

30 MHz to 40 GHz, Medium Power Broadband Amplifier with 20 dBm, 25 dB Gain and 2.92mm

SPA-400-25-001-K is an ultra wideband general purpose coaxial amplifier, operating from 30 MHz to 40 GHz. The amplifier covers nearly from DC to L, S, C, X, Ku, K, and Ka band. Exceptional typical performance includes 25 dB gain, 6 dB noise figure, and +20 dBm P1dB. This low noise amplifier requires only a single positive DC supply, is unconditionally stable, and operates over the temperature range of -40°C to 70°C.

Electrical Specifications (TA= 25°C, VDC = 10 Vdc)

Description	Min	Typ	Max	Unit
Frequency Range	0.03		40	GHz
Gain		25		dB
Gain Flatness		±2.5		dB
P1dB	+12	+20		dBm
Noise Figure (> 200 MHz)		6	11	dB
Input Return Loss		10		dB
Output Return Loss		10		dB
Operating DC Voltage	8	10	12	Vdc
Operating DC Current		400		mA
Operating Temperature Range (OTR)	-40		+70	°C

Mechanical Specifications

Size	
Length	2 in [50.8 mm]
Width	1.3 in [33.02 mm]
Height	0.6 in [15.24 mm]
Weight	0.115 lbs [52.16 g]
Input Connector	2.92mm Female
Output Connector	2.92mm Female

Environmental Specifications

Temperature	
Operating Range	-40 to +70 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:



Features:

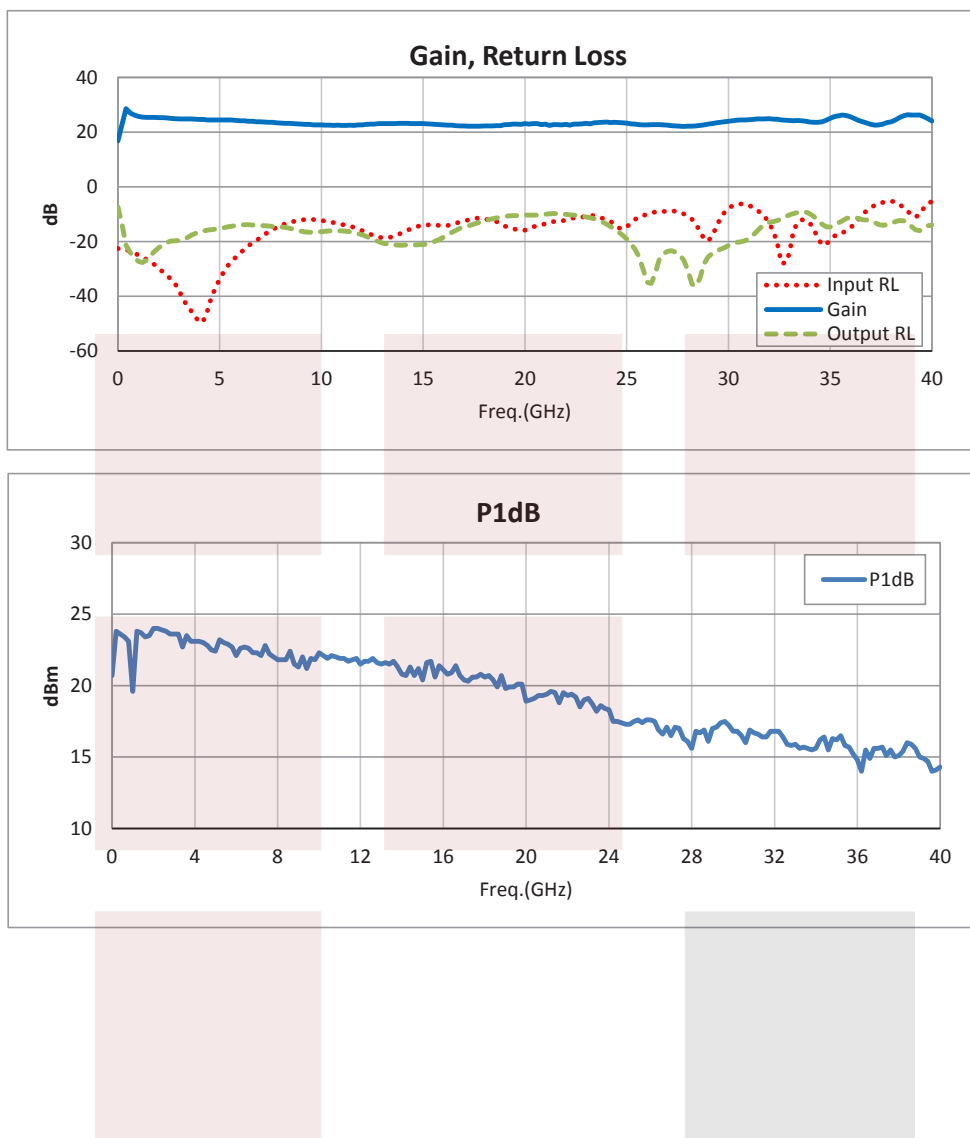
- .03 to 40 GHz Frequency Range
- P1dB: +20 dBm typ
- Small Signal Gain: 25 dB typ
- Noise Figure: 6 dB typ
- 50 Ohm Input and Output Matched
- -40 to +70°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator
- Female 2.92mm Connectors

