

High Power Amplifier at 7 Watt P1dB Operating From 8.5 GHz to 11 GHz with 30 dB Gain, 46 dBm IP3 and SMA

The FMAM5043 is a power coaxial amplifier operating in the 8.5 to 11.0 GHz frequency range. The amplifier offers 38.5 dBm typ of P1dB power and a high 30 dB min small signal gain with the gain flatness of ± 0.75 dB typ. Input/output ports are matched for 50 ohms and are AC coupled. The amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of -30°C and +60°C.

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts , DC Current = 7,500mA)

Description	Min	Typ	Max	Unit
Frequency Range	8.5		11	GHz
Small Signal Gain	30			dB
Gain Flatness		± 0.75	± 1.25	dB
Input Power (CW)			+17	dBm
P1dB	+38	+38.5		dBm
Output 3rd Order Intercept Point	+45	+46		dBm
Noise Figure		5		dB
Input VSWR		1.8:1	2:1	
Output VSWR		1.8:1	2:1	
Operating DC Voltage		12		Volts
Operating DC Current		7,500		mA
Operating Temperature Range	-30		+60	°C

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 - +70	°C
Storage Temperature	-55 - +85	°C



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

Mechanical Specifications

Size	
Length	3.87 in [98.3 mm]
Width	3.64 in [92.46 mm]
Height	0.67 in [17.02 mm]
Weight	0.706 lbs [320.24 g]
Input Connector	SMA Female
Output Connector	SMA Female



Features:

- 8.5 to 11.0 GHz Frequency Range
- P1dB 38.5 dBm typ
- Small Signal Gain: 30 dB min
- Gain Flatness ± 0.75 dB typ
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply

Applications:

- Military Radio
- Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

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Environmental Specifications

Temperature

Operating Range -30 to +60 deg C

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

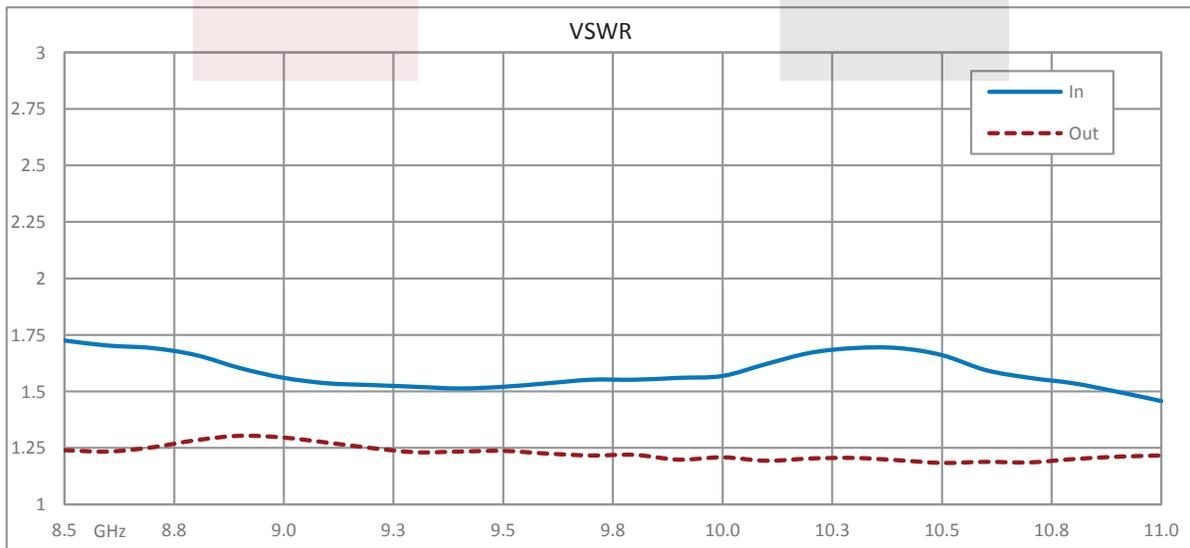
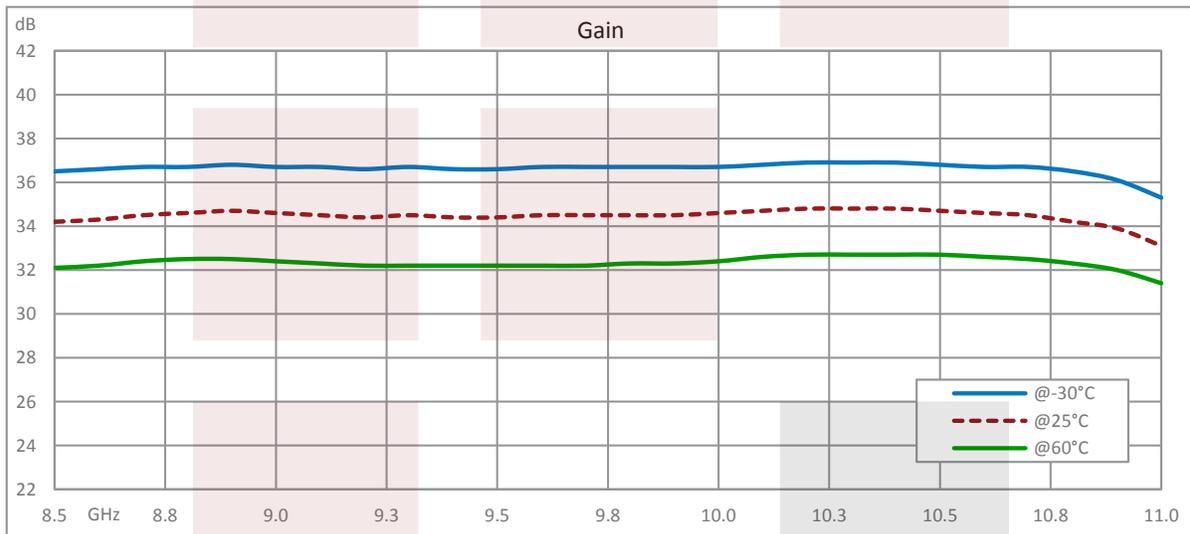
Plotted and Other Data

