

**60 dB Gain Limiting Amplifier Operating From 1 GHz to 2 GHz with -40 to 10 dBm Pin, 19 dBm Psat and SMA**

The SLA-020-60-25-SMA is a 1 to 2 GHz high gain limiting coaxial amplifier. The model operates with an input power range of -40 to +10 dBm and maintains a limited output of +19 dBm minimum. This amplifier offers a flat high 60 dB gain and a gain flatness of ±2.5 dB independent of the input. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices, and supplied the power typically from a +12V DC power supply. The connectorized SMA module includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The module is hermetically sealed for extreme environmental conditions.

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

Description	Min	Typ	Max	Unit
Frequency Range	1		2	GHz
Small Signal Gain	60			dB
Gain Flatness		±2.5		dB
Input Power	-40		+10	dBm
Psat	+19			dBm
Psat Flatness			±1	dB
Noise Figure			2.5	dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	11	12	13	Volts
Operating DC Current			250	mA
Operating Temperature Range	-30		+70	°C

**Absolute Maximum Rating**

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +70	°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 SMA Female  
 Connector 2 SMA Female

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



**Features:**

- 1 GHz to 2 GHz Frequency Range
- Wide Input Dynamic Range: -40 to +10 dBm
- Psat: 19dBm Min.
- High Small Signal Gain: 60 dB Min.
- Gain Flatness: ±2.5 dB max
- Noise Figure: 2.5 dB maximum
- VSWR (In/Out): 2: 1
- 50 Ohm Input and Output Matched
- -30 to 70°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

