ANALOG DEVICES
AHEAD OF WHAT'S POSSIBLE™

DISPLACEMENT DAMAGE TEST REPORT OP27S

January 2023

Radiation Test Report	
Product:	OP27S
Die:	1427U-6A1
Fluence:	2e12 n/cm^2
Test Method:	MIL-STD-883 TM1017
Facilities:	UMass Lowell
Tested:	January 3, 2023

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It is the responsibility of the Procuring Activity to screen products from Analog Devices, Inc. for compliance to Nuclear Hardness Critical Items (HCI) specifications.

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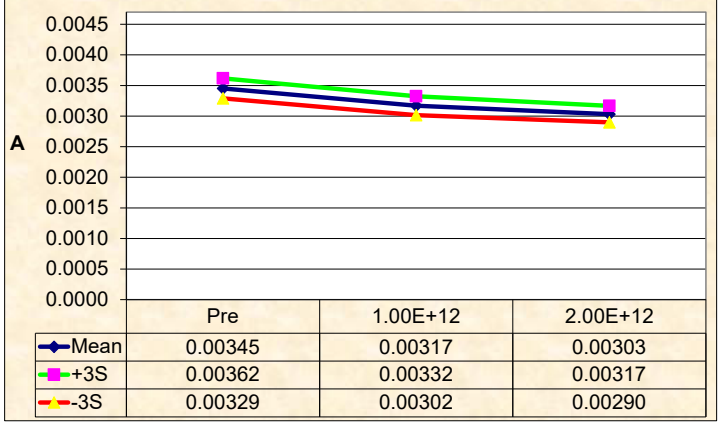
Wafer #	SN	ISY (A)			ISY- (A)			VOS (V)		
		Pre	1.00E+12	2.00E+12	Pre	1.00E+12	2.00E+12	Pre	1.00E+12	2.00E+12
CTRL	257	0.00341	0.00340	0.00341	-0.00341	-0.00340	-0.00341	5.99E-06	6.22E-06	7.12E-06
	244	0.00352	0.00324	0.00308	-0.00352	-0.00324	-0.00309	3.57E-06	3.12E-06	7.78E-06
	245	0.00353	0.00324	0.00309	-0.00353	-0.00324	-0.00309	-1.35E-05	-1.31E-05	-1.48E-05
	246	0.00340	0.00310	0.00296	-0.00340	-0.00311	-0.00296	-5.18E-06	-5.32E-06	-1.05E-05
	247	0.00345	0.00316	0.00303	-0.00345	-0.00317	-0.00303	-2.58E-06	-6.04E-07	6.77E-08
	248	0.00352	0.00324	0.00309	-0.00352	-0.00324	-0.00309	4.37E-06	5.34E-06	4.67E-06
	249	0.00347	0.00319	0.00305	-0.00348	-0.00319	-0.00305	-1.18E-05	-1.09E-05	-8.37E-06
	251	0.00342	0.00314	0.00301	-0.00342	-0.00314	-0.00301	7.42E-06	4.51E-06	2.56E-06
	252	0.00339	0.00312	0.00299	-0.00340	-0.00312	-0.00299	-1.32E-05	-1.52E-05	-1.25E-05
	253	0.00341	0.00314	0.00302	-0.00342	-0.00314	-0.00302	3.76E-06	1.10E-06	5.22E-06
	256	0.00341	0.00313	0.00300	-0.00341	-0.00314	-0.00301	-1.95E-05	-1.80E-05	-1.87E-05
	Min	0.00339	0.00310	0.00296	-0.00353	-0.00324	-0.00309	-1.95E-05	-1.80E-05	-1.87E-05
	Max	0.00353	0.00324	0.00309	-0.00340	-0.00311	-0.00296	7.42E-06	5.34E-06	7.78E-06
	Mean	0.00345	0.00317	0.00303	-0.00345	-0.00317	-0.00303	-4.66E-06	-4.91E-06	-4.46E-06
	St Dev	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	9.38E-06	8.78E-06	9.56E-06
	+3S	0.00362	0.00332	0.00317	-0.00329	-0.00302	-0.00290	2.35E-05	2.14E-05	2.42E-05
	-3S	0.00329	0.00302	0.00290	-0.00362	-0.00333	-0.00317	-3.28E-05	-3.13E-05	-3.31E-05

