Fairview Microwave
RF COMPONENTS ON DEMAND. Done!

FMAM1052
DATA SHEET

2.2 dB NF Low Noise Amplifier, Operating from 10 MHz to 1 GHz with 51 dB Gain, 13 dBm P1dB and SMA

The FMAM1052 is a low noise coaxial amplifier operating in the 10 MHz to 1000 MHz frequency range. Impressive typical performance includes 2.2 dB noise figure, 51 dB small signal gain, +13 dBm P1dB, and an output 3rd order intercept point of +22 dBm. This exceptional technical performance is achieved through the use of a hybrid MIC design and advanced GaAs pHEMT devices. The low noise amplifier requires a +12V DC power supply, and operates over a temperature range of -40°C to +75°C. The rugged and compact package supports SMA Female connectors and RFI and Ground pins. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

Features:

- 10 MHz to 1000 MHz Frequency Range
- Low Noise Figure: 2.2 dB
- High Dynamic Range
- Efficient GaAs pHEMT Design
- Small Signal Gain: 51 dB
- Output P1dB: +13 dBm
- Output IP3: +22 dBm
- Operating Temperature: -40°C to +75°C
- 50 Ohm Input and Output Matched
- DC Power Supply: +12V / 88 mA
- SMA Female Connectors
- Designed to meet MIL-STD-202 Test Conditions

Applications:

- Test & Measurement
- R&D Labs
- General Purpose Amplification
- Aerospace & Defense
- Wireless Infrastructure
- Communication Systems

Electrical Specifications (TA = +25°C , DC Voltage = 12Vdc , DC Current = 88mA)

Description	Min	Typ	Max	Unit
Frequency Range	10		1,000	MHz
Small Signal Gain	47	51		dB
Gain Flatness		±0.8	±1.2	dB
Output at 1 dB Compression Point	+13	+13		dBm
Output 3rd Intercept Point	+20	+22		dBm
Noise Figure		2.2	2.7	dB
Input VSWR		2.5:1	3.5:1	
Output VSWR		1.5:1	2:1	
Reverse Isolation		-55		dB
Operating DC Voltage	11	12	15	Volts
Operating DC Current		88	100	mA
Operating Temperature Range	-40		+75	°C

Absolute Maximum Rating

Parameter	Rating	Units
Supply Voltage	+25	V
RF Input Power	+13	dBm
Operating Temperature	-40 to +85	°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

Weight	0.087 lbs [39.46 g]
Input Connector	SMA Female
Output Connector	SMA Female

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Environmental Specifications

Temperature

Operating Range	-40 to +75 deg C
Storage Range	-55 to +125 deg C
Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

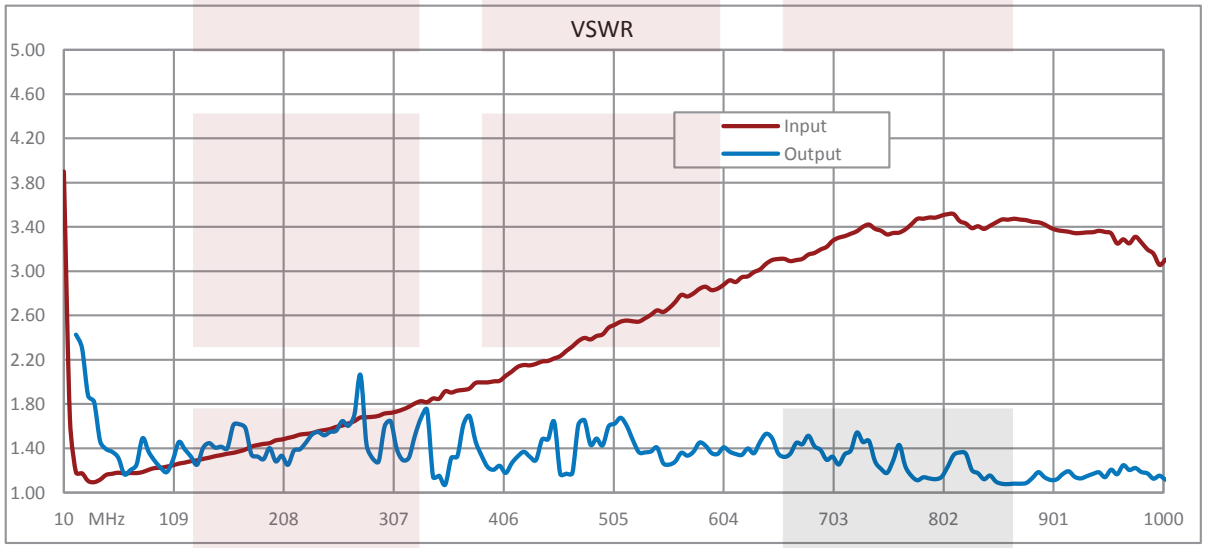
Compliance Certifications (see product page for current document)

