

90° HYBRID

SURFACE MOUNT MODEL: MSQ80300

WIDE BANDWIDTH

800 - 3000 MHz

FEATURES:

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



SPECIFICATIONS (Rev. A 10/04/07)

Frequency	800 - 3000 MHz	
Insertion Loss (dB) *	Typ.	Max.
	0.5	1.0
Amplitude Unbalance (dB)	Typ.	Max.
	0.7	1.0
Phase Unbalance (Deg.)	Typ.	Max.
	2.0	5.0
Isolation (dB)	Typ.	Min.
	18	13
Power Rating	20 Watts Ave. (CW)	
Impedance	50 Ohms (Nom.)	
VSWR	1.35:1 (Typ.) / 1.60:1 (Max.)	
Operating Temperature Range	-55 to +85 °C	
Storage Temperature Range	-55 to +100 °C	

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

PHASING DIAGRAM

OUT \ IN	1	2	3	4
1	X	0°	+90°	ISO
2	0°	X	ISO	+90°
3	+90°	ISO	X	0°
4	ISO	+90°	0°	X

Package # 325

TOP VIEW

SIDE VIEW

BOTTOM VIEW

TOLERANCES ON THREE DECIMAL PLACES= ± 0.015

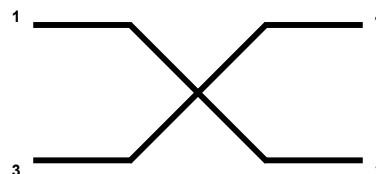
RECOMMENDED PCB LAYOUT

PORT CONFIGURATION

Input	Isolated*	+90° Output	0° Output	GND
1	4	3	2	All Others

* Terminate ISOLATED port with 50 Ohms.

PORT DIAGRAM



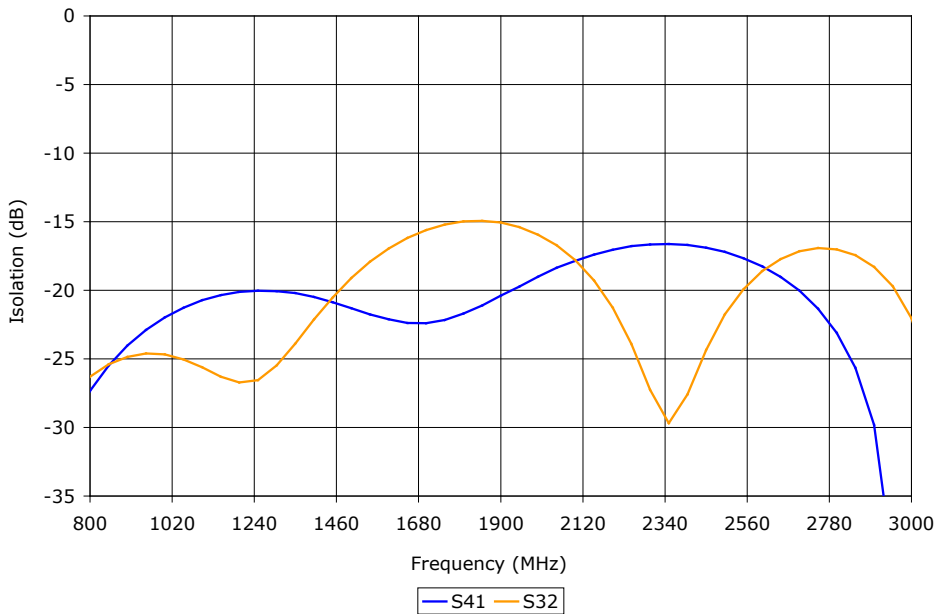
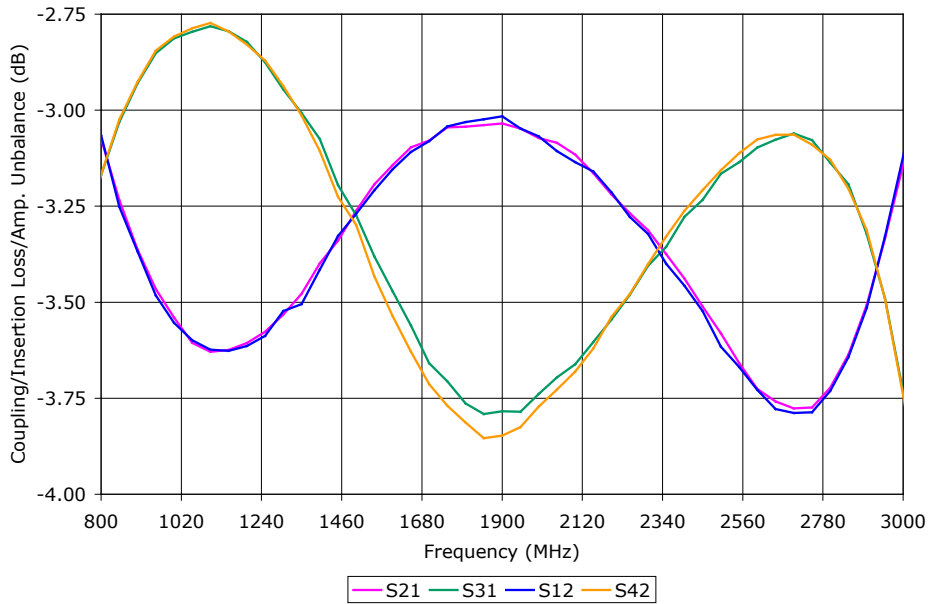
90° HYBRID

