90° HYBRID
SURFACE MOUNT MODEL: SLQ-KA3

FEATURES:
- Excellent Performance
- Small Size, Surface Mount
- Building Block For:
  - Power Amplifiers
  - Image Rejection Mixers
  - I & Q / SSB Modulators
  - Phase Shifters & More...

SPECIFICATIONS (Rev. F 09/18/18)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>70 - 140 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (dB) *</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>0.35</td>
</tr>
<tr>
<td>Amplitude Unbalance (dB)</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Phase Unbalance (Deg.)</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>0.5°</td>
</tr>
<tr>
<td>Isolation (dB)</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>23</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>1.2:1 (Typ.)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40 to +85 °C</td>
</tr>
</tbody>
</table>

* Insertion loss is the average loss of the 2 coupling values in excess of the theoretical 3 dB coupling.

Pin 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>6</td>
<td>5*</td>
<td>1</td>
<td>2</td>
<td>3,4</td>
</tr>
</tbody>
</table>

* Terminate ISOLATED port in 50 Ohms EXTERNALLY.
** Ground EXTERNALLY
90\,º HYBRID
SURFACE MOUNT MODEL: SLQ-KA3

OPTIMIZED BANDWIDTH 70 - 140 MHz

Data @ 25ºC

PERFORMANCE PLOTS

Coupling/Insertion Loss/Amp. Unbal. (dB)

Frequency (MHz)

S11
S21
S31
S41

Isolation (dB)

Frequency (MHz)
90° HYBRID
SURFACE MOUNT MODEL: SLQ-KA3

OPTIMIZED BANDWIDTH
70 - 140 MHz

Data @ 25°C

PERFORMANCE PLOTS

Phase Unbalance (deg.)

Frequency (MHz)

Return Loss (dB)

Frequency (MHz)

S11 S22 S33 S44
90º HYBRID
SURFACE MOUNT MODEL: SLQ-KA3

OPTIMIZED BANDWIDTH

70 - 140 MHz

Data @ 25ºC

Performance Plots

Group Delay (nSec)

Frequency (MHz)

70 77 84 91 98 105 112 119 126 133 140