

**High Power Amplifier at 8 Watt Psat Operating From 2 GHz to 4 GHz with 39 dB Gain, 48 dBm IP3 and SMA**

FMAM5038 is a 8 W high gain Class A/AB coaxial power amplifier operating in the 2 to 4 GHz frequency range. The amplifier offers 8 Watts typical of saturated power and 39 dB minimum small signal gain with  $\pm 1.5$  dB maximum of gain flatness. The amplifier requires typically a +13V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of 0°C and +50°C. Adequate Heat Sink Required.

**Electrical Specifications** (TA = +25°C, DC Voltage = 13Volts , DC Current = 3,000mA)

Description	Min	Typ	Max	Unit
Frequency Range	2		4	GHz
Small Signal Gain	39			dB
Gain Flatness			$\pm 1.5$	dB
Input Power			+10	dBm
Psat		+39		dBm
P1dB	+37.8			dBm
Output 3rd Order Intercept Point		+48		dBm
Harmonics @6 Watts		-20		dBc
Spurious @6 Watts		-60		dBc
Input VSWR			2:1	
Operating DC Voltage		13		Volts
Operating DC Current			3,000	mA
Operating Temperature Range	0		+50	°C

**Mechanical Specifications**

<b>Size</b>	
Length	6.8 in [172.72 mm]
Width	2.7 in [68.58 mm]
Height	1 in [25.4 mm]
Weight	1 lbs [453.59 g]
Input Connector	SMA Female
Output Connector	SMA Female
Cooling	HEATSINK REQUIRED

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	0 to +50 deg C
Humidity	95% Non-Condensing
Shock	Normal Truck Transport
Vibration	Normal Truck Transport
Altitude	10000 feet Above Sea Level



**Features:**

- 2 GHz to 4 GHz Frequency Range
- Psat 8 Watts typ
- Small Signal Gain: 39 dB min
- Gain Flatness  $\pm 1.5$  dB max
- IP3 48 dBm typ
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply
- Heat Sink Required
- RF Input Signal Format: CW/AM/FM/Pulse

**Applications:**

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

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**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

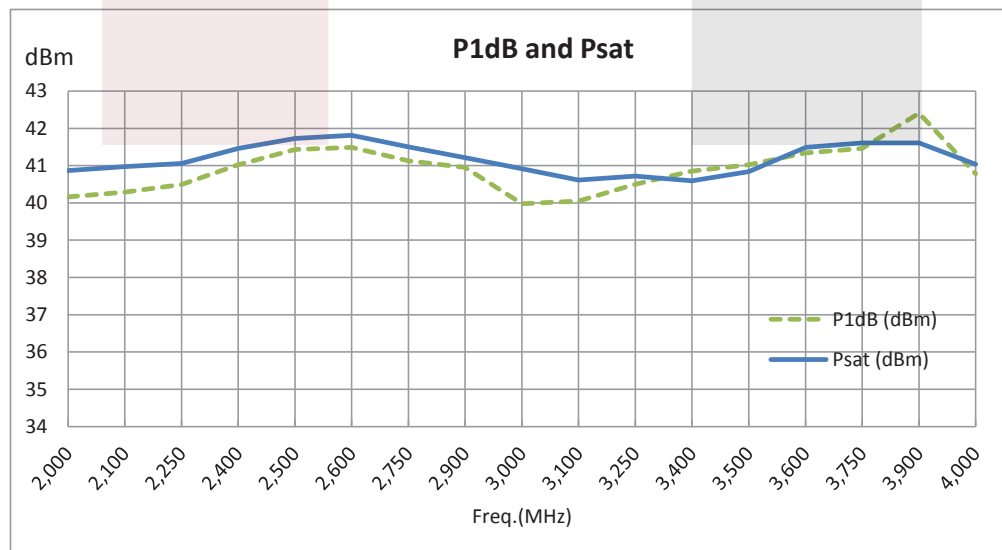
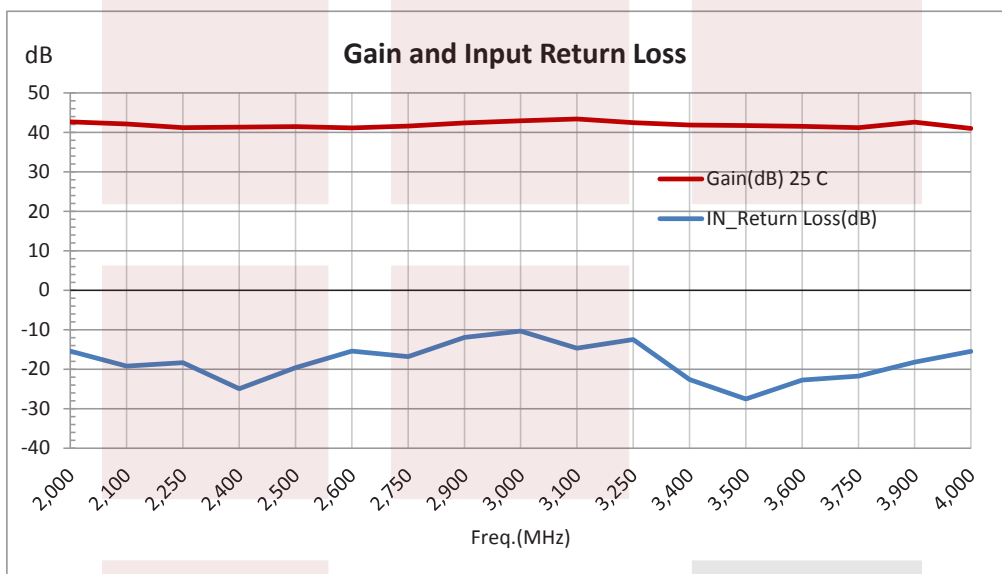
**Plotted and Other Data**

