

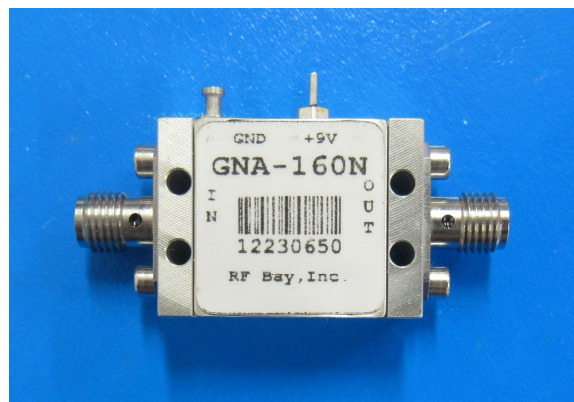
GNA Series

20 – 6000MHz Low Noise Amplifier

Features

- Frequency Range: 20-6000MHz
- Gain: 19dB
- P_{1dB}: +26.5dBm
- IP3: +38dBm
- Noise Figure: 2dB (typ.)
- DC Power: +9V @ 200mA
- Internally Voltage Regulated
- RF Connector: SMA-F

Photo



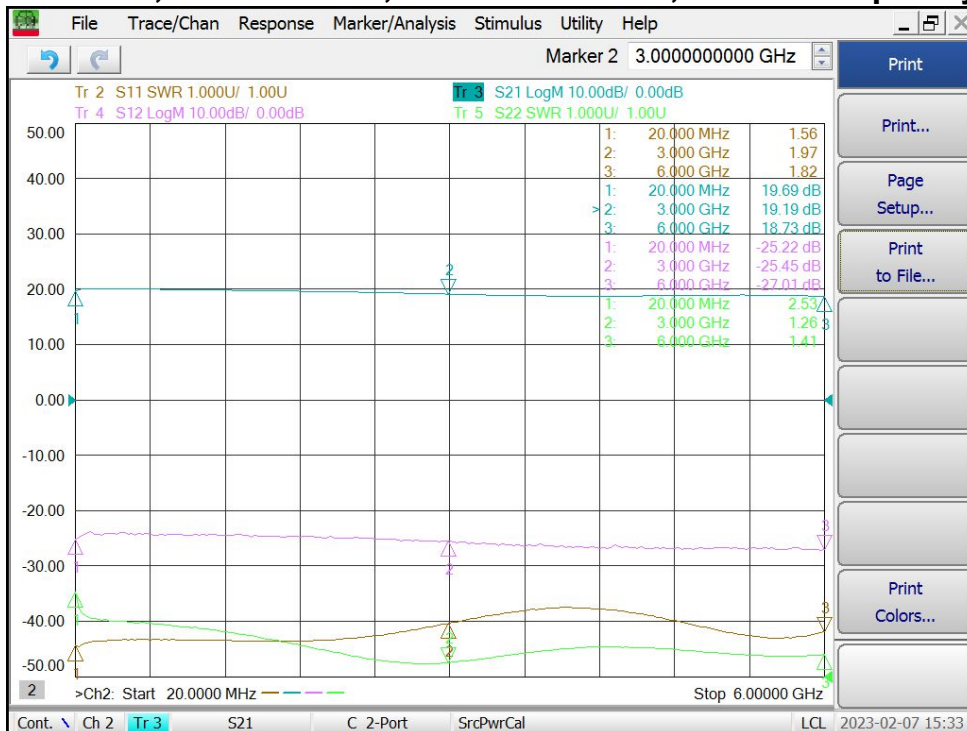
Description

GNA-160N is a high performance Microwave Low Noise Amplifier, with standard frequency range of 20MHz to 6000MHz.