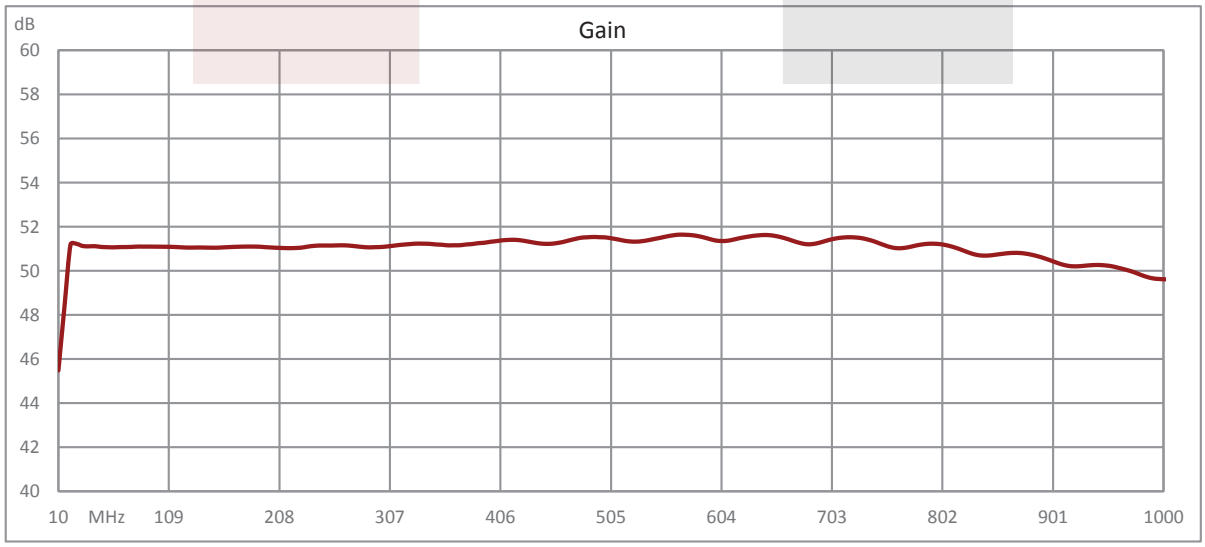
Plotted and Other Data

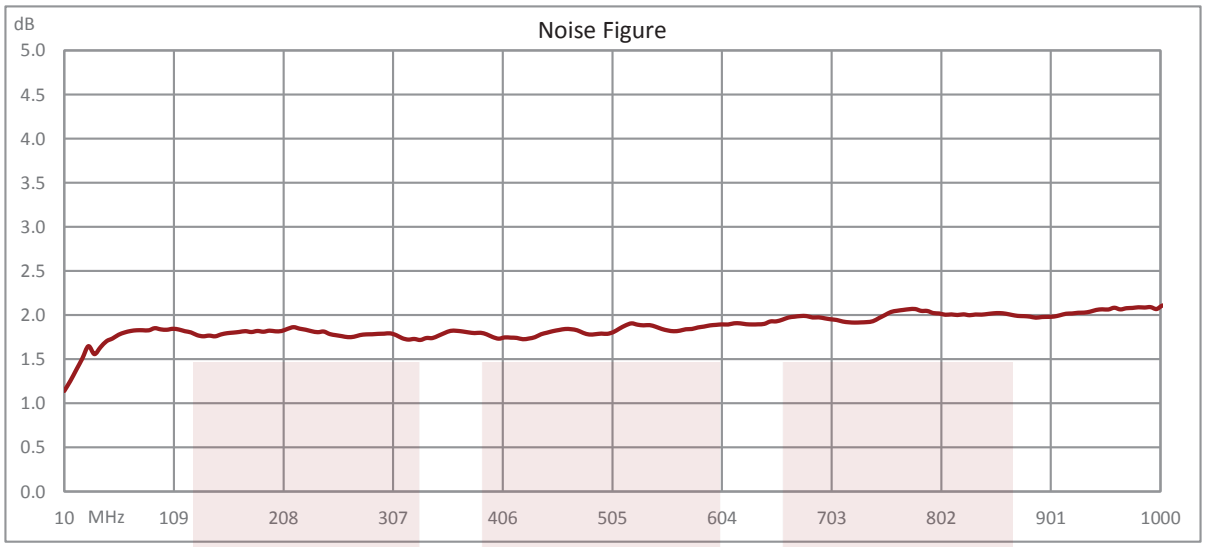
