# 90° HYBRID
SURFACE MOUNT MODEL: SMQ-C74

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

## SPECIFICATIONS (Rev. B 11/05/08)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>475 - 525 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (dB) *</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>0.2</td>
</tr>
<tr>
<td>Amplitude Unbalance</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Phase Unbalance</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>1°</td>
</tr>
<tr>
<td>Isolation (dB)</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Input Power</td>
<td>1 Watt (Max.)</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ohms (Nom.)</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.18:1 (Typ.)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40 to +85 °C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-55 to +100 °C</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Package #</th>
<th>129</th>
</tr>
</thead>
</table>

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* Terminate ISOLATED port in 50 Ohms EXTERNALLY.
** Ground Externally
90° HYBRID
SURFACE MOUNT MODEL: SMQ-C74

OPTIMIZED BANDWIDTH
475 - 525 MHz

Data @ 25°C

PERFORMANCE PLOTS

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

Frequency (MHz)

S21, S31

Isolation (dB)

Frequency (MHz)

S41
90° HYBRID
SURFACE MOUNT MODEL: SMQ-C74

OPTIMIZED BANDWIDTH
475 - 525 MHz

Data @ 25°C

PERFORMANCE PLOTS

Phase Unbalance (deg.)

Frequency (MHz)

Return Loss (dB)

Frequency (MHz)
90° HYBRID
SURFACE MOUNT MODEL: SMQ-C74

OPTIMIZED BANDWIDTH
475 - 525 MHz

PERFORMANCE PLOTS

Data @ 25°C