BROADBAND LOW NOISE AMPLIFIER
ABL0100-01-3310

Features:

- Octave bandwidth, specification from 10~1000MHz, usable
- Low noise figure, and high gain
- Low VSWR, unconditional stable
- Small size, low cost
- SMA female connector I/O
- Single DC power supply, internal voltage regulator, operating voltage from +10~+15V
- Operating temperature -40~+75°C, storage temperature -55--+125°C

Functional Diagram

Electrical Specifications

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>10 MHz</td>
<td></td>
<td>1000MHz</td>
</tr>
<tr>
<td>Noise Figure (from 50MHz)</td>
<td>1.0 dB</td>
<td>1.2 dB</td>
<td></td>
</tr>
<tr>
<td>P-1dB Compression Point</td>
<td>+9dBm</td>
<td>+12dBm</td>
<td></td>
</tr>
<tr>
<td>Nominal SS Gain @25°C</td>
<td>30 dB</td>
<td>33 dB</td>
<td>35 dB</td>
</tr>
<tr>
<td>Gain flatness</td>
<td>+/-0.7 dB</td>
<td>+/-1.0 dB</td>
<td></td>
</tr>
<tr>
<td>Gain Variation</td>
<td>+/-1.0 dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input VSWR</td>
<td>1.3:1</td>
<td>1.5:1</td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
<td>1.2:1</td>
<td>1.5:1</td>
<td></td>
</tr>
<tr>
<td>Reverse Isolation</td>
<td>45 dB</td>
<td>50 dB</td>
<td></td>
</tr>
<tr>
<td>Spurious</td>
<td></td>
<td></td>
<td>-60 dBc</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C</td>
<td></td>
<td>+75°C</td>
</tr>
<tr>
<td>Survival Temperature</td>
<td>-55°C</td>
<td></td>
<td>+125°C</td>
</tr>
<tr>
<td>DC Voltage</td>
<td></td>
<td></td>
<td>+15 V</td>
</tr>
<tr>
<td>DC Supply Current</td>
<td>70 mA</td>
<td>90 mA</td>
<td>110 mA</td>
</tr>
<tr>
<td>In/Out connectors</td>
<td>SMA female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>1.5&quot;x0.85&quot;x0.375</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Structure:
Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Voltage</td>
<td>+18V</td>
</tr>
<tr>
<td>RF Input Power</td>
<td>+10dBm</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55~+125°C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40~+75°C</td>
</tr>
</tbody>
</table>