

LNA Series

10 – 550MHz Low Noise Amplifier

Features

- Frequency Range: 10 - 550MHz
- Gain: 27dB
- P_{1dB}: +19dBm
- IP3: +34dBm
- Noise Figure: 1.7dB
- DC Power: 12V/105mA
- Internal Voltage Regulated
- Reverse DC Protection
- SMA Connector

Picture



Description

LNA-510 is a flat response Low Noise Amplifier operates in frequency range from 10MHz to 550MHz.

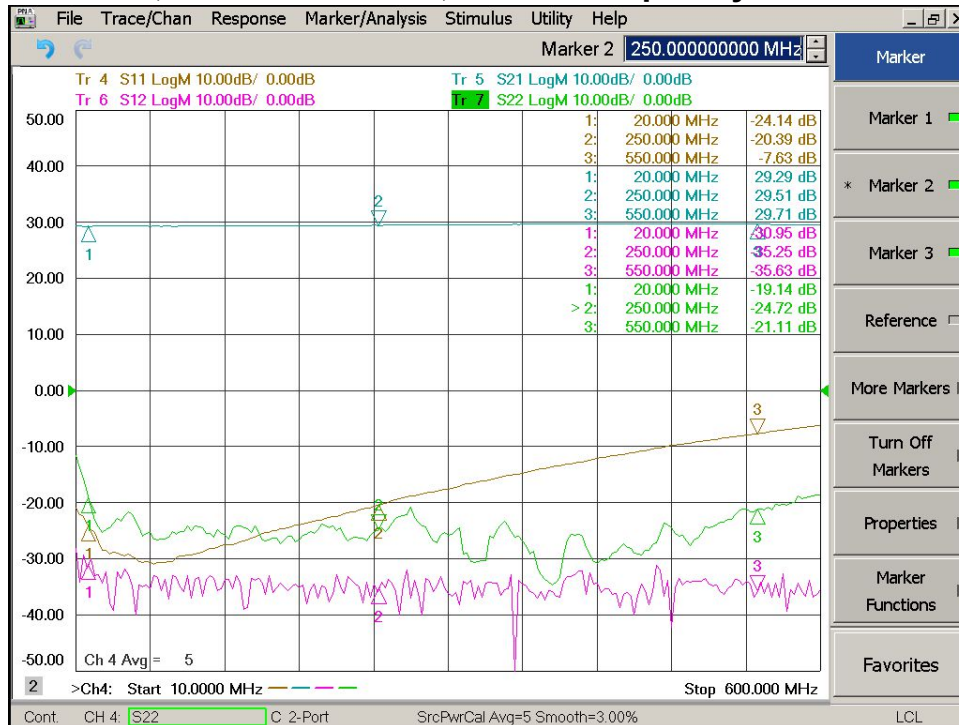
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Supply = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		550
Gain S ₂₁ f = 10MHz	dB	27	29.3	
f = 250MHz	dB	27	29.5	
f = 550MHz	dB	27	29.7	
Gain Flatness	dB		± 0.3	± 0.5
P _{1dB}	dBm	+17	+19	
IP3	dBm	+32	+34	
Noise Figure f = 250MHz	dB		1.7	2.0
Reverse Isolation S ₁₂ f = 250MHz	dB	-30	-35	
Input VSWR S ₁₁ f = 250MHz			1.5:1	2.0:1
Output VSWR S ₂₂ f = 250MHz			1.5:1	2.0:1
DC Power Supply	V		12	15
Supply Current	mA		105	120