Wafer #	SN	+IB (A)			-IB (A)			IOS (A)		
		Pre	1.00E+12	2.00E+12	Pre	1.00E+12	2.00E+12	Pre	1.00E+12	2.00E+12
CTRL	257	4.29E-09	4.41E-09	4.33E-09	4.63E-09	4.75E-09	4.60E-09	-3.47E-10	-3.37E-10	-2.75E-10
	244	2.84E-09	-2.12E-08	-2.98E-08	2.81E-09	-1.49E-08	-1.74E-08	3.30E-11	-6.25E-09	-1.24E-08
	245	2.30E-09	-1.02E-08	-1.50E-08	3.56E-09	-2.20E-08	-2.11E-08	-1.26E-09	1.09E-08	6.08E-09
	246	-2.16E-11	-2.72E-08	-2.75E-08	1.35E-10	-1.36E-08	-1.76E-08	-1.56E-10	-5.19E-09	-9.87E-09
	247	9.83E-10	-3.76E-09	1.08E-08	1.33E-09	-5.89E-09	-5.41E-09	-3.46E-10	9.86E-09	1.63E-08
	248	5.02E-09	-1.16E-08	-1.58E-08	5.96E-09	-1.86E-08	-1.37E-08	-9.46E-10	-5.67E-09	-2.15E-09
	249	1.04E-10	-1.76E-08	-1.31E-08	7.02E-10	-4.59E-09	-2.65E-08	-5.99E-10	1.00E-09	1.33E-08
	251	3.32E-09	-1.50E-08	-3.17E-08	4.72E-09	-1.89E-08	-1.85E-08	-1.40E-09	-1.04E-08	-1.32E-08
	252	4.26E-09	-8.56E-09	-5.27E-09	3.90E-09	-1.85E-08	-1.82E-08	3.62E-10	1.03E-08	1.29E-08
	253	4.00E-09	-9.85E-09	-3.12E-09	3.56E-09	-2.46E-08	-1.64E-08	4.40E-10	8.61E-09	1.33E-08
	256	4.86E-09	-6.84E-10	2.75E-09	4.80E-09	0.00E+00	-1.88E-08	6.09E-11	2.39E-08	2.16E-08
	Min	-2.16E-11	-2.72E-08	-3.17E-08	1.35E-10	-2.46E-08	-2.65E-08	-1.40E-09	-1.04E-08	-1.32E-08
	Max	5.02E-09	-6.84E-10	1.08E-08	5.96E-09	0.00E+00	-5.41E-09	4.40E-10	2.39E-08	2.16E-08
	Mean	2.77E-09	-1.26E-08	-1.28E-08	3.15E-09	-1.42E-08	-1.74E-08	-3.81E-10	3.72E-09	4.58E-09
	St Dev	1.88E-09	7.95E-09	1.43E-08	1.90E-09	8.12E-09	5.36E-09	6.52E-10	1.07E-08	1.30E-08
	+3S	8.40E-09	1.13E-08	3.00E-08	8.85E-09	1.02E-08	-1.30E-09	1.58E-09	3.59E-08	4.35E-08
	-3S	-2.87E-09	-3.64E-08	-5.56E-08	-2.55E-09	-3.85E-08	-3.34E-08	-2.34E-09	-2.85E-08	-3.43E-08

