90° HYBRID
SURFACE MOUNT MODEL: DQS-100-1000
FREQUENCY BANDWIDTH 100 - 1000 MHz

FEATURES:
► Ultra-Wide Bandwidth (10:1)
► Small Package Size
► Building Block For:
  - Power Amplifiers
  - Image Rejection Mixers
  - I & Q / SSB Modulators
  - Phase Shifters & More...

SPECIFICATIONS (Rev. E 11/11/11)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>100 - 1000 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (dB)</td>
<td>Typ. 1.5, Max. 2.3</td>
</tr>
<tr>
<td>Amplitude Unbalance (dB)</td>
<td>Typ. 0.8, Max. 1.8</td>
</tr>
<tr>
<td>Phase Unbalance (Deg.)</td>
<td>Typ. ± 6, Max. ± 10</td>
</tr>
<tr>
<td>Isolation (dB)</td>
<td>Typ. 23, Min. 16</td>
</tr>
<tr>
<td>Power Rating</td>
<td>1 Watt (Max.)</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ohms (Nom.)</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.6:1 (Typ)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40 to +85 °C</td>
</tr>
</tbody>
</table>

1 Insertion loss in excess of the theoretical 3 dB coupling.

Package # 102SLF

PORT CONFIGURATION

<table>
<thead>
<tr>
<th>Input</th>
<th>Isolated*</th>
<th>+90° Output*</th>
<th>0° Output</th>
<th>GND**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>All Others</td>
</tr>
</tbody>
</table>

*Terminate isolated port with 50 Ohms externally.
** Ground externally.
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FREQUENCY BANDWIDTH
100 - 1000 MHz

Data @ 25ºC

PERFORMANCE PLOTS

Coupling/Insertion Loss/Ampl. Unbal. (dB)
S21
S31

Isolation (dB)
S41
90° HYBRID
SURFACE MOUNT MODEL: DQS-100-1000

FREQUENCY BANDWIDTH
100 - 1000 MHz

Data @ 25ºC

PERFORMANCE PLOTS

Phase Unbalance (deg.)

Frequency (MHz)

Return Loss (dB)

Frequency (MHz)

S11  S22  S33  S44
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Data @ 25°C