

40 dB Gain 0.8 dB NF Low Noise High Gain Amplifier Operating From 1 GHz to 2 GHz with 11 dBm P1dB and SMA

The FMAM1019 is a wideband low noise RF coaxial power amplifier operating in the 1 GHz to 2 GHz frequency range. The amplifier offers 0.8 dB noise figure typical, 11 dBm of P1dB and 40 dB small signal gain with gain flatness of ± 1.0 dB. The low noise amplifier requires typically a +10V DC power supply and is unconditionally stable. The amplifier operates over the temperature range of -40°C and +85°C.

Electrical Specifications (TA = +25°C , DC Voltage = 10Volts , DC Current = 120mA)

Description	Min	Typ	Max	Unit
Frequency Range	1		2	GHz
Small Signal Gain	37	40		dB
Gain Flatness		± 1		dB
Gain Variance at OTR*		1		dB
Output at 1 dB Compression Point		+11		dBm
Output 3rd Intercept Point	+22	+25		dBm
Noise Figure		0.8	1	dB
Input VSWR		1.7:1	2:1	
Output VSWR		1.6:1	2:1	
Spurious			-60	dBc
Operating DC Voltage	9	10	12	Volts
Operating DC Current	100	120	135	mA
Operating Temperature Range	-40		+85	°C

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+13	dBm
DC Voltage at RF I/O	+25	Volts
Operating Temperature (base-plate)	-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

Length	1.5 in [38.1 mm]
Width	0.85 in [21.59 mm]
Height	0.375 in [9.53 mm]

Input Connector	SMA Female
Output Connector	SMA Female



Features:

- 1 GHz to 2 GHz Frequency Range
- Noise Figure: 0.8 dB typ
- P1dB: 11 dBm
- Flat Small Signal Gain: 40 dB
- Gain Flatness: ± 1.0 dB
- Gain Variance over OTR: ± 1.0 dB
- 50 Ohm Input and Output Matched
- -40 to 85°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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Environmental Specifications

Temperature

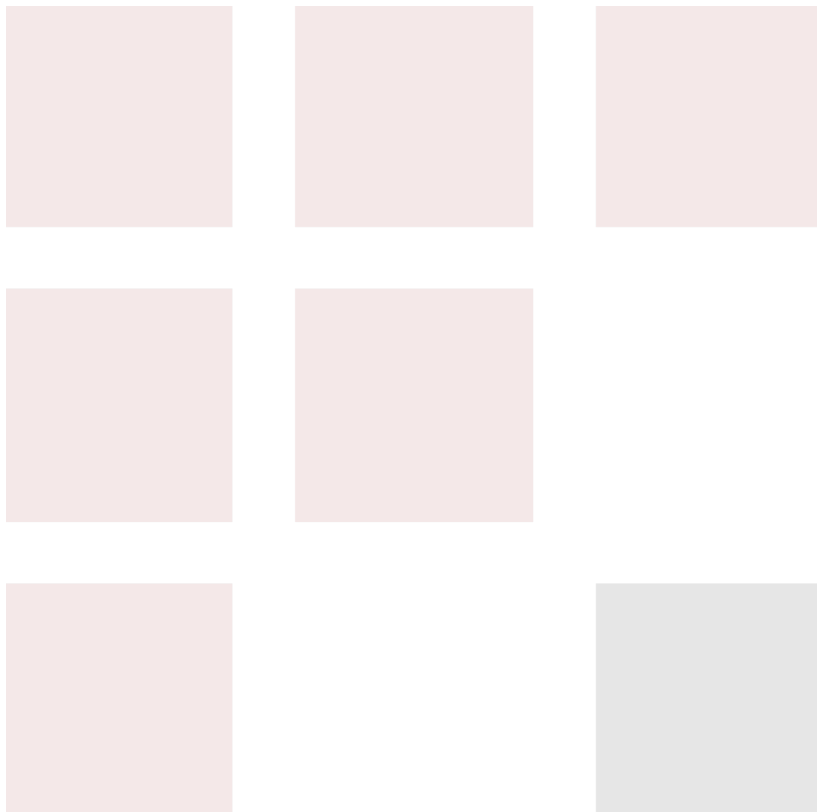
Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

