

90° HYBRID

SURFACE MOUNT MODEL: SMQ-C52

OPTIMIZED BANDWIDTH

20.3 - 22.5 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. A 03/26/08)

Frequency	20.3 - 22.5 MHz	
Insertion Loss (dB) *	Typ.	Max.
	0.2	0.3
Amplitude Unbalance	Typ.	Max.
	0.5	0.8
Phase Unbalance (Deg.)	Typ.	Max.
	1.0°	3.0°
Isolation (dB)	Typ.	Min.
	28	20
Input Power	1 Watt (Max.)	
Impedance	50 Ohms (Nom.)	
VSWR	1.1:1 (Typ.)	
Operating Temperature Range	-40 to +85 °C	
Storage Temperature Range	-55 to +100 °C	

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

Package #	129
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0.062

1 2 3

7 8 6 5 4 10

TOP VIEW

0.375

0.500

0.100

0.281 2PL

0.157

0.250

0.343

0.150MAX

0.020

0.560

0.093

0.065 10PL

0.435

0.220

0.095 10PL

0.280

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

* Terminate ISOLATED port in 50 Ohms EXTERNALLY.

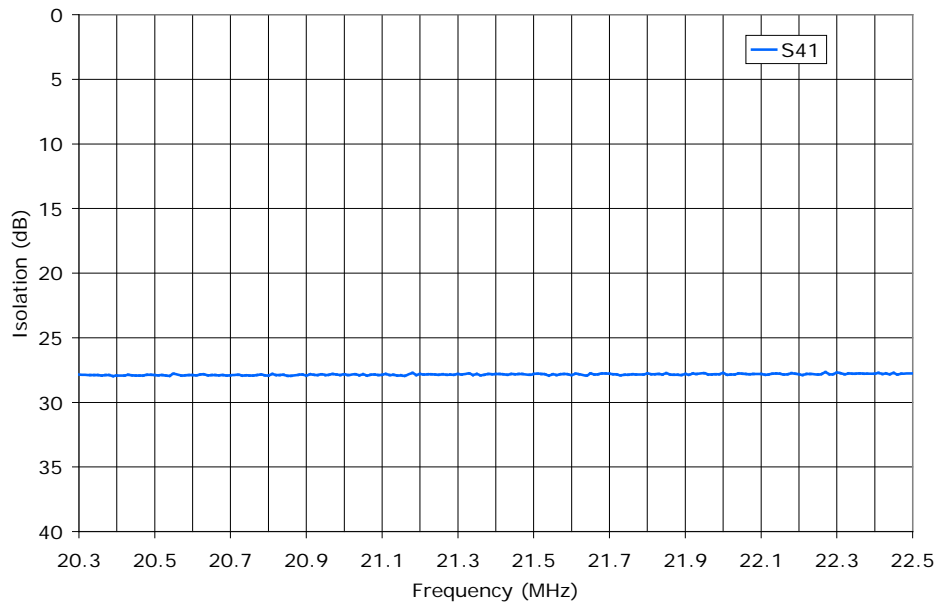
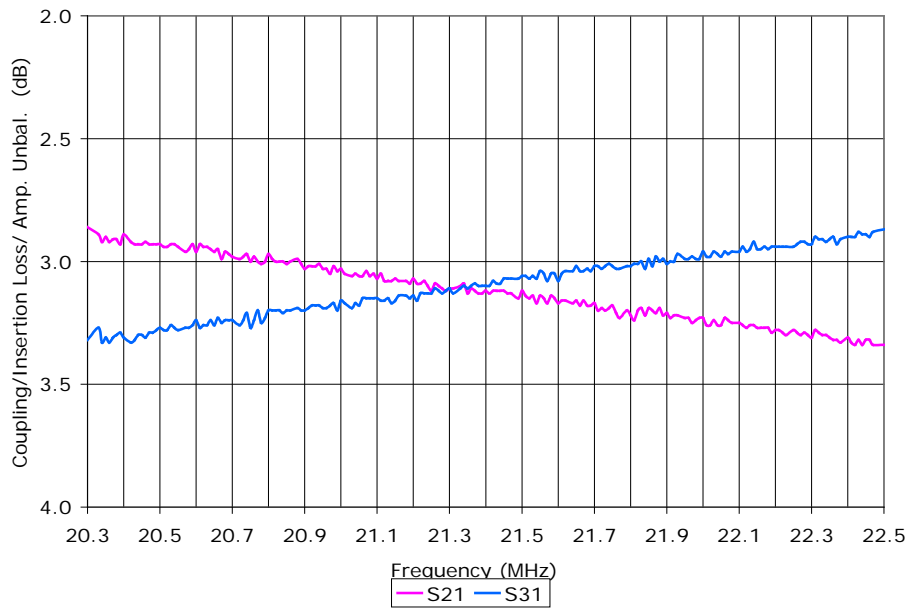
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Data @ 25°C



