

12.4 GHz to 26.5 GHz, Medium Power Broadband Amplifier with 24.5 dBm, 35 dB Gain and SMA

SPA-265-30-001-SMA is a Broadband General Purpose High Gain GaAs PHEMT MMIC-based coaxial Amplifier, operating in the 12.4 to 26.5 GHz frequency range, covering Ku & K band and beyond. The amplifier offers 3 dB typ Noise Figure, 24.5 dBm typ P1dB and 35 dB typ small signal gain, with gain flatness of ± 2.0 dB typ. This amplifier requires only a single positive DC supply, is unconditionally stable, operates over the temperature range of -40°C to 50°C . The package is compact size and lightweight and uses female SMA connectors.

Electrical Specifications (TA = $+25^{\circ}\text{C}$, DC Voltage = 12Volts, DC Current = 500mA)

Description	Min	Typ	Max	Unit
Frequency Range	12.4		26.5	GHz
Gain	30	35		dB
Gain Flatness		± 2		dB
P1dB	+20	+24.5		dBm
Noise Figure		3	4.5	dB
Input Return Loss		20		dB
Output Return Loss		18		dB
Operating DC Voltage	8		12	Volts
Operating DC Current		500		mA
Operating Temperature Range (OTR)	-40		+50	$^{\circ}\text{C}$

Mechanical Specifications

Size	
Length	1.2 in [30.48 mm]
Width	1.2 in [30.48 mm]
Height	0.6 in [15.24 mm]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature	
Operating Range	-40 to $+50$ deg C

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.



Features:

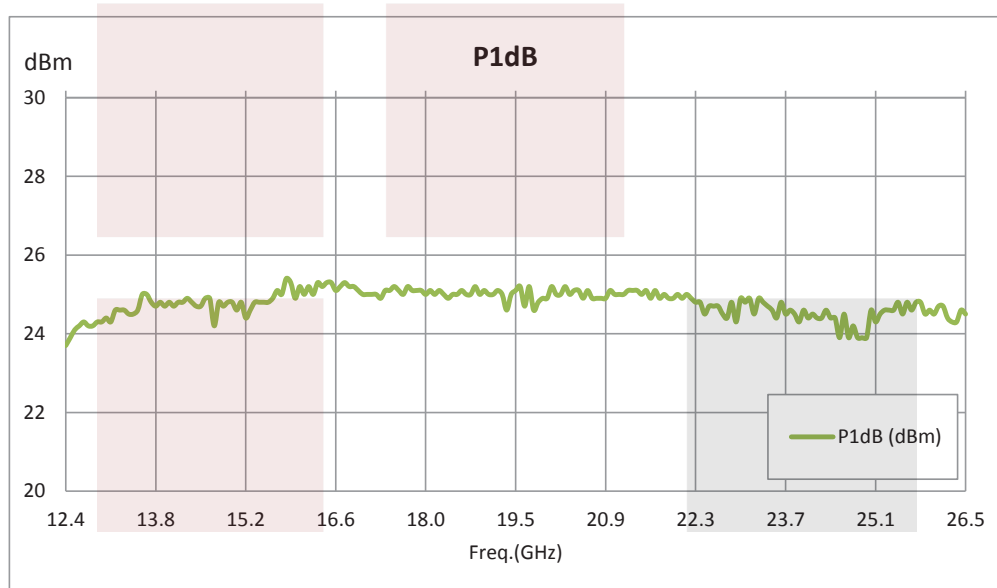
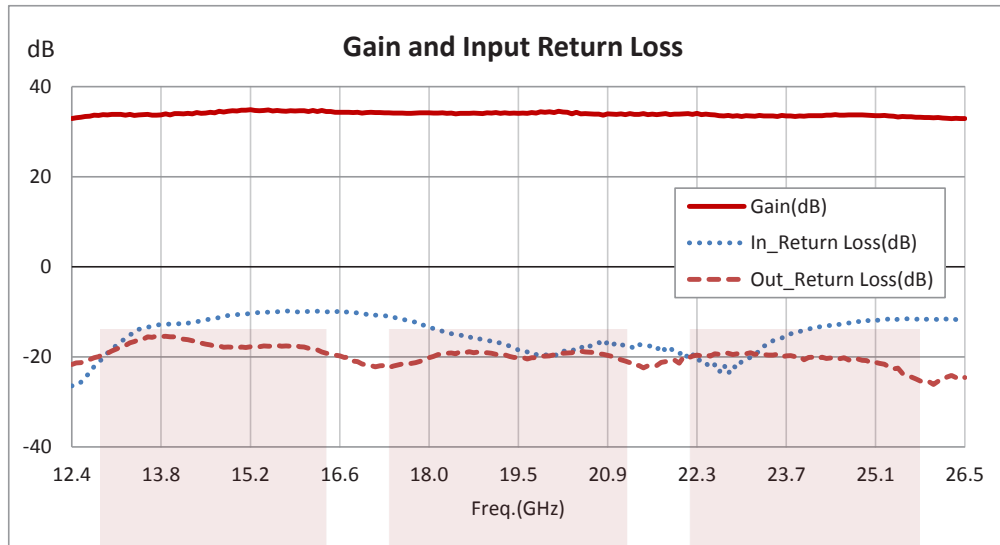
- 12.4 to 26.5 GHz Frequency Range
- Noise Figure: 3 dB typ
- Small Signal Gain: 35 dB typ
- Gain Flatness: ± 2.0 dB typ
- P1dB: +20 dBm min
- 50 Ohm Input and Output Matched
- -40 to $+50^{\circ}\text{C}$ Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator
- Small Size & Light Weight
- Covers Ku & K band and beyond