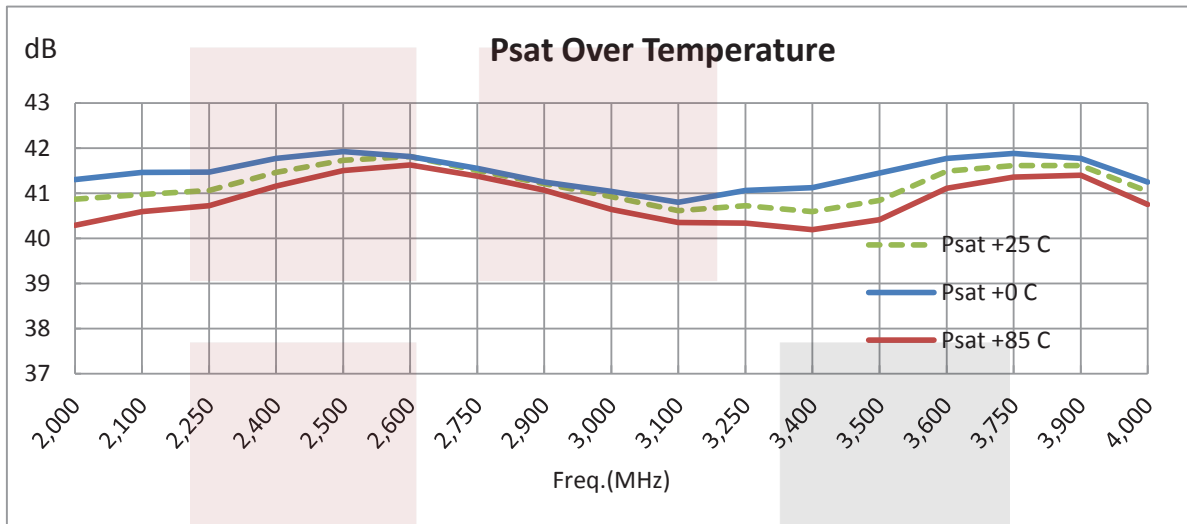
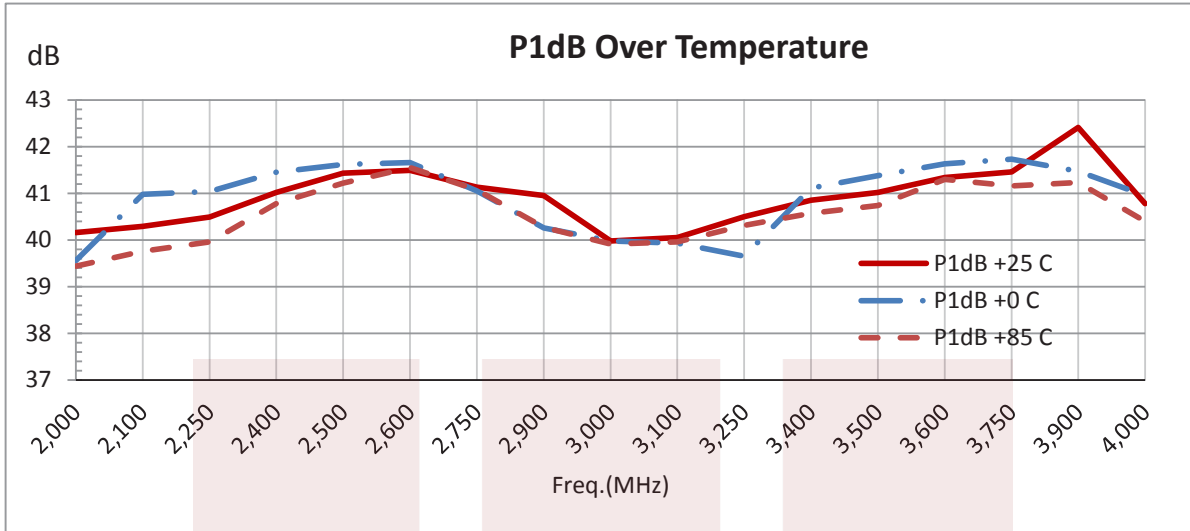
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