

45 dB Gain High Power High Gain Amplifier at 10 Watt Psat Operating From 3.1 GHz to 3.5 GHz with SMA

SPA-035-43-10-SMA is a 10W S-band high gain, high power coaxial amplifier operating in the 3.1 to 3.5 GHz frequency range. The amplifier offers 40 dBm of saturated output power and high 45 dB typical small signal gain with the gain flatness of ± 1.5 dB. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The high power 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 -10°C and +60°C.

Electrical Specifications (TA = +25°C , DC Voltage = 15Volts , DC Current = 5,000mA)

Description	Min	Typ	Max	Unit
Frequency Range	3.1		3.5	GHz
Small Signal Gain	43	45		dB
Gain Flatness			± 1.5	dB
Psat	+40			dBm
Noise Figure		4		dB
Input VSWR		1.7:1	2:1	
Output VSWR		1.7:1	2:1	
Operating DC Voltage	12		15	Volts
Operating DC Current			5,000	mA
Operating Temperature Range	-10		+60	°C

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-10 to +60	°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



Features:

- 3.1 GHz to 3.5 GHz Frequency Range
- Saturated Output Power: 40 dBm min
- Small Signal Gain: 45 dB typical
- Gain Flatness: ± 1.5 dB max
- Noise Figure: 4 dB
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications:

- S-band Military Radar
- Commercial Air Traffic Control
- Radar & Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

Fairview Microwave
1130 Junction Dr. #100
Allen, TX 75013
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

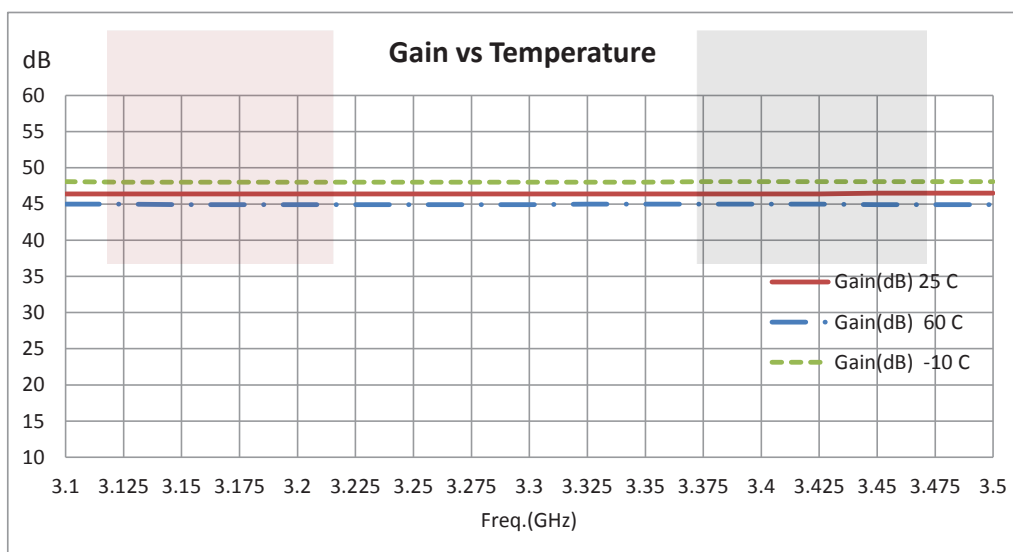
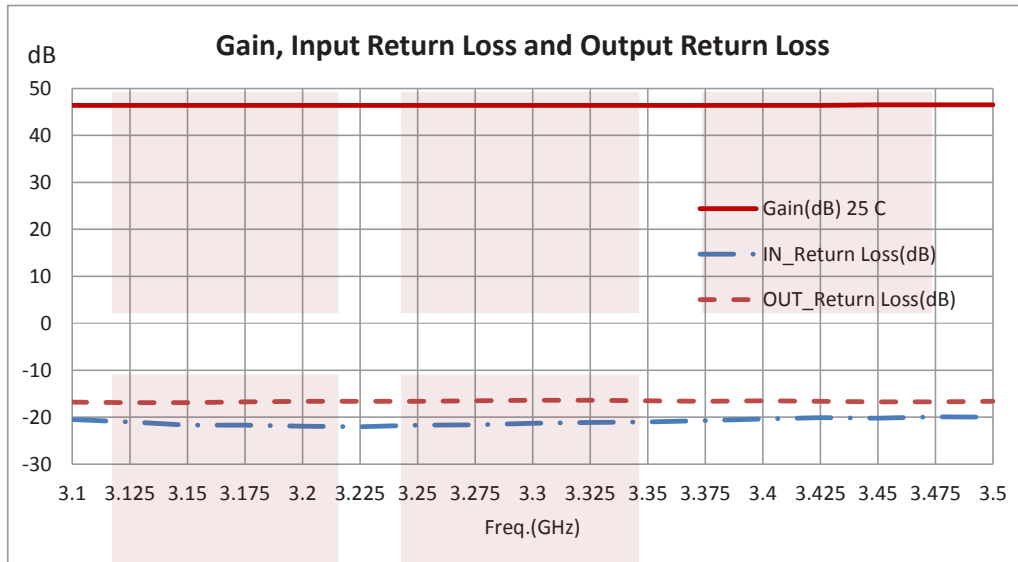
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