SURFACE MOUNT MODEL: MSQ80300

WIDE BANDWIDTH

800 - 3000 MHz

Data @ 25°C



PERFORMANCE PLOTS

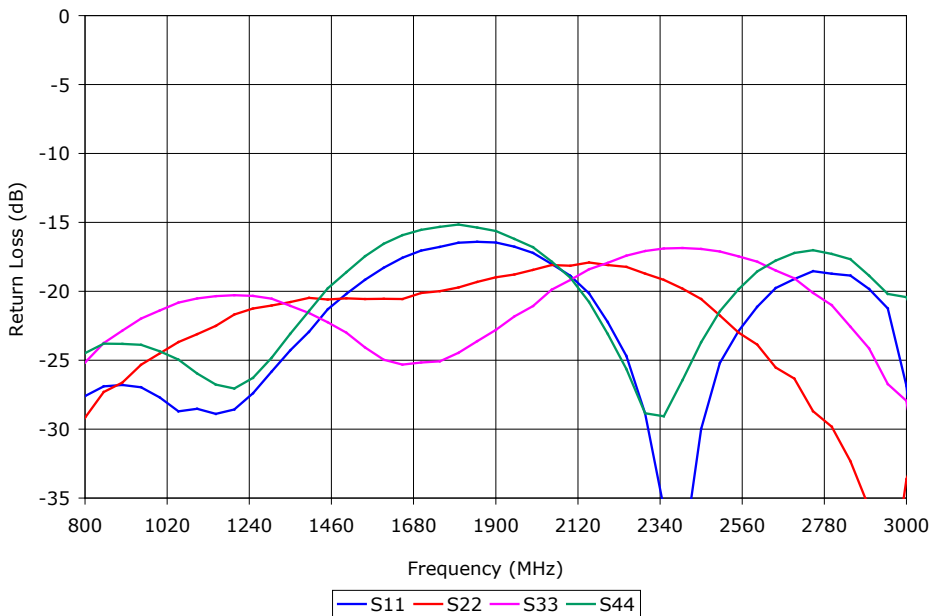
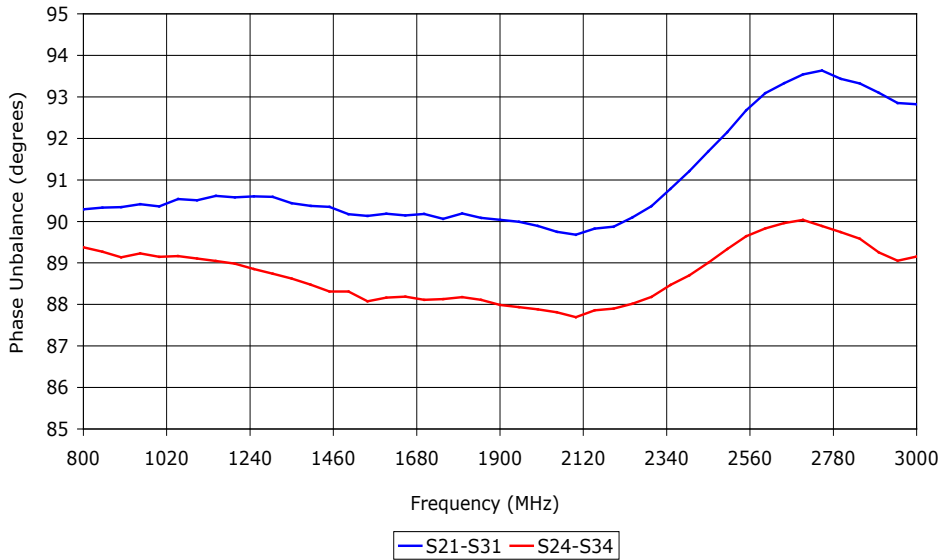
90° HYBRID

SURFACE MOUNT MODEL: MSQ80300

WIDE BANDWIDTH

800 - 3000 MHz

Data @ 25°C



PERFORMANCE PLOTS

