

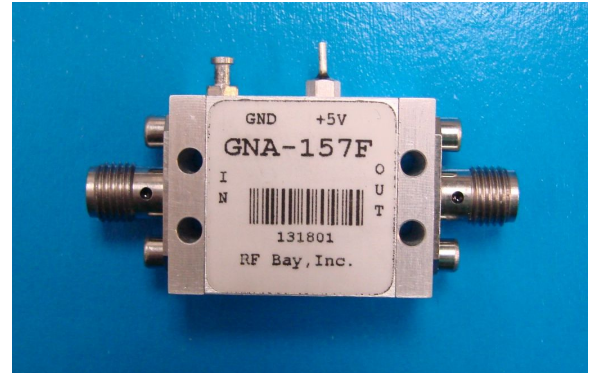
## GNA Series

## 6 – 18GHz Low Noise Amplifier

### Features

- Frequency Range: 6-18GHz
- Gain: 26dB
- P<sub>1dB</sub>: +11dBm
- IP3: +25dBm
- Noise Figure: 1.9dB (typ.)
- DC Power: 5V @ 65mA
- RF Connector: SMA-female

### Photo



### Description

GNA-157F is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 6GHz to 18GHz.

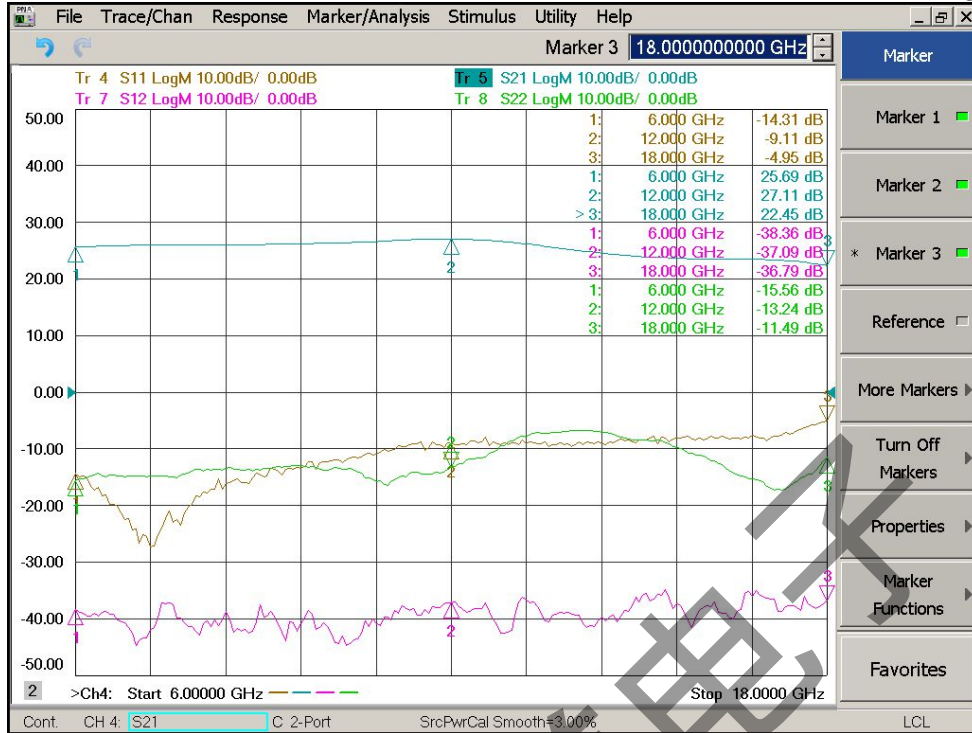
### Electrical Specifications @+25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, DC Voltage = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	6		18
Gain S <sub>21</sub>	f = 6GHz	22.5	24.5	
	f = 12GHz	24.0	26.0	
	f = 18GHz	20.0	22.0	
Gain Flatness	dB		± 2.5	± 3.0
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P <sub>1dB</sub>	f = 12 GHz	+10	+11	
Saturated Output Power P <sub>Sat</sub>	f = 12GHz	+11	+13	
Output Third Order Intercept IP3	f = 12GHz	+23	+25	
Noise Figure	f = 12GHz		1.9	2.4
Reverse Isolation S <sub>12</sub>	f = 12GHz	-30	-37	
Input VSWR S <sub>11</sub>	f = 12GHz		2.0:1	2.5:1
Output VSWR S <sub>22</sub>	f = 12GHz		1.6:1	2.0:1
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		65	75

