

ICS Radiation Test Results

RH119MW
Dual Comparator
Linear Technology Corporation

P.O. # 46027L

TID - BIASED

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.	DEVICE TYPE: RH119MW Dual Comparator (LTC)	.
.	RADIATION SOURCE: SHEPHERD 484(Co60), 1.25MeV	.
.	D/C 0637A PACKAGE 10-Pin F/P(W) LOT# 40178.2	.
.	LOG# 1571 TEST DATE 04/26/07 RTP# 686	.
.	PO# 46027L	.
.	Test Conductor: AJ Kenna	.
.	Test Administrator: Michael K. Gauthier	.

.....

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Radiation Test Results

RH119MW
Dual Comparator
Linear Technology Corporation
D/C 0637A, Lot 401782.2
Test Date 04-26-07
Log# 1571 and 1572, TID Test
P.O.# 46027L

This test consisted of two test logs, Logs 1571 and 1572. The test was to compare the radiation effects differences between the two bias conditions: Log 1571, ± 15 volts and Log 1572, which had all leads grounded. The twenty test parameters requirements are stated in test procedure RTP 686, dated March 21, 2007. There was one *Information Only* parameter tested.

The biased lot **FAILED** two of the parameter test requirements as stated in the Radiation Test Procedure RTP 686, dated March 21, 2007. The unbiased (grounded) lot **PASSED** all of the test requirements.

There were four parameters that indicated greater degradation when biased at ± 15 volts during irradiation. They are the Offset Current 1 & 2 and the Positive Bias Current 1 & 2. For the other parameters tested there was less than a 10% difference noted between the two bias conditions. The test results from the two bias conditions were within the LTC data sheet limits of the 50krad(Si) test level, except for the Offset Current 1 & 2 when biased at ± 15 volts during irradiation.

<u>Parameter</u>	<u>Log 1571 Biased</u>	<u>Log 1572 Grounded</u>	<u>Spec @ 50krad(Si)</u>
Offset Current-1	-159.1nA*	20.25nA	± 150 nA
Offset Current-1	-234.3nA*	-69.29nA	± 150 nA
+ Bias Current-1	592.8nA	443.4nA	1000nA
+ Bias Current-1	645.2nA	455.3nA	1000nA

*Failed parameter.

TID BIASED DEVICES, Log 1571

Information Only, + Supply Current @ $V_+=5V$, $V_-=0V$: The + Supply Current @ $V_+=5V$, $V_-=0V$ is an information only test. The minimum current was 2.44mA at the 7krad test level. The maximum current was 2.60mA at the initial and 168 hour 100°C anneal test level.

PASSED, + Supply Current @ $V_{\pm}15V$: The Post-Radiation limit at 50krad(Si) was 11.5mA maximum. The parameter minimum current was 7.29mA. The maximum current was 7.71mA.

PASSED, - Supply Current @ $V_{\pm}15V$: The Post-Radiation limit at 50krad(Si) was -4.5mA maximum. The parameter minimum current was -3.34mA. The maximum current was -3.17mA.

PASSED, Offset Voltage-1: The Post-Radiation limit at 50krad(Si) was $\pm 4.0mV$ maximum. The parameter minimum voltage was 0.21mV. The maximum voltage was 0.62mV.

PASSED, Offset Voltage-2: The Post-Radiation limit at 50krad(Si) was $\pm 4.0mV$ maximum. The parameter minimum voltage was 0.40mV. The maximum voltage was 0.61mV.

FAILED, Offset Current-1: The Post-Radiation limit at 50krad(Si) was $\pm 150nA$ maximum. The parameter minimum current was -159.1nA. The maximum current was -14.66nA.

FAILED, Offset Current-2: The Post-Radiation limit at 50krad(Si) was $\pm 150nA$ maximum. The parameter minimum current was -234.3nA. The maximum voltage was -55.16nA.

PASSED, + Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 397.7nA. The maximum current was 592.8nA.

PASSED, + Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 415.2nA. The maximum voltage was 645.2nA.

PASSED, - Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 376.4nA. The maximum current was 435.6nA.

PASSED, - Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 369.3nA. The maximum voltage was 420.7nA.

PASSED, Open Loop Gain-1: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 39.3V/mV. The maximum gain was 61.5V/mV.

PASSED, Open Loop Gain-2: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 60.53V/mV. The maximum gain was 438.8V/mV.

PASSED, Common Mode Rejection-1: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 111.9dB. The maximum rejection was 127.1dB.

PASSED, Common Mode Rejection-2: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 106.5dB. The maximum rejection was 126.1dB.

PASSED, VOL @ 3.2mA-1: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.264V. The maximum voltage was 0.293V.

PASSED, VOL @ 3.2mA-2: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.261V. The maximum voltage was 0.284V.

PASSED, VOL @ 25mA-1: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.581V. The maximum voltage was 0.620V.

PASSED, VOL @ 25mA-2: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.571V. The maximum voltage was 0.603V.

PASSED, ICEX @ 35V-1: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.028 μ A. The maximum current was 0.042 μ A.

PASSED, ICEX @ 35V-2: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.011 μ A. The maximum voltage was 0.024 μ A.

TID GROUNDED DEVICES, Log 1572

Information Only, + Supply Current @ V+=5V, V-=0V: The + Supply Current @ V+=5V, V-=0V is an information only test. The minimum current was 2.50mA at the 7 and 15krad test levels. The maximum current was 2.63mA at the initial test level.

PASSED, + Supply Current @ V±15V: The Post-Radiation limit at 50krad(Si) was 11.5mA maximum. The parameter minimum current was 7.46mA. The maximum current was 7.67mA.

PASSED, - Supply Current @ V±15V: The Post-Radiation limit at 50krad(Si) was -4.5mA maximum. The parameter minimum current was -3.36mA. The maximum current was -3.25mA.

PASSED, Offset Voltage-1: The Post-Radiation limit at 50krad(Si) was \pm 4.0mV maximum. The parameter minimum voltage was 0.24mV. The maximum voltage was 0.50mV.

PASSED, Offset Voltage-2: The Post-Radiation limit at 50krad(Si) was \pm 4.0mV maximum. The parameter minimum voltage was 0.36mV. The maximum voltage was 0.58mV.

PASSED, Offset Current-1: The Post-Radiation limit at 50krad(Si) was \pm 150nA maximum. The parameter minimum current was -11.92nA. The maximum current was 20.25nA.

PASSED, Offset Current-2: The Post-Radiation limit at 50krad(Si) was \pm 150nA maximum. The parameter minimum current was -69.29nA. The maximum voltage was -32.04nA.

PASSED, + Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 421.7nA. The maximum current was 443.4nA.

PASSED, + Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 439.9nA. The maximum voltage was 455.3nA.

PASSED, - Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 414.6nA. The maximum current was 453.9nA.

PASSED, - Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 391.3nA. The maximum voltage was 429.6nA.

PASSED, Open Loop Gain-1: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 42.1V/mV. The maximum gain was 59.9V/mV.

PASSED, Open Loop Gain-2: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 52.1V/mV. The maximum gain was 297.8V/mV.

PASSED, Common Mode Rejection-1: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 109.9dB. The maximum rejection was 128.8dB.

PASSED, Common Mode Rejection-2: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 113.7dB. The maximum current was 131.6dB.

PASSED, VOL @ 3.2mA-1: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.279V. The maximum voltage was 0.288V.

PASSED, VOL @ 3.2mA-2: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.275V. The maximum voltage was 0.281V.

PASSED, VOL @ 25mA-1: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.603V. The maximum voltage was 0.612V.

PASSED, VOL @ 25mA-2: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.594V. The maximum voltage was 0.602V.

PASSED, ICEX @ 35V-1: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.022 μ A. The maximum current was 0.026 μ A.

PASSED, ICEX @ 35V -2: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.002 μ A. The maximum voltage was 0.003 μ A.

ANOMOLIES:

1. There were no device anomalies during this test.

If you should require any further clarification on this matter, please contact me directly: TEL-562-923-1837, FAX-562-923-3609, or E-Mail mike@icsrad.com.

Dr. Michael K. Gauthier, P.E.
President
ICS Radiation Technologies, Inc.
June 6, 2007

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

+ SUPPLY CURRENT		(MA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.56E+00	2.53E+00	2.52E+00	2.53E+00	2.52E+00	2.50E+00	2.53E+00
	187	2.60E+00	2.57E+00	2.56E+00	2.57E+00	2.59E+00	2.58E+00	2.60E+00
	188	2.50E+00	2.46E+00	2.46E+00	2.46E+00	2.47E+00	2.47E+00	2.49E+00
	189	2.48E+00	2.44E+00	2.46E+00	2.45E+00	2.46E+00	2.41E+00	2.49E+00
	190	2.55E+00	2.52E+00	2.52E+00	2.51E+00	2.53E+00	2.50E+00	2.53E+00
	191	2.58E+00	2.56E+00	2.56E+00	2.55E+00	2.57E+00	2.55E+00	2.57E+00
	MINIMUM	2.480E+00	2.440E+00	2.460E+00	2.450E+00	2.460E+00	2.410E+00	2.490E+00
	MEAN	2.542E+00	2.510E+00	2.512E+00	2.508E+00	2.524E+00	2.502E+00	2.536E+00
	MAXIMUM	2.600E+00	2.570E+00	2.560E+00	2.570E+00	2.590E+00	2.580E+00	2.600E+00
	+P 99/90	2.781E+00	2.782E+00	2.746E+00	2.756E+00	2.795E+00	2.814E+00	2.764E+00
	-P 99/90	2.303E+00	2.238E+00	2.278E+00	2.260E+00	2.253E+00	2.190E+00	2.308E+00
	SIGMA	5.119E-02	5.831E-02	5.020E-02	5.310E-02	5.814E-02	6.686E-02	4.879E-02

+ SUPPLY CURRENT		(MA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.00E-02	-4.00E-02	-3.00E-02	-4.00E-02	-6.00E-02	-3.00E-02
	187		-3.00E-02	-4.00E-02	-3.00E-02	-1.00E-02	-2.00E-02	0.00E+00
	188		-4.00E-02	-4.00E-02	-4.00E-02	-3.00E-02	-3.00E-02	-1.00E-02
	189		-4.00E-02	-2.00E-02	-3.00E-02	-2.00E-02	-7.00E-02	1.00E-02
	190		-3.00E-02	-3.00E-02	-4.00E-02	-2.00E-02	-5.00E-02	-2.00E-02
	191		-2.00E-02	-2.00E-02	-3.00E-02	-1.00E-02	-3.00E-02	-1.00E-02
	MINIMUM		-4.000E-02	-4.000E-02	-4.000E-02	-3.000E-02	-7.000E-02	-2.000E-02
	MEAN		-3.200E-02	-3.000E-02	-3.400E-02	-1.800E-02	-4.000E-02	-6.000E-03
	MAXIMUM		-2.000E-02	-2.000E-02	-3.000E-02	-1.000E-02	-2.000E-02	1.000E-02
	+P 99/90		7.039E-03	1.666E-02	-8.443E-03	2.104E-02	5.332E-02	4.720E-02
	-P 99/90		-7.104E-02	-7.666E-02	-5.956E-02	-5.704E-02	-1.333E-01	-5.920E-02
	SIGMA		8.367E-03	1.000E-02	5.477E-03	8.367E-03	2.000E-02	1.140E-02

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

+ SUPPLY CURRENT		(MA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	7.56E+00	7.53E+00	7.51E+00	7.52E+00	7.52E+00	7.49E+00	7.53E+00
	187	7.75E+00	7.72E+00	7.72E+00	7.70E+00	7.71E+00	7.70E+00	7.73E+00
	188	7.35E+00	7.31E+00	7.30E+00	7.30E+00	7.29E+00	7.29E+00	7.33E+00
	189	7.37E+00	7.37E+00	7.39E+00	7.38E+00	7.37E+00	7.32E+00	7.38E+00
	190	7.56E+00	7.52E+00	7.51E+00	7.49E+00	7.49E+00	7.48E+00	7.52E+00
	191	7.67E+00	7.64E+00	7.63E+00	7.61E+00	7.61E+00	7.61E+00	7.63E+00
	MINIMUM	7.350E+00	7.310E+00	7.300E+00	7.300E+00	7.290E+00	7.290E+00	7.330E+00
	MEAN	7.540E+00	7.512E+00	7.510E+00	7.496E+00	7.494E+00	7.480E+00	7.518E+00
	MAXIMUM	7.750E+00	7.720E+00	7.720E+00	7.700E+00	7.710E+00	7.700E+00	7.730E+00
	+P 99/90	8.369E+00	8.322E+00	8.308E+00	8.257E+00	8.292E+00	8.311E+00	8.298E+00
	-P 99/90	6.711E+00	6.702E+00	6.712E+00	6.735E+00	6.696E+00	6.649E+00	6.738E+00
	SIGMA	1.778E-01	1.737E-01	1.710E-01	1.632E-01	1.711E-01	1.782E-01	1.672E-01

+ SUPPLY CURRENT		(MA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.00E-02	-5.00E-02	-4.00E-02	-4.00E-02	-7.00E-02	-3.00E-02
	187		-3.00E-02	-3.00E-02	-5.00E-02	-4.00E-02	-5.00E-02	-2.00E-02
	188		-4.00E-02	-5.00E-02	-5.00E-02	-6.00E-02	-6.00E-02	-2.00E-02
	189		0.00E+00	2.00E-02	1.00E-02	0.00E+00	-5.00E-02	1.00E-02
	190		-4.00E-02	-5.00E-02	-7.00E-02	-7.00E-02	-8.00E-02	-4.00E-02
	191		-3.00E-02	-4.00E-02	-6.00E-02	-6.00E-02	-6.00E-02	-4.00E-02
	MINIMUM		-4.000E-02	-5.000E-02	-7.000E-02	-7.000E-02	-8.000E-02	-4.000E-02
	MEAN		-2.800E-02	-3.000E-02	-4.400E-02	-4.600E-02	-6.000E-02	-2.200E-02
	MAXIMUM		0.000E+00	2.000E-02	1.000E-02	0.000E+00	-5.000E-02	1.000E-02
	+P 99/90		4.867E-02	1.060E-01	1.021E-01	8.431E-02	-2.853E-03	7.362E-02
	-P 99/90		-1.047E-01	-1.660E-01	-1.901E-01	-1.763E-01	-1.171E-01	-1.176E-01
	SIGMA		1.643E-02	2.915E-02	3.130E-02	2.793E-02	1.225E-02	2.049E-02

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

- SUPPLY CURRENT		(MA)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	-3.24E+00	-3.24E+00	3.24E+00	-3.24E+00	-3.24E+00	-3.24E+00	-3.25E+00	
	187	-3.35E+00	-3.35E+00	-3.35E+00	-3.34E+00	-3.34E+00	-3.34E+00	-3.34E+00	
	188	-3.19E+00	-3.19E+00	-3.18E+00	-3.18E+00	-3.17E+00	-3.18E+00	-3.18E+00	
	189	-3.23E+00	-3.28E+00	-3.28E+00	-3.28E+00	-3.28E+00	-3.27E+00	-3.26E+00	
	190	-3.27E+00	-3.27E+00	-3.25E+00	-3.26E+00	-3.25E+00	-3.26E+00	-3.26E+00	
	191	-3.32E+00	-3.31E+00	-3.31E+00	-3.30E+00	-3.30E+00	-3.30E+00	-3.31E+00	
	MINIMUM	-3.350E+00	-3.350E+00	-3.350E+00	-3.340E+00	-3.340E+00	-3.340E+00	-3.340E+00	
	MEAN	-3.272E+00	-3.280E+00	-3.274E+00	-3.272E+00	-3.268E+00	-3.270E+00	-3.270E+00	
	MAXIMUM	-3.190E+00	-3.190E+00	-3.180E+00	-3.180E+00	-3.170E+00	-3.180E+00	-3.180E+00	
	+P 99/90	-2.969E+00	-3.004E+00	-2.974E+00	-2.995E+00	-2.970E+00	-2.994E+00	-2.986E+00	
	-P 99/90	-3.575E+00	-3.556E+00	-3.574E+00	-3.549E+00	-3.566E+00	-3.546E+00	-3.554E+00	
	SIGMA	6.496E-02	5.916E-02	6.427E-02	5.933E-02	6.380E-02	5.916E-02	6.083E-02	

+ SUPPLY CURRENT		(MA)				[DELTA]			
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185		0.00E+00	6.48E+00	0.00E+00	0.00E+00	0.00E+00	-1.00E-02	
	187		0.00E+00	0.00E+00	1.00E-02	1.00E-02	1.00E-02	1.00E-02	
	188		0.00E+00	1.00E-02	1.00E-02	2.00E-02	1.00E-02	1.00E-02	
	189		-5.00E-02	-5.00E-02	-5.00E-02	-5.00E-02	-4.00E-02	-3.00E-02	
	190		0.00E+00	2.00E-02	1.00E-02	2.00E-02	1.00E-02	1.00E-02	
	191		1.00E-02	1.00E-02	2.00E-02	2.00E-02	2.00E-02	1.00E-02	
	MINIMUM		-5.000E-02	-5.000E-02	-5.000E-02	-5.000E-02	-4.000E-02	-3.000E-02	
	MEAN		-8.000E-03	-2.000E-03	8.882E-17	4.000E-03	2.000E-03	2.000E-03	
	MAXIMUM		1.000E-02	2.000E-02	2.000E-02	2.000E-02	2.000E-02	1.000E-02	
	+P 99/90		1.034E-01	1.275E-01	1.320E-01	1.463E-01	1.134E-01	8.547E-02	
	-P 99/90		-1.194E-01	-1.315E-01	-1.320E-01	-1.383E-01	-1.094E-01	-8.147E-02	
	SIGMA		2.387E-02	2.775E-02	2.828E-02	3.050E-02	2.387E-02	1.789E-02	

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

OFFSET VOLTAGE - 1		(MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	4.20E-01	4.20E-01	4.00E-01	4.40E-01	4.30E-01	4.30E-01	4.20E-01
	187	3.20E-01	3.50E-01	3.50E-01	3.30E-01	3.60E-01	3.50E-01	3.30E-01
	188	5.80E-01	5.90E-01	5.80E-01	6.00E-01	5.90E-01	5.80E-01	5.90E-01
	189	2.20E-01	2.30E-01	2.40E-01	2.40E-01	2.10E-01	2.30E-01	2.60E-01
	190	5.90E-01	6.00E-01	5.90E-01	6.00E-01	6.20E-01	5.90E-01	6.00E-01
	191	5.40E-01	5.40E-01	5.50E-01	5.40E-01	5.80E-01	5.50E-01	5.50E-01
	MINIMUM	2.200E-01	2.300E-01	2.400E-01	2.400E-01	2.100E-01	2.300E-01	2.600E-01
	MEAN	4.500E-01	4.620E-01	4.620E-01	4.620E-01	4.720E-01	4.600E-01	4.660E-01
	MAXIMUM	5.900E-01	6.000E-01	5.900E-01	6.000E-01	6.200E-01	5.900E-01	6.000E-01
	+P 99/90	1.239E+00	1.228E+00	1.199E+00	1.239E+00	1.309E+00	1.214E+00	1.209E+00
	-P 99/90	-3.391E-01	-3.043E-01	-2.753E-01	-3.149E-01	-3.649E-01	-2.938E-01	-2.766E-01
	SIGMA	1.691E-01	1.642E-01	1.580E-01	1.665E-01	1.794E-01	1.616E-01	1.592E-01

OFFSET VOLTAGE - 1		(MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		0.00E+00	-2.00E-02	2.00E-02	1.00E-02	1.00E-02	0.00E+00
	187		3.00E-02	3.00E-02	1.00E-02	4.00E-02	3.00E-02	1.00E-02
	188		1.00E-02	0.00E+00	2.00E-02	1.00E-02	0.00E+00	1.00E-02
	189		1.00E-02	2.00E-02	2.00E-02	-1.00E-02	1.00E-02	4.00E-02
	190		1.00E-02	0.00E+00	1.00E-02	3.00E-02	0.00E+00	1.00E-02
	191		0.00E+00	1.00E-02	0.00E+00	4.00E-02	1.00E-02	1.00E-02
	MINIMUM		0.000E+00	0.000E+00	0.000E+00	-1.000E-02	0.000E+00	1.000E-02
	MEAN		1.200E-02	1.200E-02	1.200E-02	2.200E-02	1.000E-02	1.600E-02
	MAXIMUM		3.000E-02	3.000E-02	2.000E-02	4.000E-02	3.000E-02	4.000E-02
	+P 99/90		6.311E-02	7.284E-02	5.104E-02	1.232E-01	6.715E-02	7.860E-02
	-P 99/90		-3.911E-02	-4.884E-02	-2.704E-02	-7.916E-02	-4.715E-02	-4.660E-02
	SIGMA		1.095E-02	1.304E-02	8.367E-03	2.168E-02	1.225E-02	1.342E-02

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

OFFSET VOLTAGE - 2		(MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	4.60E-01	4.60E-01	4.60E-01	4.70E-01	4.60E-01	4.50E-01	4.30E-01
	187	5.50E-01	5.60E-01	5.70E-01	5.90E-01	5.90E-01	5.70E-01	5.70E-01
	188	3.90E-01	3.90E-01	3.90E-01	4.00E-01	4.00E-01	3.90E-01	4.00E-01
	189	6.10E-01	6.00E-01	6.30E-01	6.10E-01	6.10E-01	6.20E-01	6.20E-01
	190	5.30E-01	5.30E-01	5.30E-01	5.40E-01	5.50E-01	5.30E-01	5.40E-01
	191	4.20E-01	4.40E-01	4.40E-01	4.40E-01	4.30E-01	4.30E-01	4.40E-01
	MINIMUM	3.900E-01	3.900E-01	3.900E-01	4.000E-01	4.000E-01	3.900E-01	4.000E-01
	MEAN	5.000E-01	5.040E-01	5.120E-01	5.160E-01	5.160E-01	5.080E-01	5.140E-01
	MAXIMUM	6.100E-01	6.000E-01	6.300E-01	6.100E-01	6.100E-01	6.200E-01	6.200E-01
	+P 99/90	9.302E-01	9.089E-01	9.649E-01	9.469E-01	9.606E-01	9.560E-01	9.411E-01
	-P 99/90	6.982E-02	9.911E-02	5.913E-02	8.506E-02	7.138E-02	5.997E-02	8.686E-02
	SIGMA	9.220E-02	8.678E-02	9.706E-02	9.236E-02	9.529E-02	9.602E-02	9.154E-02

OFFSET VOLTAGE - 2		(MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		0.00E+00	0.00E+00	1.00E-02	0.00E+00	-1.00E-02	-3.00E-02
	187		1.00E-02	2.00E-02	4.00E-02	4.00E-02	2.00E-02	2.00E-02
	188		0.00E+00	0.00E+00	1.00E-02	1.00E-02	0.00E+00	1.00E-02
	189		-1.00E-02	2.00E-02	0.00E+00	0.00E+00	1.00E-02	1.00E-02
	190		0.00E+00	0.00E+00	1.00E-02	2.00E-02	0.00E+00	1.00E-02
	191		2.00E-02	2.00E-02	2.00E-02	1.00E-02	1.00E-02	2.00E-02
	MINIMUM		-1.000E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.000E-02
	MEAN		4.000E-03	1.200E-02	1.600E-02	1.600E-02	8.000E-03	1.400E-02
	MAXIMUM		2.000E-02	2.000E-02	4.000E-02	4.000E-02	2.000E-02	2.000E-02
	+P 99/90		5.720E-02	6.311E-02	8.676E-02	8.676E-02	4.704E-02	3.956E-02
	-P 99/90		-4.920E-02	-3.911E-02	-5.476E-02	-5.476E-02	-3.104E-02	-1.156E-02
	SIGMA		1.140E-02	1.095E-02	1.517E-02	1.517E-02	8.367E-03	5.477E-03

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

OFFSET CURRENT - 1

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	1.91E+00	6.15E+00	1.43E+00	8.77E+00	6.70E-01	8.60E+00	1.02E+00
	187	-1.30E+01	-9.53E+00	-6.36E+00	-1.40E+01	-1.59E+01	-1.03E+01	-1.25E+01
	188	-1.36E+01	-1.38E+01	-1.59E+01	-1.59E+01	-2.32E+01	-1.00E+01	-7.37E+00
	189	-6.36E+00	-1.31E+01	-1.37E+01	-2.18E+01	-1.59E+02	-1.75E+02	-9.79E+01
	190	8.40E-01	-2.96E+00	-3.27E+00	-1.22E+01	-1.47E+01	-1.67E+00	-9.10E-01
	191	-1.75E+00	-1.19E+01	-5.47E+00	-1.55E+01	-1.85E+01	-4.63E+00	-1.02E+01
MINIMUM		-1.360E+01	-1.383E+01	-1.588E+01	-2.183E+01	-1.591E+02	-1.746E+02	-9.786E+01
MEAN		-6.782E+00	-1.026E+01	-8.932E+00	-1.589E+01	-4.626E+01	-4.025E+01	-2.576E+01
MAXIMUM		8.400E-01	-2.960E+00	-3.270E+00	-1.223E+01	-1.466E+01	-1.670E+00	-9.100E-01
+P 99/90		2.357E+01	1.024E+01	1.678E+01	1.009E+00	2.483E+02	3.107E+02	1.634E+02
-P 99/90		-3.713E+01	-3.076E+01	-3.465E+01	-3.278E+01	-3.408E+02	-3.912E+02	-2.149E+02
SIGMA		6.505E+00	4.394E+00	5.511E+00	3.621E+00	6.313E+01	7.521E+01	4.054E+01

OFFSET CURRENT - 1

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		4.24E+00	-4.80E-01	6.86E+00	-1.24E+00	6.69E+00	-8.90E-01
	187		3.51E+00	6.68E+00	-9.50E-01	-2.86E+00	2.74E+00	5.70E-01
	188		-2.30E-01	-2.28E+00	-2.28E+00	-9.57E+00	3.57E+00	6.23E+00
	189		-6.75E+00	-7.32E+00	-1.55E+01	-1.53E+02	-1.68E+02	-9.15E+01
	190		-3.80E+00	-4.11E+00	-1.31E+01	-1.55E+01	-2.51E+00	-1.75E+00
	191		-1.01E+01	-3.72E+00	-1.38E+01	-1.68E+01	-2.88E+00	-8.43E+00
MINIMUM			-1.010E+01	-7.320E+00	-1.547E+01	-1.527E+02	-1.683E+02	-9.150E+01
MEAN			-3.474E+00	-2.150E+00	-9.104E+00	-3.948E+01	-3.347E+01	-1.898E+01
MAXIMUM			3.510E+00	6.680E+00	-9.500E-01	-2.860E+00	3.570E+00	6.230E+00
+P 99/90			2.144E+01	2.243E+01	2.313E+01	2.569E+02	3.184E+02	1.718E+02
-P 99/90			-2.839E+01	-2.673E+01	-4.134E+01	-3.359E+02	-3.854E+02	-2.097E+02
SIGMA			5.340E+00	5.268E+00	6.908E+00	6.353E+01	7.542E+01	4.088E+01

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

OFFSET CURRENT - 2

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	-5.50E+01	-3.40E+01	-3.43E+01	-3.33E+01	-3.61E+01	-3.97E+01	-5.14E+01
	187	-4.98E+01	-4.16E+01	-3.77E+01	-4.11E+01	-5.52E+01	-6.02E+01	-4.30E+01
	188	4.36E+01	-3.59E+01	-4.32E+01	-5.19E+01	-5.72E+01	-4.81E+01	-3.63E+01
	189	4.60E+01	-4.25E+01	-4.67E+01	-5.24E+01	-2.34E+02	-2.43E+02	-1.32E+02
	190	-5.81E+01	-4.51E+01	-4.63E+01	-6.40E+01	-7.40E+01	-6.50E+01	-4.77E+01
	191	-5.72E+01	-2.45E+01	-4.79E+01	-5.44E+01	-7.00E+01	-6.26E+01	-5.75E+01
MINIMUM		-5.812E+01	-4.505E+01	-4.790E+01	-6.403E+01	-2.343E+02	-2.430E+02	-1.324E+02
MEAN		-1.510E+01	-3.792E+01	-4.435E+01	-5.276E+01	-9.812E+01	-9.577E+01	-6.339E+01
MAXIMUM		4.604E+01	-2.450E+01	-3.768E+01	-4.110E+01	-5.516E+01	-4.813E+01	-3.626E+01
+P 99/90		2.406E+02	4.295E-01	-2.516E+01	-1.468E+01	2.590E+02	2.895E+02	1.203E+02
-P 99/90		-2.708E+02	-7.627E+01	-6.355E+01	-9.084E+01	-4.552E+02	-4.811E+02	-2.470E+02
SIGMA		5.481E+01	8.219E+00	4.115E+00	8.161E+00	7.654E+01	8.258E+01	3.936E+01

OFFSET CURRENT - 2

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.10E+01	2.07E+01	2.17E+01	1.89E+01	1.53E+01	3.58E+00
	187		8.21E+00	1.22E+01	8.74E+00	-5.32E+00	-1.03E+01	6.84E+00
	188		-7.95E+01	-8.68E+01	-9.55E+01	-1.01E+02	-9.18E+01	-7.99E+01
	189		-8.86E+01	-9.28E+01	-9.85E+01	-2.80E+02	-2.89E+02	-1.78E+02
	190		1.31E+01	1.19E+01	-5.91E+00	-1.59E+01	-6.84E+00	1.04E+01
	191		3.27E+01	9.29E+00	2.83E+00	-1.28E+01	-5.37E+00	-3.50E-01
MINIMUM			-8.858E+01	-9.276E+01	-9.846E+01	-2.803E+02	-2.891E+02	-1.785E+02
MEAN			-2.282E+01	-2.926E+01	-3.766E+01	-8.303E+01	-8.068E+01	-4.829E+01
MAXIMUM			3.269E+01	1.216E+01	8.740E+00	-5.320E+00	-5.370E+00	1.041E+01
+P 99/90			2.419E+02	2.288E+02	2.162E+02	4.627E+02	4.890E+02	3.331E+02
-P 99/90			-2.875E+02	-2.874E+02	-2.916E+02	-6.288E+02	-6.504E+02	-4.297E+02
SIGMA			5.672E+01	5.531E+01	5.441E+01	1.170E+02	1.221E+02	8.174E+01

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

+ BIAS CURRENT - 1

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.80E+02	2.83E+02	2.81E+02	2.83E+02	2.88E+02	2.79E+02	2.84E+02
	187	3.09E+02	3.34E+02	3.53E+02	3.94E+02	4.22E+02	4.11E+02	3.49E+02
	188	2.78E+02	3.02E+02	3.15E+02	3.52E+02	3.98E+02	3.90E+02	3.12E+02
	189	3.12E+02	3.40E+02	3.70E+02	4.08E+02	5.93E+02	5.91E+02	4.31E+02
	190	2.95E+02	3.27E+02	3.51E+02	4.02E+02	4.36E+02	4.32E+02	3.41E+02
	191	2.96E+02	3.19E+02	3.50E+02	3.86E+02	4.10E+02	4.12E+02	3.38E+02
	MINIMUM	2.778E+02	3.021E+02	3.150E+02	3.516E+02	3.977E+02	3.902E+02	3.122E+02
	MEAN	2.979E+02	3.245E+02	3.477E+02	3.882E+02	4.516E+02	4.471E+02	3.544E+02
	MAXIMUM	3.119E+02	3.403E+02	3.696E+02	4.079E+02	5.928E+02	5.914E+02	4.311E+02
	+P 99/90	3.606E+02	3.940E+02	4.406E+02	4.914E+02	8.256E+02	8.295E+02	5.647E+02
	-P 99/90	2.352E+02	2.551E+02	2.547E+02	2.850E+02	7.765E+01	6.465E+01	1.441E+02
	SIGMA	1.344E+01	1.488E+01	1.992E+01	2.212E+01	8.015E+01	8.196E+01	4.507E+01

+ BIAS CURRENT - 1

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		3.07E+00	1.43E+00	2.98E+00	8.53E+00	-8.80E-01	4.72E+00
	187		2.58E+01	4.41E+01	8.51E+01	1.13E+02	1.02E+02	4.07E+01
	188		2.43E+01	3.73E+01	7.38E+01	1.20E+02	1.12E+02	3.44E+01
	189		2.85E+01	5.77E+01	9.60E+01	2.81E+02	2.80E+02	1.19E+02
	190		3.15E+01	5.59E+01	1.07E+02	1.40E+02	1.36E+02	4.59E+01
	191		2.30E+01	5.40E+01	8.99E+01	1.14E+02	1.16E+02	4.22E+01
	MINIMUM		2.303E+01	3.725E+01	7.384E+01	1.134E+02	1.023E+02	3.443E+01
	MEAN		2.663E+01	4.977E+01	9.031E+01	1.537E+02	1.492E+02	5.647E+01
	MAXIMUM		3.151E+01	5.770E+01	1.068E+02	2.809E+02	2.795E+02	1.192E+02
	+P 99/90		4.246E+01	9.067E+01	1.476E+02	4.894E+02	4.939E+02	2.213E+02
	-P 99/90		1.079E+01	8.871E+00	3.303E+01	-1.819E+02	-1.955E+02	-1.083E+02
	SIGMA		3.394E+00	8.765E+00	1.228E+01	7.194E+01	7.388E+01	3.532E+01

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

+ BIAS CURRENT - 2

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.98E+02	2.87E+02	2.90E+02	2.97E+02	2.83E+02	2.85E+02	2.97E+02
	187	2.96E+02	3.35E+02	3.63E+02	3.91E+02	4.39E+02	4.32E+02	3.59E+02
	188	2.78E+02	2.95E+02	3.17E+02	3.67E+02	4.15E+02	4.07E+02	3.26E+02
	189	3.07E+02	3.44E+02	3.66E+02	4.34E+02	6.45E+02	6.43E+02	4.36E+02
	190	3.06E+02	3.35E+02	3.73E+02	4.15E+02	4.42E+02	4.45E+02	3.66E+02
	191	2.99E+02	3.27E+02	3.65E+02	4.08E+02	4.52E+02	4.41E+02	3.47E+02
MINIMUM		2.777E+02	2.946E+02	3.174E+02	3.670E+02	4.152E+02	4.072E+02	3.258E+02
MEAN		2.972E+02	3.272E+02	3.569E+02	4.029E+02	4.788E+02	4.736E+02	3.668E+02
MAXIMUM		3.073E+02	3.444E+02	3.732E+02	4.339E+02	6.452E+02	6.430E+02	4.356E+02
+P 99/90		3.527E+02	4.170E+02	4.616E+02	5.210E+02	9.175E+02	9.206E+02	5.600E+02
-P 99/90		2.417E+02	2.373E+02	2.522E+02	2.848E+02	4.009E+01	2.657E+01	1.736E+02
SIGMA		1.189E+01	1.926E+01	2.243E+01	2.531E+01	9.402E+01	9.581E+01	4.141E+01

+ BIAS CURRENT - 2

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-1.13E+01	-7.86E+00	-9.40E-01	-1.49E+01	-1.31E+01	-1.52E+00
	187		3.96E+01	6.72E+01	9.52E+01	1.43E+02	1.36E+02	6.34E+01
	188		1.68E+01	3.96E+01	8.92E+01	1.38E+02	1.30E+02	4.80E+01
	189		3.70E+01	5.92E+01	1.27E+02	3.38E+02	3.36E+02	1.28E+02
	190		2.89E+01	6.72E+01	1.09E+02	1.36E+02	1.39E+02	6.04E+01
	191		2.73E+01	6.51E+01	1.09E+02	1.53E+02	1.42E+02	4.78E+01
MINIMUM			1.683E+01	3.964E+01	8.923E+01	1.364E+02	1.295E+02	4.780E+01
MEAN			2.993E+01	5.966E+01	1.057E+02	1.816E+02	1.764E+02	6.957E+01
MAXIMUM			3.961E+01	6.724E+01	1.265E+02	3.379E+02	3.356E+02	1.283E+02
+P 99/90			7.193E+01	1.141E+02	1.731E+02	5.904E+02	5.923E+02	2.262E+02
-P 99/90			-1.206E+01	5.228E+00	3.827E+01	-2.273E+02	-2.395E+02	-8.702E+01
SIGMA			8.999E+00	1.167E+01	1.444E+01	8.762E+01	8.914E+01	3.356E+01

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

- BIAS CURRENT - 1

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.91E+02	2.88E+02	2.84E+02	2.90E+02	2.87E+02	2.87E+02	2.89E+02
	187	3.01E+02	3.20E+02	3.43E+02	3.74E+02	4.12E+02	4.08E+02	3.42E+02
	188	2.67E+02	2.88E+02	3.07E+02	3.44E+02	3.76E+02	3.72E+02	3.08E+02
	189	3.02E+02	3.28E+02	3.53E+02	3.95E+02	4.36E+02	4.28E+02	3.47E+02
	190	3.03E+02	3.23E+02	3.50E+02	3.88E+02	4.31E+02	4.24E+02	3.45E+02
	191	2.97E+02	3.15E+02	3.37E+02	3.68E+02	4.03E+02	4.00E+02	3.32E+02
	MINIMUM	2.666E+02	2.879E+02	3.071E+02	3.442E+02	3.764E+02	3.720E+02	3.080E+02
	MEAN	2.938E+02	3.147E+02	3.381E+02	3.740E+02	4.117E+02	4.062E+02	3.348E+02
	MAXIMUM	3.031E+02	3.278E+02	3.530E+02	3.954E+02	4.356E+02	4.276E+02	3.469E+02
	+P 99/90	3.658E+02	3.878E+02	4.237E+02	4.669E+02	5.231E+02	5.098E+02	4.097E+02
	-P 99/90	2.219E+02	2.416E+02	2.525E+02	2.811E+02	3.002E+02	3.026E+02	2.599E+02
	SIGMA	1.543E+01	1.567E+01	1.834E+01	1.990E+01	2.388E+01	2.220E+01	1.604E+01

- BIAS CURRENT - 1

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.06E+00	-6.78E+00	-1.28E+00	-3.92E+00	-4.46E+00	-2.04E+00
	187		1.92E+01	4.20E+01	7.32E+01	1.11E+02	1.07E+02	4.06E+01
	188		2.14E+01	4.05E+01	7.76E+01	1.10E+02	1.05E+02	4.14E+01
	189		2.62E+01	5.15E+01	9.39E+01	1.34E+02	1.26E+02	4.54E+01
	190		1.95E+01	4.67E+01	8.50E+01	1.28E+02	1.20E+02	4.22E+01
	191		1.80E+01	4.06E+01	7.10E+01	1.06E+02	1.03E+02	3.54E+01
	MINIMUM		1.804E+01	4.054E+01	7.104E+01	1.061E+02	1.030E+02	3.537E+01
	MEAN		2.087E+01	4.426E+01	8.015E+01	1.178E+02	1.124E+02	4.097E+01
	MAXIMUM		2.624E+01	5.145E+01	9.385E+01	1.341E+02	1.260E+02	4.536E+01
	+P 99/90		3.596E+01	6.639E+01	1.237E+02	1.760E+02	1.600E+02	5.786E+01
	-P 99/90		5.782E+00	2.212E+01	3.656E+01	5.959E+01	6.476E+01	2.408E+01
	SIGMA		3.234E+00	4.744E+00	9.341E+00	1.248E+01	1.020E+01	3.620E+00

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

- BIAS CURRENT - 2

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.36E+02	2.60E+02	2.54E+02	2.59E+02	2.58E+02	2.52E+02	2.48E+02
	187	2.56E+02	2.95E+02	3.22E+02	3.56E+02	3.90E+02	3.85E+02	3.14E+02
	188	2.28E+02	2.69E+02	2.93E+02	3.30E+02	3.69E+02	3.59E+02	2.86E+02
	189	2.56E+02	3.04E+02	3.36E+02	3.78E+02	4.21E+02	4.08E+02	3.24E+02
	190	2.54E+02	2.97E+02	3.27E+02	3.64E+02	4.09E+02	3.95E+02	3.14E+02
	191	2.46E+02	2.88E+02	3.11E+02	3.44E+02	3.79E+02	3.73E+02	3.05E+02
MINIMUM		2.282E+02	2.692E+02	2.926E+02	3.300E+02	3.693E+02	3.591E+02	2.859E+02
MEAN		2.480E+02	2.908E+02	3.177E+02	3.543E+02	3.934E+02	3.838E+02	3.084E+02
MAXIMUM		2.560E+02	3.043E+02	3.359E+02	3.779E+02	4.207E+02	4.078E+02	3.239E+02
+P 99/90		3.029E+02	3.533E+02	3.951E+02	4.396E+02	4.921E+02	4.723E+02	3.751E+02
-P 99/90		1.931E+02	2.283E+02	2.402E+02	2.689E+02	2.948E+02	2.953E+02	2.418E+02
SIGMA		1.177E+01	1.340E+01	1.660E+01	1.830E+01	2.114E+01	1.896E+01	1.429E+01

- BIAS CURRENT - 2

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.44E+01	1.83E+01	2.33E+01	2.21E+01	1.55E+01	1.17E+01
	187		3.96E+01	6.63E+01	1.00E+02	1.34E+02	1.29E+02	5.80E+01
	188		4.10E+01	6.44E+01	1.02E+02	1.41E+02	1.31E+02	5.77E+01
	189		4.83E+01	7.99E+01	1.22E+02	1.65E+02	1.52E+02	6.79E+01
	190		4.33E+01	7.28E+01	1.10E+02	1.55E+02	1.41E+02	5.99E+01
	191		4.15E+01	6.47E+01	9.77E+01	1.32E+02	1.26E+02	5.84E+01
MINIMUM			3.964E+01	6.444E+01	9.765E+01	1.324E+02	1.261E+02	5.773E+01
MEAN			4.275E+01	6.962E+01	1.062E+02	1.454E+02	1.358E+02	6.040E+01
MAXIMUM			4.829E+01	7.989E+01	1.219E+02	1.647E+02	1.518E+02	6.794E+01
+P 99/90			5.842E+01	1.007E+02	1.522E+02	2.106E+02	1.850E+02	8.046E+01
-P 99/90			2.707E+01	3.853E+01	6.021E+01	8.014E+01	8.653E+01	4.034E+01
SIGMA			3.359E+00	6.664E+00	9.862E+00	1.398E+01	1.055E+01	4.300E+00

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

OPEN LOOP GAIN - 1		(V/MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
			5.00E+01	5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	4.15E+01	4.23E+01	7.02E+01	3.91E+01	4.04E+01	4.26E+01	5.39E+01
	187	3.86E+01	6.12E+01	3.43E+01	4.59E+01	4.75E+01	4.88E+01	3.66E+01
	188	6.39E+01	5.98E+01	5.18E+01	5.39E+01	3.99E+01	4.84E+01	6.72E+01
	189	4.53E+01	3.95E+01	5.48E+01	6.92E+01	3.93E+01	3.89E+01	4.19E+01
	190	4.73E+01	3.80E+01	6.72E+01	6.95E+01	6.15E+01	7.83E+01	5.48E+01
	191	3.81E+01	5.77E+01	4.30E+01	6.78E+01	6.15E+01	3.95E+01	7.15E+01
	MINIMUM	3.810E+01	3.800E+01	3.430E+01	4.590E+01	3.930E+01	3.890E+01	3.660E+01
	MEAN	4.664E+01	5.124E+01	5.022E+01	6.126E+01	4.994E+01	5.078E+01	5.440E+01
	MAXIMUM	6.390E+01	6.120E+01	6.720E+01	6.950E+01	6.150E+01	7.830E+01	7.150E+01
	+P 99/90	9.545E+01	1.048E+02	1.082E+02	1.115E+02	1.014E+02	1.258E+02	1.255E+02
	-P 99/90	-2.170E+00	-2.334E+00	-7.748E+00	1.102E+01	-1.557E+00	-2.429E+01	-1.673E+01
	SIGMA	1.046E+01	1.148E+01	1.242E+01	1.077E+01	1.104E+01	1.609E+01	1.524E+01

OPEN LOOP GAIN - 1		(V/MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		8.00E-01	2.87E+01	-2.40E+00	-1.10E+00	1.10E+00	1.24E+01
	187		2.26E+01	-4.30E+00	7.30E+00	8.90E+00	1.02E+01	-2.00E+00
	188		-4.10E+00	-1.21E+01	-1.00E+01	-2.40E+01	-1.55E+01	3.30E+00
	189		-5.80E+00	9.50E+00	2.39E+01	-6.00E+00	-6.40E+00	-3.40E+00
	190		-9.30E+00	1.99E+01	2.22E+01	1.42E+01	3.10E+01	7.50E+00
	191		1.96E+01	4.90E+00	2.97E+01	2.34E+01	1.40E+00	3.34E+01
	MINIMUM		-9.300E+00	-1.210E+01	-1.000E+01	-2.400E+01	-1.550E+01	-3.400E+00
	MEAN		4.600E+00	3.580E+00	1.462E+01	3.300E+00	4.140E+00	7.760E+00
	MAXIMUM		2.260E+01	1.990E+01	2.970E+01	2.340E+01	3.100E+01	3.340E+01
	+P 99/90		7.560E+01	6.125E+01	8.952E+01	9.015E+01	8.704E+01	7.764E+01
	-P 99/90		-6.640E+01	-5.409E+01	-6.028E+01	-8.355E+01	-7.876E+01	-6.212E+01
	SIGMA		1.522E+01	1.236E+01	1.605E+01	1.861E+01	1.777E+01	1.498E+01

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

OPEN LOOP GAIN - 2		(V/MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	5.29E+01	1.05E+02	1.04E+02	6.02E+01	1.00E+02	1.05E+02	9.35E+01
	187	7.56E+01	1.40E+02	2.63E+02	1.34E+02	4.39E+02	6.52E+01	4.39E+02
	188	5.02E+01	9.58E+01	4.71E+01	8.19E+01	6.05E+01	6.28E+01	1.39E+02
	189	8.23E+02	1.14E+02	7.00E+01	9.82E+01	1.43E+02	1.43E+02	9.54E+01
	190	5.77E+01	8.03E+01	3.13E+02	1.14E+02	9.02E+01	9.14E+01	3.16E+02
	191	9.24E+01	2.78E+02	3.44E+02	3.33E+02	1.81E+02	8.01E+01	2.87E+02
	MINIMUM	5.020E+01	8.030E+01	4.710E+01	8.190E+01	6.050E+01	6.280E+01	9.540E+01
	MEAN	2.197E+02	1.415E+02	2.075E+02	1.522E+02	1.827E+02	8.852E+01	2.553E+02
	MAXIMUM	8.226E+02	2.778E+02	3.439E+02	3.330E+02	4.388E+02	1.431E+02	4.387E+02
	+P 99/90	1.794E+03	5.118E+02	8.573E+02	6.324E+02	8.851E+02	2.409E+02	9.048E+02
	-P 99/90	-1.355E+03	-2.289E+02	-4.422E+02	-3.280E+02	-5.197E+02	-6.381E+01	-3.941E+02
	SIGMA	3.374E+02	7.937E+01	1.393E+02	1.029E+02	1.505E+02	3.265E+01	1.392E+02

OPEN LOOP GAIN - 2		(V/MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		5.19E+01	5.12E+01	7.30E+00	4.75E+01	5.25E+01	4.06E+01
	187		6.44E+01	1.88E+02	5.87E+01	3.63E+02	-1.04E+01	3.63E+02
	188		4.56E+01	-3.10E+00	3.17E+01	1.03E+01	1.26E+01	8.87E+01
	189		-7.09E+02	-7.53E+02	-7.24E+02	-6.80E+02	-6.80E+02	-7.27E+02
	190		2.26E+01	2.56E+02	5.58E+01	3.25E+01	3.37E+01	2.59E+02
	191		1.85E+02	2.52E+02	2.41E+02	8.84E+01	-1.23E+01	1.95E+02
	MINIMUM		-7.091E+02	-7.526E+02	-7.244E+02	-6.795E+02	-6.795E+02	-7.272E+02
	MEAN		-7.822E+01	-1.216E+01	-6.752E+01	-3.702E+01	-1.312E+02	3.562E+01
	MAXIMUM		1.854E+02	2.557E+02	2.406E+02	3.632E+02	3.370E+01	3.631E+02
	+P 99/90		1.593E+03	1.981E+03	1.690E+03	1.764E+03	1.302E+03	2.079E+03
	-P 99/90		-1.750E+03	-2.005E+03	-1.825E+03	-1.838E+03	-1.564E+03	-2.008E+03
	SIGMA		3.582E+02	4.271E+02	3.766E+02	3.859E+02	3.071E+02	4.379E+02