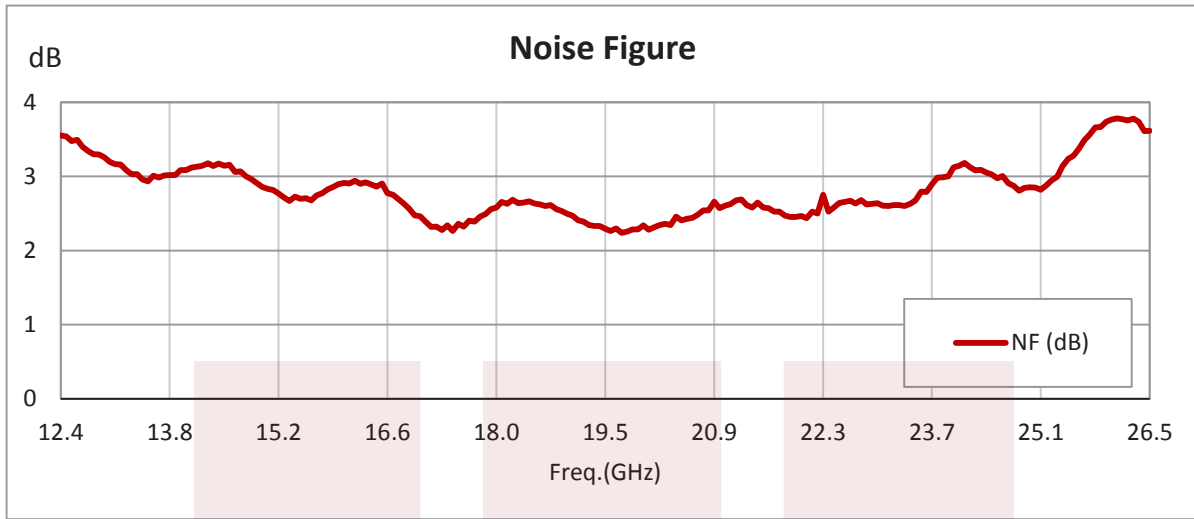
Applications:

- Telecommunications
- Test Instruments & Lab Equipment
- Transceiver Subassemblies

