

## 1.7 dB NF Low Noise Amplifier, Operating from 10 MHz to 550 MHz with 29.7 dB Gain, 19 dBm P1dB and SMA

The FMAM1044 is a low noise coaxial amplifier operating in the 10 MHz to 550 MHz frequency range. Impressive typical performance includes 1.7 dB noise figure, 29.7 dB small signal gain, +19 dBm P1dB, and an output 3rd order intercept point of +34 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.

**Electrical Specifications** (TA = +25°C, DC Voltage = 12Vdc, DC Current = 105mA)

Description	Min	Typ	Max	Unit
Frequency Range	10		550	MHz
Small Signal Gain	27	29.7		dB
Gain Flatness		±0.3	±0.5	dB
Output at 1 dB Compression Point	+19	+19		dBm
Output 3rd Intercept Point	+32	+34		dBm
Noise Figure		1.7	2	dB
Input VSWR		1.5:1	2:1	
Output VSWR		1.5:1	2:1	
Reverse Isolation		-35		dB
Operating DC Voltage		12	15	Volts
Operating DC Current		105	120	mA
Operating Temperature Range	-40		+75	°C

### Absolute Maximum Rating

Parameter	Rating	Units
Supply Voltage	+25	V
RF Input Power	+15	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	0.086 lbs [39.01 g]
Input Connector	SMA Female
Output Connector	SMA Female



### Features:

- 10 MHz to 550 MHz Frequency Range
- Low Noise Figure: 1.7 dB
- High Dynamic Range
- Efficient GaAs pHEMT Design
- Small Signal Gain: 29.7 dB
- Output P1dB: +19 dBm
- Output IP3: +34 dBm
- Operating Temperature: -40°C to +75°C
- 50 Ohm Input and Output Matched
- DC Power Supply: +12V / 105 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

Fairview Microwave  
301 Leora Ln., Suite 100  
Lewisville, TX 75056  
Tel: 1-800-715-4396 / (972) 649-6678  
Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

