

41 dB Gain High Power High Gain Amplifier at 12 Watt Psat Operating From 800 MHz to 2 GHz with 50 dBm IP3 and SMA

FMAM5035 is a 12 W high gain Class A/AB coaxial power amplifier operating in the 0.8 to 2.0 GHz frequency range. The amplifier offers 12 Watts typical saturated power and 41 dB typical small signal gain with ± 1.5 dB maximum 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.

Electrical Specifications (TA = +25°C, DC Voltage = 13Volts , DC Current = 5,000mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.8		2	GHz
Small Signal Gain	41			dB
Gain Flatness			± 1.5	dB
Input Power			+10	dBm
Psat		+40.8		dBm
Efficiency (PAE)	25	35		%
P1dB	+40			dBm
Output 3rd Order Intercept Point		+50		dBm
Harmonics 10 Watts		-20		dBc
Spurious 10 Watts		-60		dBc
Input VSWR			2:1	
Operating DC Voltage		13		Volts
Operating DC Current			5,000	mA
Operating Temperature Range	0		+50	°C

Mechanical Specifications

Size	
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	ADEQUATE HEATSINK REQUIRED

Environmental Specifications

Temperature	
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:

- 0.8 GHz to 2.0 GHz Frequency Range
- Psat 12 Watts typ
- Small Signal Gain: 41 dB min
- Gain Flatness ± 1.5 dB max
- IP3 50 dBm 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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Compliance Certifications (visit www.FairviewMicrowave.com for current document)

