

## LNA Series

## 1 – 500MHz Low Noise Amplifier

### Features

- Frequency Range: 1 - 500MHz
- Gain: 30dB min, 32dB Typ.
- P<sub>1dB</sub>: +13dBm
- IP3: +24dBm
- Noise Figure: 2.0dB
- Internally Voltage Regulated
- Reverse Voltage Protected
- Input Limiter Protected
- SMA Connector

### Picture



### Description

LNA-530 is a 30dB gain wideband Low Noise Amplifier operates with frequency range from 1 to 500MHz (usable from 300KHz to 850MHz)

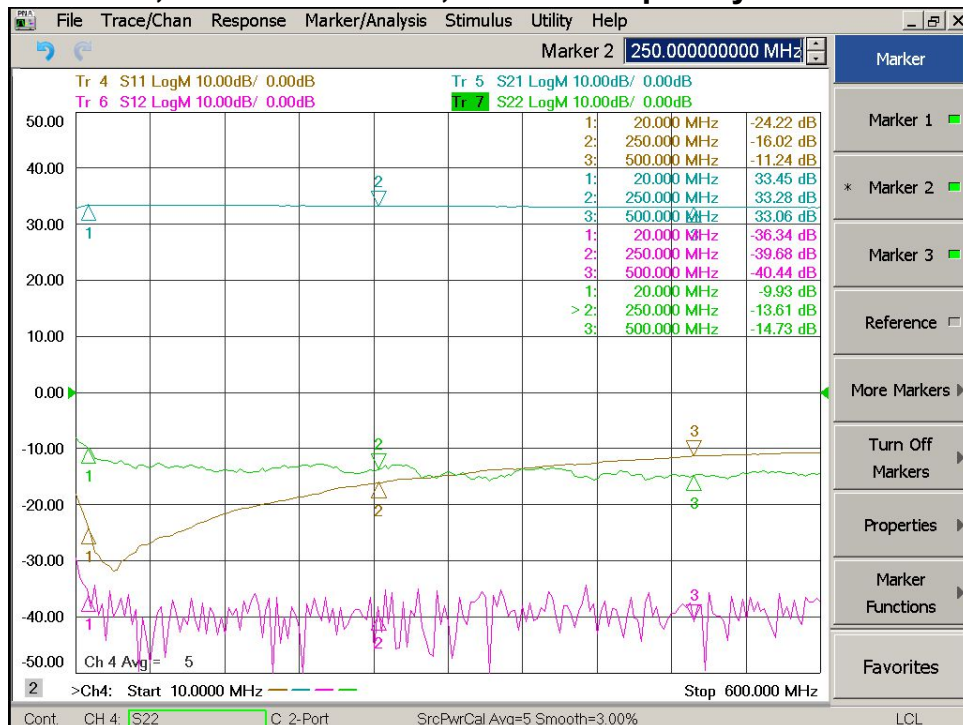
### Electrical Specifications @ +25°C, Z<sub>in</sub> = Z<sub>out</sub> = 50 Ω, DC Supply = +15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1		500
Gain S <sub>21</sub> f = 1MHz	dB	30	30.5	
f = 20MHz	dB	30	33.5	
f = 250MHz	dB	30	33.2	
f = 500MHz	dB	30	33.0	
Gain Flatness	dB		±1.5	
P <sub>1dB</sub> f = 250MHz	dBm	+11	+13	
IP3 f = 250MHz	dBm	+21	+24	
Noise Figure f = 250MHz	dB		2.0	2.5
Reverse Isolation S <sub>12</sub> f = 250MHz	dB	-35	-40	
Input Return Loss S <sub>11</sub> f = 250MHz	dB		-16	-13
Output Return Loss S <sub>22</sub> f = 250MHz	dB		-13	-10
DC Power Supply	V	11	15	30
Supply Current	mA		40	50