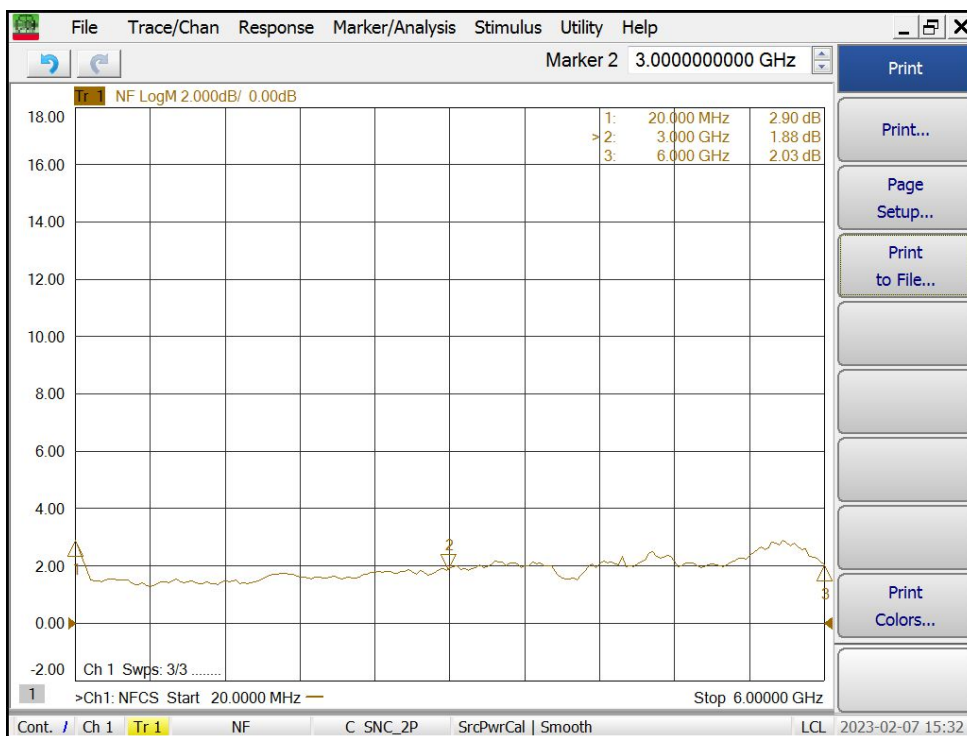
Electrical Specifications @+25°C, Z_{in}=Z_{out}=50 Ω, V_{supply} = +9VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		6000
Gain (S ₂₁)				
f = 20MHz	dB	18.0	19.5	
f = 3GHz	dB	17.5	19.0	
f = 6GHz	dB	17.0	18.5	
Gain Flatness	dB		±0.5	±1.0
Output Power P _{1dB} @ 3GHz	dBm	+25	+26.5	
Output Third Order IP3 @ 3GHz	dBm	+36	+38	
Noise Figure @ 3GHz	dB		2.0	2.5
Reverse Isolation (S ₁₂) @ 3GHz	dB	-20	-25	
VSWR-Input (S ₁₁)	ratio:1	1.5 @20MHz	2.0 @ 3GHz	1.8 @ 6GHz
VSWR-Output (S ₂₂)	(unitless)	2.5 @20MHz	1.3 @ 3GHz	1.4 @ 6GHz
DC Power Supply - Voltage	V		9	10
DC Power Supply - Current	mA		200	220
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.00 (L) x 0.75 (W) x 0.45 (H)		
Weight	Oz	0.6 (17 grams)		

