

## 2 dB NF Low Noise Amplifier Operating From 4 GHz to 8 GHz with 38 dB Gain, 13 dBm Psat and SMA

SLNA-080-38-20-SMA is a C-band coaxial low noise amplifier operating in the 4 to 8 GHz frequency range. The amplifier offers 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 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             | 4   |     | 8       | GHz   |
| Small Signal Gain           | 38  |     |         | dB    |
| Gain Flatness               |     |     | $\pm 1$ | dB    |
| Minimum Psat                | +13 |     |         | dBm   |
| Noise Figure                |     | 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.

### Configuration

Connector 1  
Connector 2

SMA Female  
SMA Female

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



### Features:

- 4 GHz to 8 GHz Frequency Range
- Psat: 13 dBm min
- High Small Signal Gain: 38 dB
- Gain Flatness:  $\pm 1.0$  dB max
- Noise Figure: 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 Communication
- Low Noise Amplifier
- General Purpose Amplification
- Gain Block

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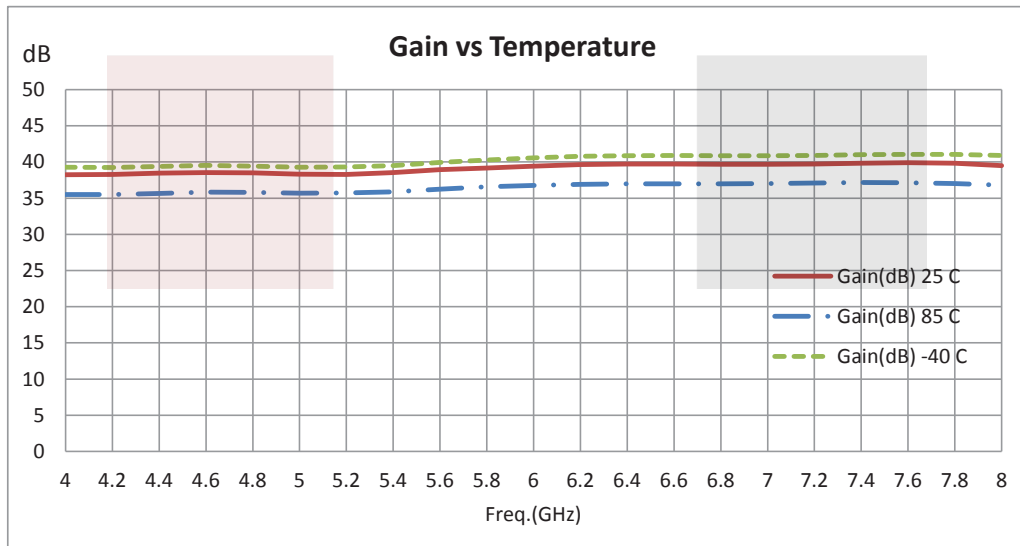
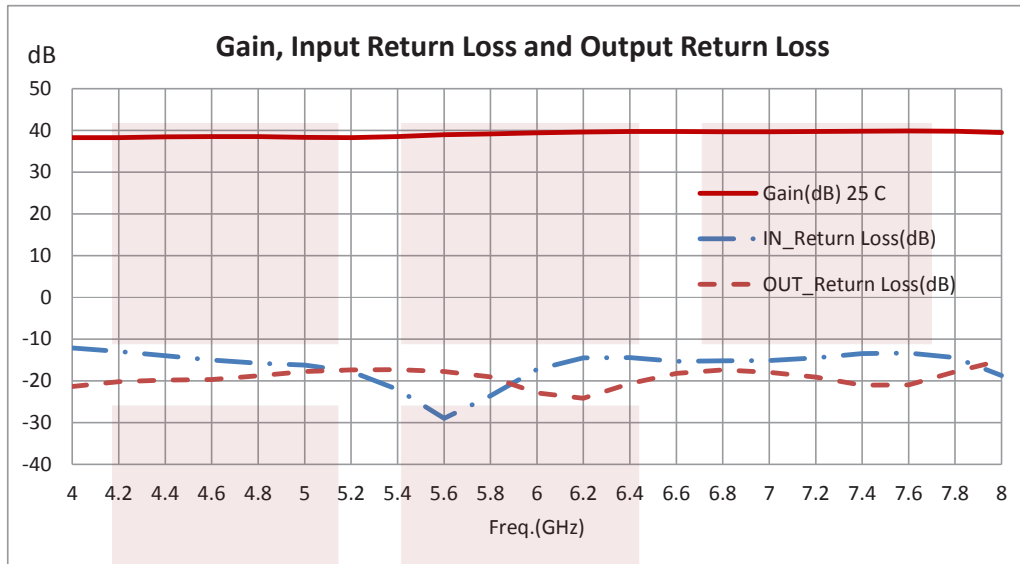
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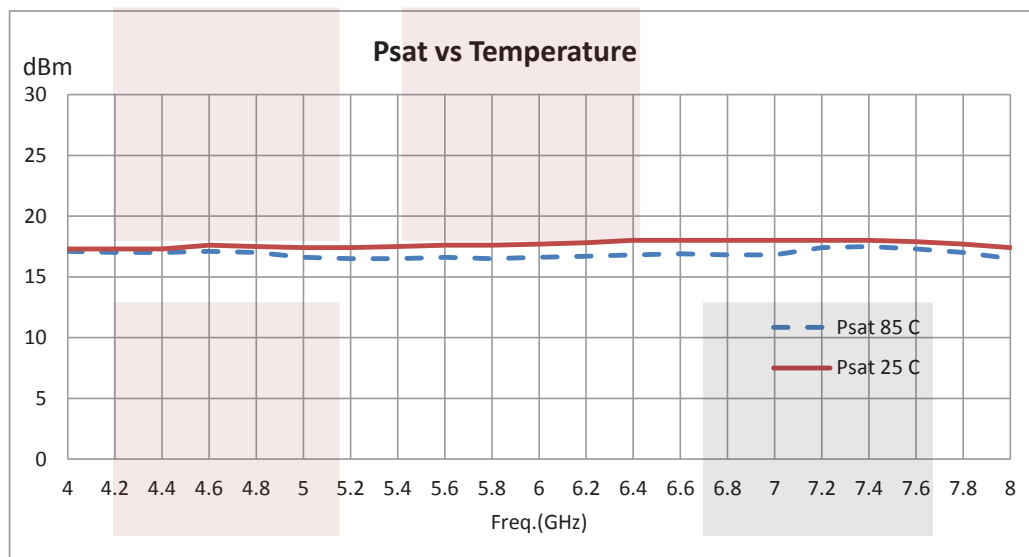
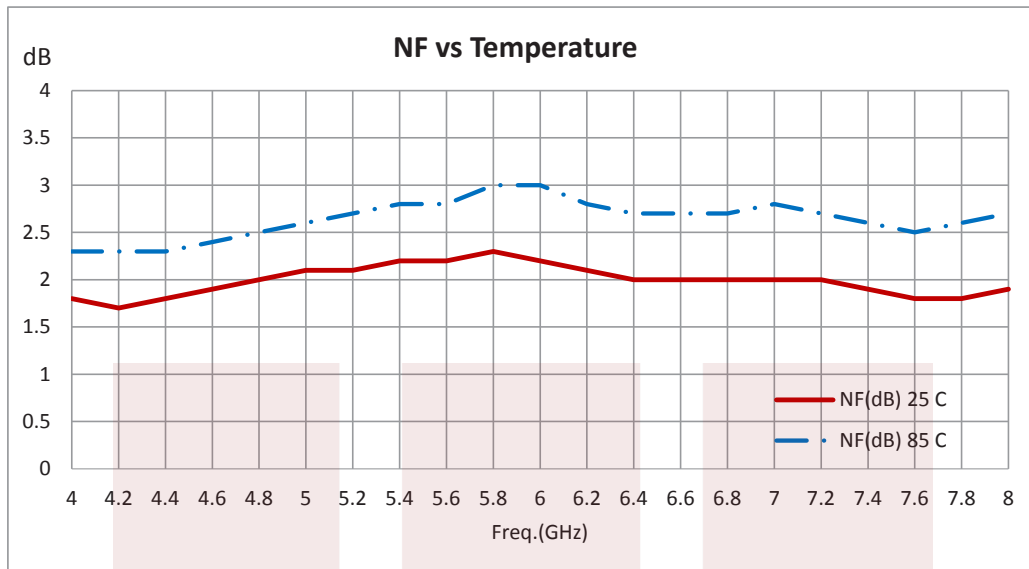
## Plotted and Other Data

Notes:

