Fairview Microwave
RF COMPONENTS ON DEMAND. Done!

SPA-014-46-006-SMA DATA SHEET

46 dB Gain Medium Power High Gain Amplifier at 600 mW Operating From 1.2 GHz to 1.4 GHz with SMA

SPA-014-46-006-SMA is an L-band high gain driver coaxial amplifier operating in the 1.2 to 1.4 GHz frequency range. The amplifier offers 28 dBm min of saturated power and high 46 dB typical small signal gain with the excellent gain flatness of ±0.5dB maximum. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The driver 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 -30°C and +50°C.

Features:

- 1.2 GHz to 1.4 GHz Frequency Range
- Saturated Power: 28 dBm typical
- Small Signal Gain: 46 dB typical
- Gain Flatness: ±0.5 dB max
- Noise Figure: 2 dB
- 50 Ohm Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- TTL Logic
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications:

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation Satellites
- Radar & Communication Systems
- High Gain Driver Amplifier

Electrical Specifications (TA = +25°C , DC Voltage = 12Volts , DC Current = 400mA)

Description	Min	Typ	Max	Unit
Frequency Range	1.2		1.4	GHz
Small Signal Gain		46		dB
Gain Flatness			±0.5	dB
Psat		+28		dBm
Harmonics		-10		dBc
Noise Figure			2	dB
Input VSWR			2:1	
Output VSWR			2:1	
Switching Speed for On/Off Switch Gate			10	µsec
TTL Control		“1” = On; “0” = Off		
Operating DC Voltage		12	13	Volts
Operating DC Current		400		mA
Operating Temperature Range	-30		+50	°C

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +50	°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 for current document)

RoHS Compliant: Yes

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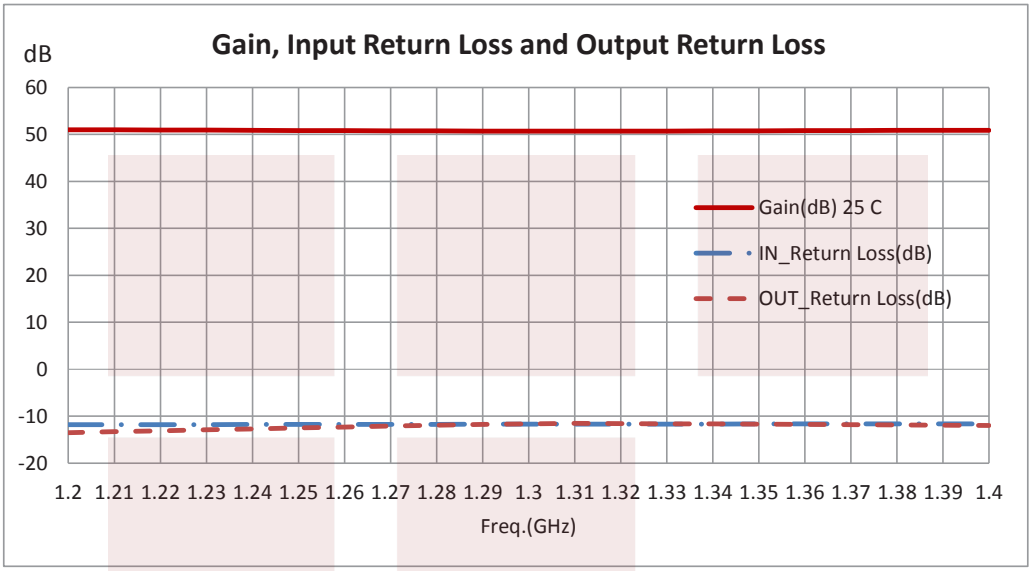
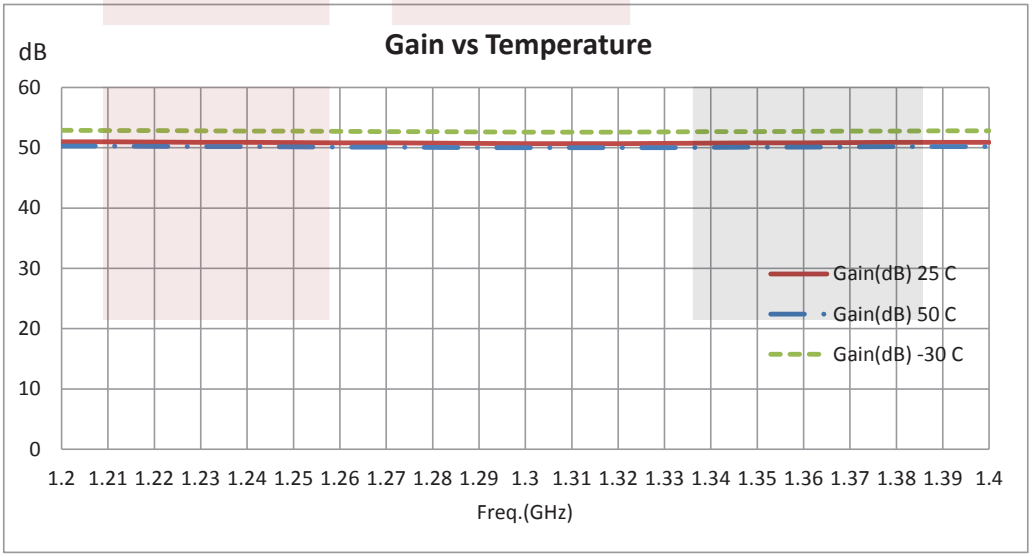
Plotted and Other Data

