

### 3.1 GHz to 3.5 GHz, Medium Power Broadband Amplifier with 1 Watt, 30 dB Gain and SMA

The FMAM4046 is a broadband coaxial power amplifier, operating in the 3.1 to 3.5 GHz frequency range. This amplifier utilizes high power devices that provide excellent linearity and high gain. High efficiency operation is achieved by using hybrid MIC designs and advanced GaAs PHEMT devices. The amplifier offers 30 dBm of P1dB min and 30 dB small signal gain typ, with the gain flatness of  $\pm 0.7$  dB max. This power amplifier requires a +12 Volt DC supply, is unconditionally stable, operates over the temperature range of  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ , and is Hermetically sealed.

#### Electrical Specifications (TA= 25°C, VDC1 = 12 Vdc)

Description	Min	Typ	Max	Unit
Frequency Range	3.1		3.5	GHz
Gain	29	30		dB
Gain Flatness			$\pm 0.7$	dB
P1dB	+30			dBm
Noise Figure			4.5	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1		12		Volts
Operating DC Current			900	mA
Operating Temperature Range (OTR)	-40		+85	$^{\circ}\text{C}$

#### Mechanical Specifications

<b>Size</b>	
Length	2.17 in [55.12 mm]
Width	0.86 in [21.84 mm]
Height	0.32 in [8.13 mm]
Weight	0.081 lbs [36.74 g]
Input Connector	SMA Female
Output Connector	SMA Female

#### Environmental Specifications

<b>Temperature</b>	
Operating Range	$-40$ to $+85$ deg C

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

#### Plotted and Other Data

Notes:

- Values at 25  $^{\circ}\text{C}$ , 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.



#### Features:

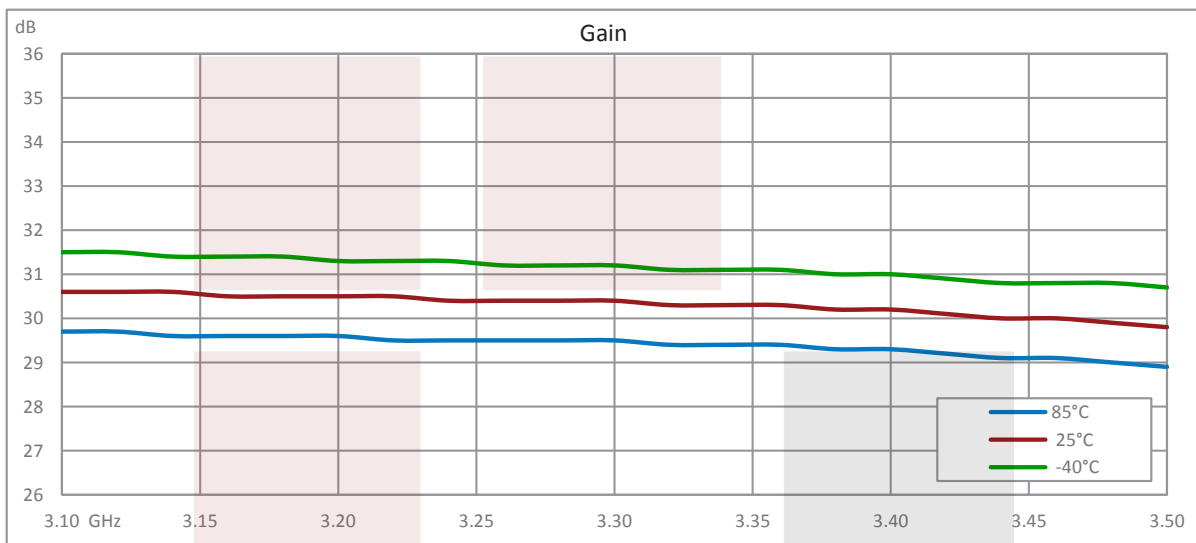
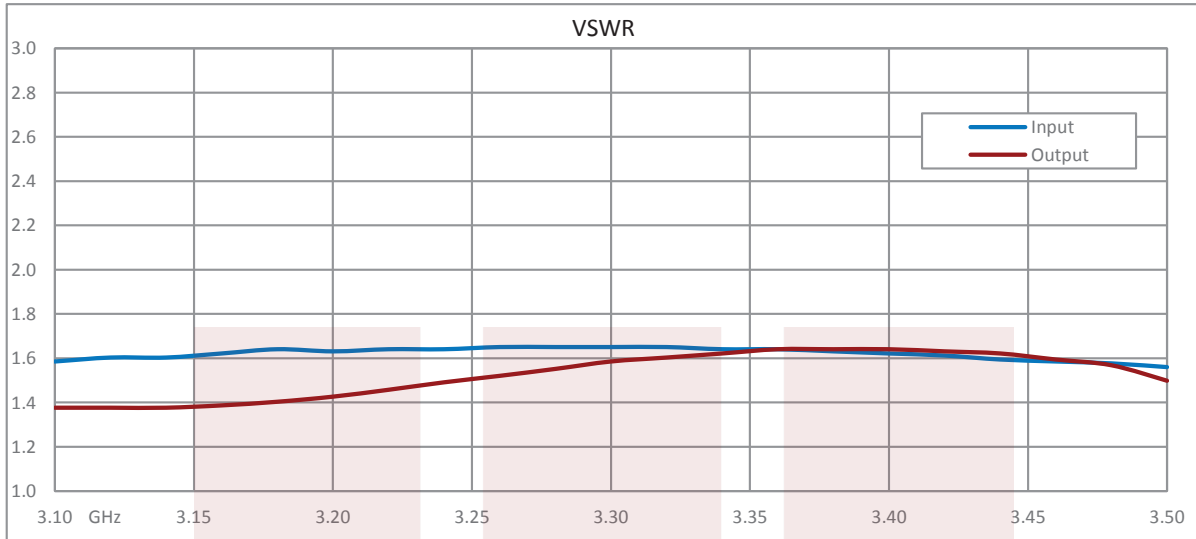
- 3.1 to 3.5 GHz Frequency Range
- P1dB: 30 dBm min
- Small Signal Gain: 30 dB typ
- Gain Flatness:  $\pm 0.7$  dB max
- 50 Ohm Input and Output Matched
- $-40$  to  $+85^{\circ}\text{C}$  Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

