

MNA Series

400-1500MHz Low Noise Amplifier

Features

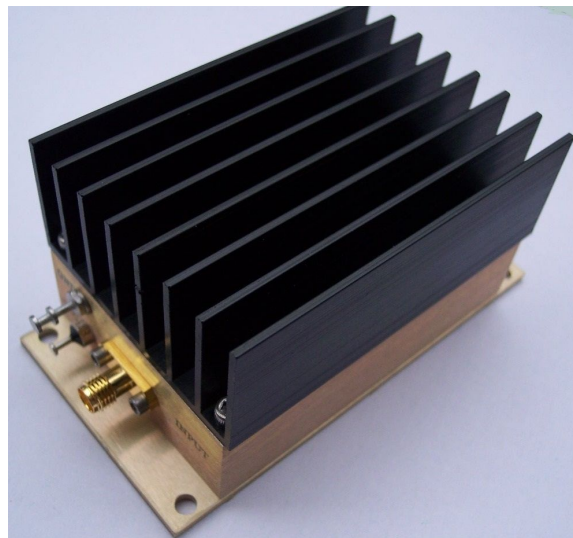
- Frequency Range: 400-1500MHz
- Gain: 35dB
- P_{1dB}: +30dBm (1Watt)
- IP3: +43dBm
- Noise Figure: 1.1dB
- DC Power: +12V to +18V
- DC Reverse Protected
- Internally Voltage Regulated
- SMA Connector

Performance measured @ 950MHz

Description

MNA-950 is a High Dynamic Range Low Noise Amplifier operating from single 12V to +18V DC power supply with frequency from 400MHz to 1500MHz.

Picture



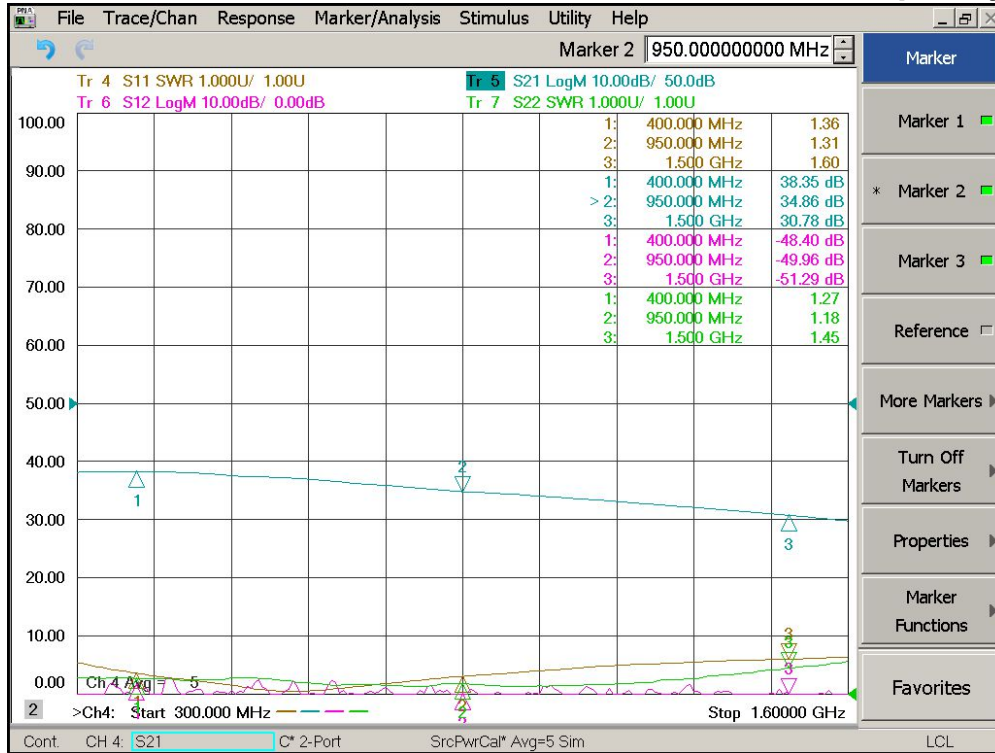
Electrical Specifications @ +25°C, Z_{IN} = Z_{OUT} = 50Ω, DC Supply = +15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	400		1500
Small Signal Gain S ₂₁	f = 400MHz dB	36	38	
	f = 950MHz dB	33	35	
	f = 1500MHz dB	28	30	
Gain Flatness	dB		± 3.5	± 4.5
Output Power P _{1dB}	f = 950MHz dBm	+29	+30	
Output IP3	f = 950MHz dBm	+41	+43	
Reverse Isolation S ₁₂	f = 950MHz dB	-40	-50	
Noise Figure	f = 950MHz dB		1.1	1.5
VSWR	Input VSWR S ₁₁ f = 950MHz		1.3:1	2.0:1
	Output VSWR S ₂₂ f = 950MHz		1.2:1	2.0:1
DC Power Supply	V	12	15	18
DC Current	mA		430	480

