

Dependence of Differential and Common Mode Impedance on Parasitic Capacitances and Freq

C1,C2 pF	C3 pF	Freq MHz	Zc1,Zc2 Ohms	Zc3 Ohms	Zc1 R1 Ohms	Zc3 R3 Ohms	(100-110) Zt Ohms	(100-300) Zcm Ohms
2	1	40	1989	3979	211	131	99.71376	105.4865
2	1	80	995	1989	191	126	94.9545	95.37258
2	1	120	663	1326	174	123	90.62884	87.02839
3	1.5	40	1326	2653	200	128	97.27595	100.1749
3	1.5	80	663	1326	174	123	90.62884	87.02839
3	1.5	120	442	884	154	117	84.83206	76.93216
4	2	40	995	1989	191	126	94.9545	95.37258
4	2	80	497	995	160	119	86.68013	80.02682
4	2	120	332	663	138	112	79.73224	68.93495
5	2.5	40	796	1592	182	124	92.74126	91.00963
5	2.5	80	398	796	148	115	83.06115	74.06793
5	2.5	120	265	531	125	108	75.21082	62.44383
6	3	40	663	1326	174	123	90.62884	87.02839
6	3	80	332	663	138	112	79.73224	68.93495
6	3	120	221	442	114	103	71.17468	57.06995

Maximum Parasitic Capacitance Allowed while still meeting Spec

C1,C2 pF	C3 pF	Freq MHz	Zc1,Zc2 Ohms	Zc3 Ohms	Zc1 R1 Ohms	Zc3 R3 Ohms	(100-110) Zt Ohms	(100-150) Zcm Ohms
Present Spec, Zt, min=100 and Zcm,min=100								
2	1	40	1989	3979	211	131	99.71376	105.4865
1	0.5	80	1989	3979	211	131	99.71376	105.4865
0.67	0.33	120	1980	4019	211	131	99.72626	105.4306
Change to Zt,min=95 and Zcm,min=95								
4	2	40	995	1989	191	126	94.9545	95.37258
2	1	80	995	1989	191	126	94.9545	95.37258
1.3	0.7	120	1020	1895	192	126	94.84133	95.83199
Change to Zt,min=90 and Zcm,min=86								
6.4	3.2	40	622	1243	171	122	89.81058	85.53175
3.2	1.6	80	622	1243	171	122	89.81058	85.53175
2.1	1.1	120	632	1206	172	121	89.70934	85.90107