Notes:

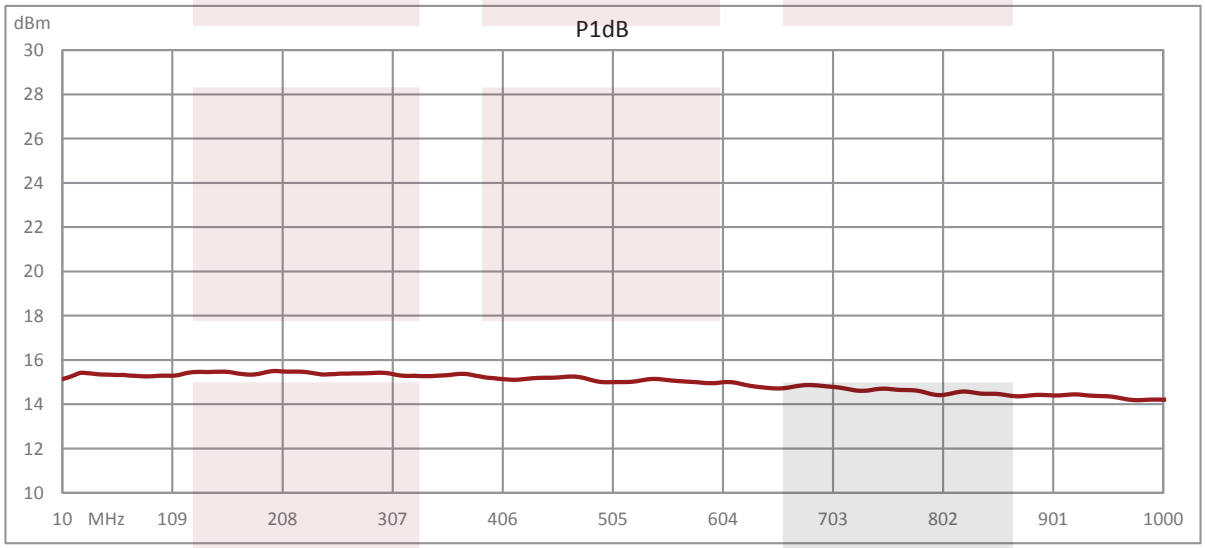
- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

