

**2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 38 dB Gain, 13 dBm Psat and SMA**

SLNA-120-38-22-SMA is a X-band coaxial low noise amplifier operating in the 8 to 12 GHz frequency range. The amplifier offers 2.2 dB noise figure, 13 dBm minimum of saturated power and high 38 dB minimal small signal gain with the excellent gain flatness of  $\pm 1.0$  dB max. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The low noise amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -40°C and +85°C.

**Electrical Specifications** (TA = +25°C , DC Voltage = 12Volts , DC Current = 250mA)

Description	Min	Typ	Max	Unit
Frequency Range	8		12	GHz
Small Signal Gain	38			dB
Gain Flatness			$\pm 1$	dB
Minimum Psat	+13			dBm
Noise Figure		2.2		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	13	Volts
Operating DC Current			250	mA
Operating Temperature Range	-40		+85	°C

**Absolute Maximum Rating**

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-40 to +85	°C
Storage Temperature	-55 to +85	°C



ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

**Mechanical Specifications**

<b>Size</b>	
Length	2.283 in [57.99 mm]
Width	1.093 in [27.76 mm]
Height	0.382 in [9.7 mm]
Input Connector	SMA Female
Output Connector	SMA Female

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-40 to +85 deg C



**Features:**

- 8 GHz to 12 GHz Frequency Range
- Psat: 13 dBm min
- High Small Signal Gain: 38 dB
- Gain Flatness:  $\pm 1.0$  dB max
- Noise Figure: 2.2 dB
- 50 Ohm Input and Output Matched
- -40 to 85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

**Applications:**

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Microwave Radio Systems
- Satellite Communications
- Low Noise Amplifier
- General Purpose Amplification
- Gain Block

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**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

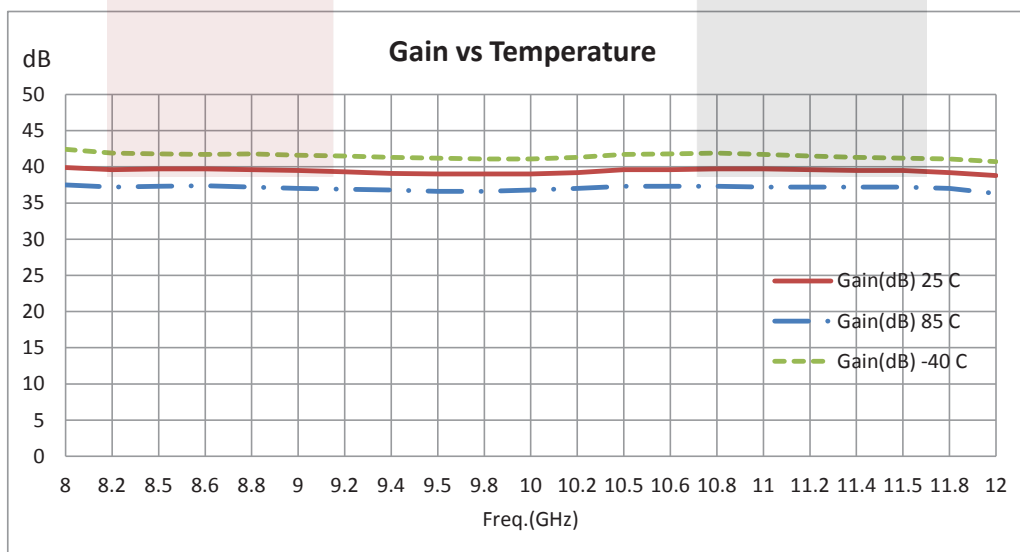
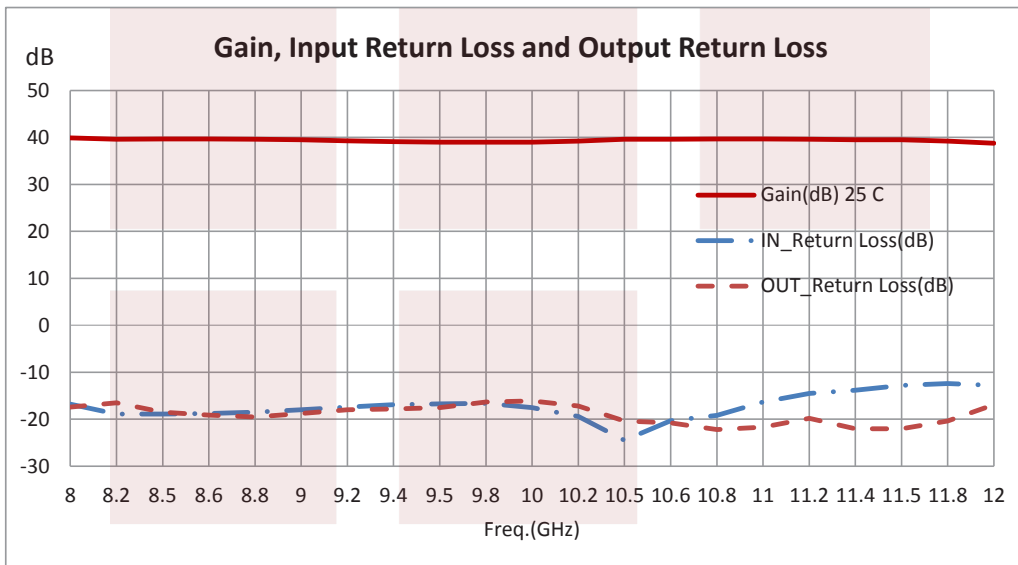
**Plotted and Other Data**

