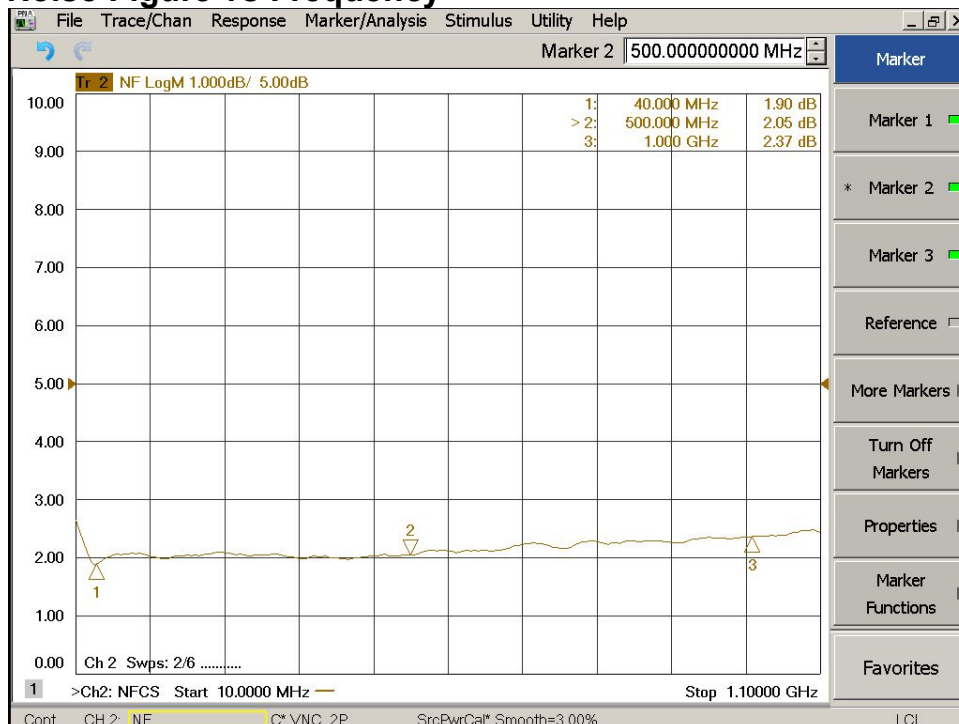
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**Gain S21, Return Loss S11, S22 vs Frequency**