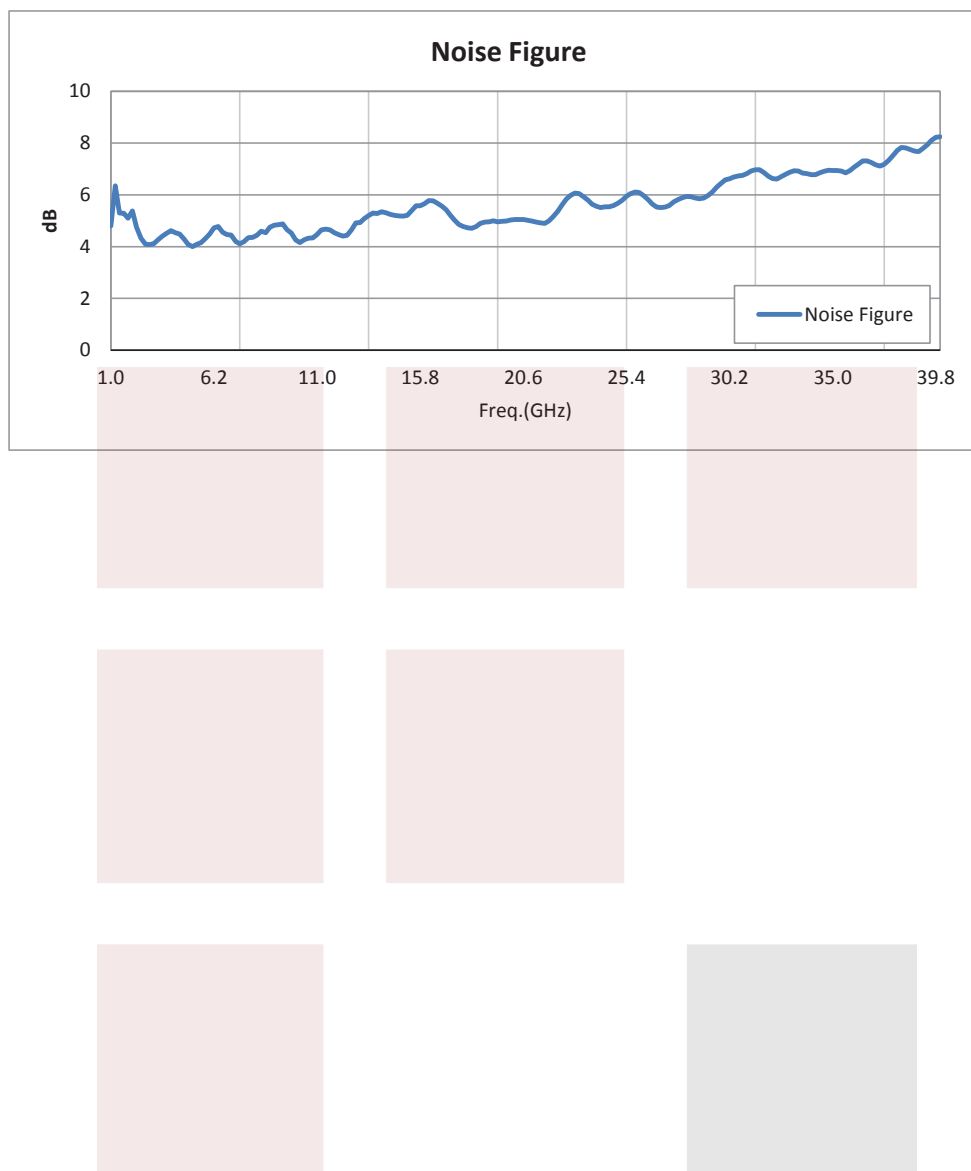
Applications:

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Unmanned Systems
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- RF Front Ends
- EW Systems
- Fiber Optics

