



RADIATION TEST SUMMARY

PART TYPE : 54HC40103

DESCRIPTION : HIGH SPEED CMOS I.C.

REPORT NO. : RD 207

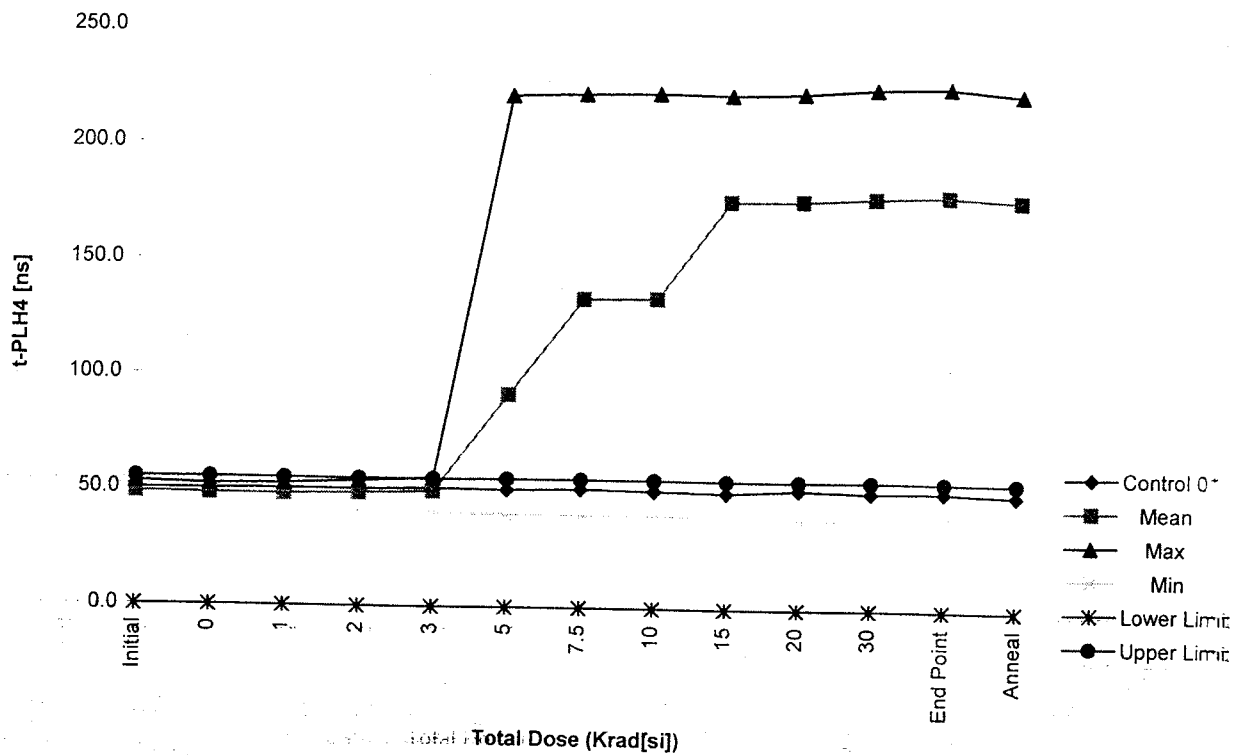
PARAMETERS PLOTTED :

t-PLH4
Icc

NOTE : The results for the remaining parameters showed no significant change and hence plots were not considered necessary.



