

90° HYBRID COUPLER

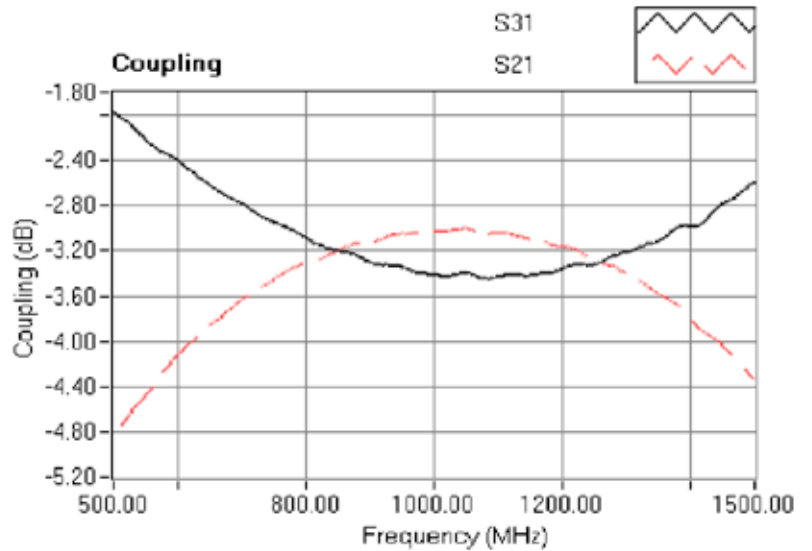
SYNSTRIIP® MODEL: MSQ-8012

WIDE BANDWIDTH

800 - 1200 MHz

FEATURES:

- ▶ Synstrip Technology™
- ▶ Small Package Size, Surface Mount
- ▶ REL-PRO® Patented Technology
- ▶ Building Block For:
 - Power Amplifiers
 - Image Rejection Mixers
 - I & Q / SSB Modulators
 - Phase Shifters & More...



SPECIFICATIONS (Rev. C 02/17/12)

Frequency	800 - 1200 MHz	
Insertion Loss (dB) *	Min.	Max.
	0.2	0.25
Amplitude Unbalance (dB)	Typ.	Max.
	±0.3	±0.4
Phase Unbalance (Deg.)	Typ.	Max.
	2.0	3.0

Isolation (dB)	Typ.	Min.
	22	18
Power Rating	50 Avg. Watts (CW Max.)	
Impedance	50 Ohms (Nom.)	
VSWR	1.2:1 (Typ.) / 1.25:1 (Max.)	
Operating Temperature Range	-55 to +85 °C	
* The insertion loss is measured at the midpoint of the two output levels.		

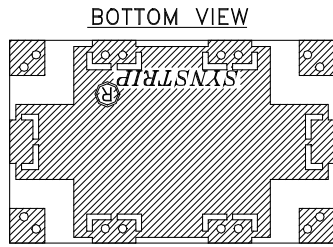
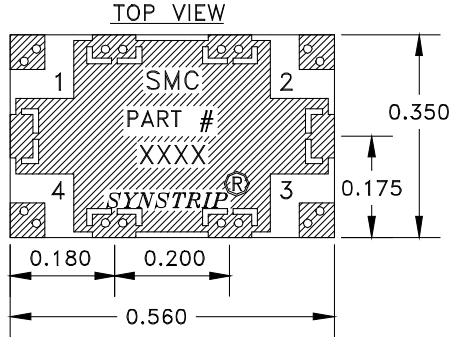
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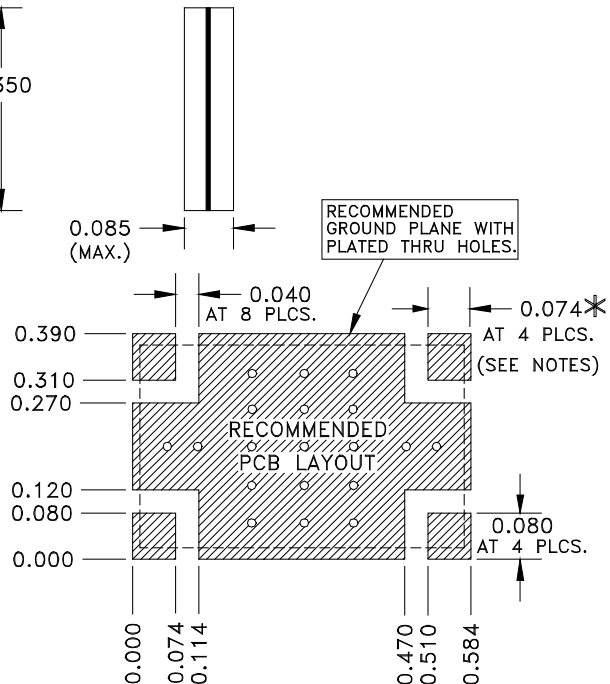
800 - 1200 MHz

