11.2GHz 2-way Wilkinson Power Divider

PDW08604 PRELIMINARY

DESCRIPTION

DLI’s 11.2GHz 2-way power divider / combiner offers unmatched size and performance in a surface mount configuration. This power divider utilizes DLI’s low loss temperature stable materials which offer small size and minimal performance variation over temperature.

SPECIFICATIONS*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency Range (GHz)</th>
<th>Min</th>
<th>Typ.</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Power Splitting (dB)</td>
<td></td>
<td></td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Nominal Phase Shift (Deg)</td>
<td>10.6—11.8</td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Amplitude Balance (dB)</td>
<td></td>
<td>± 0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase Balance (Deg)</td>
<td></td>
<td>± 2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess Insertion Loss (dB)</td>
<td></td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return Loss (dB)</td>
<td>12</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation (dB)</td>
<td>12</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

FEATURES

- Small Size
- Frequency Stable over Temperature
- Solder Surface Mount Package
- Excellent Repeatability
- Moisture Sensitivity Level: MSL1
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω
- Available in Tape and Reel packaging as PDW08604—T

Simulated Performance
11.2GHz 2-way Wilkinson Power Divider

Physical Dimensions
unit = in [mm]

TOP
- 0.0425 [1.08]
- 0.0565 [1.44]

SIDE
- 0.0850 [2.16]

BOTTOM
- 0.020 [0.51]
- 0.0069 [0.17]
- 0.0120 [0.30]

Recommended PWB Layout
unit = in [mm]
- 0.0150 [0.38]
- 0.0200 [0.51]
- R0.011 [R0.28]
- R0.018 [R0.46]

-500 trace dimensions are application specific
- Ensure adequate grounding beneath the part

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JUNE 2019