B&Z Technologies
Innovating to Excel

BZ1220HA1
WIDE BAND HIGH DYNAMIC RANGE AMP, 12 - 20 GHz

Features
- Noise Figure ≤ 3.0 dB
- Unconditionally Stable at all temperatures
- Internally Regulated DC Voltage
- 50 Ohm Matched Input/Output
- Field Replaceable 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 ±1.0 dB Max
- Improved IN and OUT VSWR
- Gain and Phase matching

Performance Graphs

Specifications (23 °C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>12</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Noise Figure *</td>
<td>3.0</td>
<td>dB</td>
<td></td>
</tr>
<tr>
<td>Gain</td>
<td>10</td>
<td>11</td>
<td>dB</td>
</tr>
<tr>
<td>Gain Flatness</td>
<td>±1.0</td>
<td>dB</td>
<td></td>
</tr>
<tr>
<td>P1dB Output Power</td>
<td>13</td>
<td>14</td>
<td>dBm</td>
</tr>
<tr>
<td>Input VSWR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-55</td>
<td>+85</td>
<td>°C</td>
</tr>
</tbody>
</table>

Symbols:
- Noise Sources used for measurement: 0.1– 18 GHz: HP346A, 18 – 20 GHz: HP346C
- N.F. Uncertainty (approx. 0.2 dB): 0.1 dB due to ENR of HP 346C, and 0.1 dB, due to gain modulation of the unit, caused by the HP 346C source impedance change in the ON and OFF state.
- Noise Figures and other parameters degrade below 500 MHz.

Outline Drawing

Mounting Drawing

Drop In Module