

40 dB Gain Limiting Amplifier Operating From 6 GHz to 18 GHz with -20 to 20 dBm Pin, 19 dBm Psat and SMA

The SLA-180-40-40-SMA is a 6 to 18 GHz wideband limiting coaxial amplifier. The model operates with an input power range of -20 to +20 dBm and maintains a limited output of +19 dBm minimum. This connectorized amplifier offers a flat 40 dB gain and a gain flatness of ± 2.0 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 = 300mA)

Description	Min	Typ	Max	Unit
Frequency Range	6		18	GHz
Small Signal Gain	40			dB
Gain Flatness		± 2		dB
Input Power	-20		+20	dBm
Psat	+19			dBm
Psat Flatness			± 1	dB
Noise Figure			4	dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	11	12	13	Volts
Operating DC Current			300	mA
Operating Temperature Range	-30		+70	°C

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+16	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
Connector 2

SMA Female
SMA Female

Compliance Certifications (visit www.FairviewMicrowave.com for current



Features:

- 6 GHz to 18 GHz Frequency Range
- Wide Input Dynamic Range: -20 to +20 dBm
- Psat: 19dBm Min.
- High Small Signal Gain: 40 dB Min.
- Gain Flatness: ± 2 dB max
- Noise Figure: 4 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:

- 6 GHz to 18 GHz Frequency Range
- Wide Input Dynamic Range: -20 to +20 dBm
- Psat: 19dBm Min.
- High Small Signal Gain: 40 dB Min.
- Gain Flatness: ± 2 dB max
- Noise Figure: 4 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

