

**42 dB Gain High Power High Gain Amplifier at
25 Watt P1dB Operating From 860 MHz to 960 MHz
with 58 dBm IP3 and SMA**

FMAM5039 is a 20 W high gain power coaxial amplifier operating in the 860 to 960 MHz frequency range. The amplifier offers 20 Watts min of saturated power and a high 42 dB typical small signal gain with the gain flatness of ± 1.5 dB max. The amplifier requires typically a +15V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of 0°C and +50°C.

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts , DC Current = 6,500mA)

Description	Min	Typ	Max	Unit
Frequency Range	860		960	MHz
Small Signal Gain	39	42	45	dB
Gain Flatness		± 1	± 1.5	dB
Gain Variation at OTR*		± 2		dB
P1dB	+43	+44		dBm
Output 3rd Order Intercept Point	+53	+58		dBm
Noise Figure		3.5	5	dB
Spurious			-60	dBc
Input VSWR		1.5:1	1.8:1	
Output VSWR		1.5:1	1.8:1	
Operating DC Voltage	11.5	12	13	Volts
Operating DC Current		6,500	7,500	mA
Quiescent Current		2,200		mA

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+13	Volts
RF input Power	+15	dBm
Maximum Load VSWR	3:1	Volts
Operating Temperature	-40 to +125	°C
Storage Temperature	-55 to +125	°C



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

Mechanical Specifications

Size

Input Connector	SMA Female
Output Connector	SMA Female
Cooling	HEATSINK REQUIRED use FMAM15C5013 or FMAM15C5013F

Environmental Specifications



Features:

- 860 to 960 MHz Frequency Range
- Psat 20 Watts typ
- Small Signal Gain: 42 dB min
- Gain Flatness ± 1.5 dB max
- 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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Compliance Certifications (visit www.FairviewMicrowave.com for current document)

