

3 dB NF, 10 MHz to 6 GHz, Low Noise Broadband Amplifier with 14.5 dBm, 34 dB Gain, 25.5 dBm IP3 and SMA

FMAM3269 is a broadband coaxial low noise amplifier, operating in the 10 to 6000 MHz frequency range. The amplifier offers 34 dB small signal gain min, with the gain flatness of ± 1.0 dB typical and a typical noise figure of 3.0 dB. This low noise amplifier requires only a single positive DC supply of +12 VDC typical, is unconditionally stable, operates over the temperature range of -40°C to 85°C, and is Hermetically sealed.

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

| Description | Min | Typ | Max | Unit |
|-----------------------------------|-------|---------|------------|-------|
| Frequency Range | 0.01 | | 6 | GHz |
| Gain | 30 | 34 | 37 | dB |
| Gain Flatness | | ± 1 | ± 1.25 | dB |
| Gain Variation over OTR* | | ± 1 | | dB |
| P1dB | +12.5 | +14.5 | | dBm |
| IP3 | +22 | +25.5 | | dBm |
| Reverse Isolation | 40 | 45 | | dB |
| Spurious | | | -60 | dBc |
| Noise Figure (50 MHz to 6 GHz) | | 3 | 4 | dB |
| Input VSWR | | 1.5:1 | 2:1 | |
| Output VSWR | | 1.5:1 | 2:1 | |
| Operating DC Voltage 1 | 9.5 | 12 | 15 | Volts |
| Operating DC Current | 100 | 130 | 150 | mA |
| Operating Temperature Range (OTR) | -40 | | +85 | °C |

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

| Parameter | Rating | Units |
|-----------------------|-------------|-------|
| Source Voltage | +15 | Volts |
| RF input Power | +10 | dBm |
| DC Voltage at RF I/O | ± 25 | Volts |
| Operating Temperature | -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.



Features:

- 10 to 6000 MHz Frequency Range
- Small Signal Gain: 34 dB min
- Gain Flatness: ± 1.0 dB typ
- Noise Figure: 3.0 dB typ
- 50 Ohm Input and Output Matched
- -40 to +85°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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Mechanical Specifications

Size

| | |
|------------------|----------------------|
| Length | 1.7 in [43.18 mm] |
| Width | 0.95 in [24.13 mm] |
| Height | 0.375 in [9.53 mm] |
| Weight | 0.0621 lbs [28.17 g] |
| Input Connector | SMA Female |
| Output Connector | SMA Female |

Environmental Specifications

Temperature

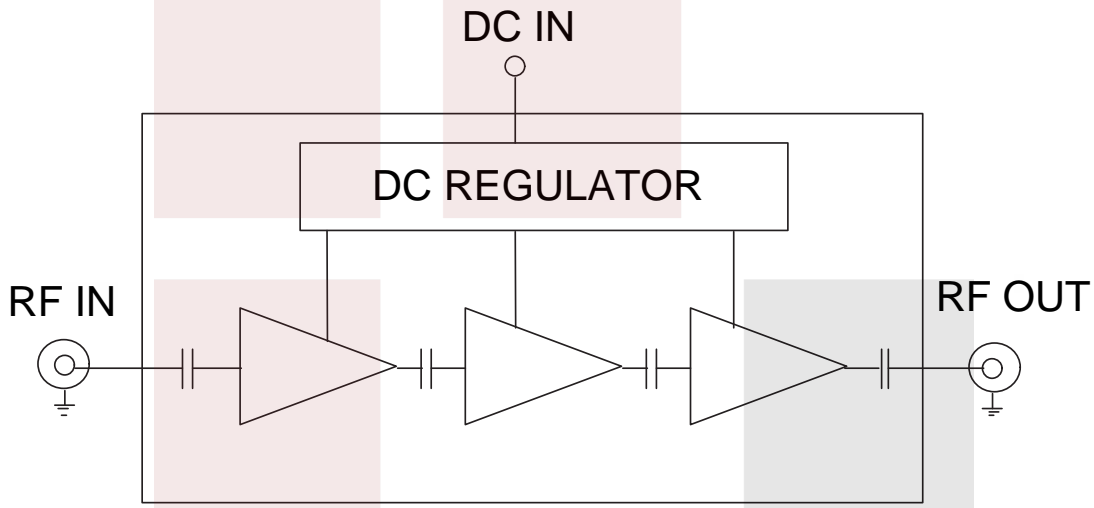
| | |
|-----------------|-------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range | -55 to +125 deg C |