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

COMMON MODE REJECTION -1		(DB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	1.14E+02	1.25E+02	1.13E+02	1.17E+02	1.20E+02	1.17E+02	1.07E+02
	187	1.20E+02	1.24E+02	1.26E+02	1.22E+02	1.21E+02	1.13E+02	1.22E+02
	188	1.19E+02	1.16E+02	1.48E+02	1.25E+02	1.17E+02	1.15E+02	1.14E+02
	189	1.20E+02	1.28E+02	1.28E+02	1.19E+02	1.27E+02	1.21E+02	1.36E+02
	190	1.24E+02	1.18E+02	1.18E+02	1.30E+02	1.22E+02	1.13E+02	1.24E+02
	191	1.32E+02	1.22E+02	1.28E+02	1.27E+02	1.12E+02	1.16E+02	1.26E+02
	MINIMUM	1.191E+02	1.155E+02	1.178E+02	1.191E+02	1.119E+02	1.126E+02	1.137E+02
	MEAN	1.230E+02	1.215E+02	1.297E+02	1.247E+02	1.197E+02	1.156E+02	1.243E+02
	MAXIMUM	1.315E+02	1.281E+02	1.484E+02	1.303E+02	1.271E+02	1.214E+02	1.362E+02
	+P 99/90	1.467E+02	1.446E+02	1.824E+02	1.446E+02	1.462E+02	1.319E+02	1.621E+02
	-P 99/90	9.927E+01	9.838E+01	7.709E+01	1.048E+02	9.325E+01	9.923E+01	8.645E+01
	SIGMA	5.081E+00	4.955E+00	1.128E+01	4.270E+00	5.669E+00	3.500E+00	8.104E+00

COMMON MODE REJECTION - 1		(DB)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		1.08E+01	-8.00E-01	3.50E+00	6.20E+00	3.60E+00	-7.10E+00
	187		3.90E+00	5.90E+00	2.20E+00	5.00E-01	-7.50E+00	1.50E+00
	188		-3.60E+00	2.93E+01	5.80E+00	-2.10E+00	-4.50E+00	-5.40E+00
	189		7.70E+00	7.70E+00	-1.30E+00	6.70E+00	1.00E+00	1.58E+01
	190		-5.80E+00	-6.00E+00	6.50E+00	-1.90E+00	-1.05E+01	5.00E-01
	191		-9.60E+00	-3.10E+00	-4.70E+00	-1.96E+01	-1.56E+01	-6.00E+00
	MINIMUM		-9.600E+00	-6.000E+00	-4.700E+00	-1.960E+01	-1.560E+01	-6.000E+00
	MEAN		-1.480E+00	6.760E+00	1.700E+00	-3.280E+00	-7.420E+00	1.280E+00
	MAXIMUM		7.700E+00	2.930E+01	6.500E+00	6.700E+00	1.000E+00	1.580E+01
	+P 99/90		3.170E+01	7.149E+01	2.384E+01	4.241E+01	2.170E+01	4.230E+01
	-P 99/90		-3.466E+01	-5.797E+01	-2.044E+01	-4.897E+01	-3.654E+01	-3.974E+01
	SIGMA		7.112E+00	1.387E+01	4.745E+00	9.792E+00	6.242E+00	8.791E+00

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

COMMON MODE REJECTION - 2			(DB)					
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	1.20E+02	1.16E+02	1.12E+02	1.15E+02	1.12E+02	1.10E+02	1.15E+02
	187	1.14E+02	1.10E+02	1.13E+02	1.14E+02	1.11E+02	1.12E+02	1.10E+02
	188	1.12E+02	1.15E+02	1.12E+02	1.07E+02	1.07E+02	1.09E+02	1.10E+02
	189	1.15E+02	1.19E+02	1.36E+02	1.23E+02	1.26E+02	1.24E+02	1.36E+02
	190	1.16E+02	1.26E+02	1.23E+02	1.25E+02	1.22E+02	1.26E+02	1.13E+02
	191	1.17E+02	1.16E+02	1.18E+02	1.24E+02	1.17E+02	1.15E+02	1.26E+02
	MINIMUM	1.120E+02	1.098E+02	1.116E+02	1.072E+02	1.065E+02	1.087E+02	1.101E+02
	MEAN	1.148E+02	1.171E+02	1.203E+02	1.186E+02	1.165E+02	1.172E+02	1.191E+02
	MAXIMUM	1.170E+02	1.261E+02	1.363E+02	1.249E+02	1.261E+02	1.255E+02	1.363E+02
	+P 99/90	1.237E+02	1.455E+02	1.673E+02	1.552E+02	1.531E+02	1.518E+02	1.738E+02
	-P 99/90	1.058E+02	8.880E+01	7.341E+01	8.202E+01	7.993E+01	8.263E+01	6.446E+01
	SIGMA	1.921E+00	6.073E+00	1.006E+01	7.841E+00	7.838E+00	7.409E+00	1.172E+01

COMMON MODE REJECTION - 2			(DB)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-4.00E+00	-8.60E+00	-5.40E+00	-8.70E+00	-1.09E+01	-5.90E+00
	187		-4.40E+00	-1.50E+00	-6.00E-01	-3.00E+00	-1.90E+00	-3.80E+00
	188		2.60E+00	-4.00E-01	-4.80E+00	-5.50E+00	-3.30E+00	-1.90E+00
	189		4.80E+00	2.17E+01	8.70E+00	1.15E+01	9.70E+00	2.17E+01
	190		1.00E+01	7.20E+00	8.80E+00	5.40E+00	9.40E+00	-3.60E+00
	191		-1.20E+00	8.00E-01	7.00E+00	2.00E-01	-1.80E+00	9.40E+00
	MINIMUM		-4.400E+00	-1.500E+00	-4.800E+00	-5.500E+00	-3.300E+00	-3.800E+00
	MEAN		2.360E+00	5.560E+00	3.820E+00	1.720E+00	2.420E+00	4.360E+00
	MAXIMUM		1.000E+01	2.170E+01	8.800E+00	1.150E+01	9.700E+00	2.170E+01
	+P 99/90		2.821E+01	5.051E+01	3.264E+01	3.353E+01	3.292E+01	5.628E+01
	-P 99/90		-2.349E+01	-3.939E+01	-2.500E+01	-3.009E+01	-2.808E+01	-4.756E+01
	SIGMA		5.540E+00	9.633E+00	6.176E+00	6.817E+00	6.537E+00	1.113E+01

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

VOL @ 3.2MA - 1		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.81E-01	2.81E-01	2.80E-01	2.81E-01	2.80E-01	2.80E-01	2.81E-01
	187	2.95E-01	2.93E-01	2.93E-01	2.93E-01	2.93E-01	2.94E-01	2.96E-01
	188	2.67E-01	2.64E-01	2.64E-01	2.64E-01	2.65E-01	2.65E-01	2.67E-01
	189	2.72E-01	2.63E-01	2.63E-01	2.64E-01	2.64E-01	2.64E-01	2.69E-01
	190	2.78E-01	2.75E-01	2.75E-01	2.75E-01	2.75E-01	2.76E-01	2.78E-01
	191	2.83E-01	2.80E-01	2.80E-01	2.79E-01	2.80E-01	2.80E-01	2.82E-01
	MINIMUM	2.670E-01	2.630E-01	2.630E-01	2.640E-01	2.640E-01	2.640E-01	2.670E-01
	MEAN	2.790E-01	2.750E-01	2.750E-01	2.750E-01	2.754E-01	2.758E-01	2.784E-01
	MAXIMUM	2.950E-01	2.930E-01	2.930E-01	2.930E-01	2.930E-01	2.940E-01	2.960E-01
	+P 99/90	3.294E-01	3.328E-01	3.328E-01	3.313E-01	3.311E-01	3.332E-01	3.327E-01
	-P 99/90	2.286E-01	2.172E-01	2.172E-01	2.187E-01	2.197E-01	2.184E-01	2.241E-01
	SIGMA	1.079E-02	1.239E-02	1.239E-02	1.206E-02	1.193E-02	1.230E-02	1.163E-02

VOL @ 3.2MA - 1		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		0.00E+00	-1.00E-03	0.00E+00	-1.00E-03	-1.00E-03	0.00E+00
	187		-2.00E-03	-2.00E-03	-2.00E-03	-2.00E-03	-1.00E-03	1.00E-03
	188		-3.00E-03	-3.00E-03	-3.00E-03	-2.00E-03	-2.00E-03	0.00E+00
	189		-9.00E-03	-9.00E-03	-8.00E-03	-8.00E-03	-8.00E-03	-3.00E-03
	190		-3.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-2.00E-03	0.00E+00
	191		-3.00E-03	-3.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-1.00E-03
	MINIMUM		-9.000E-03	-9.000E-03	-8.000E-03	-8.000E-03	-8.000E-03	-3.000E-03
	MEAN		-4.000E-03	-4.000E-03	-4.000E-03	-3.600E-03	-3.200E-03	-6.000E-04
	MAXIMUM		-2.000E-03	-2.000E-03	-2.000E-03	-2.000E-03	-1.000E-03	1.000E-03
	+P 99/90		9.197E-03	9.197E-03	6.943E-03	8.112E-03	9.748E-03	6.476E-03
	-P 99/90		-1.720E-02	-1.720E-02	-1.494E-02	-1.531E-02	-1.615E-02	-7.676E-03
	SIGMA		2.828E-03	2.828E-03	2.345E-03	2.510E-03	2.775E-03	1.517E-03

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

VOL @ 3.2MA - 2		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.82E-01	2.81E-01	2.81E-01	2.81E-01	2.81E-01	2.80E-01	2.82E-01
	187	2.87E-01	2.84E-01	2.83E-01	2.84E-01	2.84E-01	2.85E-01	2.86E-01
	188	2.64E-01	2.61E-01	2.61E-01	2.61E-01	2.61E-01	2.62E-01	2.64E-01
	189	2.79E-01	2.75E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.79E-01
	190	2.83E-01	2.79E-01	2.78E-01	2.79E-01	2.80E-01	2.80E-01	2.81E-01
	191	2.79E-01	2.75E-01	2.75E-01	2.76E-01	2.76E-01	2.76E-01	2.77E-01
	MINIMUM	2.640E-01	2.610E-01	2.610E-01	2.610E-01	2.610E-01	2.620E-01	2.640E-01
	MEAN	2.784E-01	2.748E-01	2.746E-01	2.752E-01	2.754E-01	2.758E-01	2.774E-01
	MAXIMUM	2.870E-01	2.840E-01	2.830E-01	2.840E-01	2.840E-01	2.850E-01	2.860E-01
	+P 99/90	3.190E-01	3.147E-01	3.129E-01	3.153E-01	3.160E-01	3.157E-01	3.157E-01
	-P 99/90	2.378E-01	2.349E-01	2.363E-01	2.351E-01	2.348E-01	2.359E-01	2.391E-01
	SIGMA	8.706E-03	8.556E-03	8.204E-03	8.585E-03	8.706E-03	8.556E-03	8.204E-03

VOL @ 3.2MA - 2		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-1.00E-03	-1.00E-03	-1.00E-03	-1.00E-03	-2.00E-03	0.00E+00
	187		-3.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-2.00E-03	-1.00E-03
	188		-3.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-2.00E-03	0.00E+00
	189		-4.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	0.00E+00
	190		-4.00E-03	-5.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-2.00E-03
	191		-4.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-2.00E-03
	MINIMUM		-4.000E-03	-5.000E-03	-4.000E-03	-3.000E-03	-3.000E-03	-2.000E-03
	MEAN		-3.600E-03	-3.800E-03	-3.200E-03	-3.000E-03	-2.600E-03	-1.000E-03
	MAXIMUM		-3.000E-03	-3.000E-03	-3.000E-03	-3.000E-03	-2.000E-03	0.000E+00
	+P 99/90		-1.044E-03	1.039E-04	-1.113E-03	-3.000E-03	-4.433E-05	3.666E-03
	-P 99/90		-6.156E-03	-7.704E-03	-5.287E-03	-3.000E-03	-5.156E-03	-5.666E-03
	SIGMA		5.477E-04	8.367E-04	4.472E-04	2.483E-17	5.477E-04	1.000E-03

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

VOL @ 25MA - 1		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	5.98E-01	6.00E-01	6.03E-01	6.01E-01	6.02E-01	6.04E-01	6.03E-01
	187	6.16E-01	6.16E-01	6.18E-01	6.17E-01	6.20E-01	6.21E-01	6.19E-01
	188	5.77E-01	5.79E-01	5.79E-01	5.80E-01	5.81E-01	5.81E-01	5.81E-01
	189	5.86E-01	5.82E-01	5.81E-01	5.83E-01	5.85E-01	5.88E-01	5.86E-01
	190	5.96E-01	5.97E-01	5.98E-01	6.00E-01	6.00E-01	6.03E-01	6.00E-01
	191	6.00E-01	6.01E-01	6.01E-01	6.01E-01	6.02E-01	6.04E-01	6.03E-01
	MINIMUM	5.770E-01	5.790E-01	5.790E-01	5.800E-01	5.810E-01	5.810E-01	5.810E-01
	MEAN	5.950E-01	5.950E-01	5.954E-01	5.962E-01	5.976E-01	5.994E-01	5.978E-01
	MAXIMUM	6.160E-01	6.160E-01	6.180E-01	6.170E-01	6.200E-01	6.210E-01	6.190E-01
	+P 99/90	6.639E-01	6.652E-01	6.701E-01	6.665E-01	6.699E-01	6.720E-01	6.679E-01
	-P 99/90	5.261E-01	5.248E-01	5.207E-01	5.259E-01	5.253E-01	5.268E-01	5.277E-01
	SIGMA	1.476E-02	1.505E-02	1.601E-02	1.506E-02	1.550E-02	1.557E-02	1.502E-02

VOL @ 25MA - 1		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.00E-03	5.00E-03	3.00E-03	4.00E-03	6.00E-03	5.00E-03
	187		0.00E+00	2.00E-03	1.00E-03	4.00E-03	5.00E-03	3.00E-03
	188		2.00E-03	2.00E-03	3.00E-03	4.00E-03	4.00E-03	4.00E-03
	189		-4.00E-03	-5.00E-03	-3.00E-03	-1.00E-03	2.00E-03	0.00E+00
	190		1.00E-03	2.00E-03	4.00E-03	4.00E-03	7.00E-03	4.00E-03
	191		1.00E-03	1.00E-03	1.00E-03	2.00E-03	4.00E-03	3.00E-03
	MINIMUM		-4.000E-03	-5.000E-03	-3.000E-03	-1.000E-03	2.000E-03	0.000E+00
	MEAN		0.000E+00	4.000E-04	1.200E-03	2.600E-03	4.400E-03	2.800E-03
	MAXIMUM		2.000E-03	2.000E-03	4.000E-03	4.000E-03	7.000E-03	4.000E-03
	+P 99/90		1.094E-02	1.463E-02	1.372E-02	1.282E-02	1.288E-02	1.047E-02
	-P 99/90		-1.094E-02	-1.383E-02	-1.132E-02	-7.623E-03	-4.076E-03	-4.867E-03
	SIGMA		2.345E-03	3.050E-03	2.683E-03	2.191E-03	1.817E-03	1.643E-03

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

VOL @ 25MA - 2		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	5.95E-01	5.98E-01	6.00E-01	5.99E-01	5.99E-01	6.02E-01	6.01E-01
	187	6.01E-01	6.00E-01	6.01E-01	6.03E-01	6.03E-01	6.03E-01	6.02E-01
	188	5.68E-01	5.69E-01	5.69E-01	5.71E-01	5.71E-01	5.72E-01	5.70E-01
	189	5.89E-01	5.89E-01	5.89E-01	5.91E-01	5.92E-01	5.96E-01	5.91E-01
	190	5.97E-01	5.98E-01	5.98E-01	6.01E-01	6.01E-01	6.04E-01	6.01E-01
	191	5.91E-01	5.90E-01	5.91E-01	5.92E-01	5.93E-01	5.95E-01	5.92E-01
	MINIMUM	5.680E-01	5.690E-01	5.690E-01	5.710E-01	5.710E-01	5.720E-01	5.700E-01
	MEAN	5.892E-01	5.892E-01	5.896E-01	5.916E-01	5.920E-01	5.940E-01	5.912E-01
	MAXIMUM	6.010E-01	6.000E-01	6.010E-01	6.030E-01	6.030E-01	6.040E-01	6.020E-01
	+P 99/90	6.488E-01	6.465E-01	6.480E-01	6.508E-01	6.512E-01	6.544E-01	6.513E-01
	-P 99/90	5.296E-01	5.319E-01	5.312E-01	5.324E-01	5.328E-01	5.336E-01	5.311E-01
	SIGMA	1.277E-02	1.228E-02	1.252E-02	1.268E-02	1.269E-02	1.294E-02	1.287E-02

VOL @ 25MA - 2		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		3.00E-03	5.00E-03	4.00E-03	4.00E-03	7.00E-03	6.00E-03
	187		-1.00E-03	0.00E+00	2.00E-03	2.00E-03	2.00E-03	1.00E-03
	188		1.00E-03	1.00E-03	3.00E-03	3.00E-03	4.00E-03	2.00E-03
	189		0.00E+00	0.00E+00	2.00E-03	3.00E-03	7.00E-03	2.00E-03
	190		1.00E-03	1.00E-03	4.00E-03	4.00E-03	7.00E-03	4.00E-03
	191		-1.00E-03	0.00E+00	1.00E-03	2.00E-03	4.00E-03	1.00E-03
	MINIMUM		-1.000E-03	0.000E+00	1.000E-03	2.000E-03	2.000E-03	1.000E-03
	MEAN		0.000E+00	4.000E-04	2.400E-03	2.800E-03	4.800E-03	2.000E-03
	MAXIMUM		1.000E-03	1.000E-03	4.000E-03	4.000E-03	7.000E-03	4.000E-03
	+P 99/90		4.666E-03	2.956E-03	7.720E-03	6.704E-03	1.492E-02	7.715E-03
	-P 99/90		-4.666E-03	-2.156E-03	-2.920E-03	-1.104E-03	-5.316E-03	-3.715E-03
	SIGMA		1.000E-03	5.477E-04	1.140E-03	8.367E-04	2.168E-03	1.225E-03

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

ICEX @ 35V - 1		(UA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.70E-02	1.70E-02	1.80E-02	1.90E-02	2.00E-02	1.40E-02	1.30E-02
	187	2.90E-02	1.80E-02	2.10E-02	2.10E-02	3.20E-02	1.70E-02	1.30E-02
	188	3.00E-02	1.70E-02	1.80E-02	3.40E-02	4.20E-02	1.90E-02	1.40E-02
	189	2.90E-02	2.20E-02	2.00E-02	3.00E-02	3.40E-02	1.60E-02	1.40E-02
	190	3.00E-02	1.90E-02	2.30E-02	2.60E-02	4.00E-02	1.70E-02	1.20E-02
	191	2.50E-02	2.00E-02	2.30E-02	2.10E-02	2.80E-02	1.50E-02	1.50E-02
	MINIMUM	2.500E-02	1.700E-02	1.800E-02	2.100E-02	2.800E-02	1.500E-02	1.200E-02
	MEAN	2.860E-02	1.920E-02	2.100E-02	2.640E-02	3.520E-02	1.680E-02	1.360E-02
	MAXIMUM	3.000E-02	2.200E-02	2.300E-02	3.400E-02	4.200E-02	1.900E-02	1.500E-02
	+P 99/90	3.828E-02	2.818E-02	3.090E-02	5.292E-02	6.209E-02	2.372E-02	1.892E-02
	-P 99/90	1.892E-02	1.022E-02	1.110E-02	-1.183E-04	8.315E-03	9.879E-03	8.280E-03
	SIGMA	2.074E-03	1.924E-03	2.121E-03	5.683E-03	5.762E-03	1.483E-03	1.140E-03

ICEX @ 35V - 1		(UA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-1.00E-02	-9.00E-03	-8.00E-03	-7.00E-03	-1.30E-02	-1.40E-02
	187		-1.10E-02	-8.00E-03	-8.00E-03	3.00E-03	-1.20E-02	-1.60E-02
	188		-1.30E-02	-1.20E-02	4.00E-03	1.20E-02	-1.10E-02	-1.60E-02
	189		-7.00E-03	-9.00E-03	1.00E-03	5.00E-03	-1.30E-02	-1.50E-02
	190		-1.10E-02	-7.00E-03	-4.00E-03	1.00E-02	-1.30E-02	-1.80E-02
	191		-5.00E-03	-2.00E-03	-4.00E-03	3.00E-03	-1.00E-02	-1.00E-02
	MINIMUM		-1.300E-02	-1.200E-02	-8.000E-03	3.000E-03	-1.300E-02	-1.800E-02
	MEAN		-9.400E-03	-7.600E-03	-2.200E-03	6.600E-03	-1.180E-02	-1.500E-02
	MAXIMUM		-5.000E-03	-2.000E-03	4.000E-03	1.200E-02	-1.000E-02	-1.000E-02
	+P 99/90		5.934E-03	9.417E-03	1.978E-02	2.601E-02	-5.716E-03	-1.002E-03
	-P 99/90		-2.473E-02	-2.462E-02	-2.418E-02	-1.281E-02	-1.788E-02	-2.900E-02
	SIGMA		3.286E-03	3.647E-03	4.712E-03	4.159E-03	1.304E-03	3.000E-03

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119MW DUAL COMPARATOR (LTC)

ICEX @ 35V - 2		(UA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	3.00E-03	3.00E-03	3.00E-03	2.00E-03	5.00E-03	2.00E-03	3.00E-03
	187	2.00E-03	0.00E+00	2.00E-03	5.00E-03	1.50E-02	4.00E-03	4.00E-03
	188	5.00E-03	7.00E-03	7.00E-03	1.60E-02	2.40E-02	6.00E-03	3.00E-03
	189	3.00E-03	1.00E-03	5.00E-03	8.00E-03	1.90E-02	5.00E-03	6.00E-03
	190	5.00E-03	1.00E-03	4.00E-03	8.00E-03	1.50E-02	8.00E-03	2.00E-03
	191	3.00E-03	4.00E-03	0.00E+00	2.00E-03	1.10E-02	4.00E-03	5.00E-03
	MINIMUM	2.000E-03	0.000E+00	0.000E+00	2.000E-03	1.100E-02	4.000E-03	2.000E-03
	MEAN	3.600E-03	2.600E-03	3.600E-03	7.800E-03	1.680E-02	5.400E-03	4.000E-03
	MAXIMUM	5.000E-03	7.000E-03	7.000E-03	1.600E-02	2.400E-02	8.000E-03	6.000E-03
	+P 99/90	9.860E-03	1.604E-02	1.621E-02	3.213E-02	3.975E-02	1.321E-02	1.138E-02
	-P 99/90	-2.660E-03	-1.084E-02	-9.007E-03	-1.653E-02	-6.154E-03	-2.408E-03	-3.378E-03
	SIGMA	1.342E-03	2.881E-03	2.702E-03	5.215E-03	4.919E-03	1.673E-03	1.581E-03

ICEX @ 35V - 2		(UA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		0.00E+00	0.00E+00	-1.00E-03	2.00E-03	-1.00E-03	0.00E+00
	187		-2.00E-03	0.00E+00	3.00E-03	1.30E-02	2.00E-03	2.00E-03
	188		2.00E-03	2.00E-03	1.10E-02	1.90E-02	1.00E-03	-2.00E-03
	189		-2.00E-03	2.00E-03	5.00E-03	1.60E-02	2.00E-03	3.00E-03
	190		-4.00E-03	-1.00E-03	3.00E-03	1.00E-02	3.00E-03	-3.00E-03
	191		1.00E-03	-3.00E-03	-1.00E-03	8.00E-03	1.00E-03	2.00E-03
	MINIMUM		-4.000E-03	-3.000E-03	-1.000E-03	8.000E-03	1.000E-03	-3.000E-03
	MEAN		-1.000E-03	0.000E+00	4.200E-03	1.320E-02	1.800E-03	4.000E-04
	MAXIMUM		2.000E-03	2.000E-03	1.100E-02	1.900E-02	3.000E-03	3.000E-03
	+P 99/90		1.043E-02	9.898E-03	2.465E-02	3.391E-02	5.704E-03	1.301E-02
	-P 99/90		-1.243E-02	-9.898E-03	-1.625E-02	-7.510E-03	-2.104E-03	-1.221E-02
	SIGMA		2.449E-03	2.121E-03	4.382E-03	4.438E-03	8.367E-04	2.702E-03

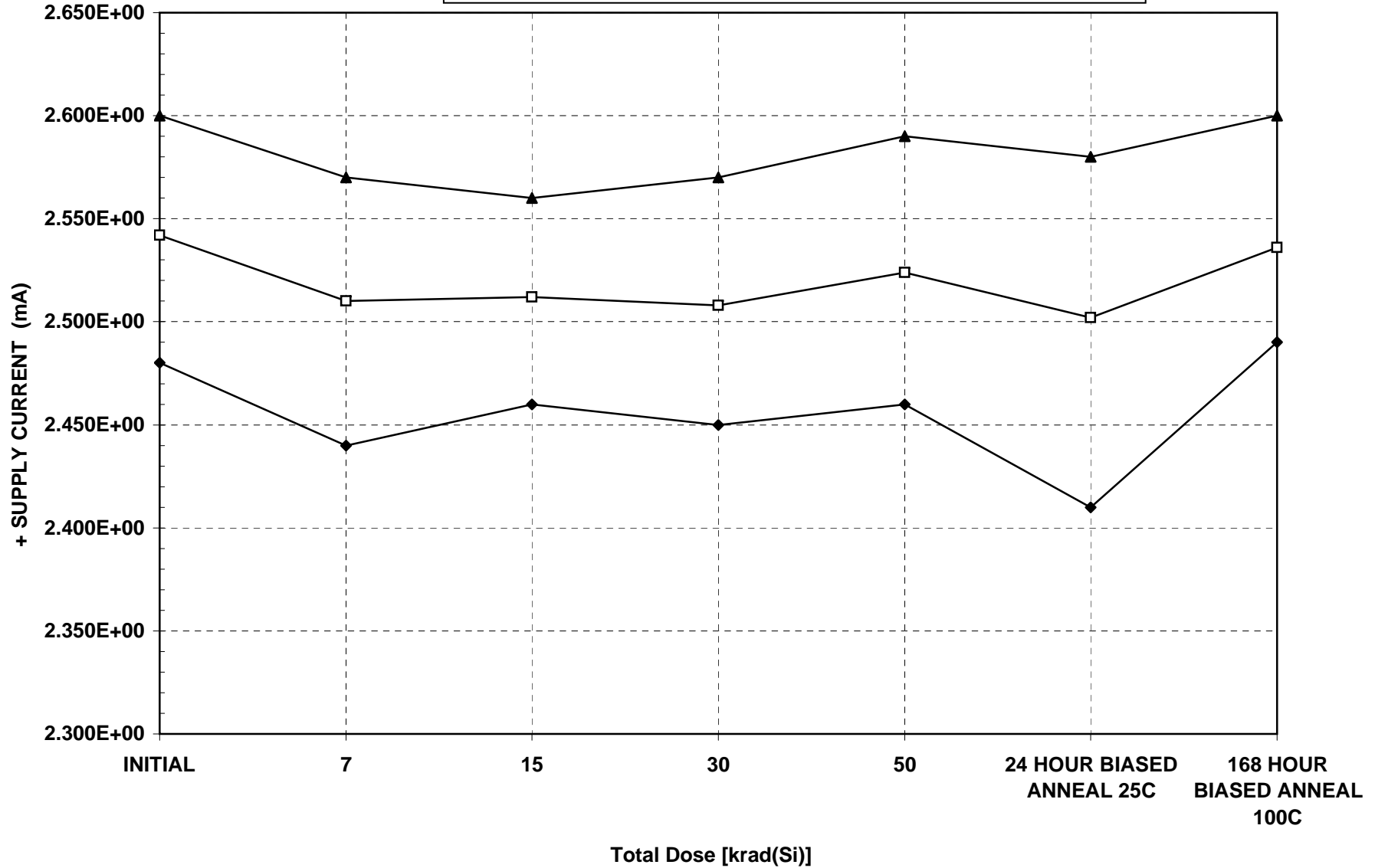
DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 1 Biased

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1571 || TEST DATE 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

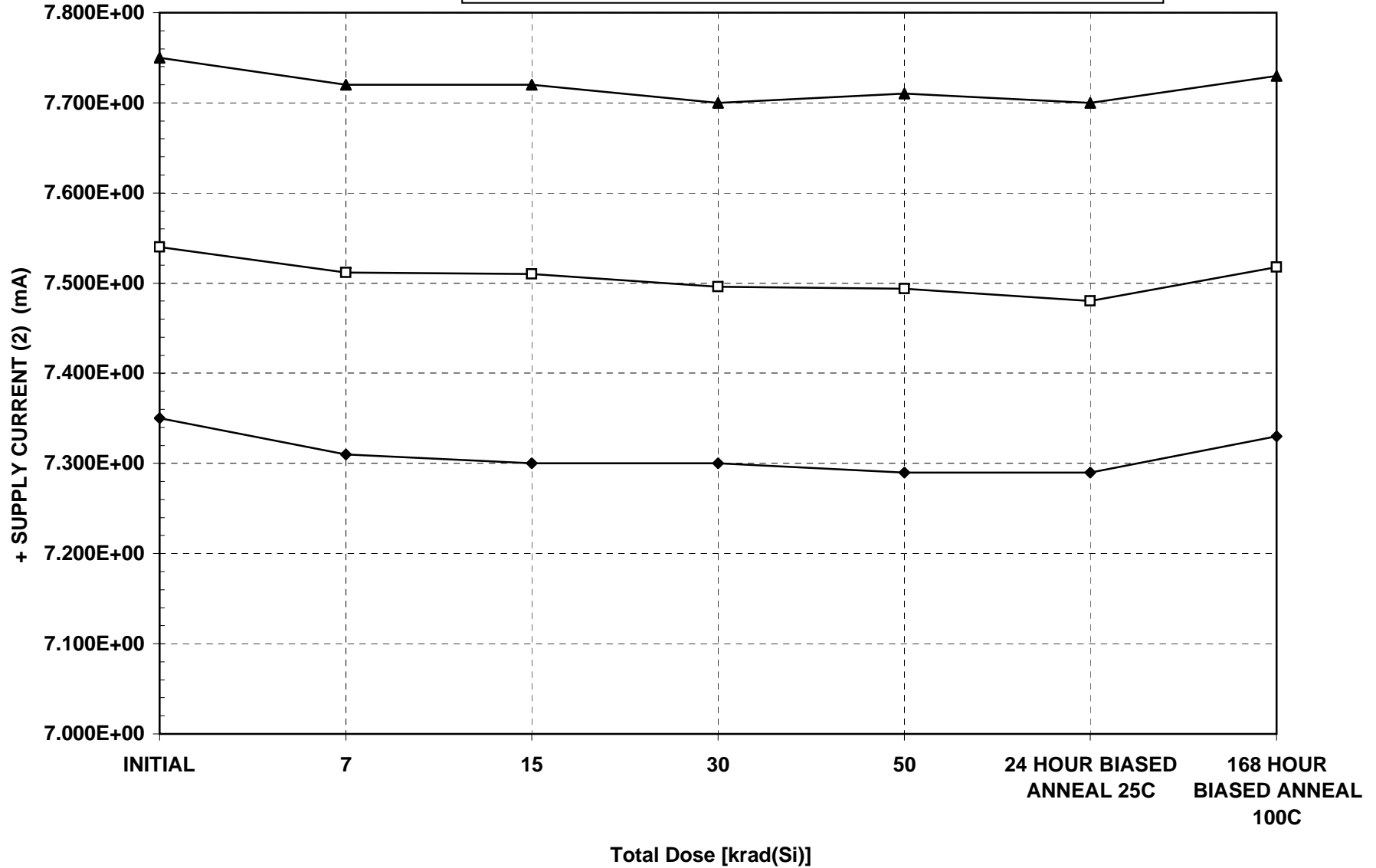
+ SUPPLY CURRENT (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
IC S Radiation Test Results Log # 1571 4/26/07

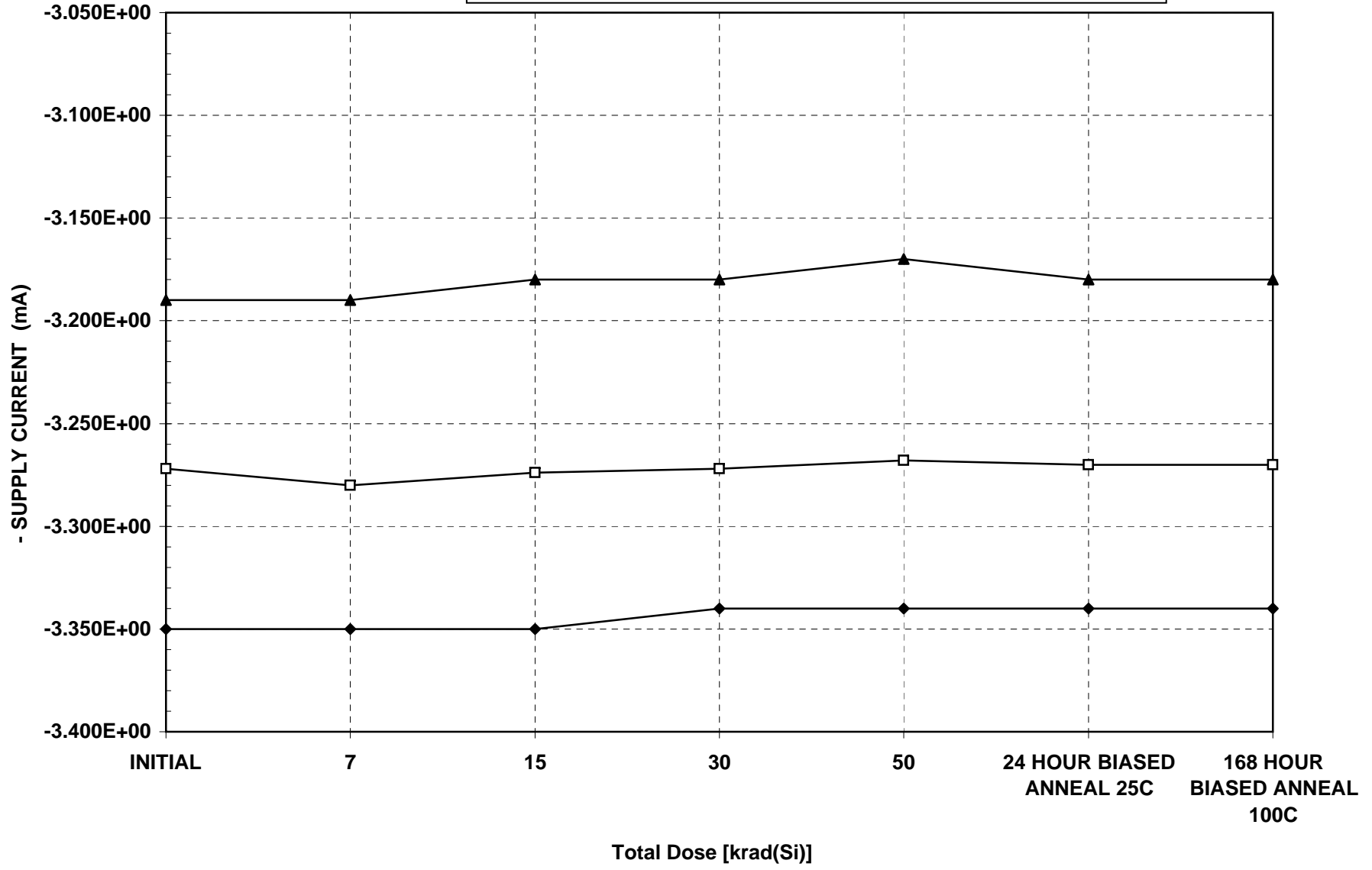
+ SUPPLY CURRENT (2) (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

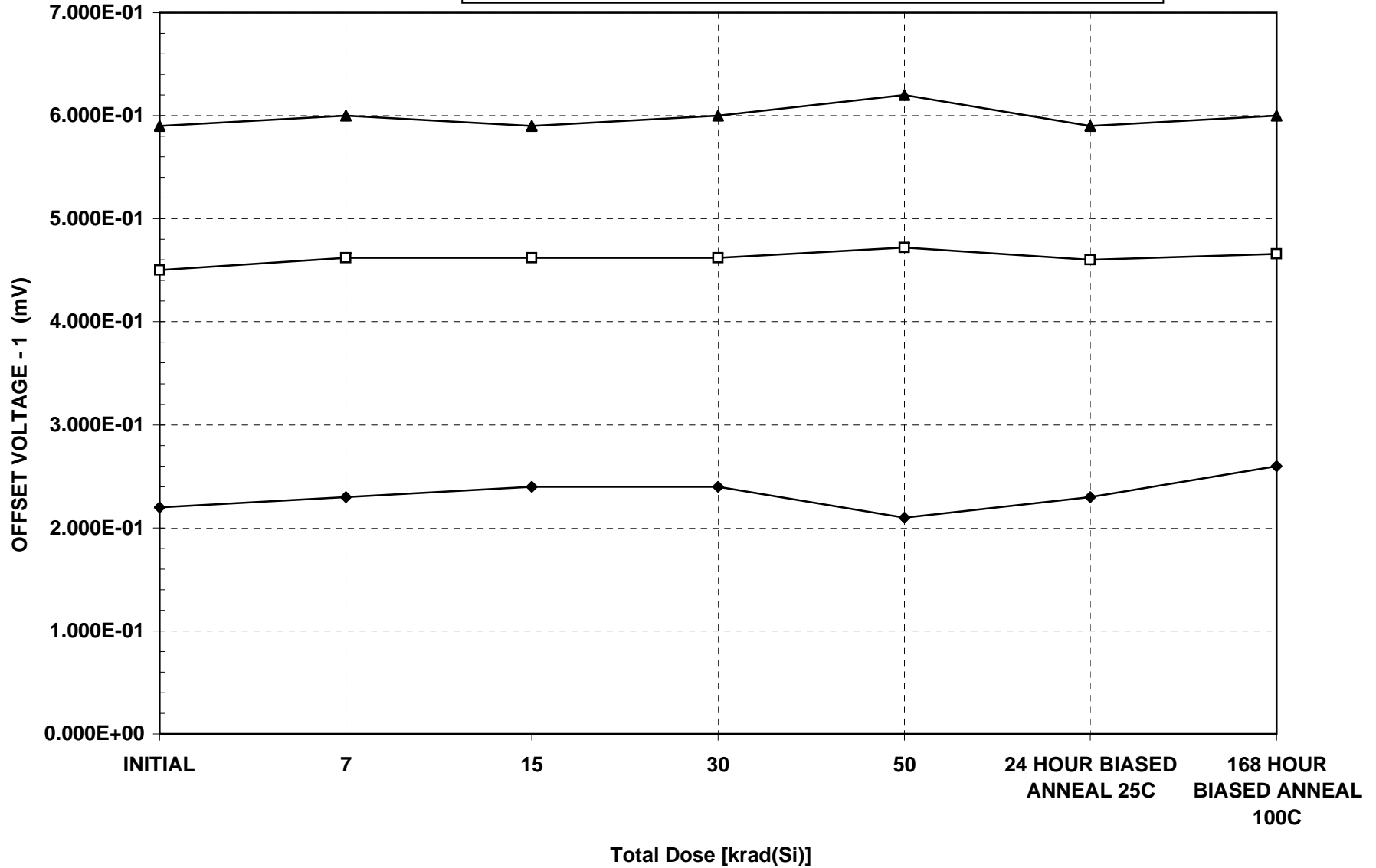
- SUPPLY CURRENT (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

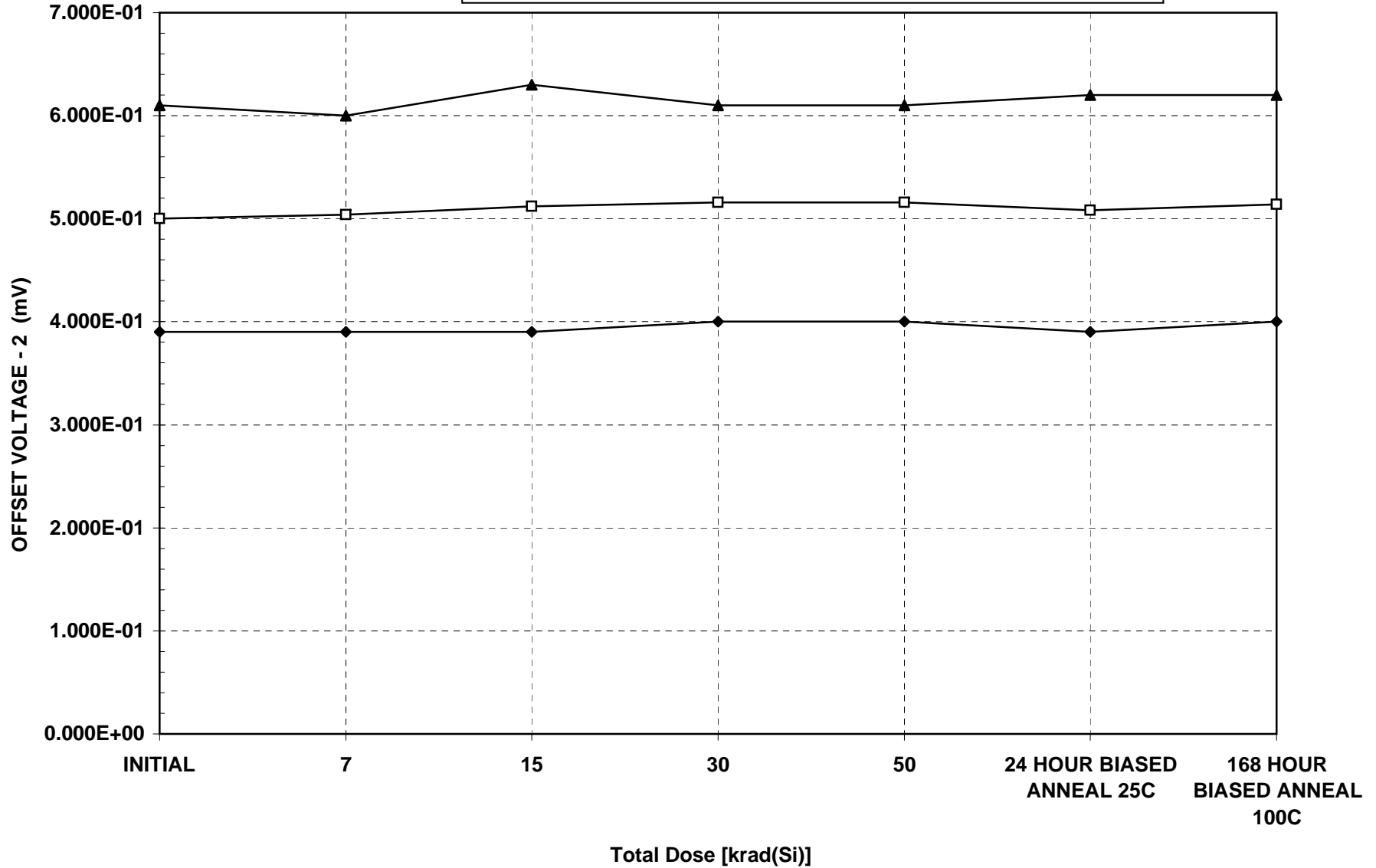
OFFSET VOLTAGE - 1 (mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

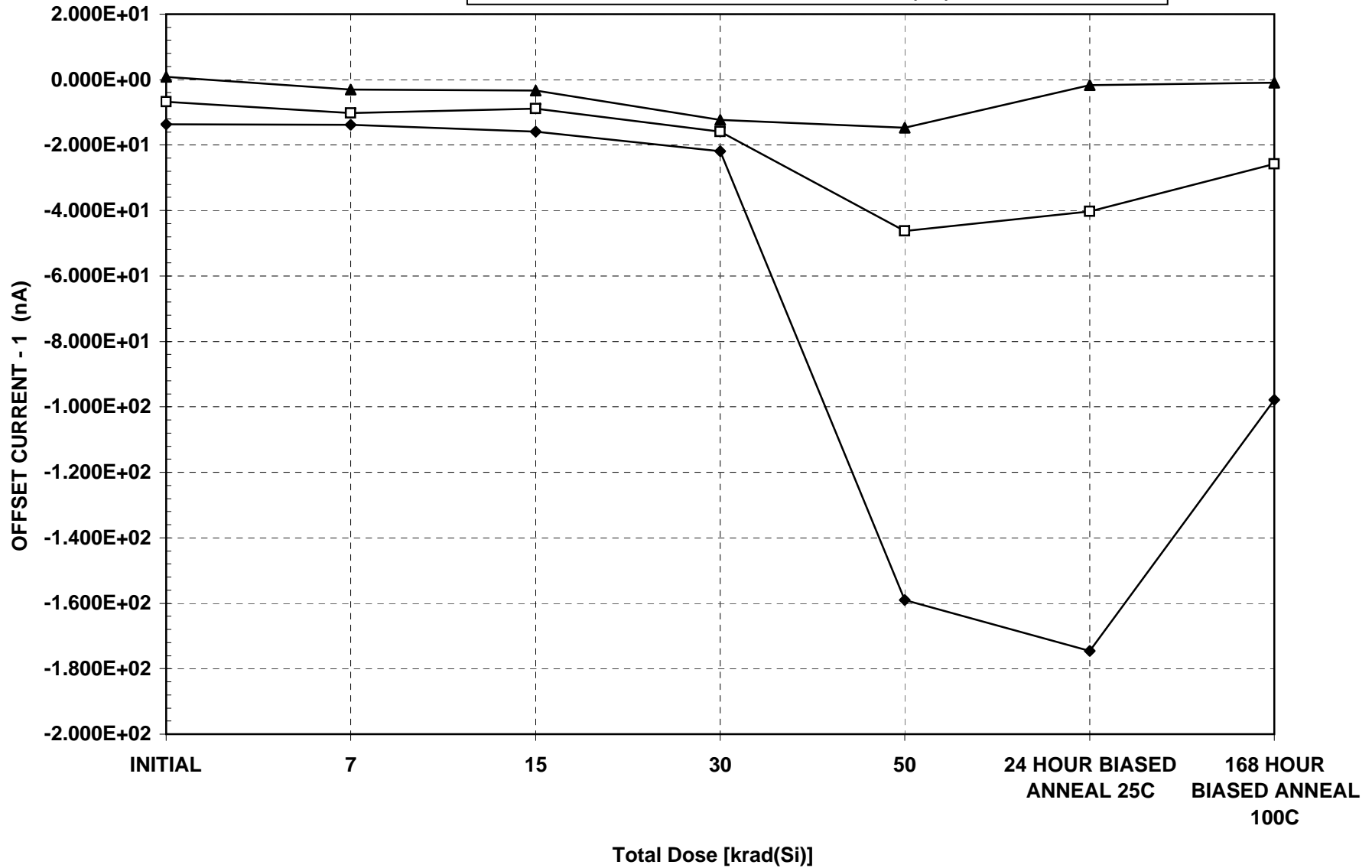
OFFSET VOLTAGE - 2 (mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

OFFSET CURRENT - 1 (nA)