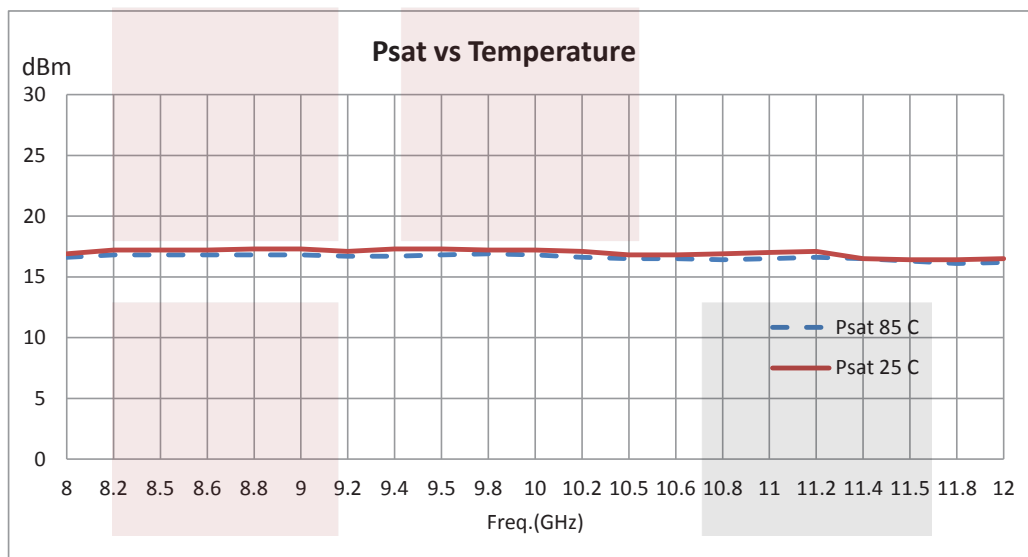
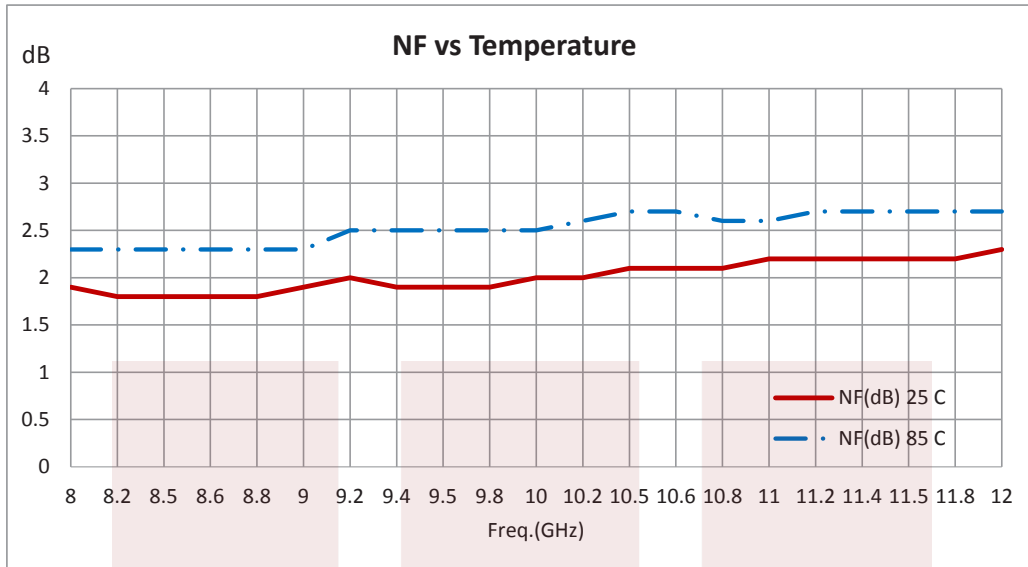
Notes:

- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.