## 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

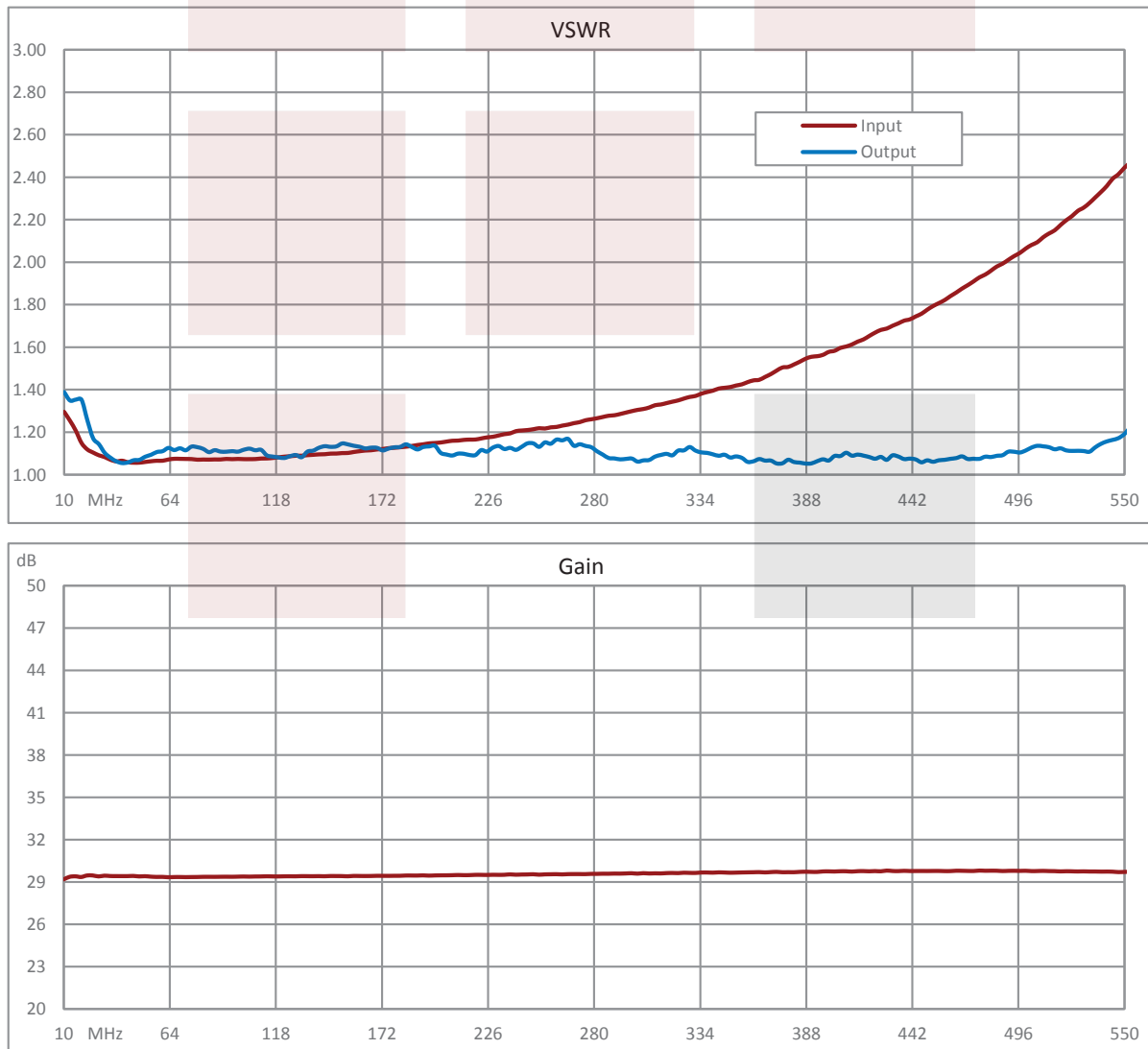
## Compliance Certifications (see [product page](#) for current document)

