LNA, 18 to 42 GHz

Model: BZ-18004200-350830-282525

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>42</td>
<td>GHz</td>
</tr>
<tr>
<td>Noise Figure*</td>
<td>-</td>
<td>3.3</td>
<td>3.5</td>
<td>dB</td>
</tr>
<tr>
<td>Gain</td>
<td>30</td>
<td>35</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Gain Flatness (+/-)</td>
<td>-</td>
<td>2.5</td>
<td>2.8</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>Input VSWR</td>
<td>-</td>
<td>-</td>
<td>2.5:1</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40</td>
<td>-</td>
<td>+85</td>
<td>°C</td>
</tr>
<tr>
<td>Non-Operating Temp Range</td>
<td>-65</td>
<td>-</td>
<td>+85</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>-</td>
<td>+15</td>
<td>VDC</td>
</tr>
<tr>
<td>Current</td>
<td>-</td>
<td>150</td>
<td>mA</td>
<td></td>
</tr>
<tr>
<td>Input Impedance</td>
<td>50</td>
<td>Ohms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RF Connector</td>
<td>2.92mm - Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>29.9 x 18.7 x 7.6</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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.

Features
- Noise Figure ≤ 3.5 dB
- 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. -40 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

Typical Data:

- **S21**
  - Gain
  - Minimum: 27.2 dB
  - Maximum: 44 dB
  - Frequency range: 18000 MHz to 42000 MHz

- **Noise Figure**
  - Minimum: 1.8 dB
  - Maximum: 3.5 dB
  - Frequency range: 18000 MHz to 42000 MHz

- **Power Out @ 1dB Compression**
  - Minimum: -100 dBm
  - Maximum: 0 dBm
  - Frequency range: 18000 MHz to 42000 MHz

- **S21 Group Delay**
  - Group Delay (ps)
  - Frequency range: 18000 MHz to 42000 MHz

- **S11**
  - Return Loss (dB)
  - Frequency range: 18000 MHz to 42000 MHz

- **S22**
  - Return Loss (dB)
  - Frequency range: 18000 MHz to 42000 MHz

B&Z Technologies • 25 Health Sciences Drive • Stony Brook • New York 11790
Phone: (631) 444-8827 • Fax: (631) 444-8825 • info@bnzte.com • www.bnze.com