

# 90° HYBRID

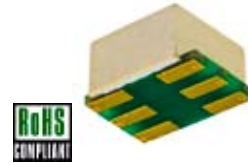
## SURFACE MOUNT MODEL: SLQ-KA4

**OPTIMIZED BANDWIDTH**

**80 - 160 MHz**

**FEATURES:**

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



**SPECIFICATIONS (Rev. C 11/20/09)**

|                             |                |      |
|-----------------------------|----------------|------|
| Frequency                   | 80 - 160 MHz   |      |
| Insertion Loss (dB) *       | Typ.           | Max. |
|                             | 0.45           | 0.65 |
| Amplitude Unbalance (dB)    | Typ.           | Max. |
|                             | 0.4            | 1.0  |
| Phase Unbalance (Deg.)      | Typ.           | Max. |
|                             | 2.0°           | 3.0° |
| Isolation (dB)              | Typ.           | Min. |
|                             | 27             | 18   |
| Power Rating                | 1 Watt (Max.)  |      |
| Impedance                   | 50 Ohms (Nom.) |      |
| VSWR                        | 1.3:1 (Typ.)   |      |
| Operating Temperature Range | -40 to +85 °C  |      |

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

**Package # 159LF**

REL-PRO® Patent No. 7,612,296

TOLERANCES ON THREE DECIMAL PLACES = ± 0.015  
PACKAGE MOUNTING: SEE APPLICATION NOTES AN7200 & AN7301

| Port Configuration |           |             |           |        |
|--------------------|-----------|-------------|-----------|--------|
| Input              | Isolated* | +90° Output | 0° Output | GND.** |
| 6                  | 5*        | 1           | 2         | 3,4    |

\* Terminate ISOLATED port in 50 Ohms EXTERNALLY.  
\*\* Ground Externally

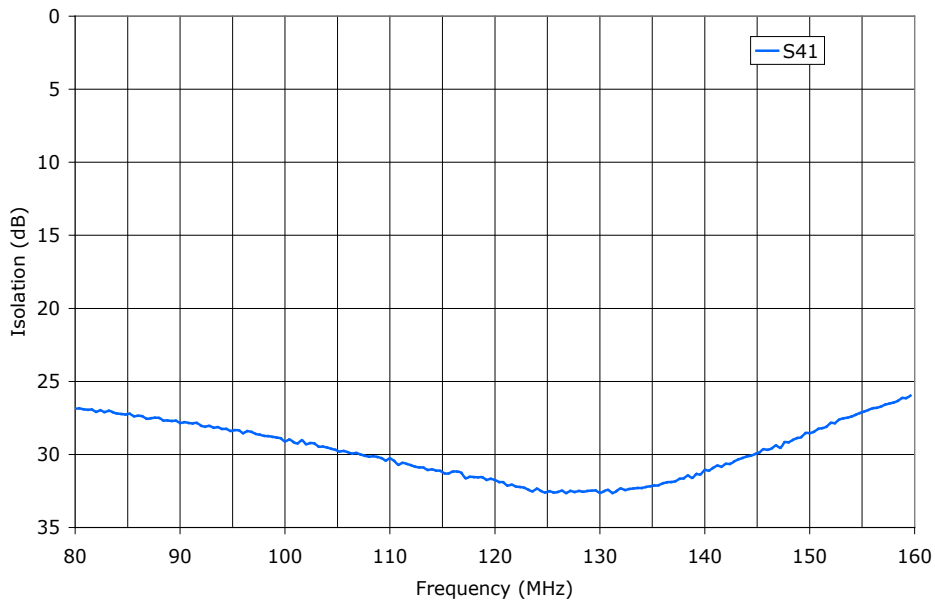
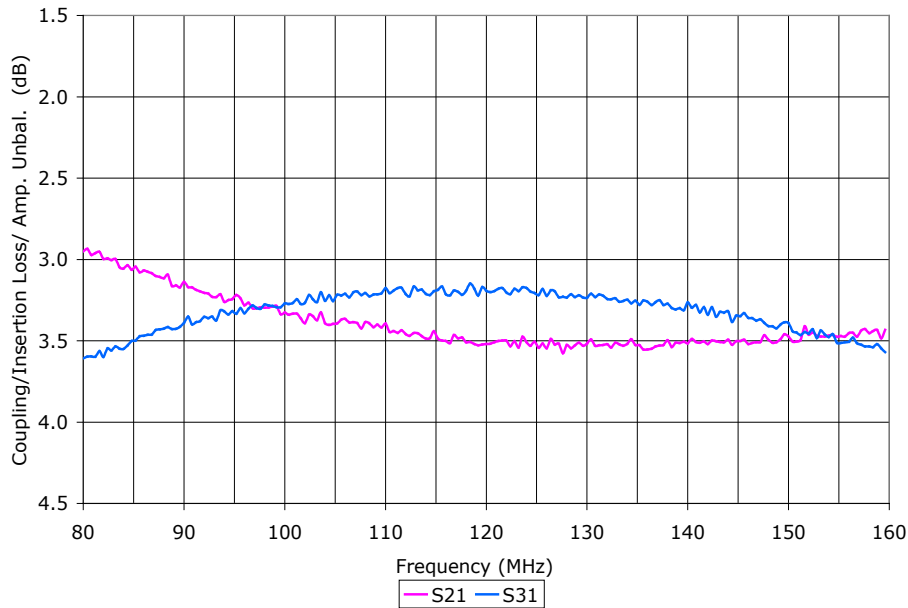
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Data @ 25°C



