

90° HYBRID

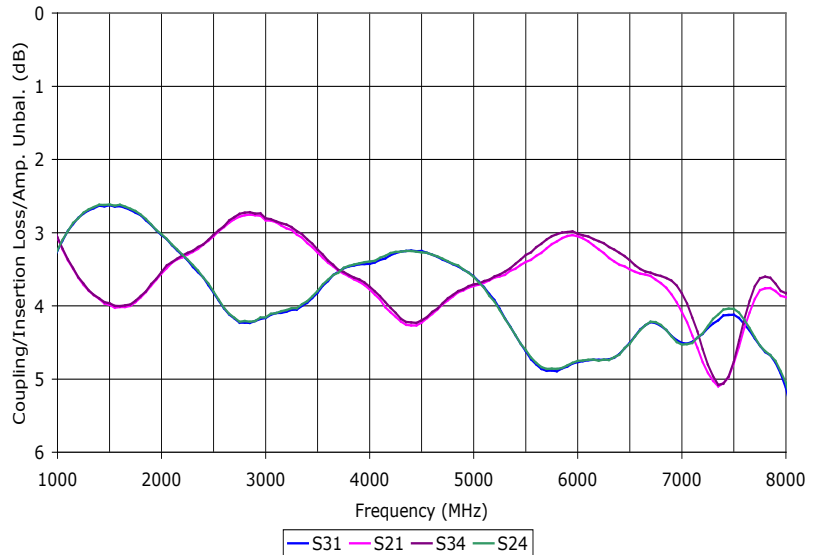
SURFACE MOUNT MODEL: MSQ100800

WIDE BANDWIDTH

1000 - 8000 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. B 05/29/13)

Frequency	1000 - 8000 MHz		
Insertion Loss (dB) *	Frequency (MHz)	Typ.	Max.
	1000-4000	0.5	1
	4000-8000	1.5	2
Amplitude Unbalance (dB)	Frequency (MHz)	Typ.	Min.
	1000-4000	1.5	2
	4000-8000	1.8	2.2
Phase Unbalance (Deg.)	Frequency (MHz)	Typ.	Min.
	1000-4000	2	4
	4000-8000	6	12

Isolation (dB)	Frequency (MHz)	Typ.	Min.
	1000-4000	18	15
	4000-8000	14	10
Power Rating	50 Watts Ave. (CW)		
Impedance	50 Ohms (Nom.)		
VSWR	Frequency (MHz)	Typ.	
	1000-4000	1.30:1	
	4000-8000	1.75:1	
Operating Temperature Range	-55 to +85 °C		
Storage Temperature Range	-55 to +100 °C		
* Insertion loss in excess of the theoretical 3 dB coupling and is measured at the midpoint of the two output levels.			

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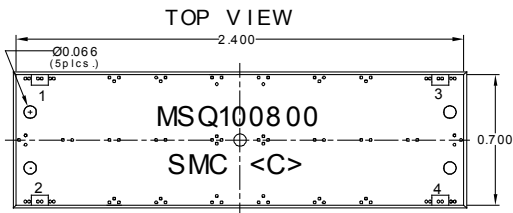
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WIDE BANDWIDTH

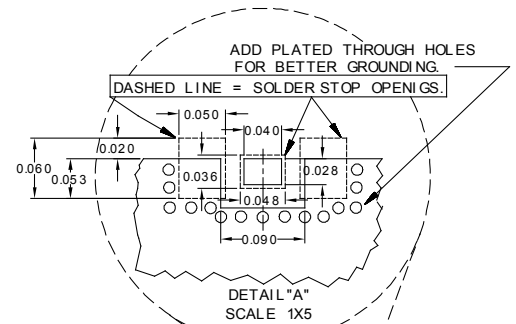
1000 - 8000 MHz

Package # 346

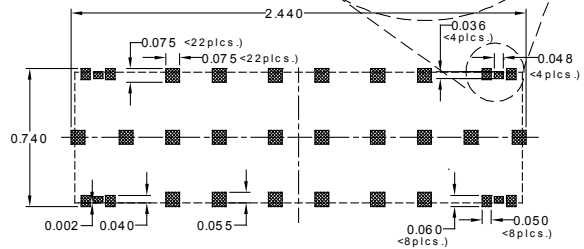
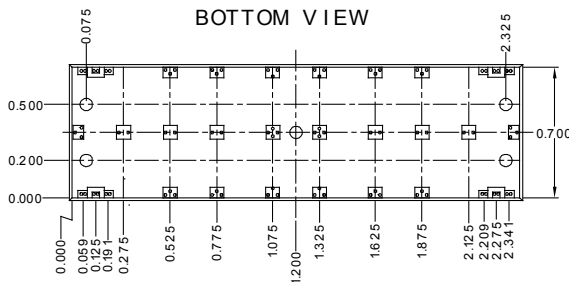
REL-PRO PATENT NO 7,612,296



