

**500 MHz to 2 GHz, Medium Power Broadband Amplifier with 24 dBm, 46 dB Gain and SMA**

SPA-020-42-003-SMA is a 24 dBm power amplifier designed for operation in the 0.5 GHz to 2 GHz frequency range. The amplifier provides an IP3 of 34 dBm Typ and 42 dB of Gain Min over the operating frequency range. The amplifier requires only +12 VDC power supply.

**Electrical Specifications** (TA = +25°C, DC Voltage = 12Volts, DC Current = 300mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.5		2	GHz
Gain	42	46		dB
P1dB	+24			dBm
IP3		+34		dBm
Noise Figure		2.7		dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	11	12	15	Volts
Operating DC Current		300		mA
Operating Temperature Range (OTR)	-30		+70	°C

**Configuration**

- Connector 1 SMA Female
- Connector 2 SMA Female

**Environmental Specifications**

- Temperature**  
 Operating Range -30 to +70 deg C  
**Shock**  
 RTCA, DO-160C  
**Vibration**  
 RTCA, DO-160C  
**Temperature Cycle**  
 MIL-STD-883, METH-OD 1010

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



**Features:**

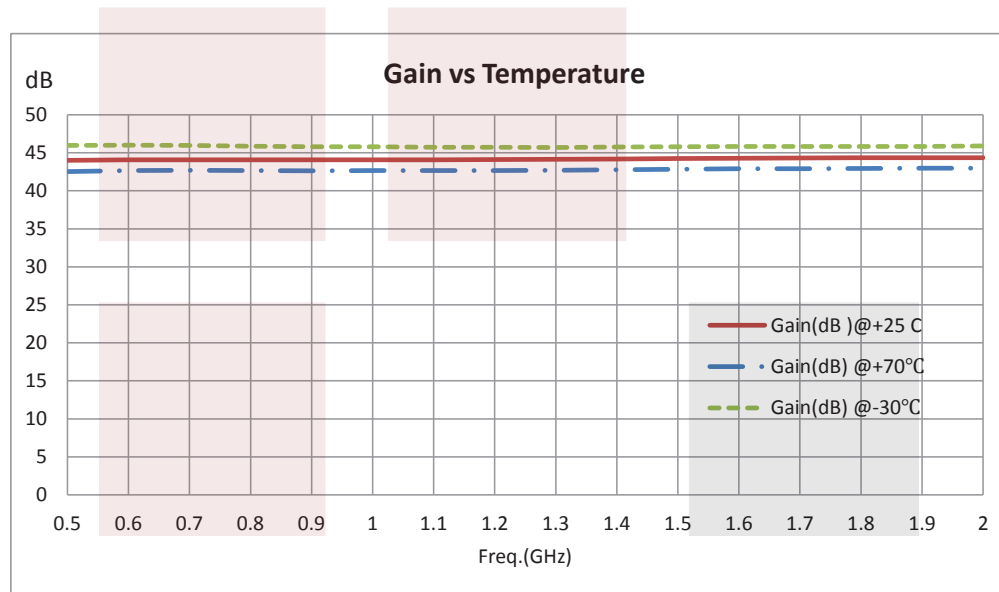
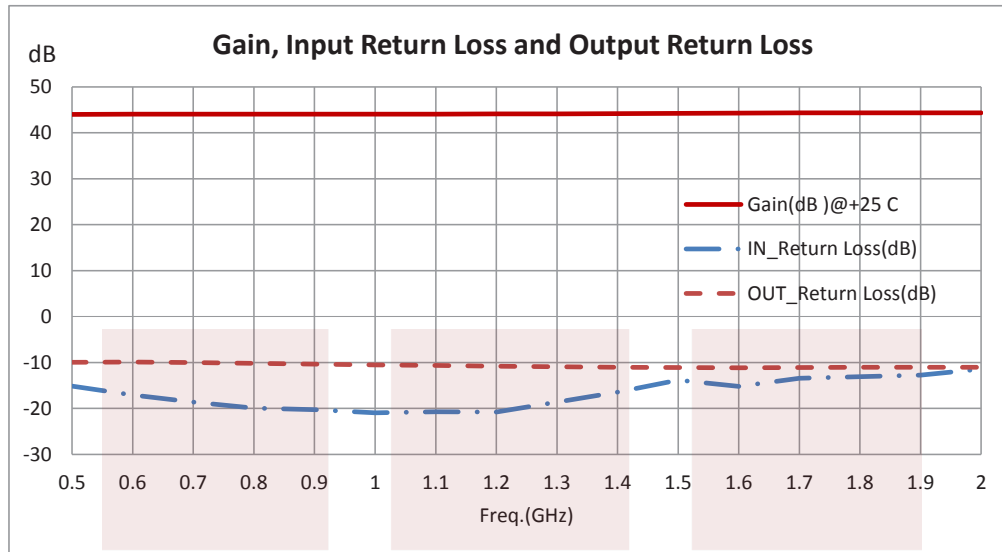
- 0.5 GHz to 2.0 GHz Frequency Range
- P1dB 24 dBm min.
- IP3 34 dBm typ.
- Gain 42 dB min.
- Gain Flatness +/-0.8 dB

