DIELECTRIC LABORATORIES

8 to 12GHz 10dB Directional Coupler
FPC06150

DESCRIPTION

DLI introduces its new high frequency, wide band surface mountable catalog direction couplers. These couplers incorporate DLI’s high dielectric ceramic materials which provide small size and minimal performance variation over temperature. They are available in symmetrical and asymmetrical versions.

FEATURES

- Small Size
- Excellent Repeatability
- Wirebond
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

SPECIFICATIONS*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency (GHz)</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passband Insertion Loss*</td>
<td></td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Passband Return Loss (dB)</td>
<td>8-12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Coupling (dB)</td>
<td></td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Directivity (dB)</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Input Power (W)</td>
<td></td>
<td></td>
<td>TBD</td>
</tr>
<tr>
<td>Size (L x W x H)</td>
<td>0.130 x .090 x .015 in</td>
<td>3.30 x 2.286 x .381mm</td>
<td></td>
</tr>
</tbody>
</table>

*Typical measured performance mounted on RO4350B test board at 25°C.

*Electrical specifications based on typical mounted performance at room temperature. Insertion loss shall vary ±0.5dB over temperature.

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Recommended PCB Layout

- 50Ω trace dimensions are application specific.
- Ensure adequate grounding beneath the part.
- Trace feed locations can be horizontal, vertical, or angled.

Physical Dimensions

Units = mils

Directivity

Coupling

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