

2 GHz to 24 GHz, Broadband Amplifier with 600 mW, 12 dB Gain and 2.92mm

SPA-210-12-004-K is a broadband low noise high power amplifier that operates in the 2.0 GHz to 24 GHz Frequency Band. The amplifier is unconditionally stable and operates from a +12 VDC power supply. The coaxial connectorized amplifier operates in the -40 Deg C to +85 Deg C temperature range.

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 260mA)



Description	Min	Typ	Max	Unit
Frequency Range	2		24	GHz
Gain	10	12	14	dB
Gain Flatness		±0.75	±1.25	dB
Gain Variance at OTR*		±1		dB
P1dB	+25	+26		dBm
Saturation Output Power	+27	+28		dBm
IP3	+32	+35		dBm
Reverse Isolation	20	30		dB
Spurious		-60		dBc
Noise Figure at 2 to 5 GHz		6.5	8	dB
Noise Figure at 5 to 20 GHz		3	4	dB
Noise Figure at 20 to 24 GHz		4	5	dB
Input VSWR		1.7:1	2.2:1	
Output VSWR		1.7:1	2.2:1	
Operating DC Voltage	10	12	15	Volts
Operating DC Current	200	260	320	mA
Operating Temperature Range (OTR)	-40		+85	°C

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+18	Volts
RF input Power	+23	dBm
Operating Temperature (base-plate)	-40 to +85	°C
Storage Temperature	-55 to +125	°C



ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Features:

- 2.0 GHz to 24 GHz Frequency Range
- Gain 12 dB typ
- Gain Flatness +/-0.75 dB typ
- P1dB 26 dBm typ
- Psat 28 dBm typ
- OIP3 35 dBm typ
- -40 to +85 Deg C operating range

Applications:

- Test & Measurement
- Communications Links
- Driver Amplifier

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Configuration

- Connector 1 2.92mm Female
- Connector 2 2.92mm Female

Environmental Specifications

Temperature

- Operating Range -40 to +85 deg C
- Storage Range -45 to +125 deg C

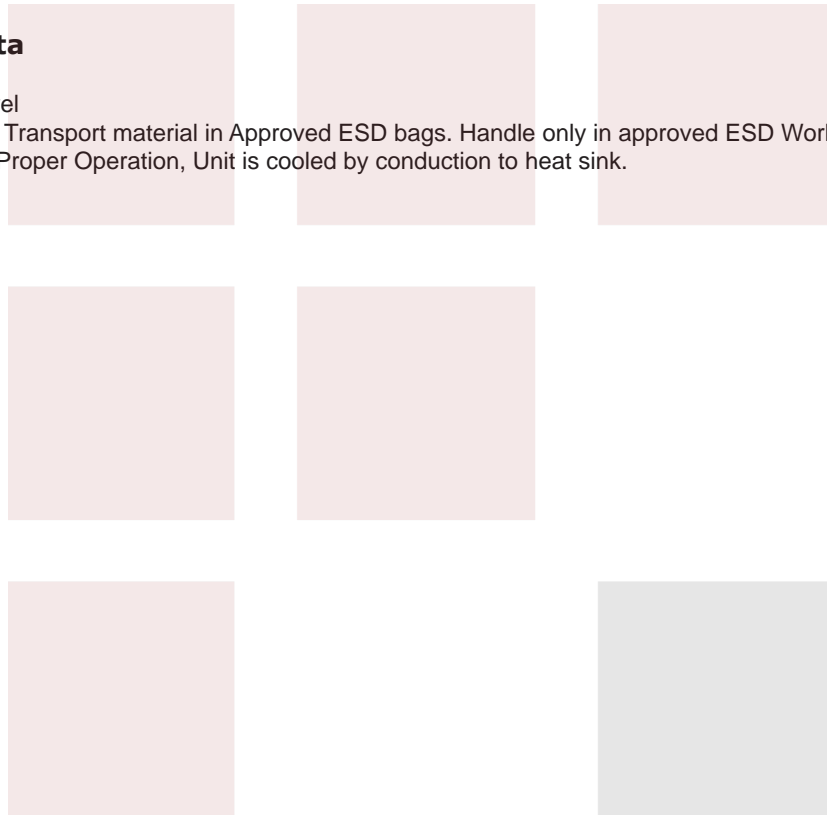
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