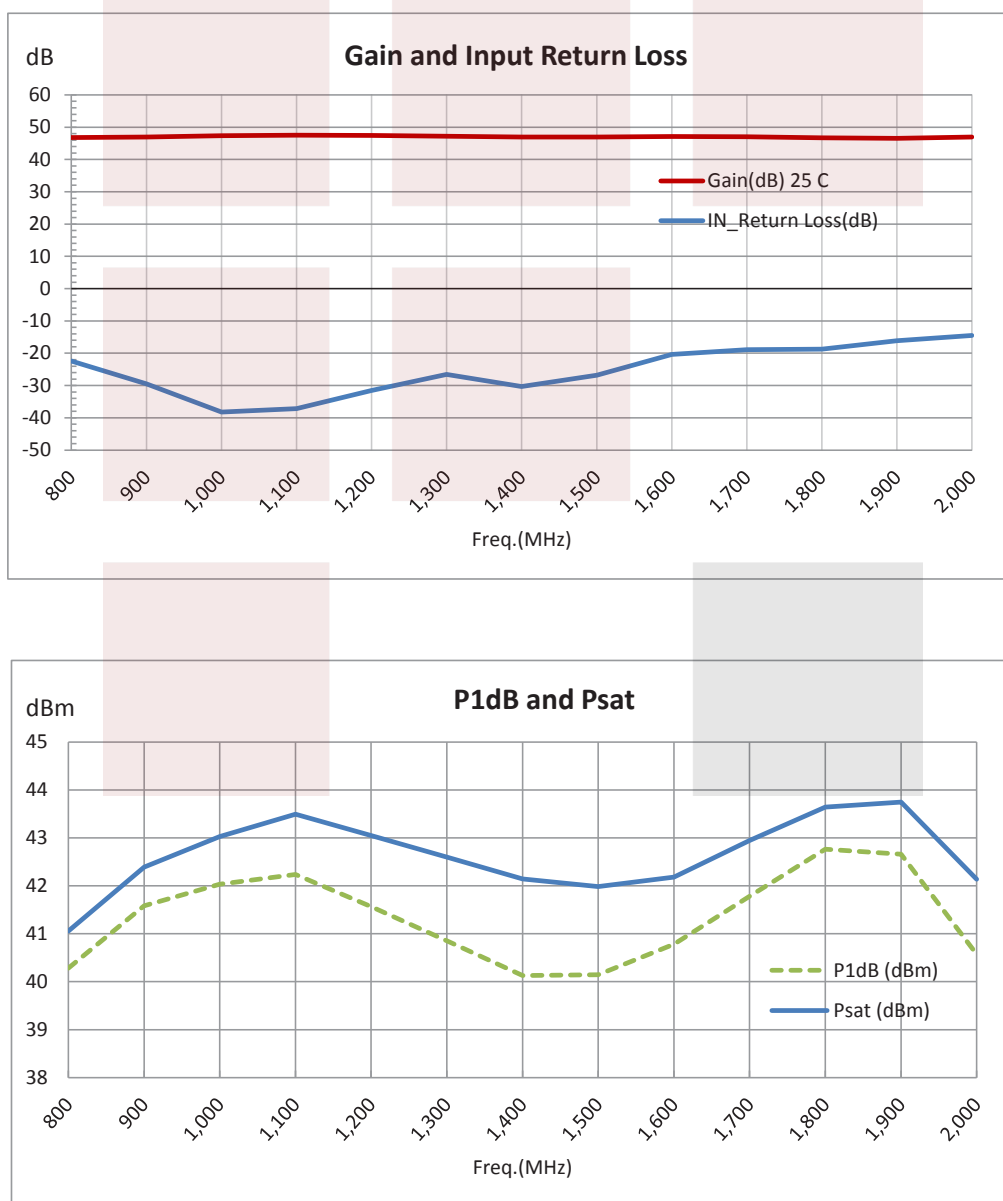
Plotted and Other Data

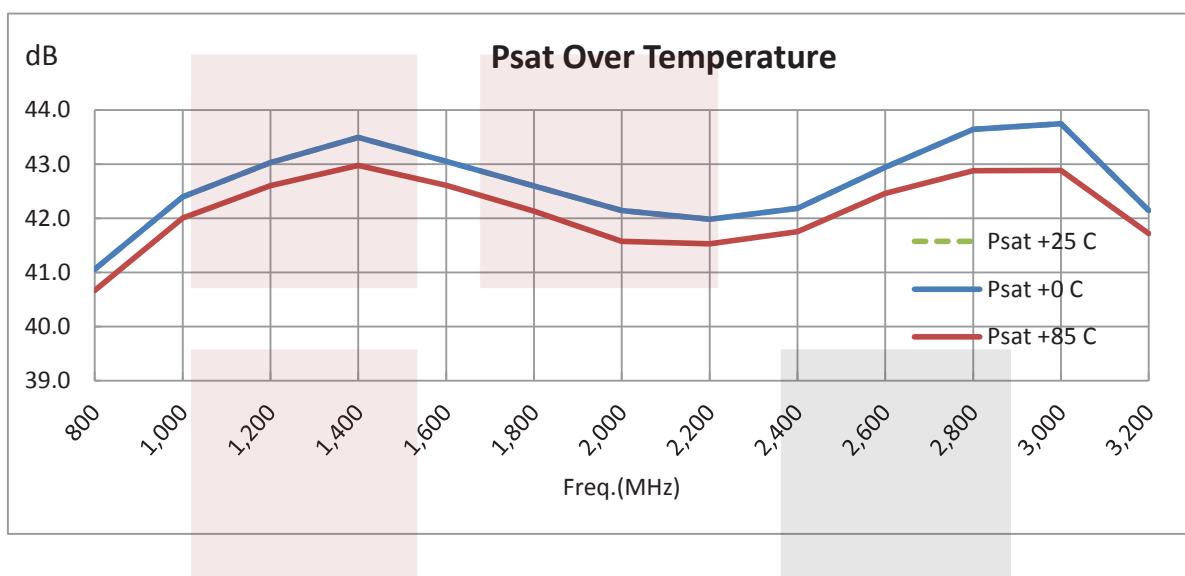
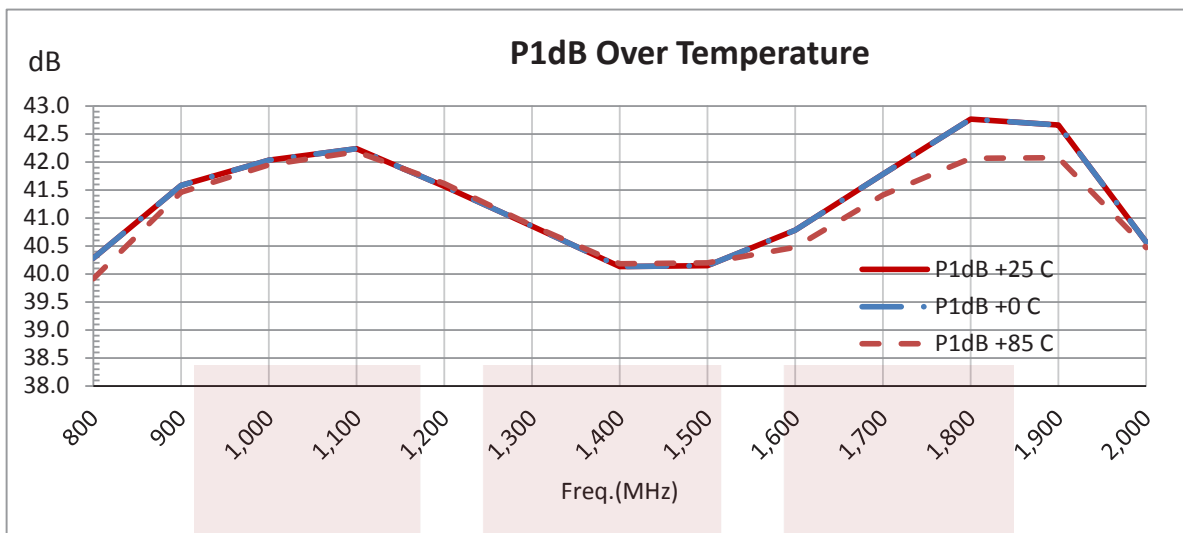