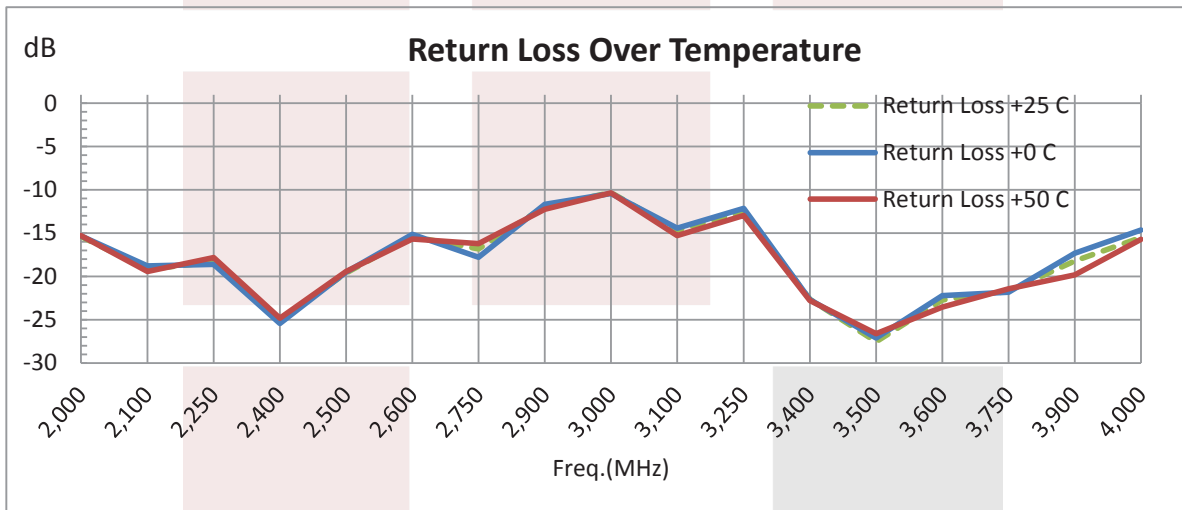
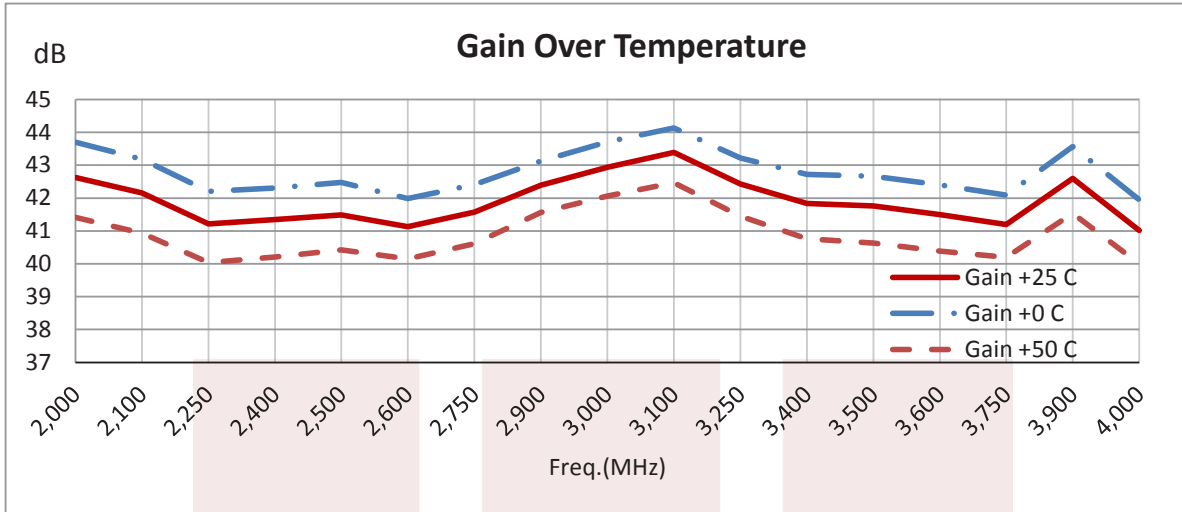
- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.



