

LNA Series

20 – 1500MHz Low Noise Amplifier

Features

- Frequency Range: 20 - 1500MHz
- Gain: 20dB
- P_{1dB}: +17dBm
- IP3: +35dBm
- Noise Figure: 1dB
- Internally Voltage Regulated
- Reverse Voltage Protected
- DC Power: 12V/70mA
- SMA Connector

Picture



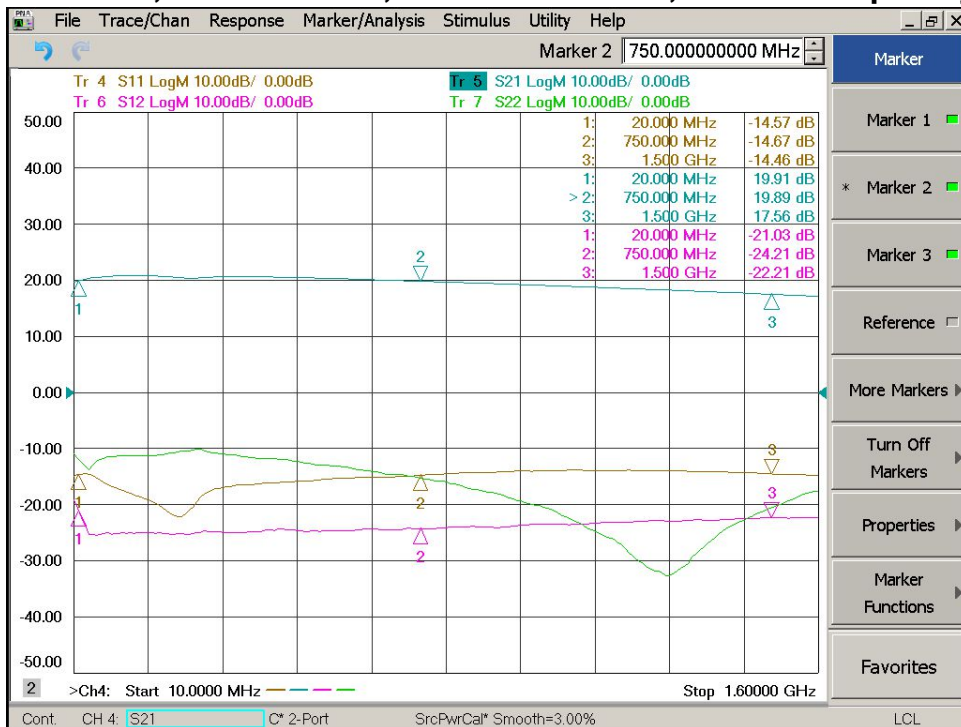
Description

LNA-1520 is a 1dB Noise Figure Low Noise Amplifier operates with frequency range from 20MHz to 1500MHz.