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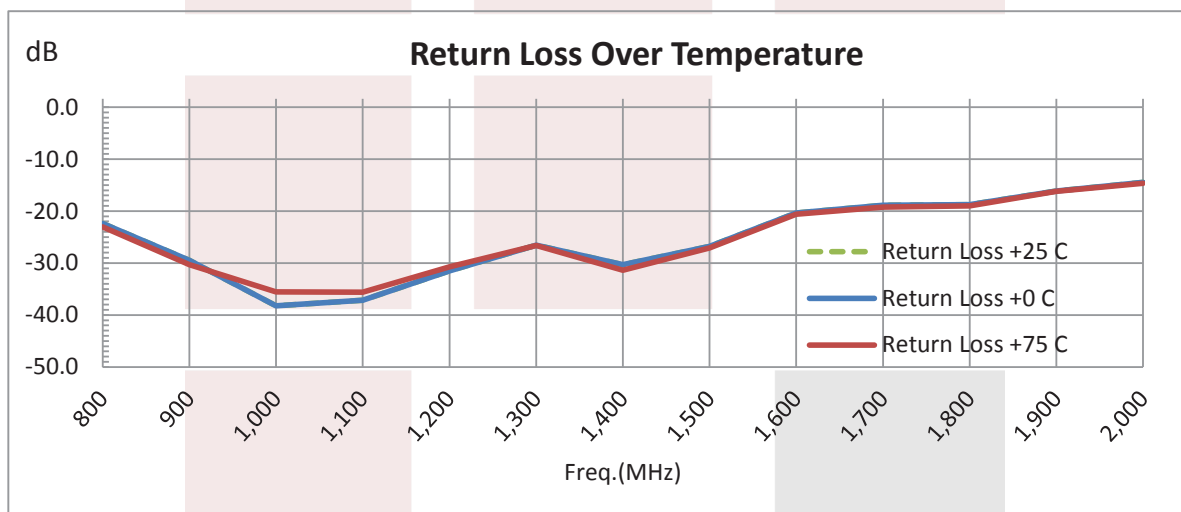
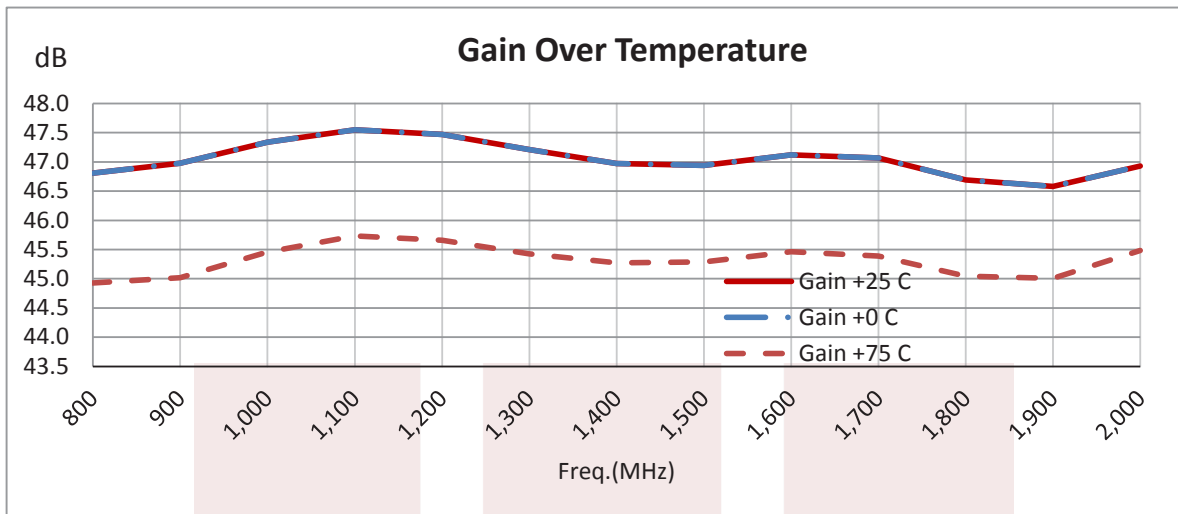
- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.