- RoHS Compliant Yes

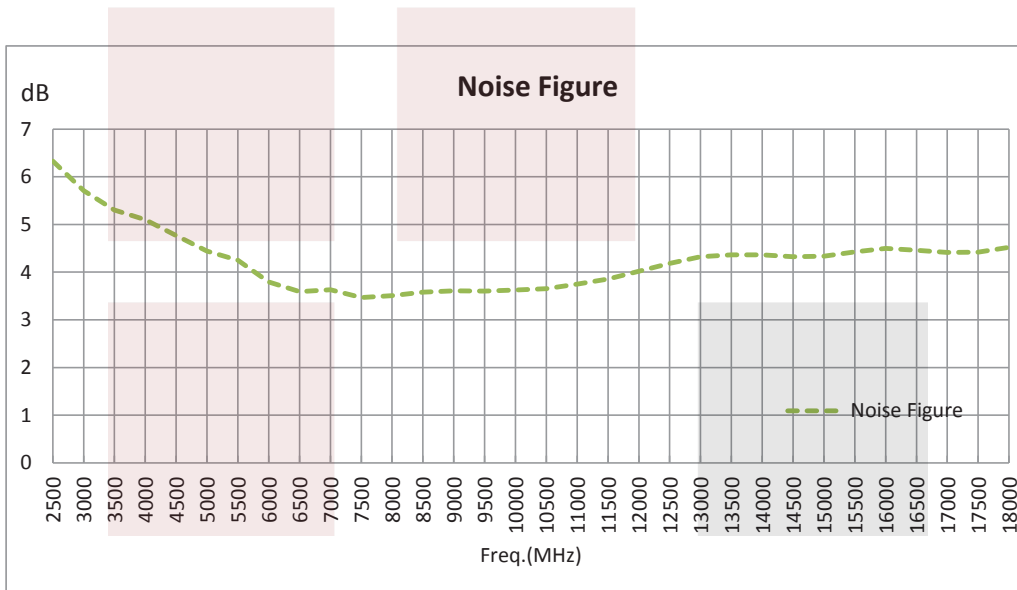
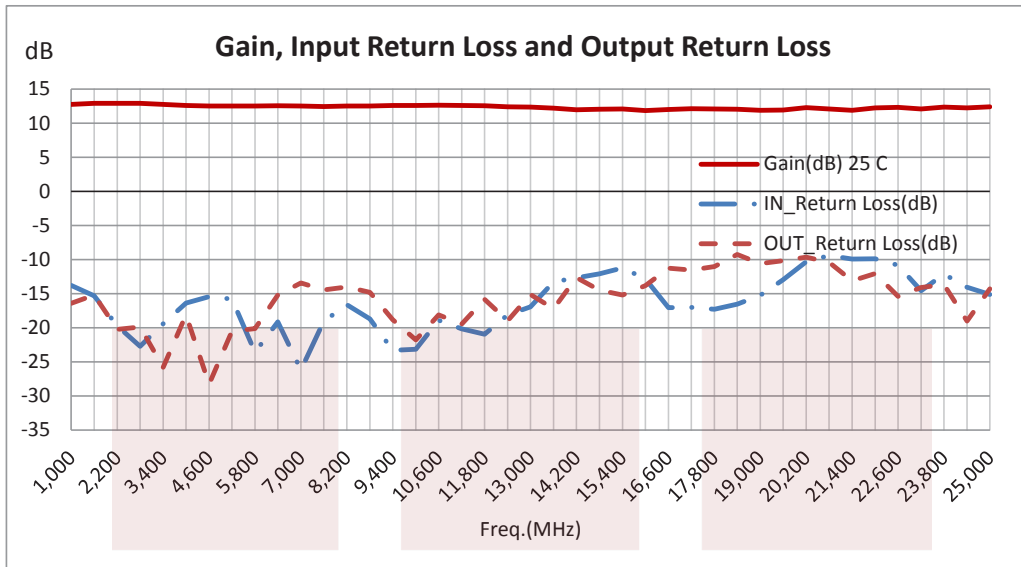
Plotted and Other Data

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.



