2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 28 dB Gain, 13 dBm Psat and SMA

FMAM1026 is a X-band coaxial low noise amplifier operating in the 8 to 12 GHz frequency range. The amplifier offers 2.2 dB typical noise figure, 13 dBm minimum of saturated power and high 28 dB minimal small signal gain. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The low noise amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -40°C and +85°C.

Electrical Specifications (TA = +25°C, DC Voltage = 12 Volts, DC Current = 200mA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>8</td>
<td>12</td>
<td></td>
<td>GHz</td>
</tr>
<tr>
<td>Small Signal Gain</td>
<td>28</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Minimum Psat</td>
<td>+13</td>
<td></td>
<td></td>
<td>dBm</td>
</tr>
<tr>
<td>Noise Figure</td>
<td>2.2</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Input VSWR</td>
<td></td>
<td>2:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
<td></td>
<td>2:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating DC Voltage</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>Volts</td>
</tr>
<tr>
<td>Operating DC Current</td>
<td></td>
<td></td>
<td>200</td>
<td>mA</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40</td>
<td></td>
<td>+85</td>
<td>°C</td>
</tr>
</tbody>
</table>

Mechanical Specifications

Size
- Length: 1.333 in [33.86 mm]
- Width: 1.093 in [27.76 mm]
- Height: 0.382 in [9.7 mm]
- Input Connector: SMA Female
- Output Connector: SMA Female

Environmental Specifications

Temperature
- Operating Range: -40 to +85 deg C
- Shock: RTCA, DO-160C
- Vibration: RTCA, DO-160C

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

Gain and Return Loss

Saturated Power and IP3
2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 28 dB Gain, 13 dBm Psat 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: 2.2 dB NF Low Noise Amplifier Operating From 8 GHz to 12 GHz with 28 dB Gain, 13 dBm Psat and SMA FMAM1026


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