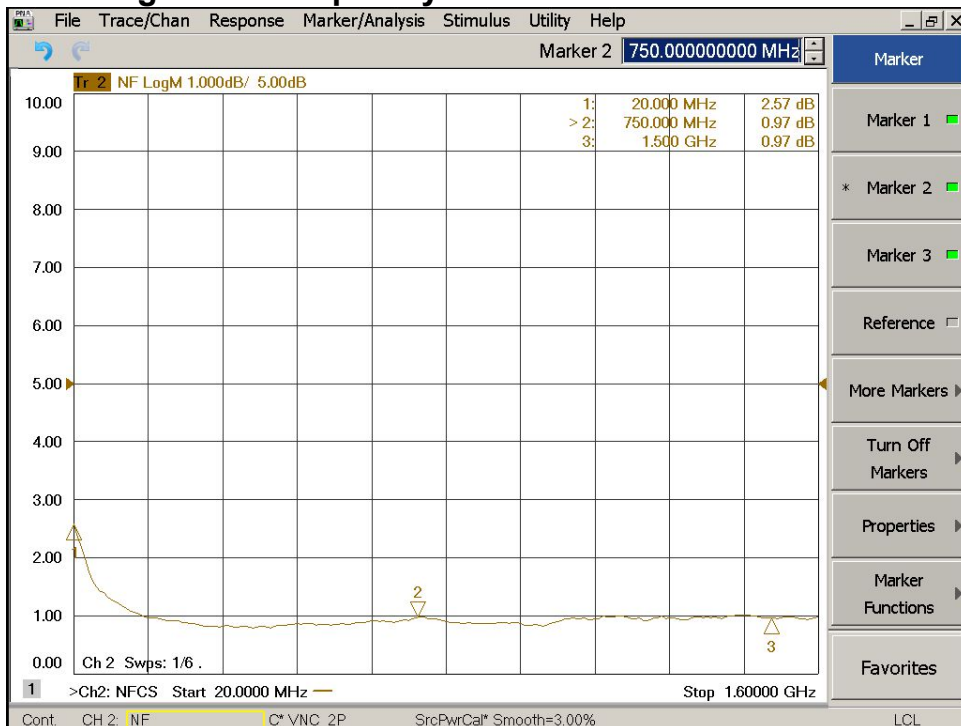
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		1500
Gain S ₂₁ f = 20MHz	dB	18	20	
f = 750MHz	dB	18	20	
f = 1500MHz	dB	16	18	
Gain Flatness	dB		± 1.2	± 1.6
P _{1dB} f = 750MHz	dBm	+15	+17	
IP3 f = 750MHz	dBm	+32	+35	
Noise Figure f = 750MHz	dB		1.0	1.5
Reverse Isolation S ₁₂ f = 750MHz	dB	-20	-24	
Input VSWR S ₁₁ f = 750MHz			1.5:1	2.0:1
Output VSWR S ₂₂ f = 750MHz			1.5:1	2.0:1
DC Power Supply	V	9	12	18
Supply Current	mA		70	85

