.2 to 50 GHz Wideband Amplifier Module

Features
- Convenient Single +8V Supply Operation
- Internally Bias Sequenced and Regulated
- Wide Frequency Range of Amplification
- Flat Gain Response up to 50GHz

Applications
These amplifier modules have consistent gain up to 50 GHz and are ideal for many applications. The amplifier can be used to amplify signals up to 50 GHz and covers many frequency bands including L-Band, Ku-band, and Ka-Band. The module outputs +15 dBm of RF power up to 50 GHz. A single +8V to +12V supply is needed to power the module. An EMI suppressing feed thru and ground turret terminals are used to connect DC. Negative bias is generated internally though an inverter on the power conditioning board that includes voltage regulation and bias sequence electronics. A reverse polarity shunt diode helps protect the module against misconnection of DC. The result is a simplified and easy-to-use DC interface. Four conveniently located through holes for either #4 or M3 fasteners can be used for attaching the device to a bracket or baseplate. The housing is constructed of gold-plated aluminum. The input and output connectors are female 2.4mm coax.

Block Diagram

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Block Diagram

- **In**
- **Out**
- **Biasing Electronics**
- **8→12VDC**
## Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>200 MHz to 50 GHz</td>
<td></td>
</tr>
<tr>
<td>Gain</td>
<td>200 MHz to 50 GHz</td>
<td>&gt;25dB typ.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Plot Below</td>
</tr>
<tr>
<td>Saturated Output Power</td>
<td>+15dBm typ. @ 50GHz</td>
<td>See Plot Below</td>
</tr>
<tr>
<td>DC Supply</td>
<td>8 to 12 VDC @ 330 mA</td>
<td></td>
</tr>
<tr>
<td>Input Connector</td>
<td>2.4mm coax</td>
<td>Female</td>
</tr>
<tr>
<td>Output Connector</td>
<td>2.4mm coax</td>
<td>Female</td>
</tr>
</tbody>
</table>
Measured Data

**Small Signal Gain**

**Gain vs Pout**

- 1GHz
- 10GHz
- 20GHz
- 40GHz
- 50GHz
Outline Drawing (Inches)
Ordering Information

| 200973-01 | 200 MHz - 50 GHz Wideband Amplifier, 2.4mm |
| ECCN | EAR99 |

Specifications subject to change without notice.