For pre-installation storage (product still on T&R) +5 to +35 °C, Humidity 45~75%RH is recommended.

**Part Number Explanation**

<table>
<thead>
<tr>
<th>P/N Suffix</th>
<th>Packing Style</th>
<th>T &amp; R</th>
<th>Termination style</th>
<th>Evaluation Board</th>
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</thead>
<tbody>
<tr>
<td>S</td>
<td>Bulk</td>
<td>S</td>
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<td>2450DP39K5400EB1SMA</td>
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<tr>
<td>E</td>
<td>T &amp; R</td>
<td>S</td>
<td>Suffix = E</td>
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<td></td>
<td></td>
<td>T &amp; R</td>
<td>Suffix = None</td>
<td></td>
</tr>
</tbody>
</table>

1. For pre-installation storage (product still on T&R) +5 to +35 °C. Humidity 45~75%RH is recommended.

**Terminal Configuration**

<table>
<thead>
<tr>
<th>No.</th>
<th>Function</th>
<th>No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GND</td>
<td>4</td>
<td>Higher Freq. Port</td>
</tr>
<tr>
<td>2</td>
<td>Common Port</td>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td>6</td>
<td>Lower Freq. Port</td>
</tr>
</tbody>
</table>

**Mechanical Dimensions**

- **Top View**:
  - L: 0.098 ± 0.008 (50 ± 0.2 mm)
  - W: 0.079 ± 0.008 (20 ± 0.2 mm)
  - T: 0.004 max. (1.0 max.
  - a: 0.020 ± 0.004 (0.5 ± 0.1 mm)
  - b: 0.016 ± 0.004 (0.4 ± 0.1 mm)
  - c: 0.020 ± 0.004 (0.5 ± 0.1 mm)
  - d: 0.031 ± 0.006 (0.8 ± 0.15 mm)

- **Bottom View**:
  - L: 1.8 ± 0.4 mm
  - W: 0.8 ± 0.5 mm

Component is AC coupled, no need for DC blocking cap between Low/High and Common Ports.

**Mounting Considerations**

- Solder Resist
- Land
- Through-hole (φ 0.25)

* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

**Measuring Diagram**

- Network Analyzer
- Port 1 (50Ω)
- Port 2 (50Ω)
- Port 3 (50Ω)
- GND

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Typical Electrical Characteristics (T=25 °C)

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## "High Frequency Ceramic Solutions"

### 2.45/5.5GHz SMD Diplexer for 802.11/WLAN/WiFi

<table>
<thead>
<tr>
<th>P/N 2450DP39K5400</th>
</tr>
</thead>
</table>

### RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

### Packaging information

www.johansontechnology.com/ipcpackaging.html

### Soldering Information

www.johansontechnology.com/ipcsoldering-profile

### Layout Files, s-parameters and any other technical questions

www.johansontechnology.com/component/techquestion/?Itemid=407

### MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

### Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

### Antenna layout and tuning techniques

www.johansontechnology.com/tuning

### Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

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