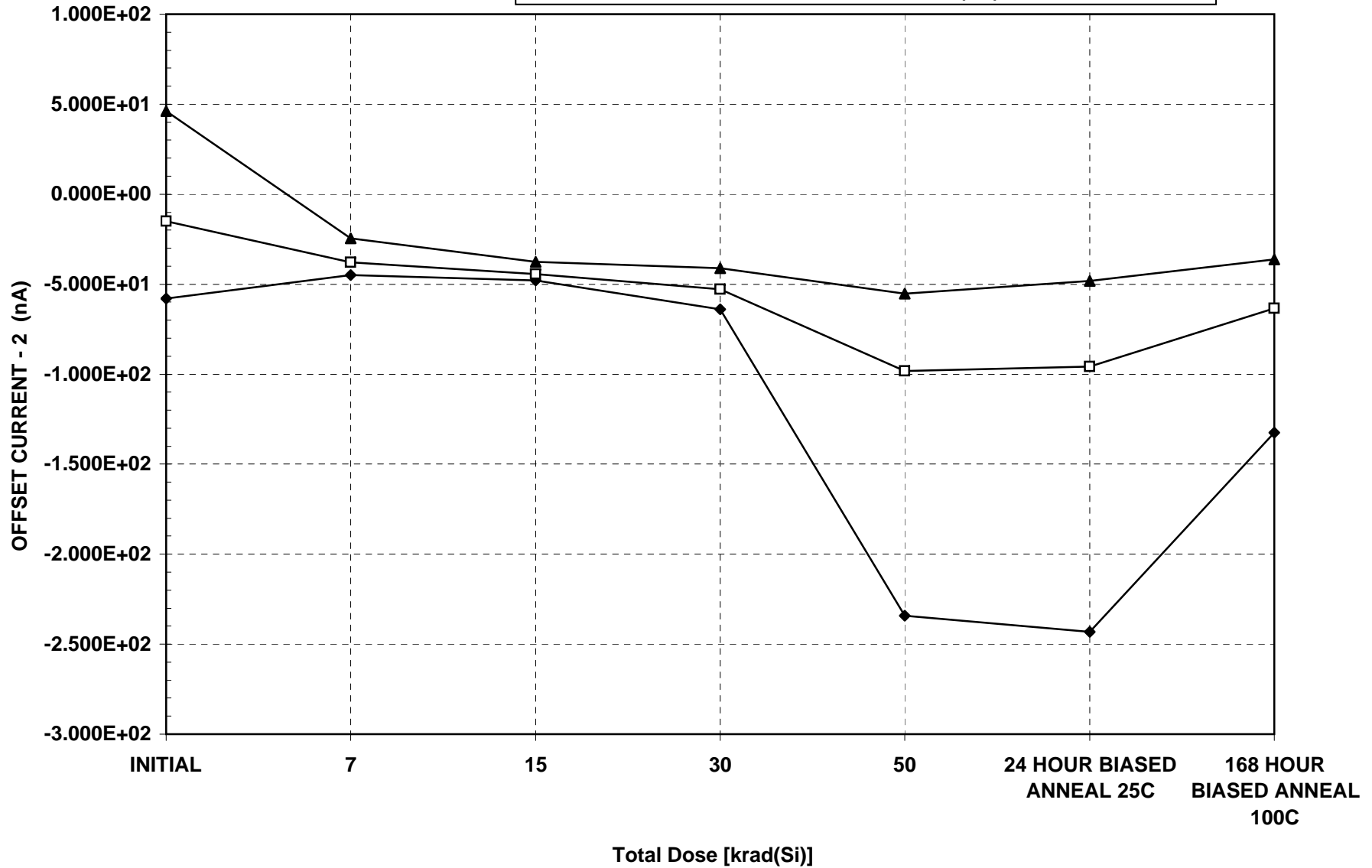


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

IC S Radiation Test Results Log # 1571 4/26/07

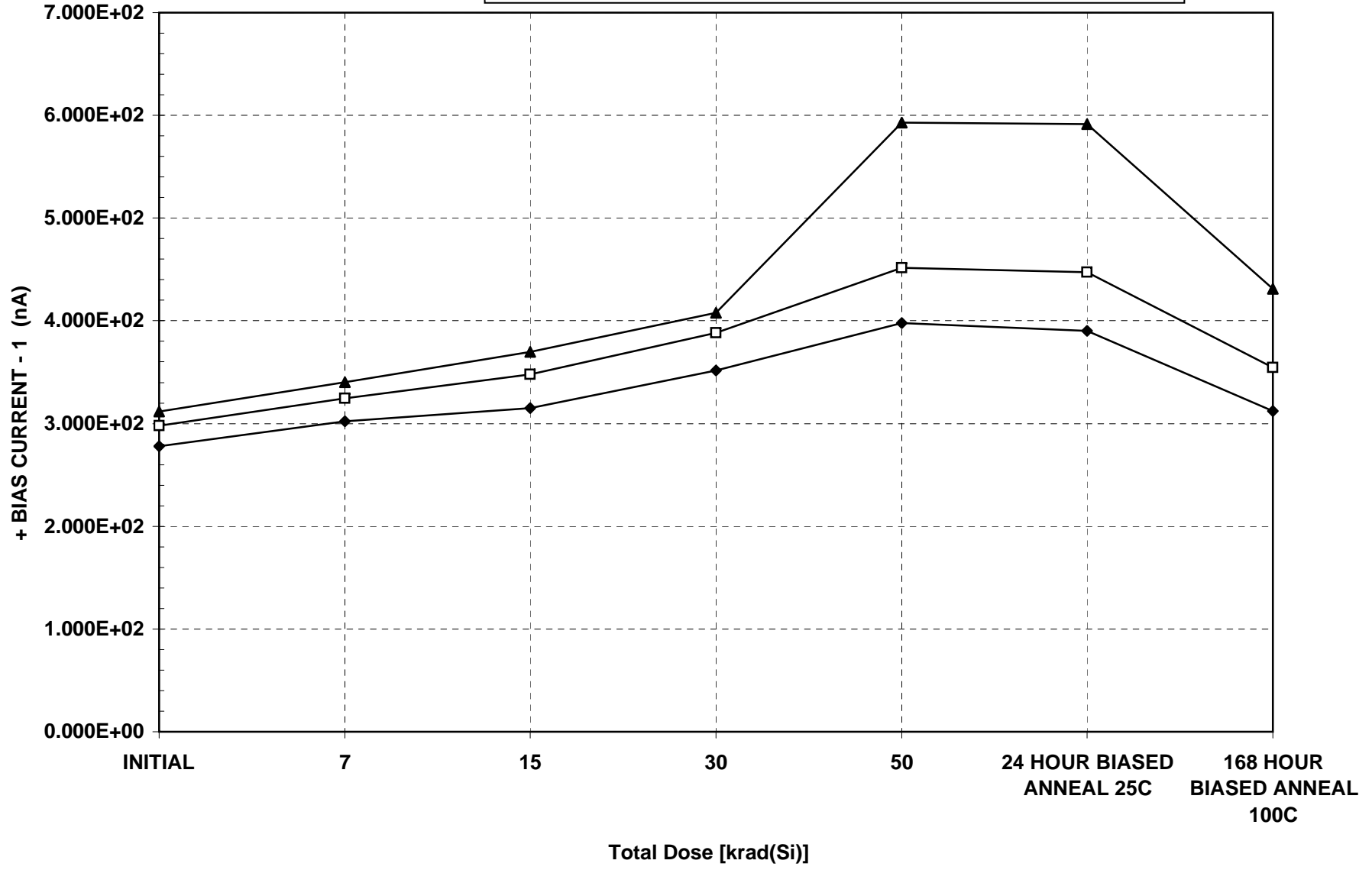
OFFSET CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

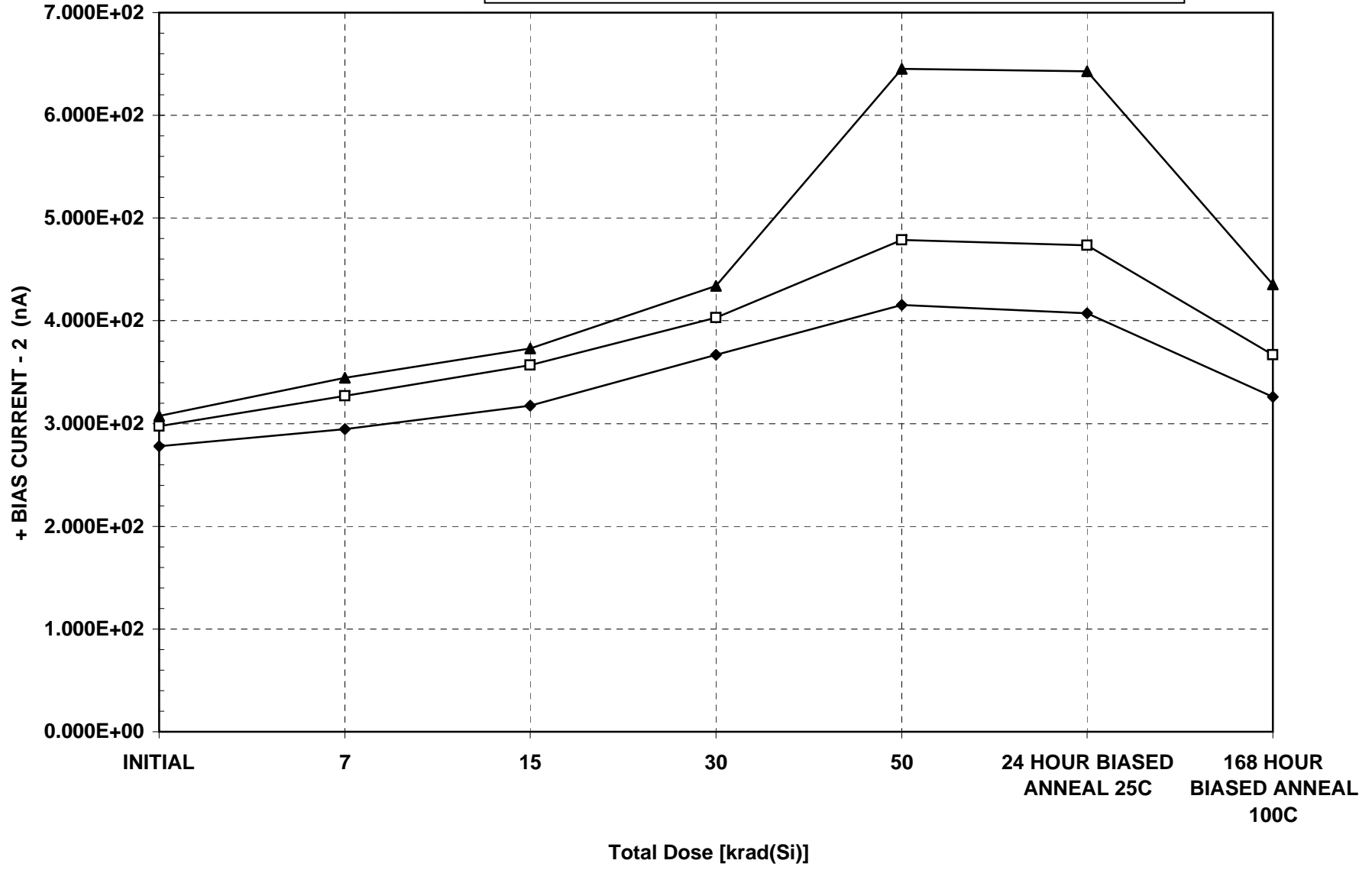
+ BIAS CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

+ BIAS CURRENT - 2 (nA)

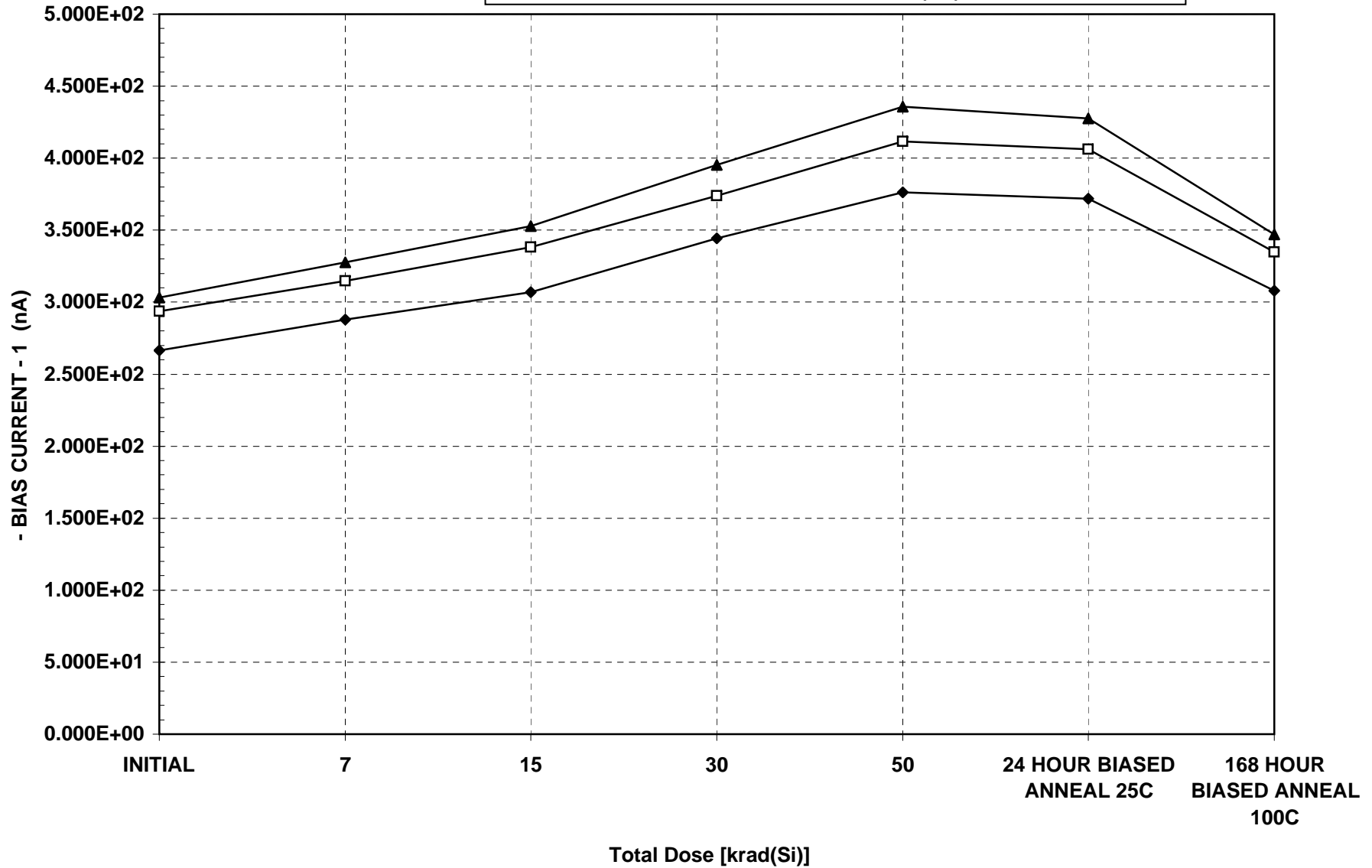


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

IC S Radiation Test Results Log # 1571 4/26/07

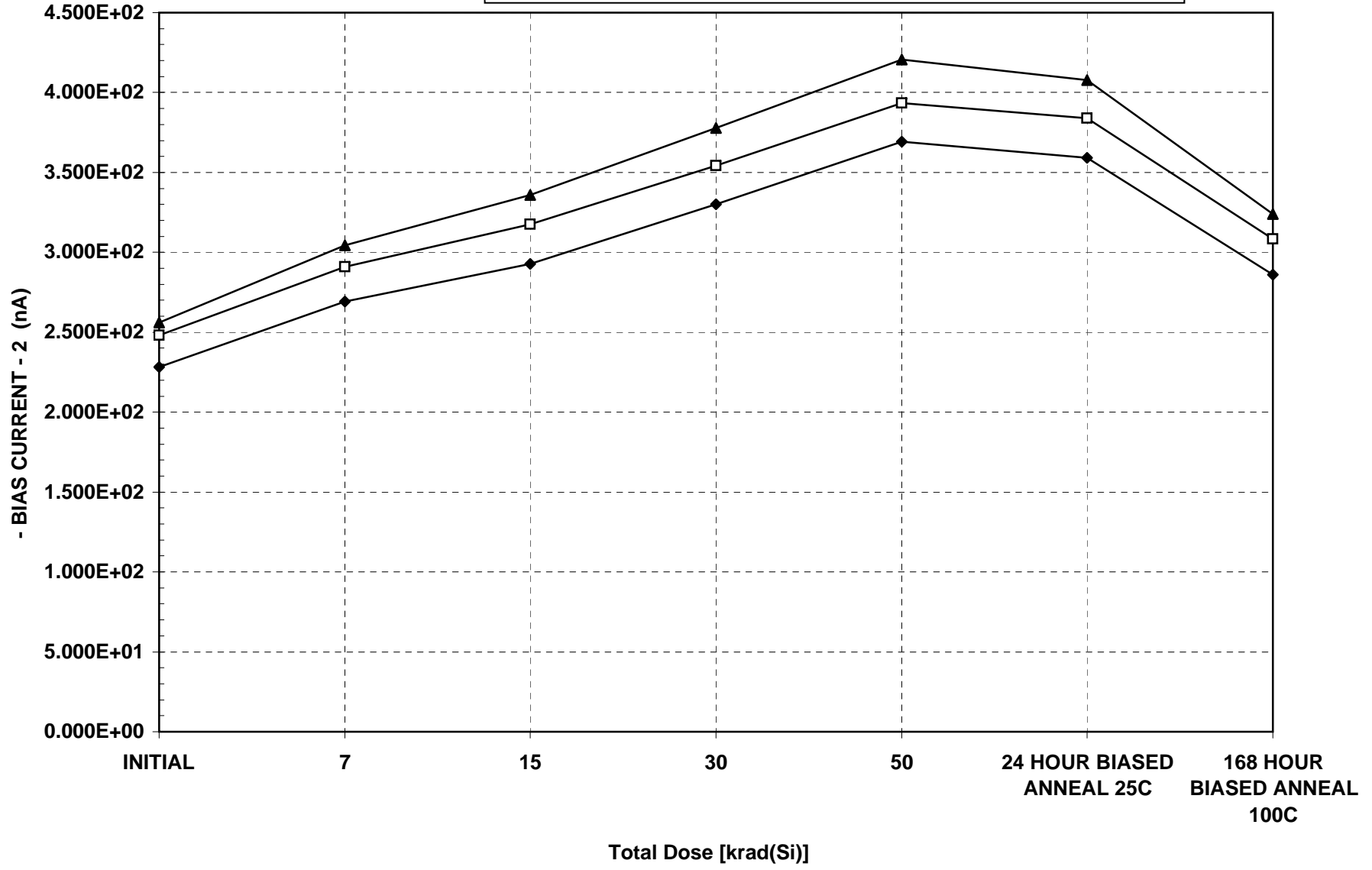
- BIAS CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

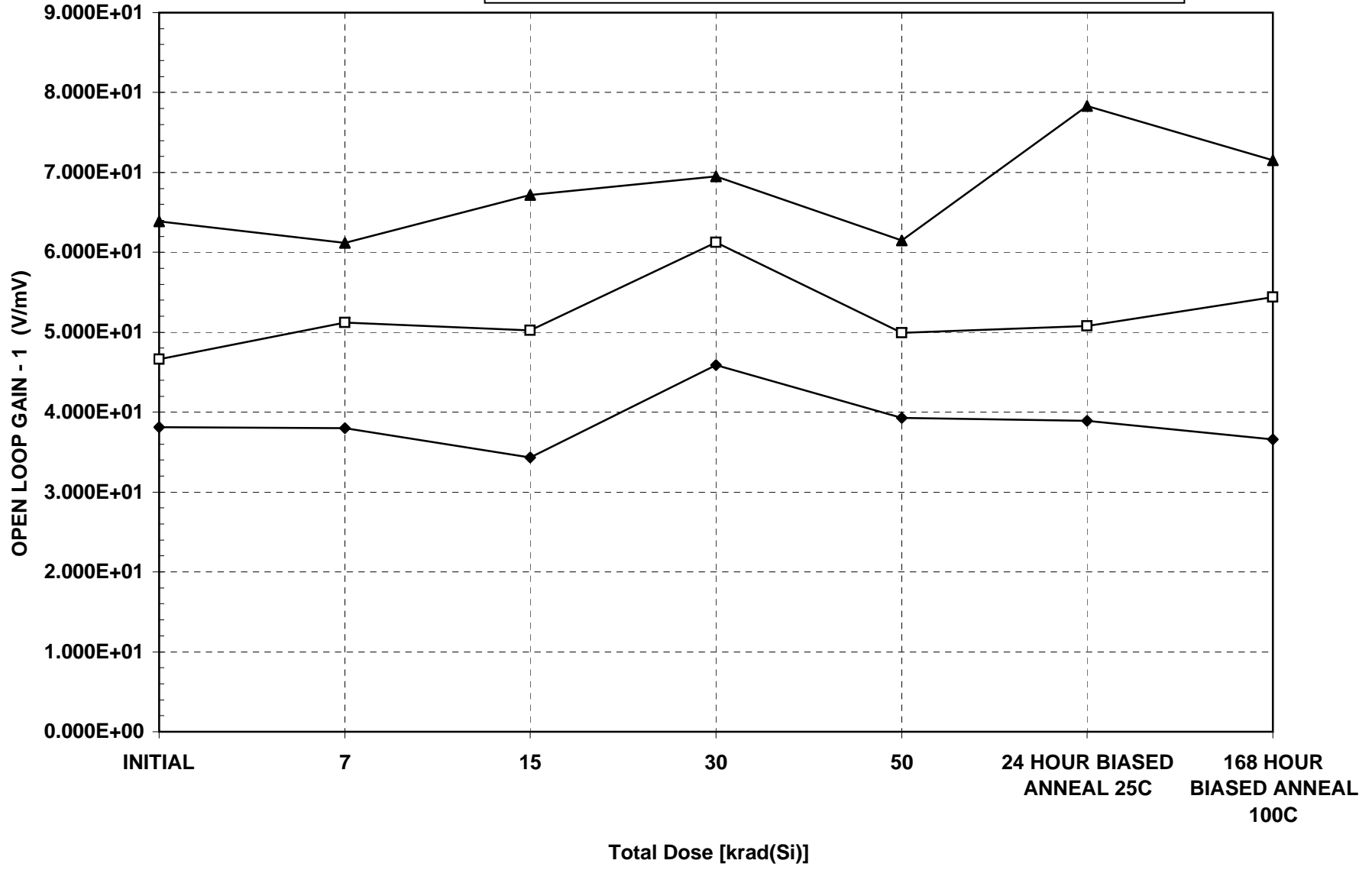
- BIAS CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

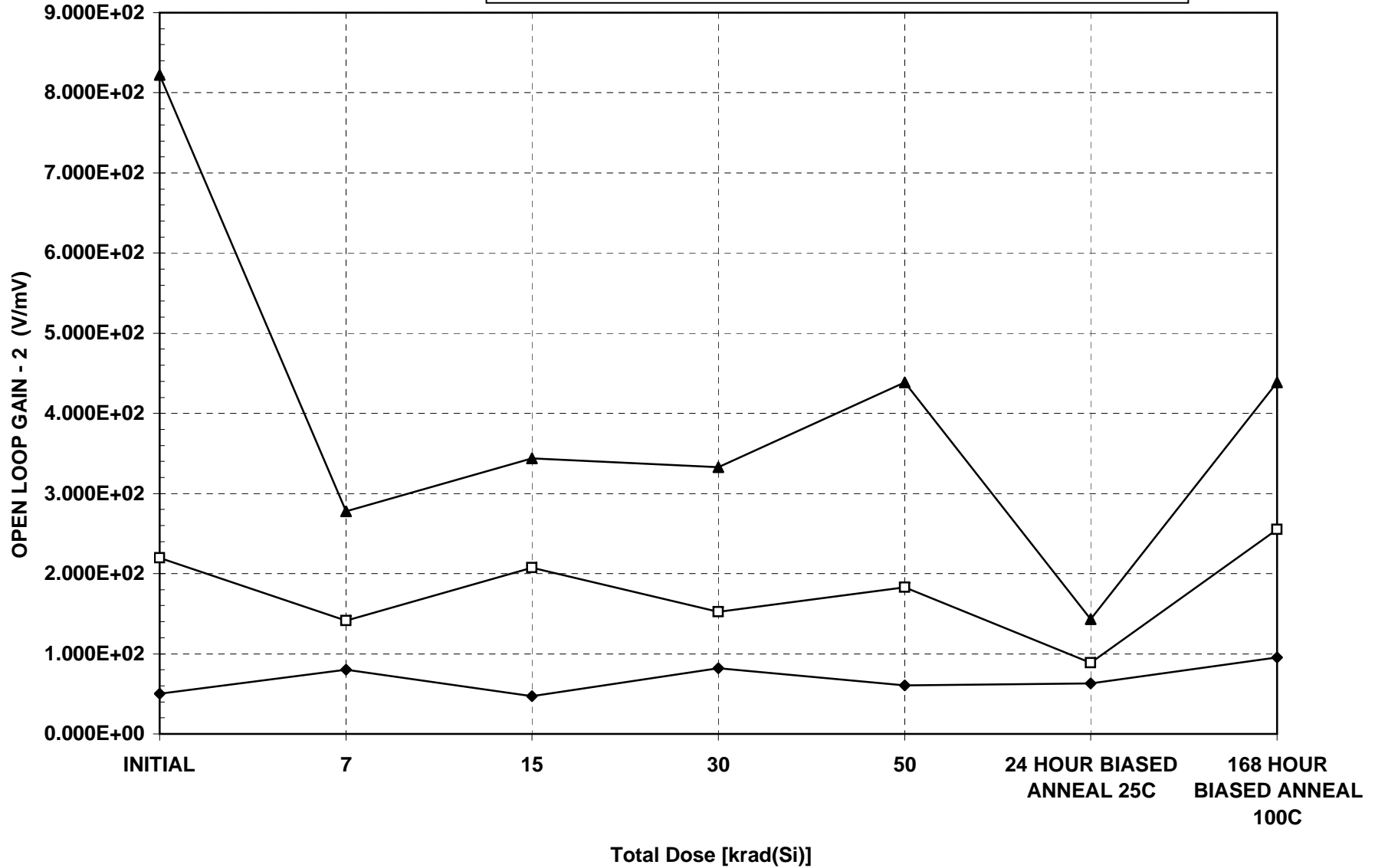
OPEN LOOP GAIN - 1 (V/mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

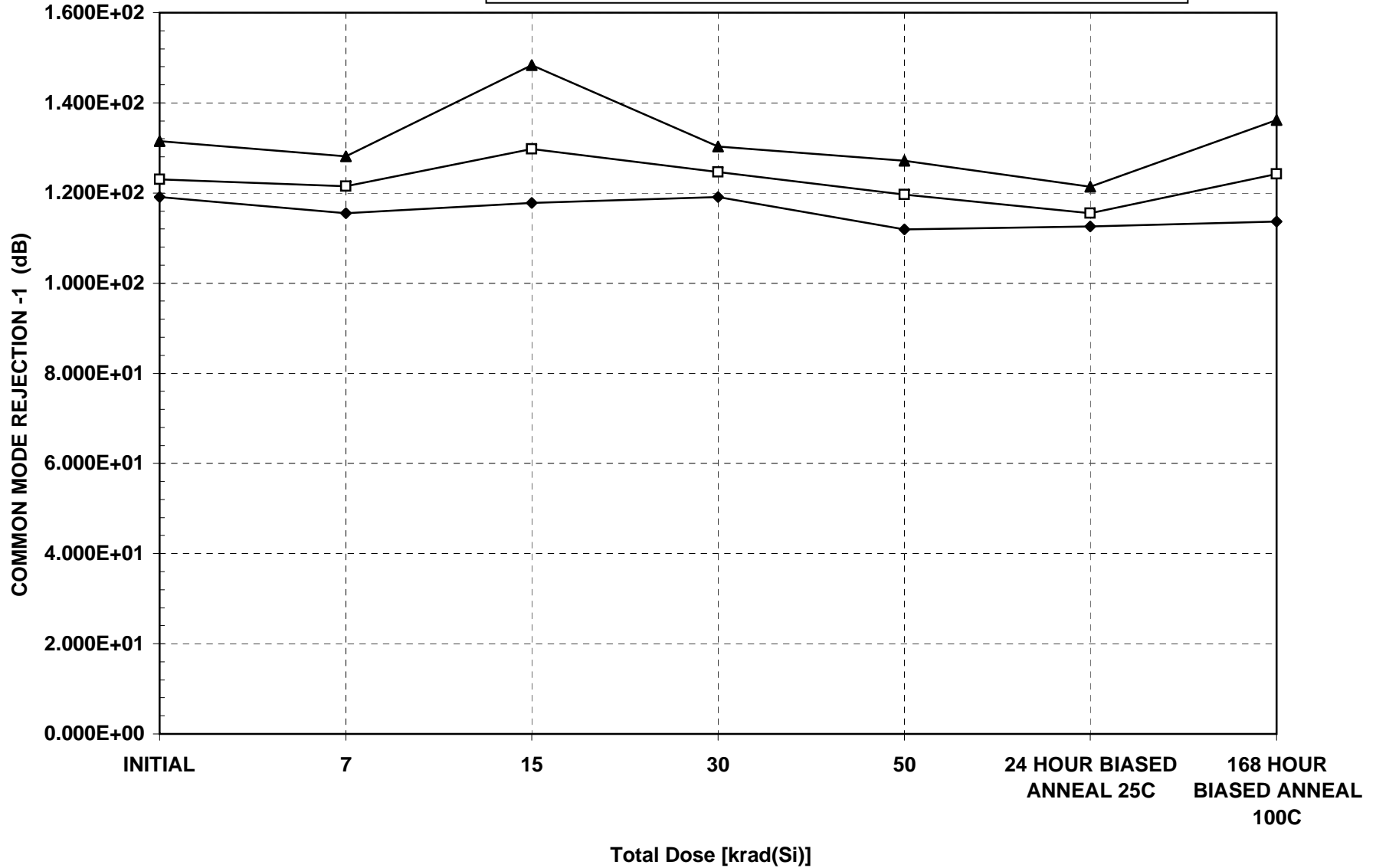
OPEN LOOP GAIN - 2 (V/mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

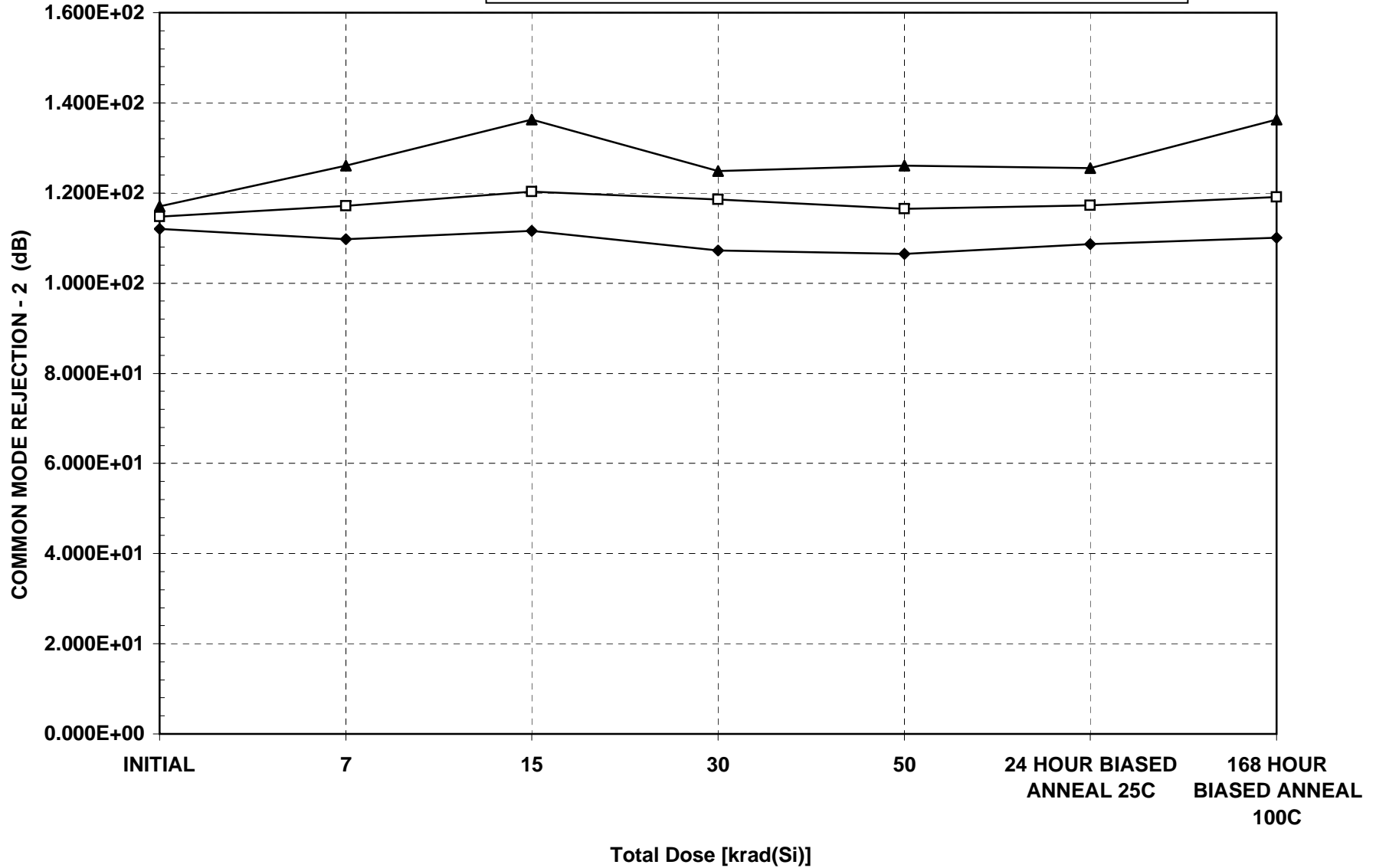
COMMON MODE REJECTION -1 (dB)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

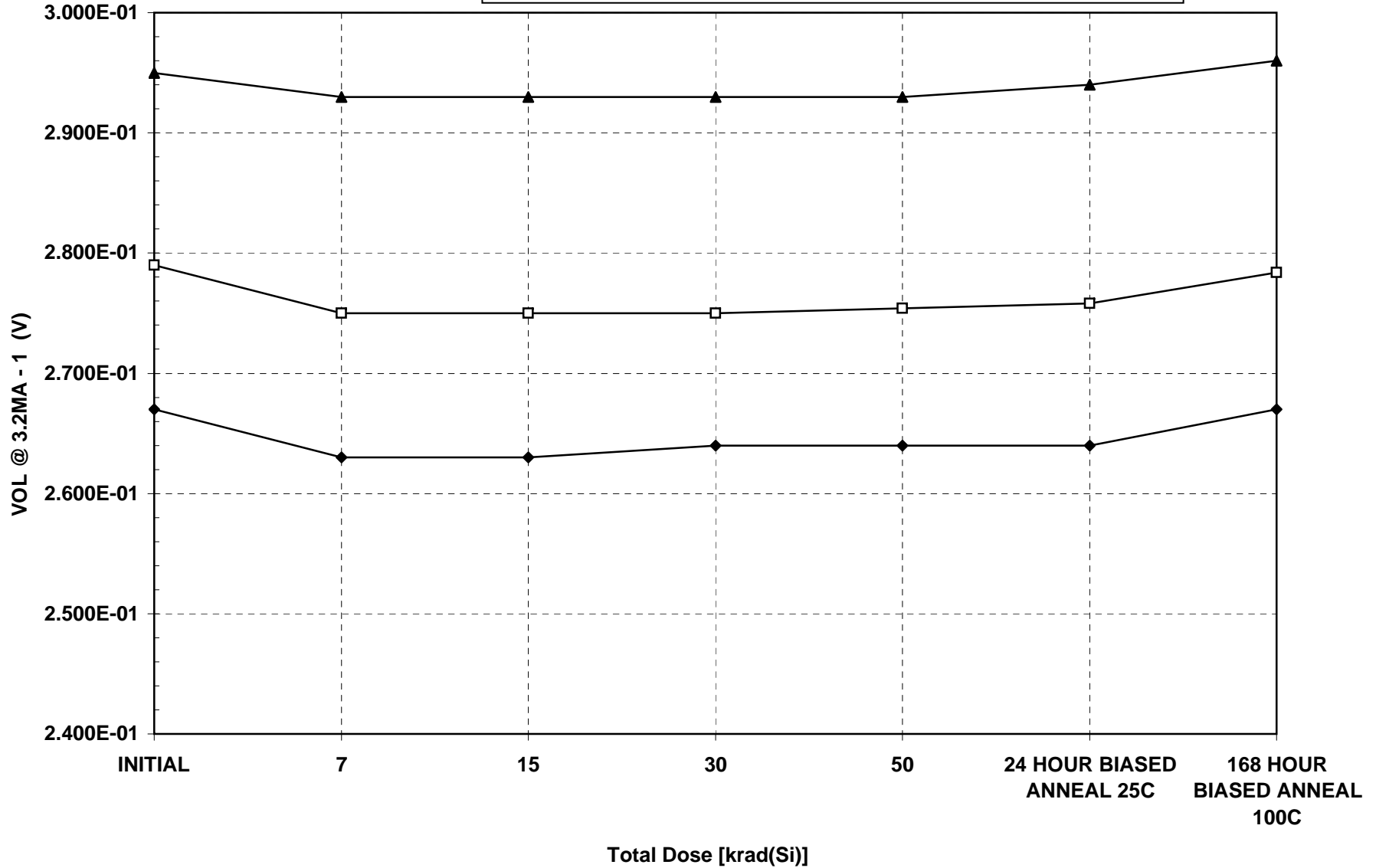
COMMON MODE REJECTION - 2 (dB)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
IC S Radiation Test Results Log # 1571 4/26/07

VOL @ 3.2MA - 1 (V)

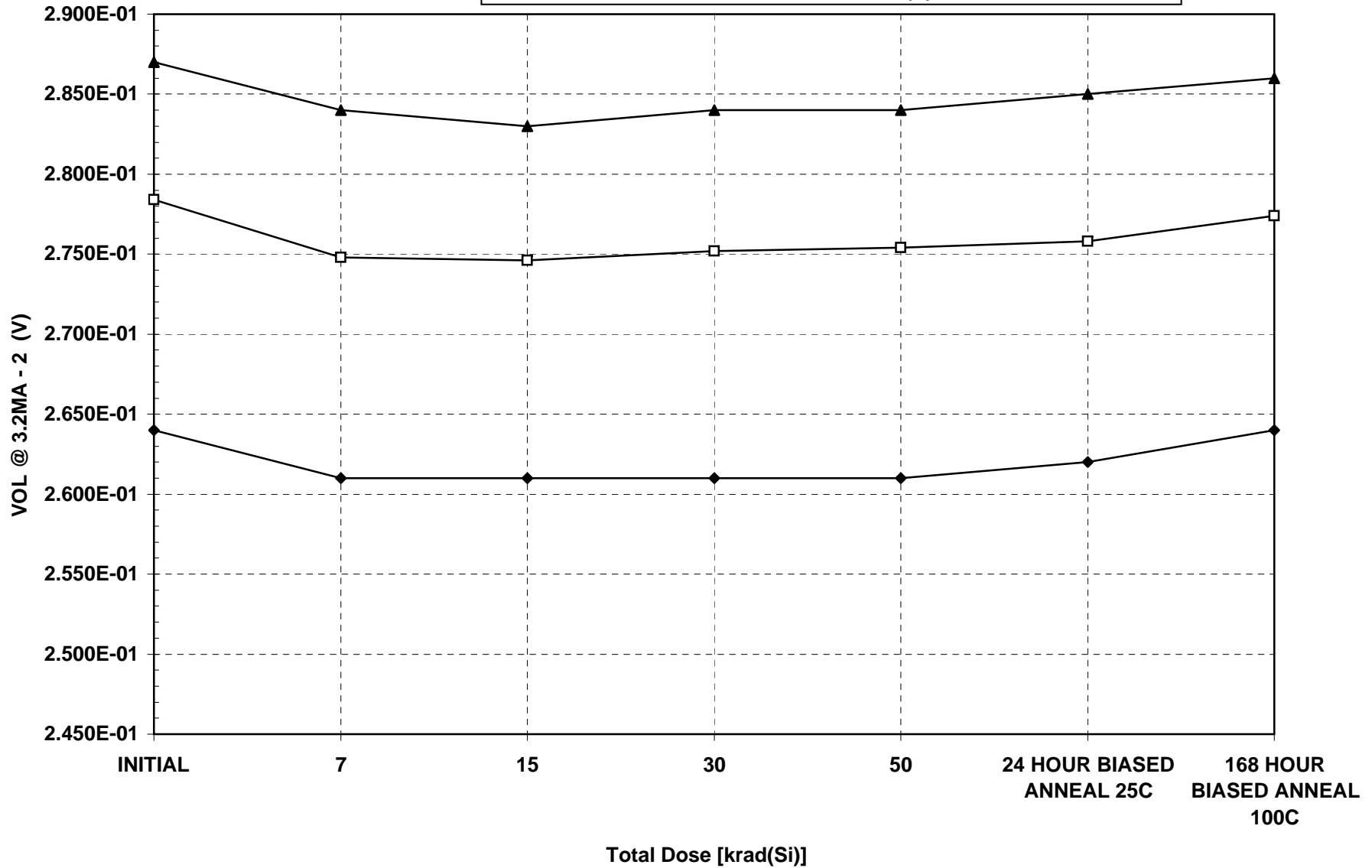


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

I C S Radiation Test Results Log # 1571 4/26/07

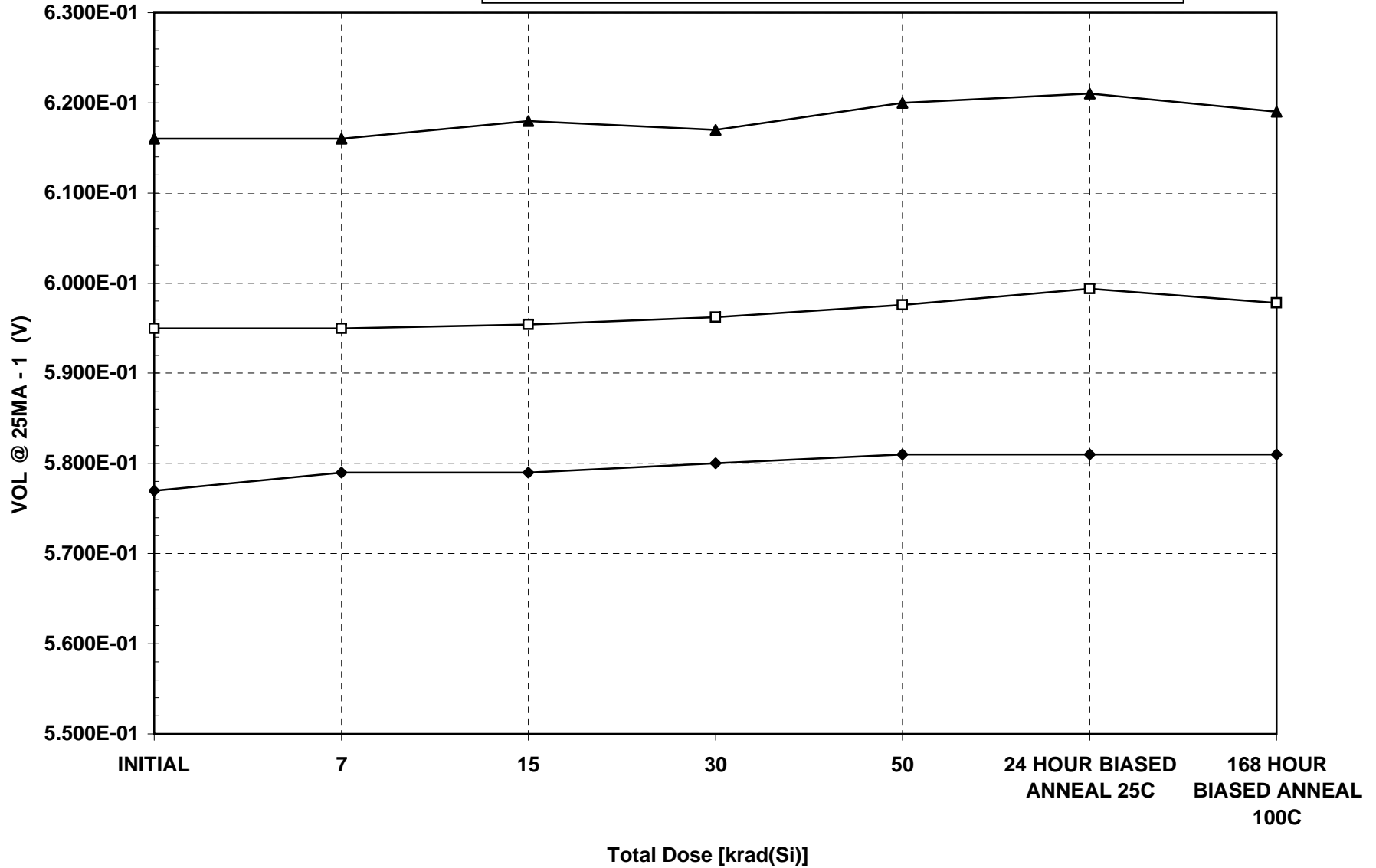
VOL @ 3.2MA - 2 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

VOL @ 25MA - 1 (V)

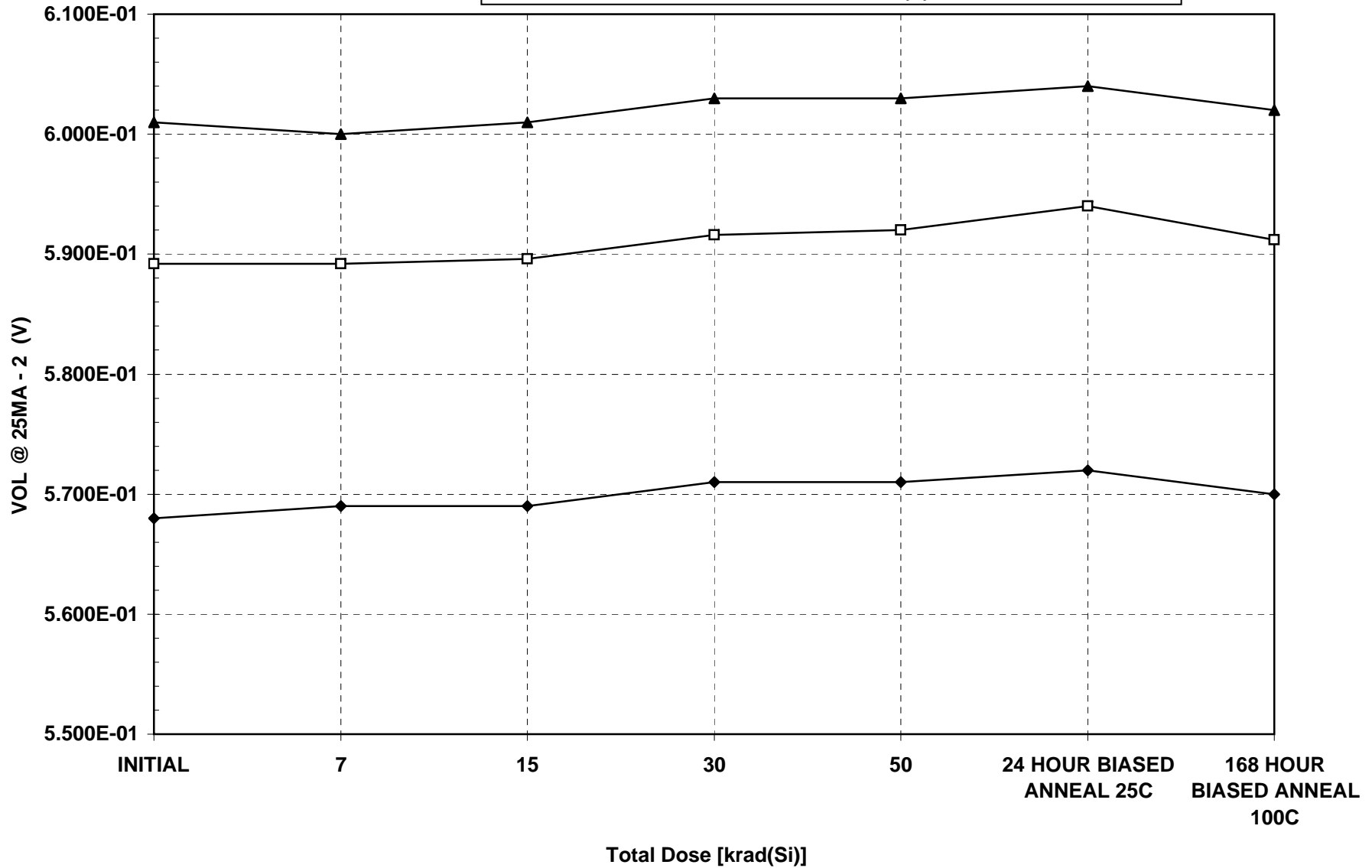


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

IC S Radiation Test Results Log # 1571 4/26/07

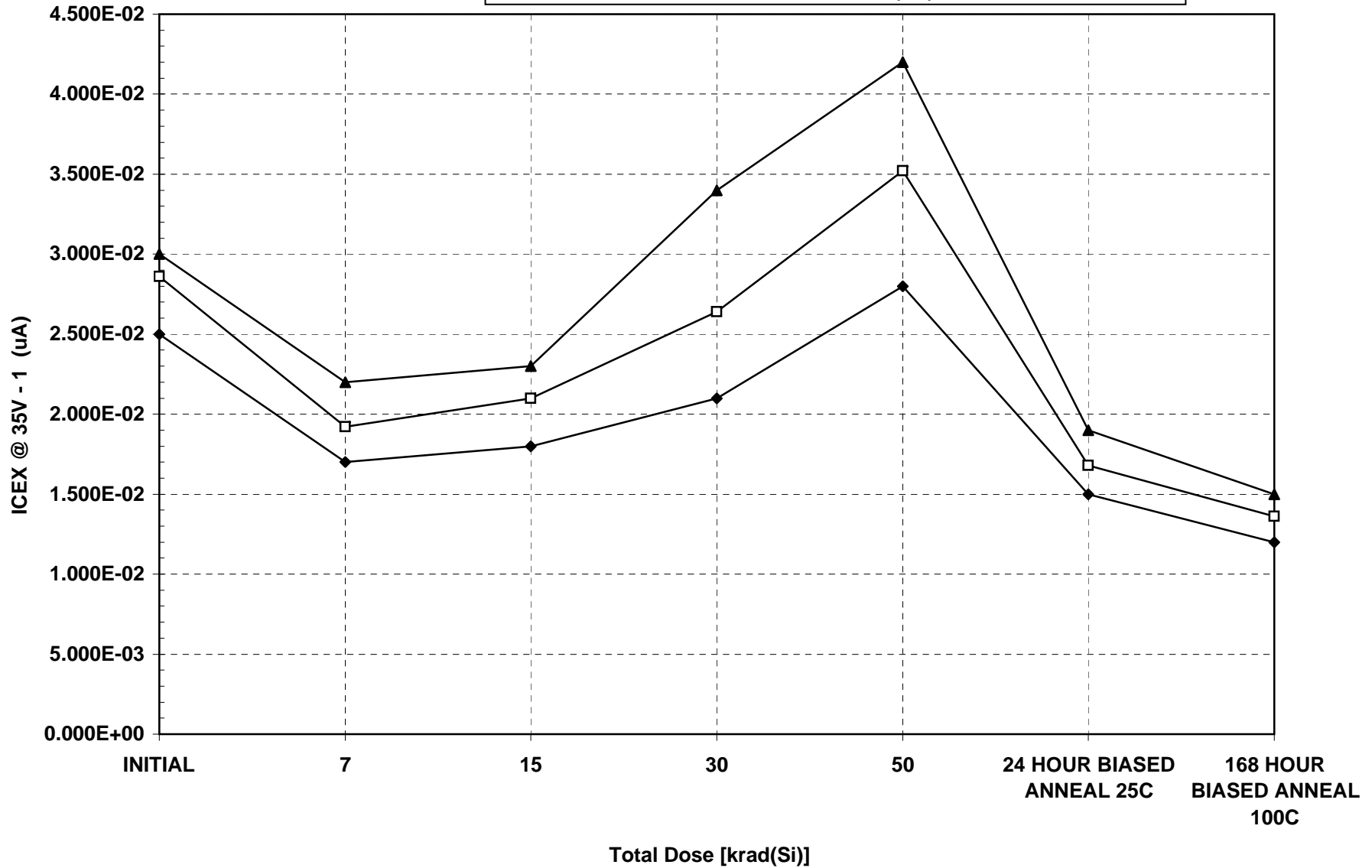
VOL @ 25MA - 2 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

