

6 GHz to 12 GHz, Broadband Amplifier with 500 mW, 16 dB Gain and SMA

FMAM4044 is a broadband coaxial power amplifier, operating in the 6.0 to 12.0 GHz frequency range. The amplifier offers 27 dBm of P1dB min and 17 dB small signal gain typ, with the gain flatness of ± 0.6 dB typ. Input/output ports are matched for 50 ohms and are AC coupled. This power amplifier requires only a single positive DC supply, is unconditionally stable, operates over the temperature range of -30°C to 70°C , and is Hermetically sealed.

Electrical Specifications (TA= 25°C, VDC1 = 12 Vdc)

Description	Min	Typ	Max	Unit
Frequency Range	6		12	GHz
Gain	15	16		dB
Gain Flatness		± 0.6		dB
P1dB	+27			dBm
IP3		+37		dBm
Noise Figure		5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1	11	12	15	Volts
Operating DC Current		400	450	mA
Operating Temperature Range (OTR)	-30		+70	$^{\circ}\text{C}$

Mechanical Specifications

Size	
Length	1.083 in [27.51 mm]
Width	1.093 in [27.76 mm]
Height	0.382 in [9.7 mm]
Weight	0.061 lbs [27.67 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature	
Operating Range	-30 to $+70$ deg C

Compliance Certifications (see [product page](#) 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:

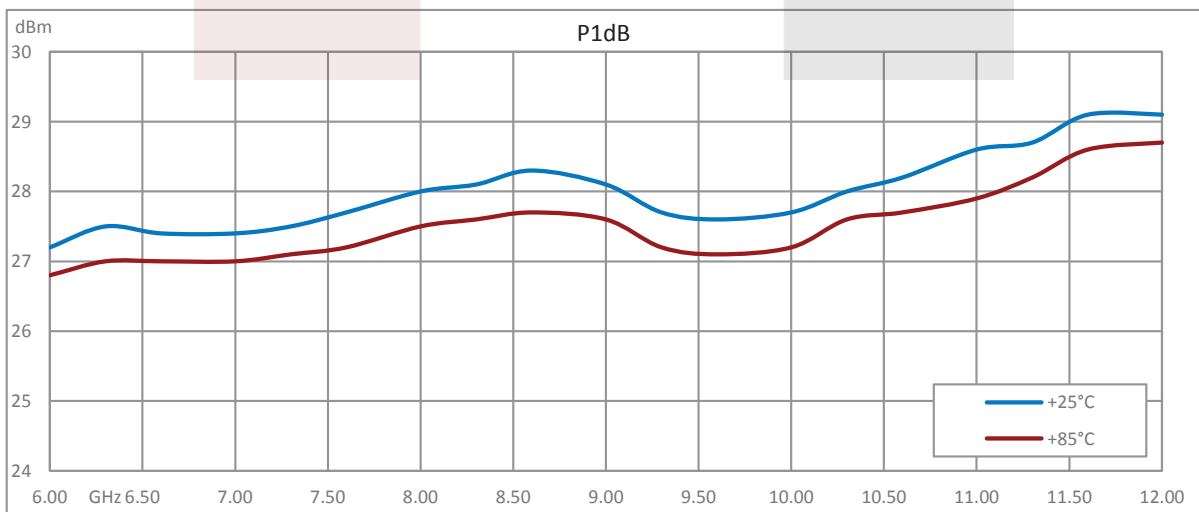
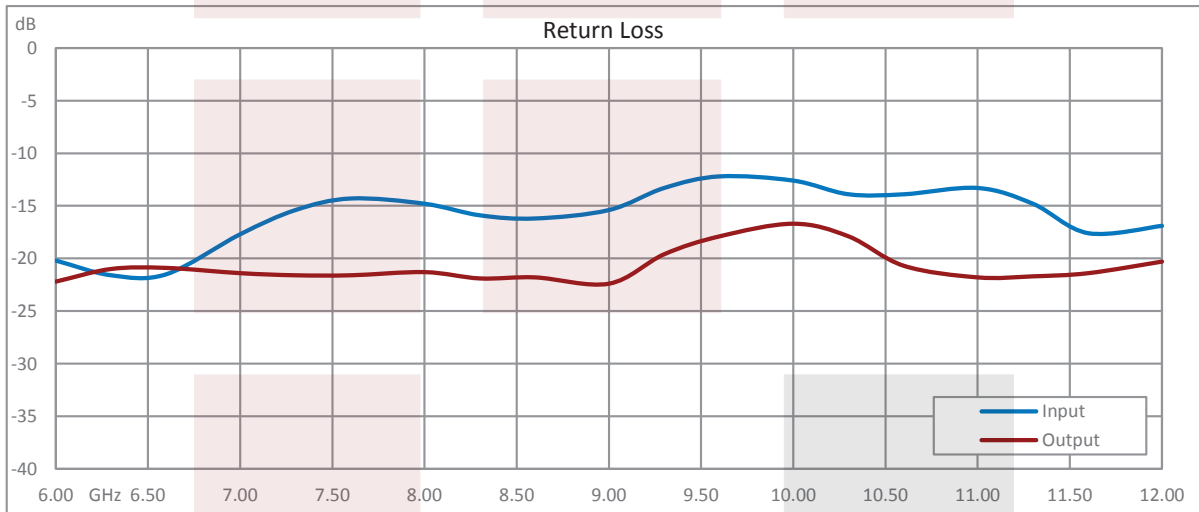
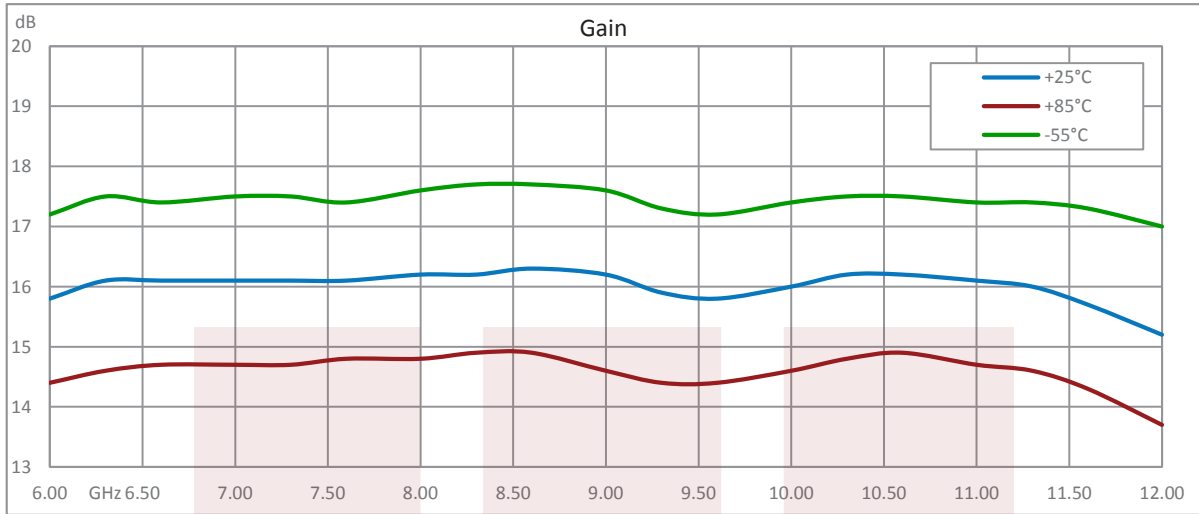
- 6.0 to 12.0 GHz Frequency Range
- P1dB: 27 dBm min
- Small Signal Gain: 17 dB typ
- Gain Flatness: ± 0.6 dB typ
- 50 Ohm Input and Output Matched
- -30 to $+70^{\circ}\text{C}$ Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