Radiation Results for t-PLH4



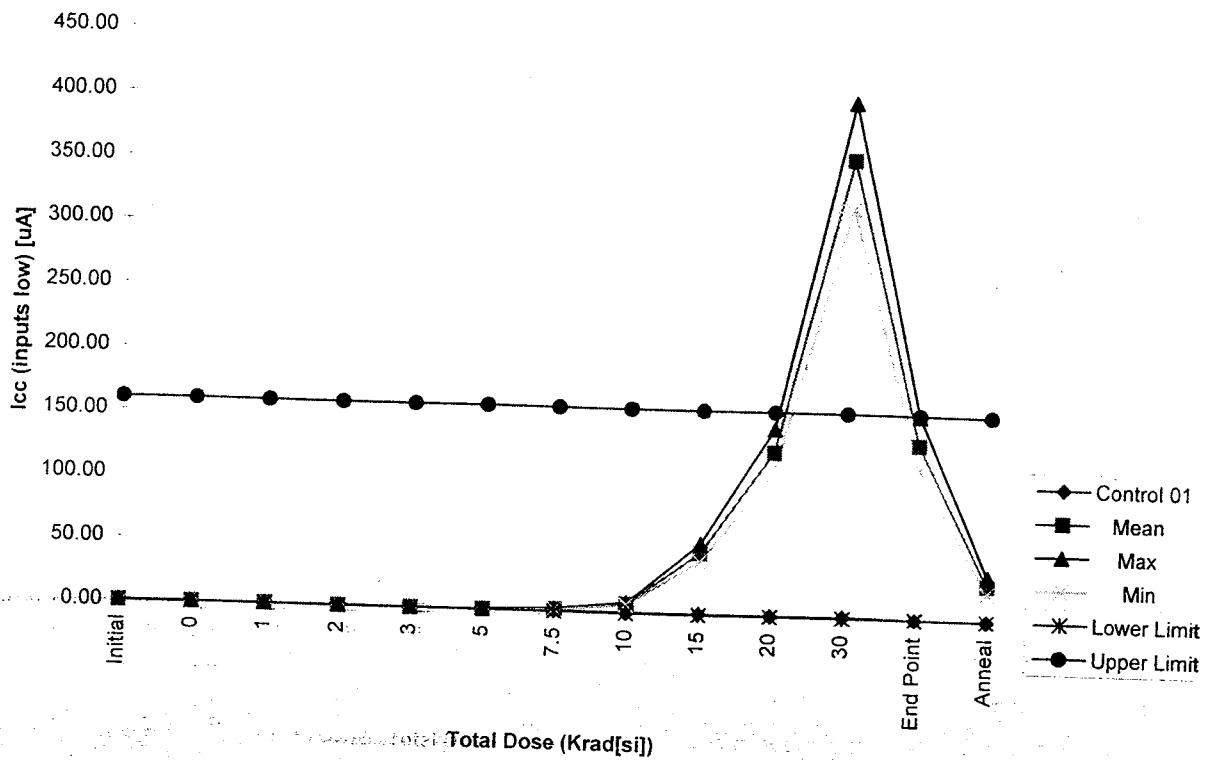
Dose (kRad)	Control 01 (ns)	Mean (ns)	Max (ns)	Min (ns)	Lower Limit (ns)	Upper Limit (ns)	Std.Dev.
Initial	50.0	48.5	53.0	40.5	0	55	5.93
0	50.0	48.1	52.0	41.0	0	55	5.07
1	50.5	48.1	52.5	40.5	0	55	5.56
2	50.5	48.8	54.0	40.5	0	55	6.06
3	51.0	49.6	55.5	40.5	0	55	7.10
5	50.5	91.8	221.5	40.0	0	55	86.81
7.5	51.0	133.5	222.0	39.5	0	55	102.29
10	50.5	133.9	222.5	39.5	0	55	101.89
15	50.0	176.4	222.5	39.5	0	55	91.25
20	51.5	176.9	223.5	39.0	0	55	91.92
30	50.5	177.8	225.0	38.5	0	55	92.84
End Point	51.0	179.0	226.0	40.5	0	55	92.34
Anneal	50.0	178.0	224.0	41.5	0	55	91.00

Lot size for statistics : 4 devices

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Radiation Results for Icc (inputs low)