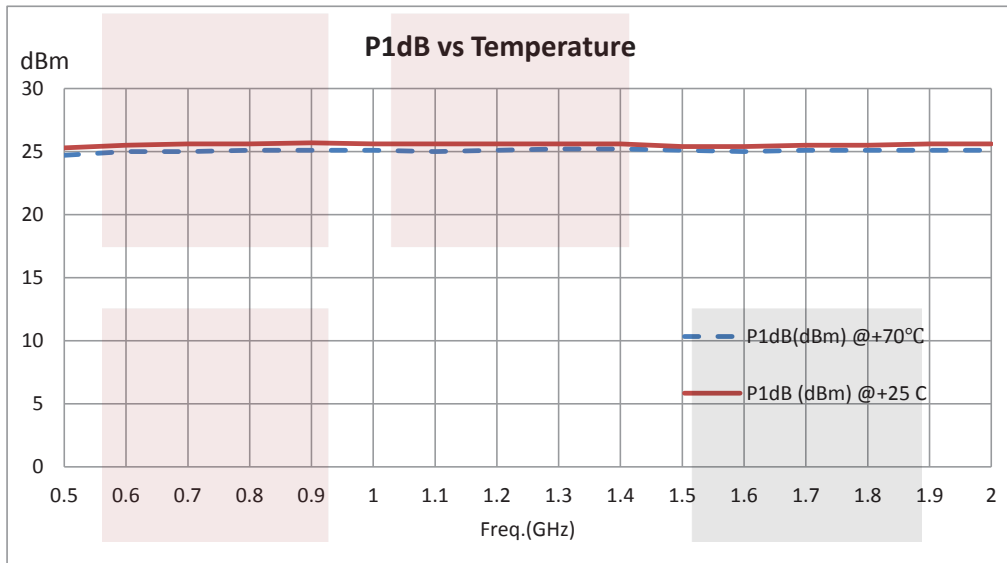
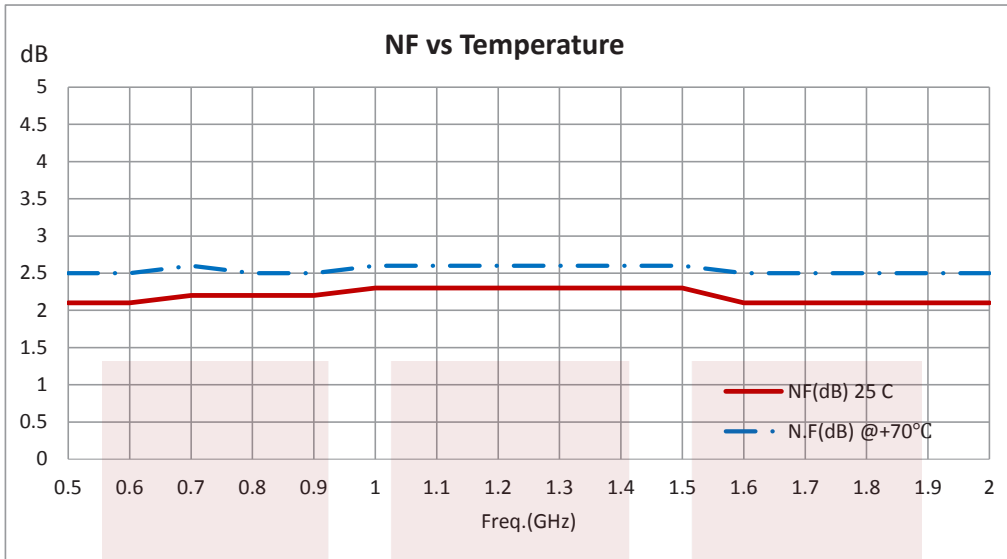
**Applications:**

- Medium Power Amplifier
- Driver Amp
- Military Communications
- Radar Driver Stage
- Test & Measurement

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**Typical Performance Data**