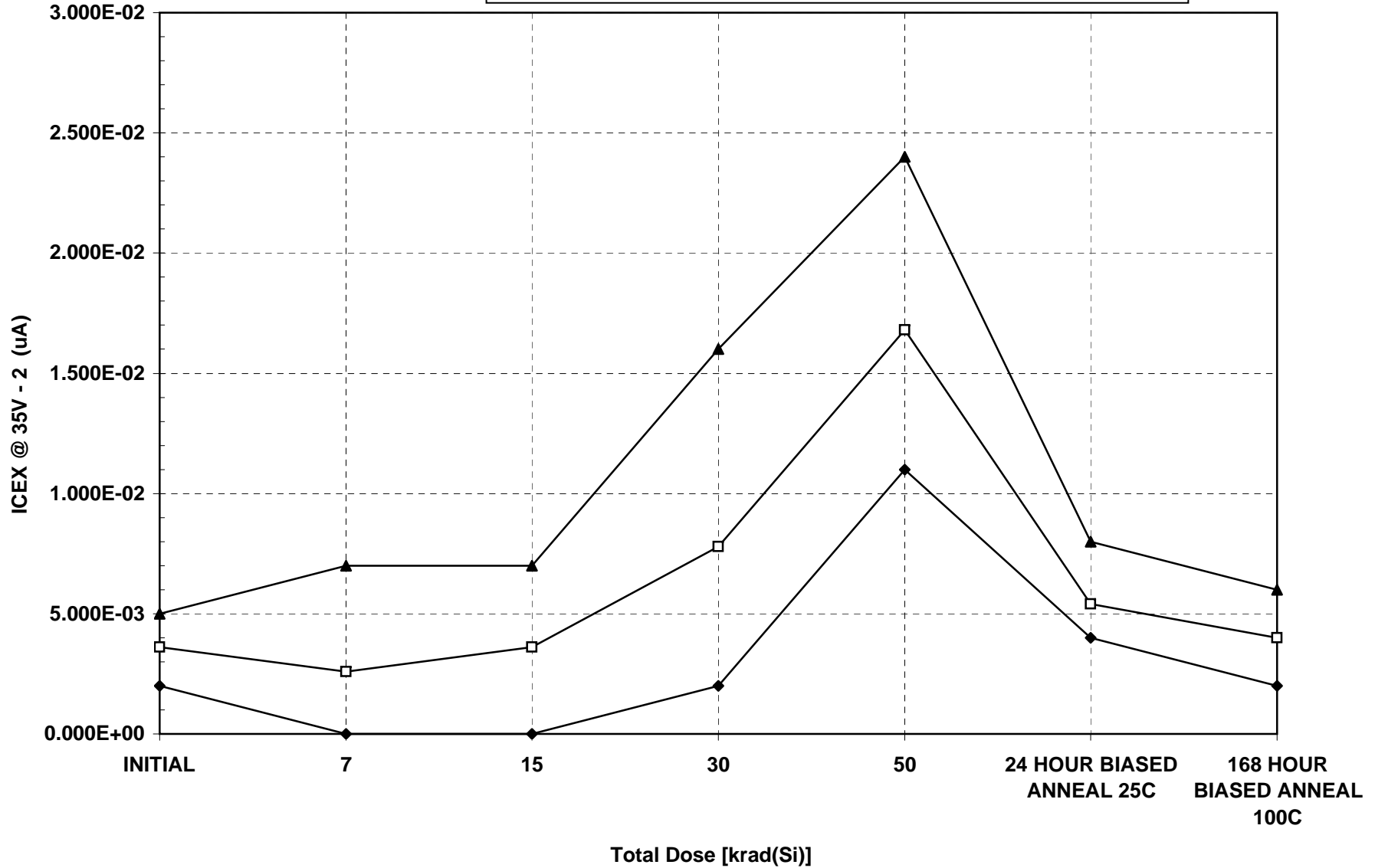
ICEX @ 35V - 1 (uA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1571 4/26/07

ICEX @ 35V - 2 (uA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

ICS Radiation Test Results

RH119MW
Dual Comparator
Linear Technology Corporation

P.O. # 46027L

TID - All Leads to Ground

.....

.		.
.	DEVICE TYPE: RH119MW Dual Comparator (LTC)	.
.	RADIATION SOURCE: SHEPHERD 484(Co60), 1.25MeV	.
.	D/C 0637A PACKAGE 10-Pin F/P(W) LOT# 40178.2	.
.	LOG# 1572 TEST DATE 04/26/07 RTP# 686	.
.	PO# 46027L	.
.	Test Conductor: AJ Kenna	.
.	Test Administrator: Michael K. Gauthier	.

.....

ICS RADIATION TECHNOLOGIES, INC.
8416 Florence Ave, Suite 207
Downey, CA 90240-3949

TEL: 800-297-8688
TEL: 562-923-1837
FAX: 562-923-3609
INTERNET e-mail: support@icsrad.com
www.icsrad.com

RADIATION TEST PROCEDURE

No. 686

Device Type: RH119 Dual Comparator
Manufacturer: LTC
Lot No: **Wafer#** **Date Code:**
Package Type: H (10-pin TO-5 Can), J (10-pin DIP), W (10-pin Flat Pack)
No. of Devices Supplied: 11
No. of Devices to be tested: Bias Condition #1, 5 Devices
 Bias Condition #2, 5 Devices
 Control, 1 Device

=====

RADIATION CONDITIONS: **MIL STD 883E, Test Method 1019.6**

Facility: Shepherd 484, Co60 **Energy:** 1.25 MeV

Total Dose krad(Si)	7	15	30	50	Biased Anneal 24 hr @ 25°C	Biased Anneal 168 hr @ 100°C
------------------------	---	----	----	----	-------------------------------	---------------------------------

Dose Rate rad(Si)/s	50
------------------------	----

BIAS CONDITIONS DURING IRRADIATION:

“ON” BIAS CONDITION # 1

Pin #	Name
1	Out 1
2	Gnd 1
3	+IN 1
4	- IN 1
5	VS-
6	Out 2
7	Gnd 2
8	+ IN 2
9	- IN 2
10	VS+

See Figure 1, Page 2.

“OFF” BIAS CONDITION # 2 All pins to GROUND.

March 21, 2007

RADIATION TEST PROCEDURE

No. 686

Figure 1 – TOTAL DOSE BIAS CONDITIONS, RH119

RADIATION TEST PROCEDURE

Device Type: RH119 DUAL COMPARATOR

Electrical Parameter Measurement Conditions:

TEST CONDITIONS: $V_S = \pm 15V$.

Electrical Parametric Measurement Conditions **

TEST	TEST NAME	TEST CONDITIONS	Limits Exposure Levels rad(Si)				Units
			20k	50k	100k	200k	
1	+ SUPPLY CURRENT	$V_{+}=5V, V_{-}=0V$	Record	Record	Record	Record	mA
2	+ SUPPLY CURRENT	$V_S=\pm 15V$	11.5	11.5	11.5	11.5	mA Max
3	- SUPPLY CURRENT		4.5	4.5	4.5	4.5	mA Max
4	OFFSET VOLTAGE – 1		4.0	4.0	4.0	8.0	mV \pm Max
5	OFFSET VOLTAGE – 2		4.0	4.0	4.0	8.0	mV \pm Max
6	OFFSET CURRENT – 1		100	150	300	500	nA \pm Max
7	OFFSET CURRENT – 2		100	150	300	500	nA \pm Max
8	+ BIAS CURRENT – 1		750	1000	1500	2000	nA Max
9	+ BIAS CURRENT – 2		750	1000	1500	2000	nA Max
10	- BIAS CURRENT – 1		750	1000	1500	2000	nA Max
11	- BIAS CURRENT – 2		750	1000	1500	2000	nA Max
12	OPEN LOOP GAIN – 1		10	10	10	5	V/mV Min
13	OPEN LOOP GAIN – 2		10	10	10	5	V/mV Min
14	COMMON MODE REJECTION – 1		90	90	90	90	dB Min
15	COMMON MODE REJECTION – 2		90	90	90	90	dB Min
16	VOL @ 3.2MA – 1		0.4	0.4	0.4	0.4	V Max
17	VOL @ 3.2MA – 2		0.4	0.4	0.4	0.4	V Max
18	VOL @ 25MA – 1		1.5	1.5	1.5	1.5	V Max
19	VOL @ 25MA – 2		1.5	1.5	1.5	1.5	V Max
20	ICEX @ 35V – 1		2.0	2.0	2.0	2.0	μ A
21	ICEX @ 35V – 2		2.0	2.0	2.0	2.0	μ A

***Measurements shall be made at room ambient temperature.**

****Tests conducted using an Analog Devices LTS2020 Component Test System, with the LTS2100 OP AMP Family Board, LTS-0608 Comparator Socket Assembly, LTS0325/LM119J/H [J (10-pin DIP) H (10-pin TO-5 Can)] Test Card. W (10-pin Flat Pack) use 14-pin F/P to DIP adaptor.**

Software: BGSS – 960626B, Rev. 1.10. “LM119JH.SRC”

Data Processing use King Program: P99/90 Ktl =4.666 for 5 devices

Return samples to customer.

I C S Radiation Test Results
RH119MW DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT		(MA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.58E+00	2.51E+00	2.50E+00	2.51E+00	2.50E+00	2.51E+00	2.50E+00
	192	2.54E+00	2.50E+00	2.50E+00	2.52E+00	2.52E+00	2.52E+00	2.52E+00
	194	2.58E+00	2.54E+00	2.54E+00	2.54E+00	2.55E+00	2.55E+00	2.55E+00
	195	2.59E+00	2.52E+00	2.52E+00	2.54E+00	2.52E+00	2.53E+00	2.55E+00
	196	2.63E+00	2.55E+00	2.56E+00	2.55E+00	2.57E+00	2.57E+00	2.58E+00
	197	2.59E+00	2.54E+00	2.51E+00	2.54E+00	2.56E+00	2.56E+00	2.56E+00
	MINIMUM	2.540E+00	2.500E+00	2.500E+00	2.520E+00	2.520E+00	2.520E+00	2.520E+00
	MEAN	2.586E+00	2.530E+00	2.526E+00	2.538E+00	2.544E+00	2.546E+00	2.552E+00
	MAXIMUM	2.630E+00	2.550E+00	2.560E+00	2.550E+00	2.570E+00	2.570E+00	2.580E+00
	+P 99/90	2.736E+00	2.623E+00	2.638E+00	2.589E+00	2.651E+00	2.643E+00	2.653E+00
	-P 99/90	2.436E+00	2.437E+00	2.414E+00	2.487E+00	2.437E+00	2.449E+00	2.451E+00
	SIGMA	3.209E-02	2.000E-02	2.408E-02	1.095E-02	2.302E-02	2.074E-02	2.168E-02

+ SUPPLY CURRENT		(MA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	5.00E+00	1.00E+01	1.50E+01	2.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-7.00E-02	-8.00E-02	-7.00E-02	-8.00E-02	-7.00E-02	-8.00E-02
	192		-4.00E-02	-4.00E-02	-2.00E-02	-2.00E-02	-2.00E-02	-2.00E-02
	194		-4.00E-02	-4.00E-02	-4.00E-02	-3.00E-02	-3.00E-02	-3.00E-02
	195		-7.00E-02	-7.00E-02	-5.00E-02	-7.00E-02	-6.00E-02	-4.00E-02
	196		-8.00E-02	-7.00E-02	-8.00E-02	-6.00E-02	-6.00E-02	-5.00E-02
	197		-5.00E-02	-8.00E-02	-5.00E-02	-3.00E-02	-3.00E-02	-3.00E-02
	MINIMUM		-8.000E-02	-8.000E-02	-8.000E-02	-7.000E-02	-6.000E-02	-5.000E-02
	MEAN		-5.600E-02	-6.000E-02	-4.800E-02	-4.200E-02	-4.000E-02	-3.400E-02
	MAXIMUM		-4.000E-02	-4.000E-02	-2.000E-02	-2.000E-02	-2.000E-02	-2.000E-02
	+P 99/90		2.876E-02	2.729E-02	5.316E-02	5.916E-02	4.729E-02	1.920E-02
	-P 99/90		-1.408E-01	-1.473E-01	-1.492E-01	-1.432E-01	-1.273E-01	-8.720E-02
	SIGMA		1.817E-02	1.871E-02	2.168E-02	2.168E-02	1.871E-02	1.140E-02

DEVICE TYPE: RH119MW DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT		(MA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	7.59E+00	7.50E+00	7.51E+00	7.51E+00	7.50E+00	7.49E+00	7.50E+00
	192	7.50E+00	7.46E+00	7.46E+00	7.47E+00	7.46E+00	7.46E+00	7.46E+00
	194	7.66E+00	7.62E+00	7.63E+00	7.62E+00	7.63E+00	7.63E+00	7.64E+00
	195	7.60E+00	7.54E+00	7.54E+00	7.54E+00	7.53E+00	7.54E+00	7.55E+00
	196	7.74E+00	7.67E+00	7.67E+00	7.66E+00	7.67E+00	7.68E+00	7.69E+00
	197	7.66E+00	7.61E+00	7.58E+00	7.60E+00	7.62E+00	7.62E+00	7.63E+00
	MINIMUM	7.500E+00	7.460E+00	7.460E+00	7.470E+00	7.460E+00	7.460E+00	7.460E+00
	MEAN	7.632E+00	7.580E+00	7.576E+00	7.578E+00	7.582E+00	7.586E+00	7.594E+00
	MAXIMUM	7.740E+00	7.670E+00	7.670E+00	7.660E+00	7.670E+00	7.680E+00	7.690E+00
	+P 99/90	8.047E+00	7.961E+00	7.956E+00	7.925E+00	7.980E+00	7.990E+00	8.015E+00
	-P 99/90	7.217E+00	7.199E+00	7.196E+00	7.231E+00	7.184E+00	7.182E+00	7.173E+00
	SIGMA	8.899E-02	8.155E-02	8.142E-02	7.430E-02	8.526E-02	8.649E-02	9.017E-02

+ SUPPLY CURRENT		(MA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-9.00E-02	-8.00E-02	-8.00E-02	-9.00E-02	-1.00E-01	-9.00E-02
	192		-4.00E-02	-4.00E-02	-3.00E-02	-4.00E-02	-4.00E-02	-4.00E-02
	194		-4.00E-02	-3.00E-02	-4.00E-02	-3.00E-02	-3.00E-02	-2.00E-02
	195		-6.00E-02	-6.00E-02	-6.00E-02	-7.00E-02	-6.00E-02	-5.00E-02
	196		-7.00E-02	-7.00E-02	-8.00E-02	-7.00E-02	-6.00E-02	-5.00E-02
	197		-5.00E-02	-8.00E-02	-6.00E-02	-4.00E-02	-4.00E-02	-3.00E-02
	MINIMUM		-7.000E-02	-8.000E-02	-8.000E-02	-7.000E-02	-6.000E-02	-5.000E-02
	MEAN		-5.200E-02	-5.600E-02	-5.400E-02	-5.000E-02	-4.600E-02	-3.800E-02
	MAXIMUM		-4.000E-02	-3.000E-02	-3.000E-02	-3.000E-02	-3.000E-02	-2.000E-02
	+P 99/90		8.837E-03	4.076E-02	3.696E-02	3.729E-02	1.660E-02	2.284E-02
	-P 99/90		-1.128E-01	-1.528E-01	-1.450E-01	-1.373E-01	-1.086E-01	-9.884E-02
	SIGMA		1.304E-02	2.074E-02	1.949E-02	1.871E-02	1.342E-02	1.304E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT		(MA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	-3.24E+00	-3.24E+00	-3.24E+00	-3.24E+00	-3.24E+00	-3.24E+00	-3.24E+00
	192	-3.26E+00	-3.26E+00	-3.25E+00	-3.26E+00	-3.25E+00	-3.25E+00	-3.25E+00
	194	-3.35E+00	-3.35E+00	-3.36E+00	-3.36E+00	-3.36E+00	-3.36E+00	-3.36E+00
	195	-3.28E+00	-3.28E+00	-3.29E+00	-3.29E+00	-3.28E+00	-3.28E+00	-3.28E+00
	196	-3.34E+00	-3.34E+00	-3.34E+00	-3.34E+00	-3.34E+00	-3.34E+00	-3.34E+00
	197	-3.28E+00	-3.28E+00	-3.27E+00	-3.28E+00	-3.28E+00	-3.28E+00	-3.28E+00
	MINIMUM	-3.350E+00	-3.350E+00	-3.360E+00	-3.360E+00	-3.360E+00	-3.360E+00	-3.360E+00
	MEAN	-3.302E+00	-3.302E+00	-3.302E+00	-3.306E+00	-3.302E+00	-3.302E+00	-3.302E+00
	MAXIMUM	-3.260E+00	-3.260E+00	-3.250E+00	-3.260E+00	-3.250E+00	-3.250E+00	-3.250E+00
	+P 99/90	-3.114E+00	-3.114E+00	-3.085E+00	-3.109E+00	-3.087E+00	-3.087E+00	-3.087E+00
	-P 99/90	-3.490E+00	-3.490E+00	-3.519E+00	-3.503E+00	-3.517E+00	-3.517E+00	-3.517E+00
	SIGMA	4.025E-02	4.025E-02	4.658E-02	4.219E-02	4.604E-02	4.604E-02	4.604E-02

+ SUPPLY CURRENT		(MA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	192		0.00E+00	1.00E-02	0.00E+00	1.00E-02	1.00E-02	1.00E-02
	194		0.00E+00	-1.00E-02	-1.00E-02	-1.00E-02	-1.00E-02	-1.00E-02
	195		0.00E+00	-1.00E-02	-1.00E-02	0.00E+00	0.00E+00	0.00E+00
	196		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	197		0.00E+00	1.00E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	MINIMUM		0.000E+00	-1.000E-02	-1.000E-02	-1.000E-02	-1.000E-02	-1.000E-02
	MEAN		0.000E+00	-8.882E-17	-4.000E-03	0.000E+00	0.000E+00	0.000E+00
	MAXIMUM		0.000E+00	1.000E-02	0.000E+00	1.000E-02	1.000E-02	1.000E-02
	+P 99/90		0.000E+00	4.666E-02	2.156E-02	3.299E-02	3.299E-02	3.299E-02
	-P 99/90		0.000E+00	-4.666E-02	-2.956E-02	-3.299E-02	-3.299E-02	-3.299E-02
	SIGMA		0.000E+00	1.000E-02	5.477E-03	7.071E-03	7.071E-03	7.071E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET VOLTAGE - 1		(MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	4.10E-01	4.30E-01	4.10E-01	4.40E-01	4.20E-01	4.20E-01	4.00E-01
	192	2.10E-01	2.60E-01	2.50E-01	2.40E-01	2.40E-01	2.40E-01	2.40E-01
	194	5.20E-01	5.20E-01	5.30E-01	5.30E-01	5.00E-01	5.00E-01	5.00E-01
	195	2.90E-01	3.00E-01	2.90E-01	3.00E-01	3.00E-01	3.00E-01	2.90E-01
	196	3.60E-01	3.80E-01	3.70E-01	3.60E-01	3.50E-01	3.30E-01	3.60E-01
	197	3.80E-01	2.90E-01	3.70E-01	3.70E-01	3.60E-01	3.58E-01	3.40E-01
	MINIMUM	2.100E-01	2.600E-01	2.500E-01	2.400E-01	2.400E-01	2.400E-01	2.400E-01
	MEAN	3.520E-01	3.500E-01	3.620E-01	3.600E-01	3.500E-01	3.456E-01	3.460E-01
	MAXIMUM	5.200E-01	5.200E-01	5.300E-01	5.300E-01	5.000E-01	5.000E-01	5.000E-01
	+P 99/90	8.895E-01	8.394E-01	8.628E-01	8.658E-01	8.000E-01	7.972E-01	8.027E-01
	-P 99/90	-1.855E-01	-1.394E-01	-1.388E-01	-1.458E-01	-9.997E-02	-1.060E-01	-1.107E-01
	SIGMA	1.152E-01	1.049E-01	1.073E-01	1.084E-01	9.644E-02	9.678E-02	9.788E-02

OFFSET VOLTAGE - 1		(MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.00E-02	0.00E+00	3.00E-02	1.00E-02	1.00E-02	-1.00E-02
	192		5.00E-02	4.00E-02	3.00E-02	3.00E-02	3.00E-02	3.00E-02
	194		0.00E+00	1.00E-02	1.00E-02	-2.00E-02	-2.00E-02	-2.00E-02
	195		1.00E-02	0.00E+00	1.00E-02	1.00E-02	1.00E-02	0.00E+00
	196		2.00E-02	1.00E-02	0.00E+00	-1.00E-02	-3.00E-02	0.00E+00
	197		-9.00E-02	-1.00E-02	-1.00E-02	-2.00E-02	-2.20E-02	-4.00E-02
	MINIMUM		-9.000E-02	-1.000E-02	-1.000E-02	-2.000E-02	-3.000E-02	-4.000E-02
	MEAN		-2.000E-03	1.000E-02	8.000E-03	-2.000E-03	-6.400E-03	-6.000E-03
	MAXIMUM		5.000E-02	4.000E-02	3.000E-02	3.000E-02	3.000E-02	3.000E-02
	+P 99/90		2.436E-01	9.729E-02	7.721E-02	9.916E-02	1.121E-01	1.157E-01
	-P 99/90		-2.476E-01	-7.729E-02	-6.121E-02	-1.032E-01	-1.249E-01	-1.277E-01
	SIGMA		5.263E-02	1.871E-02	1.483E-02	2.168E-02	2.539E-02	2.608E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET VOLTAGE - 2		(MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	4.80E-01	4.70E-01	4.80E-01	4.70E-01	4.70E-01	4.65E-01	4.50E-01
	192	3.90E-01	3.80E-01	3.60E-01	3.90E-01	3.60E-01	3.65E-01	3.70E-01
	194	6.20E-01	5.90E-01	5.70E-01	5.90E-01	5.80E-01	5.80E-01	5.80E-01
	195	4.50E-01	4.40E-01	4.40E-01	4.20E-01	4.20E-01	4.30E-01	4.50E-01
	196	4.30E-01	4.10E-01	4.10E-01	4.00E-01	4.20E-01	4.15E-01	4.00E-01
	197	5.00E-01	4.90E-01	4.80E-01	4.90E-01	4.70E-01	4.65E-01	4.50E-01
	MINIMUM	3.900E-01	3.800E-01	3.600E-01	3.900E-01	3.600E-01	3.650E-01	3.700E-01
	MEAN	4.780E-01	4.620E-01	4.520E-01	4.580E-01	4.500E-01	4.510E-01	4.500E-01
	MAXIMUM	6.200E-01	5.900E-01	5.700E-01	5.900E-01	5.800E-01	5.800E-01	5.800E-01
	+P 99/90	8.919E-01	8.459E-01	8.215E-01	8.475E-01	8.348E-01	8.270E-01	8.247E-01
	-P 99/90	6.407E-02	7.808E-02	8.253E-02	6.845E-02	6.523E-02	7.503E-02	7.526E-02
	SIGMA	8.871E-02	8.228E-02	7.918E-02	8.349E-02	8.246E-02	8.058E-02	8.031E-02

OFFSET VOLTAGE - 2		(MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		-1.00E-02	0.00E+00	-1.00E-02	-1.00E-02	-1.50E-02	-3.00E-02
	192		-1.00E-02	-3.00E-02	0.00E+00	-3.00E-02	-2.50E-02	-2.00E-02
	194		-3.00E-02	-5.00E-02	-3.00E-02	-4.00E-02	-4.00E-02	-4.00E-02
	195		-1.00E-02	-1.00E-02	-3.00E-02	-3.00E-02	-2.00E-02	0.00E+00
	196		-2.00E-02	-2.00E-02	-3.00E-02	-1.00E-02	-1.50E-02	-3.00E-02
	197		-1.00E-02	-2.00E-02	-1.00E-02	-3.00E-02	-3.50E-02	-5.00E-02
	MINIMUM		-3.000E-02	-5.000E-02	-3.000E-02	-4.000E-02	-4.000E-02	-5.000E-02
	MEAN		-1.600E-02	-2.600E-02	-2.000E-02	-2.800E-02	-2.700E-02	-2.800E-02
	MAXIMUM		-1.000E-02	-1.000E-02	0.000E+00	-1.000E-02	-1.500E-02	0.000E+00
	+P 99/90		2.573E-02	4.476E-02	4.599E-02	2.311E-02	2.138E-02	6.175E-02
	-P 99/90		-5.773E-02	-9.676E-02	-8.599E-02	-7.911E-02	-7.538E-02	-1.178E-01
	SIGMA		8.944E-03	1.517E-02	1.414E-02	1.095E-02	1.037E-02	1.924E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET CURRENT - 1

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	7.70E+00	2.12E+00	2.57E+00	2.93E+00	1.12E+00	1.21E+00	3.36E+00
	192	3.55E+00	1.14E+01	1.05E+01	1.11E+01	8.51E+00	7.95E+00	6.53E+00
	194	-3.80E-01	1.98E+00	4.60E-01	7.86E+00	1.00E+01	8.50E+00	-7.60E-01
	195	4.36E+00	1.00E+01	3.91E+00	1.37E+01	2.03E+01	1.33E+01	8.53E+00
	196	-8.58E+00	-3.69E+00	-2.00E+00	-5.00E-02	1.57E+00	1.48E+00	1.00E+00
	197	-1.39E+01	-2.31E+01	-1.30E+01	-6.79E+00	-1.19E+01	-1.26E+00	-1.67E+01
MINIMUM		-1.389E+01	-2.305E+01	-1.304E+01	-6.790E+00	-1.192E+01	-1.260E+00	-1.670E+01
MEAN		-2.988E+00	-6.800E-01	-4.200E-02	5.160E+00	5.690E+00	5.994E+00	-2.800E-01
MAXIMUM		4.360E+00	1.135E+01	1.046E+01	1.370E+01	2.025E+01	1.330E+01	8.530E+00
+P 99/90		3.417E+01	6.429E+01	4.030E+01	4.456E+01	6.119E+01	3.325E+01	4.612E+01
-P 99/90		-4.015E+01	-6.565E+01	-4.038E+01	-3.424E+01	-4.981E+01	-2.126E+01	-4.668E+01
SIGMA		7.963E+00	1.392E+01	8.645E+00	8.444E+00	1.189E+01	5.841E+00	9.943E+00

OFFSET CURRENT - 1

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-5.58E+00	-5.13E+00	-4.77E+00	-6.58E+00	-6.49E+00	-4.34E+00
	192		7.80E+00	6.91E+00	7.53E+00	4.96E+00	4.40E+00	2.98E+00
	194		2.36E+00	8.40E-01	8.24E+00	1.04E+01	8.88E+00	-3.80E-01
	195		5.65E+00	-4.50E-01	9.34E+00	1.59E+01	8.94E+00	4.17E+00
	196		4.89E+00	6.58E+00	8.53E+00	1.02E+01	1.01E+01	9.58E+00
	197		-9.16E+00	8.50E-01	7.10E+00	1.97E+00	1.26E+01	-2.81E+00
MINIMUM			-9.160E+00	-4.500E-01	7.100E+00	1.970E+00	4.400E+00	-2.810E+00
MEAN			2.308E+00	2.946E+00	8.148E+00	8.678E+00	8.982E+00	2.708E+00
MAXIMUM			7.800E+00	6.910E+00	9.340E+00	1.589E+01	1.263E+01	9.580E+00
+P 99/90			3.357E+01	1.932E+01	1.223E+01	3.381E+01	2.288E+01	2.477E+01
-P 99/90			-2.895E+01	-1.343E+01	4.070E+00	-1.645E+01	-4.914E+00	-1.935E+01
SIGMA			6.699E+00	3.510E+00	8.740E-01	5.386E+00	2.978E+00	4.728E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET CURRENT - 2

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	-3.77E+01	-4.14E+01	-3.52E+01	-3.52E+01	-3.72E+01	-4.07E+01	-4.19E+01
	192	-4.75E+01	-4.31E+01	-4.51E+01	-4.50E+01	-3.20E+01	-3.42E+01	-5.45E+01
	194	-5.68E+01	-5.74E+01	-5.61E+01	-6.17E+01	-6.93E+01	-6.83E+01	-6.10E+01
	195	-4.33E+01	-3.75E+01	-4.08E+01	-4.62E+01	-4.37E+01	-4.29E+01	-3.63E+01
	196	-4.20E+01	-4.28E+01	-4.08E+01	-5.23E+01	-5.60E+01	-5.55E+01	-5.33E+01
	197	-3.72E+01	-4.24E+01	-3.81E+01	-4.86E+01	-5.54E+01	-5.31E+01	-4.37E+01
MINIMUM		-5.683E+01	-5.736E+01	-5.614E+01	-6.169E+01	-6.929E+01	-6.830E+01	-6.101E+01
MEAN		-4.537E+01	-4.461E+01	-4.418E+01	-5.073E+01	-5.127E+01	-5.080E+01	-4.976E+01
MAXIMUM		-3.723E+01	-3.748E+01	-3.806E+01	-4.495E+01	-3.204E+01	-3.420E+01	-3.631E+01
+P 99/90		-1.089E+01	-9.691E+00	-1.082E+01	-1.933E+01	1.438E+01	9.660E+00	-4.342E+00
-P 99/90		-7.984E+01	-7.954E+01	-7.754E+01	-8.214E+01	-1.169E+02	-1.113E+02	-9.517E+01
SIGMA		7.389E+00	7.485E+00	7.150E+00	6.731E+00	1.407E+01	1.296E+01	9.733E+00

OFFSET CURRENT - 2

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.74E+00	2.51E+00	2.45E+00	5.10E-01	-3.02E+00	-4.17E+00
	192		4.48E+00	2.40E+00	2.59E+00	1.55E+01	1.33E+01	-6.95E+00
	194		-5.30E-01	6.90E-01	-4.86E+00	-1.25E+01	-1.15E+01	-4.18E+00
	195		5.80E+00	2.48E+00	-2.87E+00	-3.70E-01	3.80E-01	6.97E+00
	196		-8.30E-01	1.18E+00	-1.03E+01	-1.41E+01	-1.36E+01	-1.13E+01
	197		-5.16E+00	-8.30E-01	-1.14E+01	-1.81E+01	-1.59E+01	-6.47E+00
MINIMUM			-5.160E+00	-8.300E-01	-1.140E+01	-1.814E+01	-1.587E+01	-1.133E+01
MEAN			7.520E-01	1.184E+00	-5.368E+00	-5.906E+00	-5.434E+00	-4.392E+00
MAXIMUM			5.800E+00	2.480E+00	2.590E+00	1.550E+01	1.334E+01	6.970E+00
+P 99/90			2.142E+01	7.555E+00	2.129E+01	5.790E+01	5.159E+01	2.761E+01
-P 99/90			-1.992E+01	-5.187E+00	-3.202E+01	-6.971E+01	-6.246E+01	-3.639E+01
SIGMA			4.429E+00	1.366E+00	5.713E+00	1.367E+01	1.222E+01	6.858E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ BIAS CURRENT - 1

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.84E+02	2.83E+02	2.80E+02	2.88E+02	2.84E+02	2.84E+02	2.89E+02
	192	3.09E+02	3.32E+02	3.48E+02	3.81E+02	4.22E+02	4.11E+02	3.52E+02
	194	3.23E+02	3.38E+02	3.55E+02	3.91E+02	4.43E+02	4.22E+02	3.60E+02
	195	3.07E+02	3.25E+02	3.62E+02	3.89E+02	4.40E+02	4.20E+02	3.55E+02
	196	3.16E+02	3.35E+02	3.64E+02	4.01E+02	4.41E+02	4.22E+02	3.59E+02
	197	3.04E+02	3.32E+02	3.36E+02	3.79E+02	4.22E+02	4.10E+02	3.88E+02
MINIMUM		3.040E+02	3.245E+02	3.363E+02	3.790E+02	4.217E+02	4.100E+02	3.515E+02
MEAN		3.118E+02	3.323E+02	3.530E+02	3.882E+02	4.336E+02	4.170E+02	3.626E+02
MAXIMUM		3.232E+02	3.375E+02	3.637E+02	4.008E+02	4.434E+02	4.220E+02	3.880E+02
+P 99/90		3.480E+02	3.550E+02	4.058E+02	4.287E+02	4.829E+02	4.450E+02	4.305E+02
-P 99/90		2.757E+02	3.095E+02	3.002E+02	3.477E+02	3.843E+02	3.890E+02	2.947E+02
SIGMA		7.745E+00	4.867E+00	1.132E+01	8.676E+00	1.057E+01	6.000E+00	1.455E+01

+ BIAS CURRENT - 1

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-8.80E-01	-4.30E+00	3.81E+00	2.00E-01	-7.00E-02	4.95E+00
	192		2.27E+01	3.84E+01	7.19E+01	1.12E+02	1.02E+02	4.22E+01
	194		1.43E+01	3.18E+01	6.81E+01	1.20E+02	9.88E+01	3.66E+01
	195		1.77E+01	5.55E+01	8.18E+01	1.33E+02	1.13E+02	4.85E+01
	196		1.90E+01	4.77E+01	8.48E+01	1.25E+02	1.06E+02	4.26E+01
	197		2.83E+01	3.23E+01	7.51E+01	1.19E+02	1.06E+02	8.40E+01
MINIMUM			1.430E+01	3.177E+01	6.810E+01	1.124E+02	9.878E+01	3.661E+01
MEAN			2.041E+01	4.115E+01	7.634E+01	1.218E+02	1.052E+02	5.079E+01
MAXIMUM			2.832E+01	5.552E+01	8.484E+01	1.330E+02	1.132E+02	8.404E+01
+P 99/90			4.536E+01	8.916E+01	1.087E+02	1.574E+02	1.306E+02	1.397E+02
-P 99/90			-4.540E+00	-6.871E+00	4.403E+01	8.607E+01	7.972E+01	-3.813E+01
SIGMA			5.348E+00	1.029E+01	6.926E+00	7.648E+00	5.453E+00	1.906E+01

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ BIAS CURRENT - 2

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.96E+02	2.83E+02	2.82E+02	2.84E+02	2.82E+02	2.82E+02	2.84E+02
	192	3.24E+02	3.35E+02	3.77E+02	4.07E+02	4.52E+02	4.39E+02	3.59E+02
	194	3.08E+02	3.40E+02	3.66E+02	4.07E+02	4.40E+02	4.28E+02	3.54E+02
	195	3.20E+02	3.47E+02	3.70E+02	4.12E+02	4.55E+02	4.50E+02	3.75E+02
	196	3.14E+02	3.29E+02	3.67E+02	4.17E+02	4.54E+02	4.44E+02	3.56E+02
	197	3.05E+02	3.19E+02	3.58E+02	3.97E+02	4.51E+02	4.42E+02	3.57E+02
	MINIMUM	3.046E+02	3.193E+02	3.583E+02	3.974E+02	4.399E+02	4.280E+02	3.540E+02
	MEAN	3.141E+02	3.340E+02	3.674E+02	4.082E+02	4.504E+02	4.406E+02	3.603E+02
	MAXIMUM	3.240E+02	3.467E+02	3.765E+02	4.170E+02	4.553E+02	4.500E+02	3.749E+02
	+P 99/90	3.514E+02	3.827E+02	3.981E+02	4.423E+02	4.789E+02	4.784E+02	3.995E+02
	-P 99/90	2.768E+02	2.853E+02	3.367E+02	3.740E+02	4.220E+02	4.028E+02	3.211E+02
	SIGMA	7.998E+00	1.044E+01	6.581E+00	7.325E+00	6.100E+00	8.112E+00	8.396E+00

+ BIAS CURRENT - 2

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-1.28E+01	-1.40E+01	-1.20E+01	-1.36E+01	-1.35E+01	-1.20E+01
	192		1.10E+01	5.25E+01	8.29E+01	1.28E+02	1.15E+02	3.52E+01
	194		3.17E+01	5.75E+01	9.90E+01	1.32E+02	1.20E+02	4.59E+01
	195		2.71E+01	4.99E+01	9.28E+01	1.36E+02	1.30E+02	5.53E+01
	196		1.50E+01	5.28E+01	1.03E+02	1.39E+02	1.30E+02	4.22E+01
	197		1.47E+01	5.38E+01	9.29E+01	1.46E+02	1.37E+02	5.24E+01
	MINIMUM		1.104E+01	4.989E+01	8.293E+01	1.284E+02	1.150E+02	3.517E+01
	MEAN		1.992E+01	5.331E+01	9.407E+01	1.363E+02	1.265E+02	4.618E+01
	MAXIMUM		3.173E+01	5.750E+01	1.028E+02	1.464E+02	1.375E+02	5.529E+01
	+P 99/90		6.172E+01	6.615E+01	1.293E+02	1.689E+02	1.683E+02	8.374E+01
	-P 99/90		-2.188E+01	4.047E+01	5.888E+01	1.038E+02	8.474E+01	8.625E+00
	SIGMA		8.959E+00	2.752E+00	7.543E+00	6.971E+00	8.950E+00	8.049E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- BIAS CURRENT - 1

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.91E+02	2.87E+02	2.86E+02	2.89E+02	2.87E+02	2.87E+02	2.85E+02
	192	3.11E+02	3.35E+02	3.58E+02	3.92E+02	4.32E+02	4.30E+02	3.54E+02
	194	3.17E+02	3.36E+02	3.64E+02	4.04E+02	4.46E+02	4.41E+02	3.60E+02
	195	3.14E+02	3.37E+02	3.66E+02	4.10E+02	4.54E+02	4.50E+02	3.62E+02
	196	3.00E+02	3.26E+02	3.55E+02	3.95E+02	4.41E+02	4.33E+02	3.49E+02
	197	2.85E+02	3.02E+02	3.31E+02	3.73E+02	4.15E+02	4.10E+02	3.33E+02
MINIMUM		2.849E+02	3.022E+02	3.311E+02	3.732E+02	4.146E+02	4.100E+02	3.332E+02
MEAN		3.054E+02	3.270E+02	3.549E+02	3.948E+02	4.376E+02	4.328E+02	3.517E+02
MAXIMUM		3.174E+02	3.365E+02	3.658E+02	4.098E+02	4.539E+02	4.500E+02	3.619E+02
+P 99/90		3.669E+02	3.949E+02	4.201E+02	4.599E+02	5.083E+02	5.024E+02	4.055E+02
-P 99/90		2.439E+02	2.592E+02	2.898E+02	3.296E+02	3.669E+02	3.632E+02	2.980E+02
SIGMA		1.318E+01	1.454E+01	1.396E+01	1.396E+01	1.515E+01	1.492E+01	1.151E+01

- BIAS CURRENT - 1

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.98E+00	-5.18E+00	-2.35E+00	-4.82E+00	-4.38E+00	-6.40E+00
	192		2.40E+01	4.72E+01	8.13E+01	1.21E+02	1.19E+02	4.34E+01
	194		1.83E+01	4.65E+01	8.65E+01	1.29E+02	1.24E+02	4.27E+01
	195		2.29E+01	5.22E+01	9.61E+01	1.40E+02	1.36E+02	4.83E+01
	196		2.55E+01	5.54E+01	9.46E+01	1.41E+02	1.33E+02	4.88E+01
	197		1.74E+01	4.62E+01	8.83E+01	1.30E+02	1.25E+02	4.84E+01
MINIMUM			1.739E+01	4.622E+01	8.127E+01	1.209E+02	1.189E+02	4.265E+01
MEAN			2.160E+01	4.948E+01	8.936E+01	1.322E+02	1.274E+02	4.631E+01
MAXIMUM			2.548E+01	5.535E+01	9.612E+01	1.411E+02	1.364E+02	4.883E+01
+P 99/90			3.827E+01	6.852E+01	1.177E+02	1.717E+02	1.606E+02	6.045E+01
-P 99/90			4.923E+00	3.045E+01	6.102E+01	9.267E+01	9.417E+01	3.217E+01
SIGMA			3.573E+00	4.080E+00	6.074E+00	8.471E+00	7.116E+00	3.030E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- BIAS CURRENT - 2

(NA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.52E+02	2.58E+02	2.59E+02	2.58E+02	2.58E+02	2.52E+02	2.51E+02
	192	2.77E+02	3.07E+02	3.27E+02	3.67E+02	4.04E+02	3.99E+02	3.22E+02
	194	2.64E+02	2.89E+02	3.08E+02	3.50E+02	3.91E+02	3.81E+02	3.10E+02
	195	2.80E+02	3.07E+02	3.38E+02	3.80E+02	4.30E+02	4.19E+02	3.32E+02
	196	2.67E+02	2.93E+02	3.21E+02	3.64E+02	4.14E+02	4.01E+02	3.15E+02
	197	2.66E+02	2.93E+02	3.15E+02	3.58E+02	4.05E+02	3.87E+02	3.12E+02
	MINIMUM	2.637E+02	2.887E+02	3.083E+02	3.505E+02	3.913E+02	3.810E+02	3.100E+02
	MEAN	2.708E+02	2.976E+02	3.220E+02	3.640E+02	4.088E+02	3.974E+02	3.180E+02
	MAXIMUM	2.801E+02	3.070E+02	3.384E+02	3.801E+02	4.296E+02	4.190E+02	3.323E+02
	+P 99/90	3.051E+02	3.385E+02	3.762E+02	4.156E+02	4.753E+02	4.658E+02	3.606E+02
	-P 99/90	2.366E+02	2.567E+02	2.678E+02	3.123E+02	3.423E+02	3.290E+02	2.754E+02
	SIGMA	7.348E+00	8.758E+00	1.161E+01	1.106E+01	1.425E+01	1.466E+01	9.134E+00

- BIAS CURRENT - 2

(NA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		6.26E+00	6.70E+00	6.14E+00	6.33E+00	3.00E-02	-6.60E-01
	192		2.98E+01	5.01E+01	9.02E+01	1.27E+02	1.22E+02	4.43E+01
	194		2.49E+01	4.46E+01	8.67E+01	1.28E+02	1.17E+02	4.63E+01
	195		2.69E+01	5.83E+01	1.00E+02	1.50E+02	1.39E+02	5.22E+01
	196		2.54E+01	5.39E+01	9.63E+01	1.47E+02	1.34E+02	4.73E+01
	197		2.68E+01	4.88E+01	9.24E+01	1.39E+02	1.21E+02	4.58E+01
	MINIMUM		2.492E+01	4.461E+01	8.672E+01	1.269E+02	1.173E+02	4.433E+01
	MEAN		2.675E+01	5.113E+01	9.312E+01	1.380E+02	1.266E+02	4.718E+01
	MAXIMUM		2.979E+01	5.828E+01	1.000E+02	1.495E+02	1.389E+02	5.217E+01
	+P 99/90		3.566E+01	7.535E+01	1.174E+02	1.875E+02	1.696E+02	6.112E+01
	-P 99/90		1.785E+01	2.690E+01	6.886E+01	8.851E+01	8.349E+01	3.323E+01
	SIGMA		1.909E+00	5.192E+00	5.199E+00	1.060E+01	9.231E+00	2.989E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OPEN LOOP GAIN - 1		(V/MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	3.95E+01	4.26E+01	4.64E+01	4.08E+01	5.49E+01	5.21E+01	4.50E+01
	192	7.44E+01	4.10E+01	4.57E+01	6.13E+01	4.40E+01	4.52E+01	6.08E+01
	194	9.54E+01	5.44E+01	6.17E+01	4.78E+01	5.00E+01	5.02E+01	5.13E+01
	195	7.77E+01	7.71E+01	3.57E+01	3.57E+01	5.99E+01	5.90E+01	4.86E+01
	196	6.79E+01	4.22E+01	3.97E+01	3.63E+01	4.21E+01	4.33E+01	5.55E+01
	197	4.80E+01	5.18E+01	5.43E+01	6.10E+01	4.54E+01	4.59E+01	6.06E+01
	MINIMUM	4.800E+01	4.100E+01	3.570E+01	3.570E+01	4.210E+01	4.330E+01	4.860E+01
	MEAN	7.268E+01	5.330E+01	4.742E+01	4.842E+01	4.828E+01	4.872E+01	5.536E+01
	MAXIMUM	9.540E+01	7.710E+01	6.170E+01	6.130E+01	5.990E+01	5.900E+01	6.080E+01
	+P 99/90	1.527E+02	1.211E+02	9.697E+01	1.071E+02	8.150E+01	7.801E+01	8.084E+01
	-P 99/90	-7.336E+00	-1.449E+01	-2.135E+00	-1.029E+01	1.506E+01	1.943E+01	2.988E+01
	SIGMA	1.715E+01	1.453E+01	1.062E+01	1.258E+01	7.120E+00	6.277E+00	5.460E+00