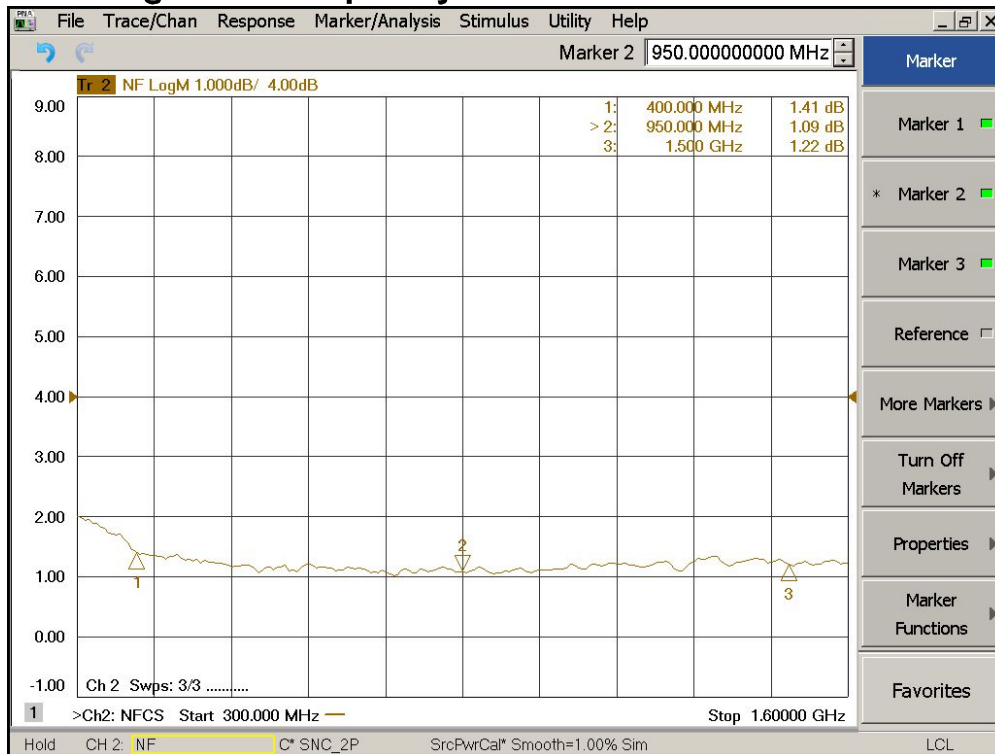
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