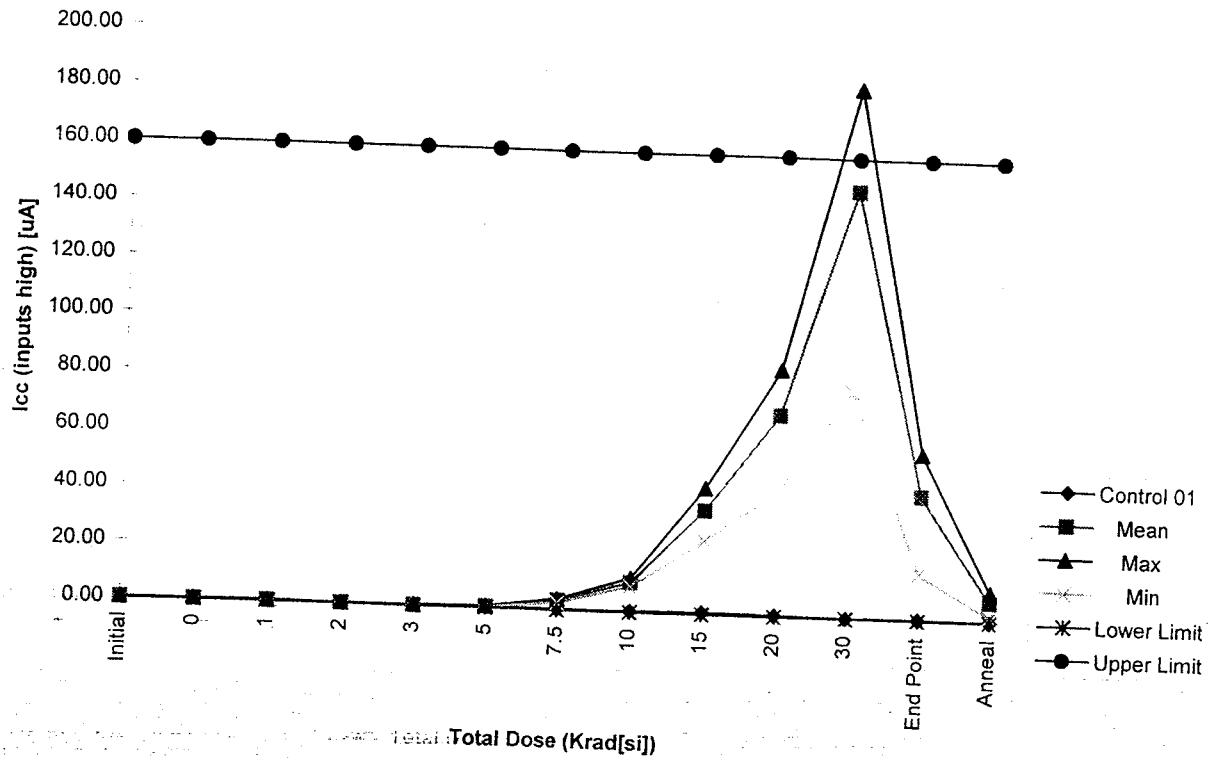
Dose (kRad)	Control 01 (uA)	Mean (uA)	Max (uA)	Min (uA)	Lower Limit (uA)	Upper Limit (uA)	Std.Dev.
Initial	0.19	0.09	0.15	0.02	0	160	0.06
0	0.15	0.16	0.28	0.05	0	160	0.10
1	0.15	0.20	0.42	0.01	0	160	0.22
2	0.13	0.10	0.16	0.01	0	160	0.07
3	0.11	0.21	0.36	0.13	0	160	0.10
5	0.36	0.34	0.53	0.09	0	160	0.19
7.5	0.59	1.80	2.16	1.43	0	160	0.35
10	0.56	7.30	8.39	6.43	0	160	0.92
15	0.73	48.42	55.59	41.89	0	160	7.10
20	0.45	128.33	147.05	112.15	0	160	16.99
30	0.71	358.56	403.25	320.45	0	160	39.36
End Point	0.04	136.69	159.56	117.33	0	160	19.97
Anneal	0.01	28.21	35.21	21.95	0	160	6.32

Lot size for statistics: 4 devices

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Radiation Results for lcc (inputs high)



Dose (kRad)	Control 01 (uA)	Mean (uA)	Max (uA)	Min (uA)	Lower Limit (uA)	Upper Limit (uA)	Std.Dev.
Initial	0.24	0.11	0.19	0.01	0	160	0.08
0	0.26	0.11	0.17	0.07	0	160	0.05
1	0.53	0.25	0.31	0.06	0	160	0.13
2	0.13	0.12	0.19	0.04	0	160	0.06
3	0.28	0.17	0.29	0.11	0	160	0.08
5	0.39	0.44	0.63	0.30	0	160	0.14
7.5	0.28	3.31	3.91	2.58	0	160	0.63
10	0.47	10.46	12.00	8.90	0	160	1.36
15	0.83	36.29	44.06	25.76	0	160	7.68
20	0.57	70.20	85.91	43.61	0	160	18.38
30	0.16	148.85	184.41	78.74	0	160	47.53
End Point	0.30	43.30	57.87	16.17	0	160	18.51
Anneal	0.25	7.15	10.51	1.91	0	160	3.68

Lot size for statistics : 4 devices

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