

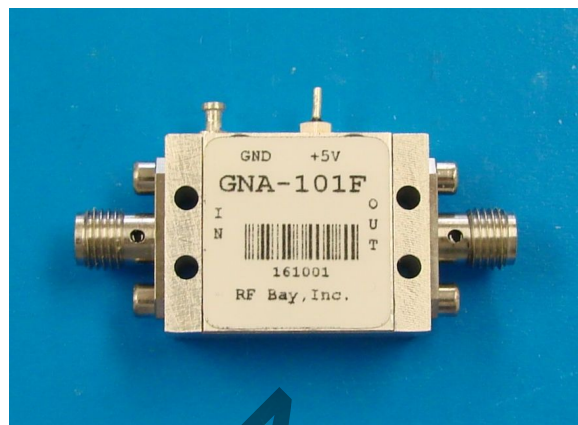
GNA Series

1700-2500MHz Low Noise Amplifier

Features

- Frequency Range: 1700-2500MHz
- Gain: 17dB
- P_{1dB}: +18dBm
- IP3: +30dBm
- Noise Figure: 0.6dB
- DC Power: +5V to +15V@115mA
- Internally Voltage Regulated
- RF Connector: SMA-Female

Photo



Description

GNA-101F is a high performance Microwave Low Noise Amplifier, with standard frequency range of 1700MHz to 2500MHz.

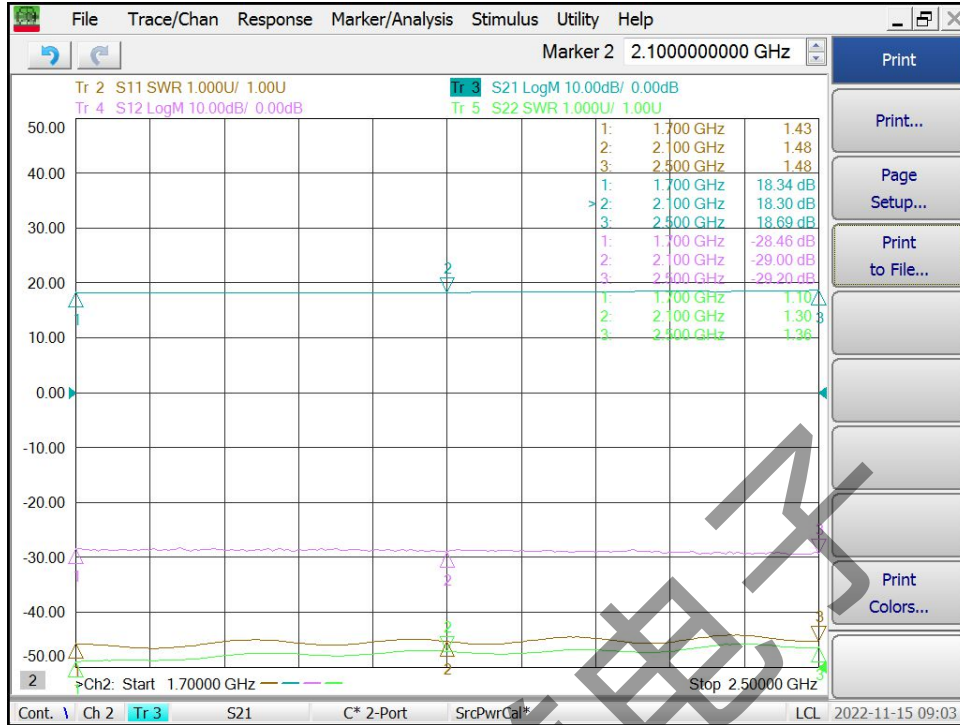
Electrical Specifications @+25°C, Z_{in}=Z_{out}=50 Ω, V_{supply} = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1700		2500
Gain (S21)	dB	17.0	18.5	
Gain Flatness	dB		±0.3	±0.6
Gain Variation Over Temperature	dB/°C		0.014	0.025
Output Power P _{1dB}	dBm	+17	+18	
Saturated Output Power P _{Sat}	dBm		+20	
Output Third Order Intercept IP3	dBm	+28	+30	
Noise Figure @2100MHz	dB		0.6	0.9
Reverse Isolation(S12) @2100MHz	dB		-27	
VSWR-Input (S11)	ratio:1	1.5 @1700MHz	1.5 @2100MHz	1.5 @2500MHz
VSWR-Output (S22)	(unitless)	1.1 @1700MHz	1.3 @2100MHz	1.7 @2500MHz
DC Power Supply - voltage	V	5		15
DC Power Supply - current	mA		115	130
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)		

