

## 18 GHz to 40 GHz, Medium Power Broadband Amplifier with 20 dBm, 30 dB Gain and 2.92mm

SPA-400-30-001-K is a broadband coaxial low noise amplifier, operating in the 18 to 40 GHz frequency range. The amplifier offers 20 dBm of P1dB min and 30 dB small signal gain typ, with the gain flatness of  $\pm 2.0$  dB typ performance. This low noise amplifier requires only a single positive DC supply, in unconditionally stable, operates over the temperature range of  $-40^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ , and is Hermetically sealed.

**Electrical Specifications** (TA =  $+25^{\circ}\text{C}$ , DC Voltage = 12Volts, DC Current = 350mA)

Description	Min	Typ	Max	Unit
Frequency Range	18		40	GHz
Gain		30		dB
Gain Flatness		$\pm 2$		dB
P1dB	+20			dBm
Noise Figure		4	6	dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage	8		12	Volts
Operating DC Current		350		mA
Operating Temperature Range (OTR)	-40		+50	$^{\circ}\text{C}$

## Mechanical Specifications

<b>Size</b>	
Length	1.2 in [30.48 mm]
Width	1.2 in [30.48 mm]
Height	0.6 in [15.24 mm]
Input Connector	2.92mm Female
Output Connector	2.92mm Female

## Environmental Specifications

<b>Temperature</b>	
Operating Range	$-40$ to $+50$ deg C

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

## Plotted and Other Data

Notes:

- Values at  $25^{\circ}\text{C}$ , 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:

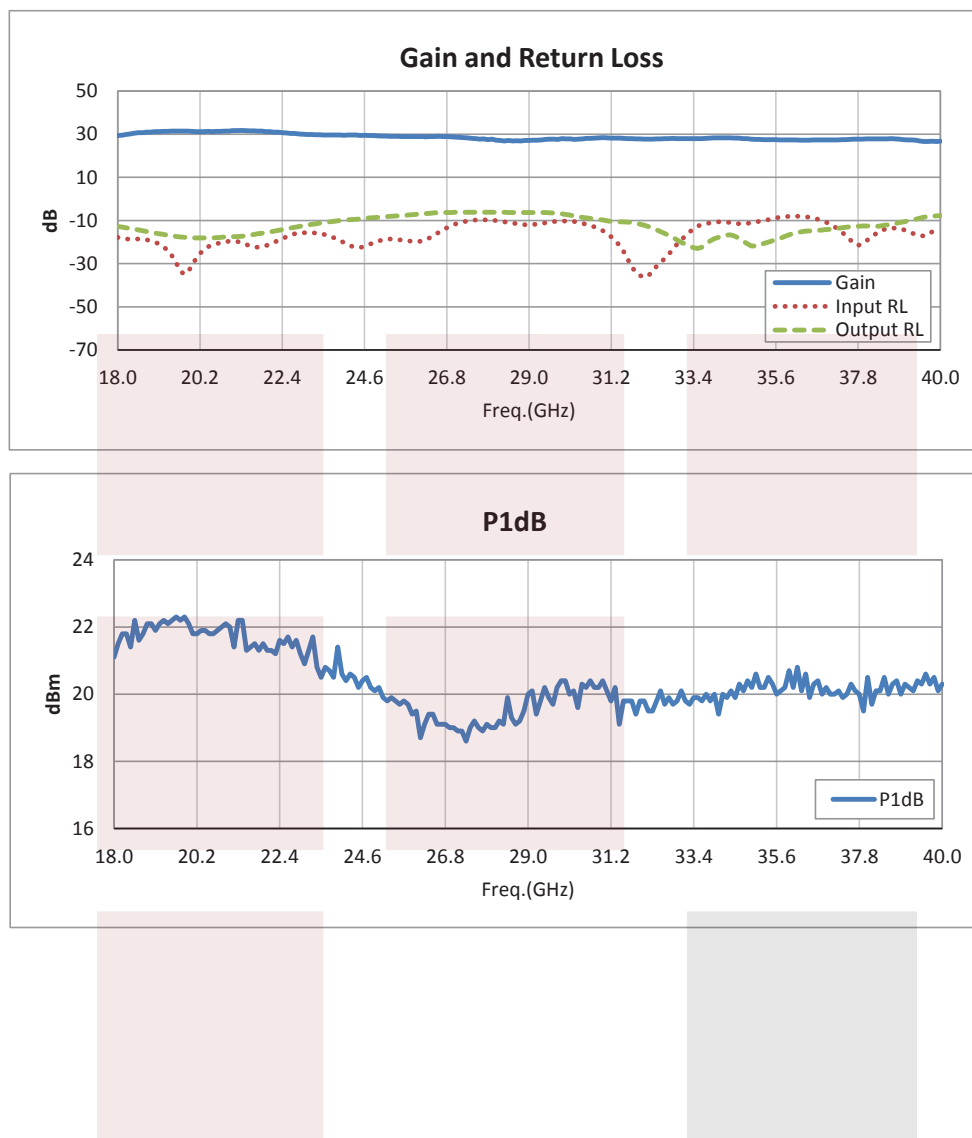
- 18 to 40 GHz Frequency Range
- P1dB: 20 dBm min
- Small Signal Gain: 30 dB typ
- Gain Flatness:  $\pm 2.0$  dB
- Noise Figure: 4 dB typ
- 50 Ohm Input and Output Matched
- $-40$  to  $+50^{\circ}\text{C}$  Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