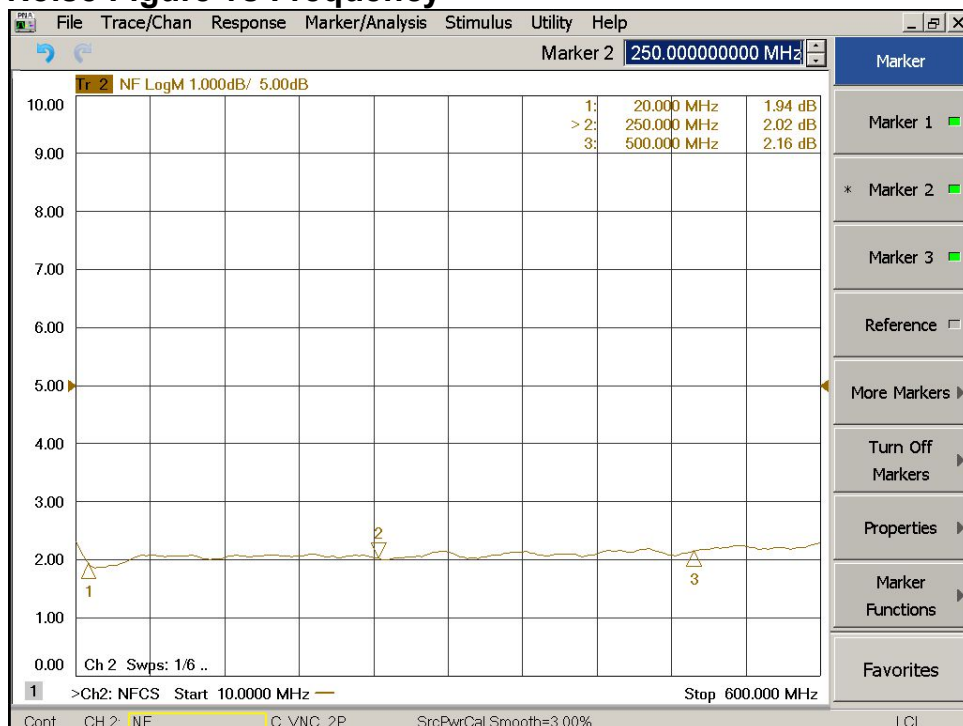
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**Gain S21, Return Loss S11, S22 vs Frequency**