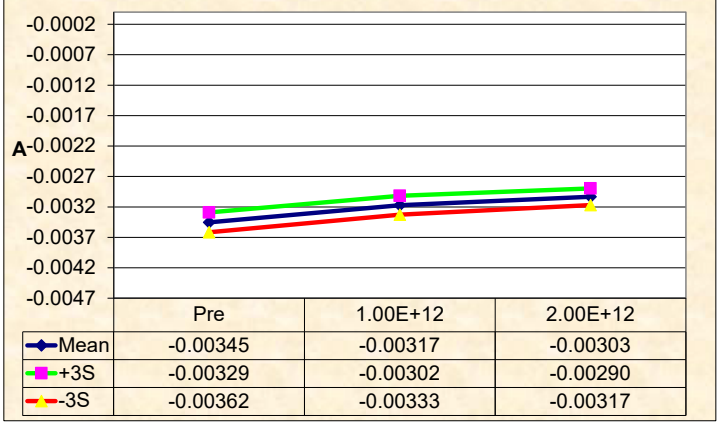
Wafer #	SN	AVO (V/mV)		
		Pre	1.00E+12	2.00E+12
CTRL	257	2398.95	2428.17	2398.36
	244	2162.09	2008.42	1932.98
	245	2381.03	2188.65	2078.43
	246	2372.34	2174.26	2049.03
	247	2317.40	2148.75	2025.74
	248	2386.49	2224.53	2082.87
	249	2392.45	2209.81	2068.62
	251	2325.79	2160.74	2010.35
	252	2676.03	2372.47	2204.48
	253	2397.93	2164.68	2033.99
	256	2505.21	2291.46	2148.22
	Min	2162.09	2008.42	1932.98
	Max	2676.03	2372.47	2204.48
	Mean	2391.68	2194.38	2063.47
	St Dev	132.02	95.10	74.57
	+3S	2787.75	2479.69	2287.17
	-3S	1995.61	1909.06	1839.77

+ISY



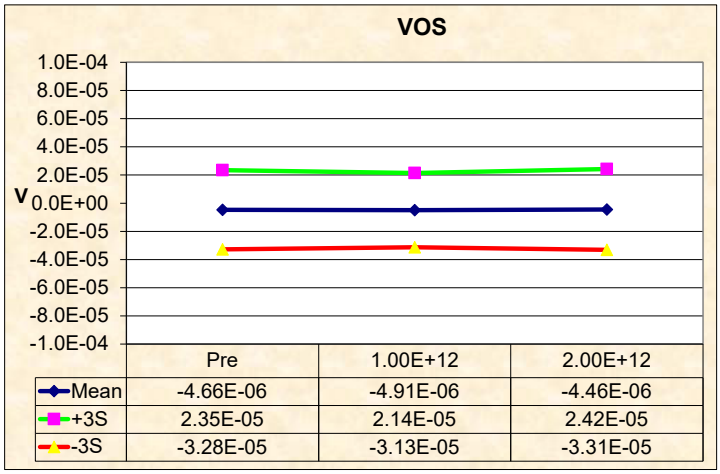
	Pre	1.00E+12	2.00E+12
Mean	0.00345	0.00317	0.00303
+3S	0.00362	0.00332	0.00317
-3S	0.00329	0.00302	0.00290

-ISY



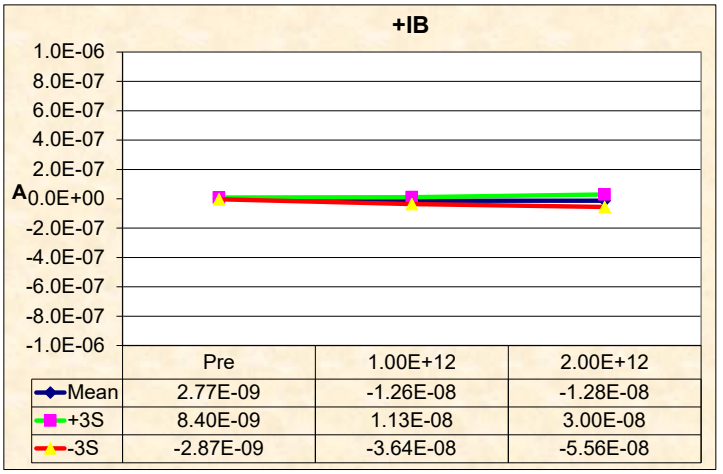
	Pre	1.00E+12	2.00E+12
Mean	-0.00345	-0.00317	-0.00303
+3S	-0.00329	-0.00302	-0.00290
-3S	-0.00362	-0.00333	-0.00317