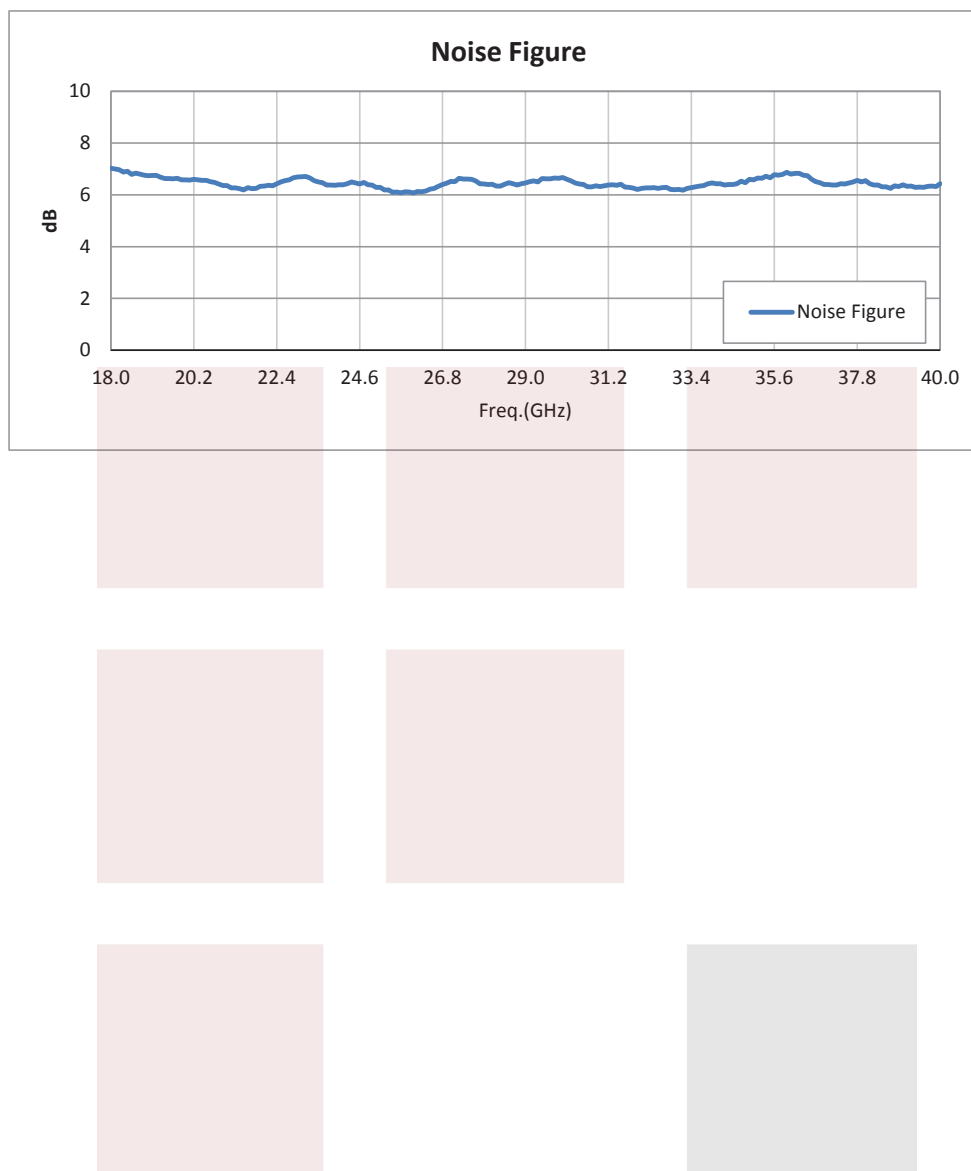
## Applications:

