Typical Group Delay (ps)

-100

more robust ESD handling capacity. Please call for further information.

If the application does not require response below 8GHz, B&Z offers other models with
and the amplifier connected to it.

 Fortunately it is the customer's responsibility to minimize Eleclro-static discharge (ESD) to both - the antenna
amplifier center conductor via antenna, thereby increasing risk of ESD damage. It is the
conductor
must be exercised to avoid Electro-static Discharge (ESD) at the input center
GROUND because of the requirement to extend BW down to 2GHz.

B&Z offers option -01 which protects the amplifier against low level ESD but
.casting its unconditionally ESD Safe.

If the application does not require response below 8GHz, B&Z offers other models with
and the amplifier connected to it.

Typical Data

** CAUTION:** The amplifier input is DC-coupled but does not have low impedance to
GROUND because of the requirement to extend BW down to 2GHz. Extreme caution
must be exercised to avoid Electro-static Discharge (ESD) at the input center
conductor. B&Z offers option -01 which protects the amplifier against low level ESD but
connecting it directly to the output of an antenna (typical EMC application) exposes the
amplifier center conductor via antenna, thereby increasing risk of ESD damage. It is the
customer’s responsibility to minimize Electro-static discharge (ESD) to both - the antenna
and the amplifier connected to it.

If the application does not require response below 8GHz, B&Z offers other models with
inductive return to GND that can offer lower NF, improved Gain, better In/Out VSWR and
more robust ESD handling capacity. Please call for further information.

** Features**

- Noise Figure: 2.5 dB (typ)
- 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. -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

** Specifications (23 °C)**

- **Parameter**
  - **Min**
  - **Typ**
  - **Max**
  - **Units**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
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<tr>
<td>Frequency Range</td>
<td>2</td>
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<td>18</td>
<td>GHz</td>
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<td>Noise Figure*</td>
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<td>3.0</td>
<td>dB</td>
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<tr>
<td>Gain</td>
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<td>40</td>
<td>-</td>
<td>dB</td>
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<tr>
<td>Gain Flatness (+/-)</td>
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<td>dB</td>
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<td>P1 Output Power</td>
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<td>+23</td>
<td>-</td>
<td>dBm</td>
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<td>Input VSWR</td>
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<td>-</td>
<td>2.0:1</td>
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<tr>
<td>Operating Temperature</td>
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<td>-</td>
<td>+85</td>
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<tr>
<td>Non-Operating Temp Range</td>
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<td>°C</td>
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<tr>
<td>RF Input Power (no-damage)</td>
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<td>dBm</td>
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<td>Humidity (non-condensing)</td>
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<td>Voltage</td>
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<td>Input Impedance</td>
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<td>RF Connector</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>

** Typical Data**

- **B21**
  - Gain (dB)
  - Frequency (MHz)

- **S22**
  - Power Out @ 1dB Compression
  - Frequency (MHz)

** Noise Source used for measurement from 0.01 to 26.5 GHz is HP346C.**

** RF 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.**

** Noise Figures and other parameters degrade below 500 MHz. Noise Figures at Cryogenic Temperatures not given due to uncertainty of measurement for very low values. Call to discuss.**

www.bnztech.com

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