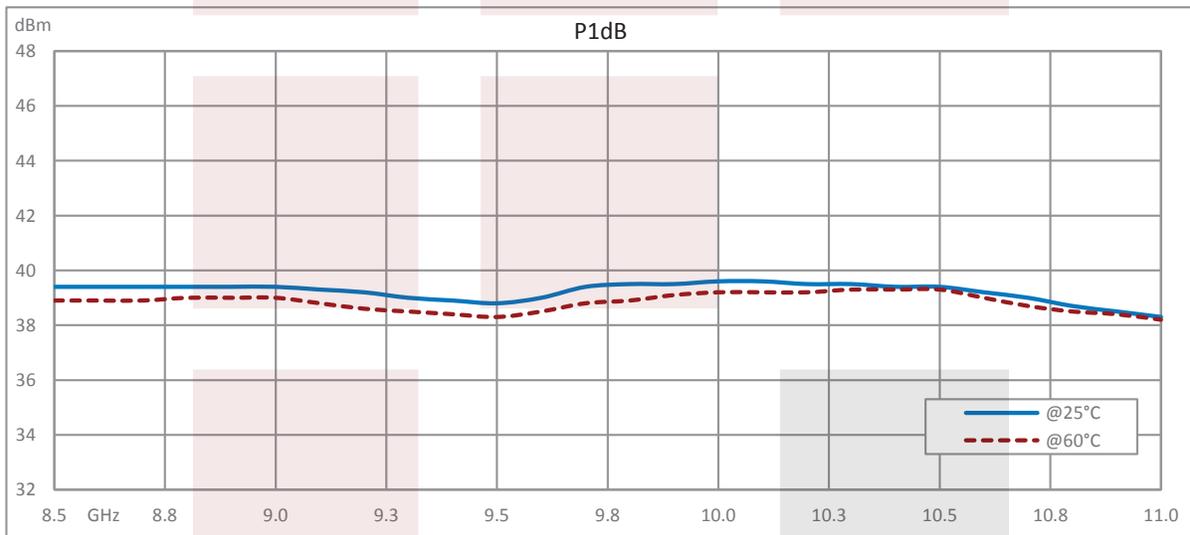
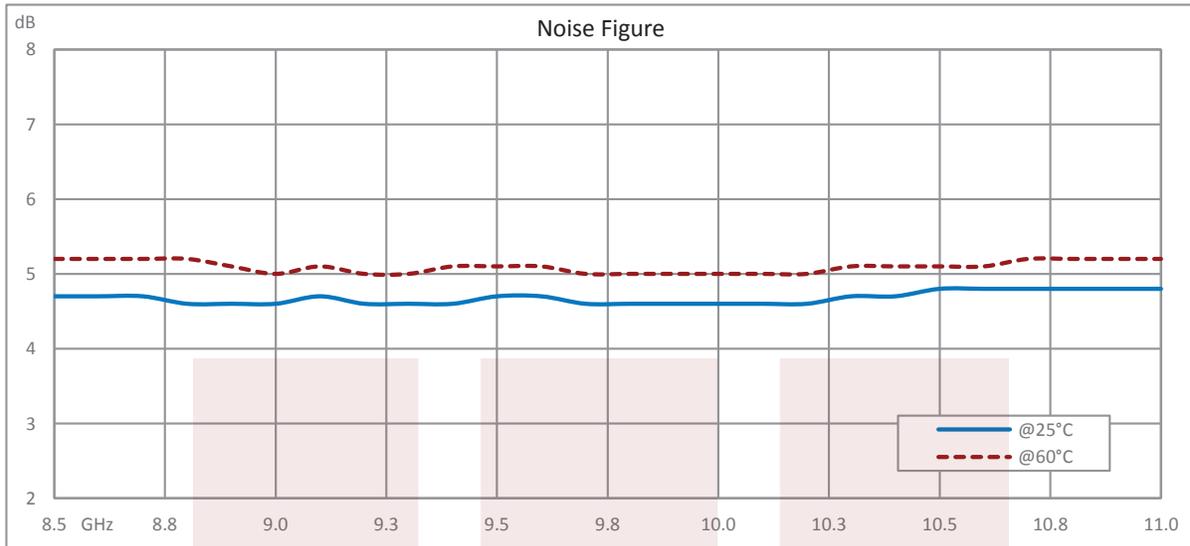
Notes:

- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.