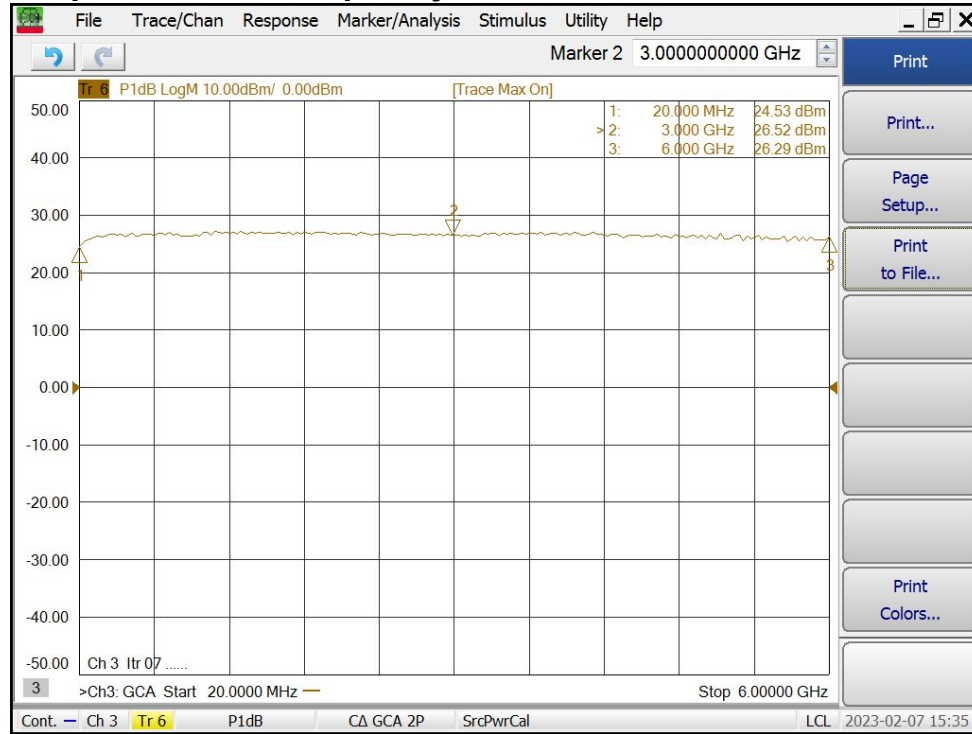
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



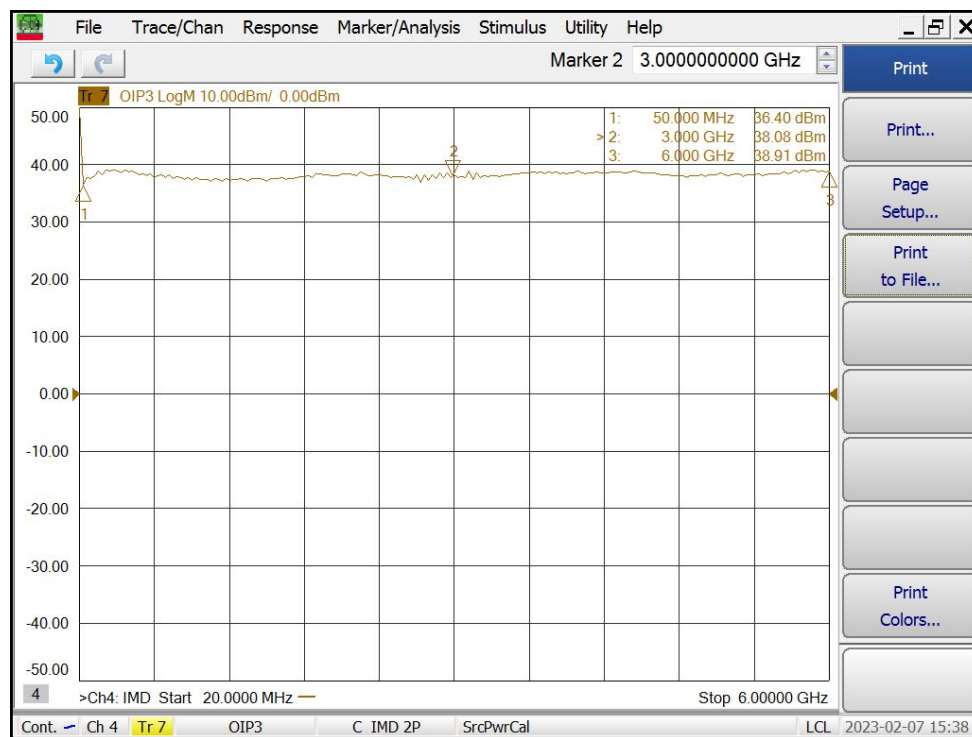
Noise Figure vs Frequency



Output P1dB vs Frequency



Output IP3 vs Frequency



GNA Series

20 – 6000MHz Low Noise Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage (Survival)	+13V
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline

