

# 90° HYBRID

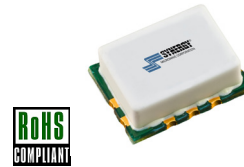
## SURFACE MOUNT MODEL: SMQ-C04

**OCTAVE BANDWIDTH**

**100 - 200 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. D 05/21/24)**

<b>Frequency</b>	100 - 200 MHz	
<b>Insertion Loss (dB) *</b>	Typ. 0.6	Max. 0.9
<b>Amplitude Unbalance</b>	Typ. 0.5	Max. 1.0
<b>Phase Unbalance</b>	Typ. 1°	Max. 4°
<b>Isolation (dB)</b>	Typ. 28	Min. 18
<b>Power Rating</b>	1 Watt (Max.)	
<b>Impedance</b>	50 Ohms (Nom.)	
<b>VSWR</b>	1.1:1 (Typ.)	
<b>Operating Temperature Range</b>	-40 to +85 °C	
<b>Storage Temperature Range</b>	-55 to +100 °C	

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

<b>Package #</b>	<b>129LF-2</b>
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TOP VIEW

BOTTOM VIEW

DETAIL - A

RECOMMENDED PCB LAYOUT X 10 PLCS.

PACKAGE MOUNTING: SEE APPLICATION NOTE AN7301.  
TOLERANCES ON THREE DIMENSIONS ARE IN INCHES.  
DECIMAL PLACES = ± 0.015

Port Configuration					
Input	Isolated*	+90° Output	0° Output	GND.**	No Conn.
5	6	1	2	7,8,9,10	3,4

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

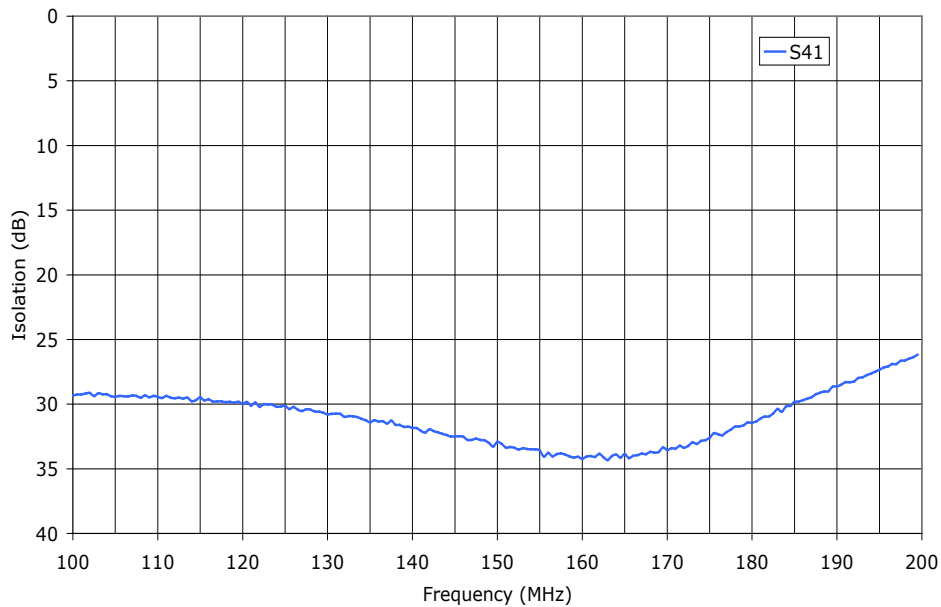
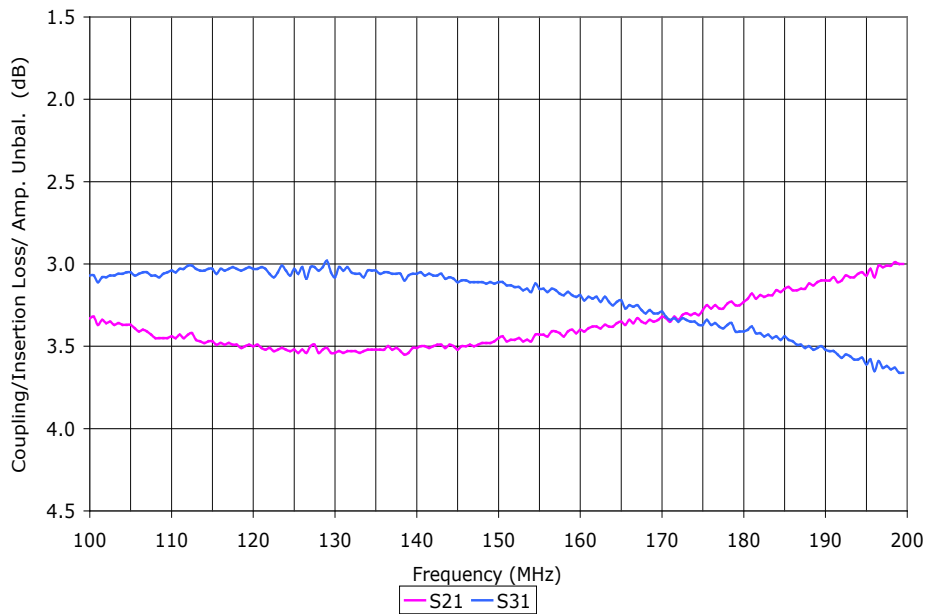
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Data @ 25°C