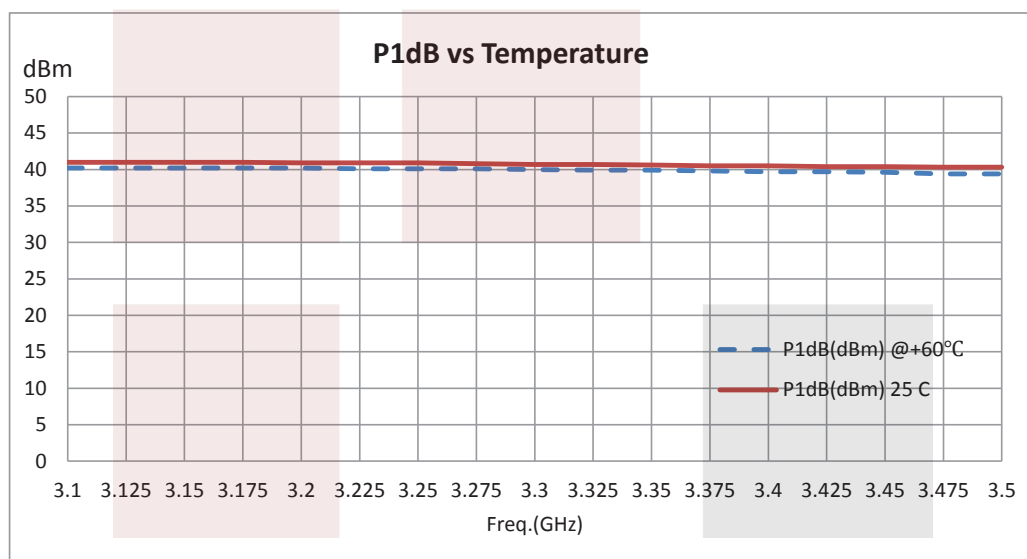
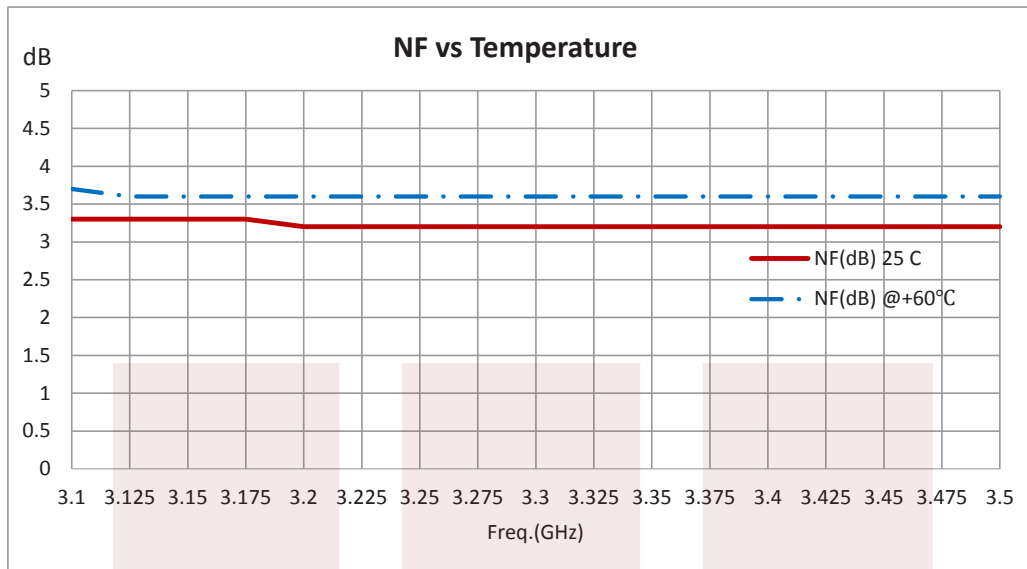
Plotted and Other Data

Notes:

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

Power Data



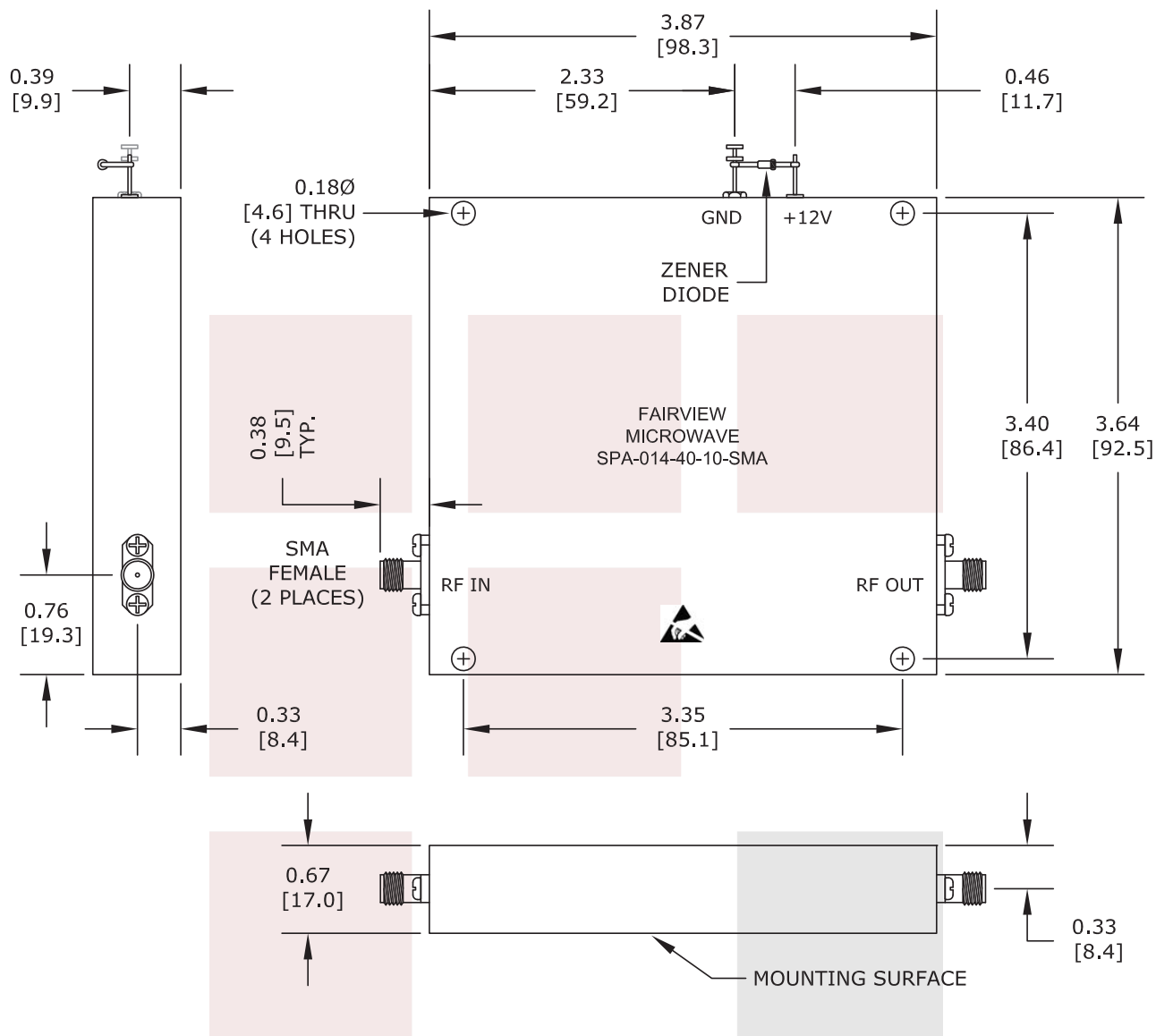


45 dB Gain High Power High Gain Amplifier at 10 Watt Psat Operating From 3.1 GHz to 3.5 GHz with SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [45 dB Gain High Power High Gain Amplifier at 10 Watt Psat Operating From 3.1 GHz to 3.5 GHz with SMA SPA-035-43-10-SMA](http://www.fairviewmicrowave.com/45db-high-power-high-gain-amplifier-10watt-spa-035-43-10-sma-p.aspx)

URL: <http://www.fairviewmicrowave.com/45db-high-power-high-gain-amplifier-10watt-spa-035-43-10-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.

FAIRVIEW MICROWAVE INC.
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

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
45 dB Gain High Power High Gain Amplifier at 10 Watt
Psat Operating From 3.1 GHz to 3.5 GHz with SMA

DWG NO	SPA-035-43-10-SMA		CAGE CODE		3FKR5
CAD FILE	050914	SHEET	SCALE	N/A	SIZE A 2233