

0.85 dB NF Input Protected Low Noise Amplifier, Operating from 3.1 GHz to 3.5 GHz with 35 dB Gain, 13 dBm P1dB and SMA

FMAM63011 is an Input Protected Low Noise RF coaxial amplifier operating in the 3.1 MHz to 3.5 GHz frequency range. The amplifier has a 0.85 dB typical noise figure and can handle up to 1 Watt CW input power without damage. Additional typical performance includes 35 dB small signal gain, 1.45:1 VSWR, and +13 dBm P1dB. The exceptional technical performance is achieved through the use of a 4 stage hybrid MIC assembly that incorporates a low loss input Pin Diode Limiter protective circuit followed by gain stages that use Enhancement Mode (Emode) GaAs pHEMT devices. The 50 Ohm SMA connectorized module is unconditionally stable, includes built-in DC voltage regulation, and supports DC blocking Capacitors on the RF ports. The Amplifier operates with a bias voltage of +12V typical and over the temperature range of -10°C to +60°C. This model is RoHS compliant and has an EAR99 export classification.



Electrical Specifications (TA = +25°C , DC Voltage = 12Vdc , DC Current = 100mA)

Description	Min	Typ	Max	Unit
Frequency Range	3.1		3.5	GHz
Small Signal Gain		35		dB
Gain Flatness			±1	dB
Gain Variance at OTR*		1		dB
Output at 1 dB Compression Point	+13			dBm
Noise Figure		0.85	1	dB
Input VSWR		1.4:1	1.5:1	
Output VSWR		1.5:1	1.8:1	
Spurious			-60	dBc
Input Power (CW)			+30	dBm
Operating DC Voltage		12		Volts
Operating DC Current		100		mA
Operating Temperature Range	-10		+60	°C

*OTR= Base Plate Operating Temperature Range

Mechanical Specifications

Size

Length	1.7 in [43.18 mm]
Width	0.95 in [24.13 mm]
Height	0.4 in [10.16 mm]
Weight	0.061 lbs [27.67 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-10 to +60 deg C
Storage Range	-50 to +85 deg C

Features:

- 3.1 MHz to 3.5 GHz Frequency Range
- P1dB: 13 dBm
- High Small Signal Gain: 35 dB typical
- Gain Flatness: ±1 dB
- Noise Figure: .85 dB typ
- 50 Ohm Input and Output Matched
- -10°C to +60°C Operating Temperature
- Single DC Positive Supply
- Maximum CW Input Power: 1W
- DC Blocking Capacitors

Applications:

- R&D Labs
- Radar Systems
- Test Instrumentation
- Communication Systems
- General Purpose Amplification
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- Fixed and Land Mobile

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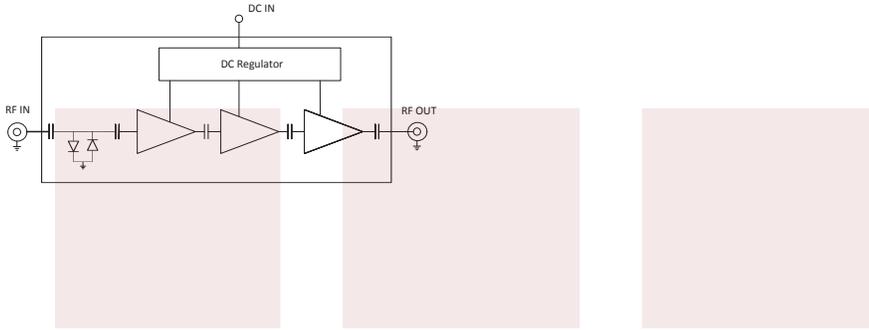
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