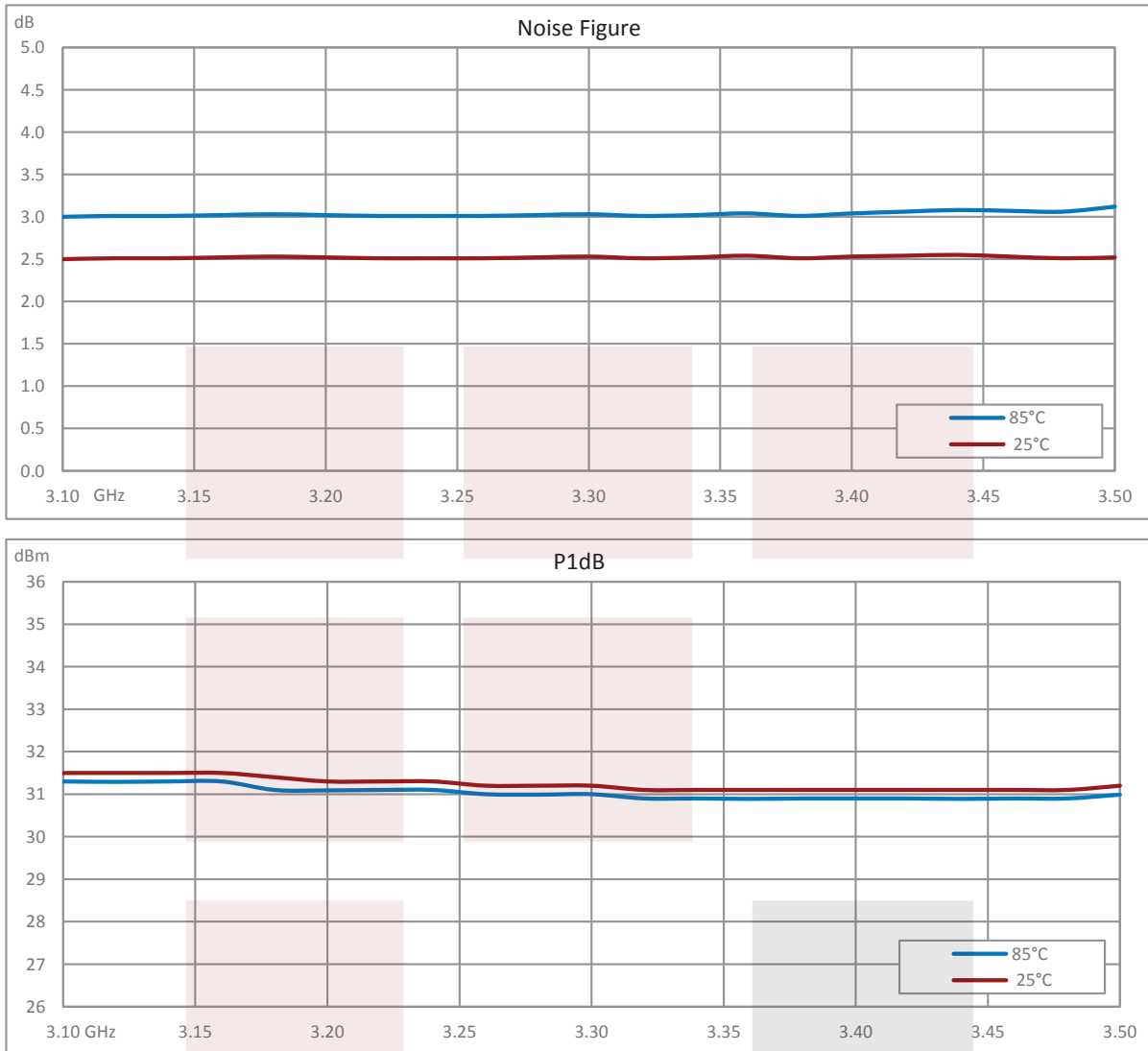
#### Applications:

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Unmanned Systems
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- RF Front Ends

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**Typical Performance Data**



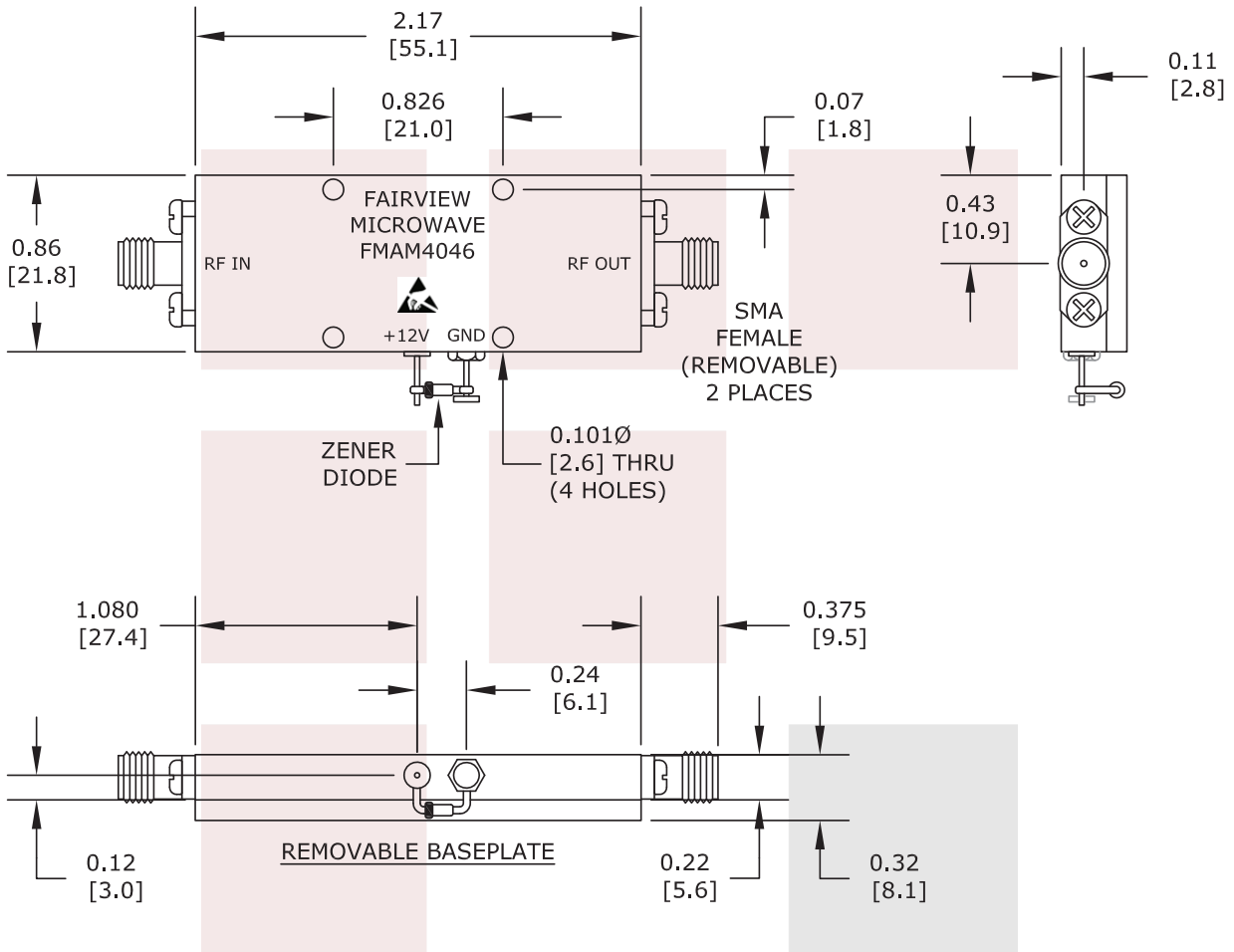


3.1 GHz to 3.5 GHz, Medium Power Broadband Amplifier with 1 Watt, 30 dB Gain and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [3.1 GHz to 3.5 GHz, Medium Power Broadband Amplifier with 1 Watt, 30 dB Gain and SMA FMAM4046](#)

URL: <https://www.fairviewmicrowave.com/3.1-3.5-ghz-medium-power-broadband-amplifier-fmam4046-p.aspx>

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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TITLE 3.1 GHz to 3.5 GHz, Medium Power Broadband Amplifier with 1 Watt, 30 dB Gain and SMA		DWG NO FMAM4046		CAGE CODE 3FKR5	
CAD FILE	032217	SHEET	SCALE	N/A	SIZE A 2233