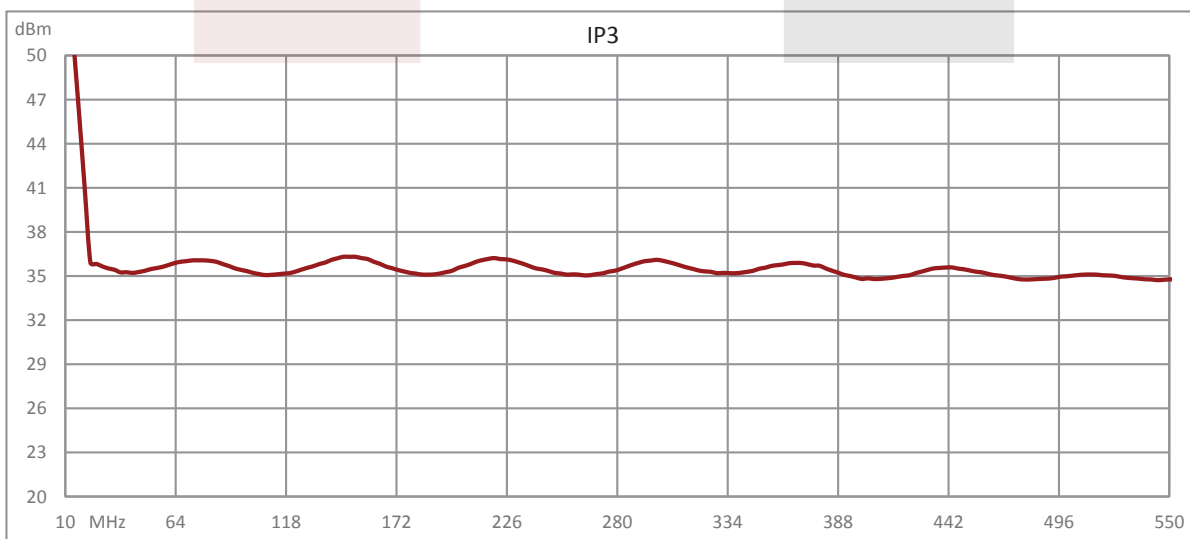
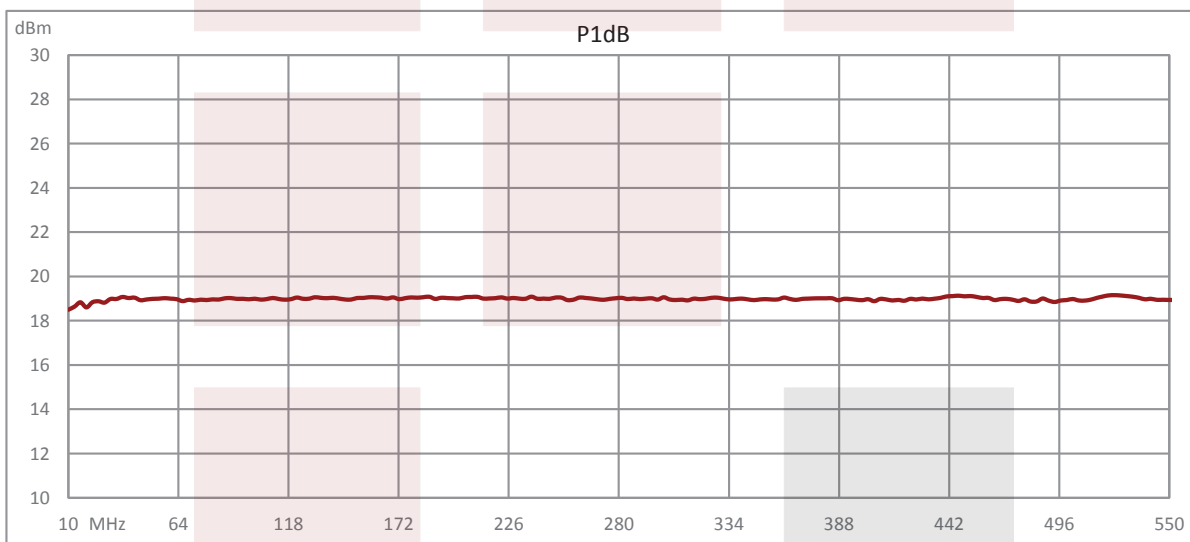
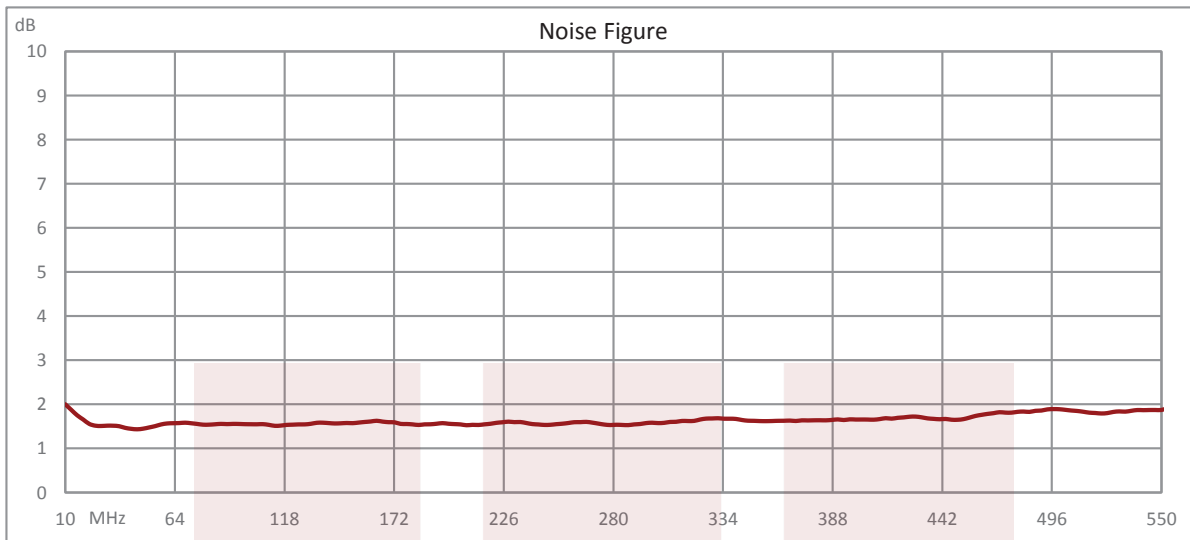
## Plotted and Other Data