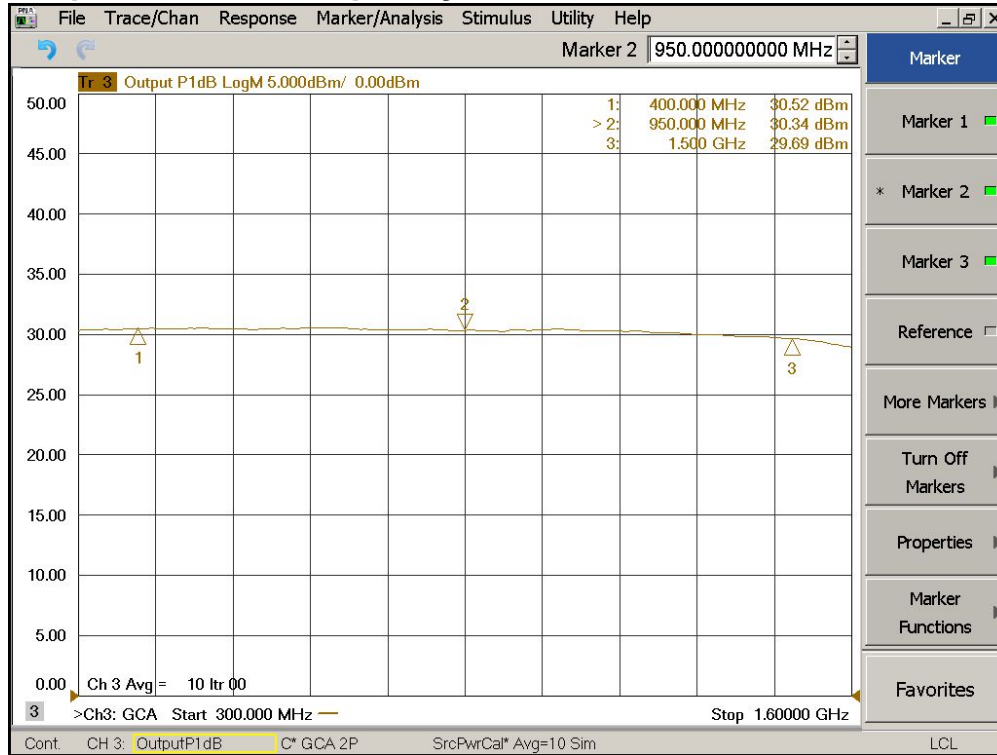
Noise Figure vs Frequency



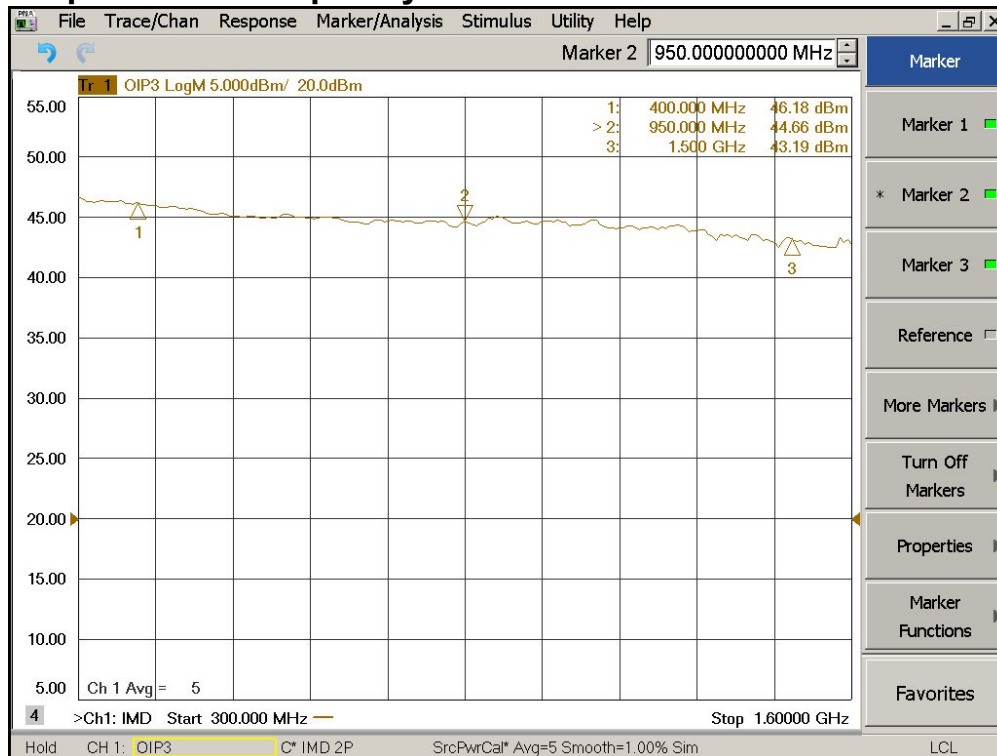
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Output P1dB vs Frequency



Output IP3 vs Frequency



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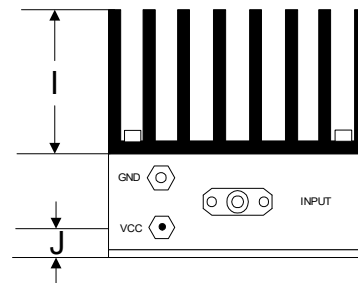
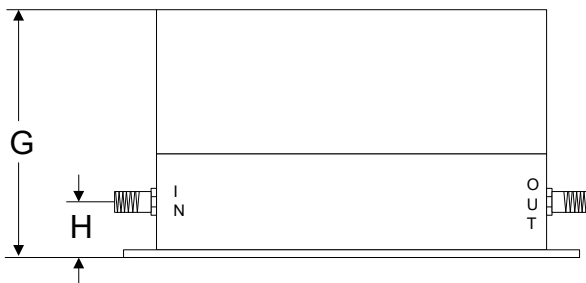
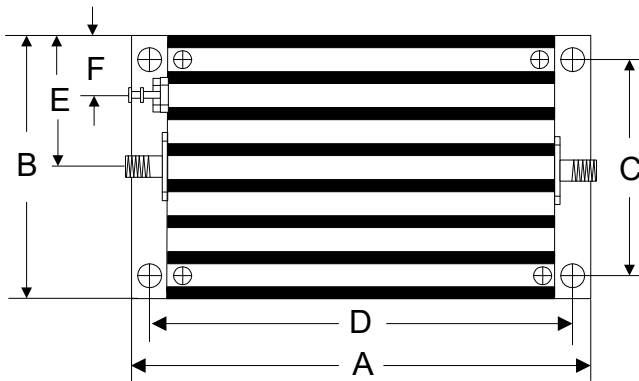
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
DC Supply Voltage	+30V
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	3.750	2.000	1.750	3.400	1.000	0.400	1.813	0.375	1.000	0.238
mm	92.25	50.80	44.45	86.36	25.40	10.16	46.05	9.53	25.40	6.03