VOS



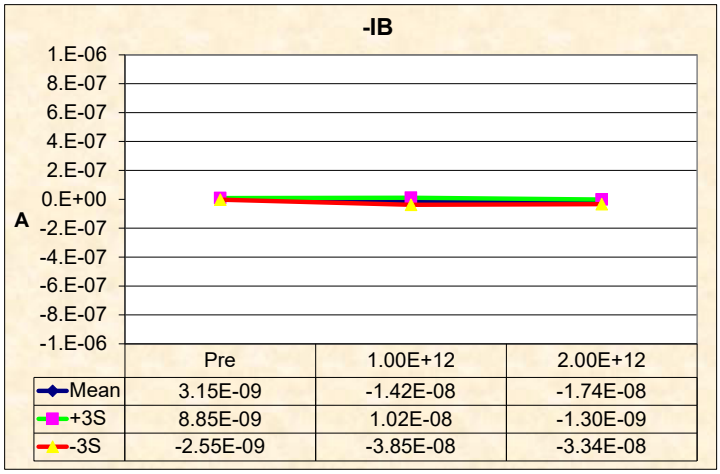
	Pre	1.00E+12	2.00E+12
Mean	-4.66E-06	-4.91E-06	-4.46E-06
+3S	2.35E-05	2.14E-05	2.42E-05
-3S	-3.28E-05	-3.13E-05	-3.31E-05

+IB



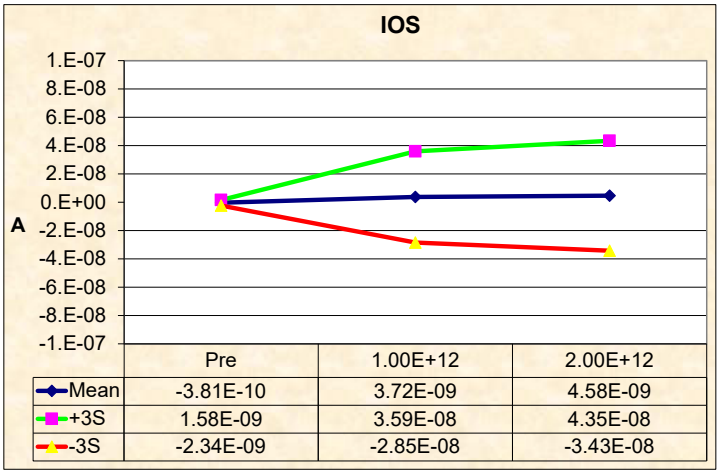
	Pre	1.00E+12	2.00E+12
Mean	2.77E-09	-1.26E-08	-1.28E-08
+3S	8.40E-09	1.13E-08	3.00E-08
-3S	-2.87E-09	-3.64E-08	-5.56E-08

-IB

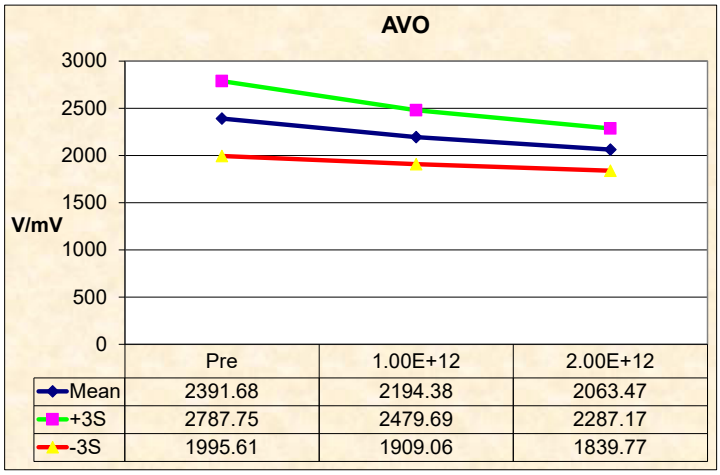


	Pre	1.00E+12	2.00E+12
Mean	3.15E-09	-1.42E-08	-1.74E-08
+3S	8.85E-09	1.02E-08	-1.30E-09
-3S	-2.55E-09	-3.85E-08	-3.34E-08

IOS



	Pre	1.00E+12	2.00E+12
Mean	-3.81E-10	3.72E-09	4.58E-09
+3S	1.58E-09	3.59E-08	4.35E-08
-3S	-2.34E-09	-2.85E-08	-3.43E-08



	Pre	1.00E+12	2.00E+12
Mean	2391.68	2194.38	2063.47
+3S	2787.75	2479.69	2287.17
-3S	1995.61	1909.06	1839.77