LNA, 100MHz to 6GHz

Model: BZ-00100600-130824-152020

**Features**

- Noise Figure ≤ 1.3 dB
- Unconditionally Stable at all temperatures
- Internally Regulated DC Voltage
- 50 Ohm Matched Input/Output
- Field Replaceable 3.5mm SMA 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

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### 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>0.1</td>
<td>-</td>
<td>6</td>
<td>GHz</td>
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<tr>
<td>Noise Figure*</td>
<td>-</td>
<td>1.1</td>
<td>1.3</td>
<td>dB</td>
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<tr>
<td>Gain</td>
<td>24</td>
<td>27</td>
<td>-</td>
<td>dB</td>
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<tr>
<td>Gain Flatness (+/-)</td>
<td>-</td>
<td>±1.0</td>
<td>±1.5</td>
<td>dB</td>
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<tr>
<td>P1 Output Power</td>
<td>+8</td>
<td>+13</td>
<td>-</td>
<td>dBm</td>
</tr>
<tr>
<td>Input VSWR</td>
<td>-</td>
<td>-</td>
<td>2:1</td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
<td>-</td>
<td>-</td>
<td>2:1</td>
<td></td>
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<tr>
<td>Operating Temperature</td>
<td>-55</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>
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<tr>
<td>RF Input Power (no-damage)</td>
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<td>-</td>
<td>+13</td>
<td>dBm</td>
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<tr>
<td>Humidity (non-condensing)</td>
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<td>-</td>
<td>95</td>
<td>%</td>
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<tr>
<td>Voltage</td>
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<td>+15</td>
<td>+18</td>
<td>VDC</td>
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<tr>
<td>Current</td>
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<td>85</td>
<td>mA</td>
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<td>Input Impedance</td>
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<td>Ohms</td>
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<td>RF Connector</td>
<td>3.5mm SMA - Female</td>
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<tr>
<td>Dimensions</td>
<td>29.9 x 18.7 x 7.6</td>
<td>mm</td>
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</table>

* Noise Source used for measurement from 0.01 to 26.5 GHz is HP346C .
NF Uncertainty (approx. 0.1dB). 0.05 dB due to ENR of HP 346C; and 0.05 dB, due to the gain modulation of the unit, caused by the HP 346C source impedance change in the ON and OFF state.

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**Typical Data**

- **S21**
  - Gain (dB)
    - 0 to 39
  - Frequency (MHz)
    - 100 to 6100

- **Noise Figure**
  - Noise Figure (dB)
    - 0.8 to 1.8
  - Frequency (MHz)
    - 100 to 6100

- **Power Out @ 1dB Compression**
  - Power (dBm)
    - -100 to 0
  - Frequency (MHz)
    - 100 to 6100

- **S21 Group Delay**
  - Group Delay (ps)
    - -50 to 0
  - Frequency (MHz)
    - 100 to 6100

- **S11**
  - Return Loss (dB)
    - -50 to 0
  - Frequency (MHz)
    - 100 to 6100

- **S22**
  - Return Loss (dB)
    - -50 to 0
  - Frequency (MHz)
    - 100 to 6100

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