PERFORMANCE PLOTS

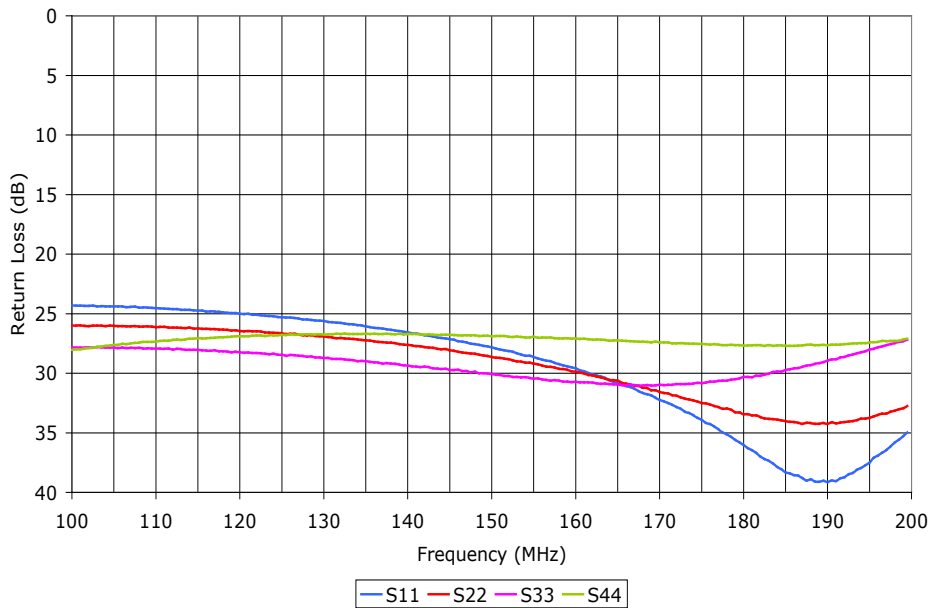
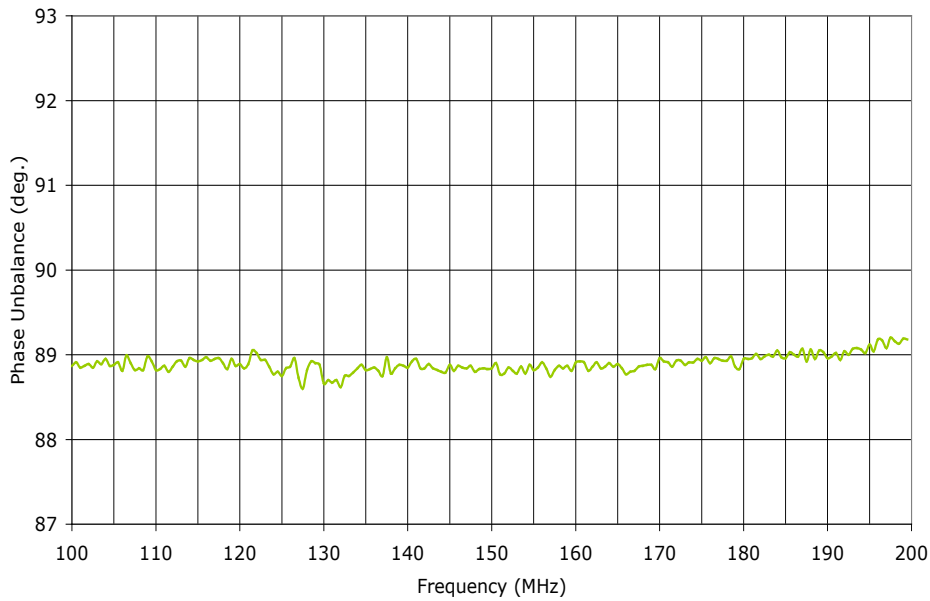
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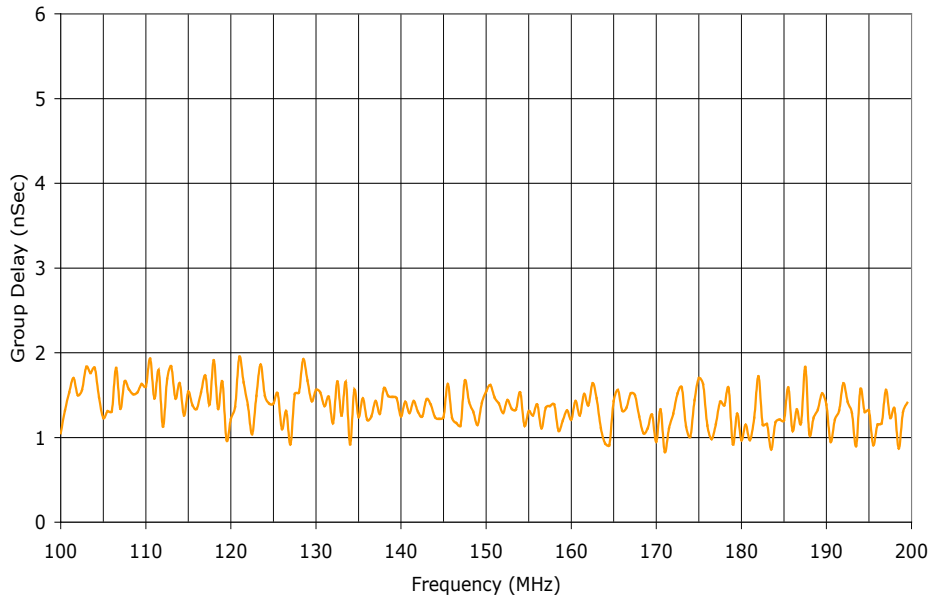
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