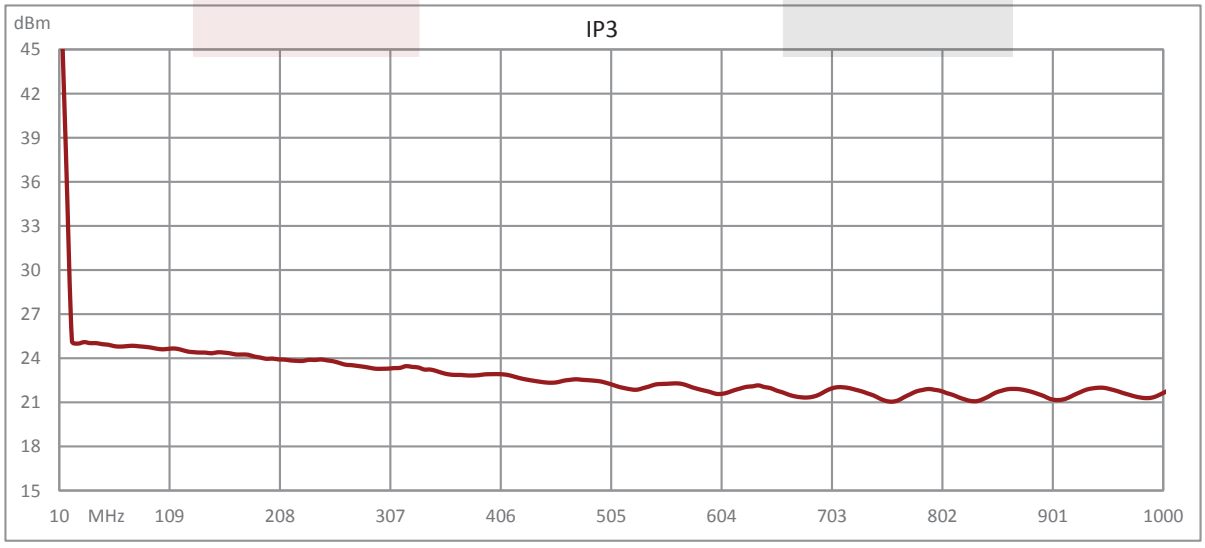
Typical Performance Data











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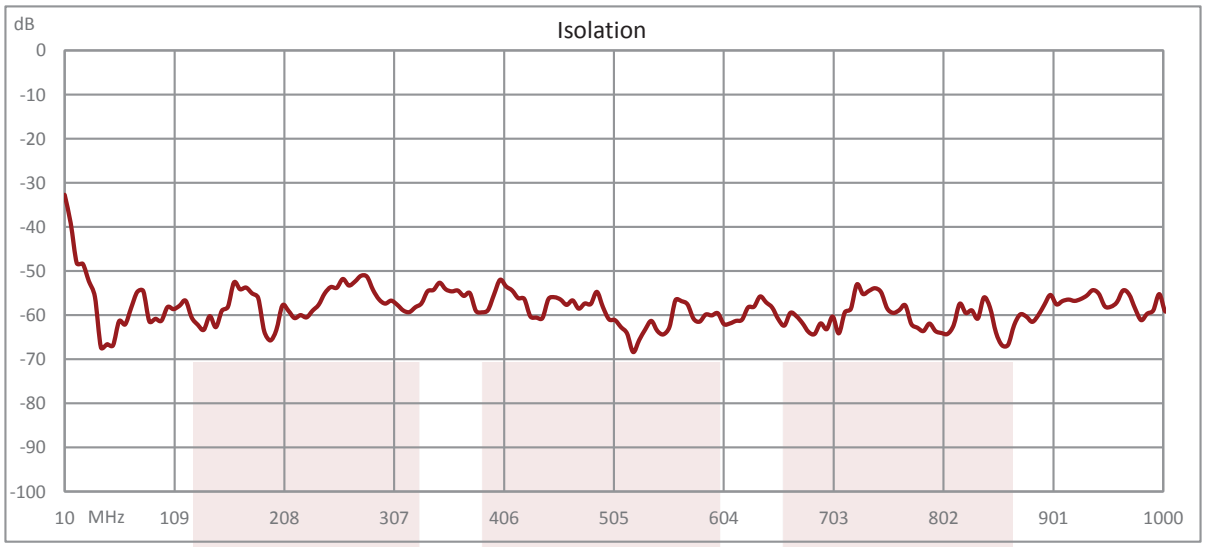
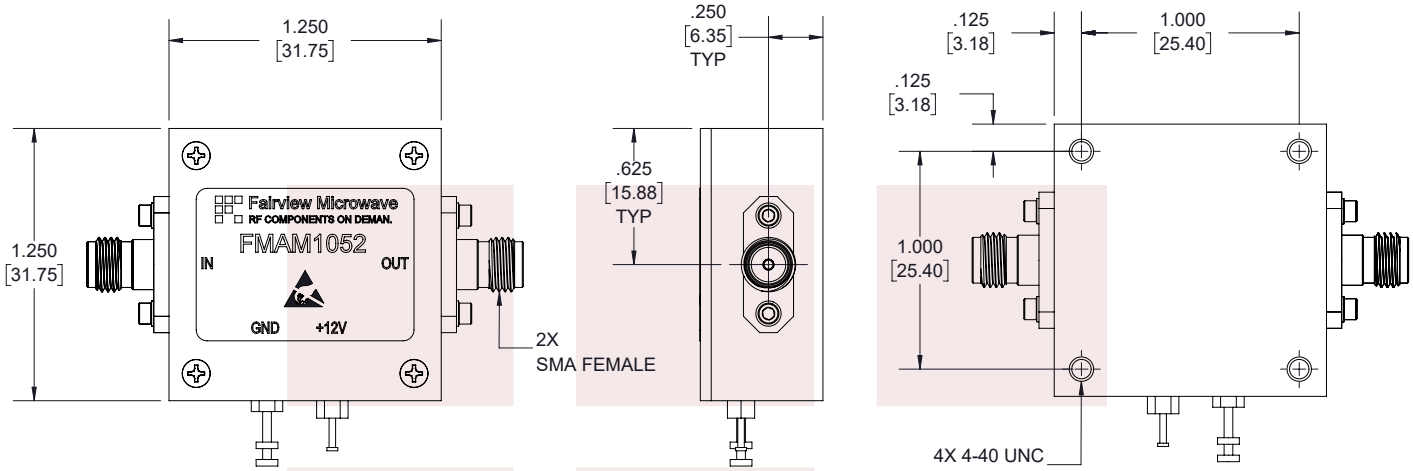
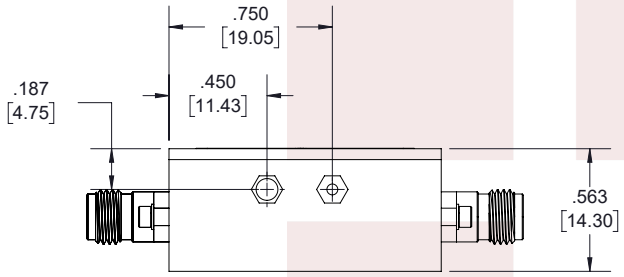


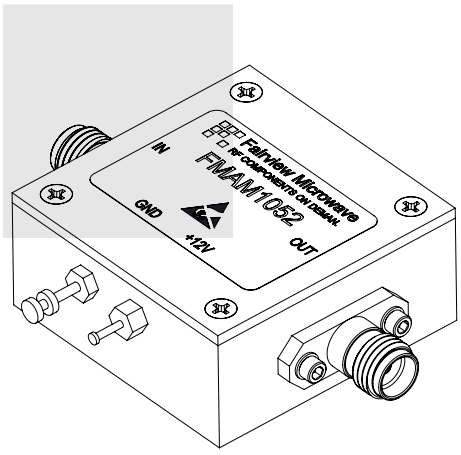
2.2 dB NF Low Noise Amplifier, Operating from 10 MHz to 1 GHz with 51 dB Gain, 13 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: 2.2 dB NF Low Noise Amplifier, Operating from 10 MHz to 1 GHz with 51 dB Gain, 13 dBm P1dB and SMA FMAM1052

URL: https://www.fairviewmicrowave.com/2.2db-nf-low-noise-amplifier-51db-fmam1052-p.aspx







STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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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

2.2 dB NF Low Noise Amplifier, Operating from 10 MHz to 1 GHz with 51 dB Gain, 13 dBm P1dB and SMA

DWG NO	CAGE CODE
FMAM1052	3FKR5

CAD FILE	SHEET	SCALE	SIZE	
04/23/18	1 OF 1	N/A	A	7361

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