LNA, 18 to 40GHz

Model: BZ-18004000-320845-332727

Specifications (23 °C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>18</td>
<td>-</td>
<td>40</td>
<td>GHz</td>
</tr>
<tr>
<td>Noise Figure*</td>
<td>-</td>
<td>3</td>
<td>3.2</td>
<td>dB</td>
</tr>
<tr>
<td>Gain</td>
<td>45</td>
<td>48</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Gain Flatness (+/-)</td>
<td>-</td>
<td>±3.0</td>
<td>±3.3</td>
<td>dB</td>
</tr>
<tr>
<td>P1 Output Power</td>
<td>+8</td>
<td>+10</td>
<td>-</td>
<td>dBm</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-55</td>
<td>-</td>
<td>+85</td>
<td>°C</td>
</tr>
<tr>
<td>Output VSWR</td>
<td>-</td>
<td>-</td>
<td>2.7:1</td>
<td></td>
</tr>
<tr>
<td>Operating Temp Range</td>
<td>-65</td>
<td>-</td>
<td>+125</td>
<td>°C</td>
</tr>
<tr>
<td>RF Input Power (no-damage)</td>
<td>-</td>
<td>-</td>
<td>+13</td>
<td>dBm</td>
</tr>
<tr>
<td>Humidity (non-condensing)</td>
<td>-</td>
<td>-</td>
<td>95</td>
<td>%</td>
</tr>
<tr>
<td>Voltage</td>
<td>+8</td>
<td>+8</td>
<td>+15</td>
<td>VDC</td>
</tr>
<tr>
<td>Current</td>
<td>-</td>
<td>265</td>
<td>mA</td>
<td></td>
</tr>
<tr>
<td>Input Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ohms</td>
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<tr>
<td>RF Connector</td>
<td>2.92mm K - Female</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Dimensions</td>
<td>42.9 x 22.8 x 19.4</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Features

- Noise Figure ≤ 3.2 dB (typ)
- Unconditionally Stable at all temperatures
- Internally Regulated DC Voltage
- 50 Ohm Matched Input/Output
- Field Replaceable 2.92mm K connectors
- Excellent Group Delay and Phase Linearity
- 0.009 inches diameter RF In/Out feed through
- Operating Temp. -55 C to +85 C
- 3 Year Warranty

Options

- Optimized Performance over Selected Bandwidth
- Internally DC Block Input (Output DC Block Standard)
- Hermetically Sealed Package
- Improved Gain Flatness
- Improved IN and OUT VSWR
- Gain and Phase matching
- Lower Noise Figure

* Noise Source used for measurement from 18GHz to 42 GHz is HP346C-K01.
  NF Uncertainty (approx. 0.3 dB). 0.2 dB due to ENR of HP 346C-K01, and 0.1 dB due to the gain modulation of the unit caused by the HP 346C-K01 source impedance change in the ON and OFF state.

Typical Data

- S21
- Noise Figure
- Power Out @ 1dB Compression
- S12
  ( S12 data is inaccurated as it is limited by the Noise Floor of the test equipment. )
- S11
- Reverse Gain (dB)
- S22
- Return Loss (dB)
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NOTES:

1. DUAL DIMENSIONS, MILLIMETERS IN PARENTHESES
2. RECOMMENDED MOUNTING HARDWARE
   #1-72 SOCKET HEAD CAP SCREW
   M2 SOCKET HEAD CAP SCREW
3. MOUNTING SURFACE SHOULD BE FLAT 0.002 INCH/INCH
4. STANDARD ESD PRECAUTIONS NEED TO BE OBSERVED.