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Telecommunication

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

**Typical Performance Data**



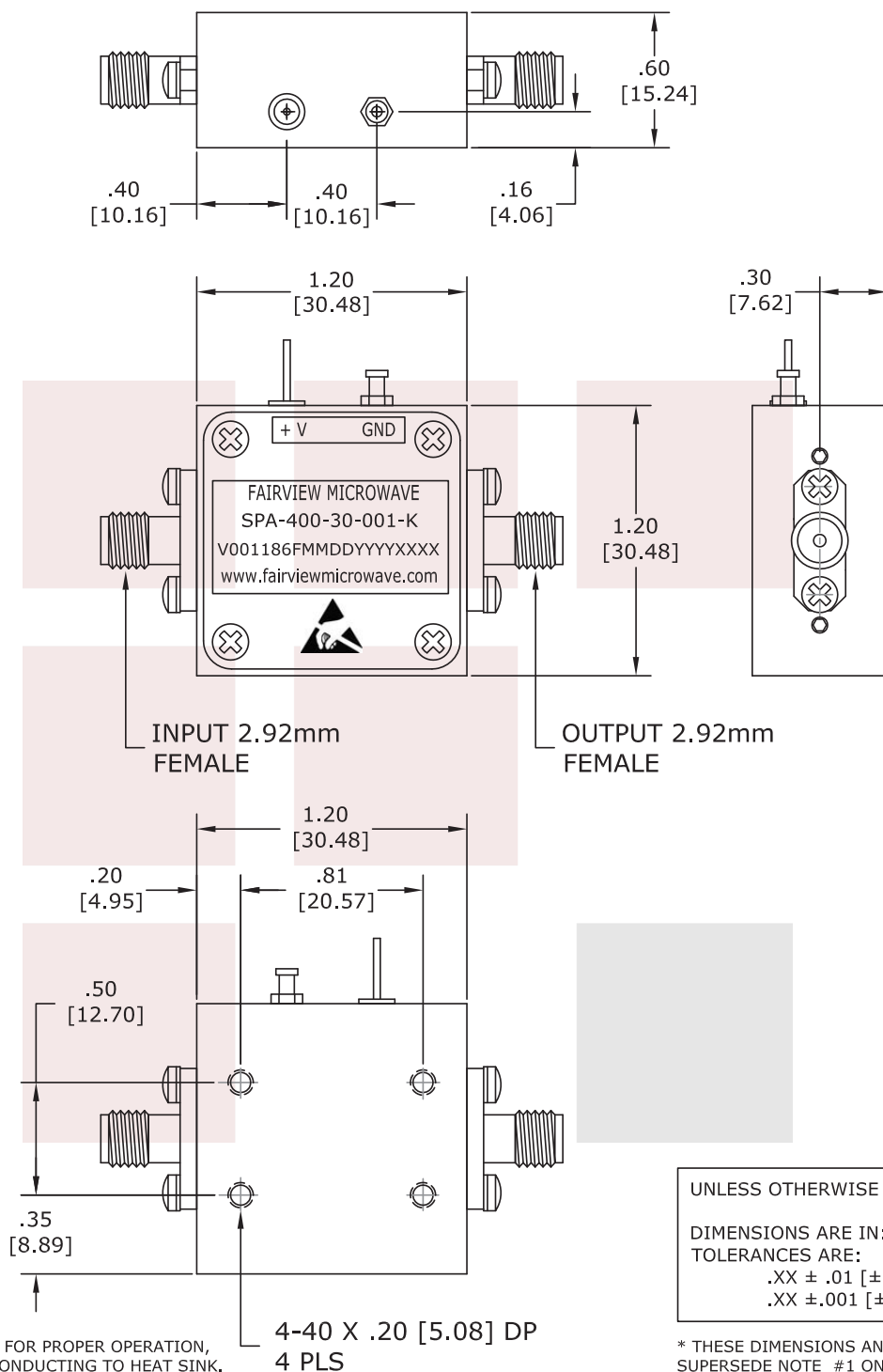


18 GHz to 40 GHz, Medium Power Broadband Amplifier with 20 dBm, 30 dB Gain and 2.92mm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [18 GHz to 40 GHz, Medium Power Broadband Amplifier with 20 dBm, 30 dB Gain and 2.92mm SPA-400-30-001-K](http://www.fairviewmicrowave.com/18-40-ghz-medium-power-broadband-amplifier-spa-400-30-001-k-p.aspx)

URL: <http://www.fairviewmicrowave.com/18-40-ghz-medium-power-broadband-amplifier-spa-400-30-001-k-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.



## FAIRVIEW MICROWAVE INC.

ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

TITLE  
18 GHz to 40 GHz, Medium Power Broadband  
Amplifier with 20 dBm, 30 dB Gain and 2.92mm

### 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].

DWG NO

SPA-400-30-001-K

CAGE CODE

3FKR5

CAD FILE

081815

SHEET

SCALE

N/A

SIZE

A

2233