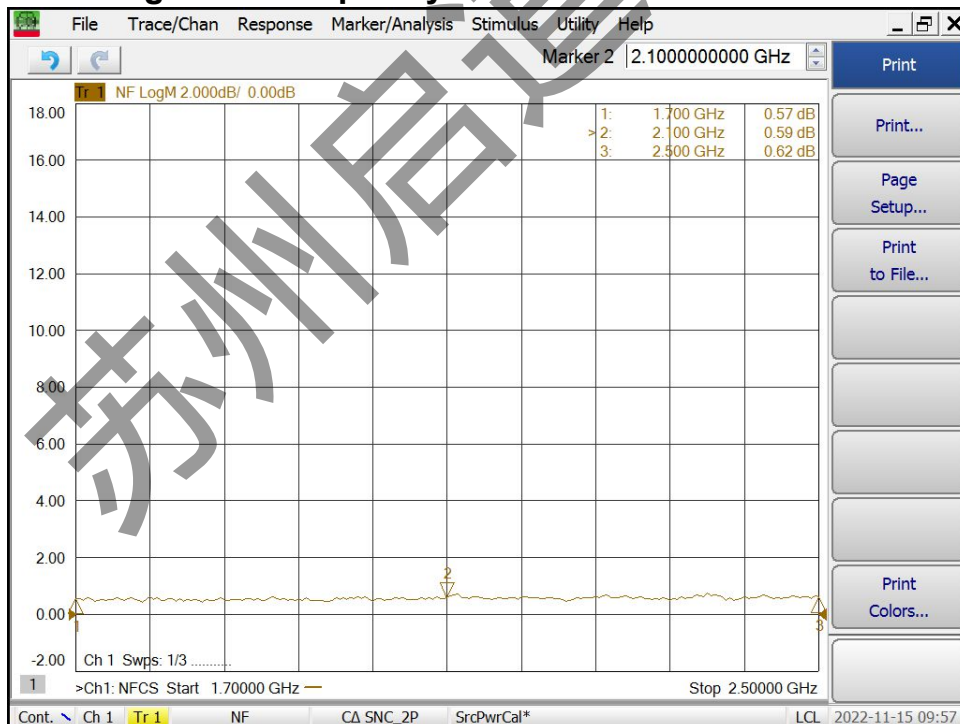
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1700-2500MHz Low Noise Amplifier