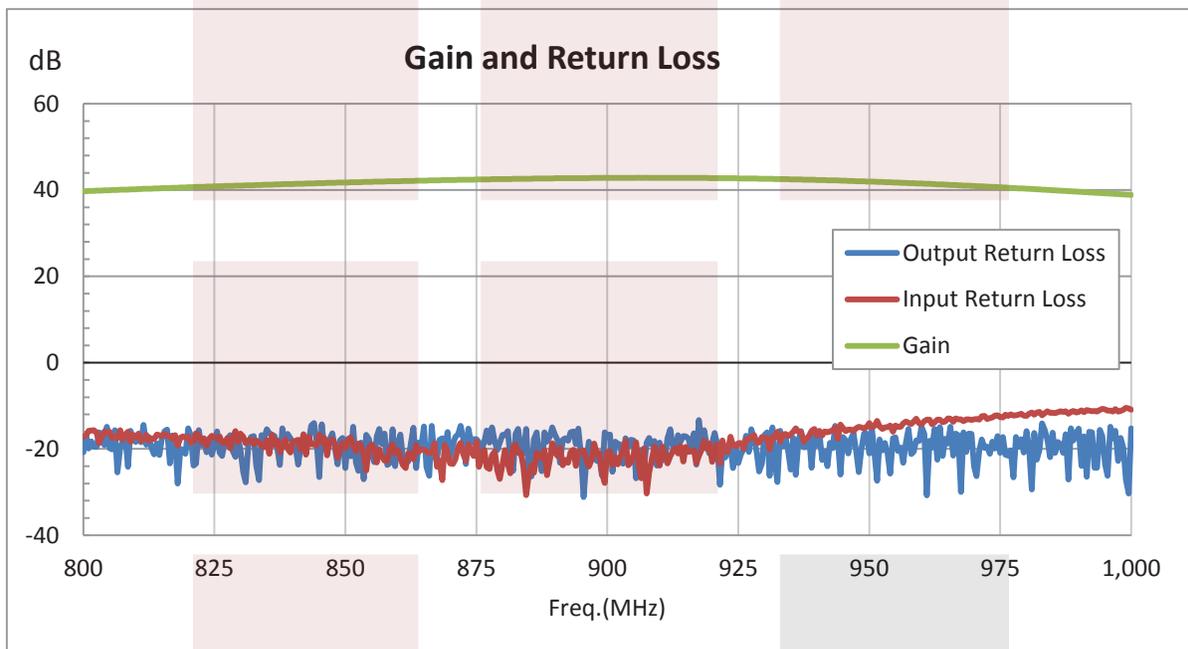
Plotted and Other Data

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

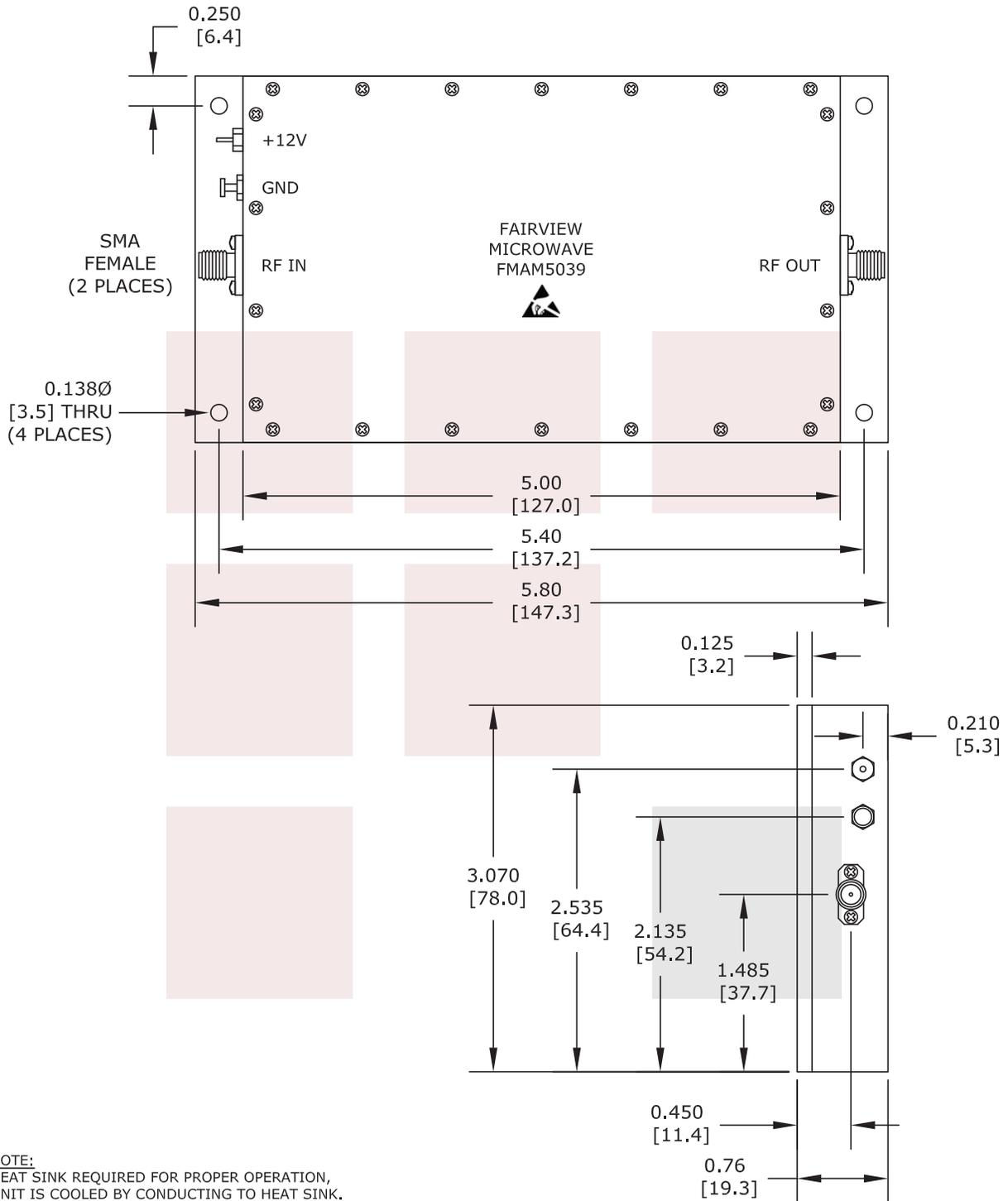


42 dB Gain High Power High Gain Amplifier at 25 Watt P1dB Operating From 860 MHz to 960 MHz with 58 dBm IP3 and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [42 dB Gain High Power High Gain Amplifier at 25 Watt P1dB Operating From 860 MHz to 960 MHz with 58 dBm IP3 and SMA FMAM5039](http://www.fairviewmicrowave.com/42db-high-power-high-gain-amplifier-20watt-fmam5039-p.aspx)

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TITLE 42 dB Gain High Power High Gain Amplifier at 25 Watt P1dB Operating From 860 MHz to 960 MHz with 58 dBm IP3 and SMA		DWG NO FMAM5039		CAGE CODE 3FKR5	
CAD FILE	071315	SHEET	SCALE	N/A	SIZE A 2233