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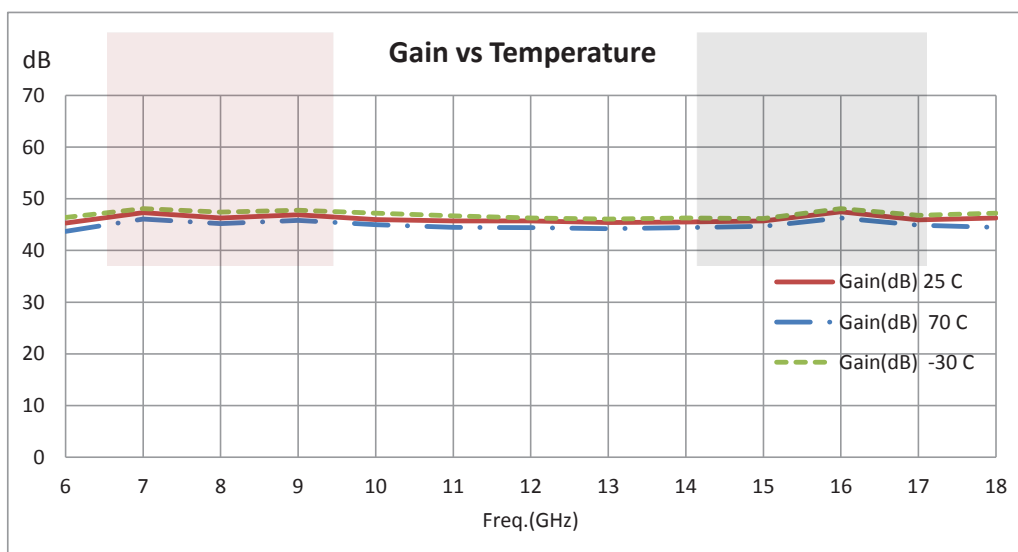
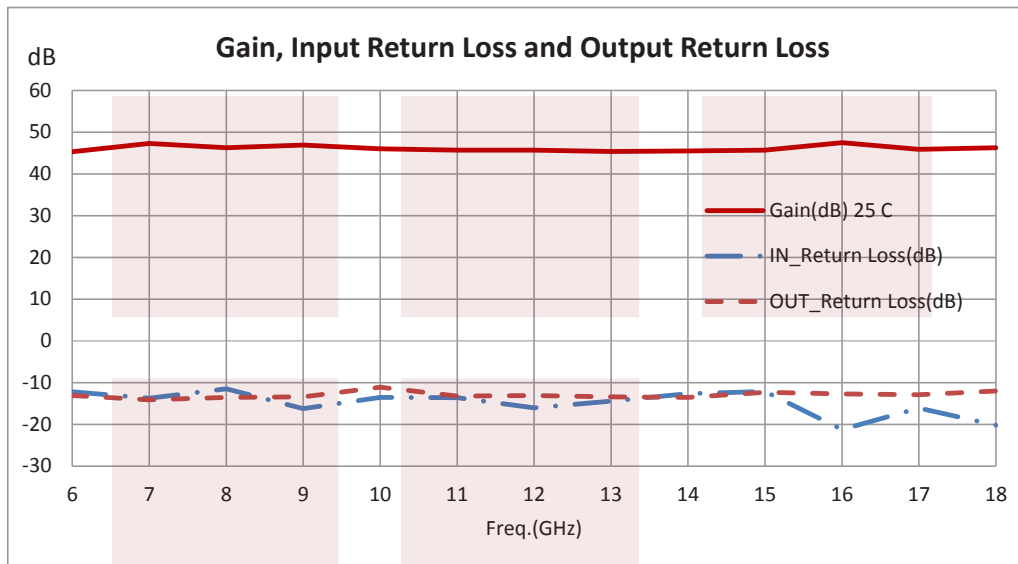
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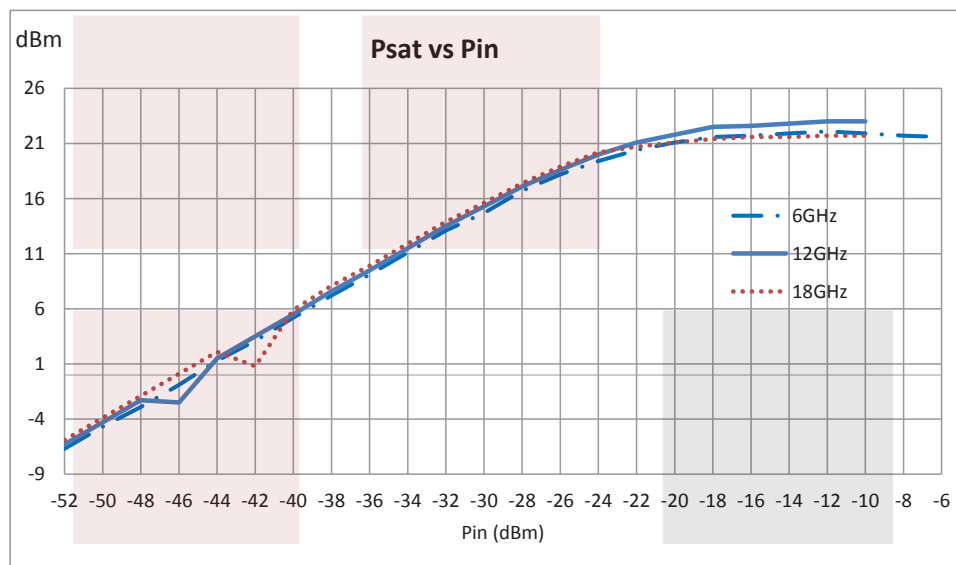
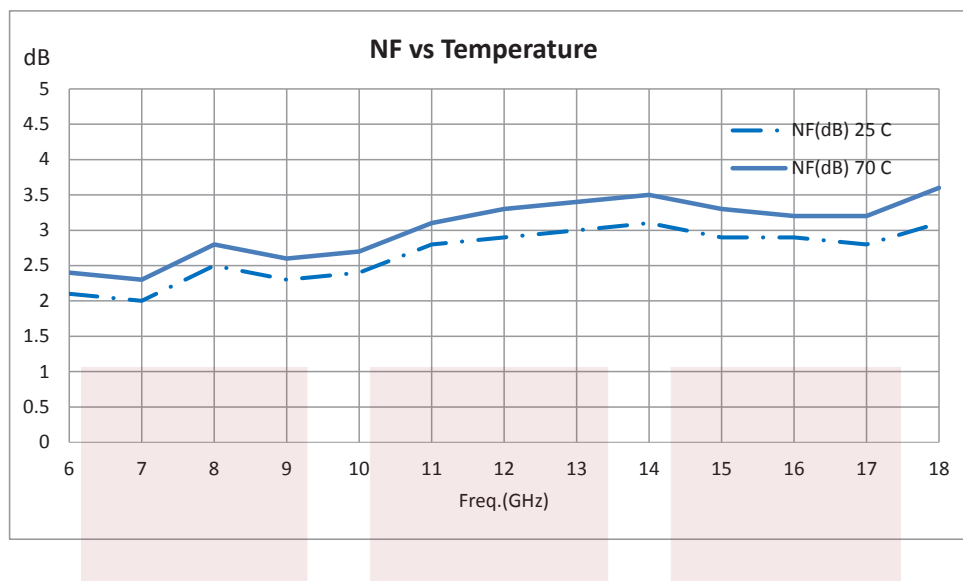
Plotted and Other Data