**Applications:**

- 1 GHz to 2 GHz Frequency Range
- Wide Input Dynamic Range: -40 to +10 dBm
- Psat: 19dBm Min.
- High Small Signal Gain: 60 dB Min.
- Gain Flatness: ±2.5 dB max
- Noise Figure: 2.5 dB maximum
- VSWR (In/Out): 2: 1
- 50 Ohm Input and Output Matched
- -30 to 70°C Operating Temperature
- Unconditionally Stable
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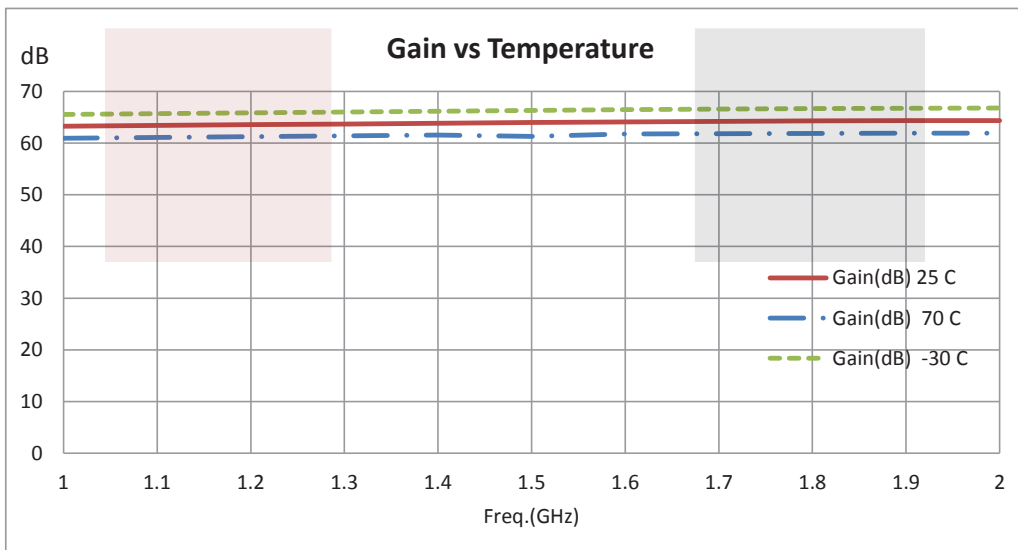
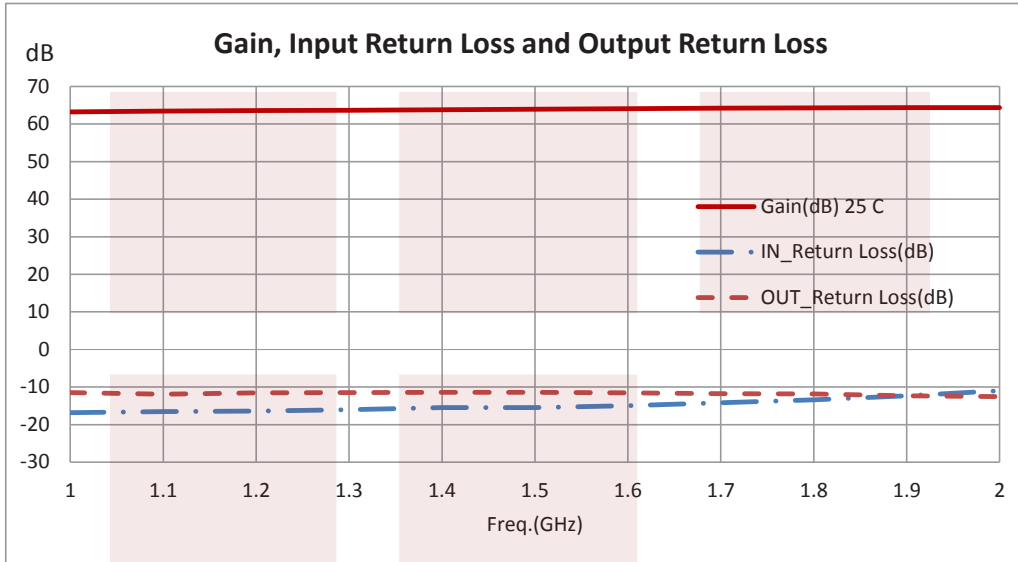
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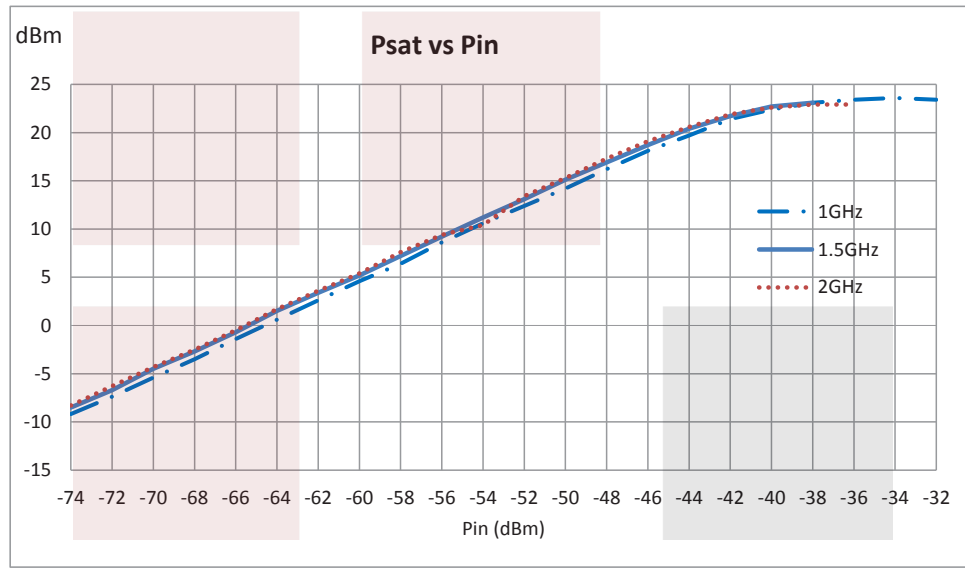
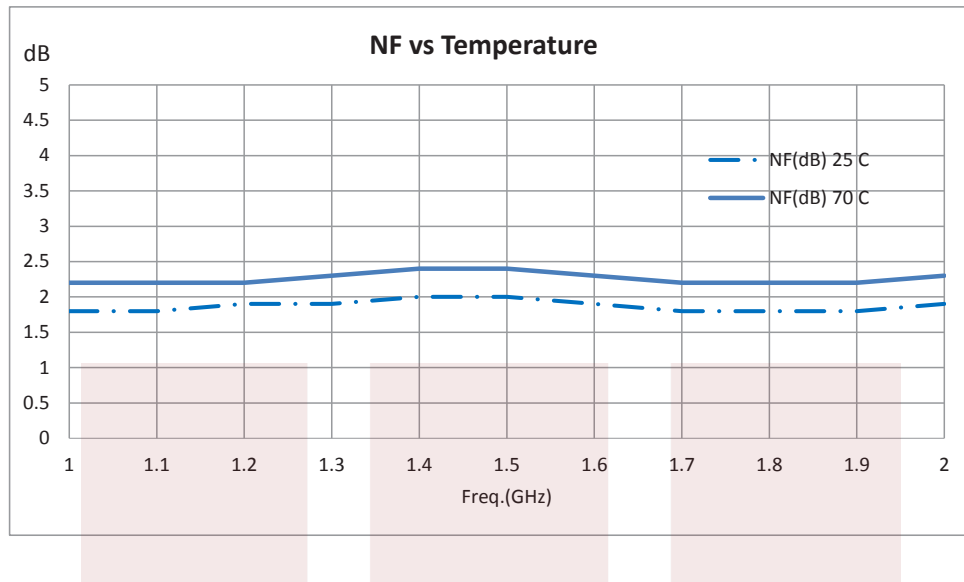
**Plotted and Other Data**