**Typical Performance Data**





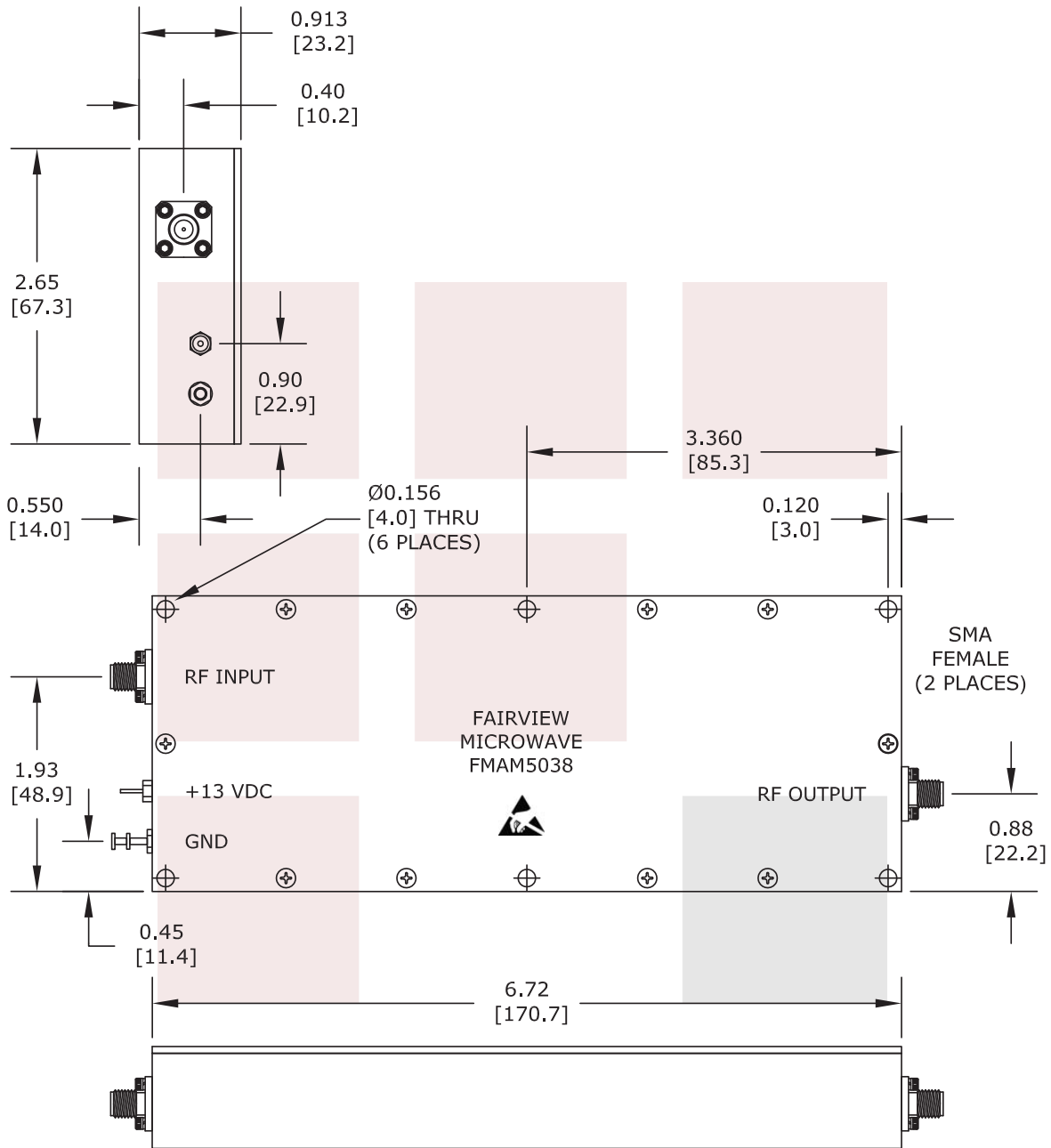


High Power Amplifier at 8 Watt Psat Operating From 2 GHz to 4 GHz with 39 dB Gain, 48 dBm IP3 and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Amplifier at 8 Watt Psat Operating From 2 GHz to 4 GHz with 39 dB Gain, 48 dBm IP3 and SMA FMAM5038](http://www.fairviewmicrowave.com/high-power-amplifier-8watt-39db-fmam5038-p.aspx)

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**NOTE:**  
 HEAT SINK REQUIRED FOR PROPER OPERATION,  
 UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

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TITLE High Power Amplifier at 8 Watt Psat Operating From 2 GHz to 4 GHz with 39 dB Gain, 48 dBm IP3 and SMA		DWG NO FMAM5038		CAGE CODE 3FKR5	
CAD FILE	032715	SHEET	SCALE	N/A	SIZE A 2233