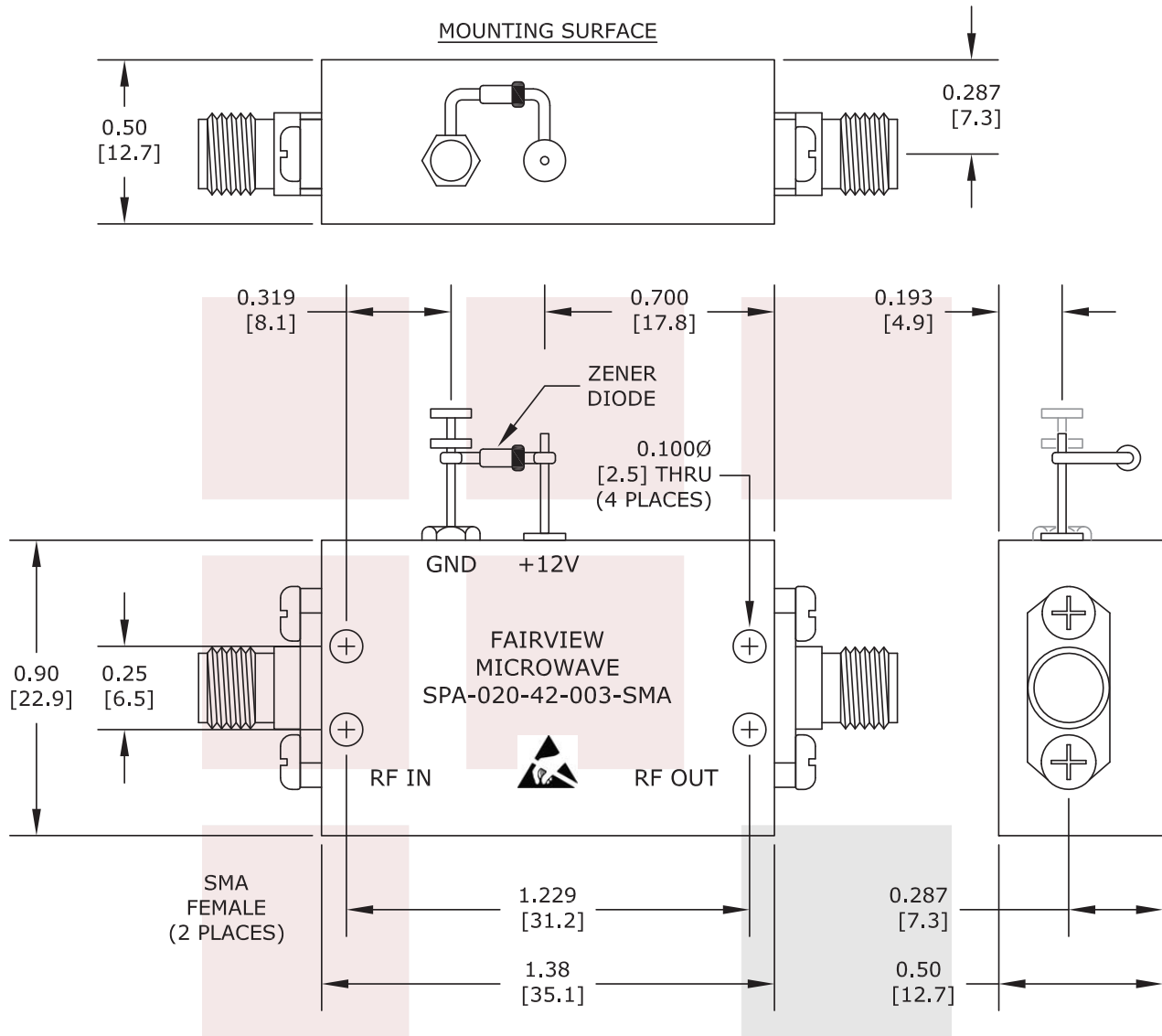
500 MHz to 2 GHz, Medium Power Broadband Amplifier with 24 dBm, 46 dB Gain and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [500 MHz to 2 GHz, Medium Power Broadband Amplifier with 24 dBm, 46 dB Gain and SMA SPA-020-42-003-SMA](#)

URL: <http://www.fairviewmicrowave.com/500-mhz-2-ghz-medium-power-broadband-amplifier-spa-020-42-003-sma-p.aspx>

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TITLE 500 MHz to 2 GHz, Medium Power Broadband Amplifier with 24 dBm, 46 dB Gain and SMA		DWG NO SPA-020-42-003-SMA		CAGE CODE 3FKR5	
CAD FILE	103014	SHEET	SCALE	N/A	SIZE A 2233