

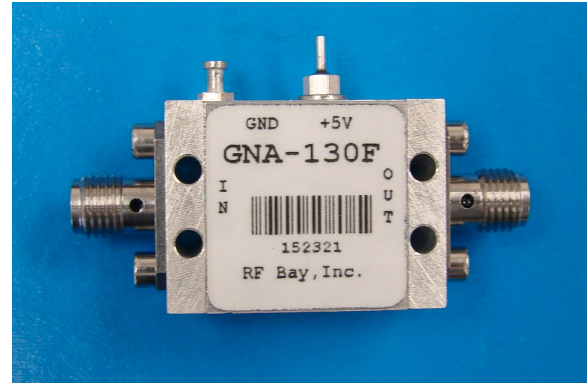
## GNA Series

## 5 – 21GHz Low Noise Amplifier

### Features

- Frequency Range: 5-21GHz
- Gain: 19dB
- $P_{1dB}$ : +10dBm
- IP3: +20dBm
- Noise Figure: 2.5dB (typ.)
- DC Power: +5V to +15V @ 65mA
- Internally Voltage Regulated
- RF Connector: SMA-Female

### Photo



### Description

GNA-130F is a high performance Microwave Low Noise Amplifier, with standard frequency range of 5GHz to 21GHz.

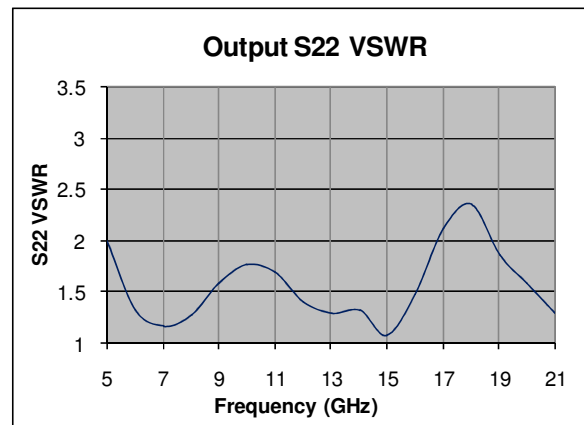
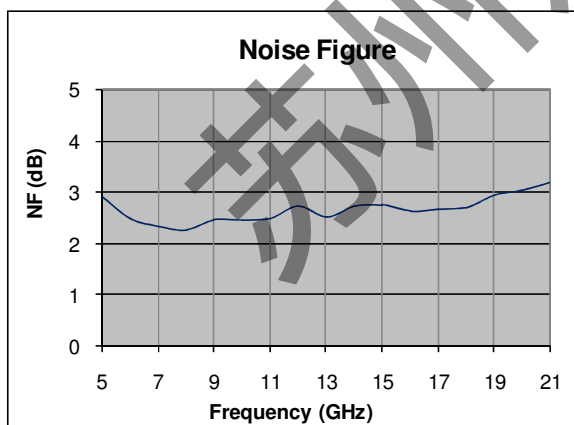
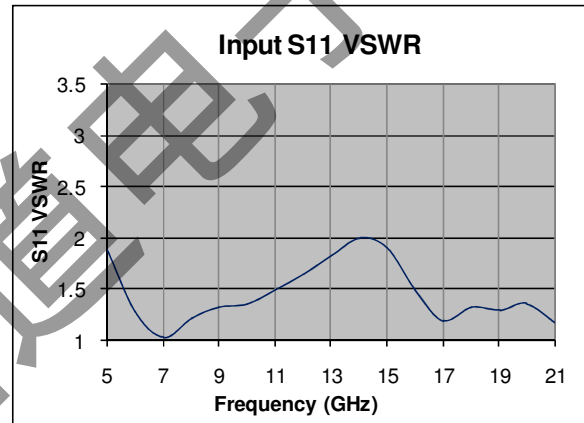
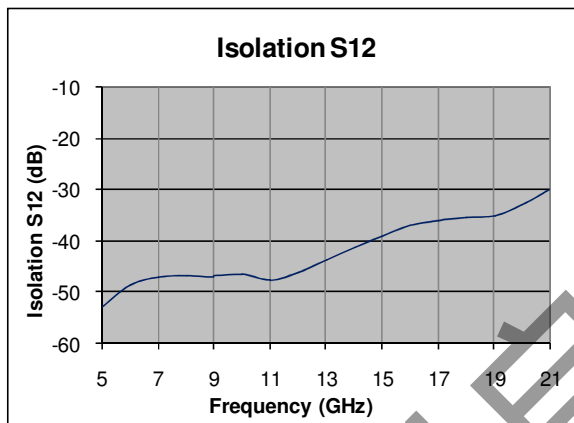
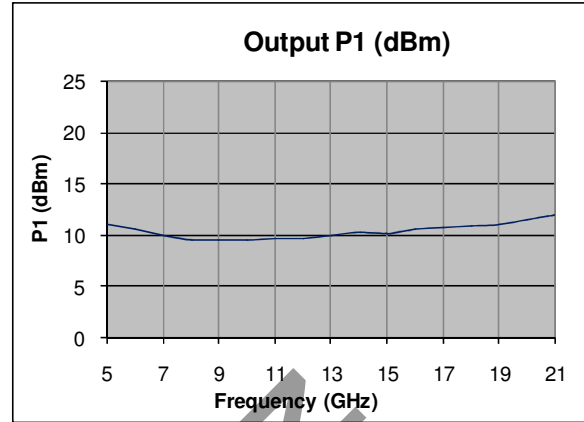
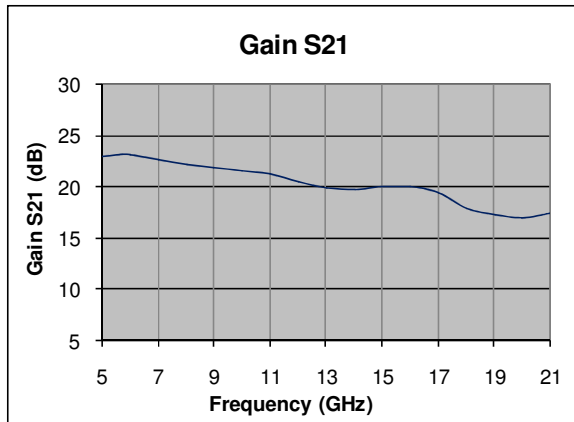
### Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50 \Omega$ , $V_{supply} = +5VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	5		21
Gain (S21) f = 5GHz	dB		22.0	
f = 13GHz	dB		19.0	
f = 21GHz	dB		17.0	
Gain Variation Over Temperature	dB/°C		0.025	0.035
Output Power $P_{1dB}$	dBm	+8	+10	
Saturated Output Power $P_{Sat}$	dBm		+13.5	
Output Third Order Intercept IP3	dBm		+20	
Noise Figure @13GHz	dB		2.5	3.0
Reverse Isolation (S12) @13GHz	dB		-43	
VSWR-Input (S11)	ratio:1	1.9 @5GHz	1.8 @13GHz	1.2 @21GHz
VSWR-Output (S22)	(unitless)	2.0 @5GHz	1.3 @13GHz	1.3 @21GHz
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	0dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### Outline