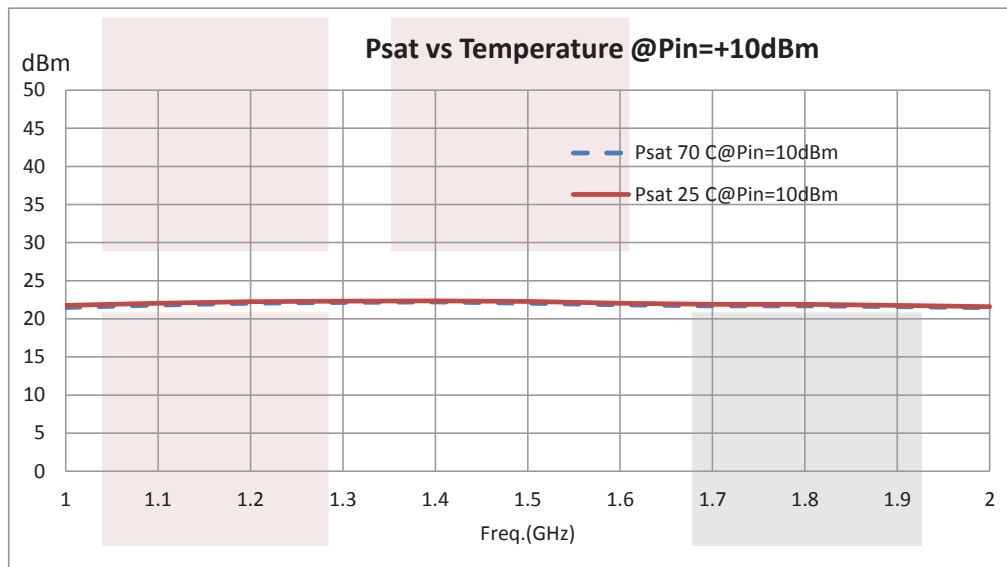
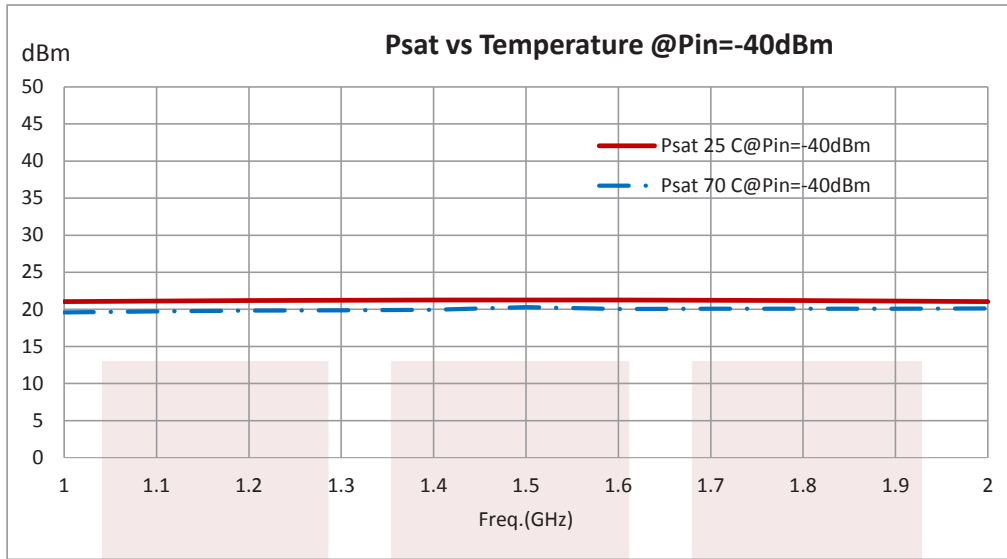
Notes:

- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

**Typical Performance Data**





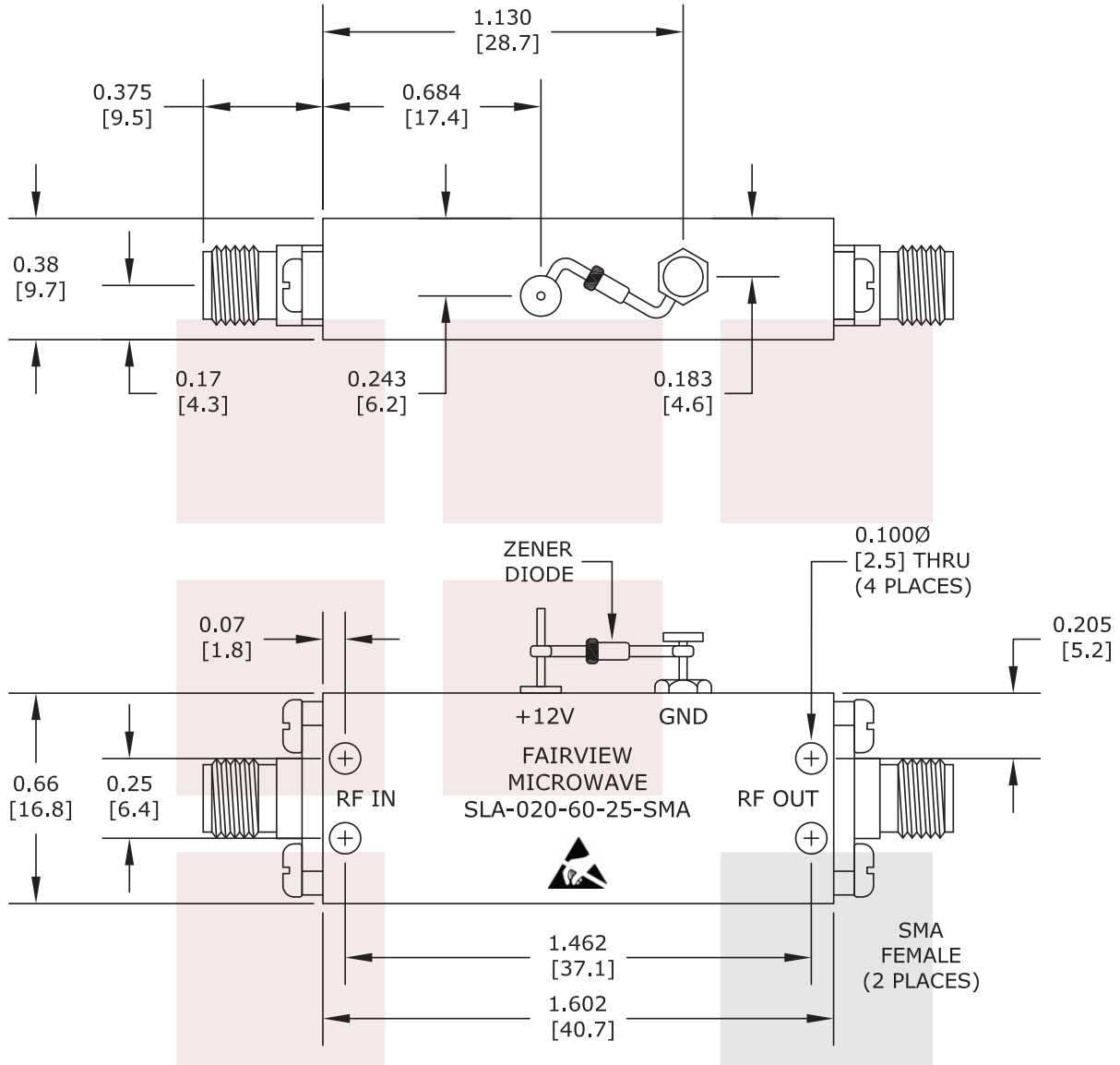


60 dB Gain Limiting Amplifier Operating From 1 GHz to 2 GHz with -40 to 10 dBm Pin, 19 dBm Psat and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [60 dB Gain Limiting Amplifier Operating From 1 GHz to 2 GHz with -40 to 10 dBm Pin, 19 dBm Psat and SMA SLA-020-60-25-SMA](#)

URL: <http://www.fairviewmicrowave.com/60-db-gain-limiting-amplifier-1-2-ghz-sla-020-60-25-sma-p.asp>

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**NOTE:**  
 HEAT SINK REQUIRED FOR PROPER OPERATION,  
 UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

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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].

**TITLE**  
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 to 2 GHz with -40 to 10 dBm Pin, 19 dBm Psat and  
 SMA

<b>DWG NO</b> SLA-020-60-25-SMA	<b>CAGE CODE</b> 3FKR5			
<b>CAD FILE</b> 050914	<b>SHEET</b>	<b>SCALE</b> N/A	<b>SIZE</b> A	2233