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

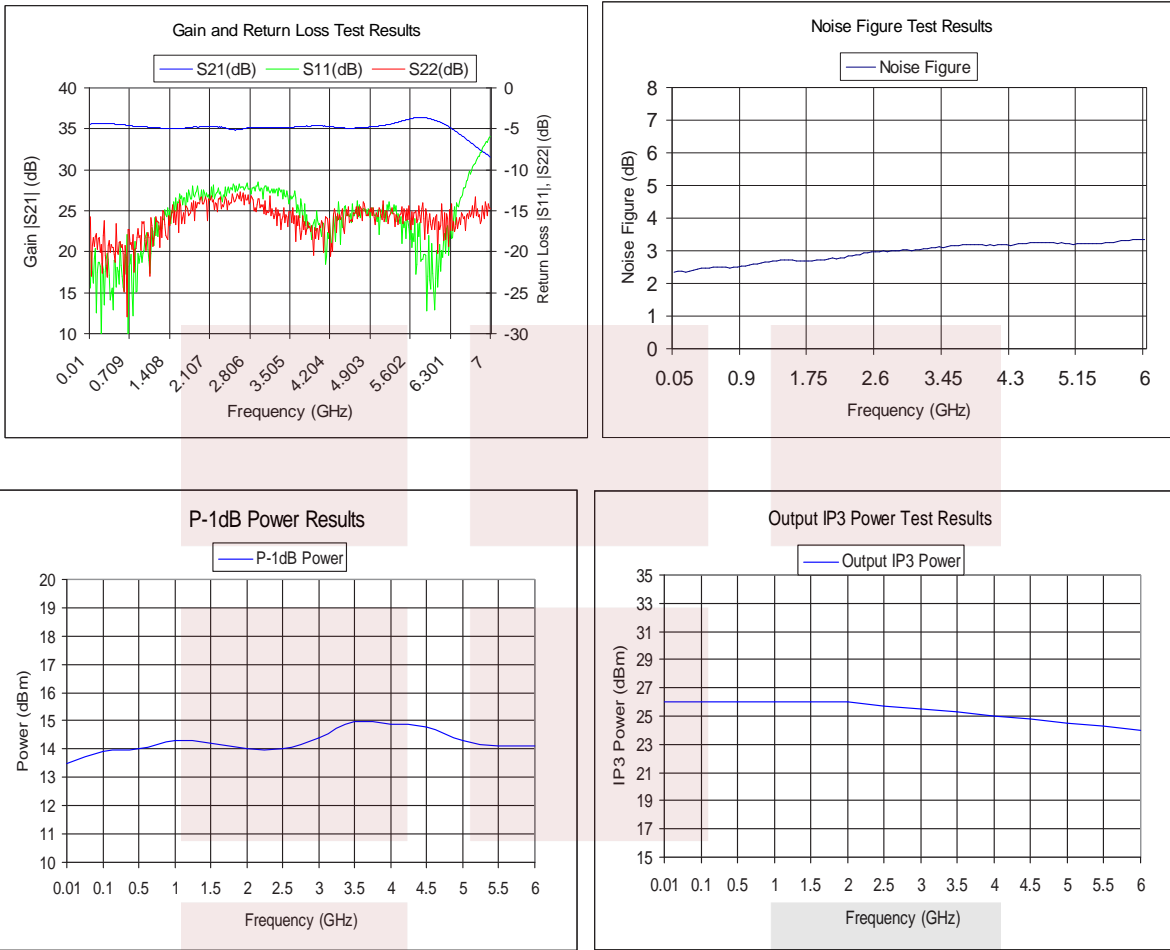
Plotted and Other Data

Notes:

Functional Block Diagram



Typical Performance Data

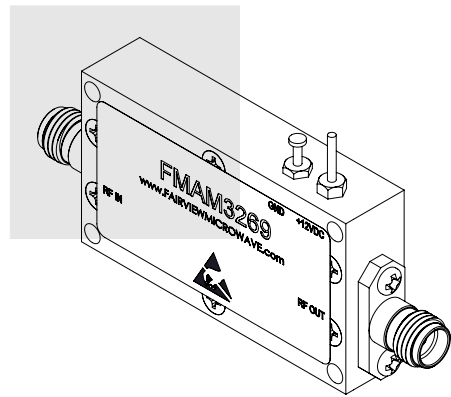
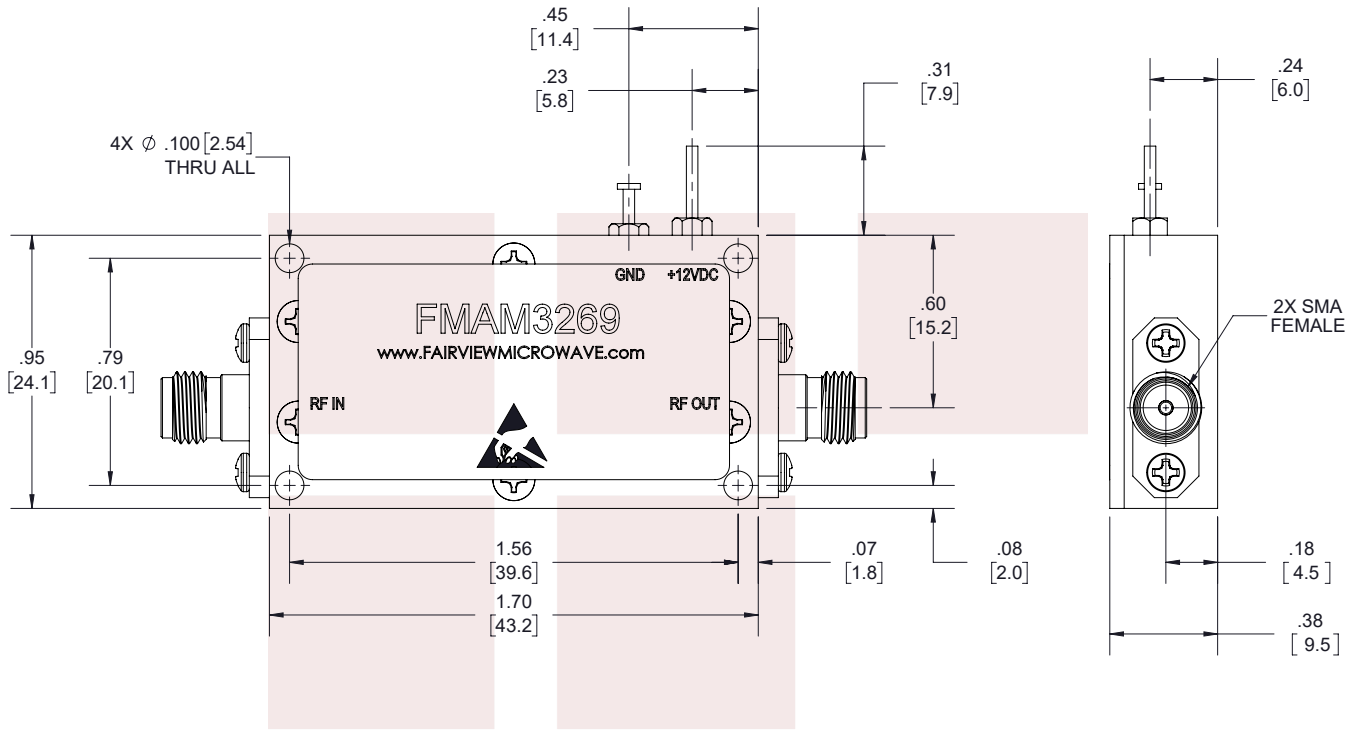


3 dB NF, 10 MHz to 6 GHz, Low Noise Broadband Amplifier with 14.5 dBm, 34 dB Gain, 25.5 dBm IP3 and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [3 dB NF, 10 MHz to 6 GHz, Low Noise Broadband Amplifier with 14.5 dBm, 34 dB Gain, 25.5 dBm IP3 and SMA FMAM3269](https://www.fairviewmicrowave.com/10-mhz-6-ghz-low-noise-broadband-amplifier-fmam3269-p.aspx)

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| STANDARD TOLERANCES | |
|---------------------|--------|
| .X | ±0.2 |
| .XX | ±0.01 |
| .XXX | ±0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| Fairview Microwave RF COMPONENTS ON DEMAND. <i>Done!</i> | | 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]. | |
|---|----------|---|--------|
| TITLE | DWG NO | CAGE CODE | |
| 3 dB NF, 10 MHz to 6 GHz, Low Noise Broadband Amplifier with 14.5 dBm, 34 dB Gain, 25.5 dBm IP3 and SMA | FMAM3269 | 3FKR5 | |
| | CAD FILE | SHEET | SCALE |
| 04/04/18 | 1 OF 1 | N/A | SIZE A |
| | | | 7361 |