

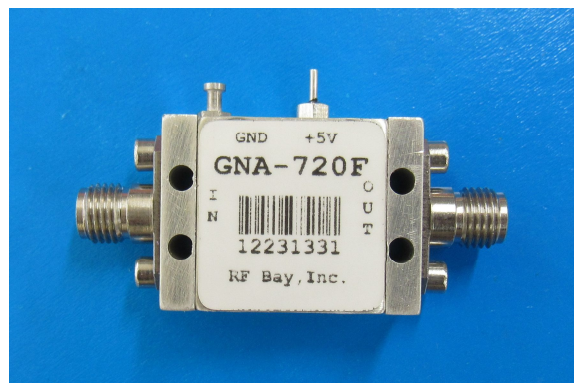
## GNA Series

## 25 – 31GHz Low Noise Amplifier

### Features

- Frequency Range: 25-31GHz
- Gain: 24dB
- P<sub>1dB</sub>: +10dBm
- IP3: +20dBm
- Noise Figure: 2.3dB (typ.)
- DC Power: +5V @ 25mA
- RF Connector: 2.92mm Female

### Photo



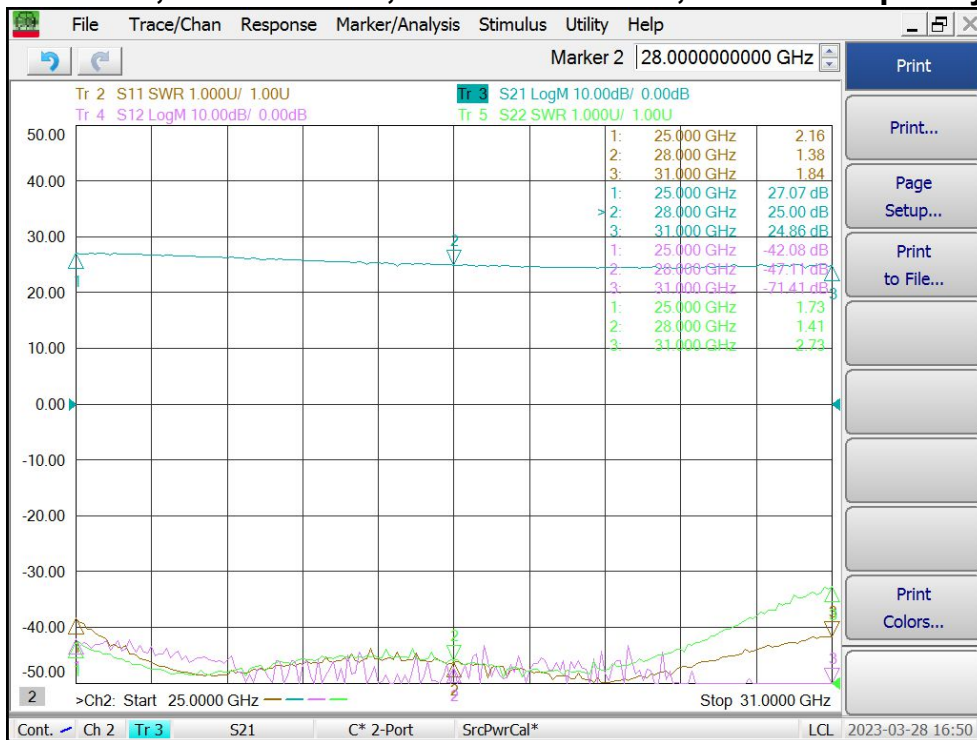
### Description

GNA-720F is a high performance Microwave Low Noise Amplifier, with standard frequency range of 25GHz to 31GHz.

