

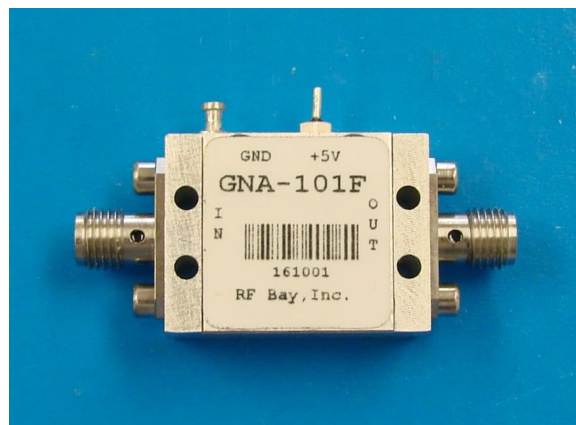
## GNA Series

## 1700-2500MHz Low Noise Amplifier

### Features

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

### Photo



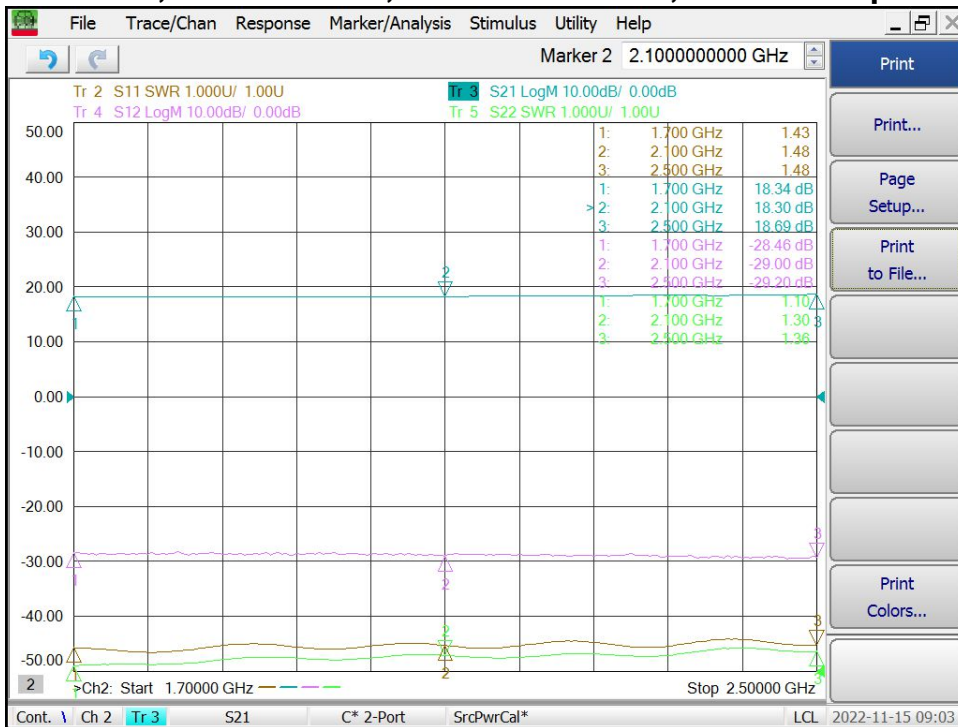
### Description

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

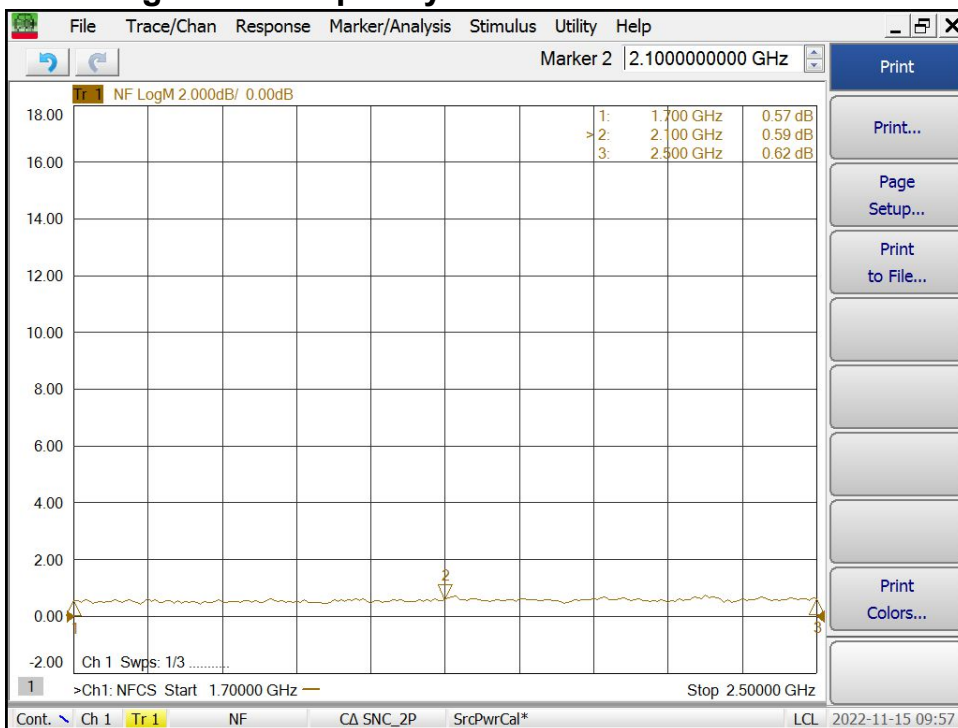
### Electrical Specifications @+25°C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +5VDC

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 <sub>1dB</sub>	dBm	+17	+18	
Saturated Output Power P <sub>Sat</sub>	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)		

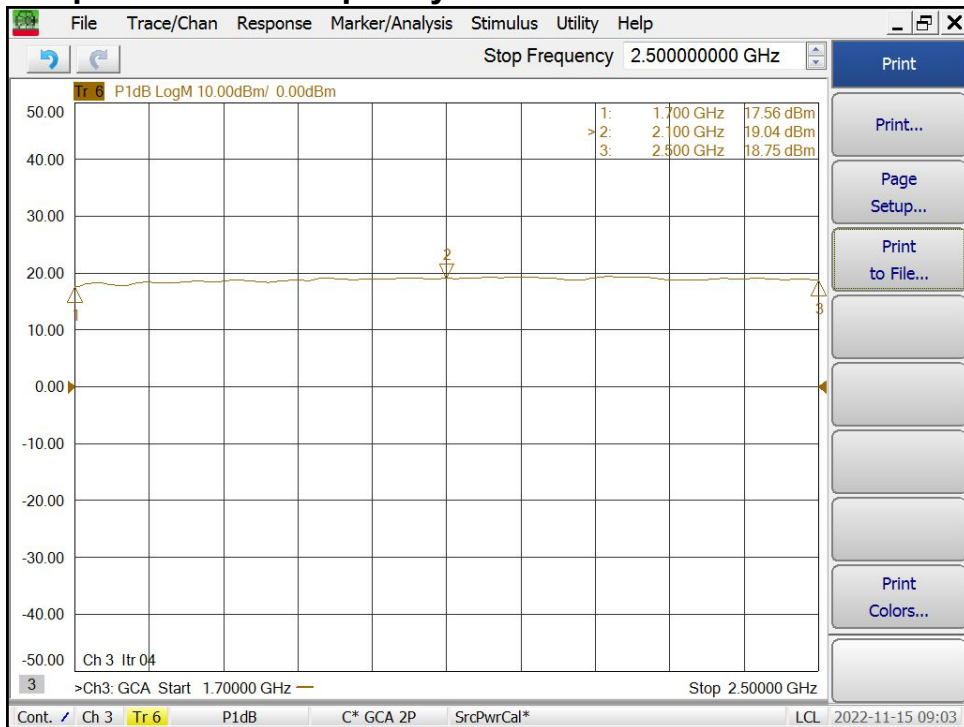
**Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency**