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

## Power Data



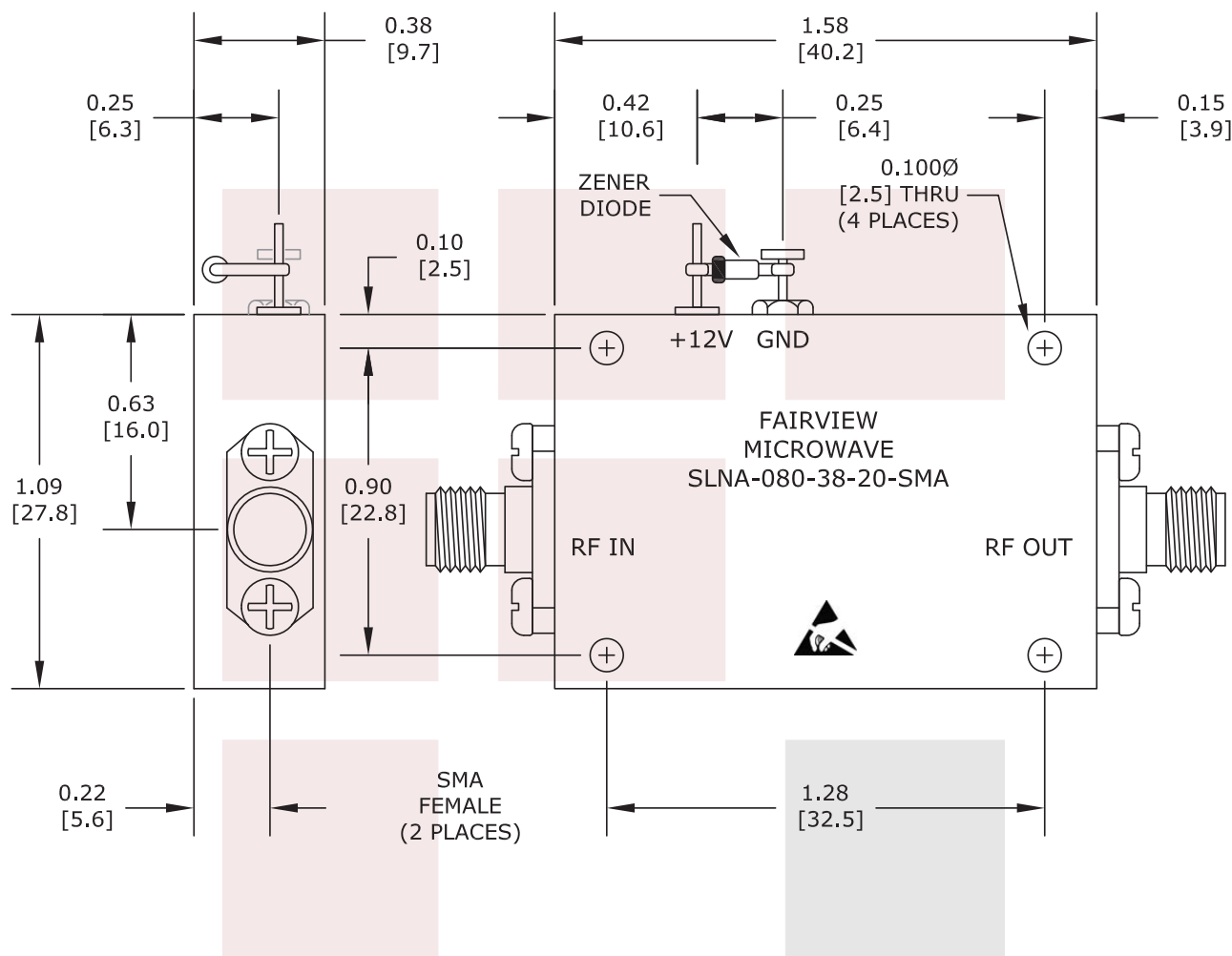


2 dB NF Low Noise Amplifier Operating From 4 GHz to 8 GHz with 38 dB Gain, 13 dBm Psat and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2 dB NF Low Noise Amplifier Operating From 4 GHz to 8 GHz with 38 dB Gain, 13 dBm Psat and SMA SLNA-080-38-20-SMA](http://www.fairviewmicrowave.com/2db-nf-low-noise-amplifier-38db-slina-080-38-20-sma-p.aspx)

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NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

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DWG NO  
SLNA-080-38-20-SMA

CAGE CODE  
3FKR5

CAD FILE 050914

SHEET

SCALE N/A

SIZE A

2233