OPEN LOOP GAIN - 1		(V/MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		3.10E+00	6.90E+00	1.30E+00	1.54E+01	1.26E+01	5.50E+00
	192		-3.34E+01	-2.87E+01	-1.31E+01	-3.04E+01	-2.92E+01	-1.36E+01
	194		-4.10E+01	-3.37E+01	-4.76E+01	-4.54E+01	-4.52E+01	-4.41E+01
	195		-6.00E-01	-4.20E+01	-4.20E+01	-1.78E+01	-1.87E+01	-2.91E+01
	196		-2.57E+01	-2.82E+01	-3.16E+01	-2.58E+01	-2.46E+01	-1.24E+01
	197		3.80E+00	6.30E+00	1.30E+01	-2.60E+00	-2.10E+00	1.26E+01
	MINIMUM		-4.100E+01	-4.200E+01	-4.760E+01	-4.540E+01	-4.520E+01	-4.410E+01
	MEAN		-1.938E+01	-2.526E+01	-2.426E+01	-2.440E+01	-2.396E+01	-1.732E+01
	MAXIMUM		3.800E+00	6.300E+00	1.300E+01	-2.600E+00	-2.100E+00	1.260E+01
	+P 99/90		7.376E+01	6.103E+01	9.066E+01	4.929E+01	4.924E+01	8.136E+01
	-P 99/90		-1.125E+02	-1.115E+02	-1.392E+02	-9.809E+01	-9.716E+01	-1.160E+02
	SIGMA		1.996E+01	1.849E+01	2.463E+01	1.579E+01	1.569E+01	2.115E+01

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OPEN LOOP GAIN - 2		(V/MV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	1.38E+02	9.12E+01	1.42E+02	6.79E+01	1.15E+02	1.05E+02	4.70E+01
	192	1.41E+02	9.16E+01	1.08E+02	4.88E+02	2.98E+03	4.32E+02	1.11E+02
	194	7.31E+02	2.99E+02	2.19E+03	7.31E+02	8.33E+01	7.51E+01	4.76E+01
	195	2.12E+02	4.75E+01	6.49E+01	6.10E+01	8.74E+02	8.25E+02	7.86E+01
	196	6.77E+02	6.97E+01	1.49E+03	4.66E+02	5.21E+01	5.55E+02	7.83E+01
	197	8.22E+01	4.39E+02	6.58E+02	3.13E+02	4.22E+02	4.11E+02	4.01E+01
	MINIMUM	8.220E+01	4.750E+01	6.490E+01	6.100E+01	5.210E+01	7.510E+01	4.010E+01
	MEAN	3.687E+02	1.893E+02	9.027E+02	4.120E+02	8.818E+02	4.596E+02	7.112E+01
	MAXIMUM	7.312E+02	4.388E+02	2.194E+03	7.313E+02	2.978E+03	8.250E+02	1.110E+02
	+P 99/90	1.816E+03	9.916E+02	5.207E+03	1.563E+03	6.563E+03	1.724E+03	2.034E+02
	-P 99/90	-1.078E+03	-6.130E+02	-3.402E+03	-7.395E+02	-4.800E+03	-8.045E+02	-6.113E+01
	SIGMA	3.101E+02	1.719E+02	9.226E+02	2.468E+02	1.218E+03	2.709E+02	2.834E+01

OPEN LOOP GAIN - 2		(V/MV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-4.68E+01	3.70E+00	-7.01E+01	-2.34E+01	-3.30E+01	-9.10E+01
	192		-4.92E+01	-3.32E+01	3.47E+02	2.84E+03	2.91E+02	-2.98E+01
	194		-4.32E+02	1.46E+03	1.00E-01	-6.48E+02	-6.56E+02	-6.84E+02
	195		-1.65E+02	-1.48E+02	-1.51E+02	6.62E+02	6.13E+02	-1.34E+02
	196		-6.07E+02	8.12E+02	-2.11E+02	-6.25E+02	-1.22E+02	-5.98E+02
	197		3.57E+02	5.76E+02	2.31E+02	3.40E+02	3.29E+02	-4.21E+01
	MINIMUM		-6.070E+02	-1.475E+02	-2.105E+02	-6.479E+02	-6.561E+02	-6.836E+02
	MEAN		-1.793E+02	5.340E+02	4.330E+01	5.131E+02	9.096E+01	-2.975E+02
	MAXIMUM		3.566E+02	1.463E+03	3.471E+02	2.837E+03	6.126E+02	-2.980E+01
	+P 99/90		1.553E+03	3.600E+03	1.167E+03	7.151E+03	2.391E+03	1.184E+03
	-P 99/90		-1.911E+03	-2.532E+03	-1.080E+03	-6.125E+03	-2.209E+03	-1.779E+03
	SIGMA		3.712E+02	6.572E+02	2.407E+02	1.423E+03	4.930E+02	3.175E+02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

COMMON MODE REJECTION -1		(DB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	1.17E+02	1.13E+02	1.11E+02	1.17E+02	1.11E+02	1.11E+02	1.09E+02
	192	1.33E+02	1.20E+02	1.17E+02	1.22E+02	1.27E+02	1.32E+02	1.34E+02
	194	1.36E+02	1.24E+02	1.20E+02	1.21E+02	1.29E+02	1.27E+02	1.22E+02
	195	1.46E+02	1.39E+02	1.49E+02	1.22E+02	1.21E+02	1.20E+02	1.18E+02
	196	1.13E+02	1.19E+02	1.16E+02	1.13E+02	1.10E+02	1.13E+02	1.17E+02
	197	1.31E+02	1.15E+02	1.17E+02	1.14E+02	1.26E+02	1.23E+02	1.17E+02
	MINIMUM	1.127E+02	1.145E+02	1.162E+02	1.126E+02	1.099E+02	1.130E+02	1.165E+02
	MEAN	1.318E+02	1.234E+02	1.239E+02	1.182E+02	1.226E+02	1.230E+02	1.215E+02
	MAXIMUM	1.464E+02	1.394E+02	1.489E+02	1.218E+02	1.288E+02	1.320E+02	1.338E+02
	+P 99/90	1.891E+02	1.683E+02	1.896E+02	1.390E+02	1.584E+02	1.565E+02	1.554E+02
	-P 99/90	7.459E+01	7.843E+01	5.809E+01	9.739E+01	8.680E+01	8.952E+01	8.756E+01
	SIGMA	1.227E+01	9.630E+00	1.410E+01	4.457E+00	7.673E+00	7.176E+00	7.275E+00

COMMON MODE REJECTION - 1		(DB)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-4.00E+00	-5.90E+00	-2.00E-01	-6.20E+00	-6.20E+00	-8.60E+00
	192		-1.32E+01	-1.61E+01	-1.15E+01	-6.20E+00	-1.30E+00	5.00E-01
	194		-1.20E+01	-1.59E+01	-1.55E+01	-7.50E+00	-9.30E+00	-1.39E+01
	195		-7.00E+00	2.50E+00	-2.48E+01	-2.54E+01	-2.64E+01	-2.83E+01
	196		5.80E+00	3.50E+00	-1.00E-01	-2.80E+00	3.00E-01	3.80E+00
	197		-1.60E+01	-1.39E+01	-1.64E+01	-4.30E+00	-7.50E+00	-1.38E+01
	MINIMUM		-1.600E+01	-1.610E+01	-2.480E+01	-2.540E+01	-2.640E+01	-2.830E+01
	MEAN		-8.480E+00	-7.980E+00	-1.366E+01	-9.240E+00	-8.840E+00	-1.034E+01
	MAXIMUM		5.800E+00	3.500E+00	-1.000E-01	-2.800E+00	3.000E-01	3.800E+00
	+P 99/90		3.175E+01	3.899E+01	2.830E+01	3.373E+01	4.069E+01	4.981E+01
	-P 99/90		-4.871E+01	-5.495E+01	-5.562E+01	-5.221E+01	-5.837E+01	-7.049E+01
	SIGMA		8.622E+00	1.007E+01	8.993E+00	9.210E+00	1.062E+01	1.289E+01

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

COMMON MODE REJECTION - 2		(DB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	1.10E+02	1.16E+02	1.13E+02	1.05E+02	1.12E+02	1.12E+02	1.12E+02
	192	1.20E+02	1.36E+02	1.21E+02	1.29E+02	1.21E+02	1.19E+02	1.12E+02
	194	1.15E+02	1.12E+02	1.12E+02	1.12E+02	1.14E+02	1.15E+02	1.17E+02
	195	1.25E+02	1.21E+02	1.15E+02	1.19E+02	1.14E+02	1.17E+02	1.24E+02
	196	1.20E+02	1.21E+02	1.15E+02	1.24E+02	1.14E+02	1.14E+02	1.17E+02
	197	1.20E+02	1.26E+02	1.24E+02	1.18E+02	1.32E+02	1.28E+02	1.18E+02
	MINIMUM	1.153E+02	1.115E+02	1.124E+02	1.119E+02	1.137E+02	1.140E+02	1.123E+02
	MEAN	1.201E+02	1.229E+02	1.173E+02	1.201E+02	1.189E+02	1.186E+02	1.177E+02
	MAXIMUM	1.250E+02	1.362E+02	1.238E+02	1.286E+02	1.316E+02	1.280E+02	1.243E+02
	+P 99/90	1.361E+02	1.649E+02	1.405E+02	1.500E+02	1.553E+02	1.447E+02	1.377E+02
	-P 99/90	1.041E+02	8.092E+01	9.414E+01	9.024E+01	8.245E+01	9.250E+01	9.776E+01
	SIGMA	3.430E+00	8.996E+00	4.969E+00	6.409E+00	7.804E+00	5.595E+00	4.277E+00

COMMON MODE REJECTION - 2		(DB)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		5.90E+00	2.40E+00	-5.50E+00	2.00E+00	1.90E+00	2.20E+00
	192		1.61E+01	1.30E+00	8.50E+00	1.10E+00	-1.10E+00	-7.80E+00
	194		-3.80E+00	-2.90E+00	-3.40E+00	-1.60E+00	-3.00E-01	2.00E+00
	195		-4.30E+00	-1.05E+01	-6.50E+00	-1.11E+01	-8.00E+00	-7.00E-01
	196		5.00E-01	-5.60E+00	4.00E+00	-6.20E+00	-6.10E+00	-2.90E+00
	197		5.40E+00	3.70E+00	-2.50E+00	1.15E+01	7.90E+00	-2.60E+00
	MINIMUM		-4.300E+00	-1.050E+01	-6.500E+00	-1.110E+01	-8.000E+00	-7.800E+00
	MEAN		2.780E+00	-2.800E+00	2.000E-02	-1.260E+00	-1.520E+00	-2.400E+00
	MAXIMUM		1.610E+01	3.700E+00	8.500E+00	1.150E+01	7.900E+00	2.000E+00
	+P 99/90		4.202E+01	2.341E+01	2.843E+01	3.845E+01	2.737E+01	1.437E+01
	-P 99/90		-3.646E+01	-2.901E+01	-2.839E+01	-4.097E+01	-3.041E+01	-1.917E+01
	SIGMA		8.410E+00	5.617E+00	6.089E+00	8.511E+00	6.192E+00	3.595E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 3.2MA - 1		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.82E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01
	192	2.87E-01	2.83E-01	2.83E-01	2.84E-01	2.84E-01	2.84E-01	2.85E-01
	194	2.84E-01	2.81E-01	2.80E-01	2.80E-01	2.81E-01	2.81E-01	2.83E-01
	195	2.86E-01	2.82E-01	2.82E-01	2.82E-01	2.83E-01	2.83E-01	2.84E-01
	196	2.91E-01	2.87E-01	2.87E-01	2.87E-01	2.88E-01	2.88E-01	2.90E-01
	197	2.82E-01	2.79E-01	2.78E-01	2.79E-01	2.79E-01	2.80E-01	2.81E-01
	MINIMUM	2.820E-01	2.790E-01	2.780E-01	2.790E-01	2.790E-01	2.800E-01	2.810E-01
	MEAN	2.860E-01	2.824E-01	2.820E-01	2.824E-01	2.830E-01	2.832E-01	2.846E-01
	MAXIMUM	2.910E-01	2.870E-01	2.870E-01	2.870E-01	2.880E-01	2.880E-01	2.900E-01
	+P 99/90	3.018E-01	2.962E-01	2.978E-01	2.974E-01	2.988E-01	2.977E-01	3.003E-01
	-P 99/90	2.702E-01	2.686E-01	2.662E-01	2.674E-01	2.672E-01	2.687E-01	2.689E-01
	SIGMA	3.391E-03	2.966E-03	3.391E-03	3.209E-03	3.391E-03	3.114E-03	3.362E-03

VOL @ 3.2MA - 1		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-2.00E-03	-2.00E-03	-2.00E-03	-2.00E-03	-2.00E-03	-2.00E-03
	192		-4.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-2.00E-03
	194		-3.00E-03	-4.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-1.00E-03
	195		-4.00E-03	-4.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-2.00E-03
	196		-4.00E-03	-4.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-1.00E-03
	197		-3.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	-2.00E-03	-1.00E-03
	MINIMUM		-4.000E-03	-4.000E-03	-4.000E-03	-3.000E-03	-3.000E-03	-2.000E-03
	MEAN		-3.600E-03	-4.000E-03	-3.600E-03	-3.000E-03	-2.800E-03	-1.400E-03
	MAXIMUM		-3.000E-03	-4.000E-03	-3.000E-03	-3.000E-03	-2.000E-03	-1.000E-03
	+P 99/90		-1.044E-03	-4.000E-03	-1.044E-03	-3.000E-03	-7.133E-04	1.156E-03
	-P 99/90		-6.156E-03	-4.000E-03	-6.156E-03	-3.000E-03	-4.887E-03	-3.956E-03
	SIGMA		5.477E-04	3.041E-17	5.477E-04	3.040E-17	4.472E-04	5.477E-04

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 3.2MA - 2		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.83E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01
	192	2.79E-01	2.75E-01	2.74E-01	2.75E-01	2.75E-01	2.75E-01	2.76E-01
	194	2.85E-01	2.80E-01	2.80E-01	2.81E-01	2.81E-01	2.81E-01	2.82E-01
	195	2.83E-01	2.79E-01	2.78E-01	2.79E-01	2.79E-01	2.79E-01	2.81E-01
	196	2.84E-01	2.78E-01	2.78E-01	2.78E-01	2.79E-01	2.80E-01	2.81E-01
	197	2.85E-01	2.80E-01	2.79E-01	2.80E-01	2.81E-01	2.81E-01	2.83E-01
	MINIMUM	2.790E-01	2.750E-01	2.740E-01	2.750E-01	2.750E-01	2.750E-01	2.760E-01
	MEAN	2.832E-01	2.784E-01	2.778E-01	2.786E-01	2.790E-01	2.792E-01	2.806E-01
	MAXIMUM	2.850E-01	2.800E-01	2.800E-01	2.810E-01	2.810E-01	2.810E-01	2.830E-01
	+P 99/90	2.948E-01	2.881E-01	2.884E-01	2.893E-01	2.904E-01	2.908E-01	2.932E-01
	-P 99/90	2.716E-01	2.687E-01	2.672E-01	2.679E-01	2.676E-01	2.676E-01	2.680E-01
	SIGMA	2.490E-03	2.074E-03	2.280E-03	2.302E-03	2.449E-03	2.490E-03	2.702E-03

VOL @ 3.2MA - 2		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-3.00E-03
	192		-4.00E-03	-5.00E-03	-4.00E-03	-4.00E-03	-4.00E-03	-3.00E-03
	194		-5.00E-03	-5.00E-03	-4.00E-03	-4.00E-03	-4.00E-03	-3.00E-03
	195		-4.00E-03	-5.00E-03	-4.00E-03	-4.00E-03	-4.00E-03	-2.00E-03
	196		-6.00E-03	-6.00E-03	-6.00E-03	-5.00E-03	-4.00E-03	-3.00E-03
	197		-5.00E-03	-6.00E-03	-5.00E-03	-4.00E-03	-4.00E-03	-2.00E-03
	MINIMUM		-6.000E-03	-6.000E-03	-6.000E-03	-5.000E-03	-4.000E-03	-3.000E-03
	MEAN		-4.800E-03	-5.400E-03	-4.600E-03	-4.200E-03	-4.000E-03	-2.600E-03
	MAXIMUM		-4.000E-03	-5.000E-03	-4.000E-03	-4.000E-03	-4.000E-03	-2.000E-03
	+P 99/90		-8.961E-04	-2.844E-03	-4.266E-04	-2.113E-03	-4.000E-03	-4.433E-05
	-P 99/90		-8.704E-03	-7.956E-03	-8.773E-03	-6.287E-03	-4.000E-03	-5.156E-03
	SIGMA		8.367E-04	5.477E-04	8.944E-04	4.472E-04	2.483E-17	5.477E-04

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 25MA - 1		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	5.96E-01	6.03E-01	6.04E-01	6.04E-01	6.04E-01	6.04E-01	6.04E-01
	192	6.03E-01	6.04E-01	6.05E-01	6.05E-01	6.06E-01	6.06E-01	6.07E-01
	194	5.99E-01	6.01E-01	6.02E-01	6.02E-01	6.03E-01	6.04E-01	6.05E-01
	195	6.00E-01	6.04E-01	6.04E-01	6.04E-01	6.07E-01	6.07E-01	6.06E-01
	196	6.05E-01	6.10E-01	6.09E-01	6.10E-01	6.12E-01	6.12E-01	6.11E-01
	197	5.99E-01	6.02E-01	6.06E-01	6.03E-01	6.05E-01	6.05E-01	6.04E-01
	MINIMUM	5.990E-01	6.010E-01	6.020E-01	6.020E-01	6.030E-01	6.040E-01	6.040E-01
	MEAN	6.012E-01	6.042E-01	6.052E-01	6.048E-01	6.066E-01	6.068E-01	6.066E-01
	MAXIMUM	6.050E-01	6.100E-01	6.090E-01	6.100E-01	6.120E-01	6.120E-01	6.110E-01
	+P 99/90	6.137E-01	6.205E-01	6.173E-01	6.193E-01	6.223E-01	6.213E-01	6.192E-01
	-P 99/90	5.887E-01	5.879E-01	5.931E-01	5.903E-01	5.909E-01	5.923E-01	5.940E-01
	SIGMA	2.683E-03	3.493E-03	2.588E-03	3.114E-03	3.362E-03	3.114E-03	2.702E-03

VOL @ 25MA - 1		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		7.00E-03	8.00E-03	8.00E-03	8.00E-03	8.00E-03	8.00E-03
	192		1.00E-03	2.00E-03	2.00E-03	3.00E-03	3.00E-03	4.00E-03
	194		2.00E-03	3.00E-03	3.00E-03	4.00E-03	5.00E-03	6.00E-03
	195		4.00E-03	4.00E-03	4.00E-03	7.00E-03	7.00E-03	6.00E-03
	196		5.00E-03	4.00E-03	5.00E-03	7.00E-03	7.00E-03	6.00E-03
	197		3.00E-03	7.00E-03	4.00E-03	6.00E-03	6.00E-03	5.00E-03
	MINIMUM		1.000E-03	2.000E-03	2.000E-03	3.000E-03	3.000E-03	4.000E-03
	MEAN		3.000E-03	4.000E-03	3.600E-03	5.400E-03	5.600E-03	5.400E-03
	MAXIMUM		5.000E-03	7.000E-03	5.000E-03	7.000E-03	7.000E-03	6.000E-03
	+P 99/90		1.038E-02	1.273E-02	8.920E-03	1.388E-02	1.341E-02	9.573E-03
	-P 99/90		-4.378E-03	-4.729E-03	-1.720E-03	-3.076E-03	-2.208E-03	1.227E-03
	SIGMA		1.581E-03	1.871E-03	1.140E-03	1.817E-03	1.673E-03	8.944E-04

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 25MA - 2		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	5.93E-01	6.01E-01	6.00E-01	6.01E-01	6.01E-01	6.01E-01	6.01E-01
	192	5.91E-01	5.92E-01	5.92E-01	5.92E-01	5.94E-01	5.94E-01	5.93E-01
	194	5.95E-01	5.95E-01	5.96E-01	5.97E-01	5.97E-01	5.97E-01	5.98E-01
	195	5.92E-01	5.93E-01	5.93E-01	5.94E-01	5.97E-01	5.96E-01	5.94E-01
	196	5.91E-01	5.94E-01	5.94E-01	5.95E-01	5.96E-01	5.96E-01	5.95E-01
	197	5.98E-01	5.99E-01	6.02E-01	6.01E-01	6.02E-01	6.02E-01	6.02E-01
	MINIMUM	5.910E-01	5.920E-01	5.920E-01	5.920E-01	5.940E-01	5.940E-01	5.930E-01
	MEAN	5.934E-01	5.946E-01	5.954E-01	5.958E-01	5.972E-01	5.970E-01	5.964E-01
	MAXIMUM	5.980E-01	5.990E-01	6.020E-01	6.010E-01	6.020E-01	6.020E-01	6.020E-01
	+P 99/90	6.076E-01	6.072E-01	6.139E-01	6.118E-01	6.110E-01	6.110E-01	6.134E-01
	-P 99/90	5.792E-01	5.820E-01	5.769E-01	5.798E-01	5.834E-01	5.830E-01	5.794E-01
	SIGMA	3.050E-03	2.702E-03	3.975E-03	3.421E-03	2.950E-03	3.000E-03	3.647E-03

VOL @ 25MA - 2		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		8.00E-03	7.00E-03	8.00E-03	8.00E-03	8.00E-03	8.00E-03
	192		1.00E-03	1.00E-03	1.00E-03	3.00E-03	3.00E-03	2.00E-03
	194		0.00E+00	1.00E-03	2.00E-03	2.00E-03	2.00E-03	3.00E-03
	195		1.00E-03	1.00E-03	2.00E-03	5.00E-03	4.00E-03	2.00E-03
	196		3.00E-03	3.00E-03	4.00E-03	5.00E-03	5.00E-03	4.00E-03
	197		1.00E-03	4.00E-03	3.00E-03	4.00E-03	4.00E-03	4.00E-03
	MINIMUM		0.000E+00	1.000E-03	1.000E-03	2.000E-03	2.000E-03	2.000E-03
	MEAN		1.200E-03	2.000E-03	2.400E-03	3.800E-03	3.600E-03	3.000E-03
	MAXIMUM		3.000E-03	4.000E-03	4.000E-03	5.000E-03	5.000E-03	4.000E-03
	+P 99/90		6.311E-03	8.599E-03	7.720E-03	9.884E-03	8.920E-03	7.666E-03
	-P 99/90		-3.911E-03	-4.599E-03	-2.920E-03	-2.284E-03	-1.720E-03	-1.666E-03
	SIGMA		1.095E-03	1.414E-03	1.140E-03	1.304E-03	1.140E-03	1.000E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

ICEX @ 35V - 1		(UA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.20E-02	1.60E-02	2.10E-02	1.90E-02	2.50E-02	1.80E-02	1.30E-02
	192	2.50E-02	2.20E-02	1.60E-02	1.90E-02	2.40E-02	2.00E-02	1.60E-02
	194	2.60E-02	1.70E-02	2.20E-02	2.00E-02	2.40E-02	2.20E-02	2.00E-02
	195	2.40E-02	2.10E-02	2.00E-02	2.30E-02	2.60E-02	1.90E-02	1.20E-02
	196	2.40E-02	2.00E-02	1.80E-02	2.40E-02	2.20E-02	1.80E-02	1.50E-02
	197	2.50E-02	2.10E-02	2.20E-02	2.10E-02	2.40E-02	1.90E-02	1.70E-02
	MINIMUM	2.400E-02	1.700E-02	1.600E-02	1.900E-02	2.200E-02	1.800E-02	1.200E-02
	MEAN	2.480E-02	2.020E-02	1.960E-02	2.140E-02	2.400E-02	1.960E-02	1.600E-02
	MAXIMUM	2.600E-02	2.200E-02	2.200E-02	2.400E-02	2.600E-02	2.200E-02	2.000E-02
	+P 99/90	2.870E-02	2.918E-02	3.177E-02	3.108E-02	3.060E-02	2.668E-02	2.960E-02
	-P 99/90	2.090E-02	1.122E-02	7.433E-03	1.172E-02	1.740E-02	1.252E-02	2.396E-03
	SIGMA	8.367E-04	1.924E-03	2.608E-03	2.074E-03	1.414E-03	1.517E-03	2.915E-03

ICEX @ 35V - 1		(UA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-6.00E-03	-1.00E-03	-3.00E-03	3.00E-03	-4.00E-03	-9.00E-03
	192		-3.00E-03	-9.00E-03	-6.00E-03	-1.00E-03	-5.00E-03	-9.00E-03
	194		-9.00E-03	-4.00E-03	-6.00E-03	-2.00E-03	-4.00E-03	-6.00E-03
	195		-3.00E-03	-4.00E-03	-1.00E-03	2.00E-03	-5.00E-03	-1.20E-02
	196		-4.00E-03	-6.00E-03	0.00E+00	-2.00E-03	-6.00E-03	-9.00E-03
	197		-4.00E-03	-3.00E-03	-4.00E-03	-1.00E-03	-6.00E-03	-8.00E-03
	MINIMUM		-9.000E-03	-9.000E-03	-6.000E-03	-2.000E-03	-6.000E-03	-1.200E-02
	MEAN		-4.600E-03	-5.200E-03	-3.400E-03	-8.000E-04	-5.200E-03	-8.800E-03
	MAXIMUM		-3.000E-03	-3.000E-03	0.000E+00	2.000E-03	-4.000E-03	-6.000E-03
	+P 99/90		7.112E-03	5.940E-03	9.631E-03	6.867E-03	-1.296E-03	1.316E-03
	-P 99/90		-1.631E-02	-1.634E-02	-1.643E-02	-8.467E-03	-9.104E-03	-1.892E-02
	SIGMA		2.510E-03	2.387E-03	2.793E-03	1.643E-03	8.367E-04	2.168E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

ICEX @ 35V - 2		(UA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	0.00E+00	0.00E+00	2.00E-03	1.00E-03	3.00E-03	3.00E-03	3.00E-03
	192	2.00E-03	0.00E+00	2.00E-03	4.00E-03	2.00E-03	2.00E-03	3.00E-03
	194	0.00E+00	1.00E-03	0.00E+00	2.00E-03	3.00E-03	3.00E-03	2.00E-03
	195	4.00E-03	5.00E-03	4.00E-03	0.00E+00	3.00E-03	2.00E-03	1.00E-03
	196	1.00E-03	2.00E-03	3.00E-03	5.00E-03	2.00E-03	3.00E-03	4.00E-03
	197	2.00E-03	4.00E-03	2.00E-03	5.00E-03	3.00E-03	2.00E-03	1.00E-03
	MINIMUM	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.000E-03	2.000E-03	1.000E-03
	MEAN	1.800E-03	2.400E-03	2.200E-03	3.200E-03	2.600E-03	2.400E-03	2.200E-03
	MAXIMUM	4.000E-03	5.000E-03	4.000E-03	5.000E-03	3.000E-03	3.000E-03	4.000E-03
	+P 99/90	8.721E-03	1.208E-02	9.121E-03	1.332E-02	5.156E-03	4.956E-03	8.284E-03
	-P 99/90	-5.121E-03	-7.276E-03	-4.721E-03	-6.916E-03	4.433E-05	-1.557E-04	-3.884E-03
	SIGMA	1.483E-03	2.074E-03	1.483E-03	2.168E-03	5.477E-04	5.477E-04	1.304E-03

ICEX @ 35V - 2		(UA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	5.00E+01	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		0.00E+00	2.00E-03	1.00E-03	3.00E-03	3.00E-03	3.00E-03
	192		-2.00E-03	0.00E+00	2.00E-03	0.00E+00	0.00E+00	1.00E-03
	194		1.00E-03	0.00E+00	2.00E-03	3.00E-03	3.00E-03	2.00E-03
	195		1.00E-03	0.00E+00	-4.00E-03	-1.00E-03	-2.00E-03	-3.00E-03
	196		1.00E-03	2.00E-03	4.00E-03	1.00E-03	2.00E-03	3.00E-03
	197		2.00E-03	0.00E+00	3.00E-03	1.00E-03	0.00E+00	-1.00E-03
	MINIMUM		-2.000E-03	0.000E+00	-4.000E-03	-1.000E-03	-2.000E-03	-3.000E-03
	MEAN		6.000E-04	4.000E-04	1.400E-03	8.000E-04	6.000E-04	4.000E-04
	MAXIMUM		2.000E-03	2.000E-03	4.000E-03	3.000E-03	3.000E-03	3.000E-03
	+P 99/90		7.676E-03	4.573E-03	1.601E-02	7.721E-03	9.696E-03	1.164E-02
	-P 99/90		-6.476E-03	-3.773E-03	-1.321E-02	-6.121E-03	-8.496E-03	-1.084E-02
	SIGMA		1.517E-03	8.944E-04	3.130E-03	1.483E-03	1.949E-03	2.408E-03

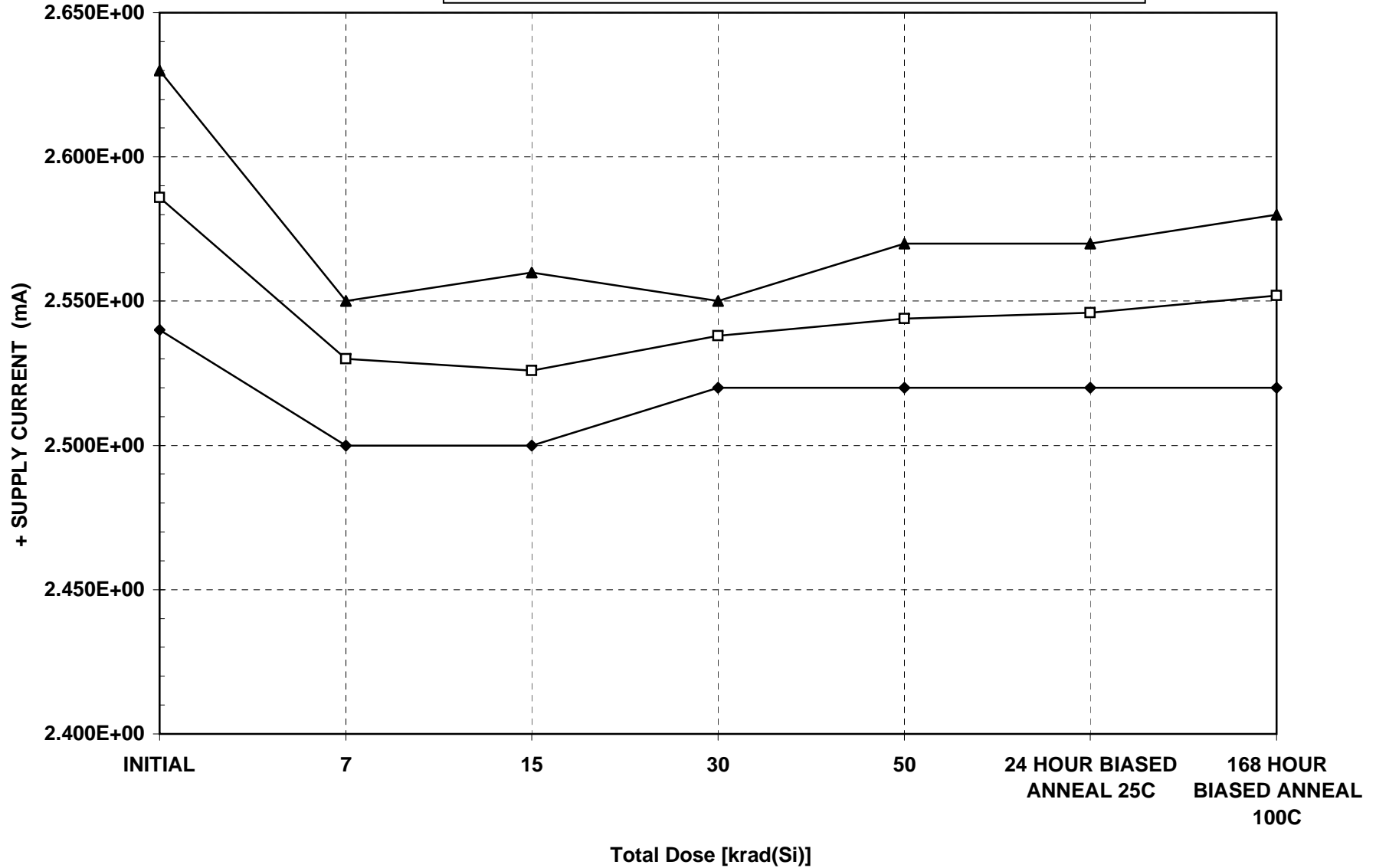
DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV
 Bias Condition # 2 All Leads to Groun

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1572 || 04/26/07 || RTP# 686
 P.O.# 46027L

I C S RADIATION TECHNOLOGIES, INC.

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

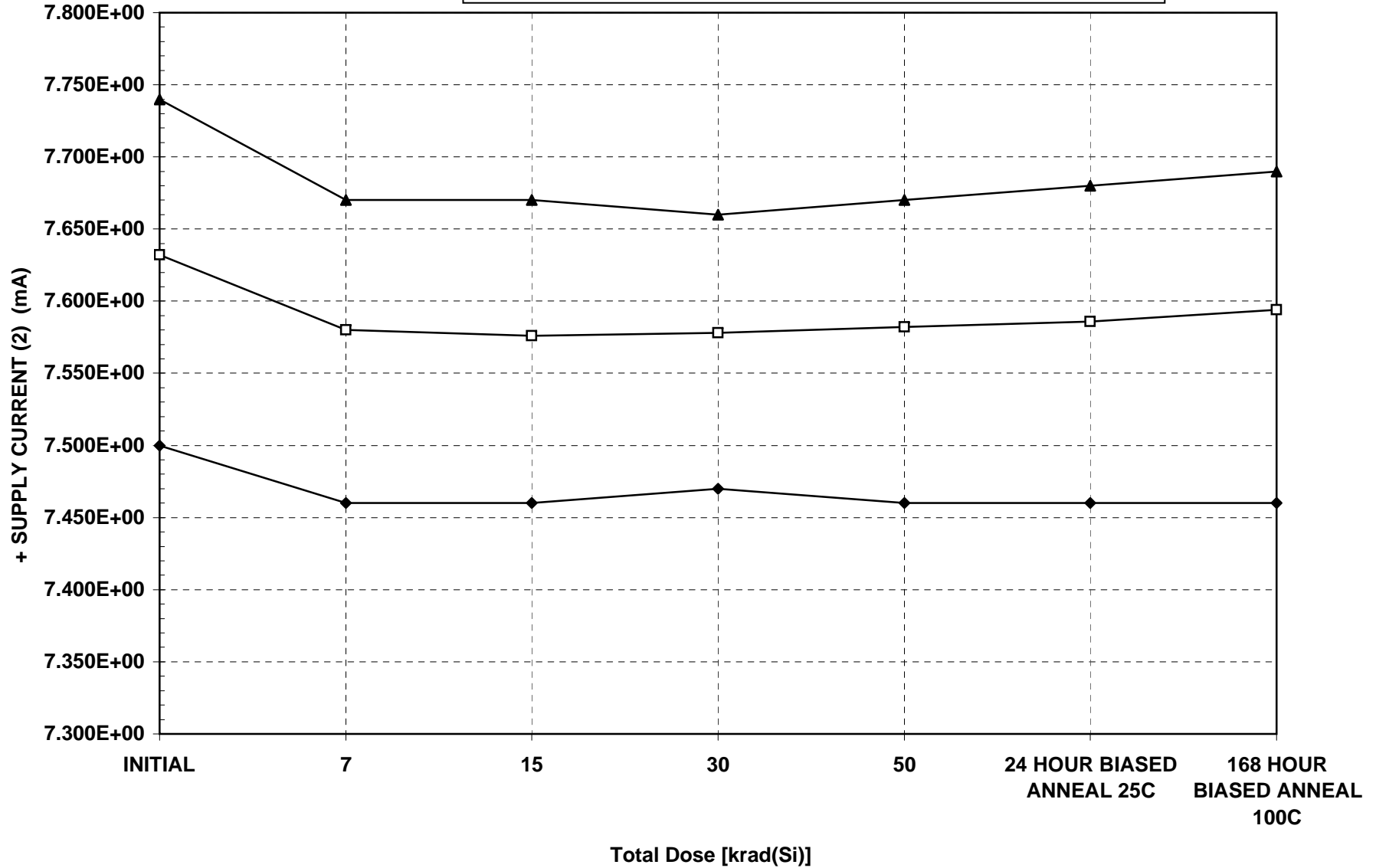
+ SUPPLY CURRENT (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

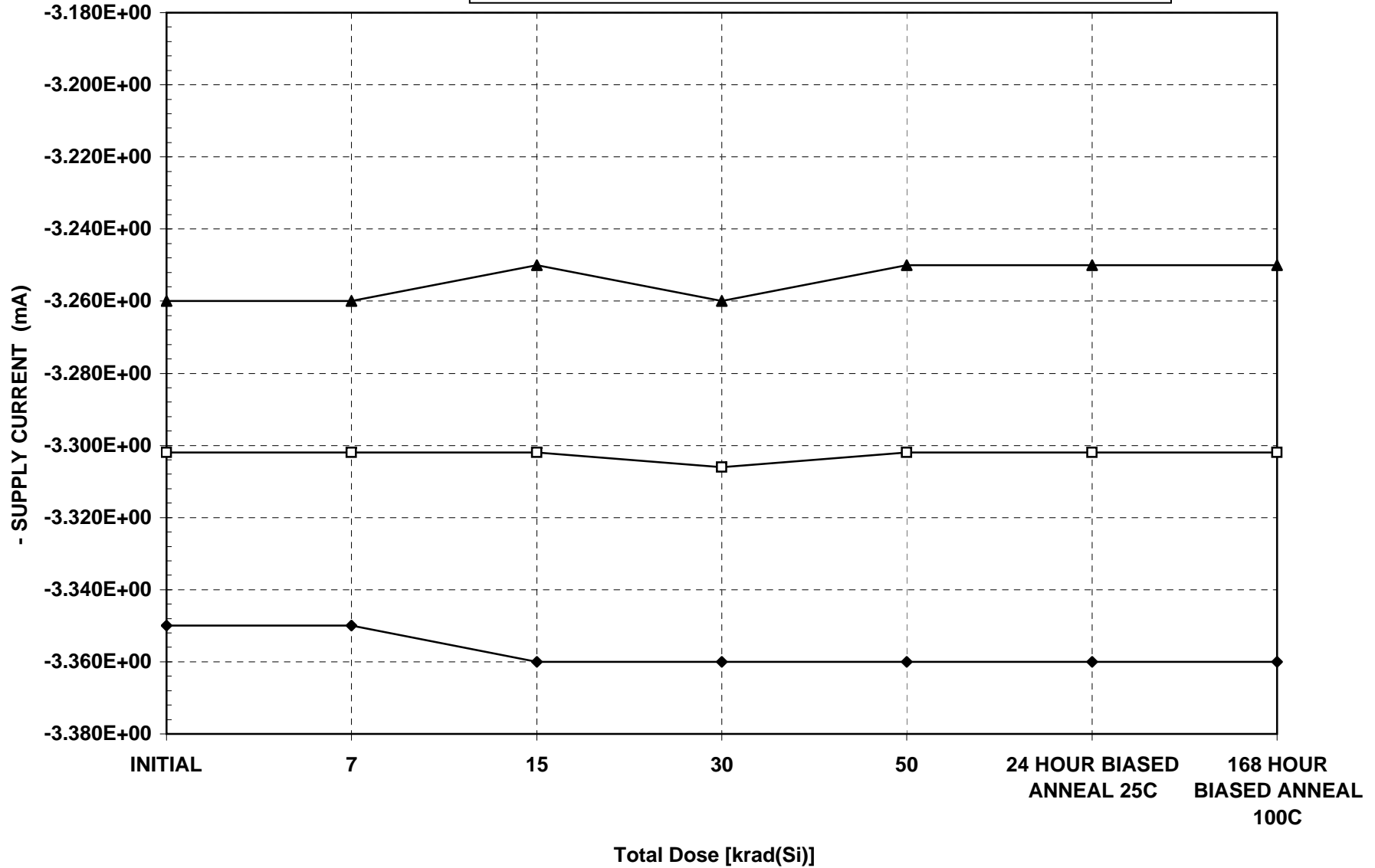
+ SUPPLY CURRENT (2) (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

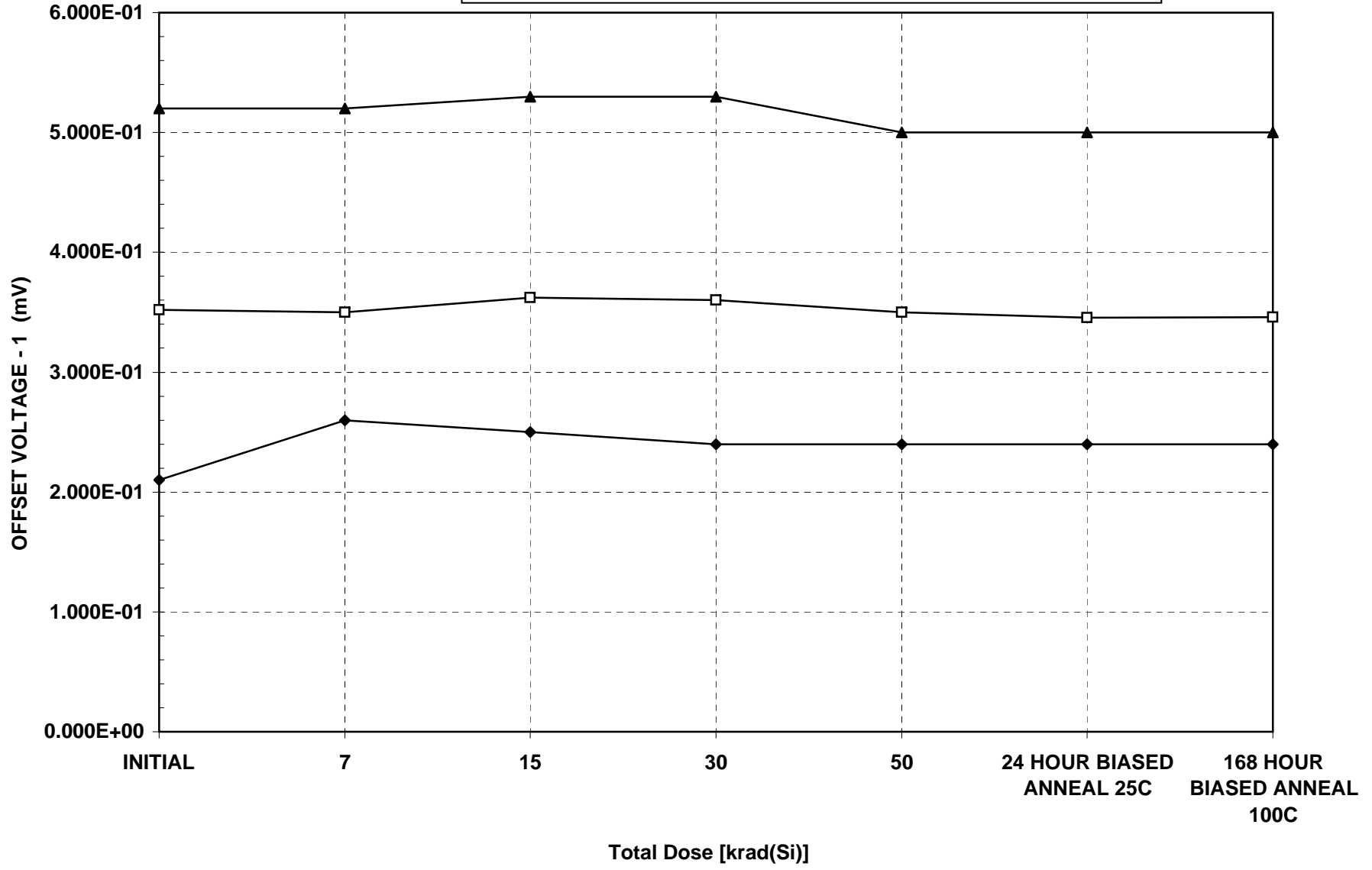
- SUPPLY CURRENT (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

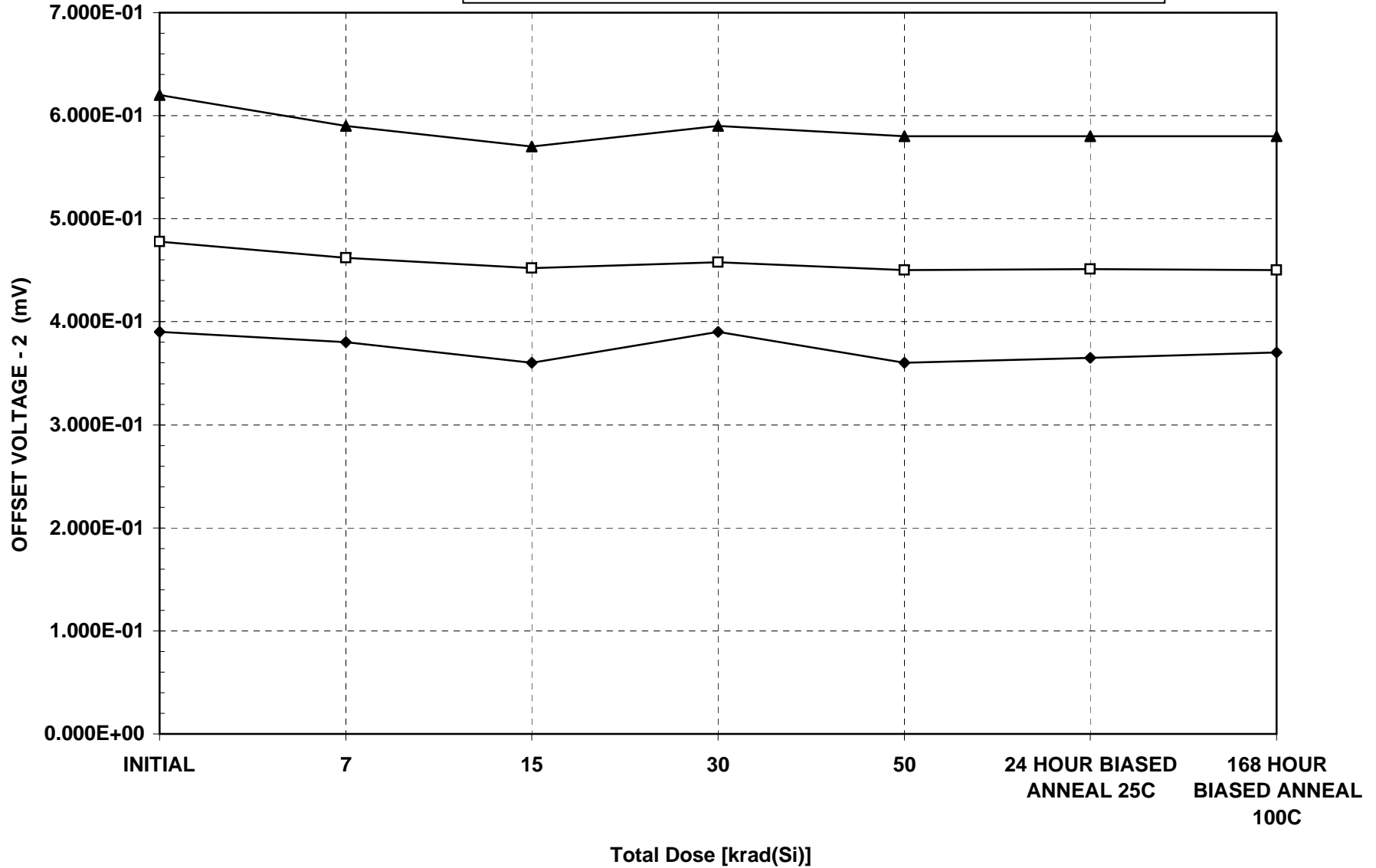
OFFSET VOLTAGE - 1 (mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