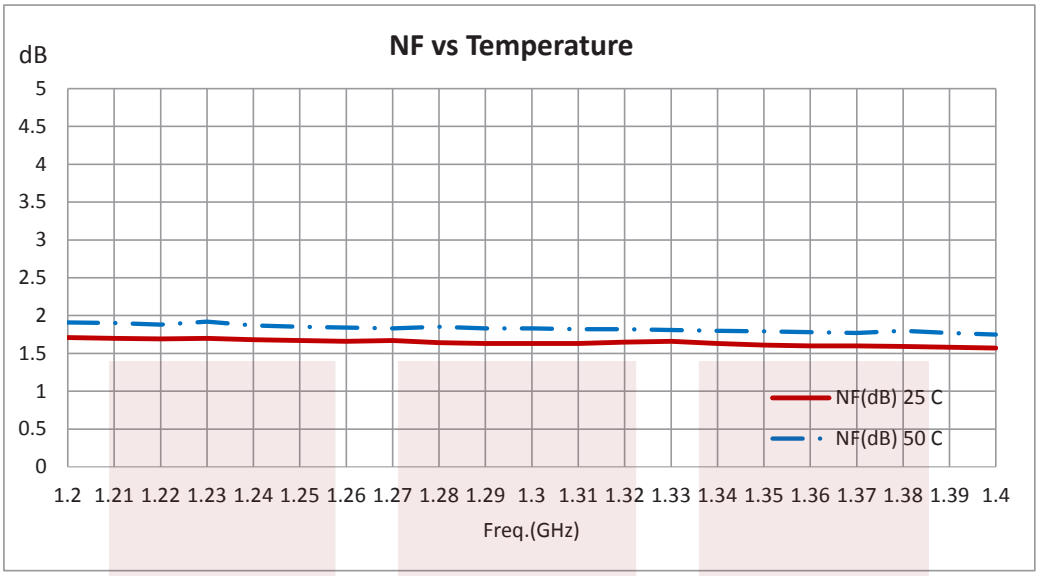
Notes:

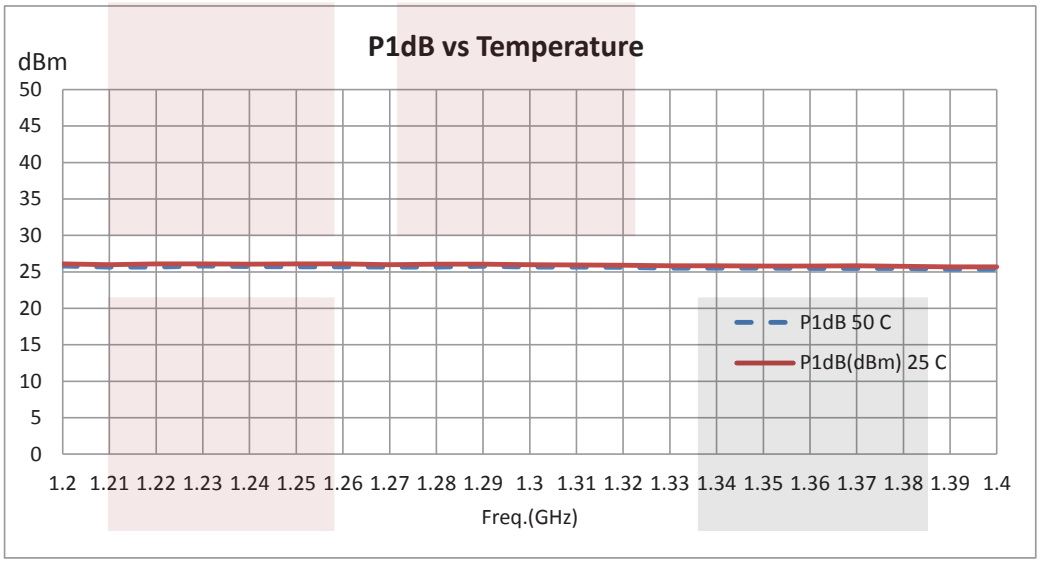
- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

