

14.5 dB Gain Block Amplifier Operating From 10 MHz to 6 GHz with 14 dBm P1dB and SMA

The FMAM8001 is wideband general purpose RF coaxial gain block amplifier operating in the 0.01 GHz to 6 GHz frequency range. The amplifier offers 14 dBm typ of P1dB, 14.5 dB typ of Gain, OIP3 typ of 16 dBm. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. This gain block amplifier requires only a single positive supply, typically a +12V DC power supply and includes built-in voltage regulation, is unconditionally stable and operates over the temperature range of -40°C and +75°C.

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 50mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.01		6	GHz
Small Signal Gain	13.5	14.5	16	dB
Gain Flatness		±0.35	±0.5	dB
Gain Variance at OTR*			±0.75	dB
Output at 1 dB Compression Point	+12	+14		dBm
Output 3rd Intercept Point	+24	+26		dBm
Noise Figure		4.5	5.5	dB
Input VSWR		1.5:1	2:1	
Output VSWR		1.5:1	2:1	
Reverse Isolation	40	43		dB
Operating DC Voltage	9	12	15	Volts
Operating DC Current		50	65	mA
Operating Temperature Range	-40		+75	°C

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+10	dBm
Operating Temperature (base-plate)	-40 to +75	°C
Storage Temperature	-55 to +125	°C



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



Features:

- 10 MHz to 6 GHz Frequency Range
- P1dB: 14 dBm
- Small Signal Gain: 14.5 dB
- OIP3: 26 dBm
- 50 Ohm Input and Output Matched
- -40 to +75°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

Applications:

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification

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

Mechanical Specifications

Size

Length	1.2 in [30.48 mm]
Width	0.85 in [21.59 mm]
Height	0.375 in [9.53 mm]
Weight	0.051 lbs [23.13 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +75 deg C
Storage Range	-55 to +125 deg C

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

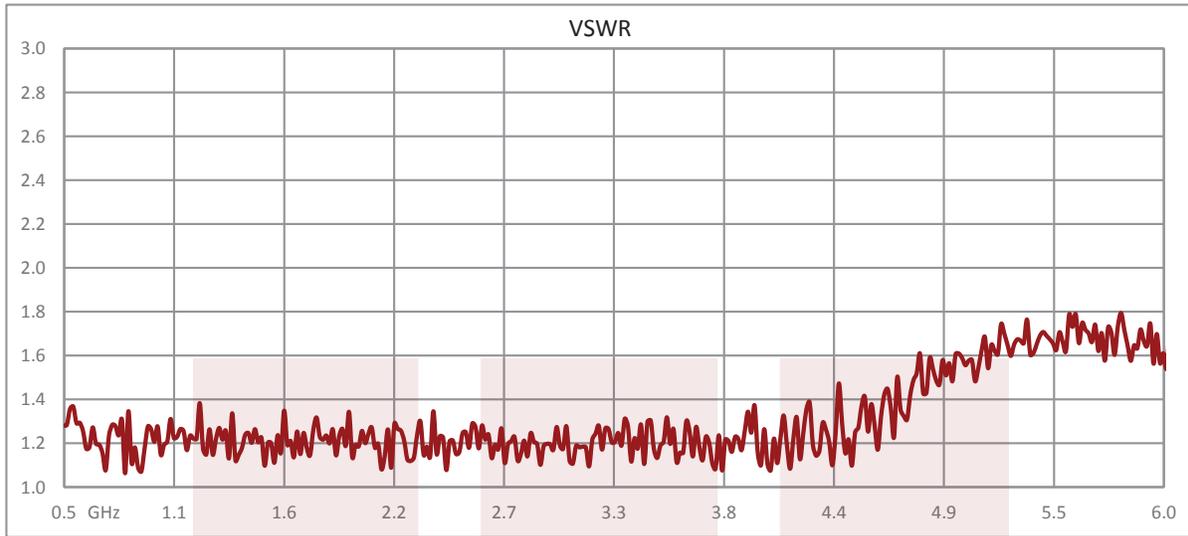
Plotted and Other Data

Notes:

- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Typical Performance Data



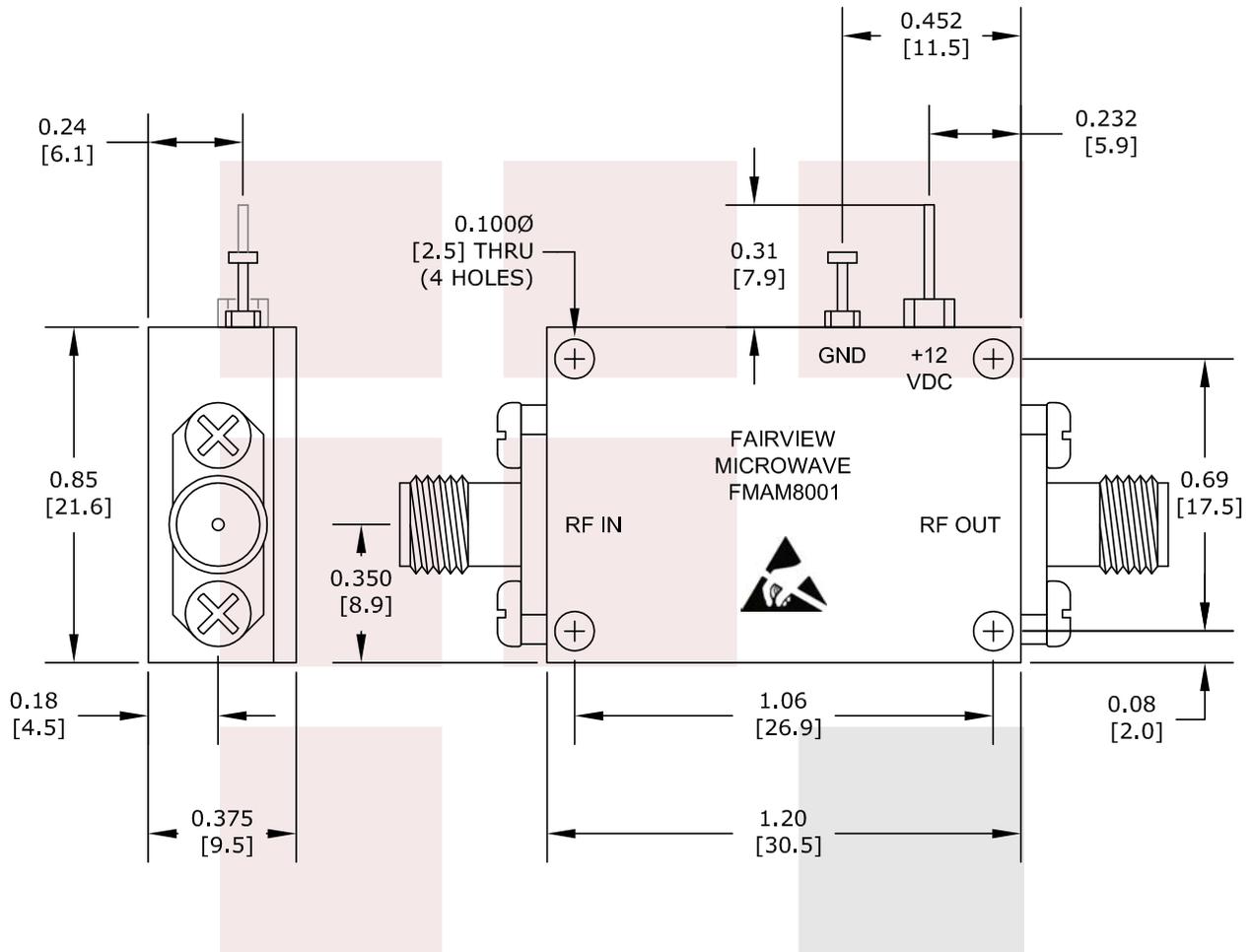


14.5 dB Gain Block Amplifier Operating From 10 MHz to 6 GHz with 14 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [14.5 dB Gain Block Amplifier Operating From 10 MHz to 6 GHz with 14 dBm P1dB and SMA FMAM8001](https://www.fairviewmicrowave.com/14.5-db-gain-block-amplifier-6-ghz-fmam8001-p.aspx)

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TITLE 14.5 dB Gain Block Amplifier Operating From 10 MHz to 6 GHz with 14 dBm P1dB and SMA		DWG NO FMAM8001		CAGE CODE 3FKR5
CAD FILE	100214	SHEET	SCALE	N/A
			SIZE	A
				150