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



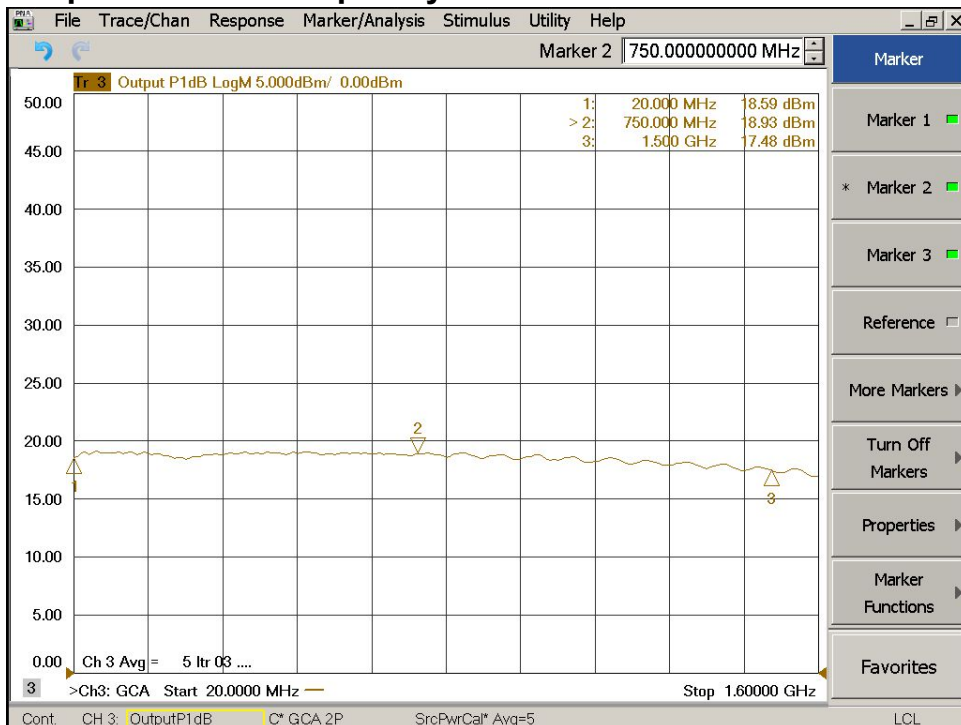
Noise Figure vs Frequency



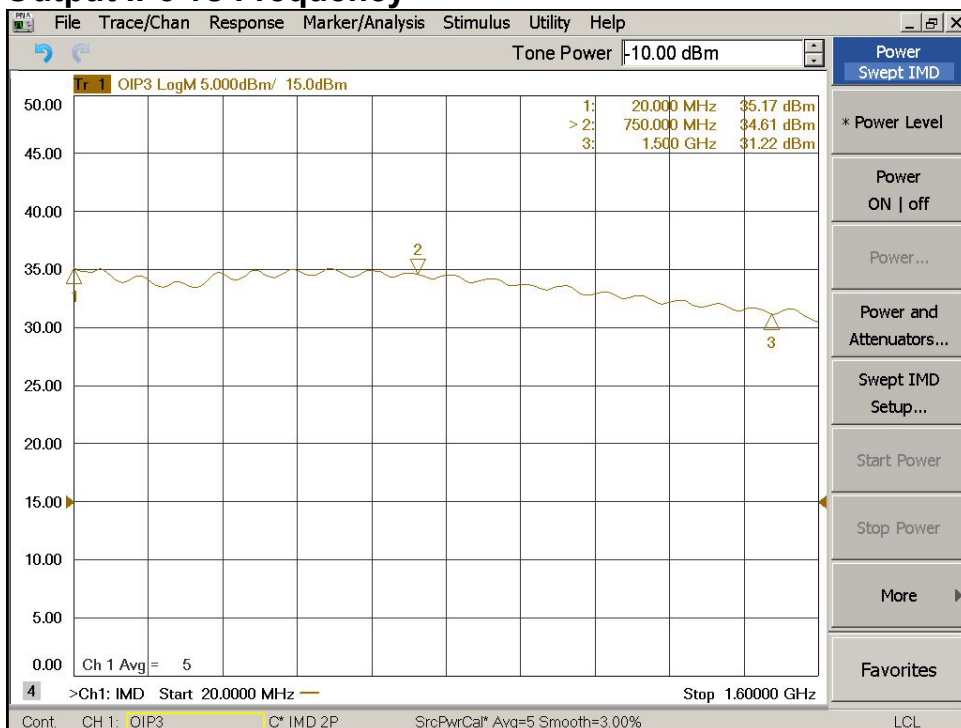
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Output P1dB vs Frequency



Output IP3 vs Frequency



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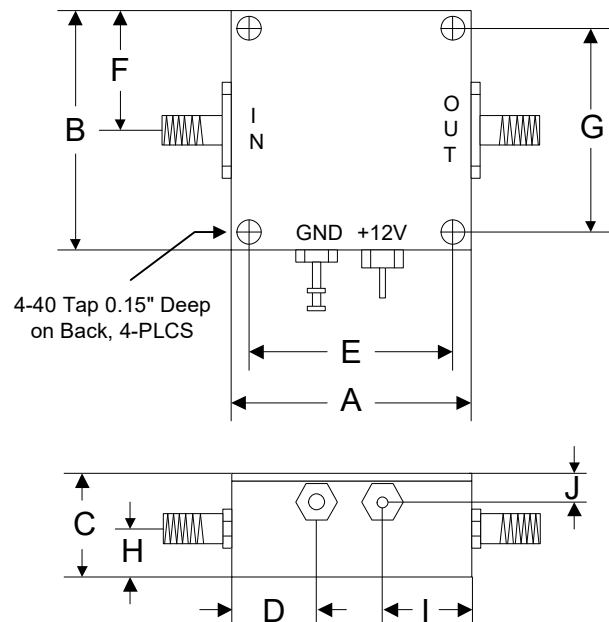
Absolute Maximum Ratings

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