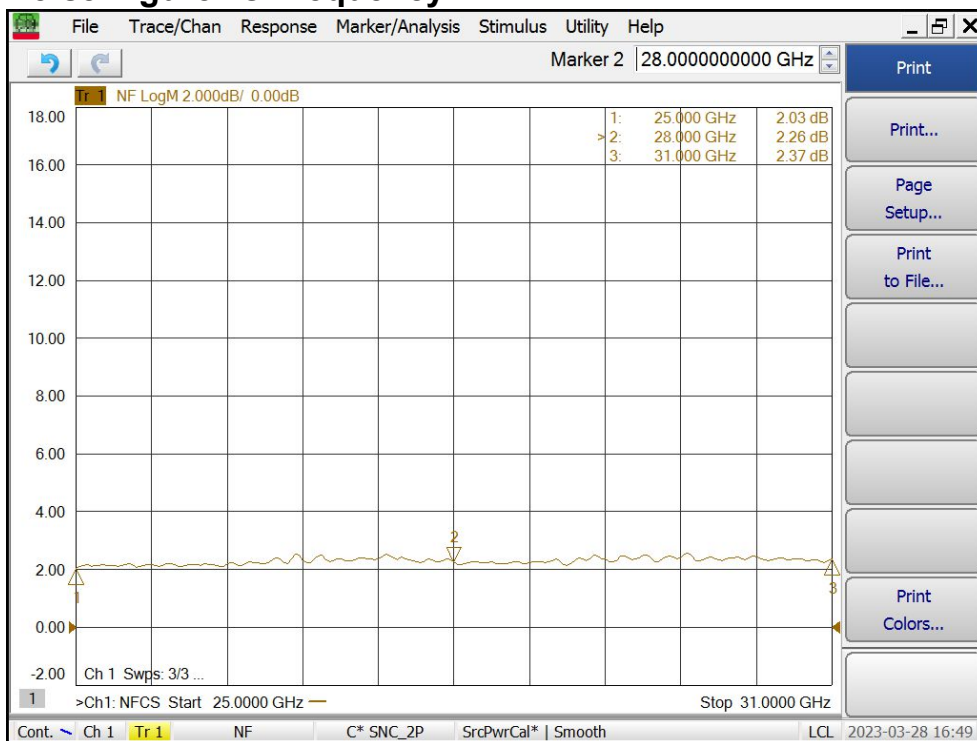
### Electrical Specifications @+25°C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	25		31
Gain (S <sub>21</sub> )	f = 25GHz	24.0	26.0	
	f = 28GHz	22.0	24.0	
	f = 31GHz	21.5	23.5	
Gain Flatness	dB		±1.0	±1.5
Output Power P <sub>1dB</sub> @ 28GHz	dBm	+8	+10	
Output Third Order IP3 @ 28GHz	dBm	+18	+20	
Noise Figure @ 28GHz	dB		2.3	2.8
Reverse Isolation (S <sub>12</sub> ) @ 28GHz	dB	-40	-45	
VSWR-Input (S <sub>11</sub> ) @ 28GHz			1.5:1	2.0:1
VSWR-Output (S <sub>22</sub> ) @ 28GHz			1.5:1	2.0:1
DC Power Supply - Voltage	V	4.5	5	15
DC Power Supply - Current	mA		25	35
RF Input and Output Connector		Type K 2.92mm Female		
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)		