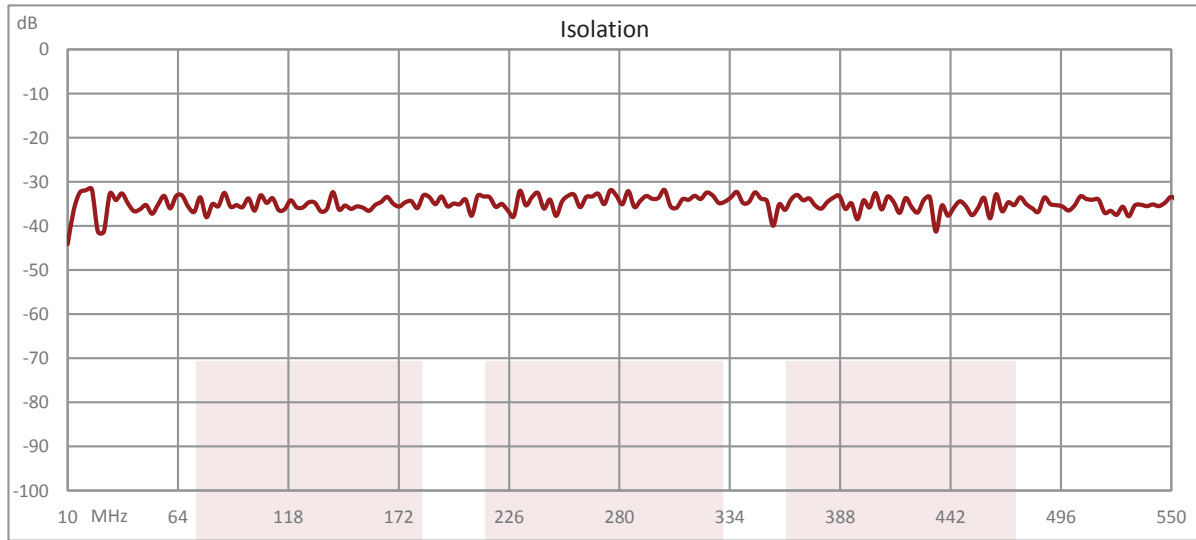
### Notes:

