B&Z TECHNOLOGIES
Innovation to Excel

BZP520GB2
WIDEBAND AMPLIFIER, 0.5 - 20 GHz

**Features**
- Noise Figure ≤3.8 dB Measured
- 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
- 3 Year Warranty

**Options**
- Optimized Performance over Selected Bandwidth
- Internally DC Block Input (Output DC Block Standard)
- Hermetically Sealed Package
- Gain and Phase matching
- Extended bandwidth to 100 MHz.
- Internal D.C. Voltage regulation

**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>0.5</td>
<td>20</td>
<td>GHz</td>
</tr>
<tr>
<td>Noise Figure</td>
<td></td>
<td></td>
<td>3.8 dB</td>
</tr>
<tr>
<td>Gain</td>
<td>15</td>
<td>16</td>
<td>- dB</td>
</tr>
<tr>
<td>Gain Flatness</td>
<td></td>
<td></td>
<td>±1.5 dB</td>
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<tr>
<td>P1dB Output Power**</td>
<td>17</td>
<td>18</td>
<td>- dBm</td>
</tr>
<tr>
<td>Input VSWR</td>
<td>2.0:1</td>
<td>2.3:1</td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
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<td></td>
<td>+85 °C</td>
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<tr>
<td>***Voltage</td>
<td>+14.5</td>
<td>+15.5</td>
<td>V</td>
</tr>
<tr>
<td>Current</td>
<td>175</td>
<td>190</td>
<td>mA</td>
</tr>
</tbody>
</table>

* Noise Source used for measurement: 0.1 - 18 GHz: HP346A, 18 - 20 GHz: HP346C
Uncertainty of N.F. (approx. 0.12 db). .10 db due to ENR of HP346C.  .1 dB due to Gain modulation of the amplifier.
Noise Figures increase below 500 MHz
**IMP: UNIT REQUIRES HEAT SINK.
*** Input +15V with Internal D.C. voltage Regulation available

**Performance Graphs**

- Gain (dB) vs Frequency (MHz)
- Noise Figure (FdB) vs Frequency (MHz)
- Power (dBm) vs Frequency (MHz)
- Delay (pS) vs Frequency (MHz)
- Input Return Loss (dB) vs Frequency (MHz)
- Output Return Loss (dB) vs Frequency (MHz)

**Outline Drawing**

**Mounting Drawing**

**Drop In Module**

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