Typical Performance Data

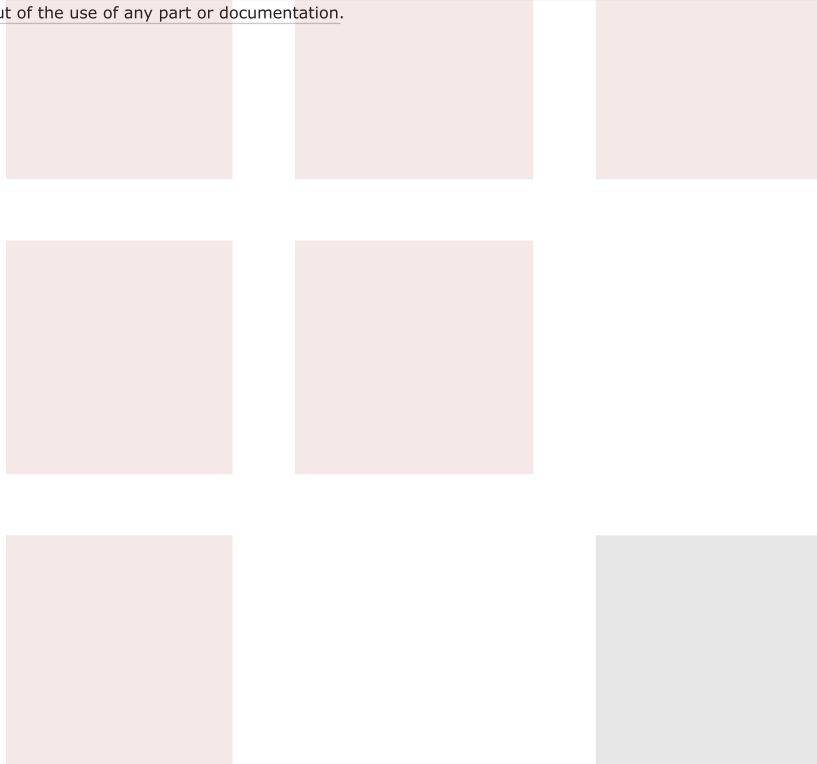


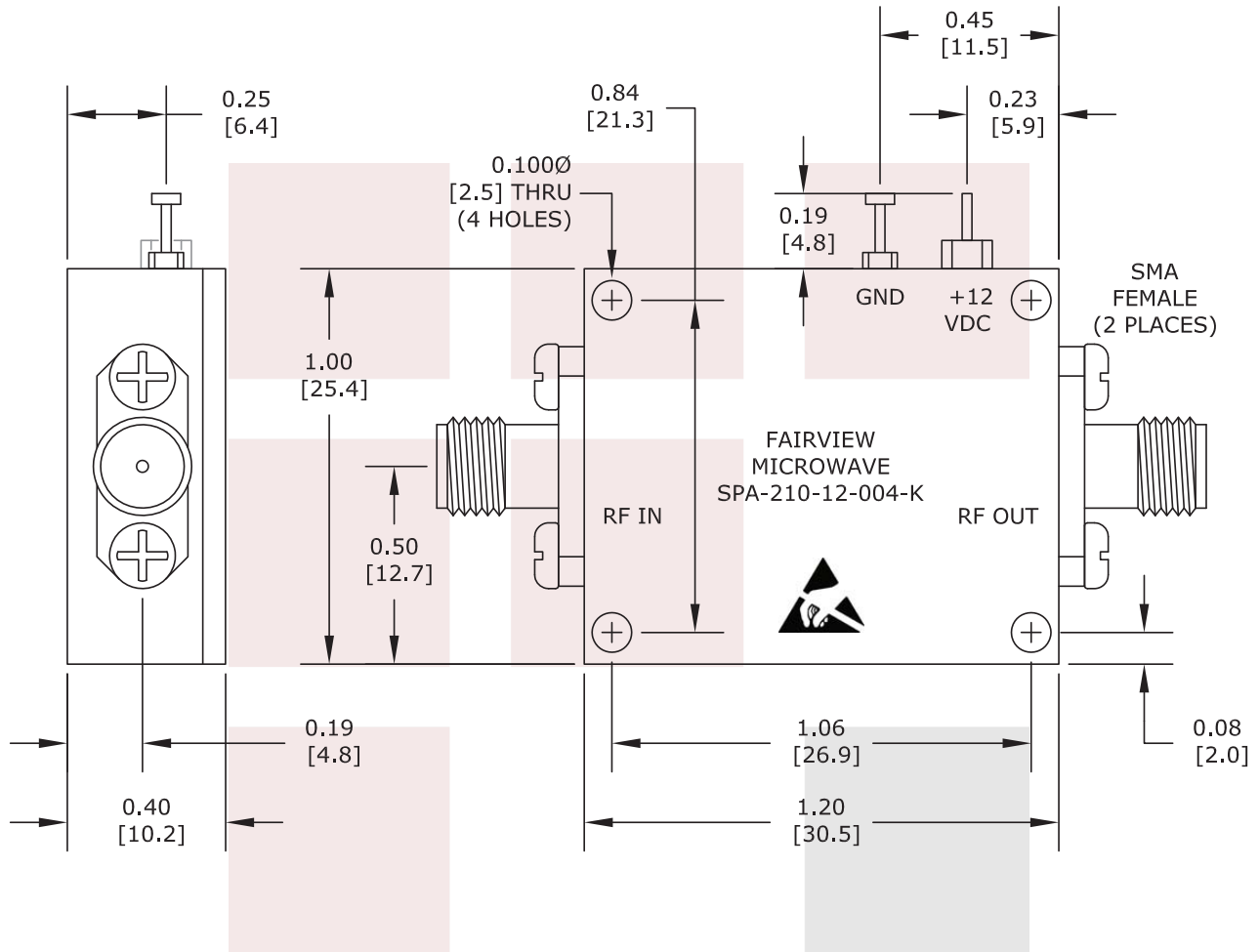
2 GHz to 24 GHz, Broadband Amplifier with 600 mW, 12 dB Gain and 2.92mm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2 GHz to 24 GHz, Broadband Amplifier with 600 mW, 12 dB Gain and 2.92mm SPA-210-12-004-K](#)

URL: <http://www.fairviewmicrowave.com/2-24-ghz-broadband-amplifier-spa-210-12-004-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.





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 2 GHz to 24 GHz, Broadband Amplifier with 600 mW, 12 dB Gain and 2.92mm		DWG NO SPA-210-12-004-K		CAGE CODE 3FKR5	
CAD FILE 022414 SHEET		SCALE N/A		SIZE A 150	