

**1.5 dB NF Low Noise Amplifier Operating From 1.2 GHz to 1.4 GHz with 25 dB Gain, 10 dBm P1dB and SMA**

The FMAM1023 is an L-band high gain low noise coaxial amplifier operating in the 1.2 to 1.4 GHz frequency range. The low noise amplifier offers 10 dBm min of P1db and 25 dB typical small signal gain with gain flatness of  $\pm 0.75$  dB typical. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The low noise amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -40°C and +75°C.

**Electrical Specifications** (TA = +25°C , DC Voltage = 12Volts , DC Current = 150mA)

Description	Min	Typ	Max	Unit
Frequency Range	1.2		1.4	GHz
Small Signal Gain	25			dB
Gain Flatness		$\pm 0.75$	$\pm 1$	dB
Output at 1 dB Compression Point	+10			dBm
Noise Figure		1.5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	10.8	12	13.2	Volts
Operating DC Current		150		mA
Operating Temperature Range	-40		+75	°C

**Mechanical Specifications**

<b>Size</b>	
Length	2.32 in [58.93 mm]
Width	2.32 in [58.93 mm]
Height	0.71 in [18.03 mm]
Input Connector	SMA Female
Output Connector	SMA Female

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-40 to +75 deg C

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

RoHS Compliant	Yes
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**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.



**Features:**

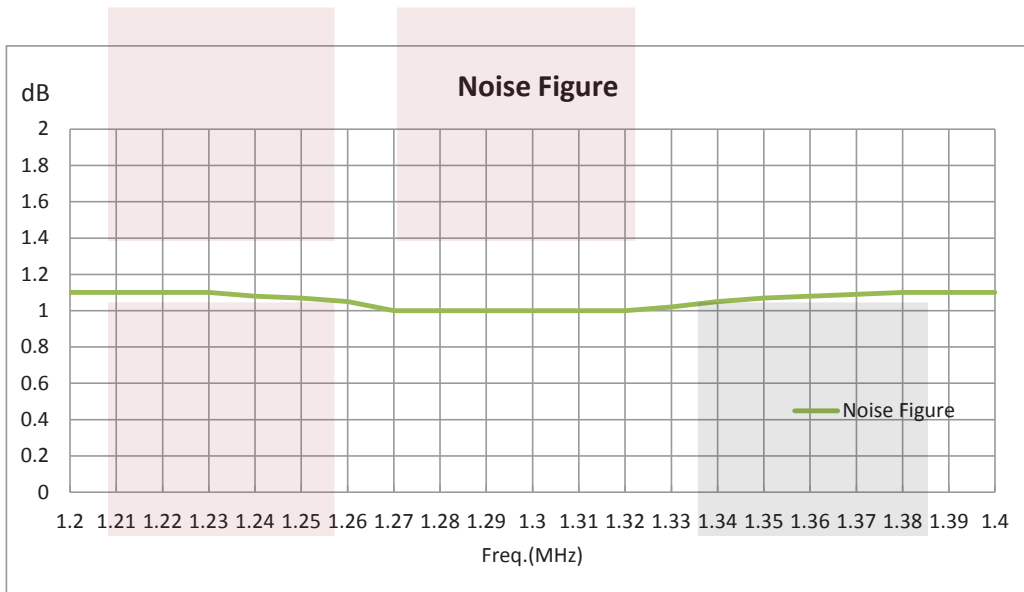
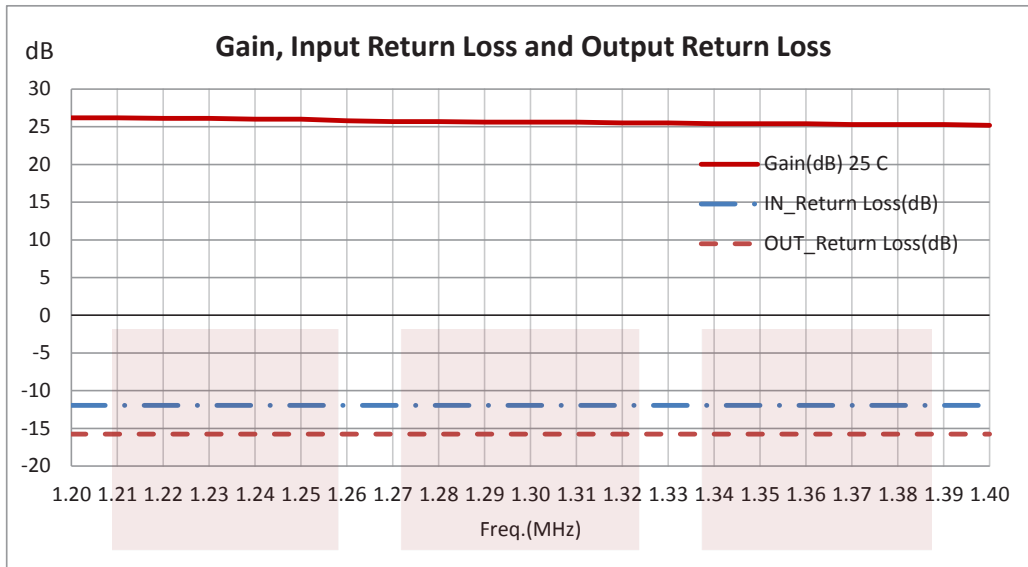
- 1.2 GHz to 1.4 GHz Frequency Range
- P1dB: 10 dBm min
- Small Signal Gain: 25 dB min
- Gain Flatness:  $\pm 0.75$  dB typical
- Noise Figure: 1.5 dB typ
- 50 Ohm Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing

**Applications:**

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation Satellites
- Radar & Communication Systems
- High Gain Low Noise Amplifier

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**Typical Performance Data**



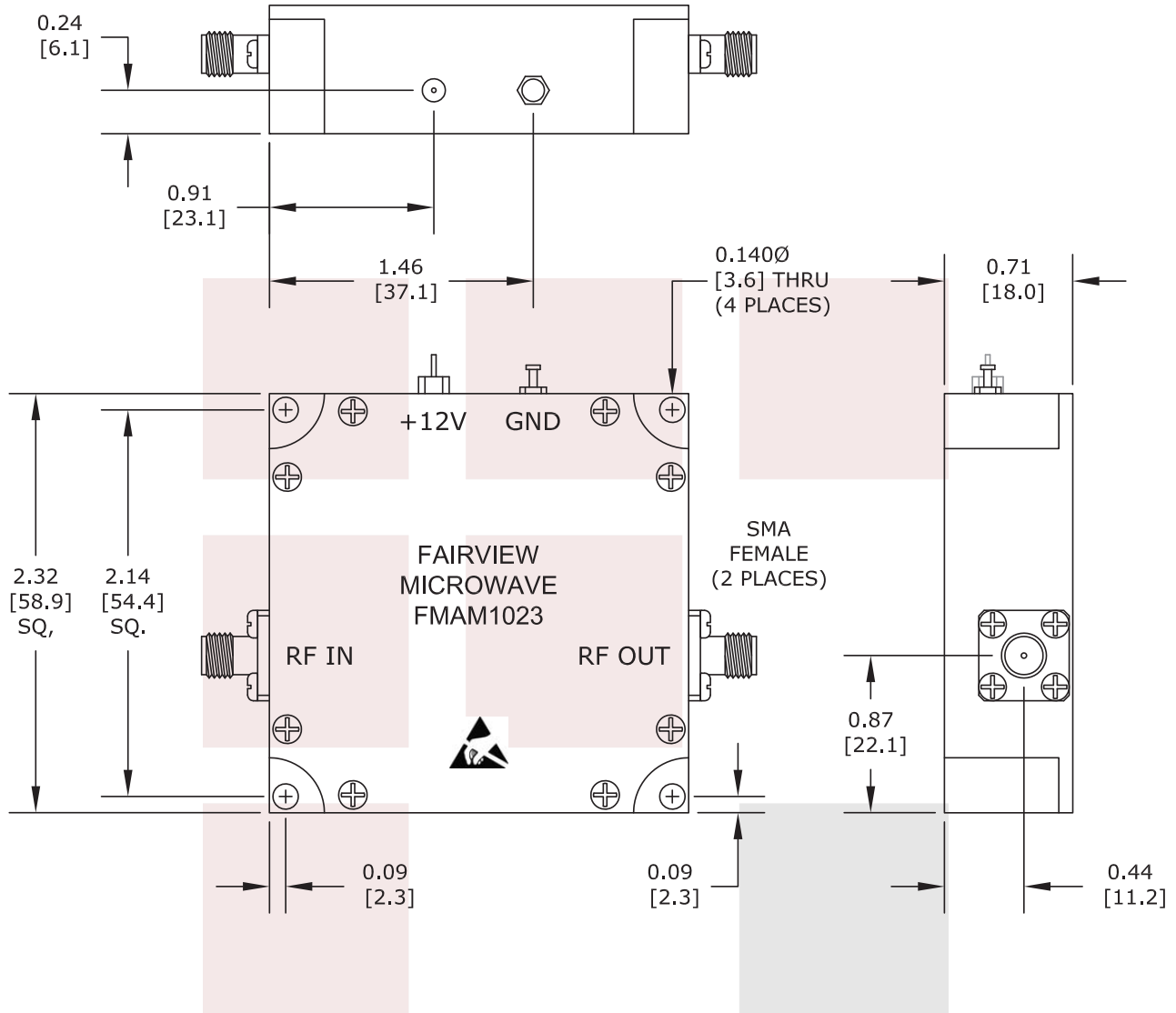
1.5 dB NF Low Noise Amplifier Operating From 1.2 GHz to 1.4 GHz with 25 dB Gain, 10 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1.5 dB NF Low Noise Amplifier Operating From 1.2 GHz to 1.4 GHz with 25 dB Gain, 10 dBm P1dB and SMA FMAM1023](#)

URL: <http://www.fairviewmicrowave.com/1.5db-nf-low-noise-amplifier-25db-fmam1023-p.aspx>

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

<b>FAIRVIEW MICROWAVE INC.</b>		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].			
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		DWG NO <b>FMAM1023</b>		CAGE CODE <b>3FKR5</b>	
TITLE 1.5 dB NF Low Noise Amplifier Operating From 1.2 GHz to 1.4 GHz with 25 dB Gain, 10 dBm P1dB and SMA		CAD FILE 021715	SHEET	SCALE N/A	SIZE A 2233