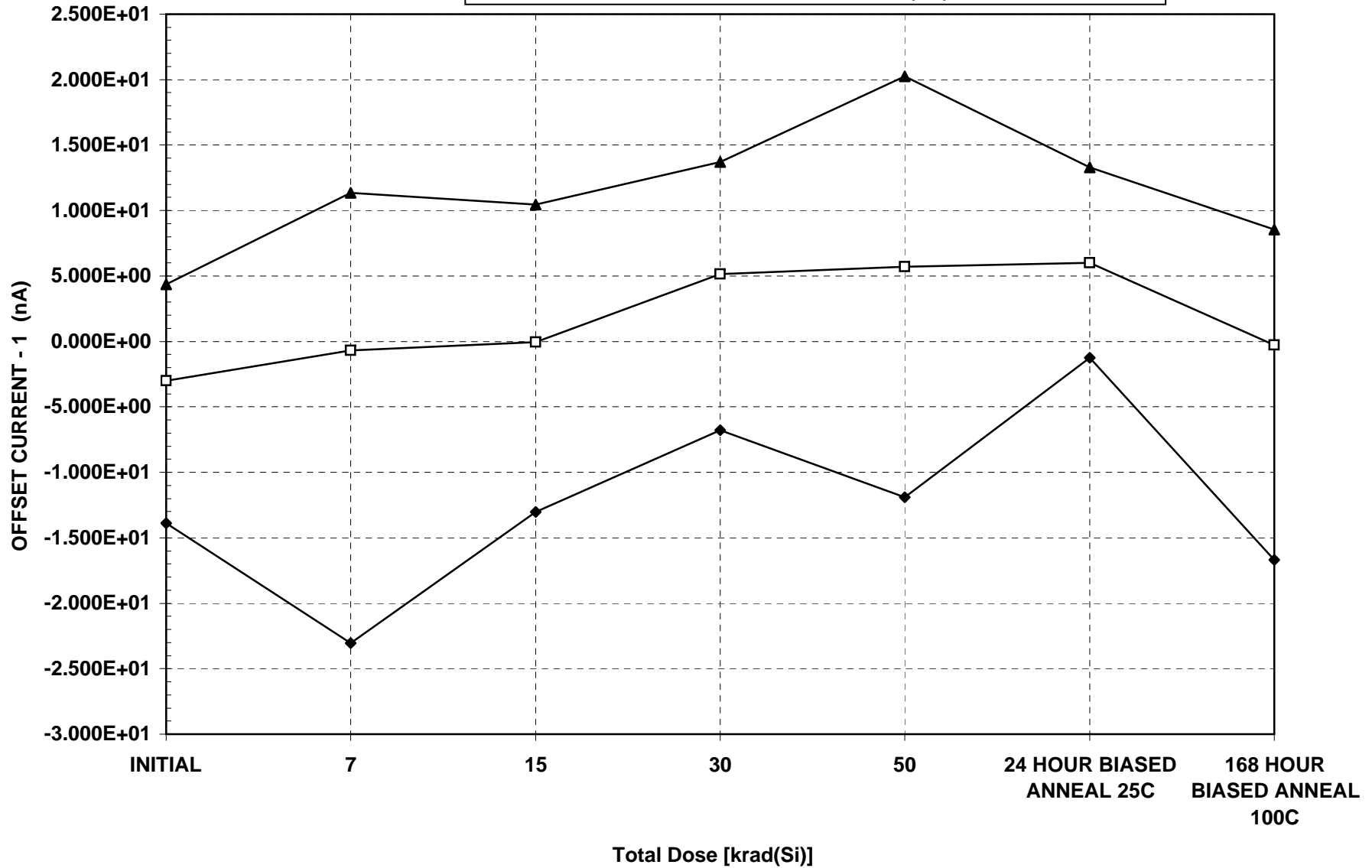
OFFSET VOLTAGE - 2 (mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

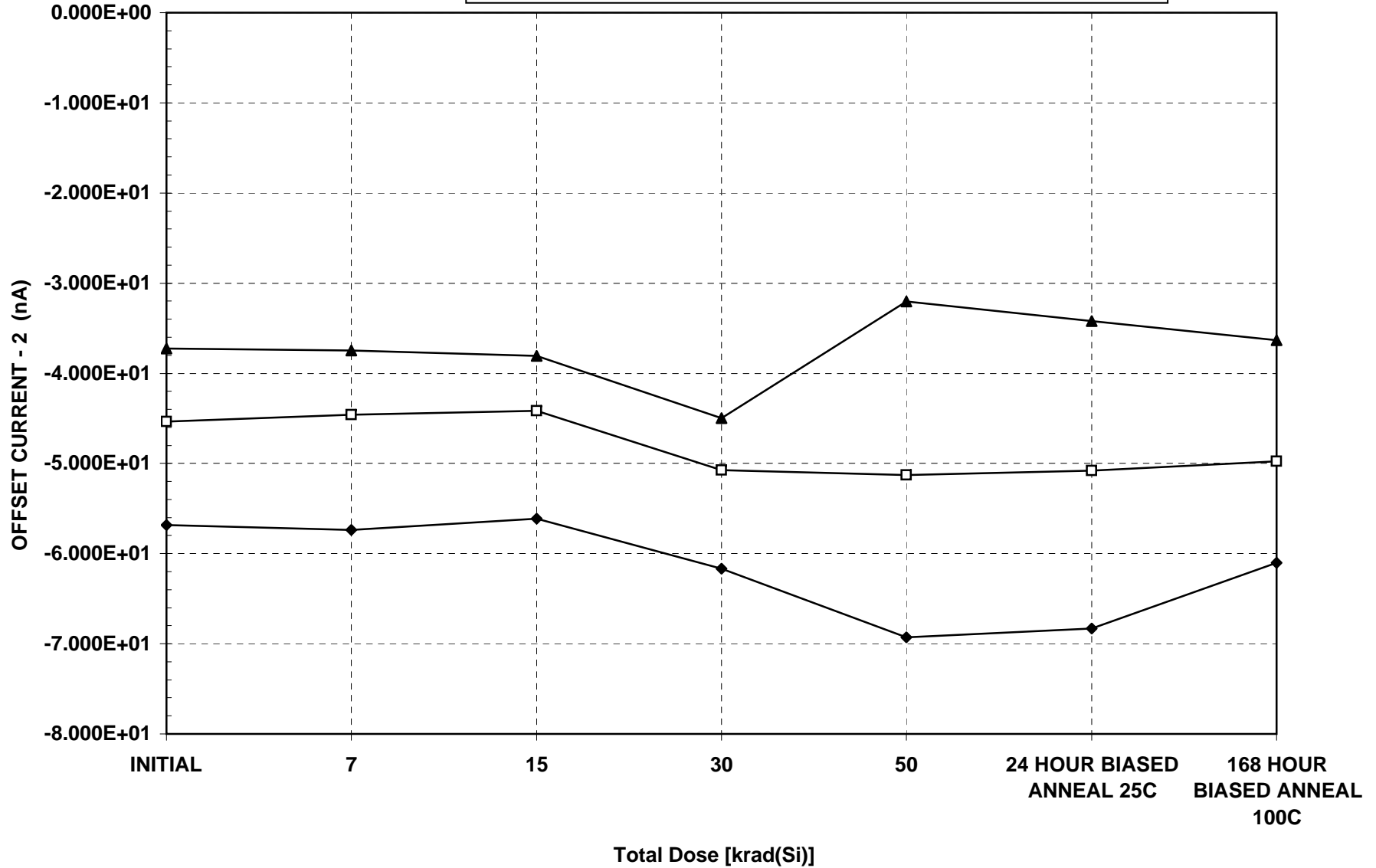
OFFSET CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

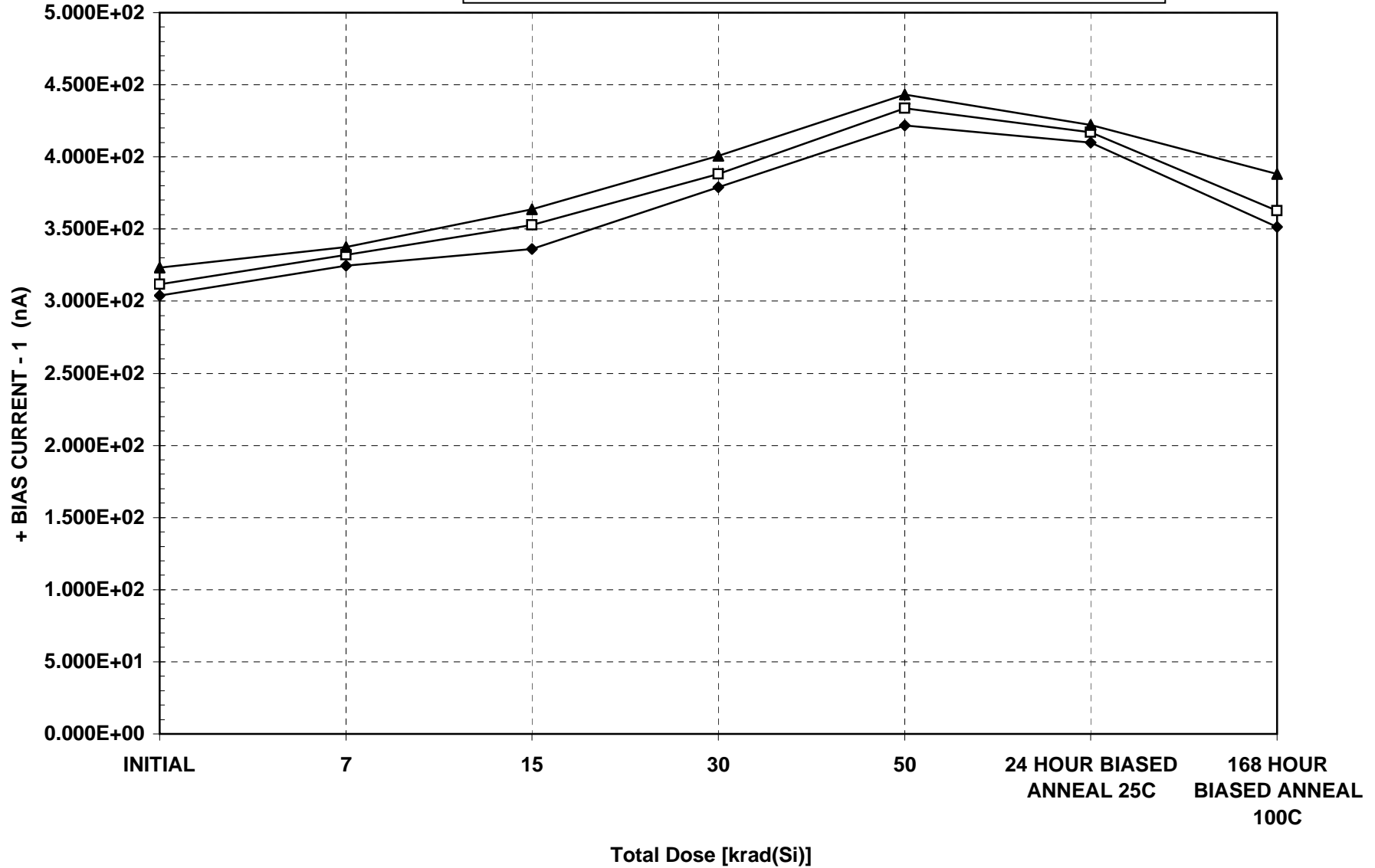
OFFSET CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

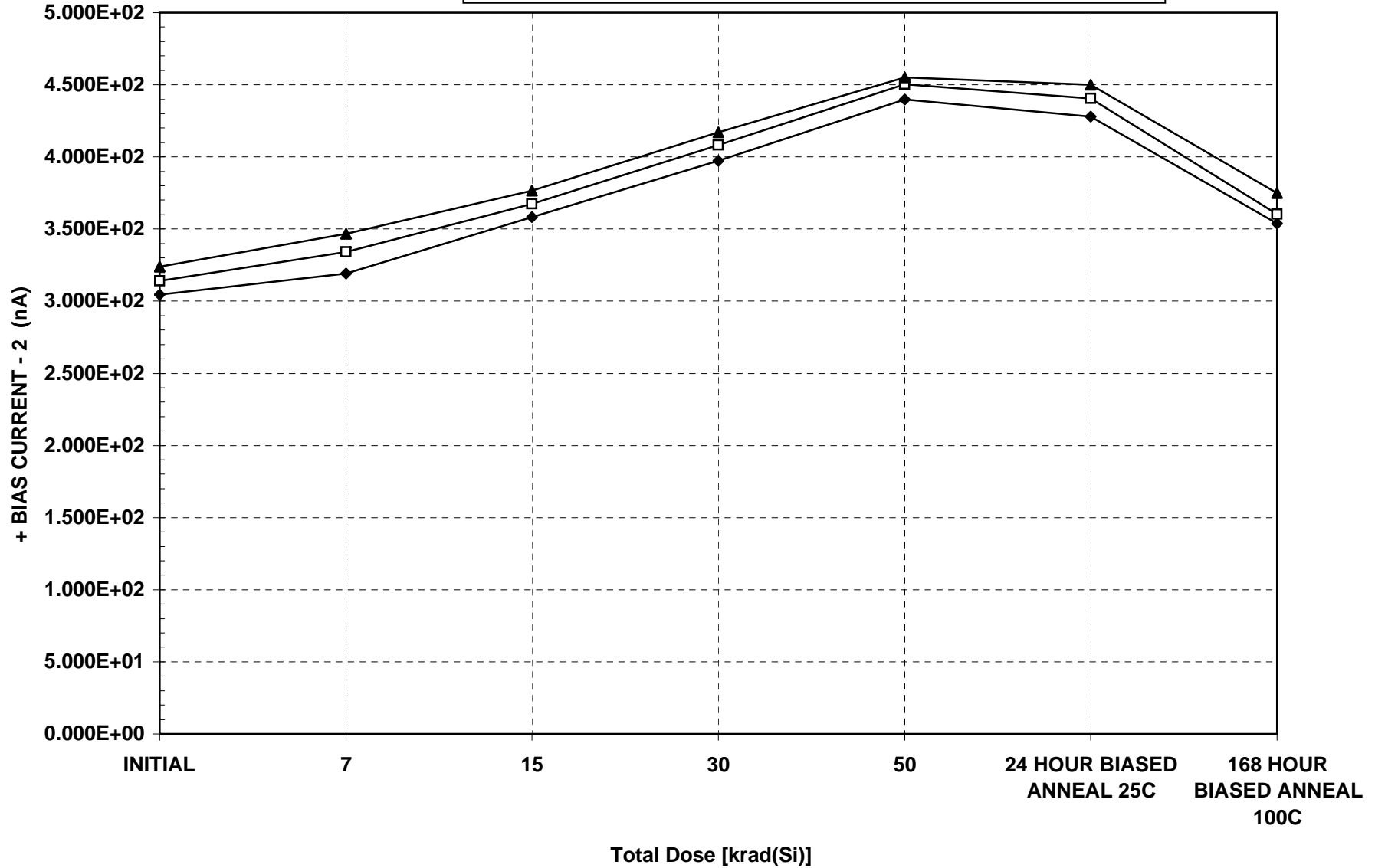
+ BIAS CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

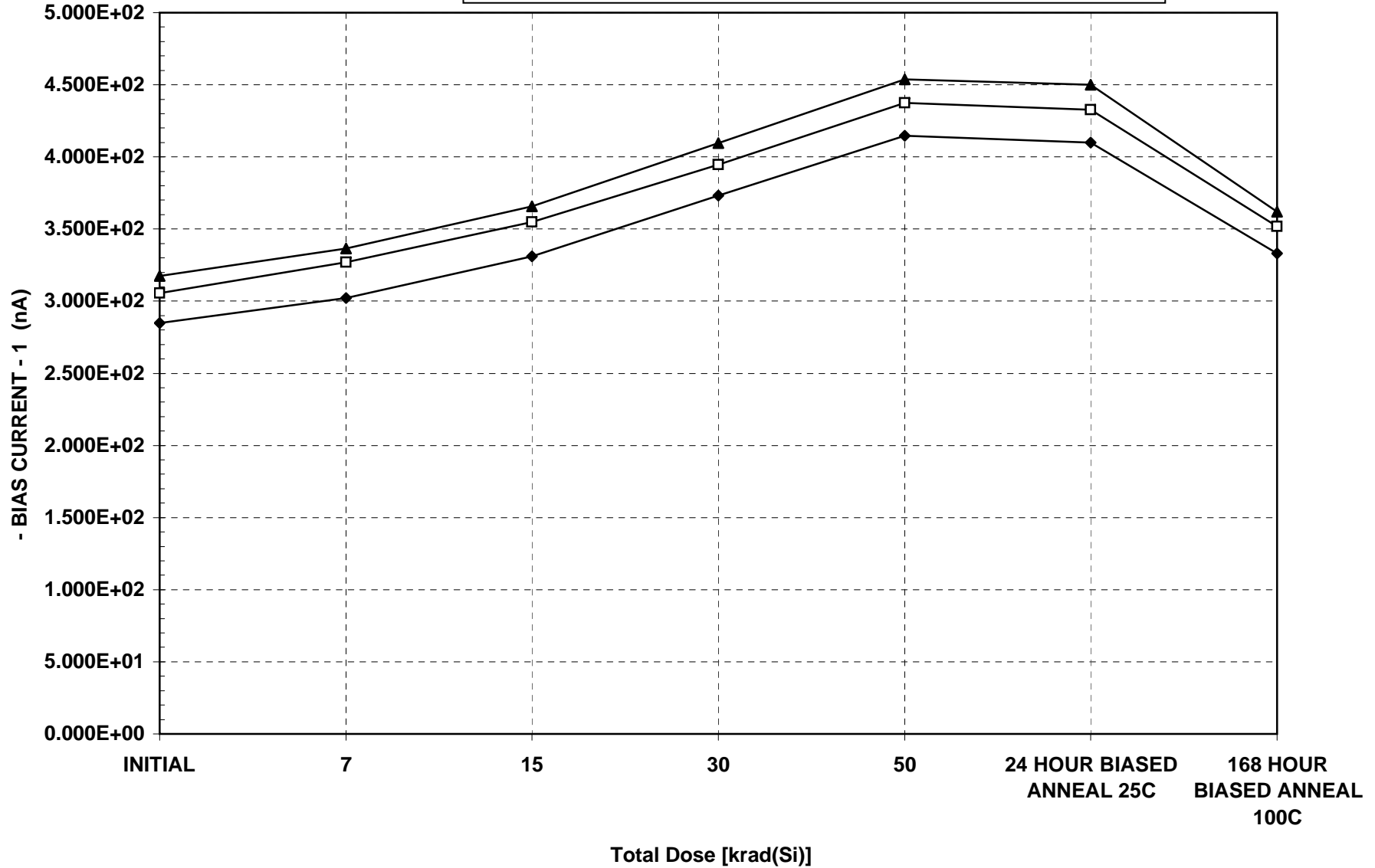
+ BIAS CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

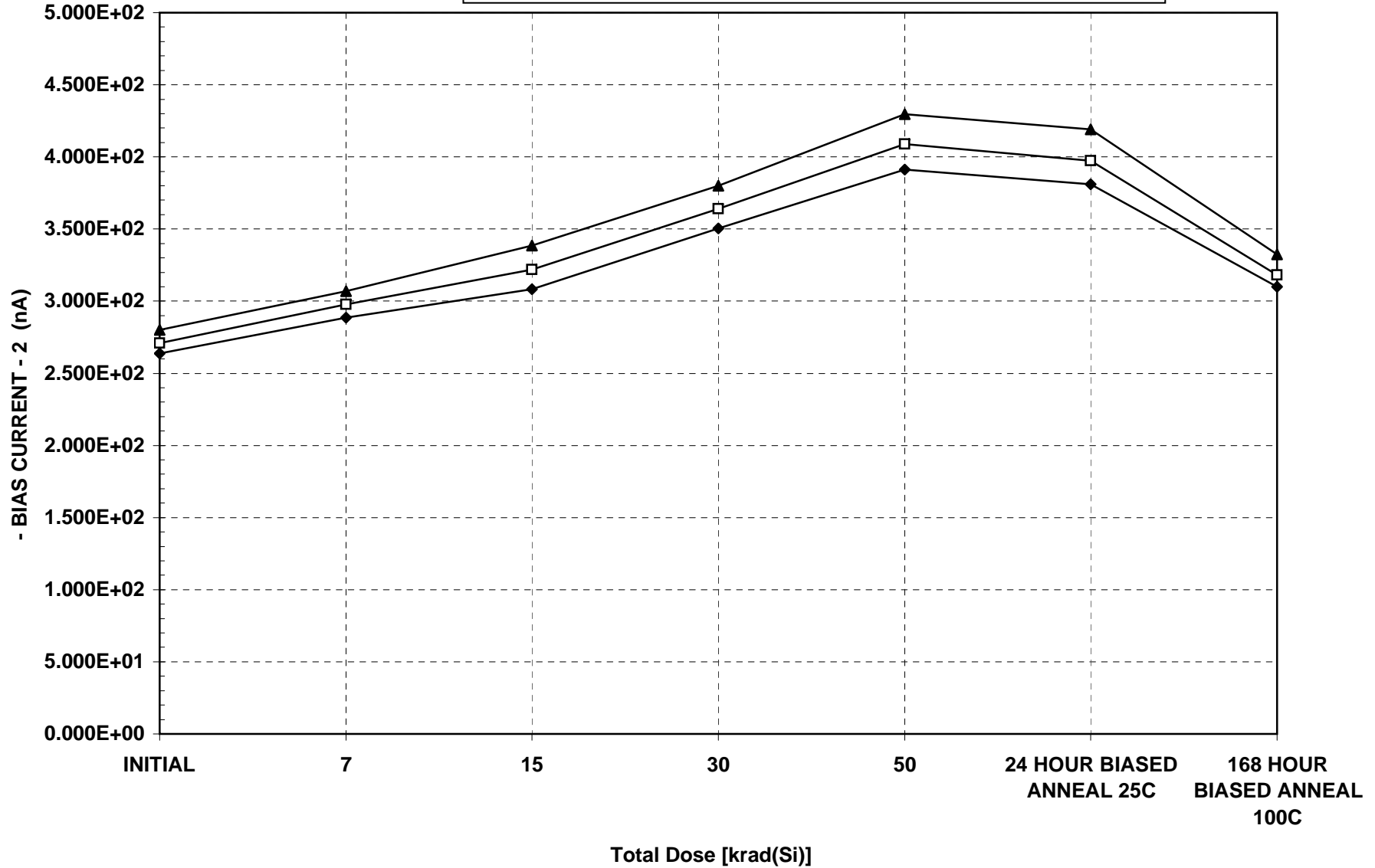
- BIAS CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

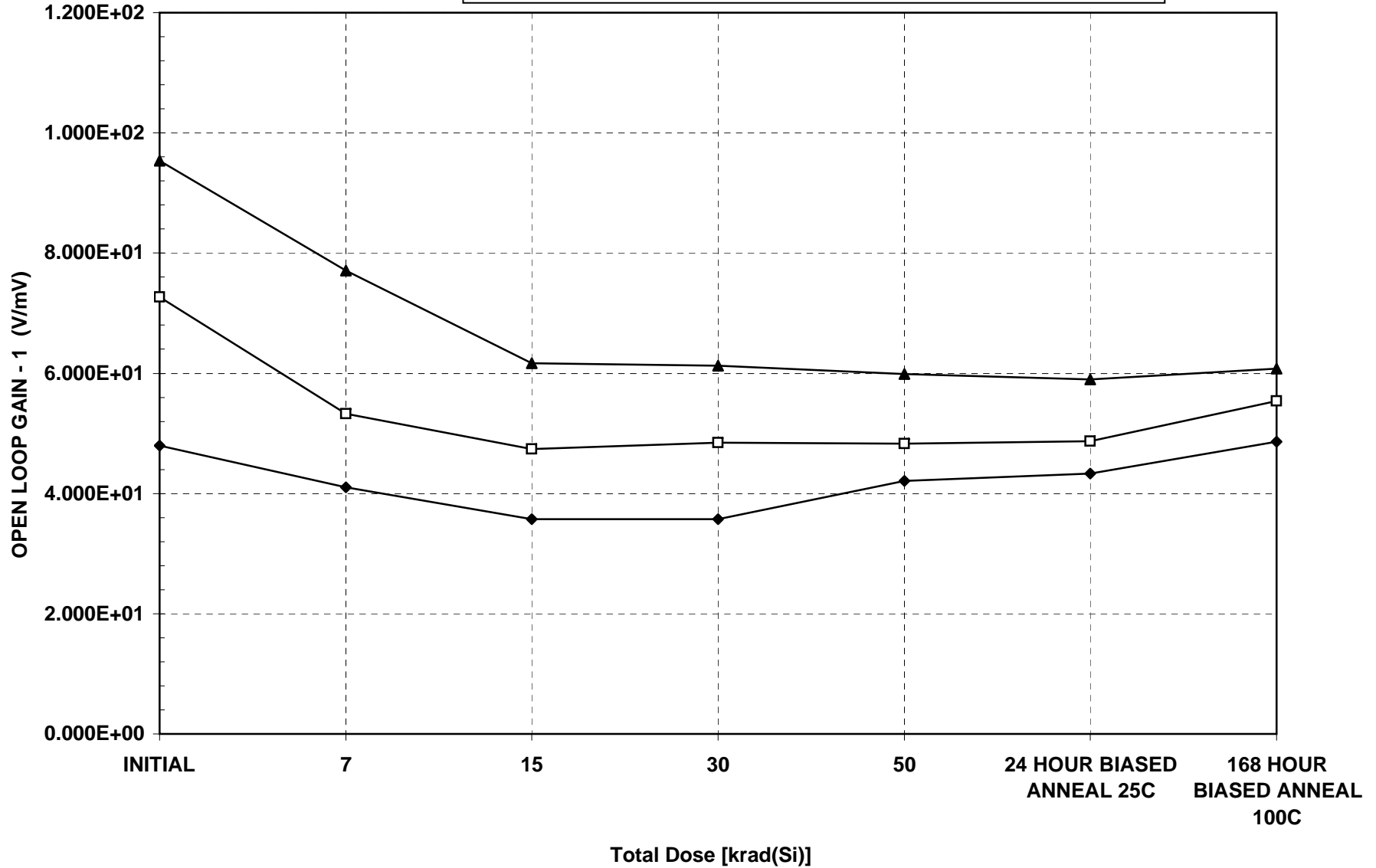
- BIAS CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

OPEN LOOP GAIN - 1 (V/mV)

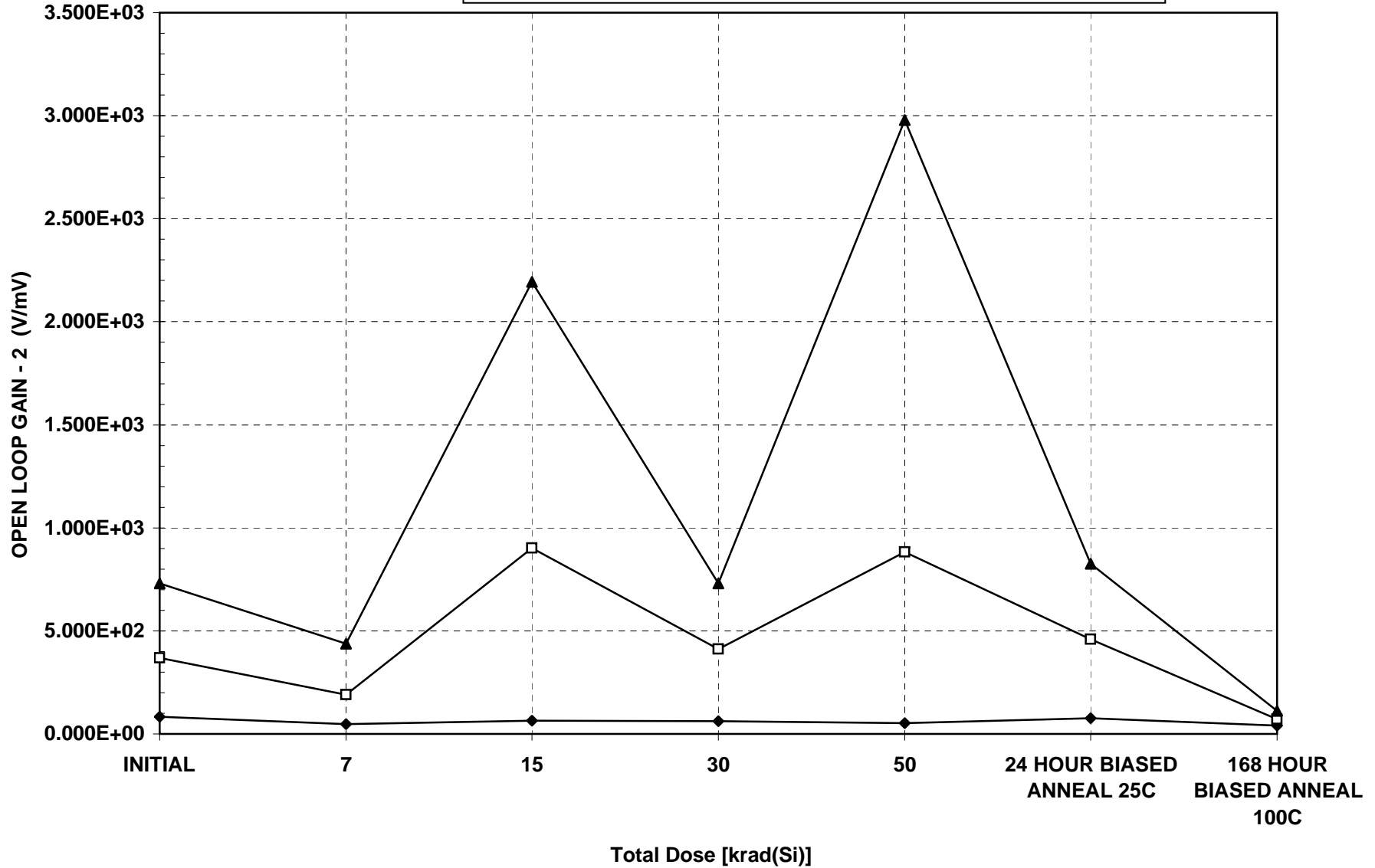


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1572 4/26/07

OPEN LOOP GAIN - 2 (V/mV)



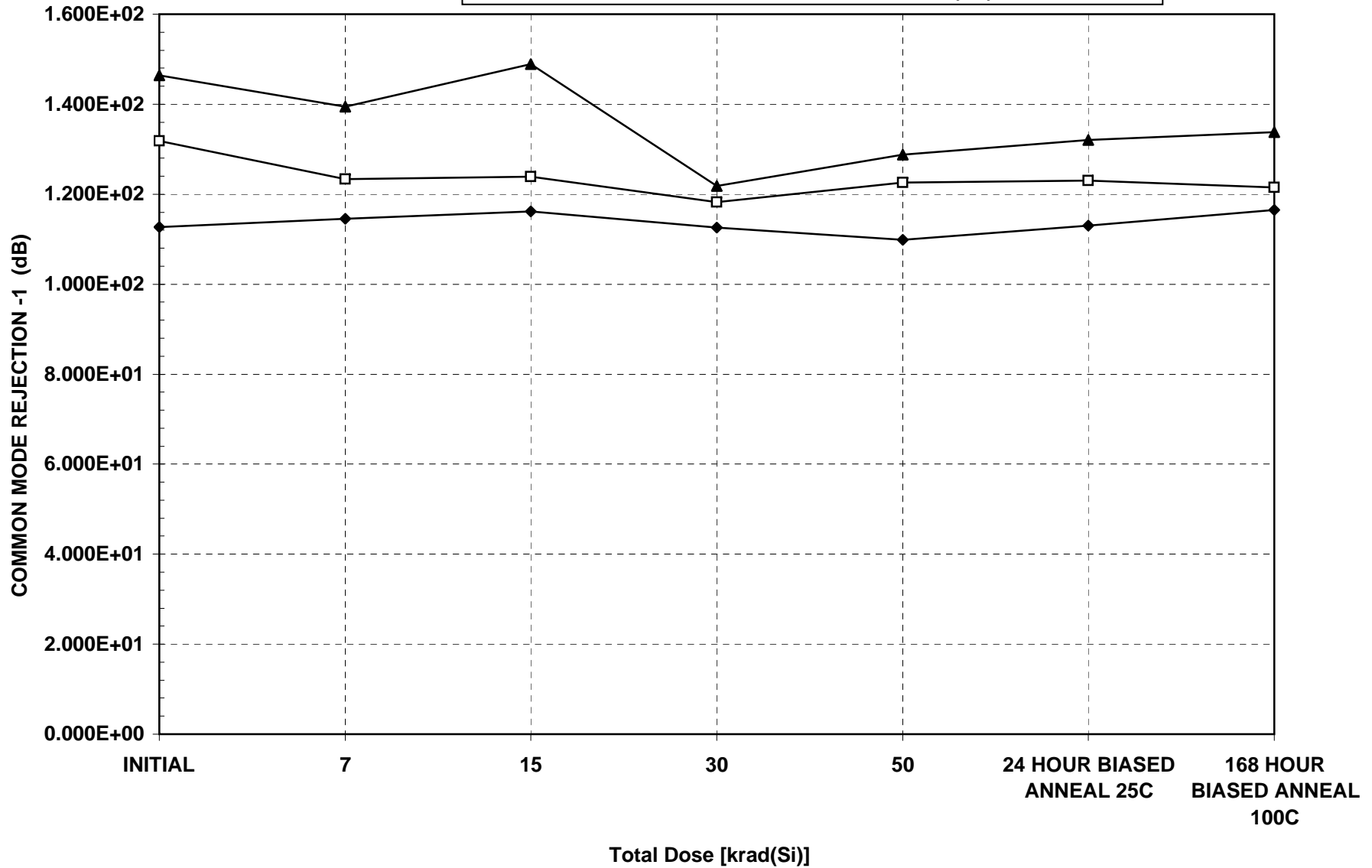
◆ MINIMUM

□ MEAN

▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

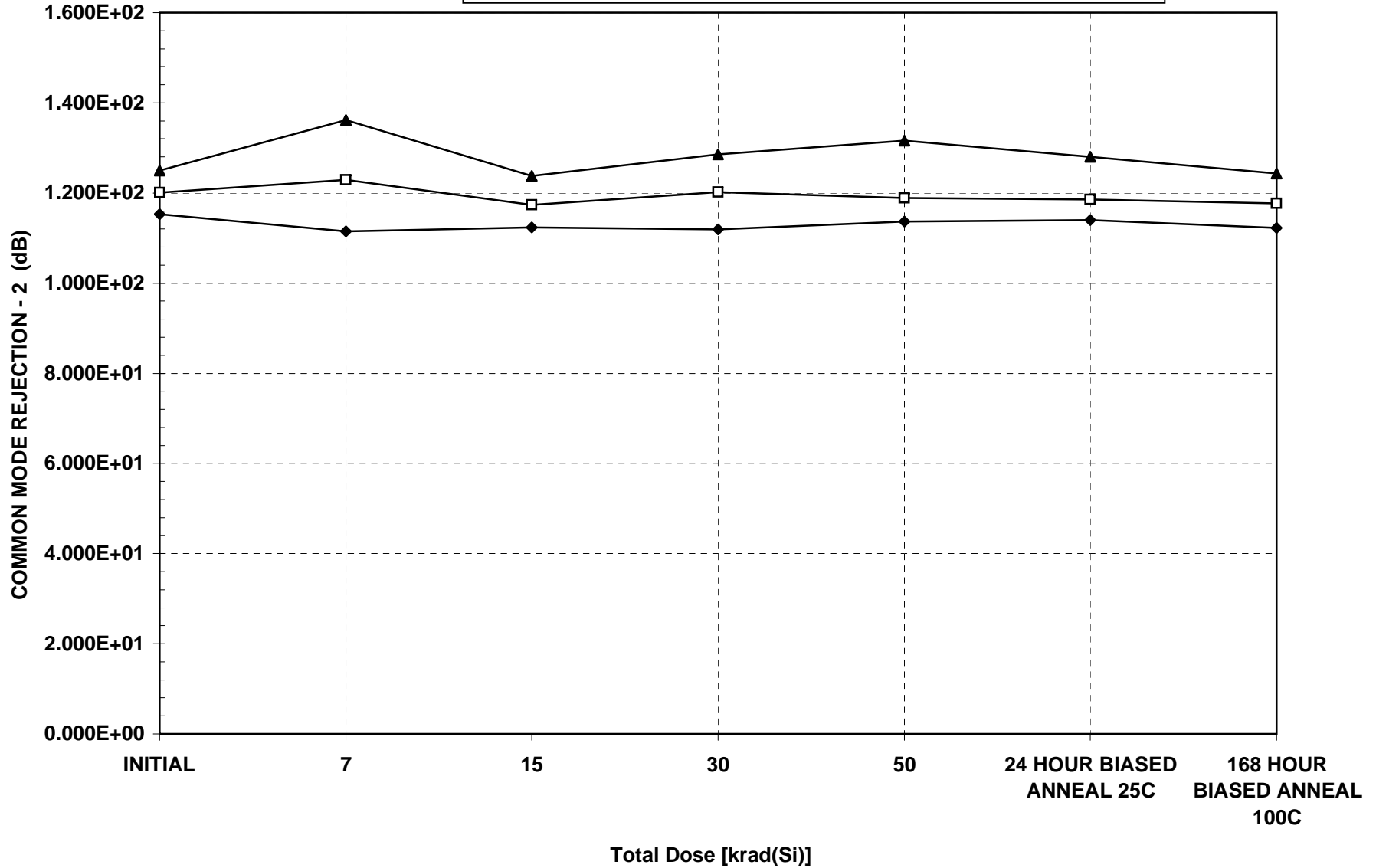
COMMON MODE REJECTION -1 (dB)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

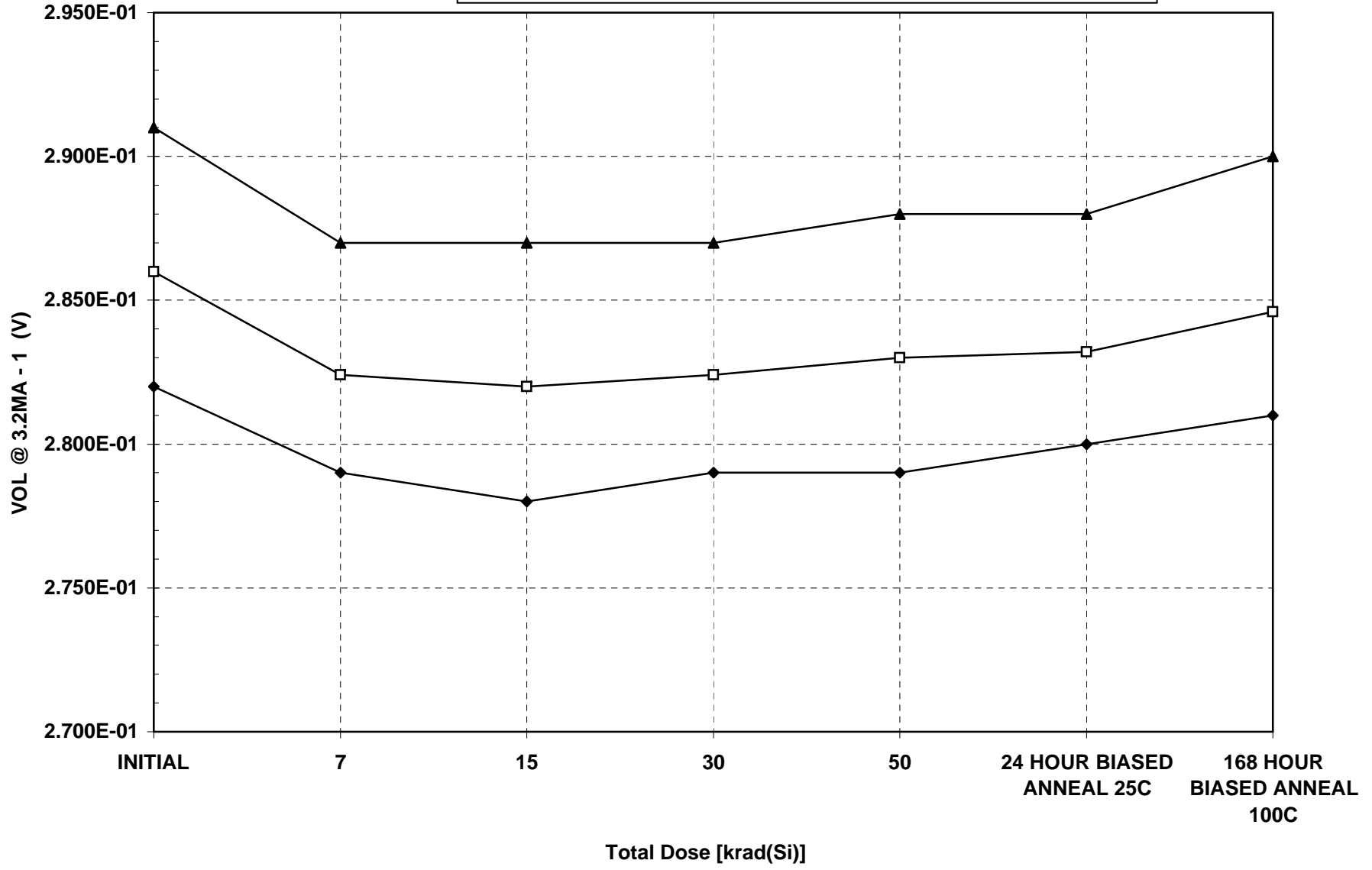
COMMON MODE REJECTION - 2 (dB)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

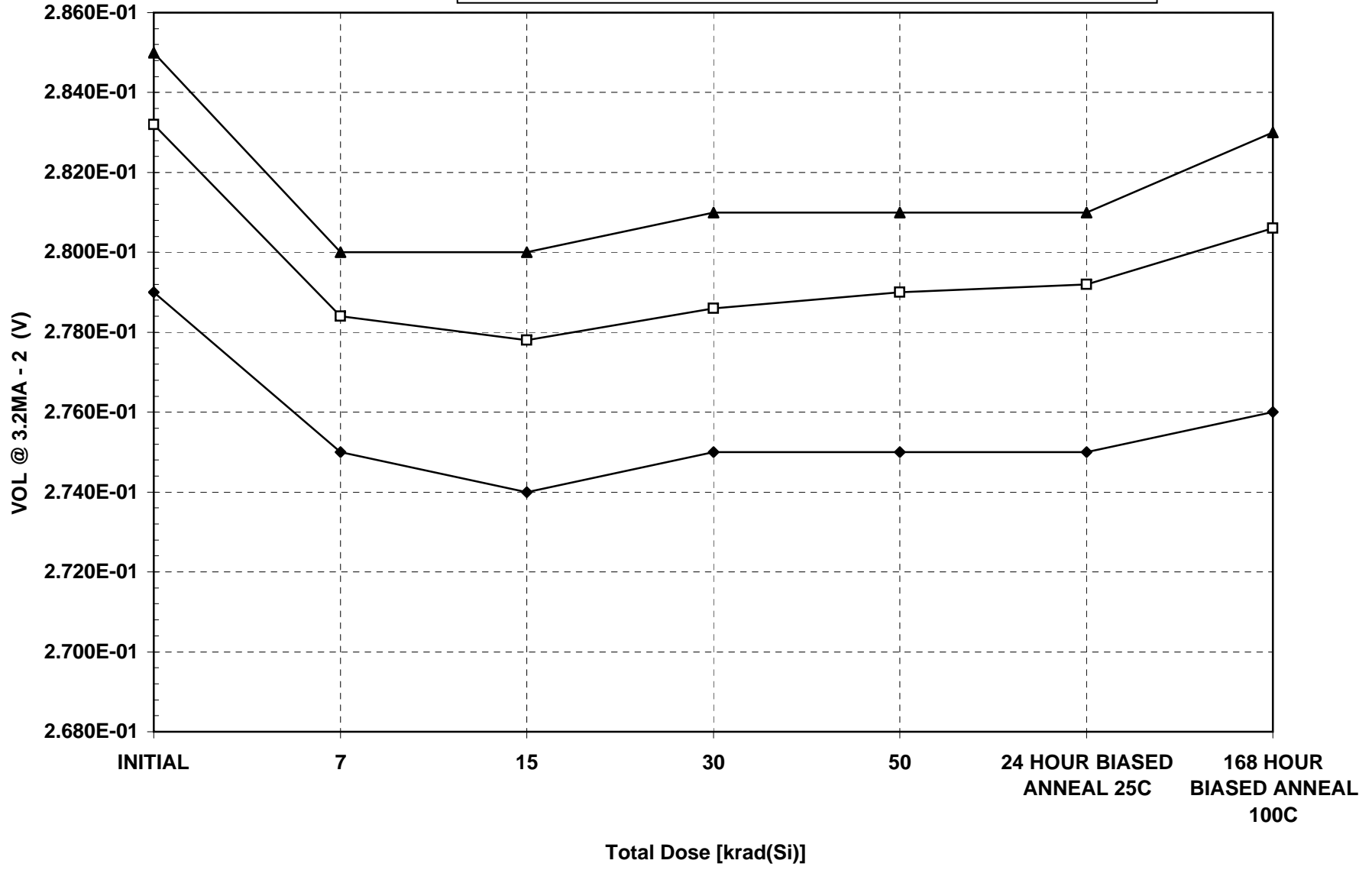
VOL @ 3.2MA - 1 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

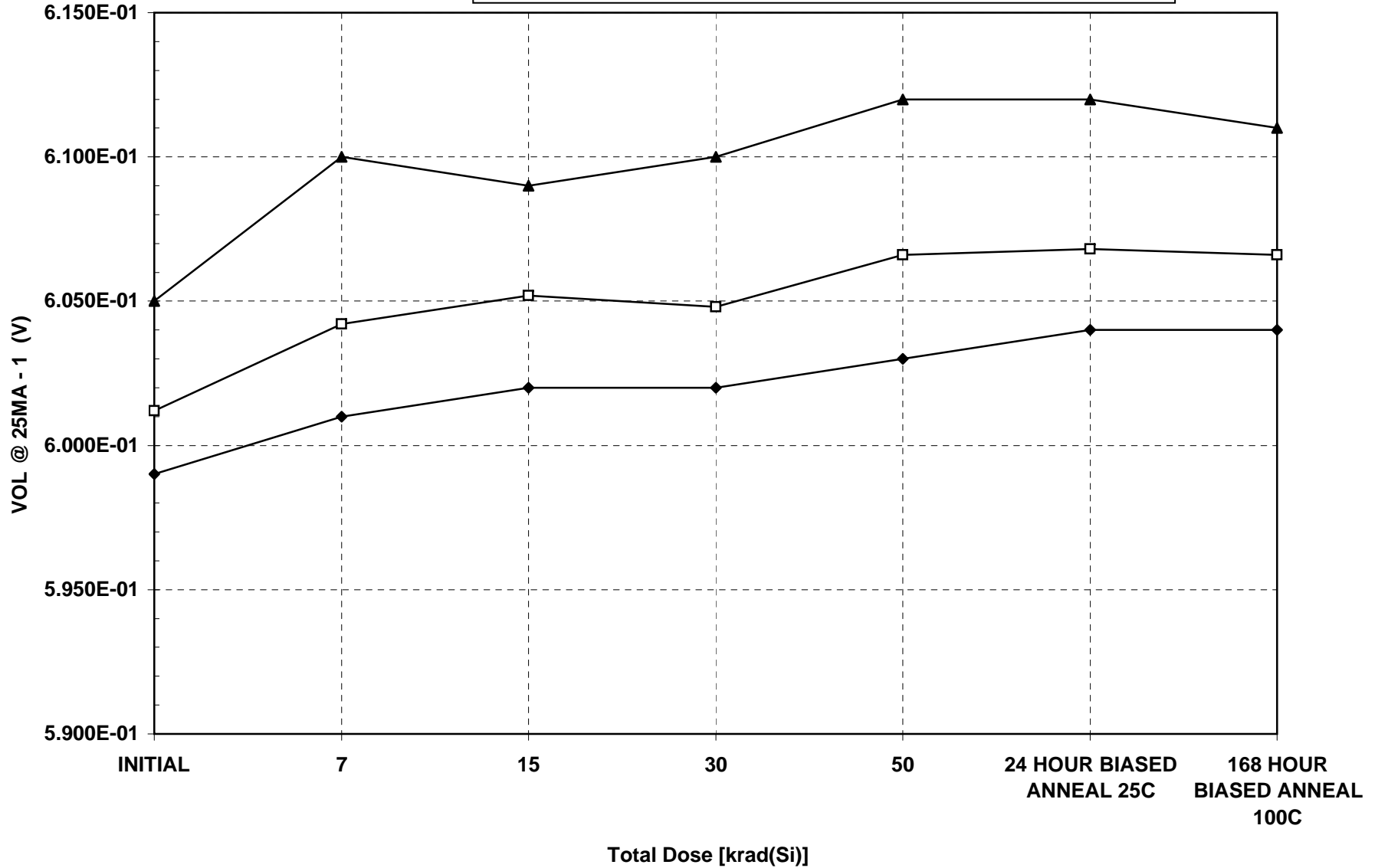
VOL @ 3.2MA - 2 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

