

## GNA Series

## 9.8 – 11.5GHz Low Noise Amplifier

### Features

- Frequency Range: 9.8-11.5GHz
- Gain: 24dB
- P<sub>1dB</sub>: +18dBm
- IP3: +27dBm
- Noise Figure: 1.4dB (typ.)
- DC Power: +5V @ 90mA
- RF Connector: SMA-F

### Photo



### Description

GNA-200F is a high performance Microwave Low Noise Amplifier, with standard frequency range of 9.8GHz to 11.5GHz.

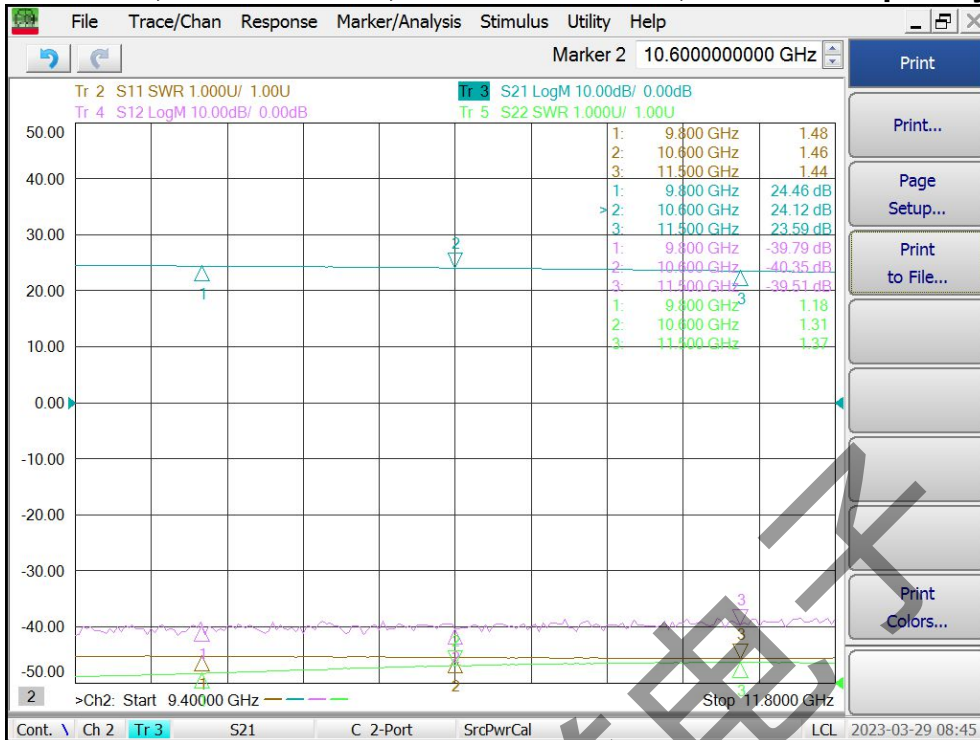
### Electrical Specifications @+25°C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	9.8		11.5
Gain (S <sub>21</sub> )	dB	22	24	
Gain Flatness	dB		±0.5	±0.8
Output Power P <sub>1dB</sub>	dBm	+16	+18	
Output Third Order IP3	dBm	+25	+27	
Noise Figure	dB		1.4	1.8
Reverse Isolation (S <sub>12</sub> )	dB	-35	-40	
VSWR-Input (S <sub>11</sub> )			1.5:1	1.8:1
VSWR-Output (S <sub>22</sub> )			1.5:1	1.8:1
DC Power Supply - Voltage	V	4.5	5	5.5
DC Power Supply - Current	mA		90	110
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)		

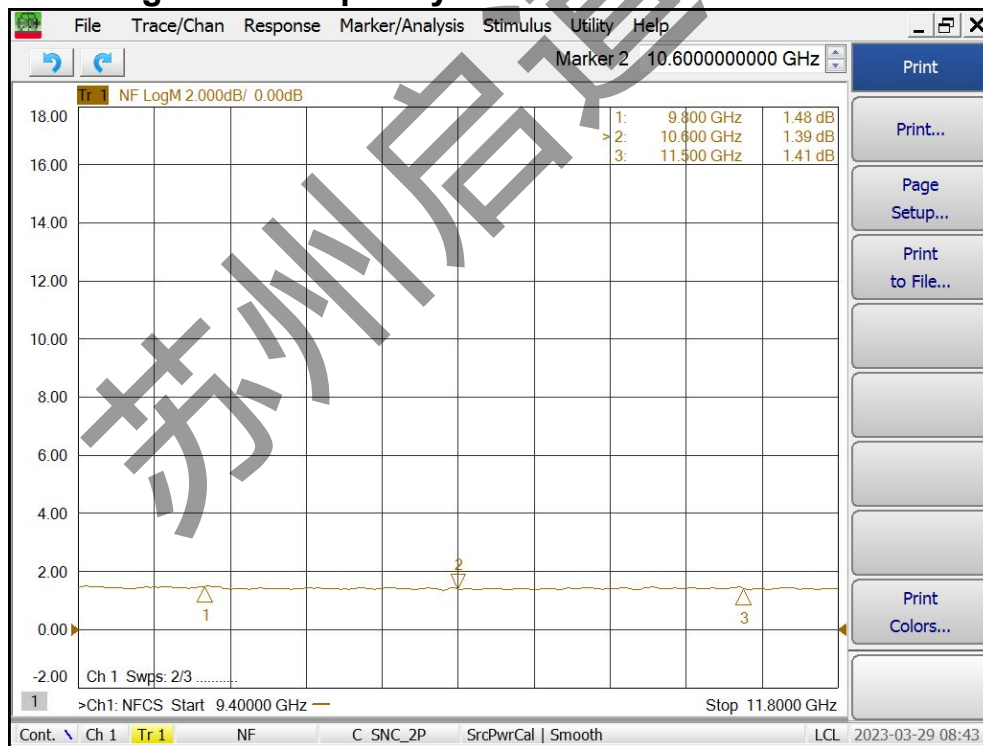
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### Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