PERFORMANCE PLOTS

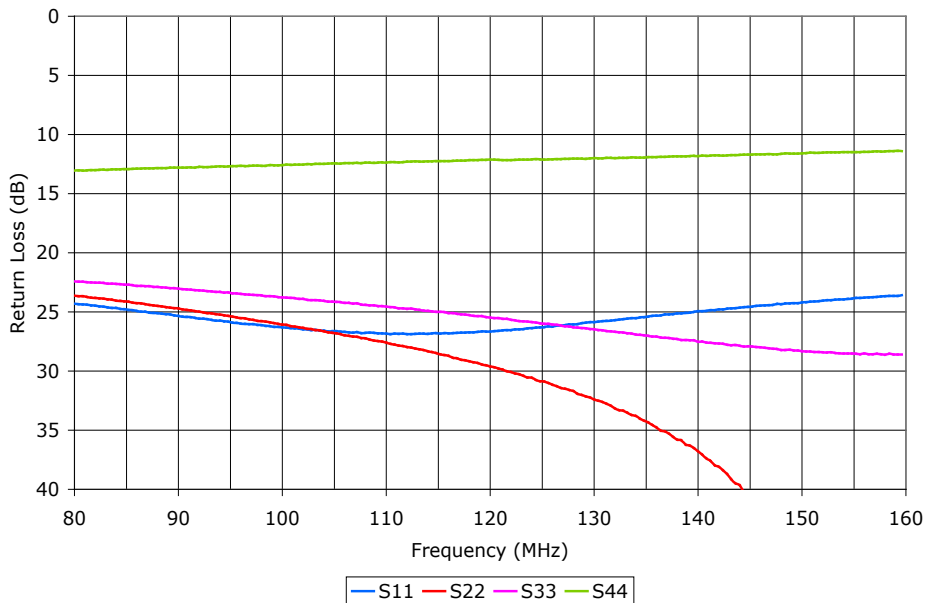
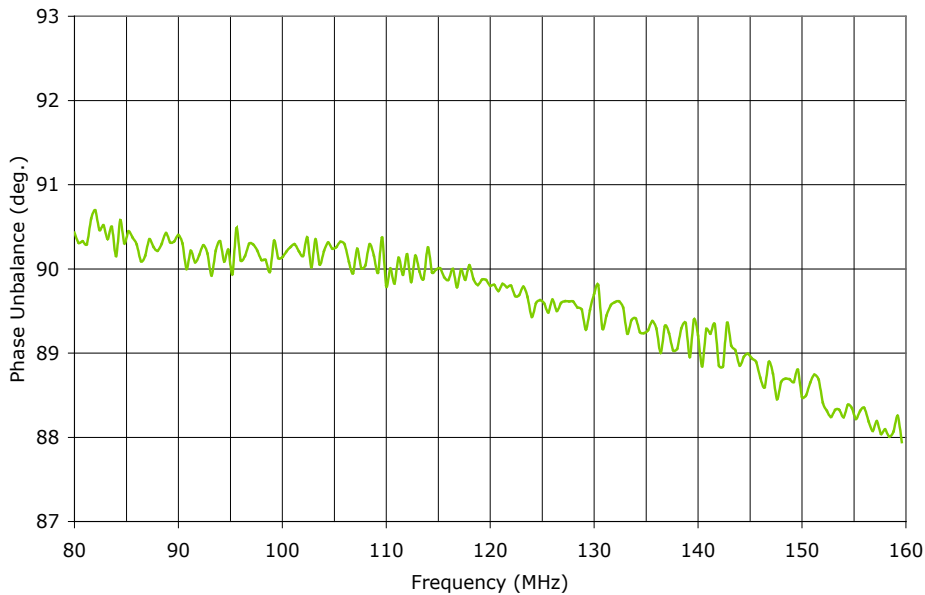
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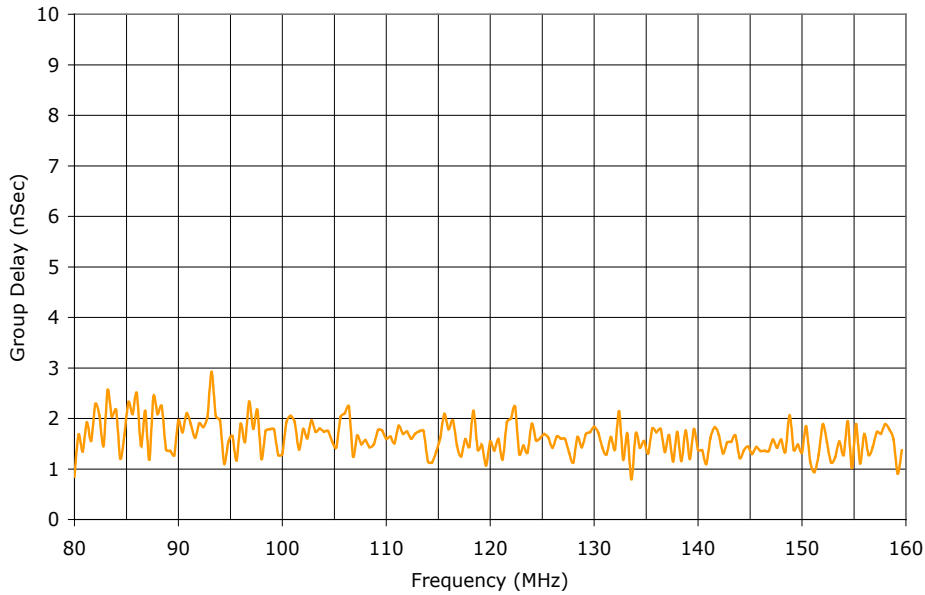
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PERFORMANCE PLOTS



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201 McLean Boulevard • Paterson, New Jersey 07504 • Tel: (973) 881-8800 • Fax: (973) 881-8361  
E-Mail: sales@synergymwave.com • World Wide Web: <http://www.synergymwave.com>