

12 dB Gain Block Amplifier Operating From 6 GHz to 12 GHz with and SMA

FMAM8006 is wideband general purpose RF coaxial gain block amplifier operating in the 6 GHz to 12 GHz frequency range. The amplifier offers 10 dBm min of P1dB, 12 dB typ of Gain, OIP3 typ of 20 dBm. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. Input/output ports are matched for 50 ohms and are AC coupled. This gain block amplifier requires only a single positive supply, typically a +12V DC power supply and includes built-in voltage regulation, is unconditionally stable and operates over the temperature range of -30°C and +70°C.

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 80mA)

Description	Min	Typ	Max	Unit
Frequency Range	6		12	GHz
Small Signal Gain	11	12		dB
Gain Flatness		±0.4		dB
Output at 1 dB Compression Point	+10			dBm
Output 3rd Intercept Point		+20		dBm
Noise Figure		2.3		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	15	Volts
Operating DC Current		80		mA
Operating Temperature Range	-30		+70	°C

Mechanical Specifications

Size

Length

1.083 in [27.51 mm]

Width

1.093 in [27.76 mm]

Height

0.382 in [9.7 mm]

Weight

0.061 lbs [27.67 g]

Input Connector

SMA Female

Output Connector

SMA Female

Environmental Specifications

Temperature

Operating Range

-30 to +70 deg C

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.



Features:

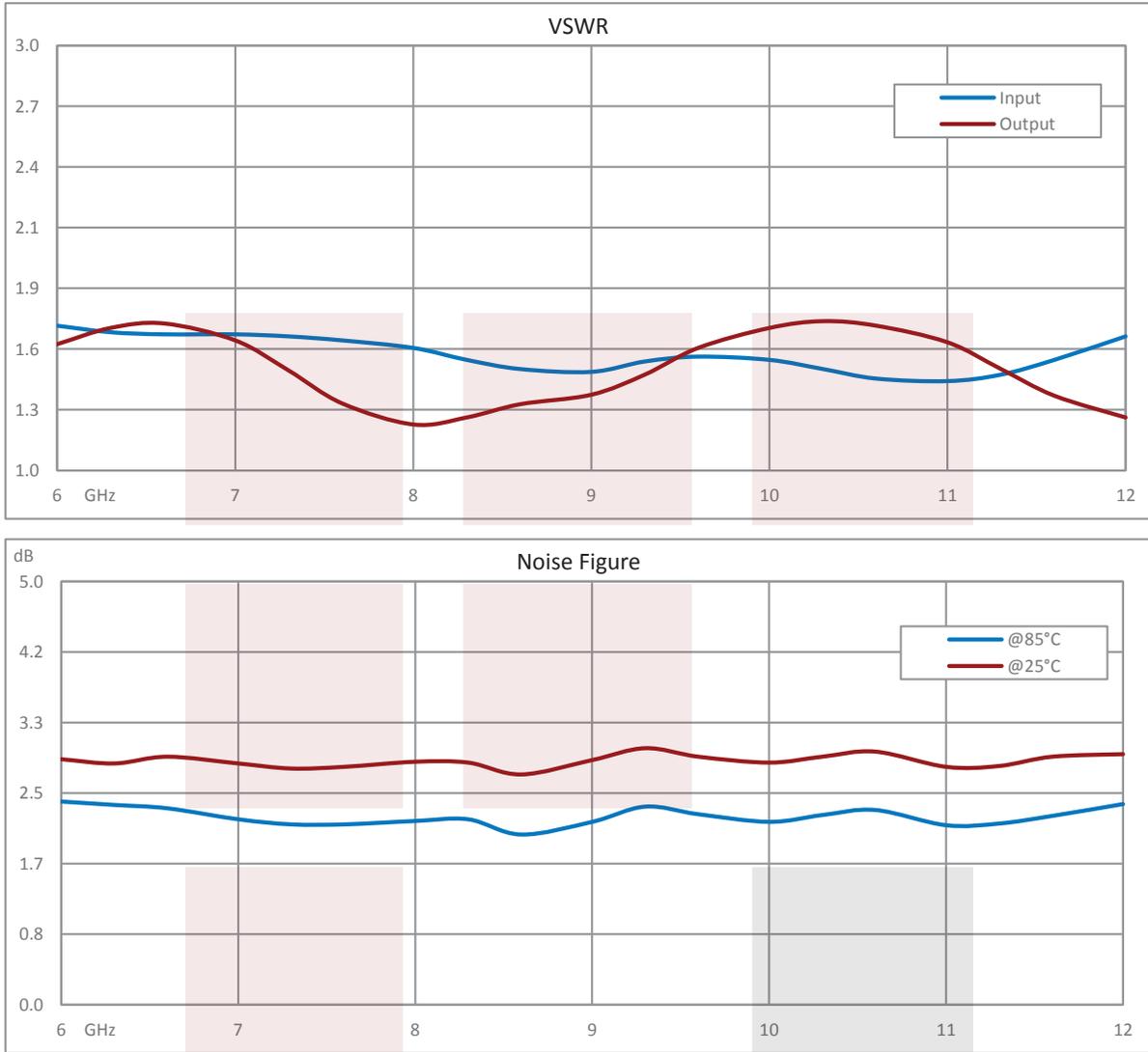
- 6 GHz to 12 GHz Frequency Range
- P1dB: 10 dBm
- Small Signal Gain: 12 dB
- OIP3: 20 dBm
- 50 Ohm Input and Output Matched
- -30 to +70°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