Typical Performance Data



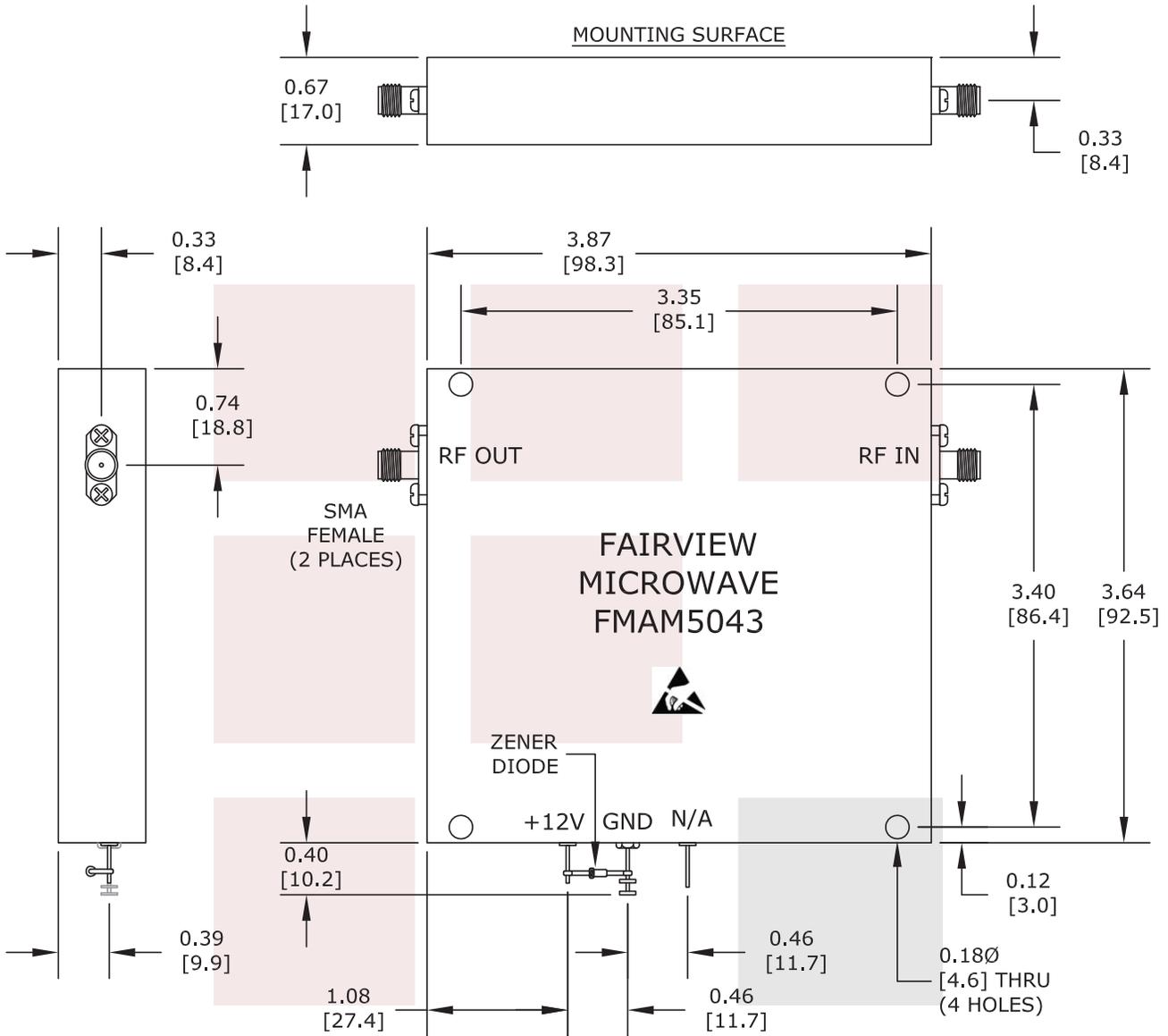


High Power Amplifier at 7 Watt P1dB Operating From 8.5 GHz to 11 GHz with 30 dB Gain, 46 dBm IP3 and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Amplifier at 7 Watt P1dB Operating From 8.5 GHz to 11 GHz with 30 dB Gain, 46 dBm IP3 and SMA FMAM5043](#)

URL: <https://www.fairviewmicrowave.com/high-power-amplifier-7watt-30db-fmam5043-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 High Power Amplifier at 7 Watt P1dB Operating From 8.5 GHz to 11 GHz with 30 dB Gain, 46 dBm IP3 and SMA		DWG NO FMAM5043		CAGE CODE 3FKR5	
CAD FILE 102716		SHEET		SCALE N/A	
		SIZE A		2233	