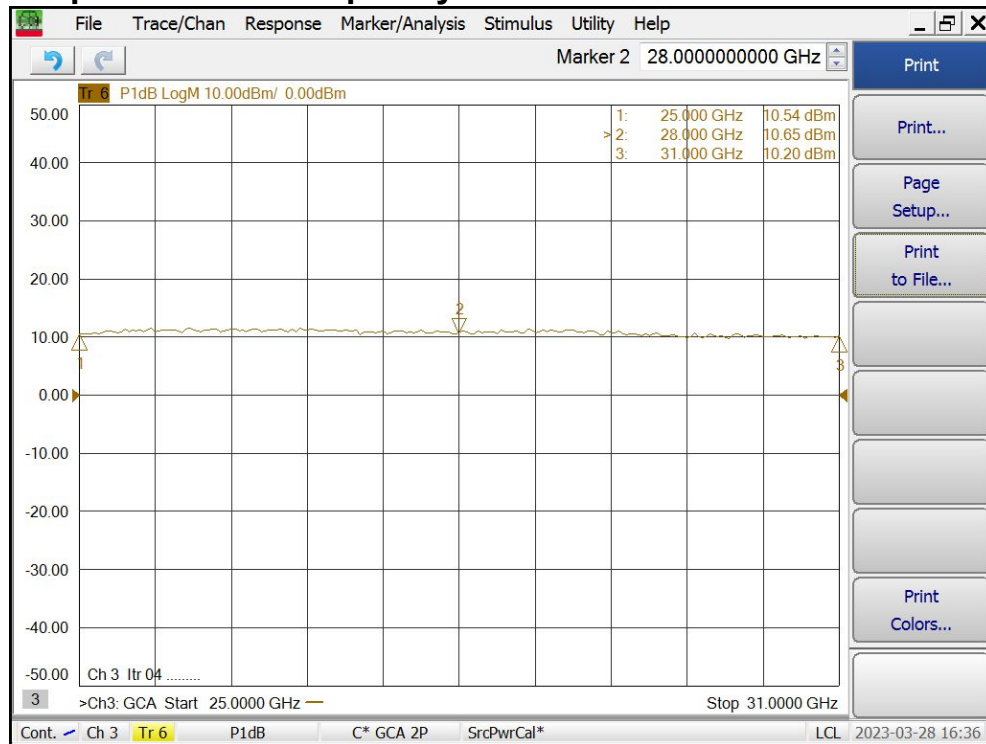
**Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency**



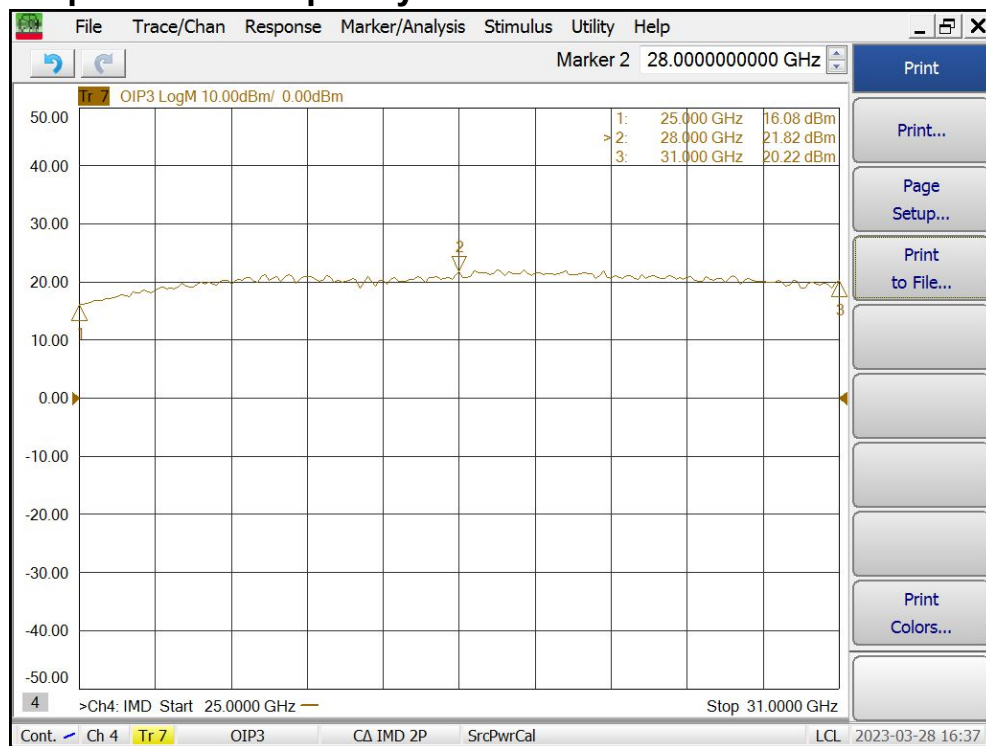
**Noise Figure vs Frequency**



### Output P1dB vs Frequency



### Output IP3 vs Frequency



**GNA Series**

**25 – 31GHz Low Noise Amplifier**

**Absolute Maximum Ratings**

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

**ESD Sensitive Material**



**Outline**