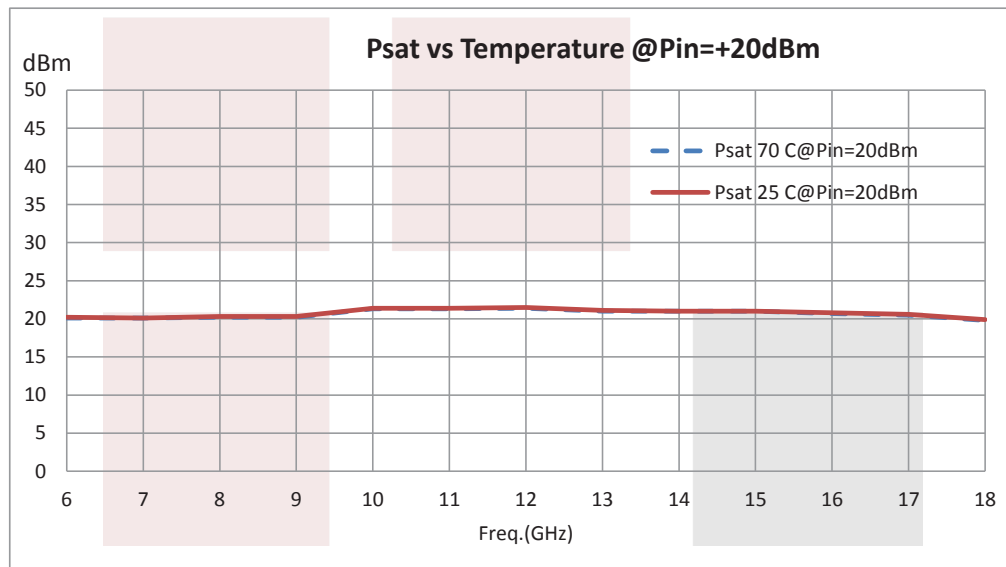
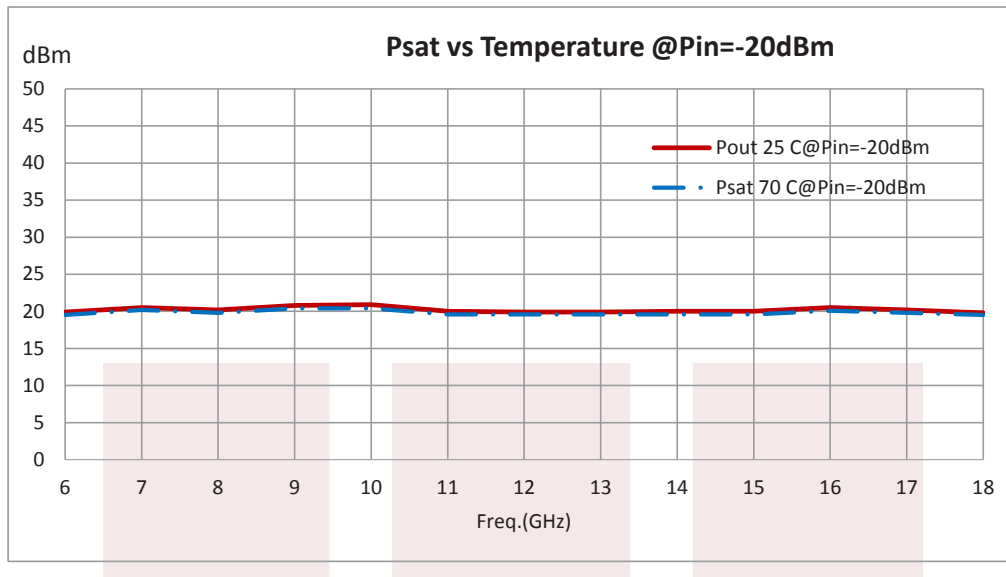
Notes:

- 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





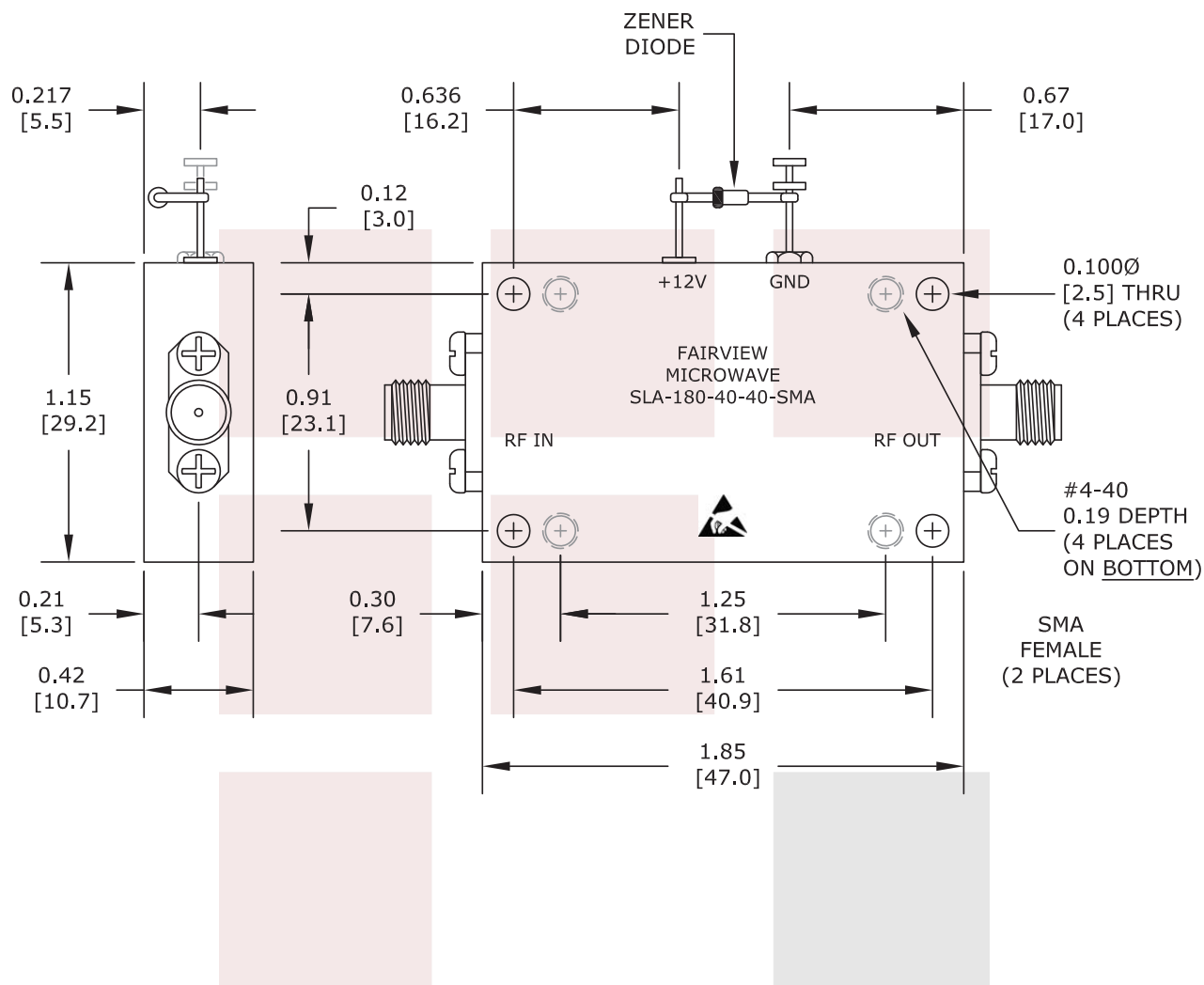


40 dB Gain Limiting Amplifier Operating From 6 GHz to 18 GHz with -20 to 20 dBm Pin, 19 dBm Psat and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [40 dB Gain Limiting Amplifier Operating From 6 GHz to 18 GHz with -20 to 20 dBm Pin, 19 dBm Psat and SMA SLA-180-40-40-SMA](http://www.fairviewmicrowave.com/40-db-gain-limiting-amplifier-6-18-ghz-sla-180-40-40-sma-p.aspx)

URL: <http://www.fairviewmicrowave.com/40-db-gain-limiting-amplifier-6-18-ghz-sla-180-40-40-sma-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



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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SMA

DWG NO SLA-180-40-40-SMA		CAGE CODE 3FKR5		
CAD FILE 050914	SHEET	SCALE N/A	SIZE A	2233