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

## Typical Performance Data





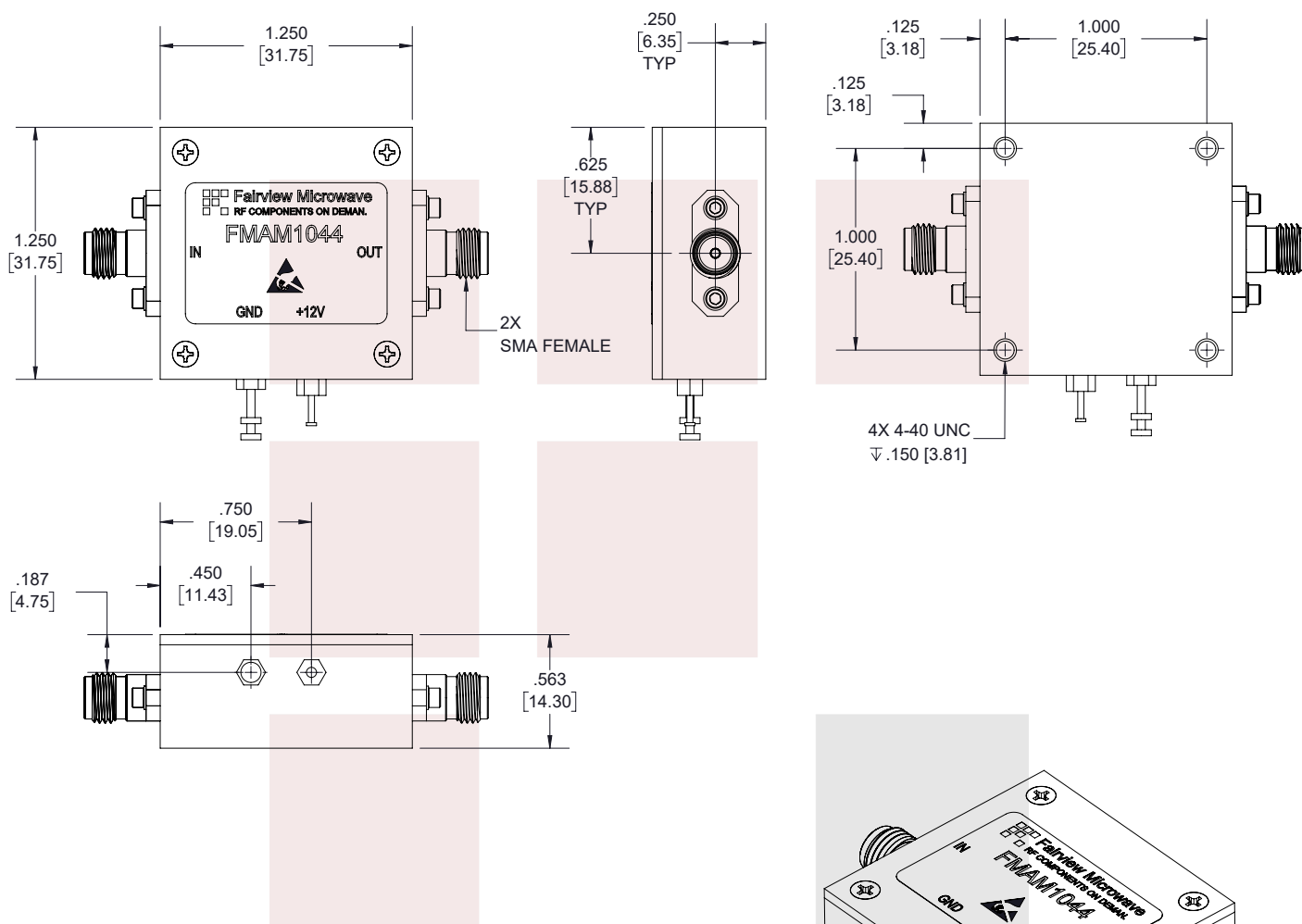


1.7 dB NF Low Noise Amplifier, Operating from 10 MHz to 550 MHz with 29.7 dB Gain, 19 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1.7 dB NF Low Noise Amplifier, Operating from 10 MHz to 550 MHz with 29.7 dB Gain, 19 dBm P1dB and SMA FMAM1044](https://www.fairviewmicrowave.com/1.7db-nf-low-noise-amplifier-29.7db-fmam1044-p.aspx)

URL: <https://www.fairviewmicrowave.com/1.7db-nf-low-noise-amplifier-29.7db-fmam1044-p.aspx>

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**STANDARD TOLERANCES**

.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES

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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to 550 MHz with 29.7 dB Gain, 19 dBm P1dB and SMA

DWG NO

FMAM1044

CAGE CODE

3FKR5

CAD FILE

04/23/18

SHEET

1 OF 1

SCALE N/A

SIZE A

7361