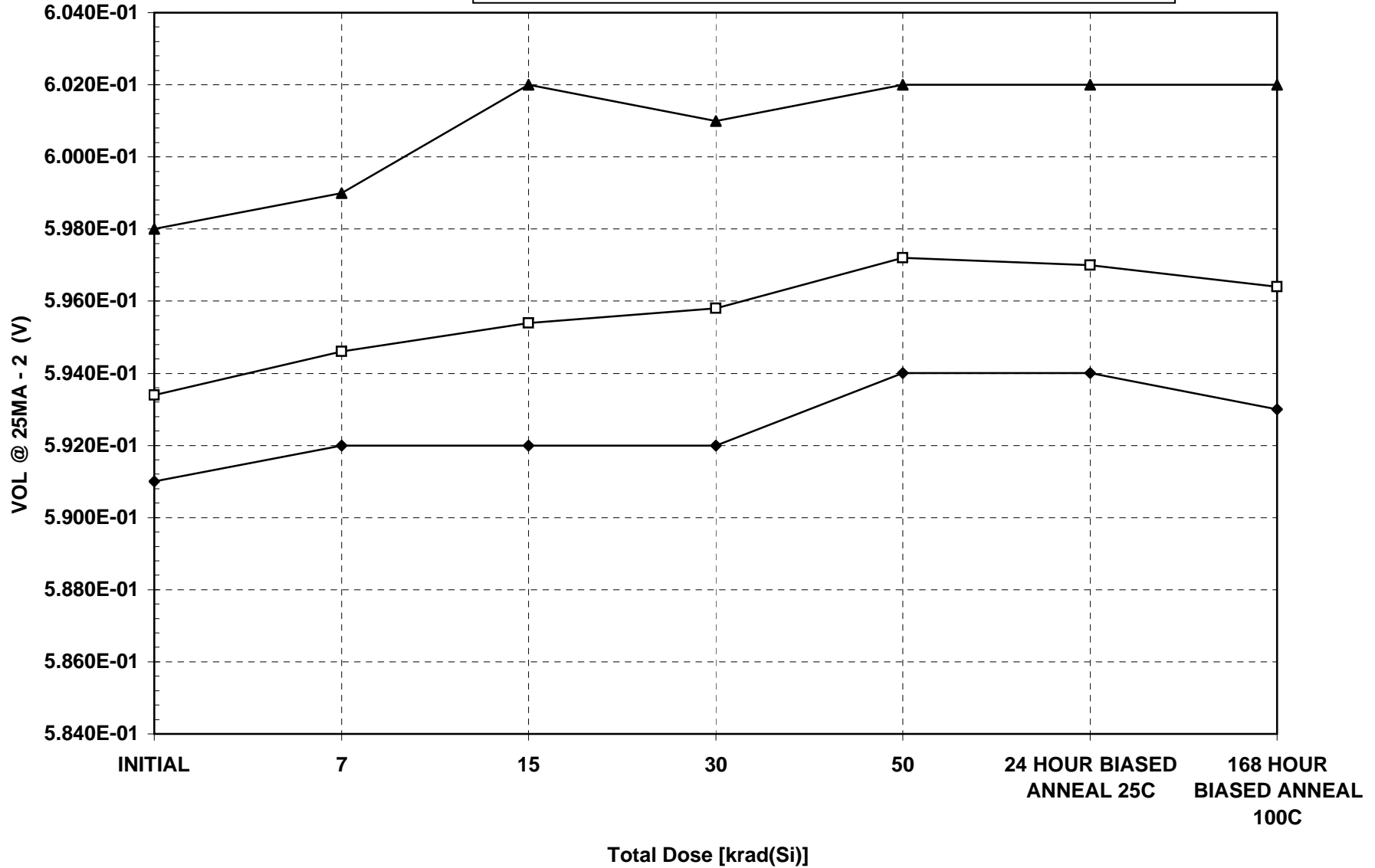
VOL @ 25MA - 1 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1572 4/26/07

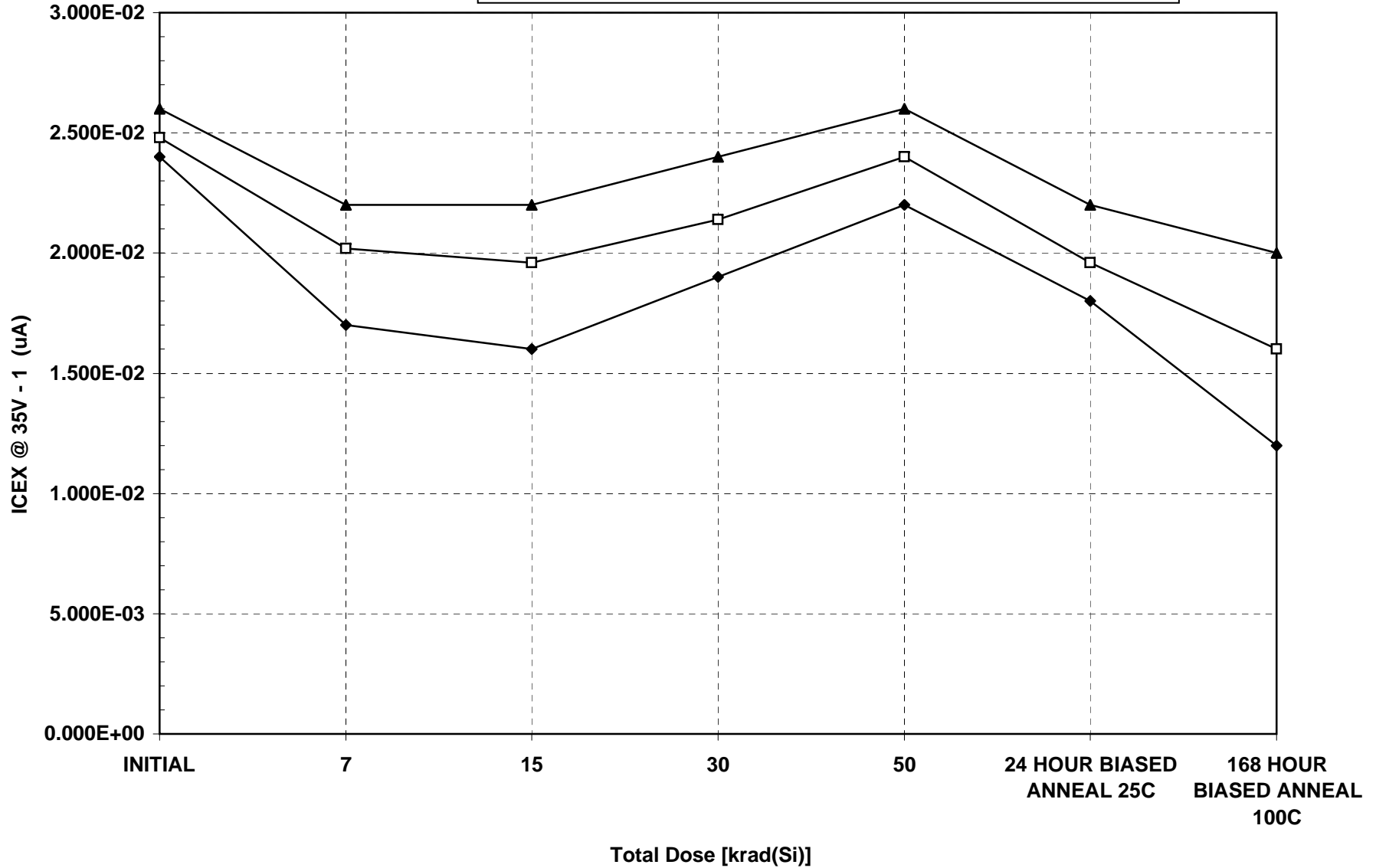
VOL @ 25MA - 2 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)
IC S Radiation Test Results Log # 1572 4/26/07

ICEX @ 35V - 1 (uA)

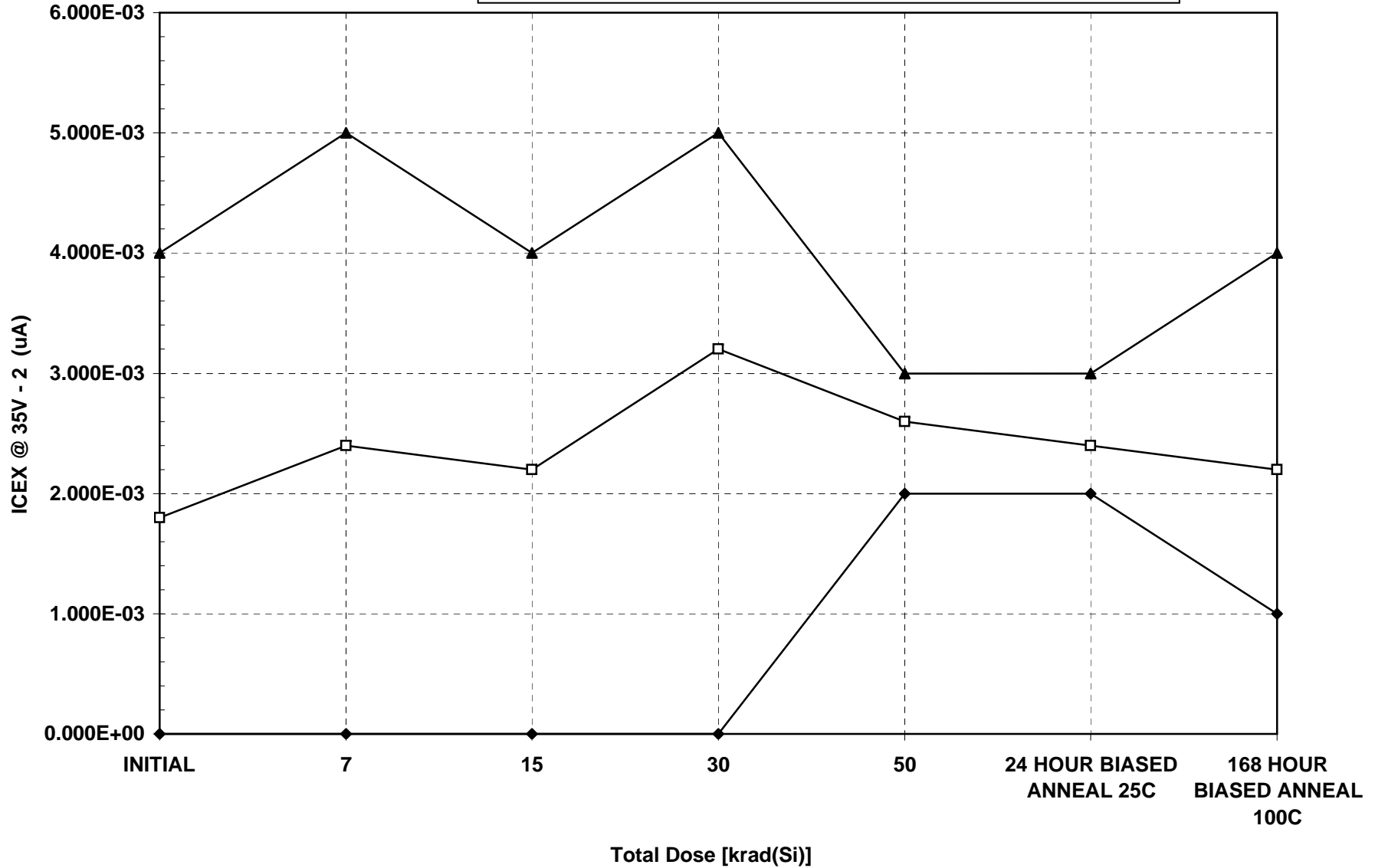


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119MW DUAL COMPARATORS (LTC)

I C S Radiation Test Results Log # 1572 4/26/07

ICEX @ 35V - 2 (uA)



◆ MINIMUM

□ MEAN

▲ MAXIMUM

ICS Radiation Test Results

**RH119MW
DUAL COMPARATOR
(LINEAR TECHNOLOGY CORPORATION)
P.O. # 46026L**

.....
.
DEVICE TYPE: RH119MW DUAL COMPARATOR .
(LINEAR TECHNOLOGY CORPORATION) .
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV .
.
D/C 0637A || PACKAGE 10-PIN F/P || LOT# 401782.2 .
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692 .
P.O.# 46026L .
.
Test Conductor: AJ Kenna .
Test Administrator: Michael K. Gauthier .
.
.....

**ICS RADIATION TECHNOLOGIES, INC.
8416 Florence Ave, Suite 207
Downey, CA 90240-3949**

**TEL: 800-297-8688
TEL: 562-923-1837
FAX: 562-923-3609
INTERNET e-mail: support@icsrad.com
www.icsrad.com**

Radiation Test Results

RH119MW
Dual Comparator
Linear Technology Corporation
D/C 0637A, Lot 401782.2
Log# 1573 [Test Date 05-24-07]
Log# 1662 [Test Date 01-14-08]
ELDRS Test - P.O.# 46026L

This test consisted of two test logs, Logs 1573 and 1662. The test was to compare ELDRS radiation effects differences between the two bias conditions: Log 1573, ± 15 volts and Log 1662, which had all leads grounded. The twenty test parameters requirements are stated in test procedure RTP 686 dated March 21, 2007. There was one *Information Only* parameter tested.

The test results indicate there is little difference between the two bias conditions, The test results were less than the LTC data sheet limits of 20krad(Si) at the 50krad(Si) test level.

Both the biased and unbiased (grounded) lots **PASSED** all of the parameter test requirements as stated in the Radiation Test Procedure RTP 692, dated March 23, 2007.

ELDRS BIASED DEVICES, Log 1573

Information Only, + Supply Current @ $V_{+}=5V$, $V_{-}=0V$: The + Supply Current @ $V_{+}=5V$, $V_{-}=0V$ is an information only test. The minimum current was 2.46mA at the 7 and 50krad test levels. The maximum current was 2.60mA at the 7, 50krad, 24 hour 25°C anneal, and 168 hour 100°C anneal test level.

PASSED, + Supply Current @ $V_{\pm}15V$: The Post-Radiation limit at 50krad(Si) was 11.5mA maximum. The parameter minimum current was 7.40mA. The maximum current was 7.78mA.

PASSED, - Supply Current @ $V_{\pm}15V$: The Post-Radiation limit at 50krad(Si) was -4.5mA maximum. The parameter minimum current was -3.40mA. The maximum current was -3.23mA.

PASSED, Offset Voltage-1: The Post-Radiation limit at 50krad(Si) was $\pm 4.0mV$ maximum. The parameter minimum voltage was 0.17mV. The maximum voltage was 0.48mV.

PASSED, Offset Voltage-2: The Post-Radiation limit at 50krad(Si) was $\pm 4.0mV$ maximum. The parameter minimum voltage was 0.24mV. The maximum voltage was 0.50mV.

PASSED, Offset Current-1: The Post-Radiation limit at 50krad(Si) was $\pm 150\text{nA}$ maximum. The parameter minimum current was -29.4nA . The maximum current was 17.9nA .

PASSED, Offset Current-2: The Post-Radiation limit at 50krad(Si) was $\pm 150\text{nA}$ maximum. The parameter minimum current was -70.1nA . The maximum current was -35.6nA .

PASSED, + Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 407nA . The maximum current was 427nA .

PASSED, + Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 440nA . The maximum current was 452nA .

PASSED, - Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 388nA . The maximum current was 440nA .

PASSED, - Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 394nA . The maximum current was 415nA .

PASSED, Open Loop Gain-1: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 49.0V/mV . The maximum gain was 76.6V/mV .

PASSED, Open Loop Gain-2: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 52.6V/mV . The maximum gain was 333V/mV .

PASSED, Common Mode Rejection-1: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 120dB . The maximum rejection was 128dB .

PASSED, Common Mode Rejection-2: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 115dB . The maximum rejection was 136dB .

PASSED, VOL @ 3.2mA-1: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.277V . The maximum voltage was 0.287V .

PASSED, VOL @ 3.2mA-2: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.269V . The maximum voltage was 0.279V .

PASSED, VOL @ 25mA-1: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.595V . The maximum voltage was 0.610V .

PASSED, VOL @ 25mA-2: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.581V . The maximum voltage was 0.594V .

PASSED, ICEX @ 35V-1: The Post-Radiation limit at 50krad(Si) was $2\mu\text{A}$ maximum. The parameter minimum current was $0.014\mu\text{A}$. The maximum current was $0.018\mu\text{A}$.

PASSED, ICEX @ 35V-2: The Post-Radiation limit at 50krad(Si) was $2\mu\text{A}$ maximum. The parameter minimum current was $0.002\mu\text{A}$. The maximum current was $0.007\mu\text{A}$.

ELDRS GROUNDED DEVICES, Log 1662

Information Only, + Supply Current @ $V_+=5\text{V}$, $V_-=0\text{V}$: The + Supply Current @ $V_+=5\text{V}$, $V_-=0\text{V}$ is an information only test. The minimum current was 2.52mA at the initial test level. The maximum current was 2.70mA at the 50krad test level

PASSED, + Supply Current @ $V_{\pm}15\text{V}$: The Post-Radiation limit at 50krad(Si) was 11.5mA maximum. The parameter minimum current was 7.39mA . The maximum current was 7.88mA .

PASSED, - Supply Current @ $V_{\pm 15V}$: The Post-Radiation limit at 50krad(Si) was -4.5mA maximum. The parameter minimum current was -3.39mA. The maximum current was -3.22mA.

PASSED, Offset Voltage-1: The Post-Radiation limit at 50krad(Si) was ± 4.0 mV maximum. The parameter minimum voltage was 0.13mV. The maximum voltage was 0.50mV.

PASSED, Offset Voltage-2: The Post-Radiation limit at 50krad(Si) was ± 4.0 mV maximum. The parameter minimum voltage was 0.26mV. The maximum voltage was 0.48mV.

PASSED, Offset Current-1: The Post-Radiation limit at 50krad(Si) was ± 150 nA maximum. The parameter minimum current was -2.88nA. The maximum current was 26.4nA.

PASSED, Offset Current-2: The Post-Radiation limit at 50krad(Si) was ± 150 nA maximum. The parameter minimum current was -62.7nA. The maximum current was -25.5nA.

PASSED, + Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 441nA. The maximum current was 473nA.

PASSED, + Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 460nA. The maximum current was 546nA.

PASSED, - Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 460nA. The maximum current was 522nA.

PASSED, - Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 457nA. The maximum current was 514nA.

PASSED, Open Loop Gain-1: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 35.5V/mV. The maximum gain was 68.5V/mV.

PASSED, Open Loop Gain-2: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 40V/mV. The maximum gain was 253V/mV.

PASSED, Common Mode Rejection-1: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 115dB. The maximum rejection was 131dB.

PASSED, Common Mode Rejection-2: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 112dB. The maximum current was 124dB.

PASSED, VOL @ 3.2mA-1: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.270V. The maximum voltage was 0.291V.

PASSED, VOL @ 3.2mA-2: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.266V. The maximum voltage was 0.286V.

PASSED, VOL @ 25mA-1: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.576V. The maximum voltage was 0.606V.

PASSED, VOL @ 25mA-2: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.566V. The maximum voltage was 0.595V.

PASSED, ICEx @ 35V-1: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.000 μ A. The maximum current was 0.002 μ A.

PASSED, ICEx @ 35V -2: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.000 μ A. The maximum current was 0.003 μ A.

ANOMOLIES:

1. There were no device anomalies during this test.

If you should require any further clarification on this matter, please contact me directly: TEL-562-923-1837, FAX-562-923-3609, or E-Mail mike@icsrad.com.

Dr. Michael K. Gauthier, P.E.
President
ICS Radiation Technologies, Inc.
April 30, 2008

RADIATION TEST PROCEDURE

No. 692

Device Type: RH119 Dual Comparator

Manufacturer: LTC

Lot No: Wafer# Date Code:

Package Type: H (10-pin TO-5 Can), J (10-pin DIP), W (10-pin Flat Pack)

No. of Devices Supplied: 11

**No. of Devices to be tested: Bias Condition #1, 5 Devices
Bias Condition #2, 5 Devices
Control, 1 Device**

=====

RADIATION CONDITIONS: MIL STD 883E, Test Method 1019.6

Facility: Shepherd Low Dose, Co60

Energy: 1.25 MeV

Total Dose krad(Si)	7	15	30	50	Biased Anneal 24 hr @ 25°C	Biased Anneal 168 hr @ 100°C
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Dose Rate rad(Si)/s	Less than 0.010 [36rad (Si)/hour]
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BIAS CONDITIONS DURING IRRADIATION:

“ON” BIAS CONDITION # 1

Pin #	Name
1	Out 1
2	Gnd 1
3	+IN 1
4	- IN 1
5	VS-
6	Out 2
7	Gnd 2
8	+ IN 2
9	- IN 2
10	VS+

See Figure 1, Page 2.

“OFF” BIAS CONDITION # 2 All pins to GROUND.

March 23, 2007

RADIATION TEST PROCEDURE

No. 692

Figure 1 – TOTAL DOSE BIAS CONDITIONS, RH119

RADIATION TEST PROCEDURE

Device Type: RH119 DUAL COMPARATOR

Electrical Parameter Measurement Conditions:

TEST CONDITIONS: $V_S = +/- 15V$.

Electrical Parametric Measurement Conditions **

TEST	TEST NAME	TEST CONDITIONS	Limits Exposure Levels rad(Si)				Units
			20k	50k	100k	200k	
1	+ SUPPLY CURRENT	$V_+=5V, V_-=0V$	Record	Record	Record	Record	mA
2	+ SUPPLY CURRENT	$V_S=\pm 15V$	11.5	11.5	11.5	11.5	mA Max
3	- SUPPLY CURRENT		4.5	4.5	4.5	4.5	mA Max
4	OFFSET VOLTAGE - 1		4.0	4.0	4.0	8.0	mV \pm Max
5	OFFSET VOLTAGE - 2		4.0	4.0	4.0	8.0	mV \pm Max
6	OFFSET CURRENT - 1		100	150	300	500	nA \pm Max
7	OFFSET CURRENT - 2		100	150	300	500	nA \pm Max
8	+ BIAS CURRENT - 1		750	1000	1500	2000	nA Max
9	+ BIAS CURRENT - 2		750	1000	1500	2000	nA Max
10	- BIAS CURRENT - 1		750	1000	1500	2000	nA Max
11	- BIAS CURRENT - 2		750	1000	1500	2000	nA Max
12	OPEN LOOP GAIN - 1		10	10	10	5	V/mV Min
13	OPEN LOOP GAIN - 2		10	10	10	5	V/mV Min
14	COMMON MODE REJECTION - 1		90	90	90	90	dB Min
15	COMMON MODE REJECTION - 2		90	90	90	90	dB Min
16	VOL @ 3.2MA - 1		0.4	0.4	0.4	0.4	V Max
17	VOL @ 3.2MA - 2		0.4	0.4	0.4	0.4	V Max
18	VOL @ 25MA - 1		1.5	1.5	1.5	1.5	V Max
19	VOL @ 25MA - 2		1.5	1.5	1.5	1.5	V Max
20	ICEX @ 35V - 1		2.0	2.0	2.0	2.0	μ A
21	ICEX @ 35V - 2		2.0	2.0	2.0	2.0	μ A

***Measurements shall be made at room ambient temperature.**

****Tests conducted using an Analog Devices LTS2020 Component Test System, with the LTS2100 OP AMP Family Board, LTS-0608 Comparator Socket Assembly, LTS0325/LM119J/H [J (10-pin DIP) H (10-pin TO-5 Can)] Test Card. W (10-pin Flat Pack) use 14-pin F/P to DIP adaptor.**

Software: BGSS - 960626B, Rev. 1.10. "LM119JH.SRC"

Data Processing use King Program: P99/90 Ktl =4.666 for 5 devices

Return samples to customer.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT		(mA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	2.54E+00	2.54E+00	2.49E+00	2.49E+00	2.50E+00	2.50E+00	2.51E+00
	199	2.57E+00	2.46E+00	2.50E+00	2.51E+00	2.53E+00	2.53E+00	2.55E+00
	200	2.47E+00	2.50E+00	2.50E+00	2.51E+00	2.46E+00	2.51E+00	2.53E+00
	202	2.53E+00	2.60E+00	2.58E+00	2.59E+00	2.60E+00	2.60E+00	2.60E+00
	203	2.51E+00	2.48E+00	2.48E+00	2.49E+00	2.49E+00	2.50E+00	2.53E+00
	205	2.50E+00	2.49E+00	2.47E+00	2.49E+00	2.50E+00	2.50E+00	2.52E+00
	MINIMUM	2.47E+00	2.46E+00	2.47E+00	2.49E+00	2.46E+00	2.50E+00	2.52E+00
	MEAN	2.52E+00	2.51E+00	2.51E+00	2.52E+00	2.52E+00	2.53E+00	2.55E+00
	MAXIMUM	2.57E+00	2.60E+00	2.58E+00	2.59E+00	2.60E+00	2.60E+00	2.60E+00
	+P 99/90	2.69E+00	2.76E+00	2.71E+00	2.71E+00	2.76E+00	2.72E+00	2.70E+00
	-P 99/90	2.34E+00	2.25E+00	2.30E+00	2.32E+00	2.27E+00	2.33E+00	2.40E+00
	SIGMA	3.71E-02	5.46E-02	4.34E-02	4.15E-02	5.32E-02	4.21E-02	3.21E-02

+ SUPPLY CURRENT		(mA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		0.00E+00	-5.00E-02	-5.00E-02	-4.00E-02	-4.00E-02	-3.00E-02
	199		-1.10E-01	-7.00E-02	-6.00E-02	-4.00E-02	-4.00E-02	-2.00E-02
	200		3.00E-02	3.00E-02	4.00E-02	-1.00E-02	4.00E-02	6.00E-02
	202		7.00E-02	5.00E-02	6.00E-02	7.00E-02	7.00E-02	7.00E-02
	203		-3.00E-02	-3.00E-02	-2.00E-02	-2.00E-02	-1.00E-02	2.00E-02
	205		-1.00E-02	-3.00E-02	-1.00E-02	0.00E+00	0.00E+00	2.00E-02
	MINIMUM		-1.10E-01	-7.00E-02	-6.00E-02	-4.00E-02	-4.00E-02	-2.00E-02
	MEAN		-1.00E-02	-1.00E-02	2.00E-03	8.88E-17	1.20E-02	3.00E-02
	MAXIMUM		7.00E-02	5.00E-02	6.00E-02	7.00E-02	7.00E-02	7.00E-02
	+P 99/90		3.06E-01	2.19E-01	2.27E-01	1.95E-01	2.14E-01	1.98E-01
	-P 99/90		-3.26E-01	-2.39E-01	-2.23E-01	-1.95E-01	-1.90E-01	-1.38E-01
	SIGMA		6.78E-02	4.90E-02	4.82E-02	4.18E-02	4.32E-02	3.61E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT		(mA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	7.50E+00	7.53E+00	7.98E+00	7.97E+00	7.98E+00	7.98E+00	8.00E+00
	199	7.56E+00	7.44E+00	7.49E+00	7.49E+00	7.45E+00	7.44E+00	7.53E+00
	200	7.42E+00	7.46E+00	7.45E+00	7.46E+00	7.40E+00	7.50E+00	7.47E+00
	202	7.69E+00	7.78E+00	7.76E+00	7.78E+00	7.78E+00	7.77E+00	7.79E+00
	203	7.44E+00	7.41E+00	7.42E+00	7.42E+00	7.41E+00	7.42E+00	7.45E+00
	205	7.42E+00	7.41E+00	7.39E+00	7.40E+00	7.41E+00	7.41E+00	7.44E+00
	MINIMUM	7.42E+00	7.41E+00	7.39E+00	7.40E+00	7.40E+00	7.41E+00	7.44E+00
	MEAN	7.51E+00	7.50E+00	7.50E+00	7.51E+00	7.49E+00	7.51E+00	7.54E+00
	MAXIMUM	7.69E+00	7.78E+00	7.76E+00	7.78E+00	7.78E+00	7.77E+00	7.79E+00
	+P 99/90	8.06E+00	8.24E+00	8.20E+00	8.23E+00	8.25E+00	8.21E+00	8.22E+00
	-P 99/90	6.95E+00	6.76E+00	6.81E+00	6.79E+00	6.73E+00	6.81E+00	6.85E+00
	SIGMA	1.18E-01	1.58E-01	1.49E-01	1.55E-01	1.63E-01	1.51E-01	1.46E-01

+ SUPPLY CURRENT		(mA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		3.00E-02	4.80E-01	4.70E-01	4.80E-01	4.80E-01	5.00E-01
	199		-1.20E-01	-7.00E-02	-7.00E-02	-1.10E-01	-1.20E-01	-3.00E-02
	200		4.00E-02	3.00E-02	4.00E-02	-2.00E-02	8.00E-02	5.00E-02
	202		9.00E-02	7.00E-02	9.00E-02	9.00E-02	8.00E-02	1.00E-01
	203		-3.00E-02	-2.00E-02	-2.00E-02	-3.00E-02	-2.00E-02	1.00E-02
	205		-1.00E-02	-3.00E-02	-2.00E-02	-1.00E-02	-1.00E-02	2.00E-02
	MINIMUM		-1.20E-01	-7.00E-02	-7.00E-02	-1.10E-01	-1.20E-01	-3.00E-02
	MEAN		-6.00E-03	-4.00E-03	4.00E-03	-1.60E-02	2.00E-03	3.00E-02
	MAXIMUM		9.00E-02	7.00E-02	9.00E-02	9.00E-02	8.00E-02	1.00E-01
	+P 99/90		3.62E-01	2.51E-01	2.93E-01	3.17E-01	3.90E-01	2.56E-01
	-P 99/90		-3.74E-01	-2.59E-01	-2.85E-01	-3.49E-01	-3.86E-01	-1.96E-01
	SIGMA		7.89E-02	5.46E-02	6.19E-02	7.13E-02	8.32E-02	4.85E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- SUPPLY CURRENT

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-3.26E+00	-3.27E+00	-3.78E+00	-3.78E+00	-3.78E+00	-3.78E+00
	199		-3.27E+00	-3.26E+00	-3.27E+00	-3.27E+00	-3.26E+00	-3.26E+00
	200		-3.26E+00	-3.27E+00	-3.26E+00	-3.26E+00	-3.26E+00	-3.27E+00
	202		-3.38E+00	-3.39E+00	-3.40E+00	-3.40E+00	-3.40E+00	-3.40E+00
	203		-3.24E+00	-3.24E+00	-3.24E+00	-3.25E+00	-3.23E+00	-3.24E+00
	205		-3.30E+00	-3.32E+00	-3.33E+00	-3.33E+00	-3.31E+00	-3.32E+00
	MINIMUM		-3.38E+00	-3.39E+00	-3.40E+00	-3.40E+00	-3.40E+00	-3.40E+00
	MEAN		-3.29E+00	-3.30E+00	-3.30E+00	-3.30E+00	-3.29E+00	-3.30E+00
	MAXIMUM		-3.24E+00	-3.24E+00	-3.24E+00	-3.25E+00	-3.23E+00	-3.24E+00
	+P 99/90		-3.03E+00	-3.01E+00	-3.00E+00	-3.01E+00	-2.99E+00	-3.00E+00
	-P 99/90		-3.55E+00	-3.58E+00	-3.60E+00	-3.60E+00	-3.60E+00	-3.60E+00
	SIGMA		5.48E-02	6.02E-02	6.52E-02	6.30E-02	6.58E-02	6.52E-02

- SUPPLY CURRENT

(mA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-1.00E-02	-5.20E-01	-5.20E-01	-5.20E-01	-5.20E-01	-5.20E-01
	199		1.00E-02	0.00E+00	0.00E+00	0.00E+00	1.00E-02	1.00E-02
	200		-1.00E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.00E-02
	202		-1.00E-02	-2.00E-02	-2.00E-02	-2.00E-02	-2.00E-02	-2.00E-02
	203		0.00E+00	0.00E+00	-1.00E-02	1.00E-02	0.00E+00	0.00E+00
	205		-2.00E-02	-3.00E-02	-3.00E-02	-1.00E-02	-2.00E-02	-3.00E-02
	MINIMUM		-2.00E-02	-3.00E-02	-3.00E-02	-2.00E-02	-2.00E-02	-3.00E-02
	MEAN		-6.00E-03	-1.00E-02	-1.20E-02	-4.00E-03	-6.00E-03	-1.00E-02
	MAXIMUM		1.00E-02	0.00E+00	0.00E+00	1.00E-02	1.00E-02	1.00E-02
	+P 99/90		4.72E-02	5.60E-02	4.88E-02	4.92E-02	5.66E-02	6.38E-02
	-P 99/90		-5.92E-02	-7.60E-02	-7.28E-02	-5.72E-02	-6.86E-02	-8.38E-02
	SIGMA		1.14E-02	1.41E-02	1.30E-02	1.14E-02	1.34E-02	1.58E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET VOLTAGE - 1		(mV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	186	2.60E-01	3.80E-01	4.80E-01	4.90E-01	5.10E-01	4.90E-01	4.80E-01
	199	4.20E-01	3.80E-01	3.60E-01	3.60E-01	4.80E-01	4.90E-01	3.80E-01
	200	5.20E-01	5.10E-01	4.70E-01	4.70E-01	4.80E-01	3.80E-01	4.60E-01
	202	2.10E-01	2.00E-01	1.80E-01	1.80E-01	1.70E-01	1.70E-01	1.60E-01
	203	5.10E-01	4.70E-01	4.80E-01	4.80E-01	4.60E-01	4.50E-01	4.40E-01
	205	3.80E-01	3.60E-01	3.40E-01	3.40E-01	3.50E-01	3.30E-01	3.50E-01
	MINIMUM	2.10E-01	2.00E-01	1.80E-01	1.80E-01	1.70E-01	1.70E-01	1.60E-01
	MEAN	4.08E-01	3.84E-01	3.66E-01	3.66E-01	3.88E-01	3.64E-01	3.58E-01
	MAXIMUM	5.20E-01	5.10E-01	4.80E-01	4.80E-01	4.80E-01	4.90E-01	4.60E-01
	+P 99/90	9.94E-01	9.45E-01	9.33E-01	9.33E-01	1.01E+00	9.46E-01	9.14E-01
	-P 99/90	-1.78E-01	-1.77E-01	-2.01E-01	-2.01E-01	-2.34E-01	-2.18E-01	-1.98E-01
	SIGMA	1.26E-01	1.20E-01	1.22E-01	1.22E-01	1.33E-01	1.25E-01	1.19E-01

OFFSET VOLTAGE - 1		(mV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	186		1.20E-01	2.20E-01	2.30E-01	2.50E-01	2.30E-01	2.20E-01
	199		-4.00E-02	-6.00E-02	-6.00E-02	6.00E-02	7.00E-02	-4.00E-02
	200		-1.00E-02	-5.00E-02	-5.00E-02	-4.00E-02	-1.40E-01	-6.00E-02
	202		-1.00E-02	-3.00E-02	-3.00E-02	-4.00E-02	-4.00E-02	-5.00E-02
	203		-4.00E-02	-3.00E-02	-3.00E-02	-5.00E-02	-6.00E-02	-7.00E-02
	205		-2.00E-02	-4.00E-02	-4.00E-02	-3.00E-02	-5.00E-02	-3.00E-02
	MINIMUM		-4.00E-02	-6.00E-02	-6.00E-02	-5.00E-02	-1.40E-01	-7.00E-02
	MEAN		-2.40E-02	-4.20E-02	-4.20E-02	-2.00E-02	-4.40E-02	-5.00E-02
	MAXIMUM		-1.00E-02	-3.00E-02	-3.00E-02	6.00E-02	7.00E-02	-3.00E-02
	+P 99/90		4.68E-02	1.88E-02	1.88E-02	1.91E-01	3.06E-01	2.38E-02
	-P 99/90		-9.48E-02	-1.03E-01	-1.03E-01	-2.31E-01	-3.94E-01	-1.24E-01
	SIGMA		1.52E-02	1.30E-02	1.30E-02	4.53E-02	7.50E-02	1.58E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET VOLTAGE - 2		(mV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	3.900E-01	6.300E-01	1.000E-01	4.100E-01	4.200E-01	4.300E-01	4.200E-01
	199	6.500E-01	6.200E-01	6.100E-01	6.100E-01	2.800E-01	2.900E-01	6.000E-01
	200	3.100E-01	3.000E-01	2.900E-01	6.100E-01	2.400E-01	2.600E-01	2.800E-01
	202	5.100E-01	5.000E-01	5.000E-01	3.000E-01	5.000E-01	5.000E-01	4.800E-01
	203	5.100E-01	5.100E-01	4.700E-01	5.000E-01	4.600E-01	4.900E-01	4.900E-01
	205	6.200E-01	5.800E-01	6.000E-01	5.800E-01	3.500E-01	6.000E-01	5.900E-01
	MINIMUM	3.100E-01	3.000E-01	2.900E-01	3.000E-01	2.400E-01	2.600E-01	2.800E-01
	MEAN	5.200E-01	5.020E-01	4.940E-01	5.200E-01	3.660E-01	4.280E-01	4.880E-01
	MAXIMUM	6.500E-01	6.200E-01	6.100E-01	6.100E-01	5.000E-01	6.000E-01	6.000E-01
	+P 99/90	1.143E+00	1.078E+00	1.098E+00	1.131E+00	8.893E-01	1.112E+00	1.089E+00
	-P 99/90	-1.025E-01	-7.364E-02	-1.095E-01	-9.105E-02	-1.573E-01	-2.557E-01	-1.126E-01
	SIGMA	1.334E-01	1.234E-01	1.293E-01	1.310E-01	1.122E-01	1.465E-01	1.287E-01

OFFSET VOLTAGE - 2		(mV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		2.400E-01	-2.900E-01	2.000E-02	3.000E-02	4.000E-02	3.000E-02
	199		-3.000E-02	-4.000E-02	-4.000E-02	-3.700E-01	-3.600E-01	-5.000E-02
	200		-1.000E-02	-2.000E-02	3.000E-01	-7.000E-02	-5.000E-02	-3.000E-02
	202		-1.000E-02	-1.000E-02	-2.100E-01	-1.000E-02	-1.000E-02	-3.000E-02
	203		0.000E+00	-4.000E-02	-1.000E-02	-5.000E-02	-2.000E-02	-2.000E-02
	205		-4.000E-02	-2.000E-02	-4.000E-02	-2.700E-01	-2.000E-02	-3.000E-02
	MINIMUM		-4.000E-02	-4.000E-02	-2.100E-01	-3.700E-01	-3.600E-01	-5.000E-02
	MEAN		-1.800E-02	-2.600E-02	-2.220E-17	-1.540E-01	-9.200E-02	-3.200E-02
	MAXIMUM		0.000E+00	-1.000E-02	3.000E-01	-1.000E-02	-1.000E-02	-2.000E-02
	+P 99/90		5.87E-02	3.66E-02	8.65E-01	5.79E-01	6.11E-01	1.91E-02
	-P 99/90		-9.47E-02	-8.86E-02	-8.65E-01	-8.87E-01	-7.95E-01	-8.31E-02
	SIGMA		1.643E-02	1.342E-02	1.853E-01	1.571E-01	1.506E-01	1.095E-02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET CURRENT - 1		(nA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	5.86E+00	-4.10E-01	4.70E+00	1.40E+01	7.72E+00	1.25E+01	4.34E+00
	199	6.24E+00	1.48E+00	5.10E+00	1.06E+01	1.79E+01	1.64E+01	1.21E+01
	200	6.88E+00	2.68E+00	6.84E+00	1.22E+01	1.62E+01	1.60E+01	1.60E+00
	202	-1.17E+00	-5.20E+00	-4.22E+00	-1.41E+00	3.07E+00	2.88E+00	4.86E+00
	203	-2.66E+00	-1.00E+01	3.10E-01	-7.20E-01	-9.59E+00	-7.77E+00	6.20E-01
	205	-3.61E+01	-1.77E+01	-1.89E+01	-2.28E+01	-2.94E+01	-2.69E+01	-1.05E+01
	MINIMUM	-3.61E+01	-1.77E+01	-1.89E+01	-2.28E+01	-2.94E+01	-2.69E+01	-1.05E+01
	MEAN	-5.36E+00	-5.75E+00	-2.18E+00	-4.32E-01	-3.66E-01	1.32E-01	1.74E+00
	MAXIMUM	6.88E+00	2.68E+00	6.84E+00	1.22E+01	1.79E+01	1.64E+01	1.21E+01
	+P 99/90	7.72E+01	3.36E+01	4.59E+01	6.49E+01	9.14E+01	8.48E+01	4.00E+01
	-P 99/90	-8.79E+01	-4.51E+01	-5.03E+01	-6.57E+01	-9.21E+01	-8.45E+01	-3.65E+01
	SIGMA	1.77E+01	8.43E+00	1.03E+01	1.40E+01	1.97E+01	1.81E+01	8.19E+00

OFFSET CURRENT - 1		(nA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-6.27E+00	-1.16E+00	8.13E+00	1.86E+00	6.61E+00	-1.52E+00
	199		-4.76E+00	-1.14E+00	4.37E+00	1.16E+01	1.02E+01	5.89E+00
	200		-4.20E+00	-4.00E-02	5.30E+00	9.35E+00	9.12E+00	-5.28E+00
	202		-4.03E+00	-3.05E+00	-2.40E-01	4.24E+00	4.05E+00	6.03E+00
	203		-7.36E+00	2.97E+00	1.94E+00	-6.93E+00	-5.11E+00	3.28E+00
	205		1.84E+01	1.71E+01	1.33E+01	6.68E+00	9.19E+00	2.56E+01
	MINIMUM		-7.36E+00	-3.05E+00	-2.40E-01	-6.93E+00	-5.11E+00	-5.28E+00
	MEAN		-3.94E-01	3.17E+00	4.92E+00	4.99E+00	5.49E+00	7.10E+00
	MAXIMUM		1.84E+01	1.71E+01	1.33E+01	1.16E+01	1.02E+01	2.56E+01
	+P 99/90		4.90E+01	4.10E+01	2.89E+01	3.87E+01	3.53E+01	5.99E+01
	-P 99/90		-4.98E+01	-3.46E+01	-1.90E+01	-2.87E+01	-2.43E+01	-4.57E+01
	SIGMA		1.06E+01	8.10E+00	5.13E+00	7.22E+00	6.39E+00	1.13E+01

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET CURRENT - 2		(nA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	-5.55E+01	-1.88E+01	-3.93E+01	-4.67E+01	-3.75E+01	-4.25E+01	-3.53E+01
	199	-1.71E+01	-1.19E+01	-1.76E+01	-2.40E+01	-5.02E+01	-5.61E+01	-2.20E+01
	200	-4.86E+01	-4.42E+01	-3.48E+01	-5.68E+01	-6.44E+01	-6.08E+01	-4.69E+01
	202	-3.80E+01	-3.76E+01	-3.04E+01	-5.07E+01	-4.80E+01	-4.86E+01	-4.29E+01
	203	-3.66E+01	-2.38E+01	-3.67E+01	-4.38E+01	-3.56E+01	-3.60E+01	-3.15E+01
	205	-4.33E+01	-5.17E+01	-4.57E+01	-5.74E+01	-7.01E+01	-7.22E+01	-4.73E+01
	MINIMUM	-4.86E+01	-5.17E+01	-4.57E+01	-5.74E+01	-7.01E+01	-7.22E+01	-4.73E+01
	MEAN	-3.67E+01	-3.38E+01	-3.30E+01	-4.65E+01	-5.37E+01	-5.47E+01	-3.81E+01
	MAXIMUM	-1.71E+01	-1.19E+01	-1.76E+01	-2.40E+01	-3.56E+01	-3.60E+01	-2.20E+01
	+P 99/90	1.90E+01	4.09E+01	1.50E+01	1.75E+01	1.05E+01	8.37E+00	1.34E+01
	-P 99/90	-9.24E+01	-1.09E+02	-8.10E+01	-1.11E+02	-1.18E+02	-1.18E+02	-8.97E+01
	SIGMA	1.19E+01	1.60E+01	1.03E+01	1.37E+01	1.38E+01	1.35E+01	1.10E+01

OFFSET CURRENT - 2		(nA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		3.67E+01	1.62E+01	8.88E+00	1.81E+01	1.30E+01	2.02E+01
	199		5.24E+00	-4.60E-01	-6.92E+00	-3.31E+01	-3.90E+01	-4.94E+00
	200		4.39E+00	1.38E+01	-8.18E+00	-1.58E+01	-1.22E+01	1.63E+00
	202		3.80E-01	7.60E+00	-1.27E+01	-1.00E+01	-1.06E+01	-4.92E+00
	203		1.28E+01	-1.10E-01	-7.14E+00	1.04E+00	6.10E-01	5.09E+00
	205		-8.44E+00	-2.36E+00	-1.41E+01	-2.68E+01	-2.89E+01	-4.03E+00
	MINIMUM		-8.44E+00	-2.36E+00	-1.41E+01	-3.31E+01	-3.90E+01	-4.94E+00
	MEAN		2.88E+00	3.70E+00	-9.80E+00	-1.69E+01	-1.80E+01	-1.43E+00
	MAXIMUM		1.28E+01	1.38E+01	-6.92E+00	1.04E+00	6.10E-01	5.09E+00
	+P 99/90		3.91E+01	3.55E+01	5.76E+00	4.61E+01	5.55E+01	1.98E+01
	-P 99/90		-3.34E+01	-2.81E+01	-2.54E+01	-8.00E+01	-9.16E+01	-2.27E+01
	SIGMA		7.77E+00	6.82E+00	3.34E+00	1.35E+01	1.58E+01	4.56E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ BIAS CURRENT - 1		(nA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	3.05E+02	3.40E+02	3.15E+02	3.03E+02	3.11E+02	3.04E+02	3.06E+02
	199	3.12E+02	3.32E+02	3.49E+02	3.86E+02	4.27E+02	4.17E+02	3.59E+02
	200	2.99E+02	3.17E+02	3.47E+02	3.80E+02	4.25E+02	4.23E+02	3.58E+02
	202	2.97E+02	3.17E+02	3.47E+02	3.63E+02	4.14E+02	3.99E+02	3.53E+02
	203	3.09E+02	3.43E+02	3.52E+02	3.86E+02	4.26E+02	4.36E+02	3.74E+02
	205	3.07E+02	3.32E+02	3.41E+02	3.82E+02	4.07E+02	4.18E+02	3.54E+02
	MINIMUM	2.97E+02	3.17E+02	3.41E+02	3.63E+02	4.07E+02	3.99E+02	3.53E+02
	MEAN	3.05E+02	3.28E+02	3.47E+02	3.79E+02	4.20E+02	4.19E+02	3.60E+02
	MAXIMUM	3.12E+02	3.43E+02	3.52E+02	3.86E+02	4.27E+02	4.36E+02	3.74E+02
	+P 99/90	3.36E+02	3.81E+02	3.66E+02	4.23E+02	4.62E+02	4.81E+02	3.98E+02
	-P 99/90	2.73E+02	2.76E+02	3.28E+02	3.35E+02	3.78E+02	3.56E+02	3.21E+02
	SIGMA	6.71E+00	1.12E+01	4.15E+00	9.42E+00	8.99E+00	1.35E+01	8.34E+00