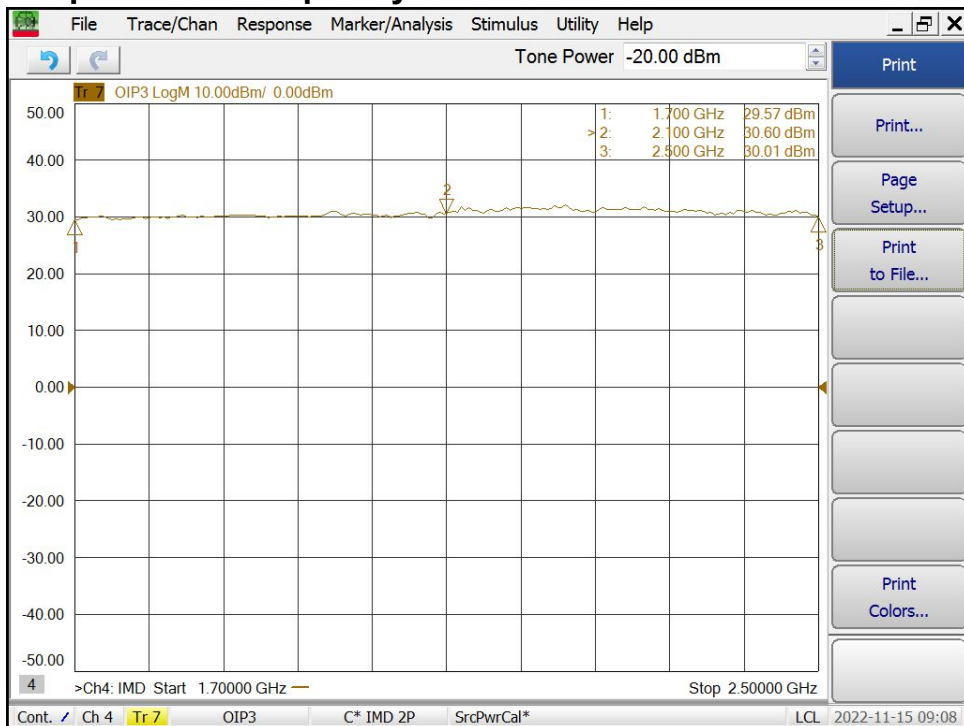
**Noise Figure vs Frequency**



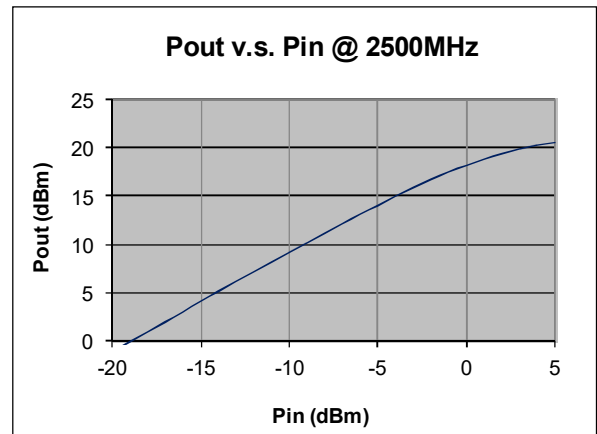
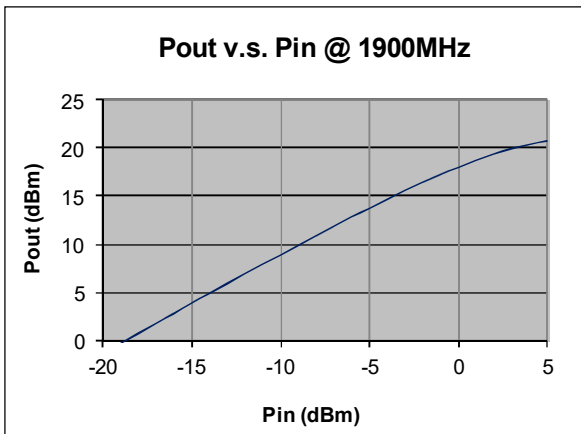
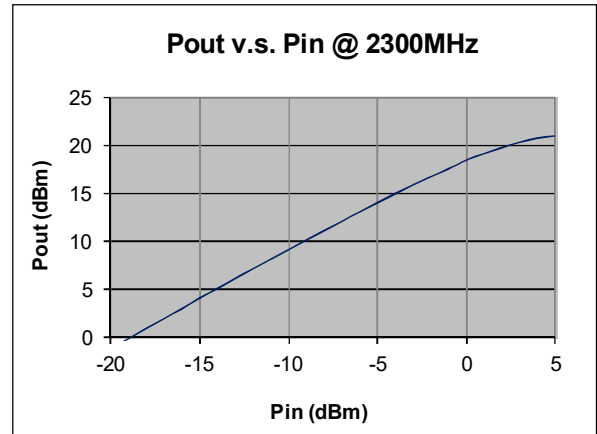
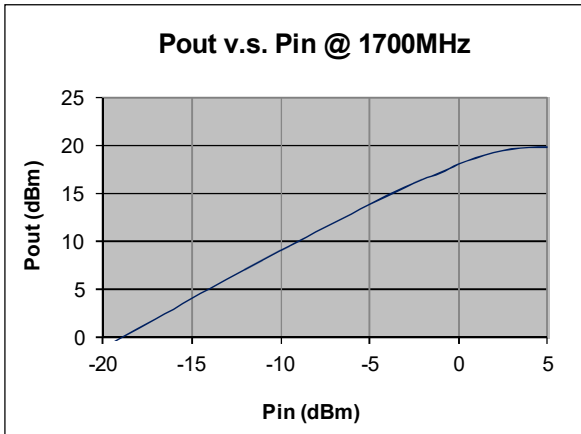