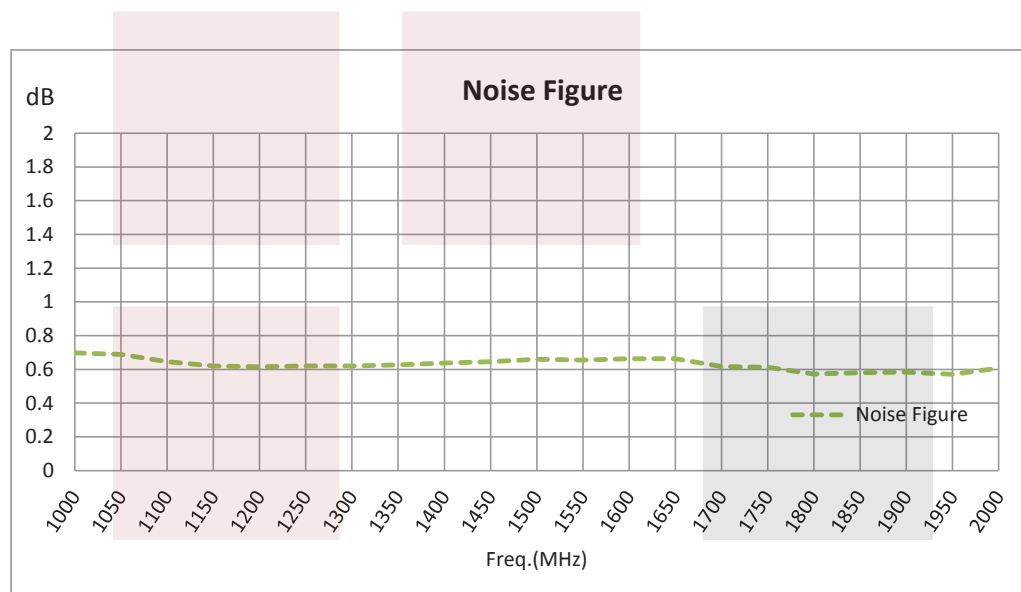
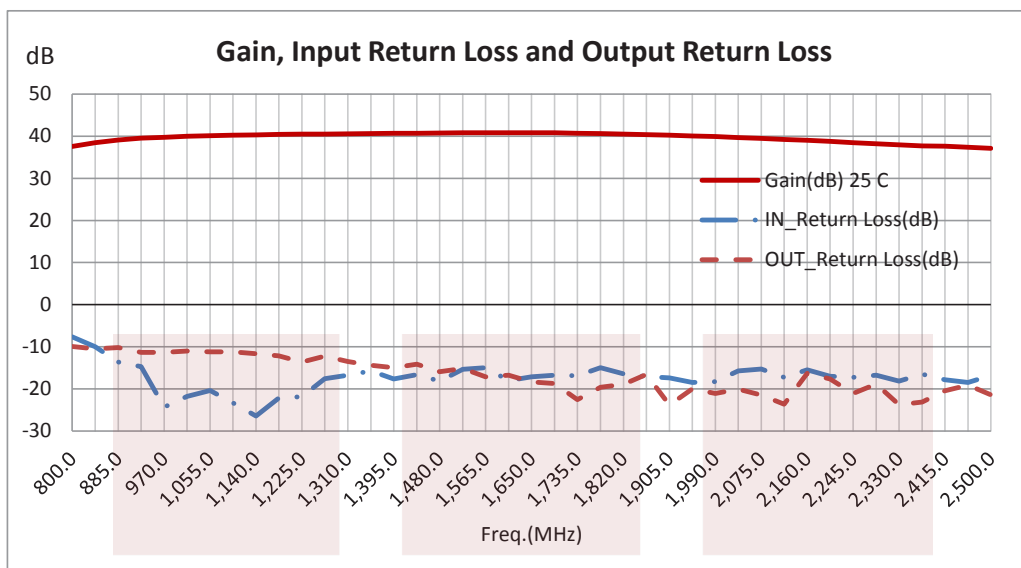
Plotted and Other Data

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

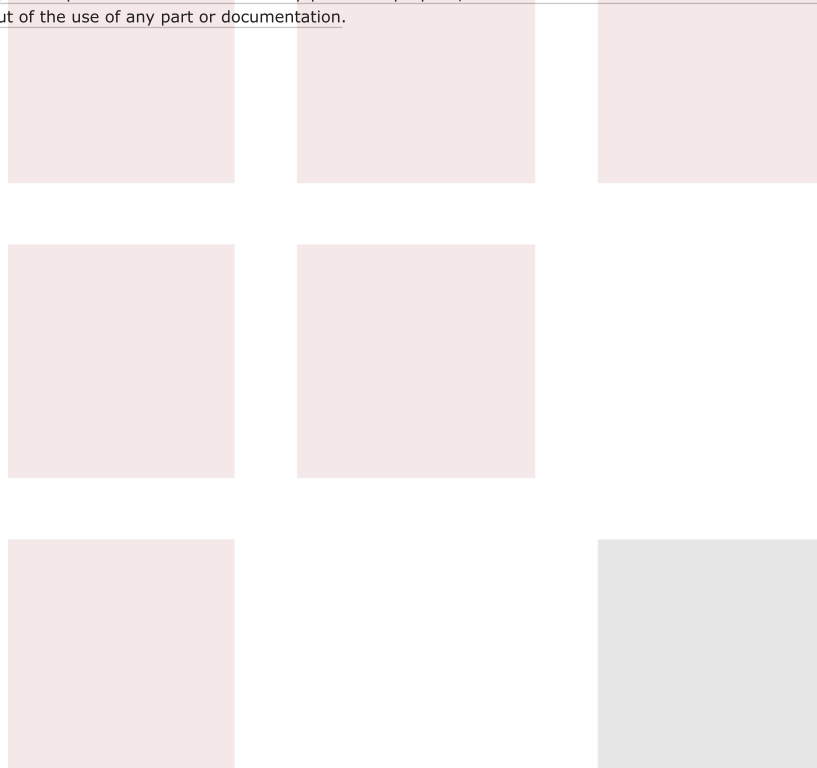


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For additional information on this product, please click the following link: [40 dB Gain 0.8 dB NF Low Noise High Gain Amplifier Operating From 1 GHz to 2 GHz with 11 dBm P1dB and SMA FMAM1019](#)

URL: <http://www.fairviewmicrowave.com/40db-0.8db-nf-low-noise-high-gain-amplifier-fmam1019-p.aspx>

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