Package # 227LF



HATCHED AREA IS METALIZATION.

SIDE VIEW

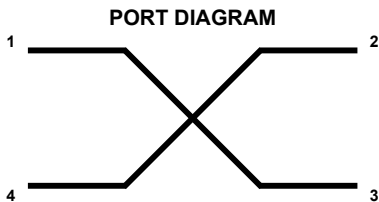


REL-PRO®

IMPORTANT NOTES:

- 1) THE WIDTH OF THE LIVE PADS SHOULD CORRESPOND TO 50 OHM FOR THE DI-ELECTRIC CONSTANT AND THICKNESS OF THE CHOSEN PC BOARD MATERIAL. THE GIVEN VALUE(*) CORRESPONDS TO $\epsilon_r=3.38$ & THICKNESS=0.032" (ROGERS RO 4003).
- 2) THE COUPLER SHOULD BE SOLDER ATTACHED TO THE RECOMMENDED PC BOARD LAYOUT FOR ACHIEVING SPECIFIED PERFORMANCE.

PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200



PHASING DIAGRAM

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

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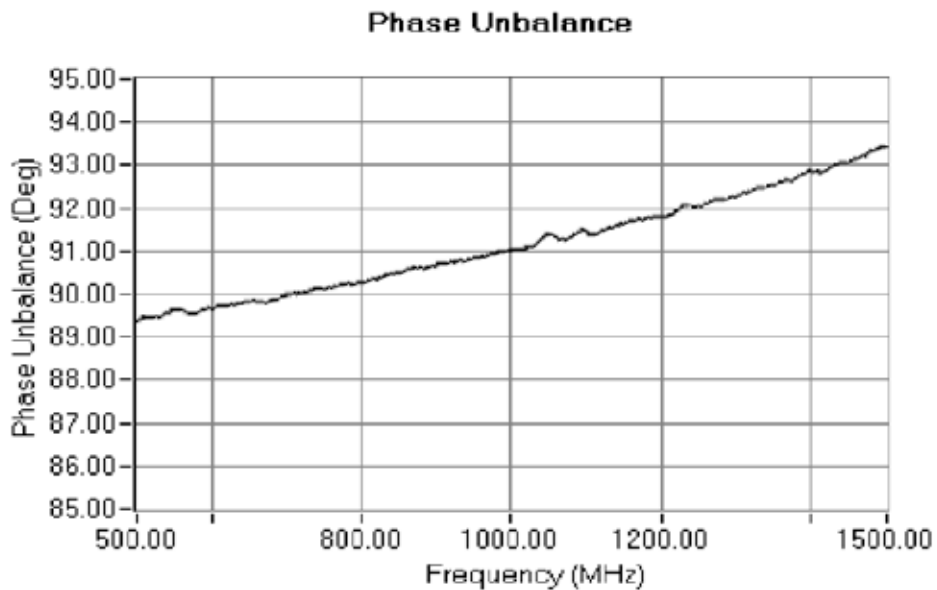
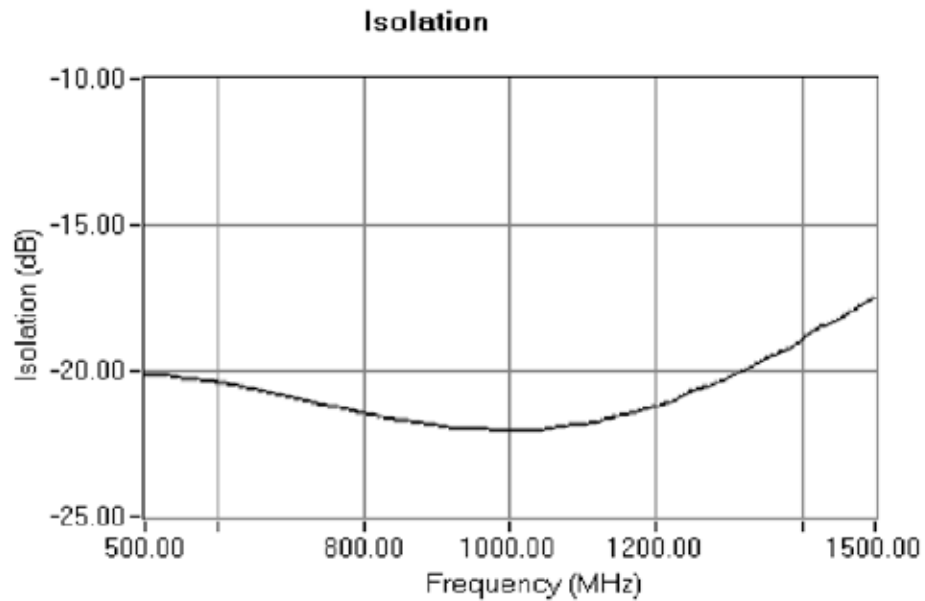
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Data @ 25°C