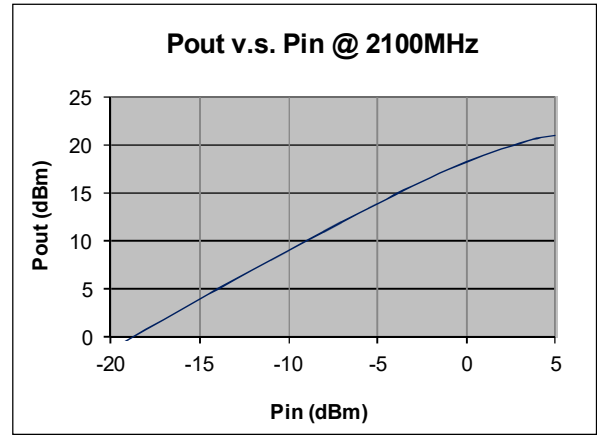
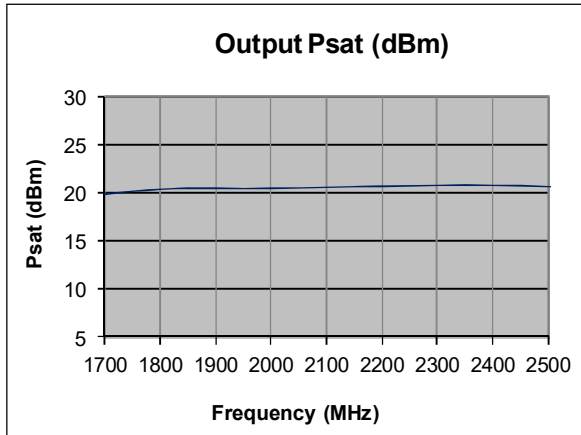
**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



**Typical Performance @+25 °C**



**GNA Series**

**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**