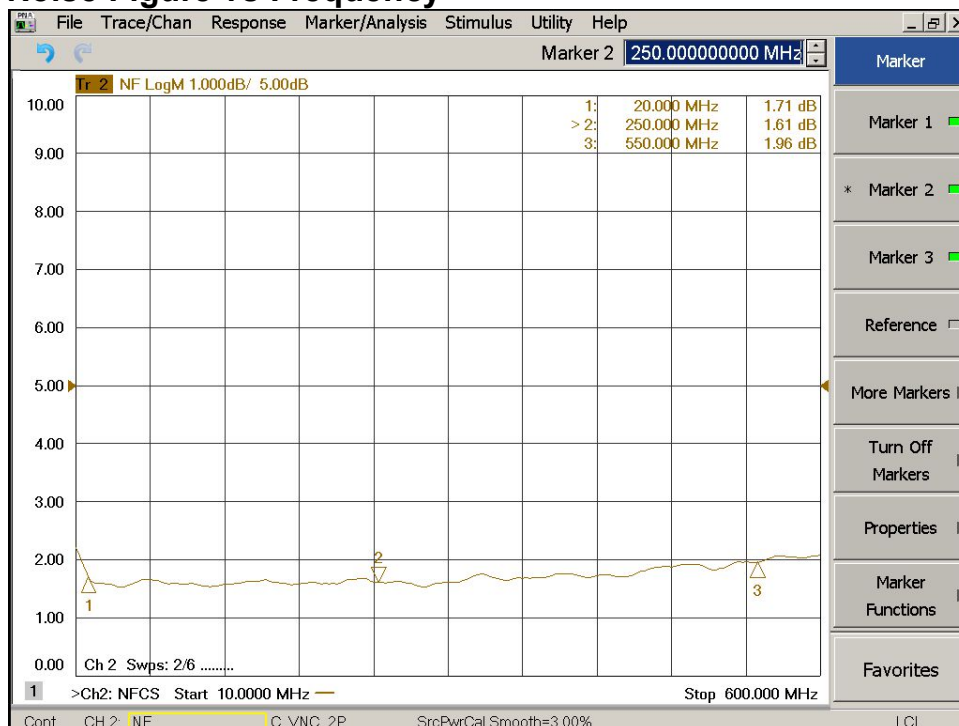
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Gain S21, Return Loss S11, S22 vs Frequency