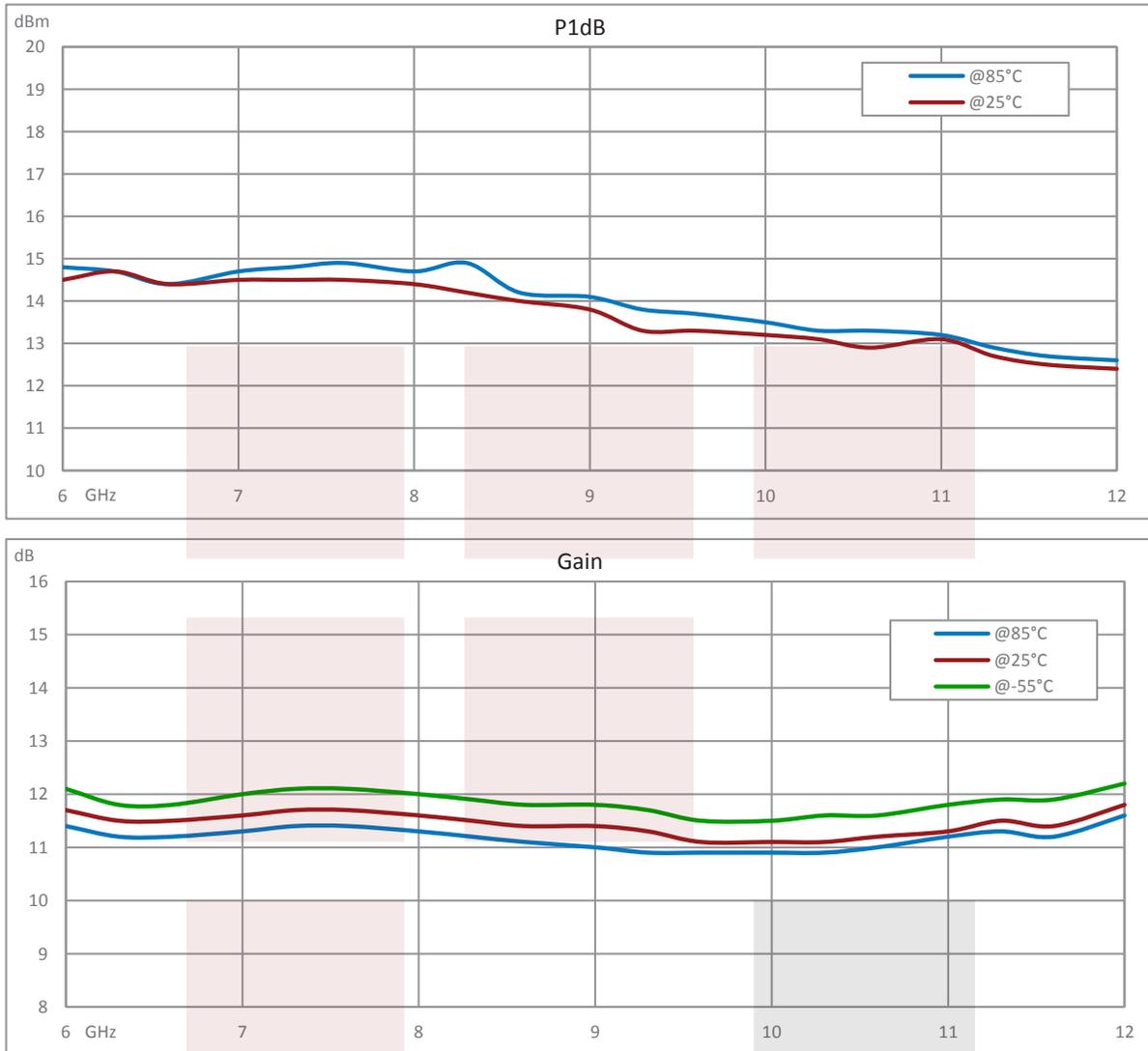
Applications:

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification

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Typical Performance Data



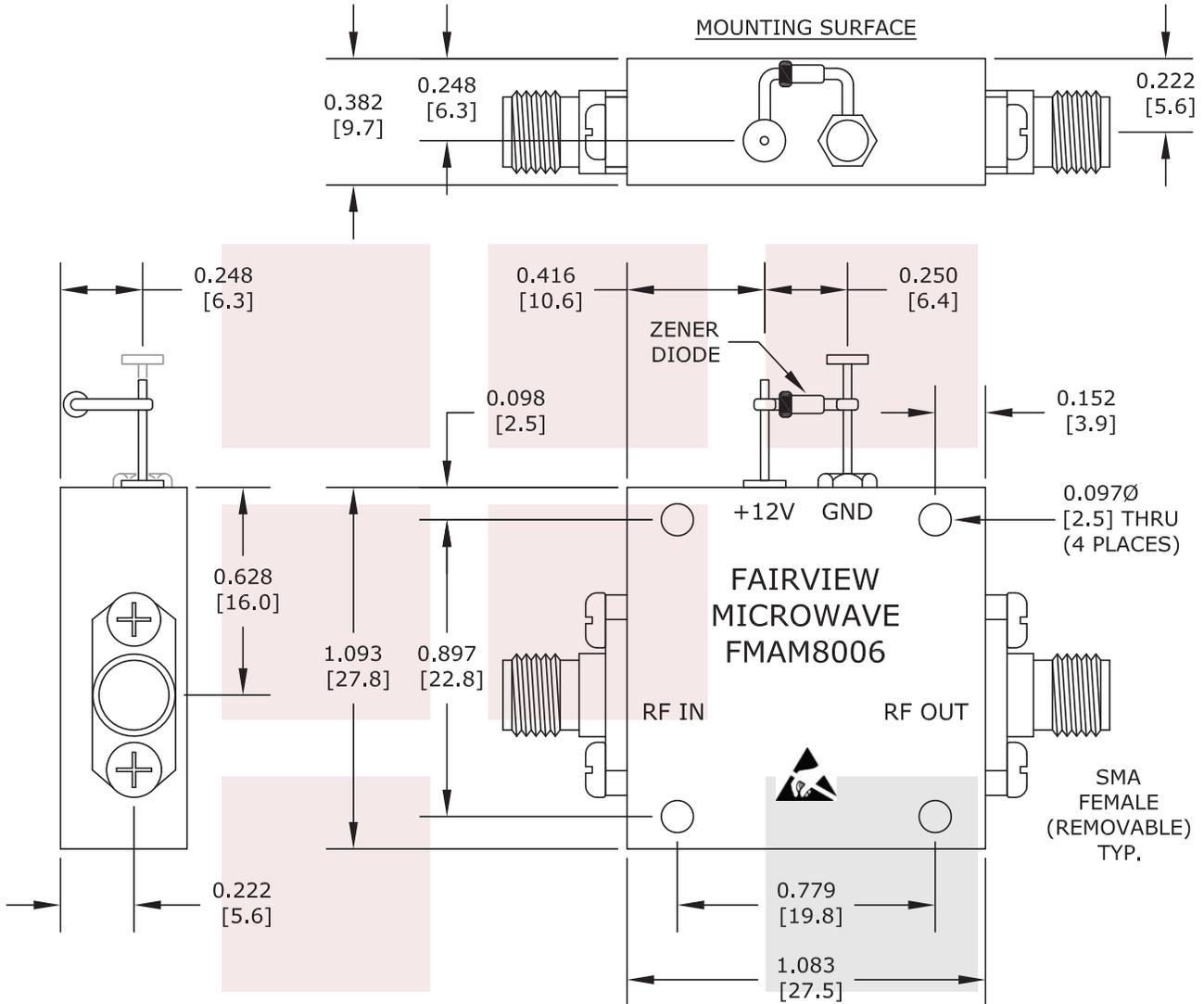


12 dB Gain Block Amplifier Operating From 6 GHz to 12 GHz with and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [12 dB Gain Block Amplifier Operating From 6 GHz to 12 GHz with and SMA FMAM8006](https://www.fairviewmicrowave.com/12-db-gain-block-amplifier-12-ghz-fmam8006-p.aspx)

URL: <https://www.fairviewmicrowave.com/12-db-gain-block-amplifier-12-ghz-fmam8006-p.aspx>

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TITLE 12 dB Gain Block Amplifier Operating From 6 GHz to 12 GHz with and SMA		DWG NO FMAM8006		CAGE CODE 3FKR5	
CAD FILE	032116	SHEET	SCALE	N/A	SIZE A 2233