PERFORMANCE PLOTS

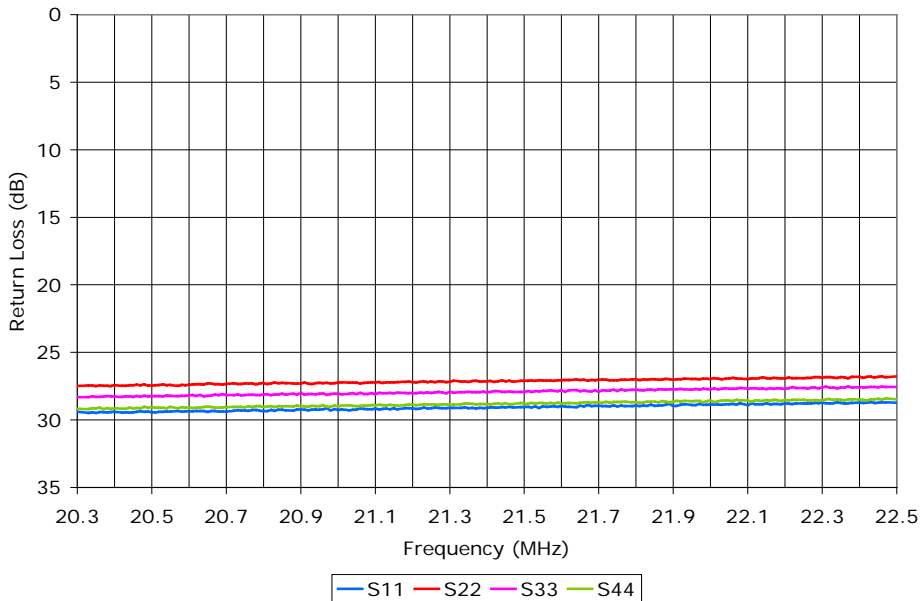
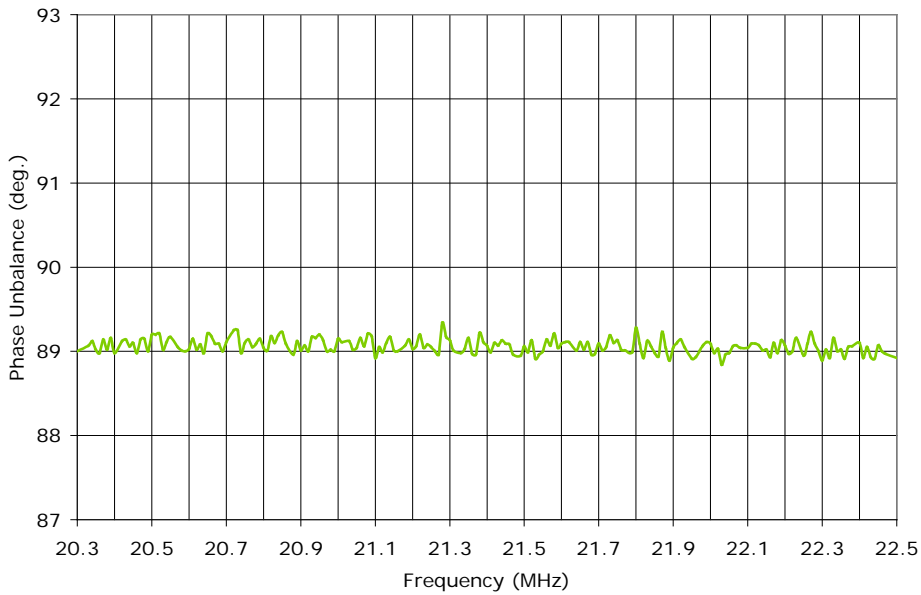
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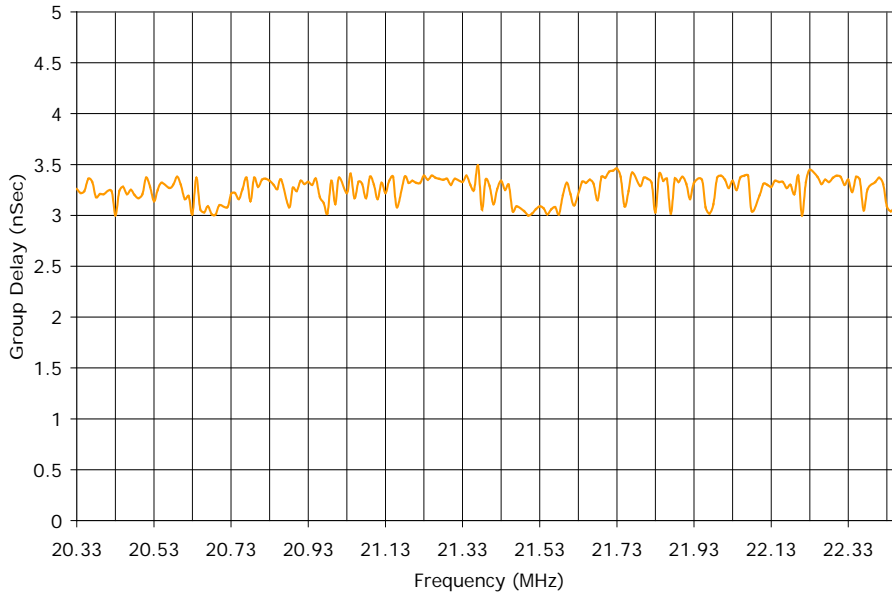
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