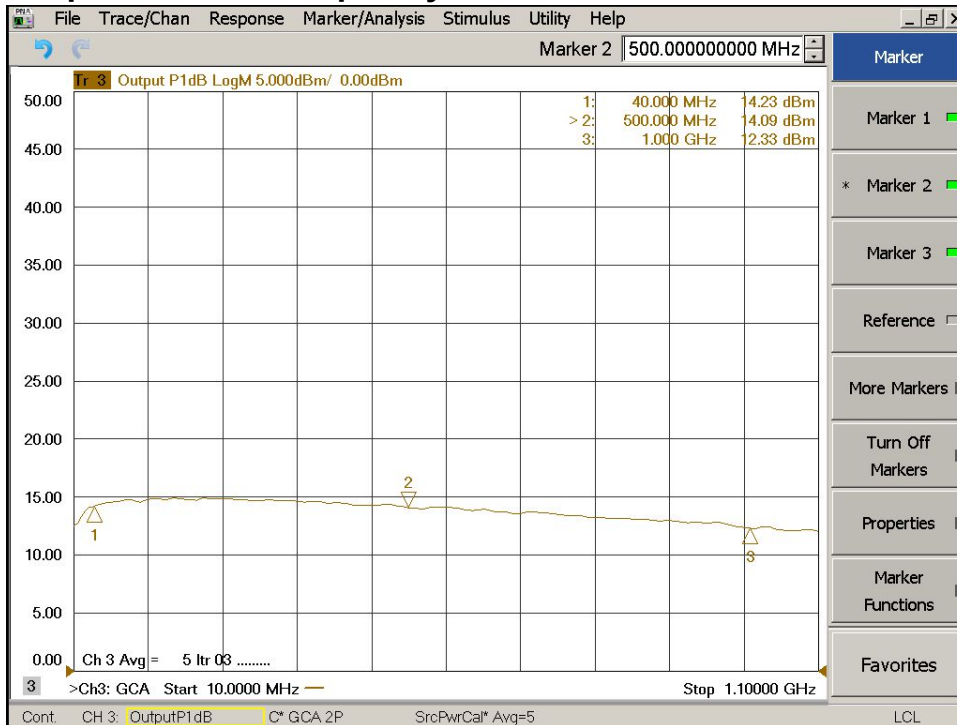
**Noise Figure vs Frequency**



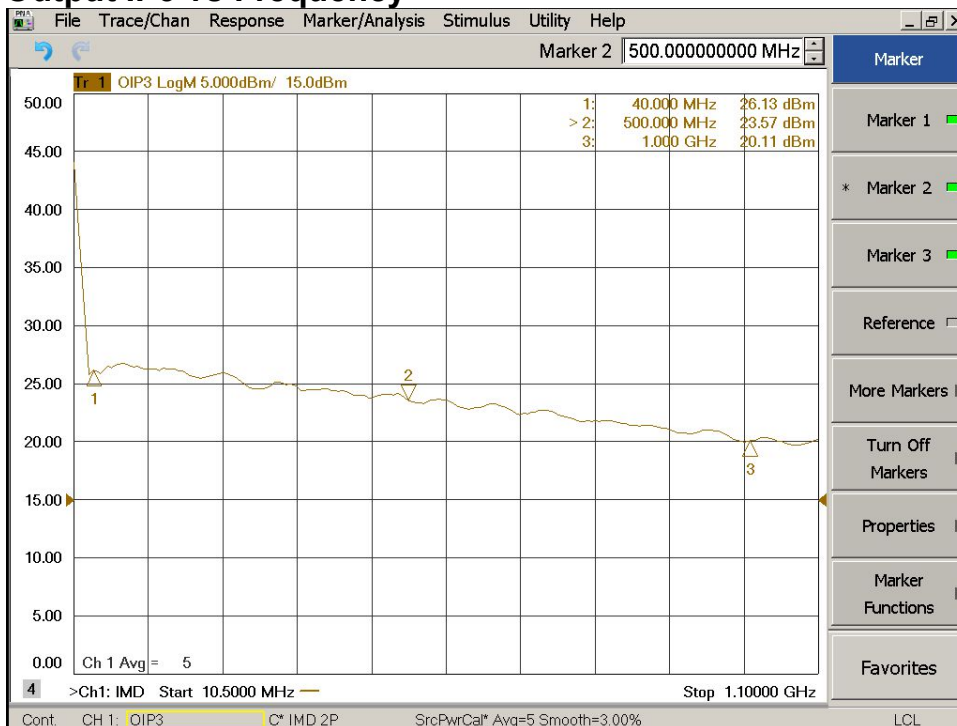
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**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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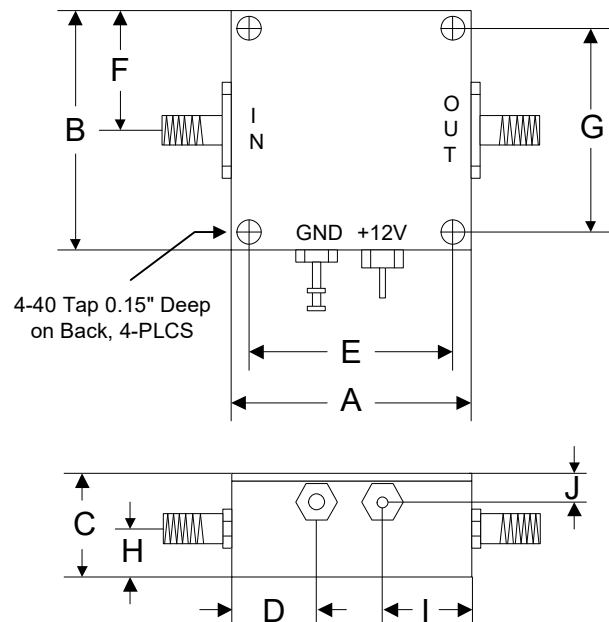
### Absolute Maximum Ratings

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
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76