**Typical Performance Data**



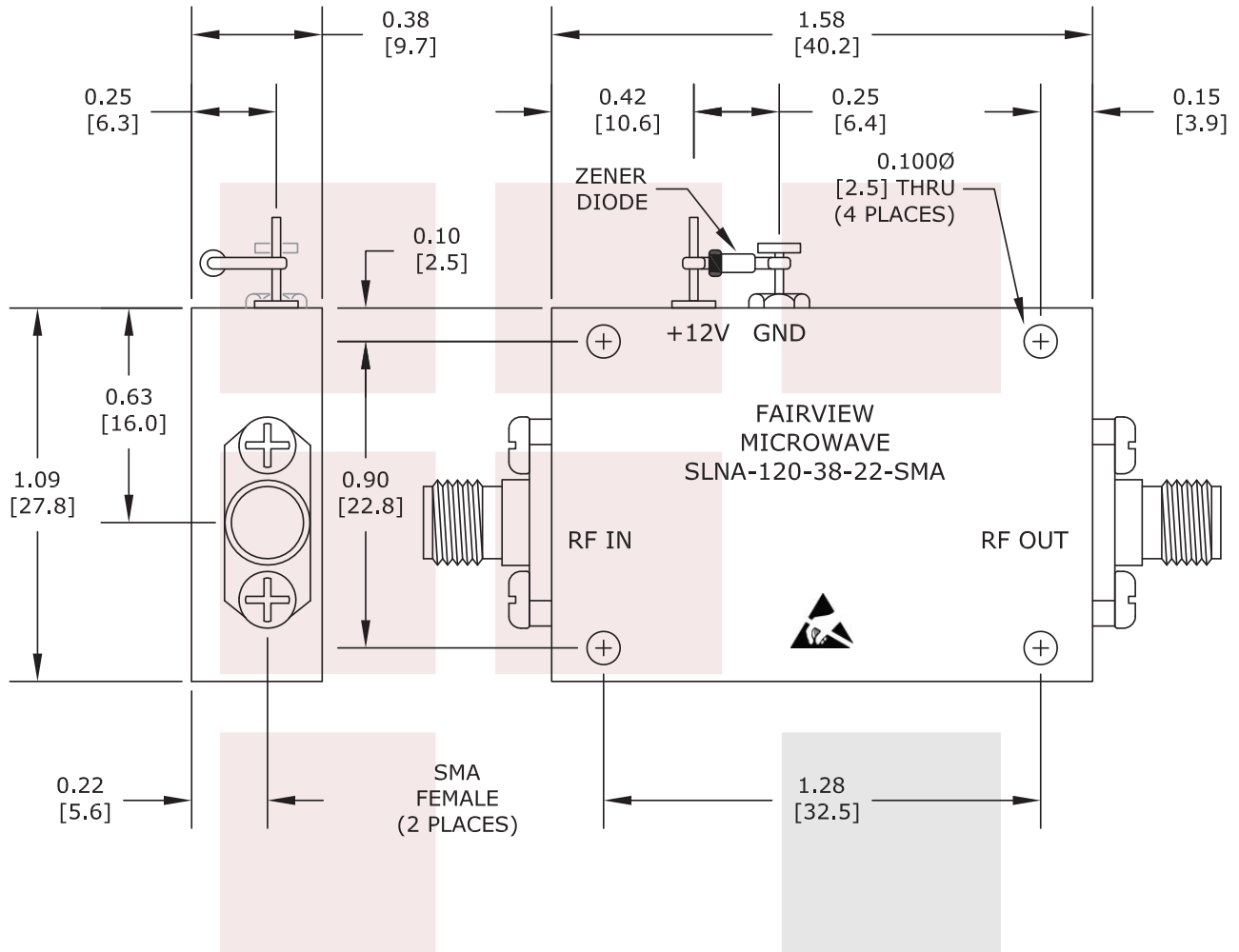


2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 38 dB Gain, 13 dBm Psat and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 38 dB Gain, 13 dBm Psat and SMA SLNA-120-38-22-SMA](#)

URL: <http://www.fairviewmicrowave.com/2.2db-nf-low-noise-amplifier-38db-slna-120-38-22-sma-p.aspx>

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TITLE 2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 38 dB Gain, 13 dBm Psat and SMA		DWG NO SLNA-120-38-22-SMA		CAGE CODE 3FKR5	
CAD FILE 050914 SHEET		SCALE N/A		SIZE A 2233	