RF Terminations Technical Data Sheet

Features

- DC to 26.5 GHz Frequency Range
- VSWR 1.3:1 Max
- Max Power 0.5 Watt (CW)
- SMP Female Coaxial Interface

Applications

- Wireless
- SatCom
- Radar Systems
- Test and Measurement
- Commercial and Military Communication

Description

Pasternack's PE6181 is an RF termination (also called RF load or dummy load) that operates from DC to 26.5 GHz and handles up to 0.5 Watt (CW). Our SMP termination / load has a female gender. PE6181 SMP load termination offers 1.3:1 max VSWR.

RF load / terminations are indispensable components in many RF, microwave and millimeter wave systems where signal reflection from unused ports can potentially damage the device or reduce the signal integrity. By using a terminator on an unused port with a matched load (dummy load), the incident energy will be absorbed with minimal reflection. These termination components are commonly used to terminate devices such as couplers, circulators, and switches. They are also widely used in measurement systems to ensure accurate results. Pasternack offers a huge selection of RF, microwave and millimeter wave terminations up to 65 GHz with excellent performance over the entire operating range and power handling capabilities up to 800 Watt (CW).

Electrical Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>DC</td>
<td>26.5</td>
<td>GHz</td>
<td></td>
</tr>
<tr>
<td>Impedance</td>
<td>50</td>
<td></td>
<td>0 ohms</td>
<td></td>
</tr>
<tr>
<td>VSWR</td>
<td></td>
<td>1.3:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Power (CW)</td>
<td>0.5</td>
<td></td>
<td>Watts</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>0.315 in [8 mm]</td>
</tr>
<tr>
<td>Width</td>
<td>0.15 in [3.81 mm]</td>
</tr>
<tr>
<td>Weight</td>
<td>0.069 lbs [31.3 g]</td>
</tr>
</tbody>
</table>

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 0.5 Watt RF Load Up to 26.5 GHz with SMP Female Push-On Gold Plated Beryllium Copper PE6181
Pasternack does not make

<table>
<thead>
<tr>
<th></th>
<th>Full Detent</th>
<th>Limited Detent</th>
<th>Smooth Bore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force to Engage (lbs Max)</td>
<td>15.0</td>
<td>8.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Force to Disengage (lbs Min)</td>
<td>5.0</td>
<td>2.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Durability (Cycles Min)</td>
<td>100</td>
<td>500</td>
<td>1000</td>
</tr>
</tbody>
</table>

**Configuration**
- Connector: Push-On SMP Female
- Connector Specification: MIL-STD-348

**Material Specifications**

<table>
<thead>
<tr>
<th>Description</th>
<th>Material</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector 1 Contact</td>
<td>Beryllium Copper</td>
<td>Gold MIL-G-45204, Type 1, Grade C, Class 1</td>
</tr>
<tr>
<td>Insulation</td>
<td>PTFE</td>
<td></td>
</tr>
<tr>
<td>Body</td>
<td>Beryllium Copper</td>
<td>Gold MIL-G-45204, Type 1, Grade C, Class 1</td>
</tr>
<tr>
<td>Housing</td>
<td>Beryllium Copper</td>
<td>Gold MIL-G-45204, Type 1, Grade C, Class 1</td>
</tr>
</tbody>
</table>

**Environmental Specifications**
- Temperature Operating Range: -65 to +125 deg C
- Shock: MIL-STD-202, METHOD 213, CONDITION I
- Vibration: MIL-STD-202, METHOD 202, CONDITION F
- Thermal Shock: MIL-STD-202, METHOD 107, CONDITION B

**Compliance Certifications** (see product page for current document)

**Plotted and Other Data**
- Notes:

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 0.5 Watt RF Load Up to 26.5 GHz with SMP Female Push-On Gold Plated Beryllium Copper PE6181
Pasternack does not make 3 Watt RF Load Up to 26.5 GHz with SMP Female Push-On Gold Plated Beryllium Copper from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 0.5 Watt RF Load Up to 26.5 GHz with SMP Female Push-On Gold Plated Beryllium Copper PE6181

URL: https://www.pasternack.com/0.5-watts-smp-female-rf-load-26.5-ghz-pe6181-p.aspx

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.
STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

- ±0.2
- ±0.02
- ±0.005

NOTES:
1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES (mm).

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Website: www.pasternack.com | E-Mail: sales@pasternack.com

Pasternack does not make
- 0.131 [3.3]
- 0.150 [3.8]
- 0.315 [8.0]

SMP FEMALE

PE6181 CAD Drawing
0.5 Watt RF Load Up to 26.5 GHz with SMP Female
Push-On Gold Plated Beryllium Copper