Typical Performance Data





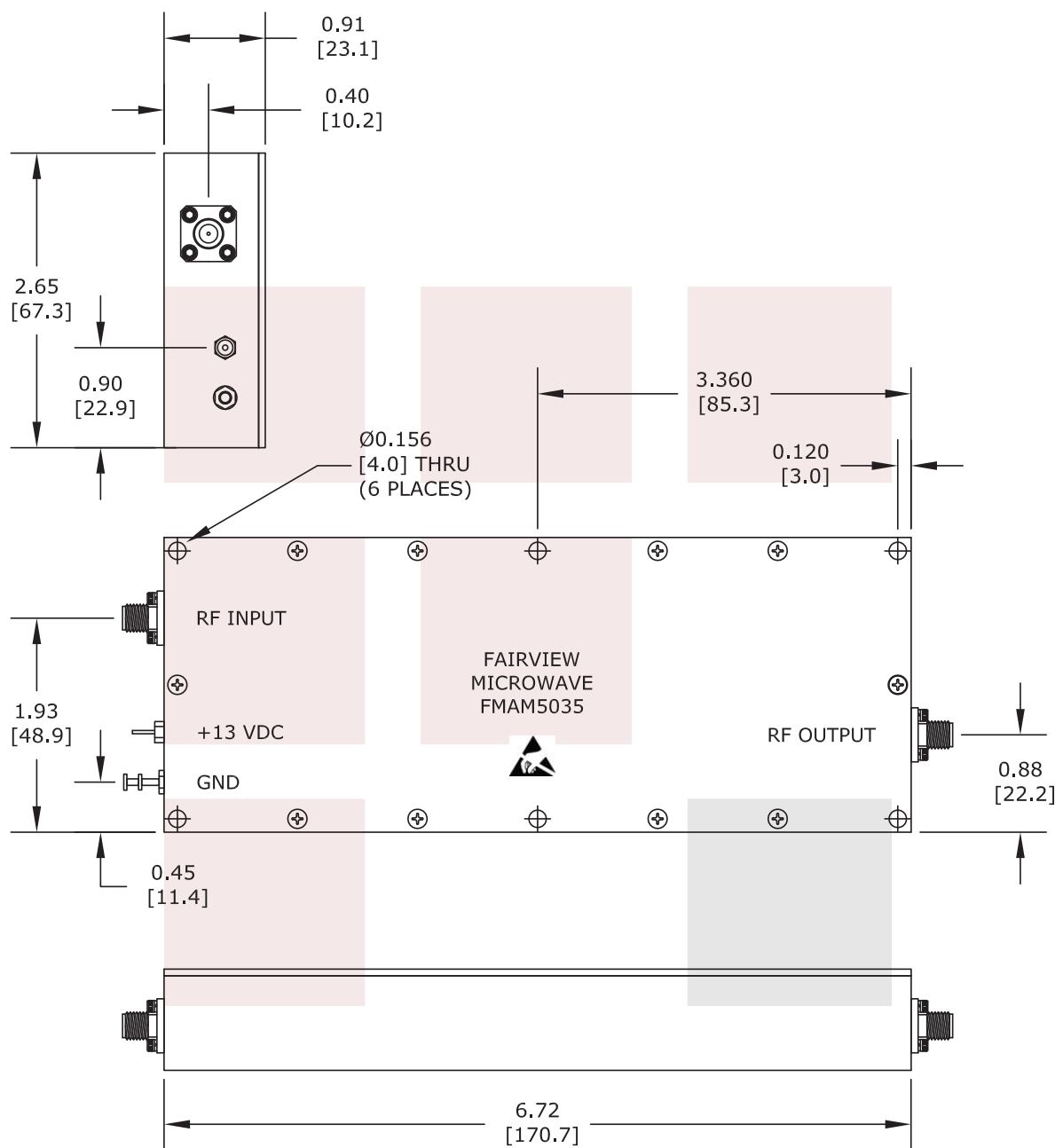


41 dB Gain High Power High Gain Amplifier at 12 Watt Psat Operating From 800 MHz to 2 GHz with 50 dBm IP3 and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [41 dB Gain High Power High Gain Amplifier at 12 Watt Psat Operating From 800 MHz to 2 GHz with 50 dBm IP3 and SMA FMAM5035](http://www.fairviewmicrowave.com/41db-high-power-high-gain-amplifier-12watt-fmam5035-p.aspx)

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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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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE
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IP3 and SMA

DWG NO	FMAM5035	CAGE CODE	3FKR5
CAD FILE	032715	SHEET	SCALE N/A SIZE A 2233