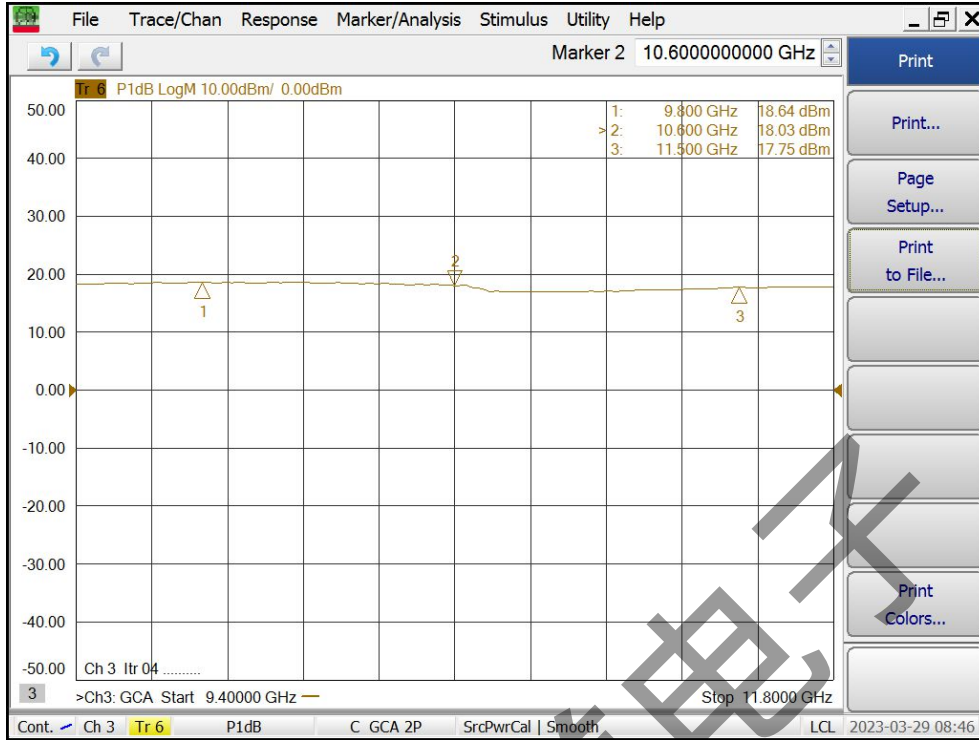
### Noise Figure vs Frequency



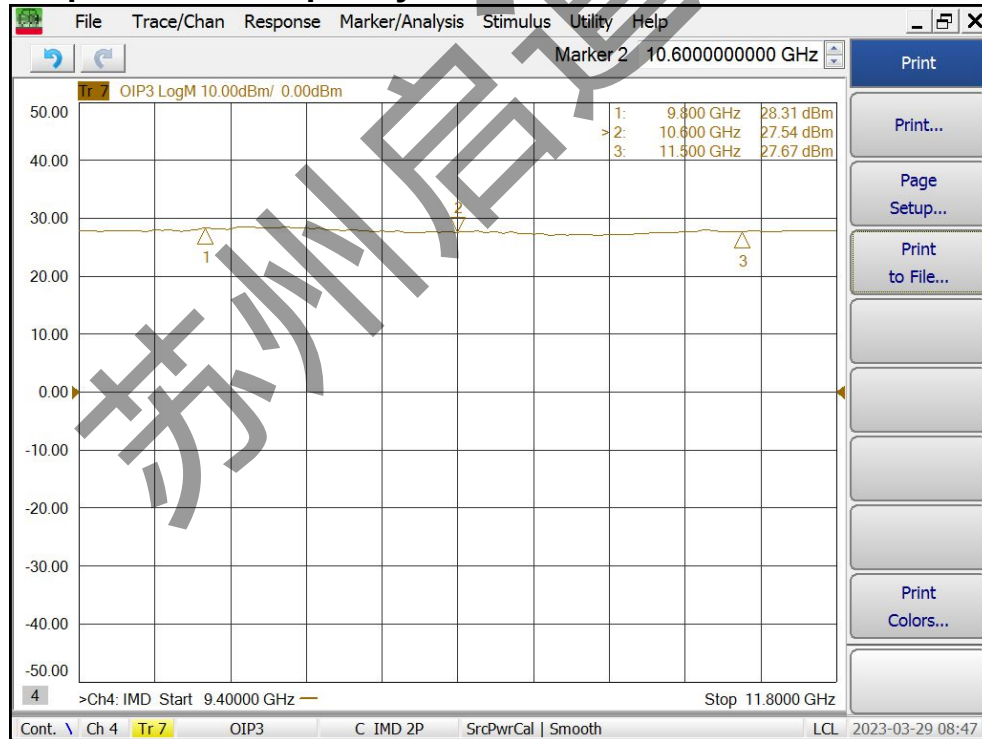
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### Output P1dB vs Frequency



### Output IP3 vs Frequency



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage (Survival)	+6V
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline