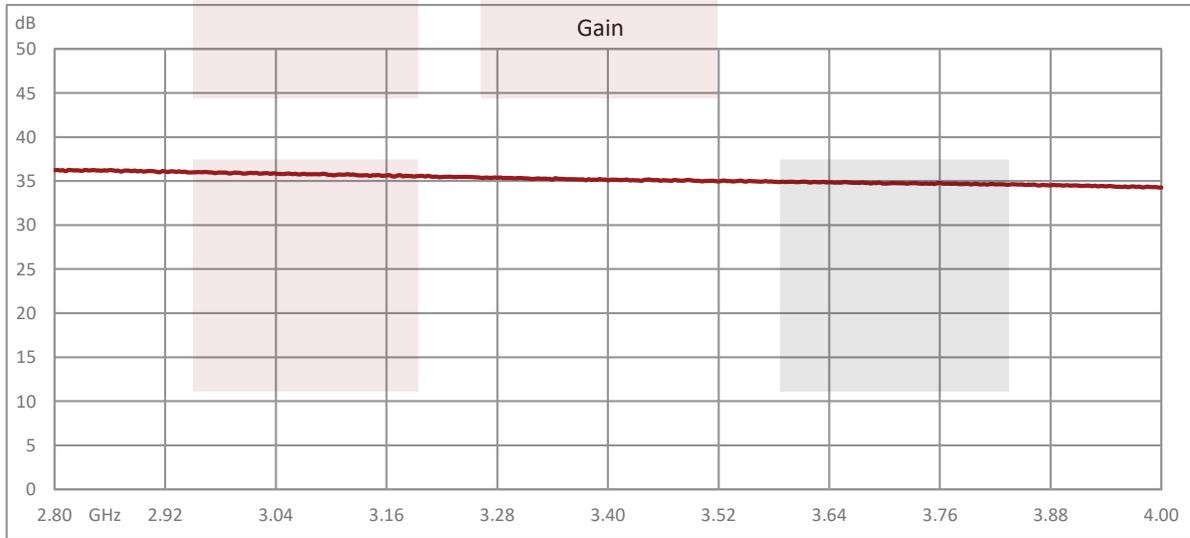
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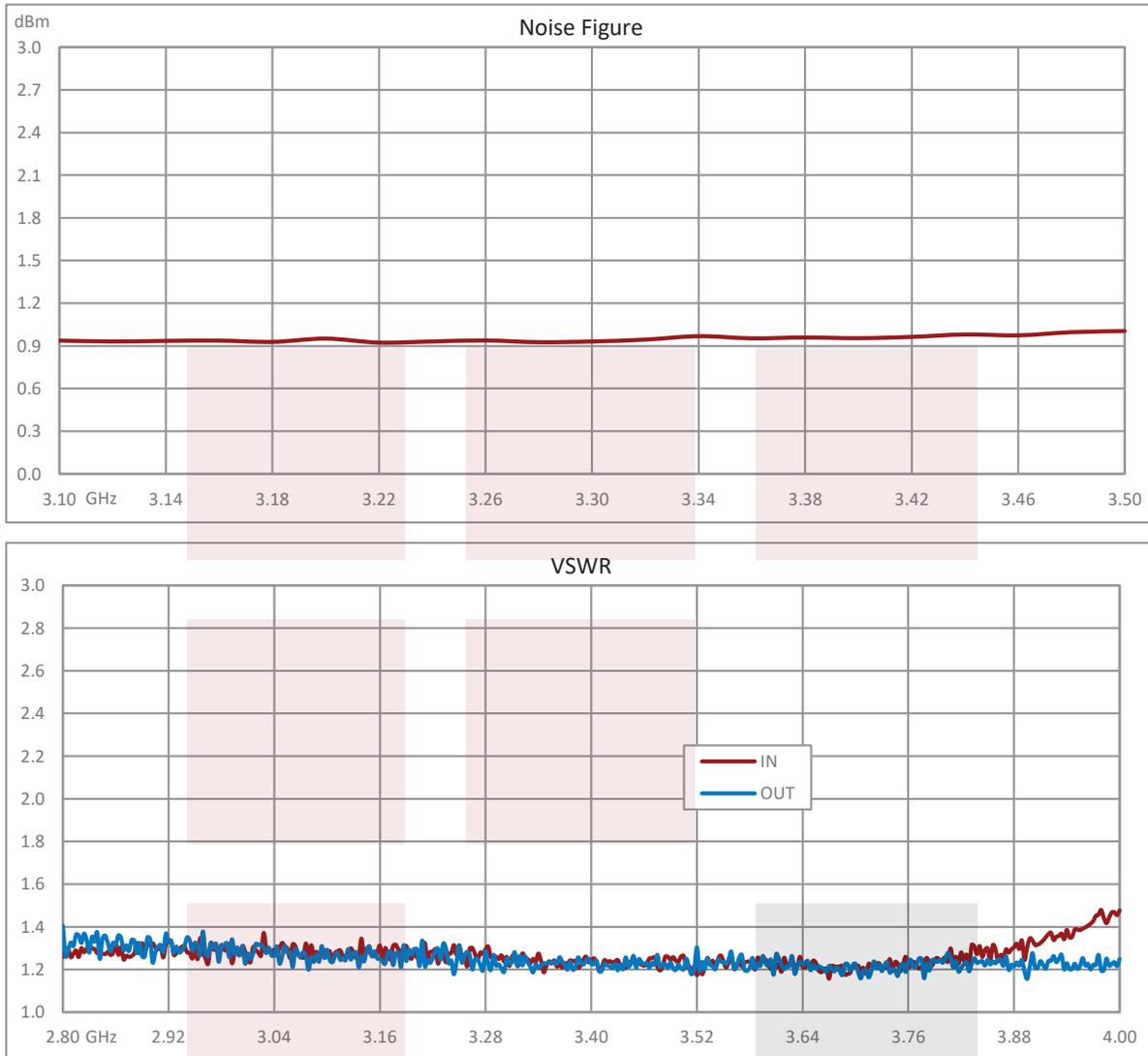
- Values at 25 °C, sea level

Functional Block Diagram



Typical Performance Data



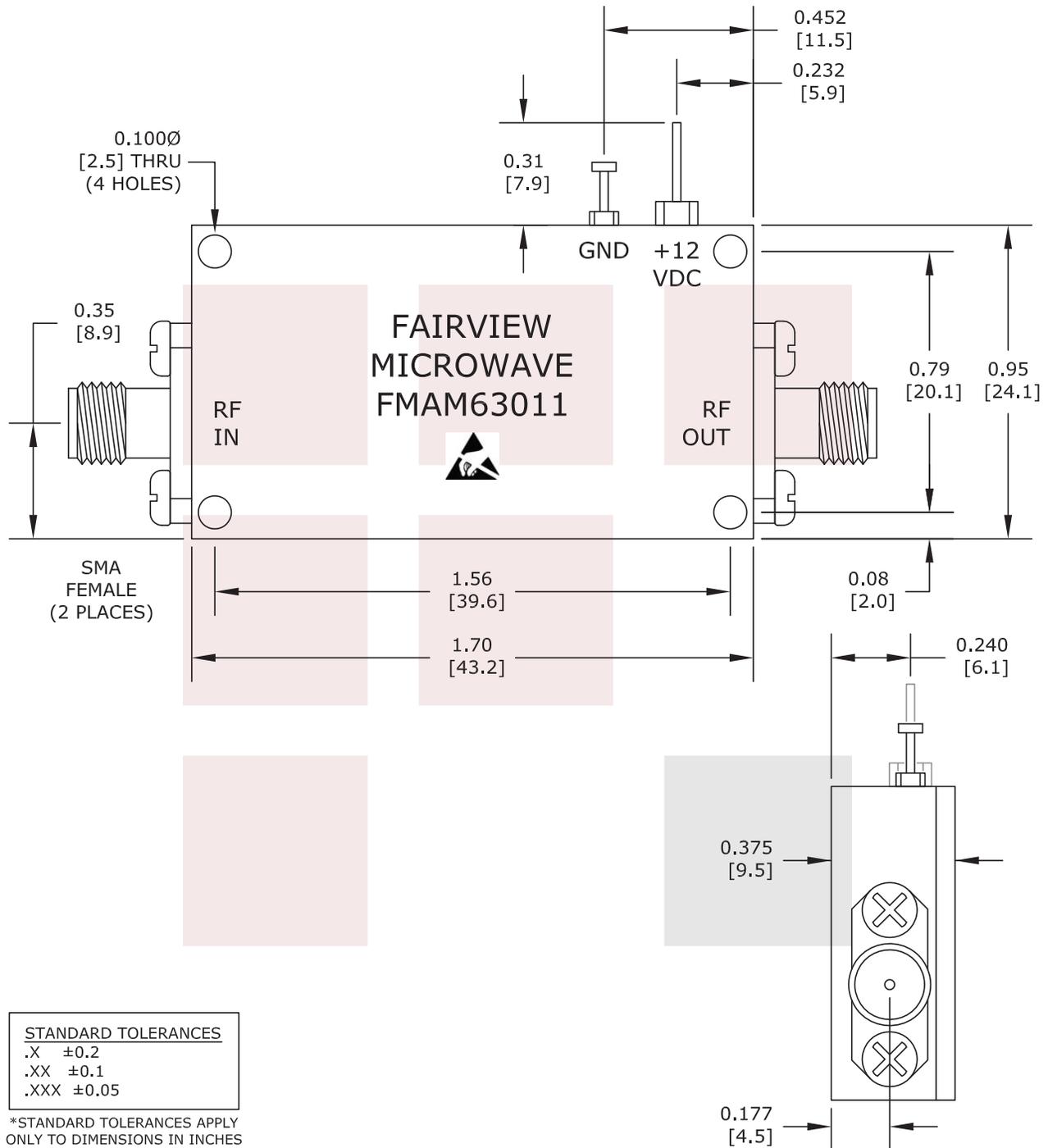


0.85 dB NF Input Protected Low Noise Amplifier, Operating from 3.1 GHz to 3.5 GHz with 35 dB Gain, 13 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0.85 dB NF Input Protected Low Noise Amplifier, Operating from 3.1 GHz to 3.5 GHz with 35 dB Gain, 13 dBm P1dB and SMA FMAM63011](#)

URL: <https://www.fairviewmicrowave.com/low-noise-amplifier-fmam63011-p.aspx>

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE 0.85 dB NF Input Protected Low Noise Amplifier, Operating from 3.1 GHz to 3.5 GHz with 35 dB Gain, 13 dBm P1dB and SMA		DWG NO FMAM63011		CAGE CODE 3FKR5	
CAD FILE	041917	SHEET	SCALE	N/A	SIZE A 2233