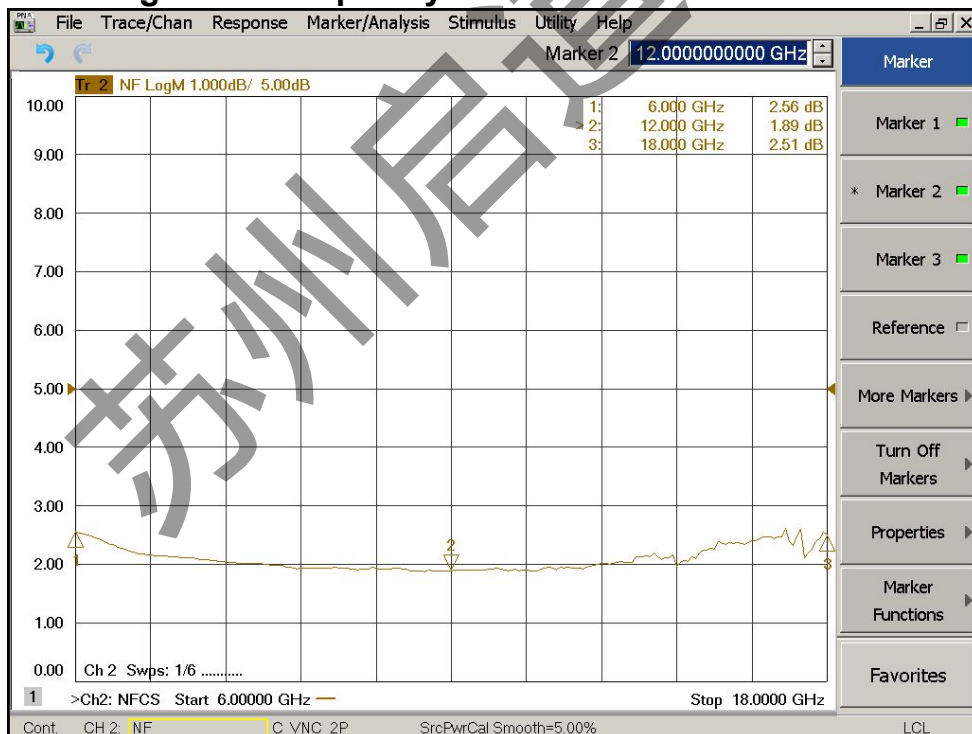
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### Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



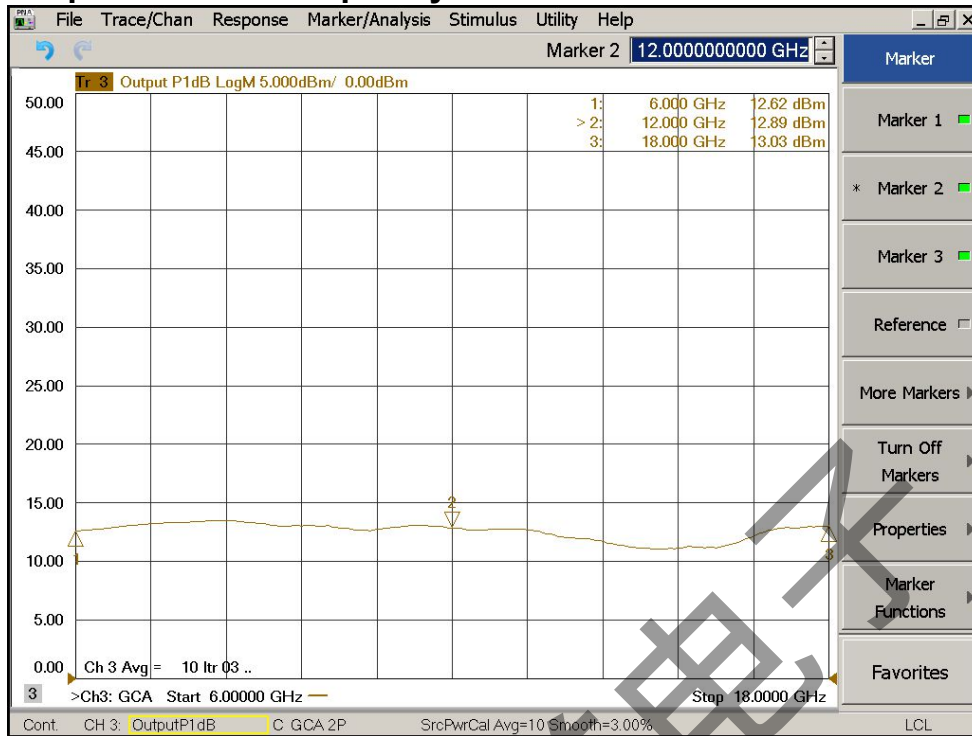
### Noise Figure vs Frequency



**GNA Series**

**6 – 18GHz Low Noise Amplifier**

**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline

