LNA, 10 to 15 GHz

Model: BZ-100015000-502518-152020

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>10</td>
<td>-</td>
<td>15</td>
<td>GHz</td>
</tr>
<tr>
<td>Noise Figure*</td>
<td>-</td>
<td>4.5</td>
<td>5</td>
<td>dB</td>
</tr>
<tr>
<td>Gain</td>
<td>18</td>
<td>19</td>
<td>25</td>
<td>dB</td>
</tr>
<tr>
<td>Gain Flatness (+/-)</td>
<td>-</td>
<td>± 1.0</td>
<td>± 1.5</td>
<td>dB</td>
</tr>
<tr>
<td>P1 Output Power</td>
<td>+25</td>
<td>+27</td>
<td>-</td>
<td>dBm</td>
</tr>
<tr>
<td>Input VSWR</td>
<td>-</td>
<td>-</td>
<td>2.0:1</td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
<td>-</td>
<td>-</td>
<td>2.0:1</td>
<td></td>
</tr>
<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>+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>+12</td>
<td>+12</td>
<td>+15</td>
<td>VDC</td>
</tr>
<tr>
<td>Current</td>
<td>-</td>
<td>450</td>
<td>mA</td>
<td></td>
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<tr>
<td>Input Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ohms</td>
</tr>
<tr>
<td>RF Connector</td>
<td>3.5mm SMA - Female</td>
<td></td>
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<tr>
<td>Dimensions</td>
<td>29.9 x 18.7 x 7.6 mm</td>
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<td></td>
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</tbody>
</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.

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

Features

• Noise Figure ≤ 5.0 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

Typical Data

- **S21**
  - Gain (dB)
  - Frequency (MHz)

- **Noise Figure**
  - Noise Figure (dB)
  - Frequency (MHz)

- **Power Out @ 1dB Compression**
  - Power (dBm)
  - Frequency (MHz)

- **S11**
  - Return Loss (dB)
  - Frequency (MHz)

- **S12**
  - Return Loss (dB)
  - (S12 data is inaccurate as it is limited by the Noise Floor of the Test Equipment)
  - Frequency (MHz)

- **S22**
  - Return Loss (dB)
  - Frequency (MHz)
THE AMPLIFIER IS REMOVABLE FROM THE HEATSINK

NOTES:
1. HEATSINK SURFACE AREA 35.14 SQ. INCHES
2. HEATSINK MATERIAL: ALUMINUM ALLOY
3. APPROXIMATE TEMPERATURE RISE IS 6.5°C/W IN STILL AIR.