

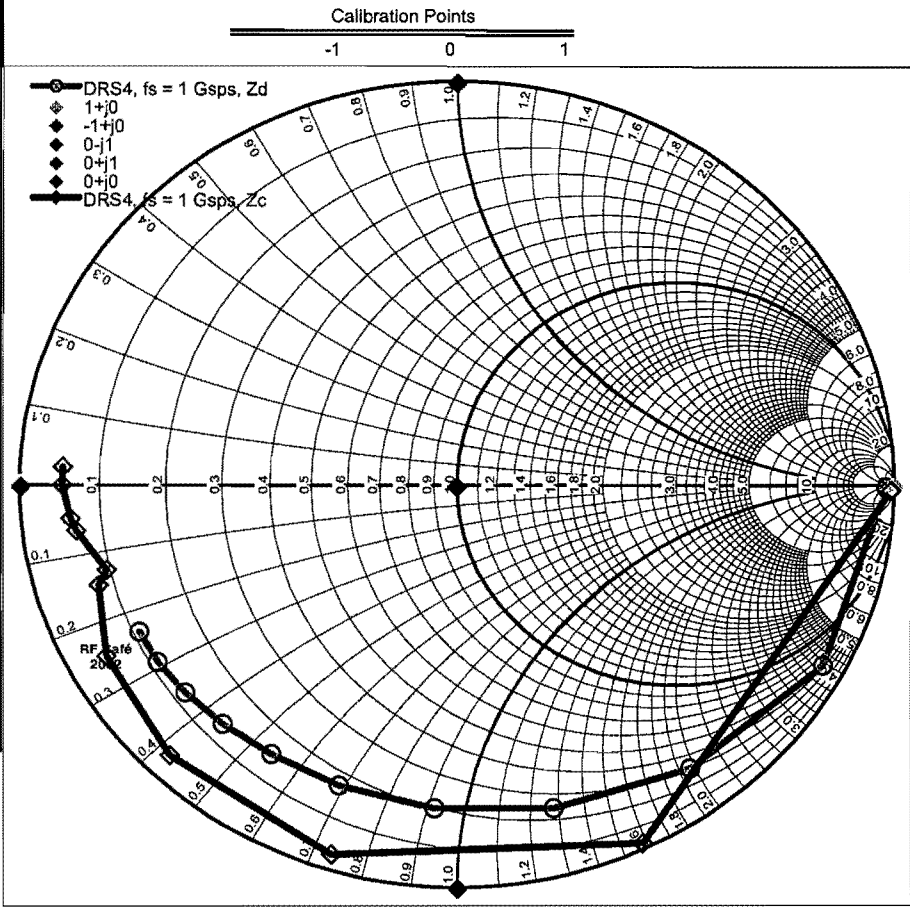
Smith Chart for Excel - Enter Impedances v1.0

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Enter data in colored cells

Series Title

DRS4, $f_s = 1$ Gsps, Z_d		
DRS4, $f_s = 1$ Gsps, Z_c		
Freq (MHz)	S11x	S11y
0.300	0.98368	-0.00266
100.000	0.83831	-0.44650
200.000	0.53359	-0.70246
300.000	0.22150	-0.80096
400.000	-0.05214	-0.80046
500.000	-0.27124	-0.74434
600.000	-0.42621	-0.66676
700.000	-0.53754	-0.59167
800.000	-0.62329	-0.51298
900.000	-0.68630	-0.43697
1000.000	-0.72867	-0.36183
0.300	0.99476	-0.00954
100.000	0.42491	-0.88629
200.000	-0.28940	-0.91475
300.000	-0.65954	-0.66919
400.000	-0.80442	-0.42243
500.000	-0.82167	-0.24494
600.000	-0.80373	-0.20701
700.000	-0.87338	-0.10881
800.000	-0.88668	-0.07916
900.000	-0.90547	0.00552
1000.000	-0.90421	0.04935



