

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

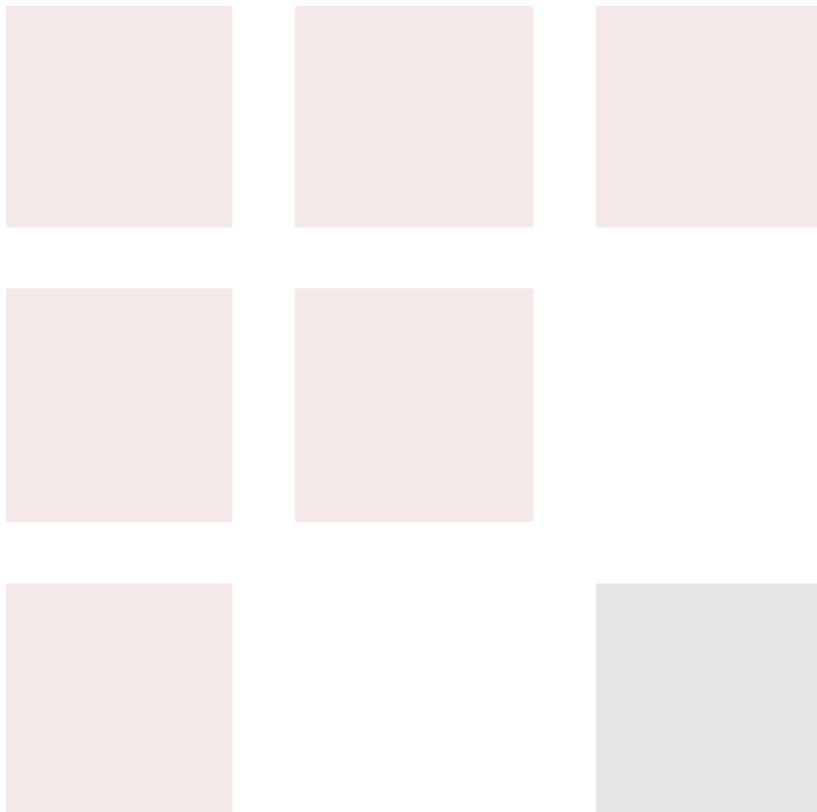
| | |
|-----------------|-------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range | -55 to +125 deg C |

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

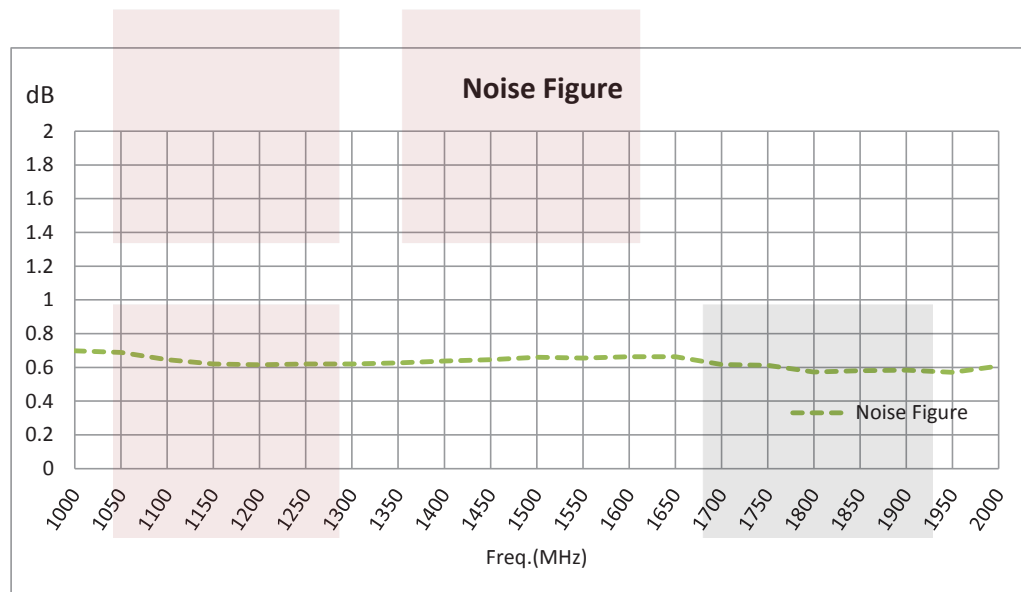
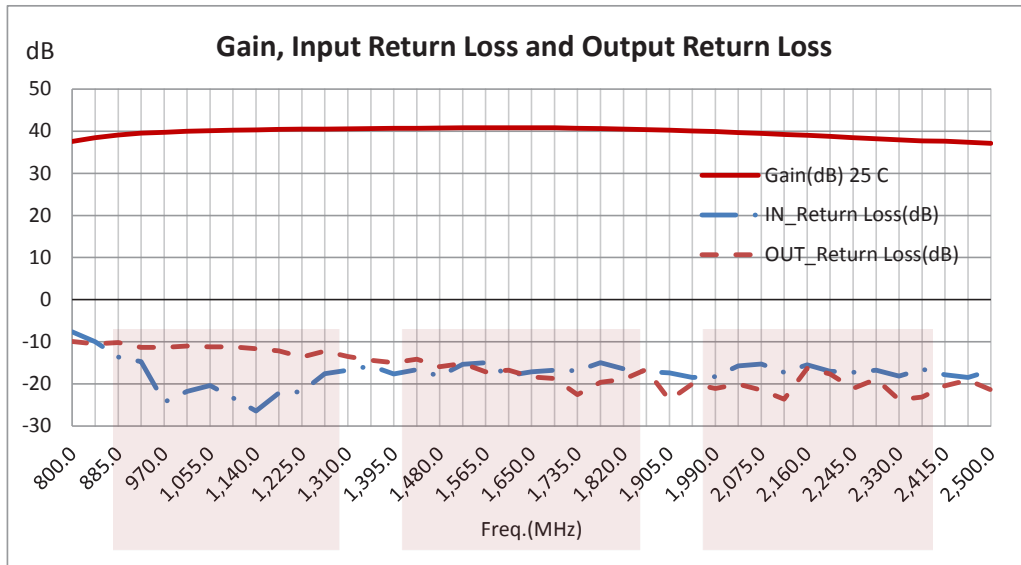
Plotted and Other Data