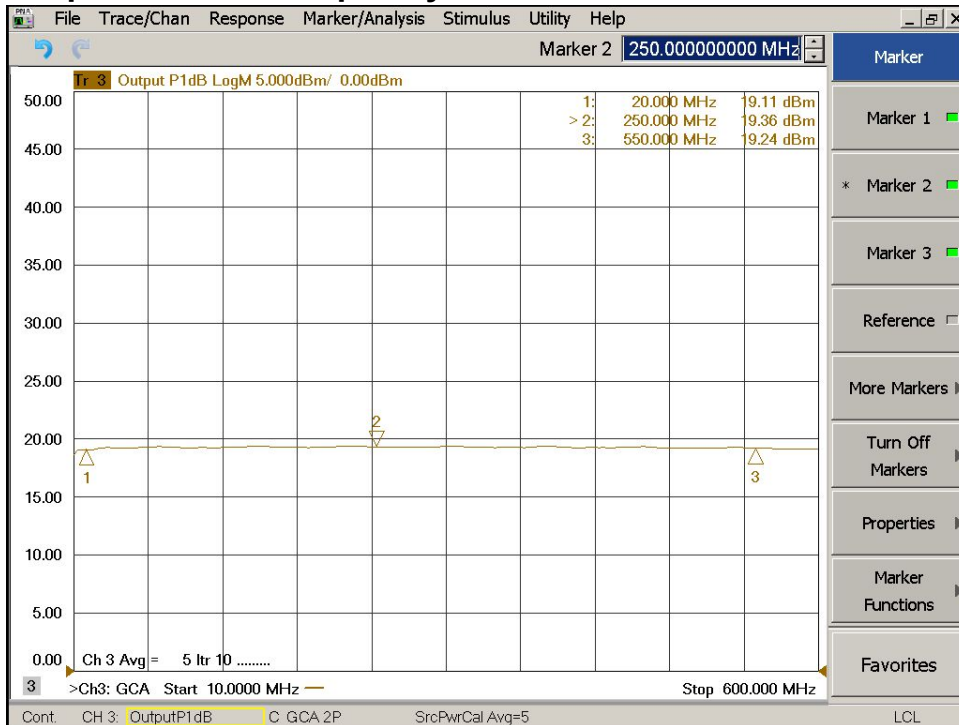
Noise Figure vs Frequency



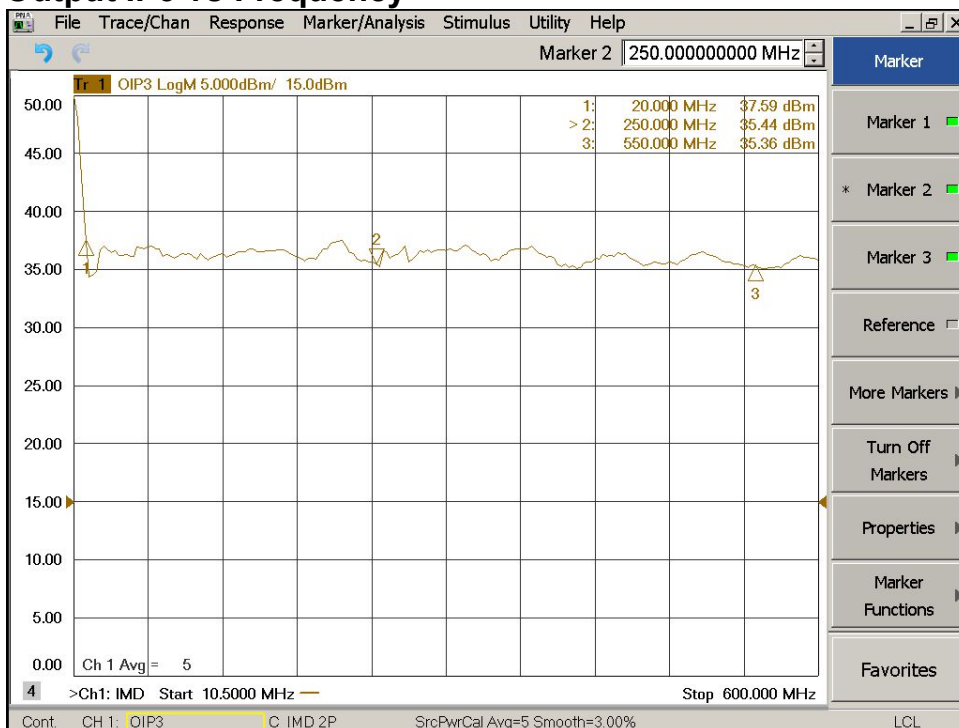
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Output P1dB vs Frequency



Output IP3 vs Frequency



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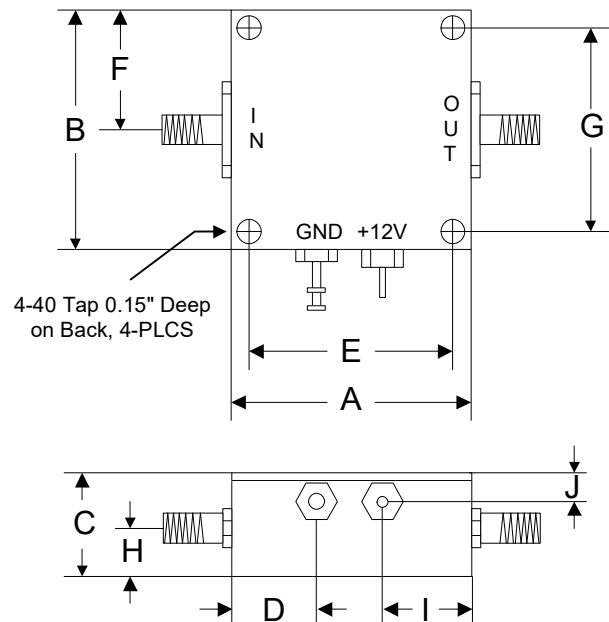
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+25V
RF Input Power	+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