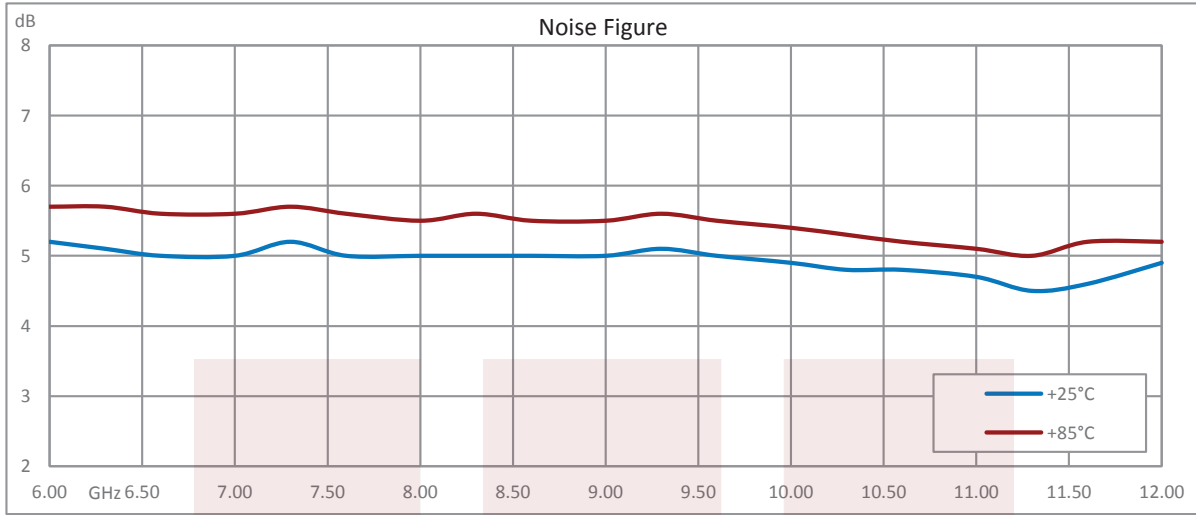
Applications:

- 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

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Typical Performance Data



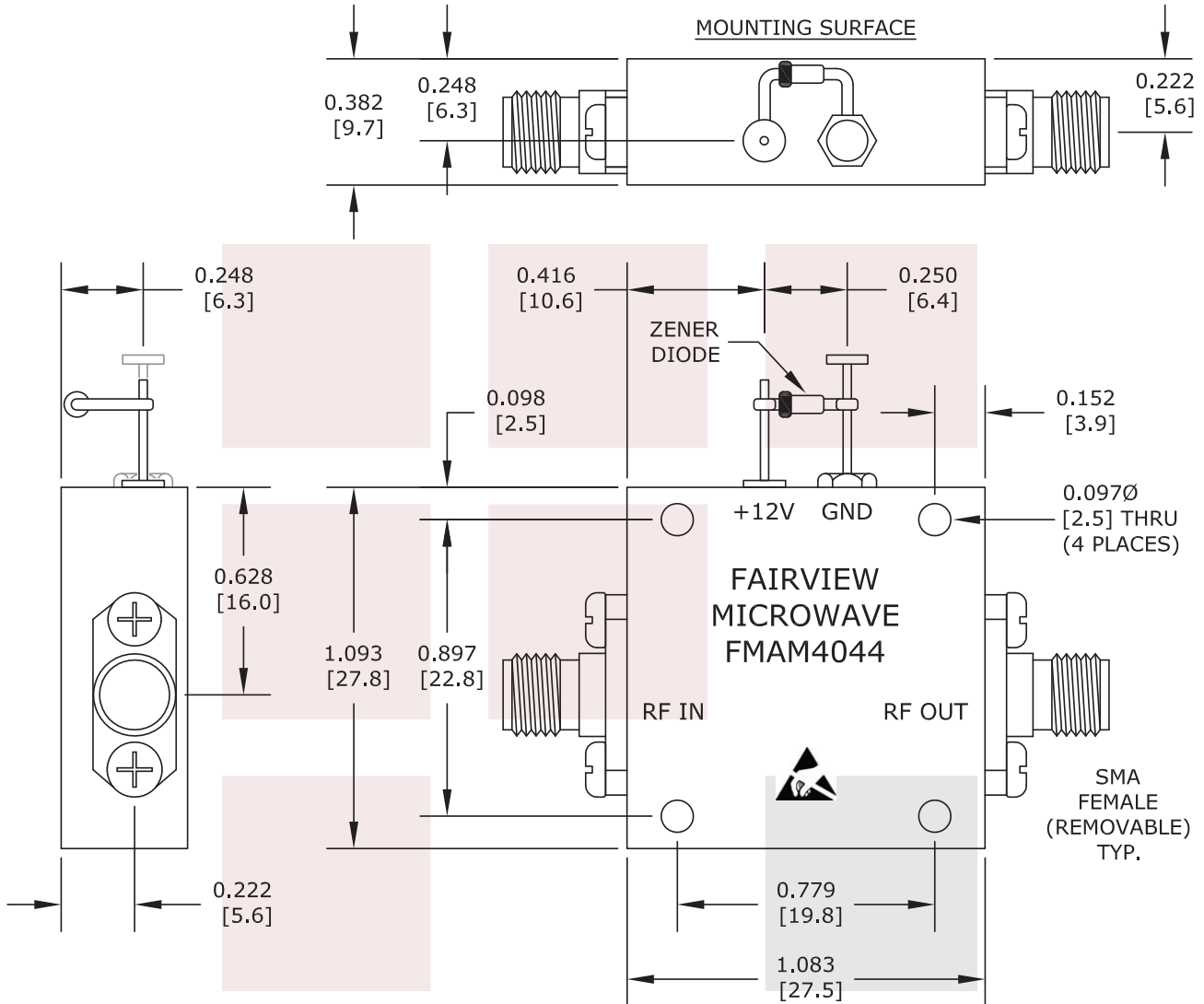


6 GHz to 12 GHz, Broadband Amplifier with 500 mW, 16 dB Gain and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [6 GHz to 12 GHz, Broadband Amplifier with 500 mW, 16 dB Gain and SMA FMAM4044](https://www.fairviewmicrowave.com/6-12-ghz-broadband-amplifier-fmam4044)

URL: <https://www.fairviewmicrowave.com/6-12-ghz-broadband-amplifier-fmam4044-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.

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TITLE 6 GHz to 12 GHz, Broadband Amplifier with 500 mW, 16 dB Gain and SMA		DWG NO FMAM4044		CAGE CODE 3FKR5	
CAD FILE	031616	SHEET	SCALE	N/A	SIZE A 2233