SIDE VIEW



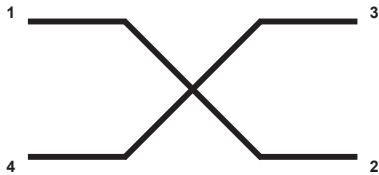
TOLERANCE: XXX±0.005



RECOMMENDED SOLDER STOP OPENINGS

PACKAGE MOUNTING: SEE APPLICATION NOTE AN7200

PORT DIAGRAM



PHASING DIAGRAM

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

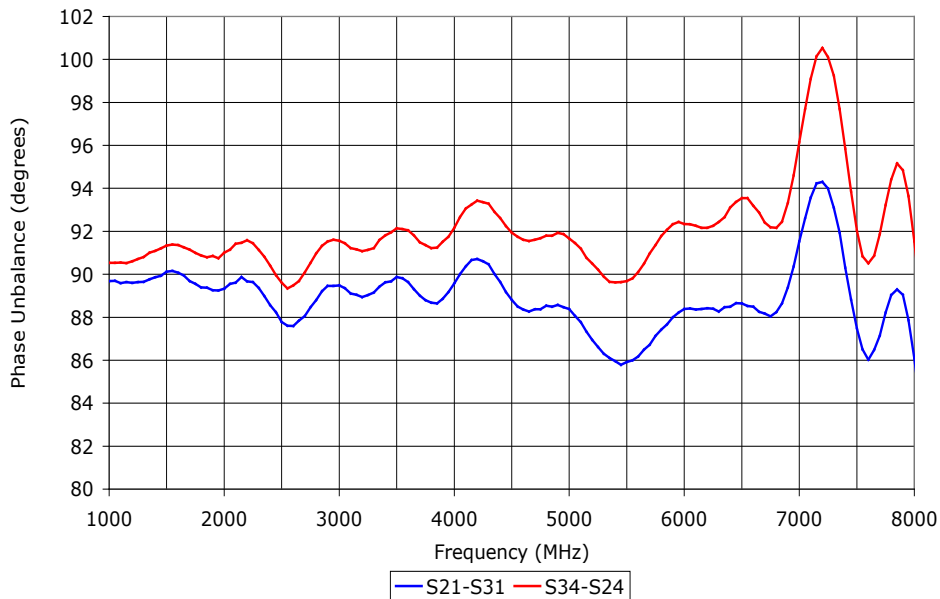
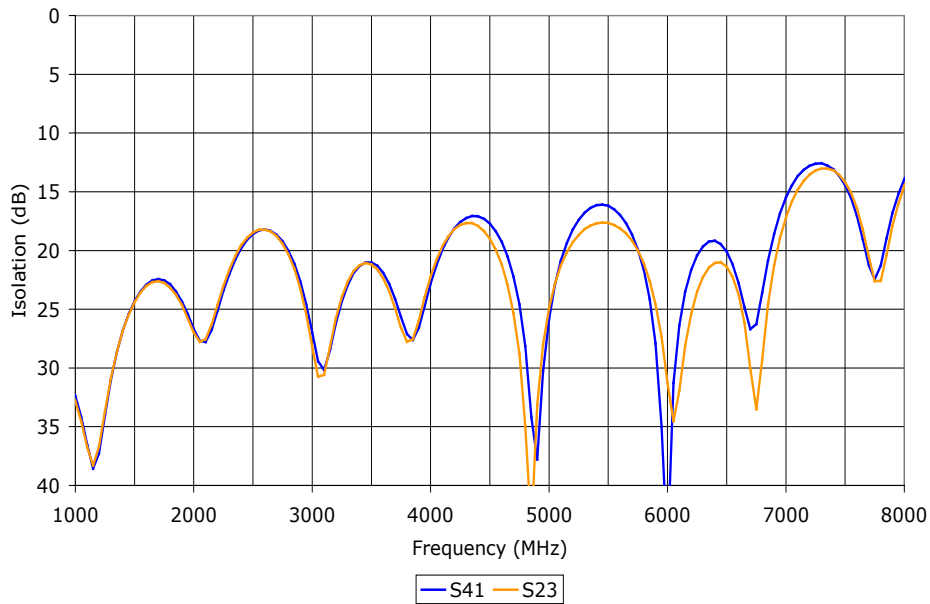
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Data @ 25°C



PERFORMANCE PLOTS

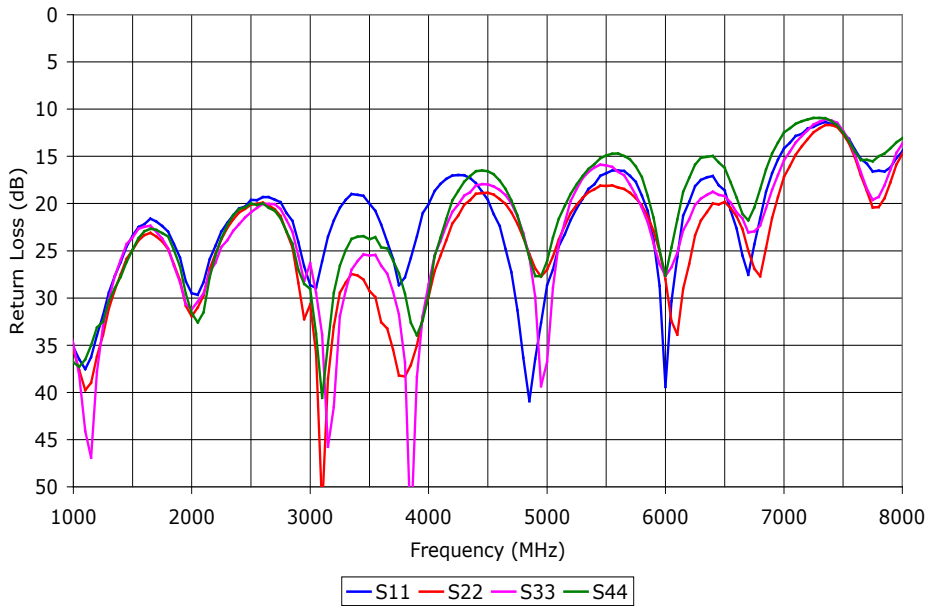
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PERFORMANCE PLOTS