

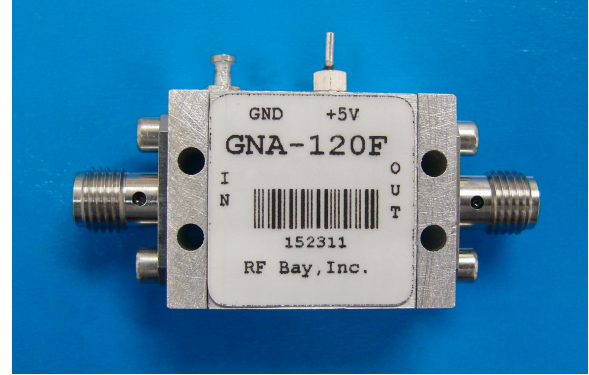
## GNA Series

## 8 – 16GHz Low Noise Amplifier

### Features

- Frequency Range: 8-16GHz
- Gain: 20dB
- P<sub>1dB</sub>: +13dBm
- IP3: +25dBm
- Noise Figure: 1.9dB (typ.)
- DC Power: +5V to +15V @ 65mA
- Internally Voltage Regulated
- Field Replaceable SMA-F

### Photo



### Description

GNA-120F is a high performance Microwave Low Noise Amplifier, with standard frequency range of 8GHz to 16GHz.

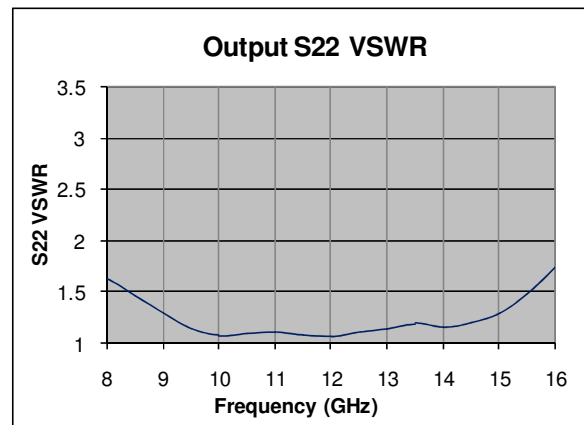
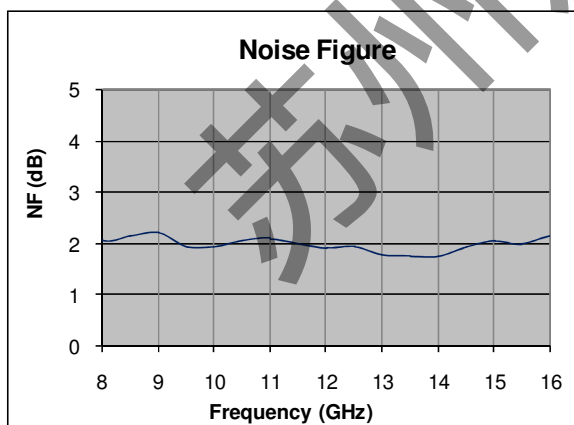
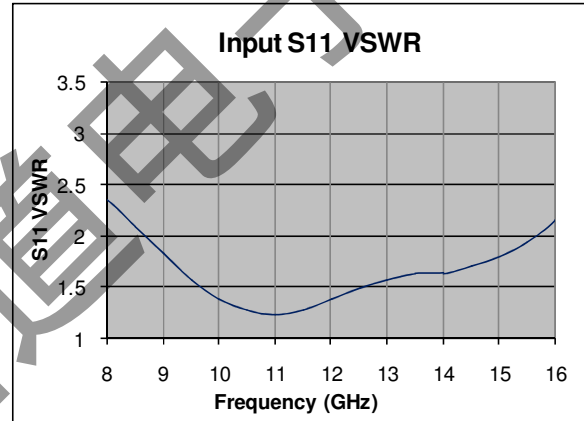
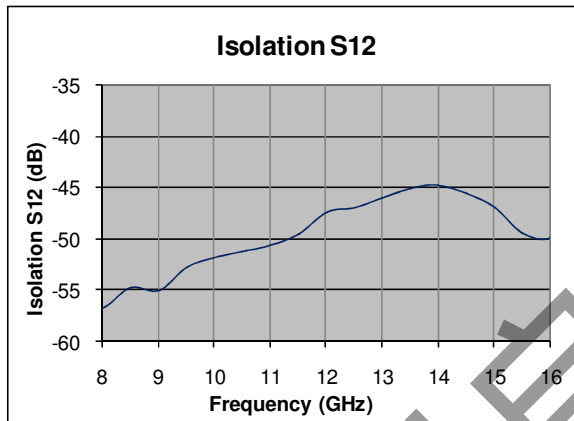
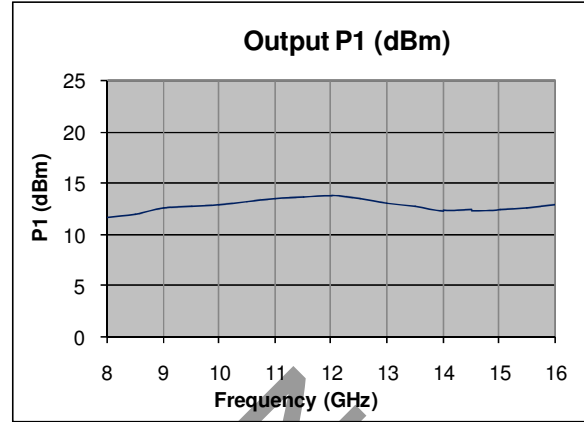
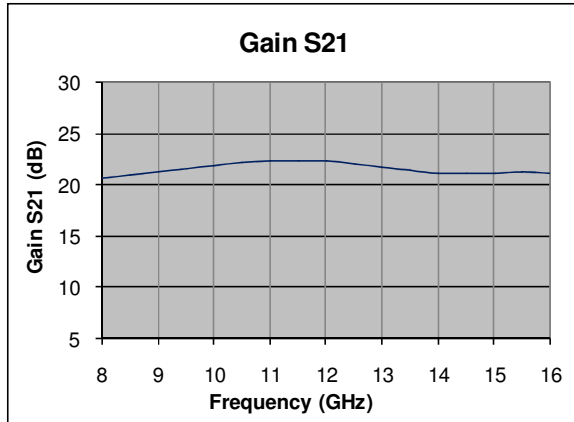
### Electrical Specifications @+25°C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	8		16
Gain (S <sub>21</sub> ) f = 8GHz	dB		20.5	
f = 12GHz	dB		22.0	
f = 16GHz	dB		21.5	
Gain Variation Over Temperature	dB/°C		0.015	0.025
Output Power P <sub>1dB</sub>	dBm	+11.5	+13	
Saturated Output Power P <sub>Sat</sub>	dBm		+15	
Output Third Order Intercept IP3	dBm		+25	
Noise Figure @12GHz	dB		1.9	2.2
Reverse Isolation (S <sub>12</sub> ) @12GHz	dB		-47	
VSWR-Input (S <sub>11</sub> )	ratio:1	2.3 @8GHz	1.4 @12GHz	2.1 @16GHz
VSWR-Output (S <sub>22</sub> )	(unitless)	1.6 @8GHz	1.1 @12GHz	1.8 @16GHz
DC Power Supply - voltage	V	5		15
DC Power Supply - current	mA		65	85
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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### Typical Performance @+25 °C



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+5dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### Outline