Zref		Complex
Re	Im	
50	0	50

R_L (Ω)	X_L (Ω)	Cplx	L or C	$ Z_L $	$\angle Z_L$
5920.000	-975.000	5920-975j	544.1195 pF	5999.752	-9.352
21.700	-198.000	21.7-198j	8.0381 pF	199.186	-83.746
15.600	-98.800	15.6-98.8j	8.0544 pF	100.024	-81.027
12.400	-64.200	12.4-64.2j	8.2635 pF	65.387	-79.068
10.200	-45.800	10.2-45.8j	8.6875 pF	46.922	-77.445
8.580	-34.300	8.58-34.3j	9.2802 pF	35.357	-75.956
7.540	-26.900	7.54-26.9j	9.8609 pF	27.937	-74.342
6.650	-21.800	6.65-21.8j	10.4296 pF	22.792	-73.036
6.010	-17.700	6.01-17.7j	11.2398 pF	18.693	-71.245
5.570	-14.400	5.57-14.4j	12.2805 pF	15.440	-68.853
5.420	-11.600	5.42-11.6j	13.7203 pF	12.804	-64.956
4370.000	-8050.000	4370-8050j	65.9027 pF	9159.662	-61.504
1.520	-79.400	1.52-79.4j	20.0447 pF	79.415	-88.903
1.590	-36.600	1.59-36.6j	21.7425 pF	36.635	-87.512
1.830	-20.900	1.83-20.9j	25.3836 pF	20.980	-84.996
2.540	-12.300	2.54-12.3j	32.3486 pF	12.560	-78.332
3.920	-7.250	3.92-7.25j	43.9048 pF	8.242	-61.600
4.720	-6.280	4.72-6.28j	42.2386 pF	7.856	-53.072
3.200	-3.090	3.2-3.09j	73.5806 pF	4.448	-43.998
2.910	-2.220	2.91-2.22j	89.6143 pF	3.660	-37.340
2.480	0.152	2.48+0.152j	0.0269 nH	2.485	3.507
2.480	1.360	2.48+1.36j	0.2165 nH	2.828	28.740

Measured differential and common mode input impedance of the DRS4 chip:
sampling Frequency = 1Gsps and $V_{B,com} = 1.2$ V.

Reflection Coefficient (Γ)

Numerator	Denominator	Quotient
5870-975j	5970-975j	0.983684746672898-2.66455142276796E-003j
-28.3-198j	71.7-198j	0.838312824769663-0.446500149171641j
-34.4-98.8j	65.6-98.8j	0.533587395483761-0.702462886070189j
-37.6-64.2j	62.4-64.2j	0.221498615165806-0.800958155550565j
-39.8-45.8j	60.2-45.8j	-5.21385327386363E-002-0.800464199326072j
-41.42-34.3j	58.58-34.3j	-0.271238007872388-0.744340451861094j
-42.46-26.9j	57.54-26.9j	-0.426212607897916-0.666755633515015j
-43.35-21.8j	56.65-21.8j	-0.537537700546552-0.591673819451277j
-43.99-17.7j	56.01-17.7j	-0.623285301651534-0.5129825002541j
-44.43-14.4j	55.57-14.4j	-0.686297706832364-0.436974752175383j
-44.58-11.6j	55.42-11.6j	-0.728668104582486-0.361828762417121j
4320-8050j	4420-8050j	0.994759239212273-9.54482451158362E-003j
-48.48-79.4j	51.52-79.4j	0.424914661443511-0.88629223372254j
-48.41-36.6j	51.59-36.6j	-0.289399251168701-0.914751164814391j
-48.17-20.9j	51.83-20.9j	-0.659537719966794-0.66919425713498j
-47.46-12.3j	52.54-12.3j	-0.804418359101646-0.422427594536548j
-46.08-7.25j	53.92-7.25j	-0.821665378516355-0.24493831591698j
-45.28-6.28j	54.72-6.28j	-0.803728021020288-0.207006797734053j
-46.8-3.09j	53.2-3.09j	-0.873379214456177-0.108810935576496j
-47.09-2.22j	52.91-2.22j	-0.886680431957464-7.9161416725488E-002j
-47.52+0.152j	52.48+0.152j	-0.905471820267718+5.51889704040955E-003j
-47.52+1.36j	52.48+1.36j	-0.904208998548621+4.93468795355588E-002j