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Typical Performance Data



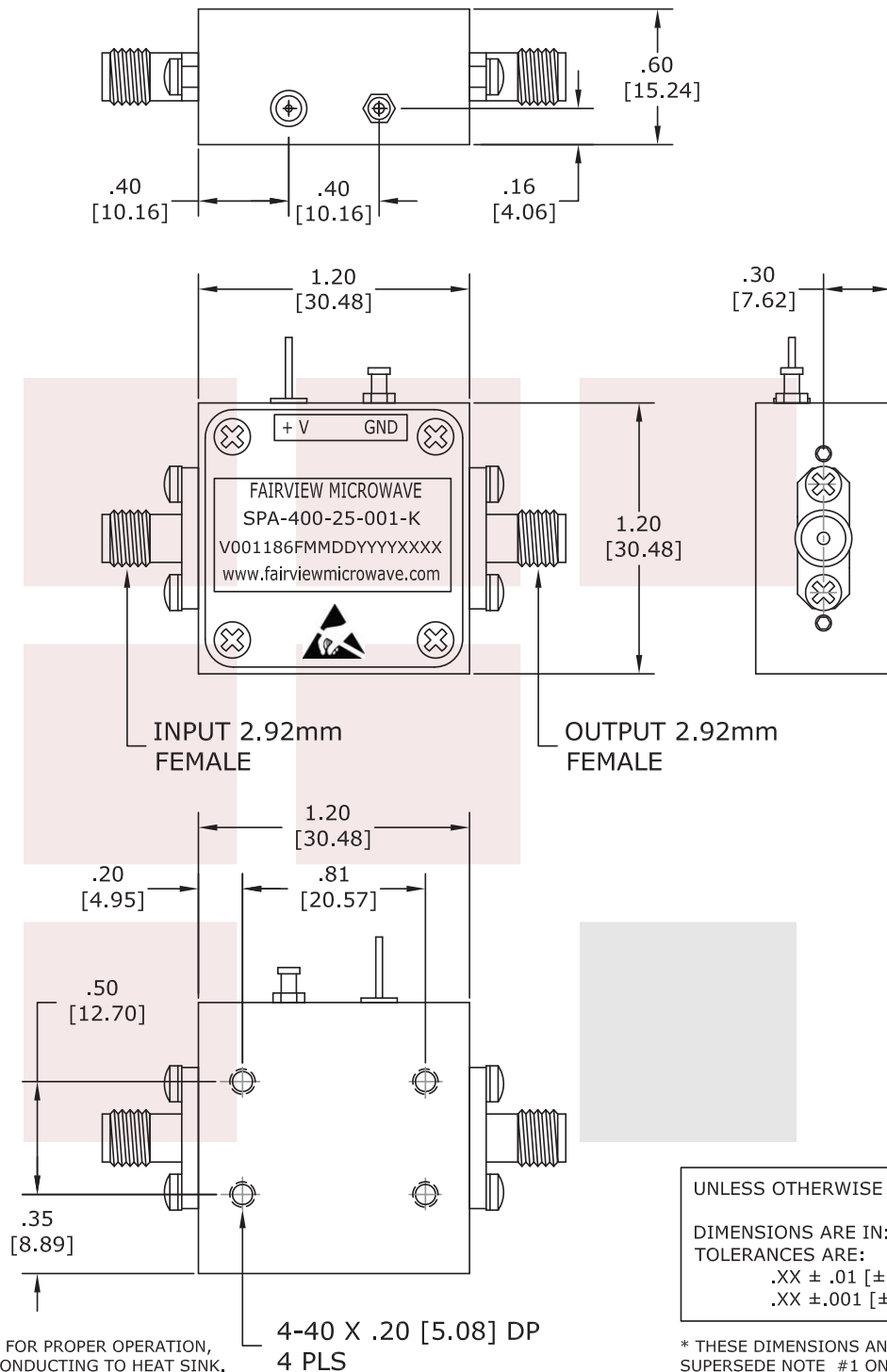


30 MHz to 40 GHz, Medium Power Broadband Amplifier with 20 dBm, 25 dB Gain and 2.92mm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [30 MHz to 40 GHz, Medium Power Broadband Amplifier with 20 dBm, 25 dB Gain and 2.92mm SPA-400-25-001-K](https://www.fairviewmicrowave.com/30-mhz-40-ghz-broadband-amplifier-spa-400-25-001-k-p.aspx)

URL: <https://www.fairviewmicrowave.com/30-mhz-40-ghz-broadband-amplifier-spa-400-25-001-k-p.aspx>

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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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Amplifier with 20 dBm, 25 dB Gain and 2.92mm

DWG NO	SPA-400-25-001-K	CAGE CODE	3FKR5
CAD FILE	091515	SHEET	SCALE N/A SIZE A 2233