PERFORMANCE PLOTS

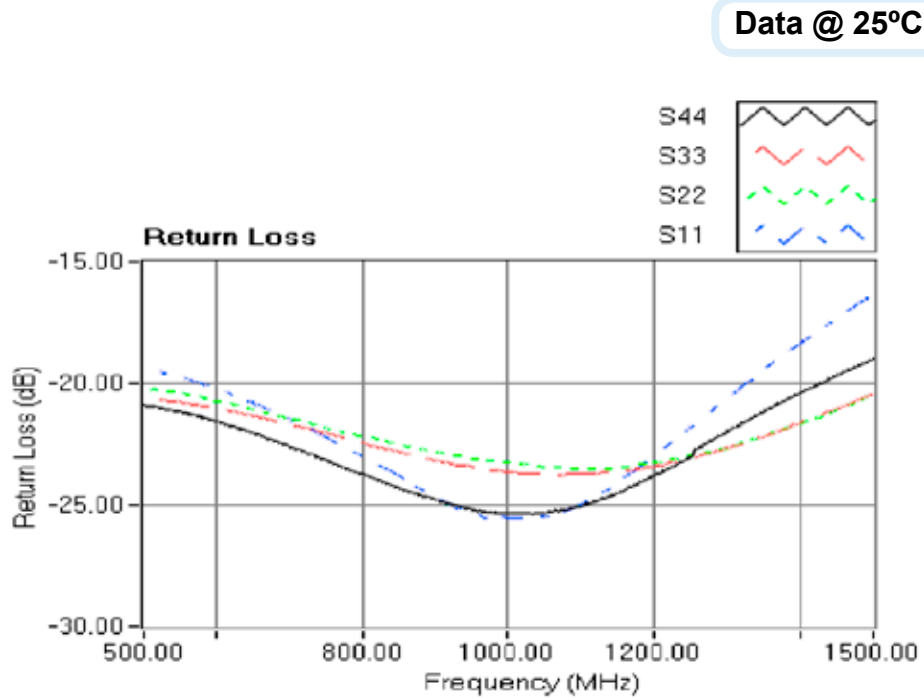


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PERFORMANCE PLOTS