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



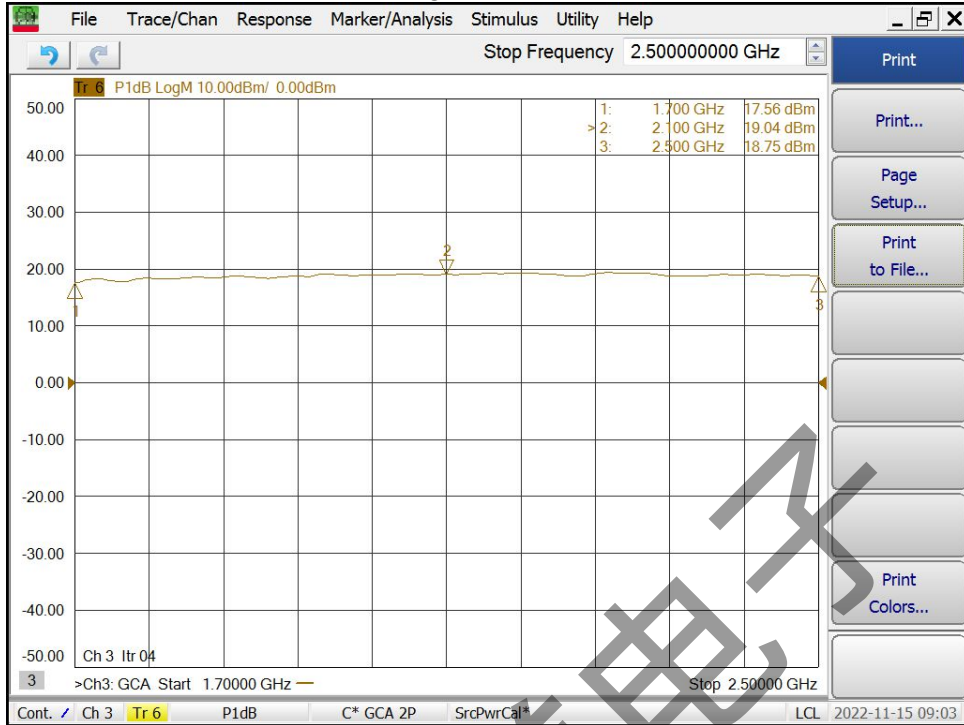
Noise Figure vs Frequency



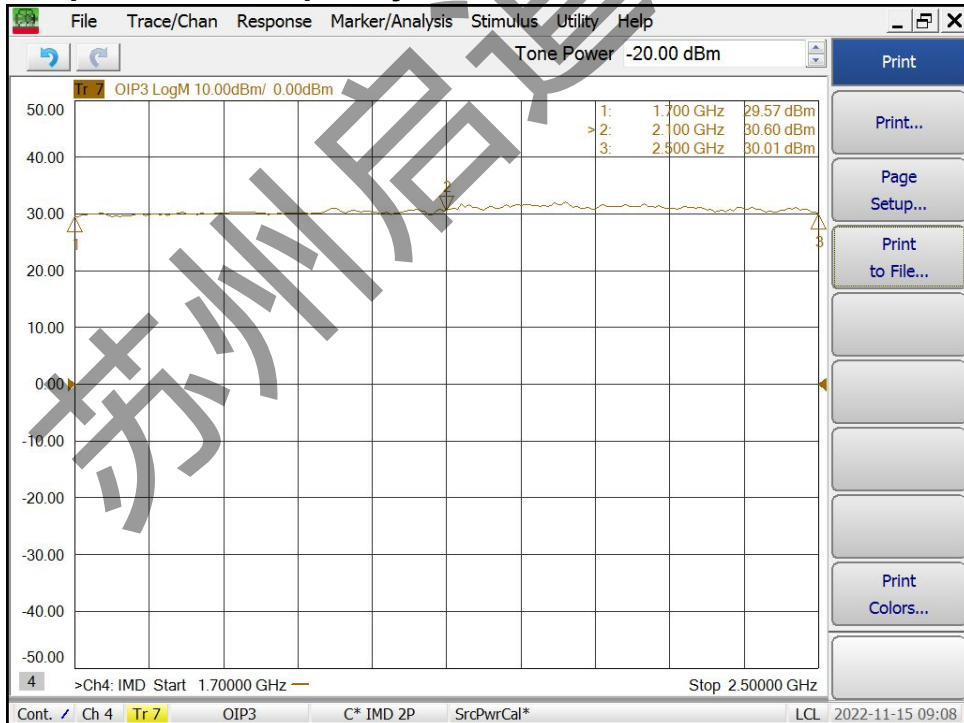
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Output P1dB vs Frequency