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Typical Performance Data



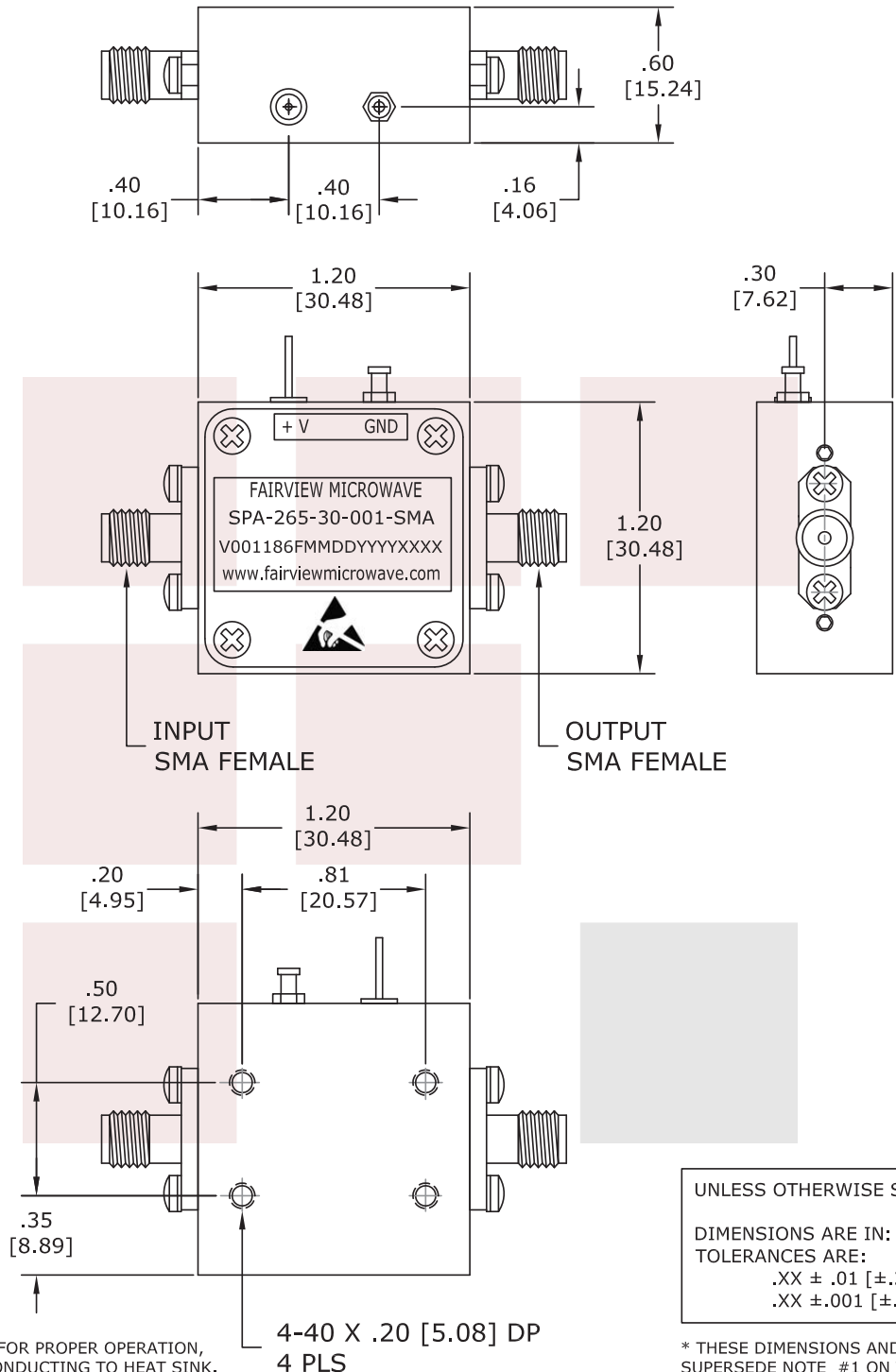


12.4 GHz to 26.5 GHz, Medium Power Broadband Amplifier with 24.5 dBm, 35 dB Gain and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [12.4 GHz to 26.5 GHz, Medium Power Broadband Amplifier with 24.5 dBm, 35 dB Gain and SMA SPA-265-30-001-SMA](http://www.fairviewmicrowave.com/12.4-26.5-ghz-medium-power-broadband-amplifier-spa-265-30-001-sma)

URL: <http://www.fairviewmicrowave.com/12.4-26.5-ghz-medium-power-broadband-amplifier-spa-265-30-001-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.

4-40 X .20 [5.08] DP
4 PLS

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN: inches
TOLERANCES ARE: [mm]
.XX ± .01 [±.25]
.XX ± .001 [±.025]

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

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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 24.5 dBm, 35 dB Gain and SMA

DWG NO	SPA-265-30-001-SMA	CAGE CODE	3FKR5		
CAD FILE	081815	SHEET	SCALE	N/A	SIZE A 2233