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



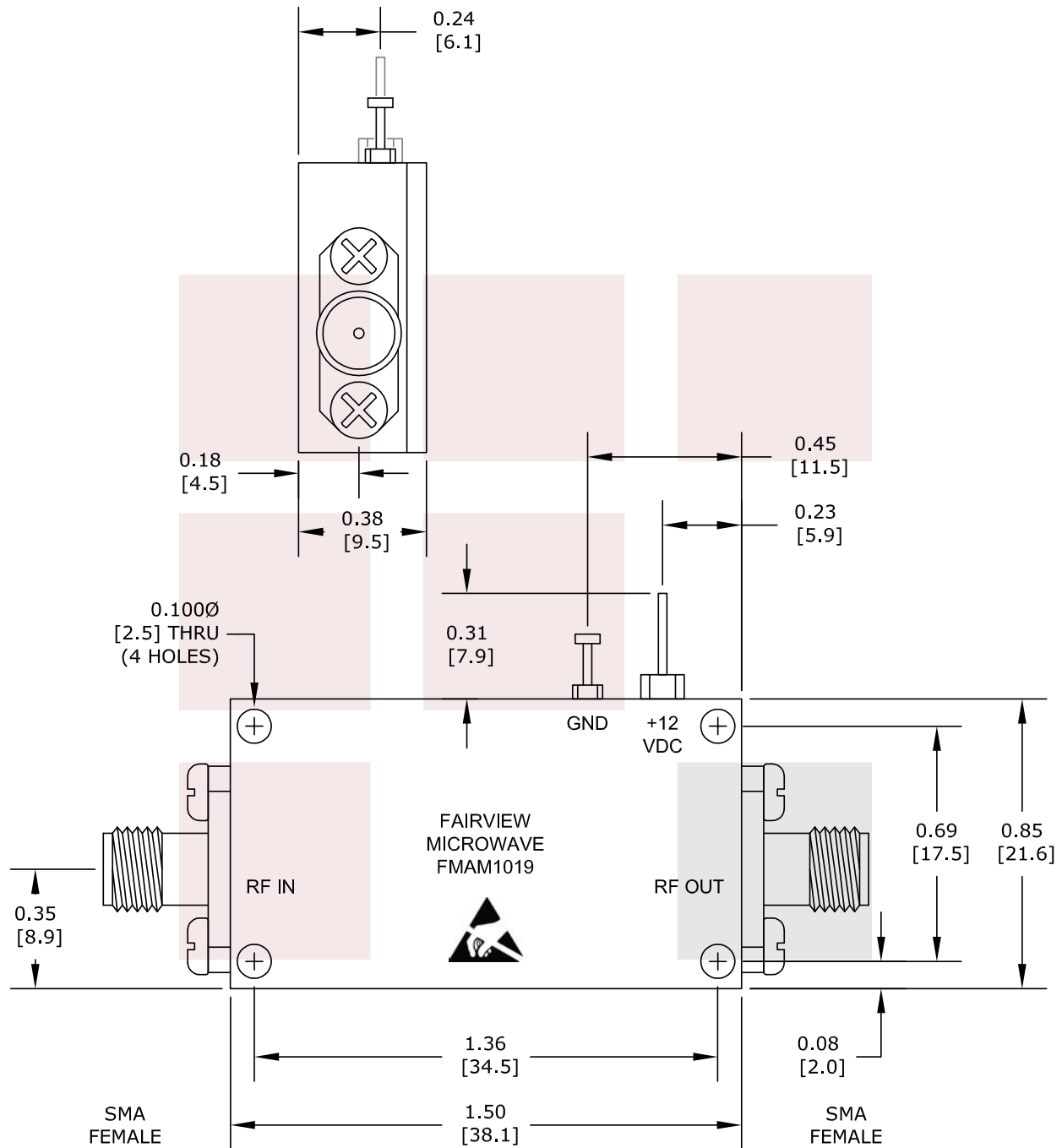
40 dB Gain 0.8 dB NF Low Noise High Gain Amplifier Operating From 1 GHz to 2 GHz with 11 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [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](http://www.fairviewmicrowave.com/40db-0.8db-nf-low-noise-high-gain-amplifier-fmam1019-p.aspx)

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TITLE

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

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].

DWG NO

FMAM1019

CAGE CODE

3FKR5

CAD FILE

091014

SHEET

SCALE

N/A

SIZE

A

150