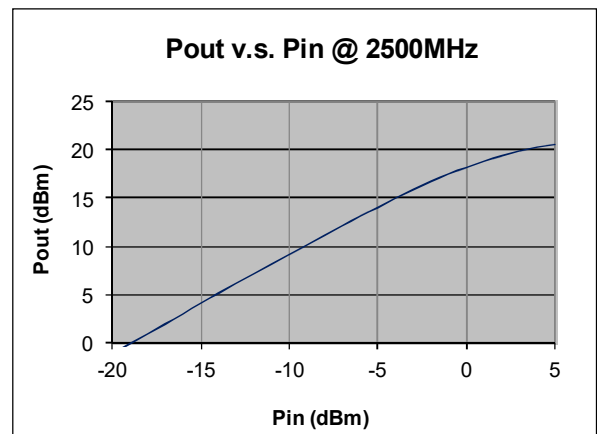
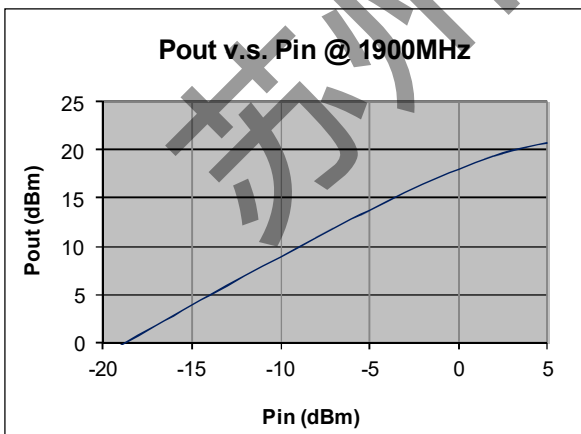
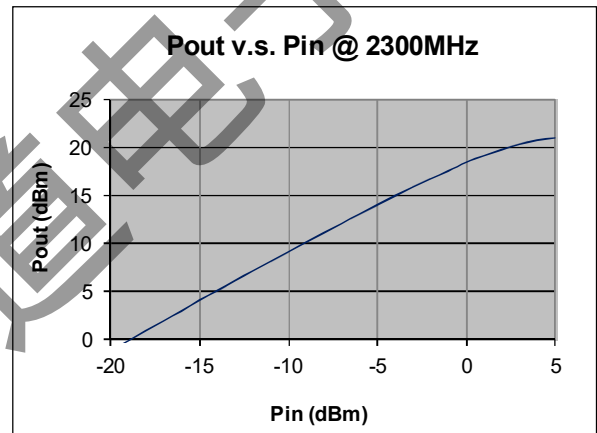
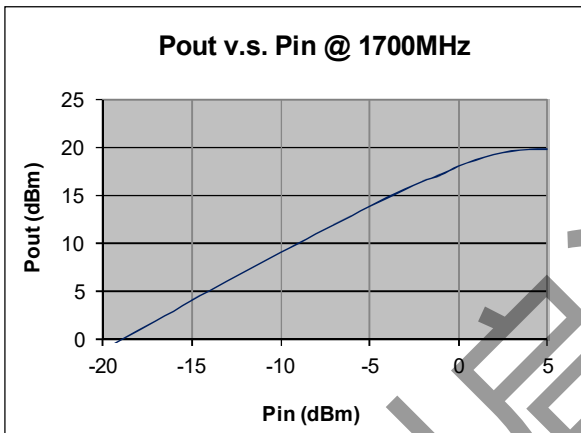
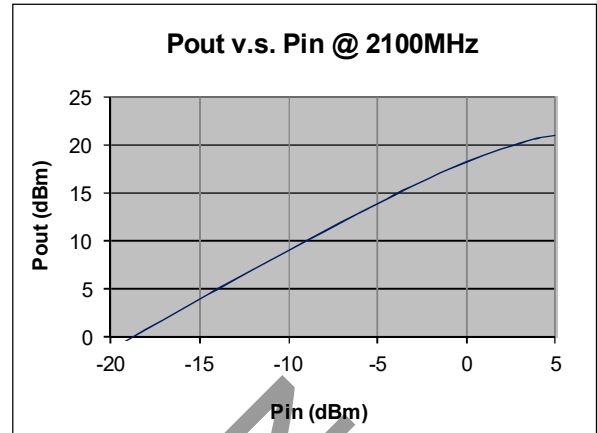
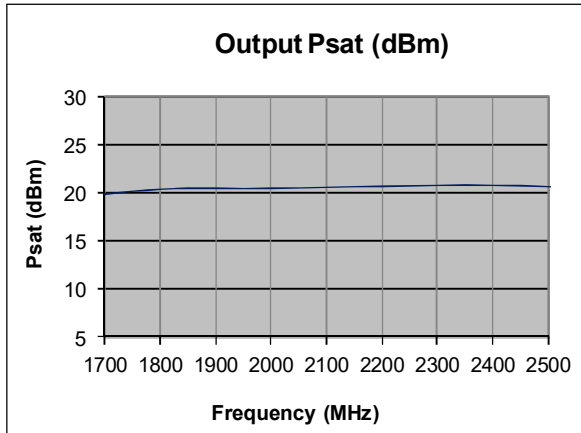
Output IP3 vs Frequency



GNA Series

1700-2500MHz Low Noise Amplifier

Typical Performance @+25 °C



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1700-2500MHz Low Noise Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+33dBm
DC Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline