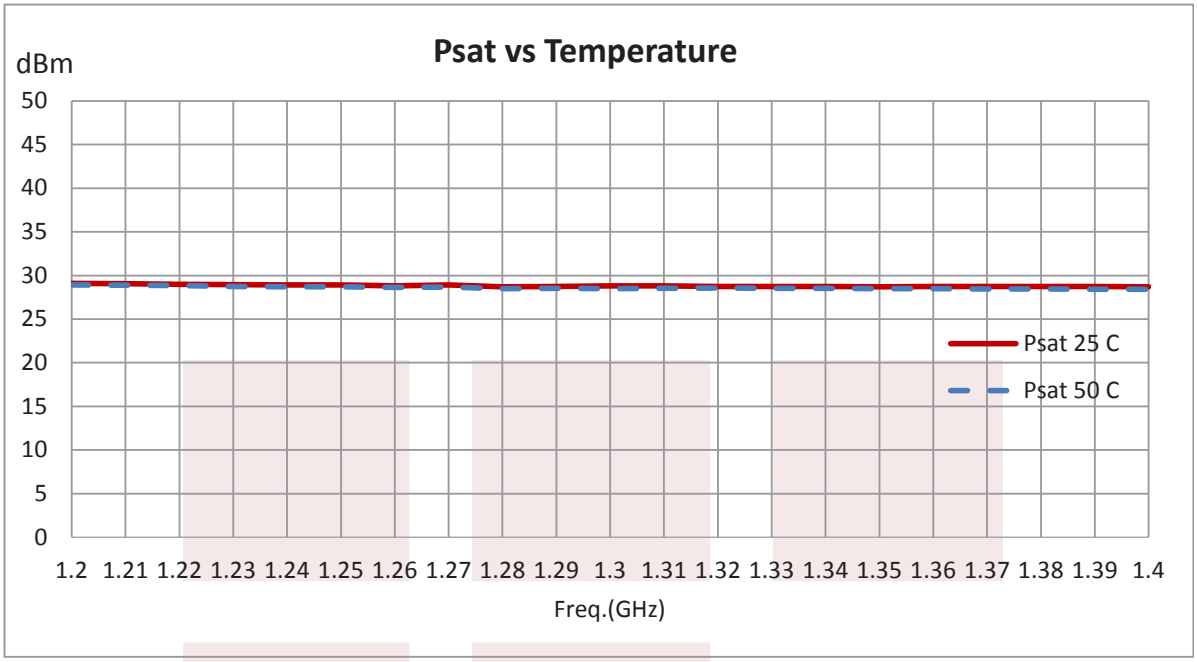
Power Data







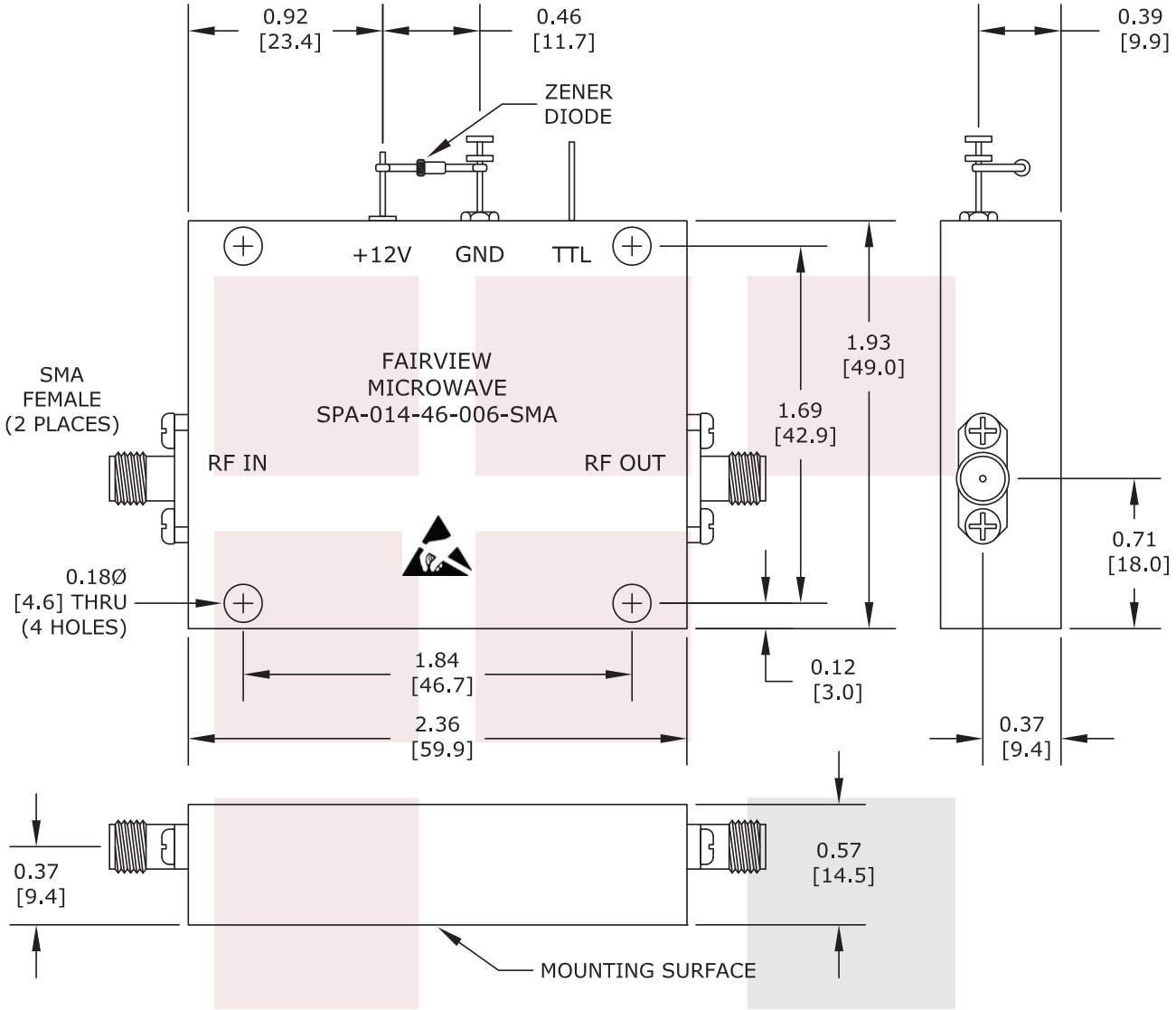




46 dB Gain Medium Power High Gain Amplifier at 600 mW Operating From 1.2 GHz to 1.4 GHz with SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: 46 dB Gain Medium Power High Gain Amplifier at 600 mW Operating From 1.2 GHz to 1.4 GHz with SMA SPA-014-46-006-SMA

URL: http://www.fairviewmicrowave.com/46db-medium-power-high-gain-amplifier-600mw-spa-014-46-006-sma-p.aspx



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 46 dB Gain Medium Power High Gain Amplifier at 600 mW Operating From 1.2 GHz to 1.4 GHz with SMA	DWG NO SPA-014-46-006-SMA CAGE CODE 3FKR5
	CAD FILE 050914 | SHEET | SCALE N/A | SIZE A | 2233