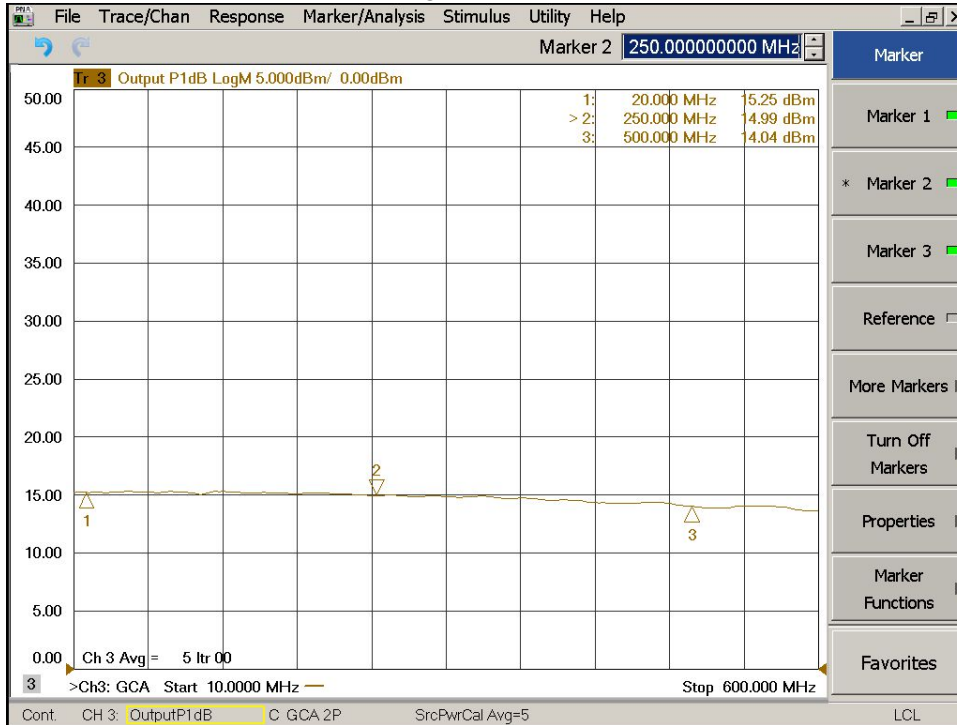
**Noise Figure vs Frequency**



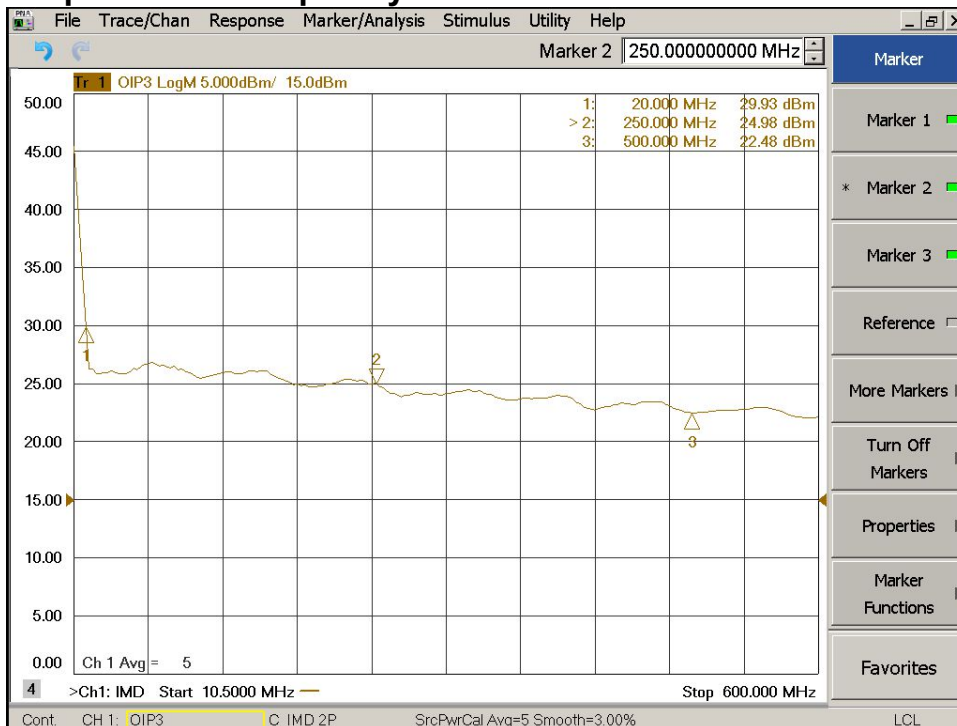
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**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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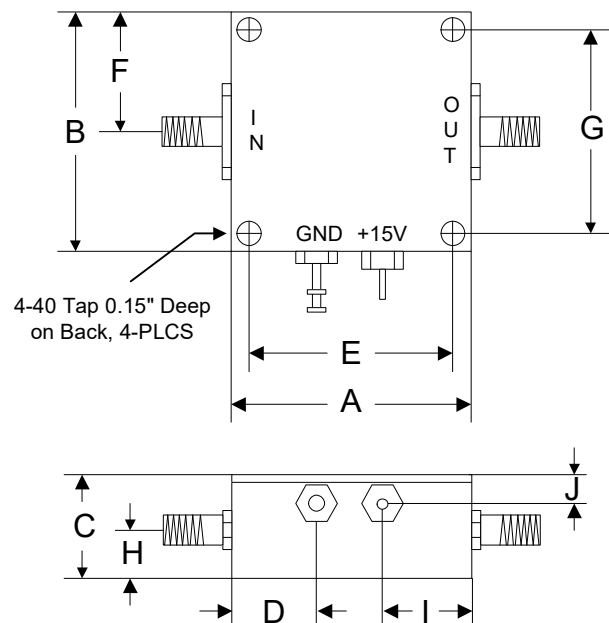
### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+35V
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