+ BIAS CURRENT - 1		(nA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		3.54E+01	1.00E+01	-1.87E+00	6.74E+00	-8.50E-01	1.31E+00
	199		1.97E+01	3.68E+01	7.41E+01	1.15E+02	1.04E+02	4.70E+01
	200		1.82E+01	4.82E+01	8.10E+01	1.26E+02	1.24E+02	5.89E+01
	202		2.04E+01	5.01E+01	6.66E+01	1.18E+02	1.02E+02	5.68E+01
	203		3.42E+01	4.28E+01	7.66E+01	1.17E+02	1.27E+02	6.48E+01
	205		2.58E+01	3.39E+01	7.55E+01	1.00E+02	1.12E+02	4.71E+01
	MINIMUM		1.82E+01	3.39E+01	6.66E+01	1.00E+02	1.02E+02	4.70E+01
	MEAN		2.37E+01	4.24E+01	7.48E+01	1.15E+02	1.14E+02	5.49E+01
	MAXIMUM		3.42E+01	5.01E+01	8.10E+01	1.26E+02	1.27E+02	6.48E+01
	+P 99/90		5.42E+01	7.50E+01	9.91E+01	1.60E+02	1.67E+02	9.12E+01
	-P 99/90		-6.84E+00	9.68E+00	5.04E+01	7.08E+01	6.08E+01	1.86E+01
	SIGMA		6.54E+00	7.00E+00	5.22E+00	9.52E+00	1.14E+01	7.78E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ BIAS CURRENT - 2		(nA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	3.15E+02	3.34E+02	3.17E+02	3.05E+02	3.01E+02	3.02E+02	3.18E+02
	199	3.06E+02	3.42E+02	3.63E+02	3.99E+02	4.51E+02	4.47E+02	3.68E+02
	200	3.07E+02	3.25E+02	3.57E+02	4.09E+02	4.49E+02	4.36E+02	3.71E+02
	202	3.06E+02	3.40E+02	3.49E+02	3.80E+02	4.44E+02	4.42E+02	3.68E+02
	203	3.02E+02	3.43E+02	3.65E+02	3.96E+02	4.52E+02	4.39E+02	3.75E+02
	205	3.19E+02	3.53E+02	3.75E+02	4.21E+02	4.40E+02	4.38E+02	3.79E+02
	MINIMUM	3.02E+02	3.25E+02	3.49E+02	3.80E+02	4.40E+02	4.36E+02	3.68E+02
	MEAN	3.08E+02	3.41E+02	3.62E+02	4.01E+02	4.47E+02	4.40E+02	3.72E+02
	MAXIMUM	3.19E+02	3.53E+02	3.75E+02	4.21E+02	4.52E+02	4.47E+02	3.79E+02
	+P 99/90	3.39E+02	3.87E+02	4.07E+02	4.72E+02	4.71E+02	4.60E+02	3.94E+02
	-P 99/90	2.77E+02	2.94E+02	3.17E+02	3.30E+02	4.23E+02	4.21E+02	3.51E+02
	SIGMA	6.59E+00	9.91E+00	9.72E+00	1.51E+01	5.08E+00	4.27E+00	4.58E+00

+ BIAS CURRENT - 2		(nA)					[DELTA]	
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		1.88E+01	2.25E+00	-1.04E+01	-1.36E+01	-1.27E+01	3.31E+00
	199		3.61E+01	5.68E+01	9.25E+01	1.45E+02	1.41E+02	6.22E+01
	200		1.85E+01	5.04E+01	1.02E+02	1.42E+02	1.29E+02	6.42E+01
	202		3.43E+01	4.36E+01	7.49E+01	1.39E+02	1.37E+02	6.27E+01
	203		4.13E+01	6.36E+01	9.43E+01	1.50E+02	1.38E+02	7.34E+01
	205		3.35E+01	5.61E+01	1.02E+02	1.20E+02	1.19E+02	5.96E+01
	MINIMUM		1.85E+01	4.36E+01	7.49E+01	1.20E+02	1.19E+02	5.96E+01
	MEAN		3.27E+01	5.41E+01	9.31E+01	1.39E+02	1.33E+02	6.44E+01
	MAXIMUM		4.13E+01	6.36E+01	1.02E+02	1.50E+02	1.41E+02	7.34E+01
	+P 99/90		7.25E+01	8.91E+01	1.45E+02	1.92E+02	1.74E+02	8.92E+01
	-P 99/90		-7.04E+00	1.90E+01	4.15E+01	8.67E+01	9.14E+01	3.96E+01
	SIGMA		8.53E+00	7.52E+00	1.11E+01	1.12E+01	8.83E+00	5.31E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- BIAS CURRENT - 1		(nA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	3.14E+02	3.39E+02	3.17E+02	3.18E+02	3.21E+02	3.19E+02	3.18E+02
	199	3.16E+02	3.35E+02	3.58E+02	3.95E+02	4.40E+02	4.34E+02	3.74E+02
	200	3.06E+02	3.34E+02	3.57E+02	3.93E+02	4.37E+02	4.37E+02	3.71E+02
	202	2.89E+02	3.23E+02	3.42E+02	3.68E+02	4.09E+02	4.05E+02	3.48E+02
	203	3.06E+02	3.34E+02	3.55E+02	3.89E+02	4.25E+02	4.23E+02	3.67E+02
	205	2.77E+02	3.08E+02	3.23E+02	3.53E+02	3.88E+02	3.83E+02	3.46E+02
	MINIMUM	2.77E+02	3.08E+02	3.23E+02	3.53E+02	3.88E+02	3.83E+02	3.46E+02
	MEAN	2.99E+02	3.27E+02	3.47E+02	3.80E+02	4.20E+02	4.16E+02	3.61E+02
	MAXIMUM	3.16E+02	3.35E+02	3.58E+02	3.95E+02	4.40E+02	4.37E+02	3.74E+02
	+P 99/90	3.72E+02	3.81E+02	4.16E+02	4.65E+02	5.20E+02	5.22E+02	4.23E+02
	-P 99/90	2.26E+02	2.72E+02	2.78E+02	2.95E+02	3.19E+02	3.11E+02	3.00E+02
	SIGMA	1.57E+01	1.16E+01	1.49E+01	1.83E+01	2.15E+01	2.25E+01	1.32E+01

- BIAS CURRENT - 1		(nA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		2.46E+01	3.35E+00	4.32E+00	7.13E+00	4.98E+00	4.05E+00
	199		1.85E+01	4.13E+01	7.84E+01	1.23E+02	1.17E+02	5.79E+01
	200		2.82E+01	5.15E+01	8.73E+01	1.31E+02	1.31E+02	6.48E+01
	202		3.40E+01	5.35E+01	7.95E+01	1.21E+02	1.17E+02	5.97E+01
	203		2.74E+01	4.84E+01	8.29E+01	1.19E+02	1.17E+02	6.07E+01
	205		3.06E+01	4.56E+01	7.60E+01	1.10E+02	1.05E+02	6.87E+01
	MINIMUM		1.85E+01	4.13E+01	7.60E+01	1.10E+02	1.05E+02	5.79E+01
	MEAN		2.77E+01	4.80E+01	8.08E+01	1.21E+02	1.17E+02	6.23E+01
	MAXIMUM		3.40E+01	5.35E+01	8.73E+01	1.31E+02	1.31E+02	6.87E+01
	+P 99/90		5.47E+01	7.06E+01	1.01E+02	1.55E+02	1.60E+02	8.27E+01
	-P 99/90		7.62E-01	2.55E+01	6.03E+01	8.63E+01	7.47E+01	4.20E+01
	SIGMA		5.78E+00	4.83E+00	4.40E+00	7.39E+00	9.15E+00	4.36E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- BIAS CURRENT - 2		(nA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	2.73E+02	3.27E+02	2.79E+02	2.73E+02	2.78E+02	2.78E+02	2.75E+02
	199	2.99E+02	3.25E+02	3.49E+02	3.84E+02	4.00E+02	3.94E+02	3.55E+02
	200	2.61E+02	2.98E+02	3.29E+02	3.57E+02	3.96E+02	3.88E+02	3.38E+02
	202	2.62E+02	3.01E+02	3.26E+02	3.49E+02	3.94E+02	3.89E+02	3.31E+02
	203	2.85E+02	3.16E+02	3.36E+02	3.72E+02	4.15E+02	4.14E+02	3.47E+02
	205	2.79E+02	3.10E+02	3.27E+02	3.59E+02	4.01E+02	3.98E+02	3.43E+02
	MINIMUM	2.61E+02	2.98E+02	3.26E+02	3.49E+02	3.94E+02	3.88E+02	3.31E+02
	MEAN	2.77E+02	3.10E+02	3.33E+02	3.64E+02	4.01E+02	3.96E+02	3.43E+02
	MAXIMUM	2.99E+02	3.25E+02	3.49E+02	3.84E+02	4.15E+02	4.14E+02	3.55E+02
	+P 99/90	3.52E+02	3.61E+02	3.77E+02	4.29E+02	4.40E+02	4.45E+02	3.86E+02
	-P 99/90	2.02E+02	2.59E+02	2.89E+02	3.00E+02	3.62E+02	3.48E+02	2.99E+02
	SIGMA	1.60E+01	1.09E+01	9.43E+00	1.39E+01	8.36E+00	1.05E+01	9.24E+00

- BIAS CURRENT - 2		(nA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		5.39E+01	5.79E+00	-6.00E-02	4.82E+00	4.92E+00	2.05E+00
	199		2.57E+01	4.95E+01	8.52E+01	1.01E+02	9.50E+01	5.58E+01
	200		3.72E+01	6.83E+01	9.67E+01	1.35E+02	1.27E+02	7.68E+01
	202		3.89E+01	6.37E+01	8.65E+01	1.31E+02	1.26E+02	6.81E+01
	203		3.14E+01	5.14E+01	8.76E+01	1.30E+02	1.29E+02	6.25E+01
	205		3.02E+01	4.73E+01	7.96E+01	1.21E+02	1.18E+02	6.32E+01
	MINIMUM		2.57E+01	4.73E+01	7.96E+01	1.01E+02	9.50E+01	5.58E+01
	MEAN		3.27E+01	5.60E+01	8.71E+01	1.24E+02	1.19E+02	6.53E+01
	MAXIMUM		3.89E+01	6.83E+01	9.67E+01	1.35E+02	1.29E+02	7.68E+01
	+P 99/90		5.78E+01	9.96E+01	1.16E+02	1.89E+02	1.85E+02	1.02E+02
	-P 99/90		7.50E+00	1.25E+01	5.83E+01	5.91E+01	5.31E+01	2.89E+01
	SIGMA		5.39E+00	9.33E+00	6.17E+00	1.39E+01	1.42E+01	7.81E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OPEN LOOP GAIN - 1		(V/mV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	4.54E+01	5.52E+01	4.19E+01	4.20E+01	4.56E+01	6.15E+01	7.40E+01
	199	4.18E+01	3.86E+01	7.92E+01	3.94E+01	7.66E+01	4.25E+01	4.24E+01
	200	4.20E+01	5.56E+01	6.73E+01	5.86E+01	4.90E+01	4.22E+01	4.16E+01
	202	4.99E+01	4.40E+01	3.95E+01	5.48E+01	5.35E+01	5.56E+01	6.79E+01
	203	6.52E+01	3.87E+01	6.49E+01	4.53E+01	6.19E+01	5.05E+01	7.63E+01
	205	4.20E+01	4.84E+01	5.53E+01	9.16E+01	6.66E+01	6.21E+01	4.17E+01
	MINIMUM	4.18E+01	3.86E+01	3.95E+01	3.94E+01	4.90E+01	4.22E+01	4.16E+01
	MEAN	4.82E+01	4.51E+01	6.12E+01	5.79E+01	6.15E+01	5.06E+01	5.40E+01
	MAXIMUM	6.52E+01	5.56E+01	7.92E+01	9.16E+01	7.66E+01	6.21E+01	7.63E+01
	+P 99/90	9.54E+01	7.85E+01	1.30E+02	1.53E+02	1.12E+02	9.05E+01	1.32E+02
	-P 99/90	9.56E-01	1.16E+01	-7.99E+00	-3.67E+01	1.07E+01	1.06E+01	-2.44E+01
	SIGMA	1.01E+01	7.17E+00	1.48E+01	2.03E+01	1.09E+01	8.56E+00	1.68E+01

OPEN LOOP GAIN - 1		(V/mV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		9.80E+00	-3.50E+00	-3.40E+00	2.00E-01	1.61E+01	2.86E+01
	199		-3.20E+00	3.74E+01	-2.40E+00	3.48E+01	7.00E-01	6.00E-01
	200		1.36E+01	2.53E+01	1.66E+01	7.00E+00	2.00E-01	-4.00E-01
	202		-5.90E+00	-1.04E+01	4.90E+00	3.60E+00	5.70E+00	1.80E+01
	203		-2.65E+01	-3.00E-01	-1.99E+01	-3.30E+00	-1.47E+01	1.11E+01
	205		6.40E+00	1.33E+01	4.96E+01	2.46E+01	2.01E+01	-3.00E-01
	MINIMUM		-2.65E+01	-1.04E+01	-1.99E+01	-3.30E+00	-1.47E+01	-4.00E-01
	MEAN		-3.12E+00	1.31E+01	9.76E+00	1.33E+01	2.40E+00	5.80E+00
	MAXIMUM		1.36E+01	3.74E+01	4.96E+01	3.48E+01	2.01E+01	1.80E+01
	+P 99/90		6.78E+01	1.03E+02	1.31E+02	8.71E+01	6.07E+01	4.48E+01
	-P 99/90		-7.41E+01	-7.64E+01	-1.11E+02	-6.04E+01	-5.59E+01	-3.32E+01
	SIGMA		1.52E+01	1.92E+01	2.59E+01	1.58E+01	1.25E+01	8.36E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OPEN LOOP GAIN - 2		(V/mV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	2.02E+02	1.10E+02	1.35E+02	1.40E+02	1.93E+02	7.49E+02	5.09E+01
	199	7.83E+01	7.56E+01	1.06E+02	1.16E+02	1.08E+02	1.76E+02	3.46E+02
	200	1.07E+02	2.10E+04	7.83E+01	7.80E+01	8.89E+01	1.37E+02	5.24E+02
	202	4.11E+02	4.66E+01	1.30E+02	6.31E+01	1.41E+02	1.06E+02	8.46E+01
	203	1.61E+02	1.02E+02	7.10E+01	1.02E+02	3.33E+02	1.23E+03	3.93E+01
	205	2.63E+02	9.40E+01	1.34E+02	1.34E+02	5.36E+01	1.50E+02	3.50E+01
	MINIMUM	7.83E+01	4.66E+01	7.10E+01	6.31E+01	5.36E+01	1.06E+02	3.50E+01
	MEAN	2.04E+02	4.26E+03	1.04E+02	9.87E+01	1.45E+02	3.61E+02	2.06E+02
	MAXIMUM	4.11E+02	2.10E+04	1.34E+02	1.34E+02	3.33E+02	1.23E+03	5.24E+02
	+P 99/90	8.37E+02	4.79E+04	2.39E+02	2.32E+02	6.57E+02	2.64E+03	1.23E+03
	-P 99/90	-4.29E+02	-3.93E+04	-3.13E+01	-3.45E+01	-3.67E+02	-1.92E+03	-8.19E+02
	SIGMA	1.36E+02	9.35E+03	2.90E+01	2.85E+01	1.10E+02	4.89E+02	2.20E+02

OPEN LOOP GAIN - 2		(V/mV)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-9.20E+01	-6.72E+01	-6.19E+01	-9.20E+00	5.48E+02	-1.51E+02
	199		-2.70E+00	2.78E+01	3.72E+01	2.98E+01	9.80E+01	2.68E+02
	200		2.09E+04	-2.87E+01	-2.90E+01	-1.81E+01	3.00E+01	4.17E+02
	202		-3.65E+02	-2.81E+02	-3.48E+02	-2.70E+02	-3.05E+02	-3.27E+02
	203		-5.85E+01	-8.95E+01	-5.81E+01	1.73E+02	1.07E+03	-1.21E+02
	205		-1.69E+02	-1.29E+02	-1.29E+02	-2.10E+02	-1.14E+02	-2.28E+02
	MINIMUM		-3.65E+02	-2.81E+02	-3.48E+02	-2.70E+02	-3.05E+02	-3.27E+02
	MEAN		4.06E+03	-1.00E+02	-1.05E+02	-5.92E+01	1.57E+02	1.88E+00
	MAXIMUM		2.09E+04	2.78E+01	3.72E+01	1.73E+02	1.07E+03	4.17E+02
	+P 99/90		4.79E+04	4.48E+02	5.86E+02	7.84E+02	2.65E+03	1.51E+03
	-P 99/90		-3.98E+04	-6.48E+02	-7.97E+02	-9.02E+02	-2.34E+03	-1.51E+03
	SIGMA		9.40E+03	1.17E+02	1.48E+02	1.81E+02	5.35E+02	3.24E+02

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

COMMON MODE REJECTION -1		(dB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	1.34E+02	1.45E+02	1.13E+02	1.18E+02	1.22E+02	1.24E+02	1.23E+02
	199	1.22E+02	1.21E+02	1.21E+02	1.20E+02	1.24E+02	1.25E+02	1.27E+02
	200	1.20E+02	1.27E+02	1.29E+02	1.21E+02	1.28E+02	1.26E+02	1.27E+02
	202	1.16E+02	1.23E+02	1.15E+02	1.26E+02	1.23E+02	1.25E+02	1.26E+02
	203	1.18E+02	1.36E+02	1.17E+02	1.19E+02	1.23E+02	1.26E+02	1.28E+02
	205	1.28E+02	1.19E+02	1.27E+02	1.22E+02	1.20E+02	1.22E+02	1.25E+02
	MINIMUM	1.16E+02	1.19E+02	1.15E+02	1.19E+02	1.20E+02	1.22E+02	1.25E+02
	MEAN	1.21E+02	1.25E+02	1.22E+02	1.21E+02	1.24E+02	1.25E+02	1.27E+02
	MAXIMUM	1.28E+02	1.36E+02	1.29E+02	1.26E+02	1.28E+02	1.26E+02	1.28E+02
	+P 99/90	1.43E+02	1.57E+02	1.51E+02	1.34E+02	1.37E+02	1.32E+02	1.32E+02
	-P 99/90	9.89E+01	9.33E+01	9.28E+01	1.09E+02	1.10E+02	1.17E+02	1.21E+02
	SIGMA	4.68E+00	6.82E+00	6.18E+00	2.63E+00	2.88E+00	1.64E+00	1.14E+00

COMMON MODE REJECTION - 1		(dB)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		1.07E+01	-2.05E+01	-1.58E+01	-1.18E+01	-9.80E+00	-1.08E+01
	199		-1.30E+00	-1.20E+00	-2.30E+00	1.70E+00	2.70E+00	4.70E+00
	200		6.80E+00	9.10E+00	5.00E-01	7.90E+00	5.90E+00	6.90E+00
	202		7.20E+00	-6.00E-01	1.01E+01	7.50E+00	9.50E+00	1.05E+01
	203		1.82E+01	-1.40E+00	8.00E-01	5.00E+00	8.00E+00	1.00E+01
	205		-8.80E+00	-1.20E+00	-5.60E+00	-7.80E+00	-5.80E+00	-2.80E+00
	MINIMUM		-8.80E+00	-1.40E+00	-5.60E+00	-7.80E+00	-5.80E+00	-2.80E+00
	MEAN		4.42E+00	9.40E-01	7.00E-01	2.86E+00	4.06E+00	5.86E+00
	MAXIMUM		1.82E+01	9.10E+00	1.01E+01	7.90E+00	9.50E+00	1.05E+01
	+P 99/90		5.17E+01	2.23E+01	2.80E+01	3.30E+01	3.24E+01	3.10E+01
	-P 99/90		-4.29E+01	-2.04E+01	-2.66E+01	-2.72E+01	-2.43E+01	-1.93E+01
	SIGMA		1.01E+01	4.57E+00	5.85E+00	6.45E+00	6.07E+00	5.39E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

COMMON MODE REJECTION - 2		(dB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	1.15E+02	1.11E+02	1.11E+02	1.15E+02	1.15E+02	1.16E+02	1.15E+02
	199	1.17E+02	1.28E+02	1.16E+02	1.16E+02	1.15E+02	1.18E+02	1.22E+02
	200	1.36E+02	1.20E+02	1.18E+02	1.40E+02	1.28E+02	1.28E+02	1.35E+02
	202	1.24E+02	1.23E+02	1.28E+02	1.19E+02	1.20E+02	1.23E+02	1.28E+02
	203	1.27E+02	1.30E+02	1.18E+02	1.49E+02	1.36E+02	1.38E+02	1.41E+02
	205	1.14E+02	1.16E+02	1.16E+02	1.25E+02	1.21E+02	1.24E+02	1.29E+02
	MINIMUM	1.14E+02	1.16E+02	1.16E+02	1.16E+02	1.15E+02	1.18E+02	1.22E+02
	MEAN	1.23E+02	1.23E+02	1.19E+02	1.30E+02	1.24E+02	1.26E+02	1.31E+02
	MAXIMUM	1.36E+02	1.30E+02	1.28E+02	1.49E+02	1.36E+02	1.38E+02	1.41E+02
	+P 99/90	1.63E+02	1.49E+02	1.44E+02	1.97E+02	1.62E+02	1.61E+02	1.65E+02
	-P 99/90	8.32E+01	9.73E+01	9.41E+01	6.28E+01	8.59E+01	9.12E+01	9.72E+01
	SIGMA	8.58E+00	5.58E+00	5.33E+00	1.43E+01	8.15E+00	7.50E+00	7.25E+00

COMMON MODE REJECTION - 2		(dB)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-4.70E+00	-3.80E+00	-7.00E-01	-2.00E-01	8.00E-01	-2.00E-01
	199		1.18E+01	-1.10E+00	-7.00E-01	-1.60E+00	1.40E+00	5.40E+00
	200		-1.55E+01	-1.80E+01	4.90E+00	-7.50E+00	-7.50E+00	-5.00E-01
	202		-9.00E-01	4.80E+00	-5.10E+00	-3.60E+00	-6.00E-01	4.40E+00
	203		2.70E+00	-9.30E+00	2.21E+01	9.20E+00	1.12E+01	1.42E+01
	205		2.40E+00	2.20E+00	1.10E+01	7.10E+00	1.01E+01	1.51E+01
	MINIMUM		-1.55E+01	-1.80E+01	-5.10E+00	-7.50E+00	-7.50E+00	-5.00E-01
	MEAN		1.00E-01	-4.28E+00	6.44E+00	7.20E-01	2.92E+00	7.72E+00
	MAXIMUM		1.18E+01	4.80E+00	2.21E+01	9.20E+00	1.12E+01	1.51E+01
	+P 99/90		4.64E+01	3.92E+01	5.61E+01	3.41E+01	3.93E+01	3.91E+01
	-P 99/90		-4.62E+01	-4.78E+01	-4.32E+01	-3.26E+01	-3.35E+01	-2.36E+01
	SIGMA		9.92E+00	9.33E+00	1.06E+01	7.15E+00	7.80E+00	6.72E+00

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 3.2MA - 1		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	2.87E-01	2.81E-01	2.79E-01	2.79E-01	2.80E-01	2.79E-01	2.80E-01
	199	2.84E-01	2.80E-01	2.80E-01	2.80E-01	2.78E-01	2.78E-01	2.78E-01
	200	2.76E-01	2.77E-01	2.76E-01	2.77E-01	2.77E-01	2.78E-01	2.78E-01
	202	2.87E-01	2.86E-01	2.85E-01	2.85E-01	2.87E-01	2.87E-01	2.87E-01
	203	2.84E-01	2.82E-01	2.82E-01	2.82E-01	2.83E-01	2.83E-01	2.84E-01
	205	2.79E-01	2.77E-01	2.76E-01	2.76E-01	2.78E-01	2.77E-01	2.79E-01
	MINIMUM	2.76E-01	2.77E-01	2.76E-01	2.76E-01	2.77E-01	2.77E-01	2.78E-01
	MEAN	2.82E-01	2.80E-01	2.80E-01	2.80E-01	2.81E-01	2.81E-01	2.81E-01
	MAXIMUM	2.87E-01	2.86E-01	2.85E-01	2.85E-01	2.87E-01	2.87E-01	2.87E-01
	+P 99/90	3.03E-01	2.98E-01	2.98E-01	2.97E-01	3.01E-01	3.01E-01	3.00E-01
	-P 99/90	2.61E-01	2.63E-01	2.62E-01	2.63E-01	2.61E-01	2.61E-01	2.62E-01
	SIGMA	4.42E-03	3.78E-03	3.90E-03	3.67E-03	4.28E-03	4.28E-03	4.09E-03

VOL @ 3.2MA - 1		(V)					[DELTA]	
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-6.00E-03	-8.00E-03	-8.00E-03	-7.00E-03	-8.00E-03	-7.00E-03
	199		-4.00E-03	-4.00E-03	-4.00E-03	-6.00E-03	-6.00E-03	-6.00E-03
	200		1.00E-03	0.00E+00	1.00E-03	1.00E-03	2.00E-03	2.00E-03
	202		-1.00E-03	-2.00E-03	-2.00E-03	0.00E+00	0.00E+00	0.00E+00
	203		-2.00E-03	-2.00E-03	-2.00E-03	-1.00E-03	-1.00E-03	0.00E+00
	205		-2.00E-03	-3.00E-03	-3.00E-03	-1.00E-03	-2.00E-03	0.00E+00
	MINIMUM		-4.00E-03	-4.00E-03	-4.00E-03	-6.00E-03	-6.00E-03	-6.00E-03
	MEAN		-1.60E-03	-2.20E-03	-2.00E-03	-1.40E-03	-1.40E-03	-8.00E-04
	MAXIMUM		1.00E-03	0.00E+00	1.00E-03	1.00E-03	2.00E-03	2.00E-03
	+P 99/90		6.88E-03	4.72E-03	6.73E-03	1.12E-02	1.24E-02	1.34E-02
	-P 99/90		-1.01E-02	-9.12E-03	-1.07E-02	-1.40E-02	-1.52E-02	-1.50E-02
	SIGMA		1.82E-03	1.48E-03	1.87E-03	2.70E-03	2.97E-03	3.03E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 3.2MA - 2

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	2.79E-01	2.71E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01
	199	2.75E-01	2.70E-01	2.71E-01	2.71E-01	2.70E-01	2.69E-01	2.70E-01
	200	2.70E-01	2.68E-01	2.68E-01	2.69E-01	2.69E-01	2.69E-01	2.71E-01
	202	2.79E-01	2.77E-01	2.77E-01	2.78E-01	2.79E-01	2.78E-01	2.87E-01
	203	2.79E-01	2.75E-01	2.75E-01	2.76E-01	2.77E-01	2.76E-01	2.84E-01
	205	2.76E-01	2.73E-01	2.72E-01	2.72E-01	2.73E-01	2.73E-01	2.79E-01
	MINIMUM	2.70E-01	2.68E-01	2.68E-01	2.69E-01	2.69E-01	2.69E-01	2.70E-01
	MEAN	2.76E-01	2.73E-01	2.73E-01	2.73E-01	2.74E-01	2.73E-01	2.78E-01
	MAXIMUM	2.79E-01	2.77E-01	2.77E-01	2.78E-01	2.79E-01	2.78E-01	2.87E-01
	+P 99/90	2.93E-01	2.90E-01	2.89E-01	2.90E-01	2.94E-01	2.92E-01	3.14E-01
	-P 99/90	2.59E-01	2.56E-01	2.56E-01	2.56E-01	2.53E-01	2.54E-01	2.43E-01
	SIGMA	3.70E-03	3.65E-03	3.51E-03	3.70E-03	4.34E-03	4.06E-03	7.60E-03

VOL @ 3.2MA - 2

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-8.00E-03	3.00E-03	3.00E-03	3.00E-03	3.00E-03	3.00E-03
	199		-5.00E-03	-4.00E-03	-4.00E-03	-5.00E-03	-6.00E-03	-5.00E-03
	200		-2.00E-03	-2.00E-03	-1.00E-03	-1.00E-03	-1.00E-03	1.00E-03
	202		-2.00E-03	-2.00E-03	-1.00E-03	0.00E+00	-1.00E-03	8.00E-03
	203		-4.00E-03	-4.00E-03	-3.00E-03	-2.00E-03	-3.00E-03	5.00E-03
	205		-3.00E-03	-4.00E-03	-4.00E-03	-3.00E-03	-3.00E-03	3.00E-03
	MINIMUM		-5.00E-03	-4.00E-03	-4.00E-03	-5.00E-03	-6.00E-03	-5.00E-03
	MEAN		-3.20E-03	-3.20E-03	-2.60E-03	-2.20E-03	-2.80E-03	2.40E-03
	MAXIMUM		-2.00E-03	-2.00E-03	-1.00E-03	0.00E+00	-1.00E-03	8.00E-03
	+P 99/90		2.88E-03	1.91E-03	4.48E-03	6.78E-03	6.76E-03	2.52E-02
	-P 99/90		-9.28E-03	-8.31E-03	-9.68E-03	-1.12E-02	-1.24E-02	-2.04E-02
	SIGMA		1.30E-03	1.10E-03	1.52E-03	1.92E-03	2.05E-03	4.88E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 25MA - 1		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N		-----						
CONTROL	186	6.03E-01	6.02E-01	6.02E-01	6.00E-01	6.00E-01	6.00E-01	5.97E-01
	199	5.98E-01	6.06E-01	6.03E-01	6.03E-01	5.95E-01	5.96E-01	5.93E-01
	200	5.93E-01	5.95E-01	5.94E-01	5.95E-01	5.99E-01	5.96E-01	5.93E-01
	202	6.12E-01	6.08E-01	6.10E-01	6.10E-01	6.10E-01	6.10E-01	6.08E-01
	203	6.01E-01	6.02E-01	6.03E-01	6.04E-01	6.03E-01	6.03E-01	6.02E-01
	205	5.94E-01	5.95E-01	5.87E-01	5.96E-01	5.96E-01	5.95E-01	5.93E-01
	MINIMUM	5.93E-01	5.95E-01	5.87E-01	5.95E-01	5.95E-01	5.95E-01	5.93E-01
	MEAN	6.00E-01	6.01E-01	5.99E-01	6.02E-01	6.01E-01	6.00E-01	5.98E-01
	MAXIMUM	6.12E-01	6.08E-01	6.10E-01	6.10E-01	6.10E-01	6.10E-01	6.08E-01
	+P 99/90	6.35E-01	6.29E-01	6.41E-01	6.30E-01	6.29E-01	6.30E-01	6.30E-01
	-P 99/90	5.64E-01	5.73E-01	5.58E-01	5.73E-01	5.72E-01	5.70E-01	5.66E-01
	SIGMA	7.64E-03	6.06E-03	8.96E-03	6.19E-03	6.11E-03	6.44E-03	6.91E-03

VOL @ 25MA - 1		(V)					[DELTA]	
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N		-----						
CONTROL	186		-1.00E-03	-1.00E-03	-3.00E-03	-3.00E-03	-3.00E-03	-6.00E-03
	199		8.00E-03	5.00E-03	5.00E-03	-3.00E-03	-2.00E-03	-5.00E-03
	200		2.00E-03	1.00E-03	2.00E-03	6.00E-03	3.00E-03	0.00E+00
	202		-4.00E-03	-2.00E-03	-2.00E-03	-2.00E-03	-2.00E-03	-4.00E-03
	203		1.00E-03	2.00E-03	3.00E-03	2.00E-03	2.00E-03	1.00E-03
	205		1.00E-03	-7.00E-03	2.00E-03	2.00E-03	1.00E-03	-1.00E-03
	MINIMUM		-4.00E-03	-7.00E-03	-2.00E-03	-3.00E-03	-2.00E-03	-5.00E-03
	MEAN		1.60E-03	-2.00E-04	2.00E-03	1.00E-03	4.00E-04	-1.80E-03
	MAXIMUM		8.00E-03	5.00E-03	5.00E-03	6.00E-03	3.00E-03	1.00E-03
	+P 99/90		2.16E-02	2.10E-02	1.39E-02	1.78E-02	1.11E-02	1.03E-02
	-P 99/90		-1.84E-02	-2.14E-02	-9.90E-03	-1.58E-02	-1.03E-02	-1.39E-02
	SIGMA		4.28E-03	4.55E-03	2.55E-03	3.61E-03	2.30E-03	2.59E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 25MA - 2		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	5.91E-01	5.84E-01	5.97E-01	5.98E-01	5.96E-01	5.96E-01	5.96E-01
	199	5.83E-01	5.88E-01	5.86E-01	5.87E-01	5.81E-01	5.82E-01	5.79E-01
	200	5.82E-01	5.79E-01	5.81E-01	5.81E-01	5.84E-01	5.81E-01	5.78E-01
	202	5.98E-01	5.91E-01	5.94E-01	5.94E-01	5.94E-01	5.95E-01	5.94E-01
	203	5.88E-01	5.88E-01	5.89E-01	5.89E-01	5.90E-01	5.89E-01	5.89E-01
	205	5.84E-01	5.85E-01	5.87E-01	5.86E-01	5.86E-01	5.86E-01	5.84E-01
	MINIMUM	5.82E-01	5.79E-01	5.81E-01	5.81E-01	5.81E-01	5.81E-01	5.78E-01
	MEAN	5.87E-01	5.86E-01	5.87E-01	5.87E-01	5.87E-01	5.87E-01	5.85E-01
	MAXIMUM	5.98E-01	5.91E-01	5.94E-01	5.94E-01	5.94E-01	5.95E-01	5.94E-01
	+P 99/90	6.18E-01	6.07E-01	6.09E-01	6.09E-01	6.11E-01	6.13E-01	6.16E-01
	-P 99/90	5.56E-01	5.65E-01	5.65E-01	5.65E-01	5.63E-01	5.60E-01	5.53E-01
	SIGMA	6.56E-03	4.55E-03	4.72E-03	4.72E-03	5.10E-03	5.68E-03	6.76E-03

VOL @ 25MA - 2		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-7.00E-03	6.00E-03	7.00E-03	5.00E-03	5.00E-03	5.00E-03
	199		5.00E-03	3.00E-03	4.00E-03	-2.00E-03	-1.00E-03	-4.00E-03
	200		-3.00E-03	-1.00E-03	-1.00E-03	2.00E-03	-1.00E-03	-4.00E-03
	202		-7.00E-03	-4.00E-03	-4.00E-03	-4.00E-03	-3.00E-03	-4.00E-03
	203		0.00E+00	1.00E-03	1.00E-03	2.00E-03	1.00E-03	1.00E-03
	205		1.00E-03	3.00E-03	2.00E-03	2.00E-03	2.00E-03	0.00E+00
	MINIMUM		-7.00E-03	-4.00E-03	-4.00E-03	-4.00E-03	-3.00E-03	-4.00E-03
	MEAN		-8.00E-04	4.00E-04	4.00E-04	0.00E+00	-4.00E-04	-2.20E-03
	MAXIMUM		5.00E-03	3.00E-03	4.00E-03	2.00E-03	2.00E-03	1.00E-03
	+P 99/90		2.02E-02	1.42E-02	1.46E-02	1.32E-02	8.70E-03	9.42E-03
	-P 99/90		-2.18E-02	-1.34E-02	-1.38E-02	-1.32E-02	-9.50E-03	-1.38E-02
	SIGMA		4.49E-03	2.97E-03	3.05E-03	2.83E-03	1.95E-03	2.49E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

ICEX @ 35V - 1		(UA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	2.30E-02	1.30E-02	9.00E-03	1.10E-02	2.10E-02	1.60E-02	1.20E-02
	199	2.70E-02	1.40E-02	1.20E-02	1.30E-02	1.80E-02	1.30E-02	1.20E-02
	200	2.40E-02	1.40E-02	8.00E-03	1.50E-02	1.80E-02	1.60E-02	1.50E-02
	202	2.60E-02	1.20E-02	1.00E-02	1.40E-02	1.40E-02	1.60E-02	1.30E-02
	203	2.80E-02	1.30E-02	7.00E-03	1.70E-02	1.80E-02	1.30E-02	6.00E-03
	205	2.60E-02	1.00E-02	8.00E-03	1.00E-02	1.70E-02	1.40E-02	1.40E-02
	MINIMUM	2.40E-02	1.00E-02	7.00E-03	1.00E-02	1.40E-02	1.30E-02	6.00E-03
	MEAN	2.62E-02	1.26E-02	9.00E-03	1.38E-02	1.70E-02	1.44E-02	1.20E-02
	MAXIMUM	2.80E-02	1.40E-02	1.20E-02	1.70E-02	1.80E-02	1.60E-02	1.50E-02
	+P 99/90	3.31E-02	2.04E-02	1.83E-02	2.59E-02	2.51E-02	2.15E-02	2.85E-02
	-P 99/90	1.93E-02	4.79E-03	-3.32E-04	1.72E-03	8.92E-03	7.32E-03	-4.50E-03
	SIGMA	1.48E-03	1.67E-03	2.00E-03	2.59E-03	1.73E-03	1.52E-03	3.54E-03

ICEX @ 35V - 1		(UA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-1.00E-02	-1.40E-02	-1.20E-02	-2.00E-03	-7.00E-03	-1.10E-02
	199		-1.30E-02	-1.50E-02	-1.40E-02	-9.00E-03	-1.40E-02	-1.50E-02
	200		-1.00E-02	-1.60E-02	-9.00E-03	-6.00E-03	-8.00E-03	-9.00E-03
	202		-1.40E-02	-1.60E-02	-1.20E-02	-1.20E-02	-1.00E-02	-1.30E-02
	203		-1.50E-02	-2.10E-02	-1.10E-02	-1.00E-02	-1.50E-02	-2.20E-02
	205		-1.60E-02	-1.80E-02	-1.60E-02	-9.00E-03	-1.20E-02	-1.20E-02
	MINIMUM		-1.60E-02	-2.10E-02	-1.60E-02	-1.20E-02	-1.50E-02	-2.20E-02
	MEAN		-1.36E-02	-1.72E-02	-1.24E-02	-9.20E-03	-1.18E-02	-1.42E-02
	MAXIMUM		-1.00E-02	-1.50E-02	-9.00E-03	-6.00E-03	-8.00E-03	-9.00E-03
	+P 99/90		-2.86E-03	-6.06E-03	2.07E-04	9.16E-04	1.56E-03	8.52E-03
	-P 99/90		-2.43E-02	-2.83E-02	-2.50E-02	-1.93E-02	-2.52E-02	-3.69E-02
	SIGMA		2.30E-03	2.39E-03	2.70E-03	2.17E-03	2.86E-03	4.87E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

ICEX @ 35V - 2		(UA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186	5.00E-03	0.00E+00	5.00E-03	4.00E-03	4.00E-03	0.00E+00	4.00E-03
	199	2.00E-03	2.00E-03	4.00E-03	1.00E-03	3.00E-03	7.00E-03	5.00E-03
	200	0.00E+00	3.00E-03	5.00E-03	1.00E-03	4.00E-03	3.00E-03	2.00E-03
	202	0.00E+00	1.00E-03	3.00E-03	6.00E-03	7.00E-03	2.00E-03	3.00E-03
	203	2.00E-03	5.00E-03	1.00E-03	4.00E-03	6.00E-03	4.00E-03	3.00E-03
	205	2.00E-03	2.00E-03	0.00E+00	4.00E-03	2.00E-03	3.00E-03	4.00E-03
	MINIMUM	0.00E+00	1.00E-03	0.00E+00	1.00E-03	2.00E-03	2.00E-03	2.00E-03
	MEAN	1.20E-03	2.60E-03	2.60E-03	3.20E-03	4.40E-03	3.80E-03	3.40E-03
	MAXIMUM	2.00E-03	5.00E-03	5.00E-03	6.00E-03	7.00E-03	7.00E-03	5.00E-03
	+P 99/90	6.31E-03	9.68E-03	1.23E-02	1.33E-02	1.41E-02	1.28E-02	8.72E-03
	-P 99/90	-3.91E-03	-4.48E-03	-7.08E-03	-6.92E-03	-5.28E-03	-5.18E-03	-1.92E-03
	SIGMA	1.10E-03	1.52E-03	2.07E-03	2.17E-03	2.07E-03	1.92E-03	1.14E-03

ICEX @ 35V - 2		(UA)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	186		-5.00E-03	0.00E+00	-1.00E-03	-1.00E-03	-5.00E-03	-1.00E-03
	199		0.00E+00	2.00E-03	-1.00E-03	1.00E-03	5.00E-03	3.00E-03
	200		3.00E-03	5.00E-03	1.00E-03	4.00E-03	3.00E-03	2.00E-03
	202		1.00E-03	3.00E-03	6.00E-03	7.00E-03	2.00E-03	3.00E-03
	203		3.00E-03	-1.00E-03	2.00E-03	4.00E-03	2.00E-03	1.00E-03
	205		0.00E+00	-2.00E-03	2.00E-03	0.00E+00	1.00E-03	2.00E-03
	MINIMUM		0.00E+00	-2.00E-03	-1.00E-03	0.00E+00	1.00E-03	1.00E-03
	MEAN		1.40E-03	1.40E-03	2.00E-03	3.20E-03	2.60E-03	2.20E-03
	MAXIMUM		3.00E-03	5.00E-03	6.00E-03	7.00E-03	5.00E-03	3.00E-03
	+P 99/90		8.48E-03	1.48E-02	1.39E-02	1.61E-02	9.68E-03	6.10E-03
	-P 99/90		-5.68E-03	-1.20E-02	-9.90E-03	-9.75E-03	-4.48E-03	-1.70E-03
	SIGMA		1.52E-03	2.88E-03	2.55E-03	2.77E-03	1.52E-03	8.37E-04

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

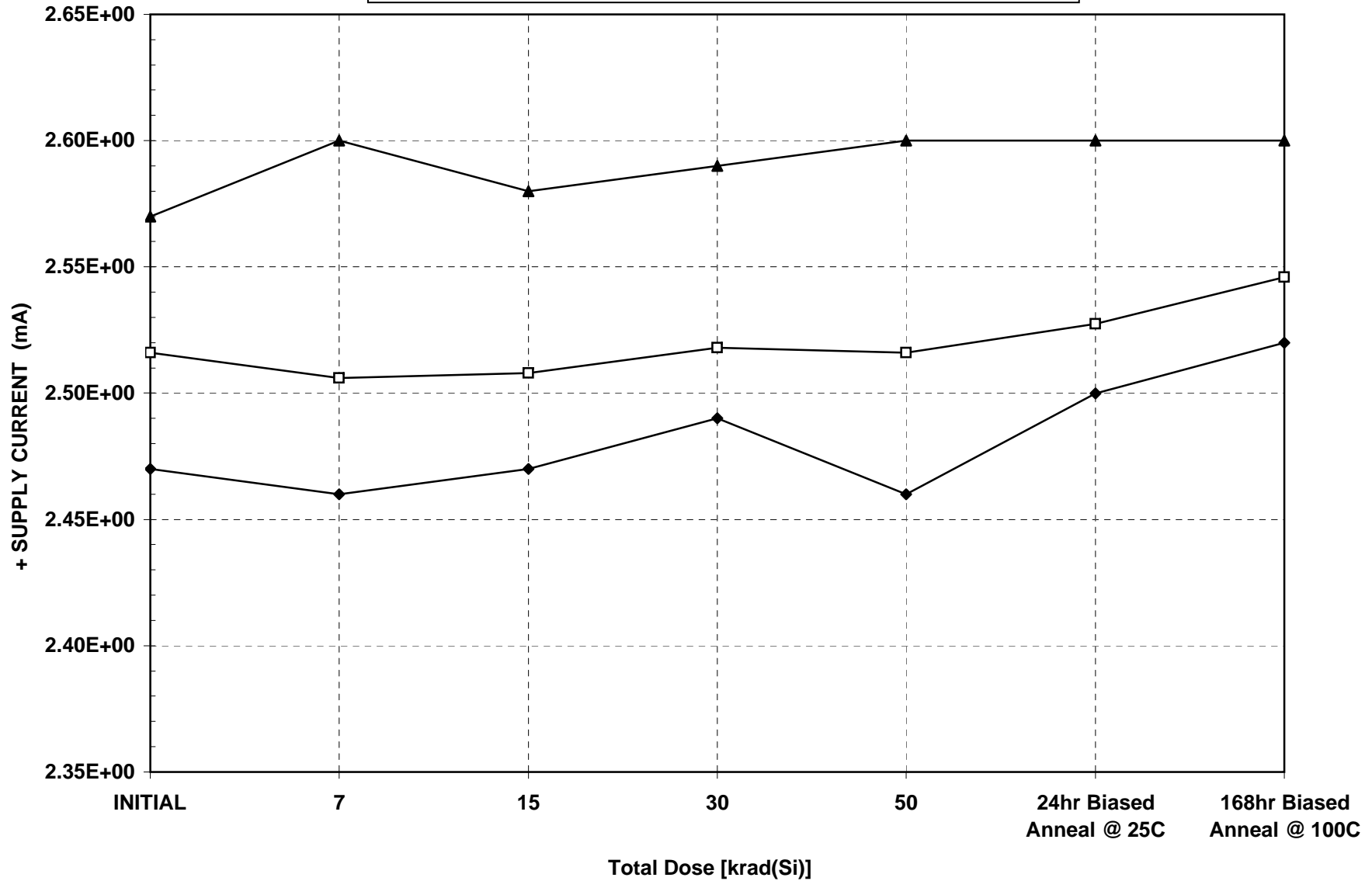
D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1573 || TEST DATE 05/24/07 || RTP# 692
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

+ SUPPLY CURRENT (mA)



◆ MINIMUM

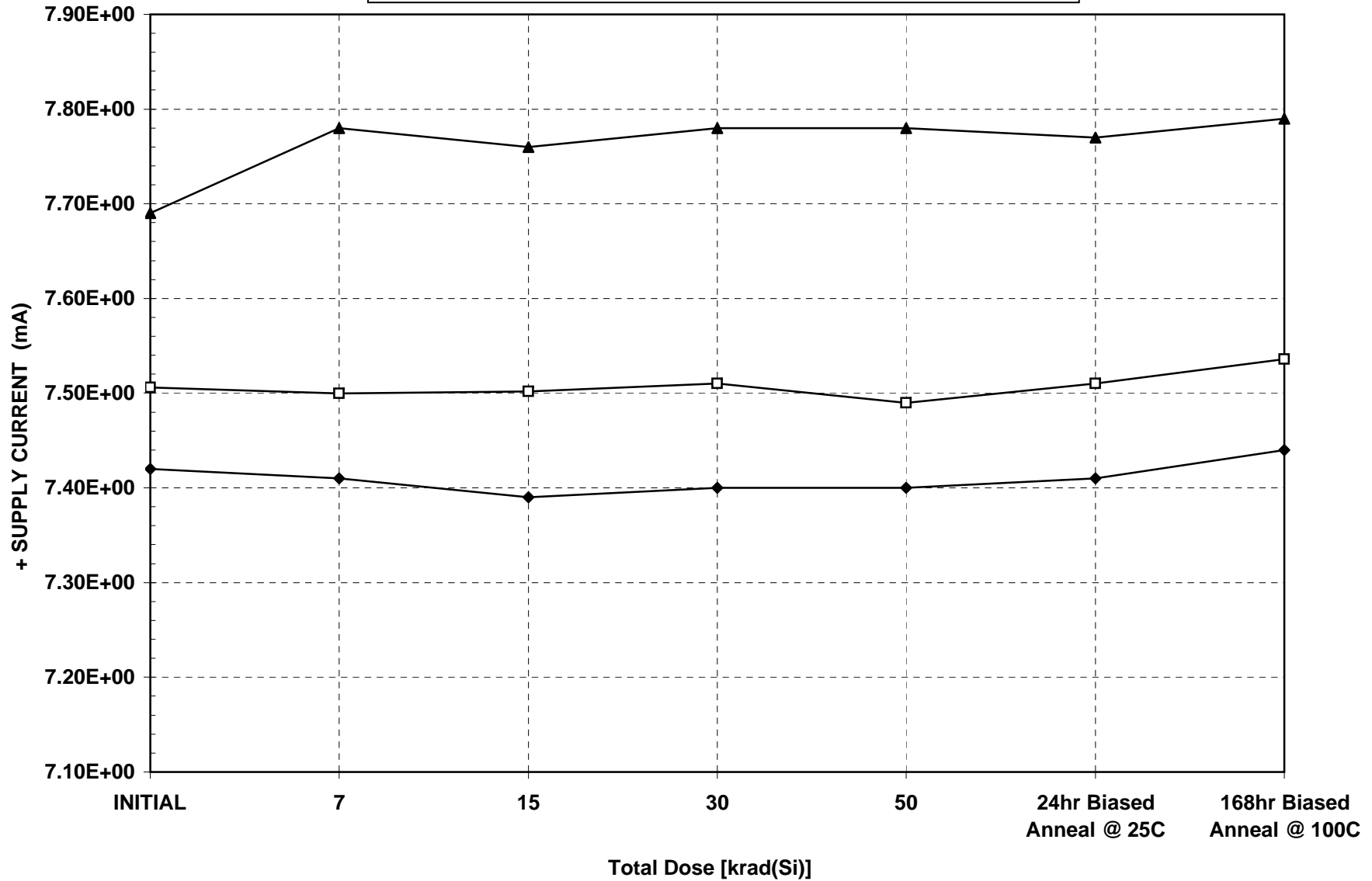
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

+ SUPPLY CURRENT (mA)



◆ MINIMUM

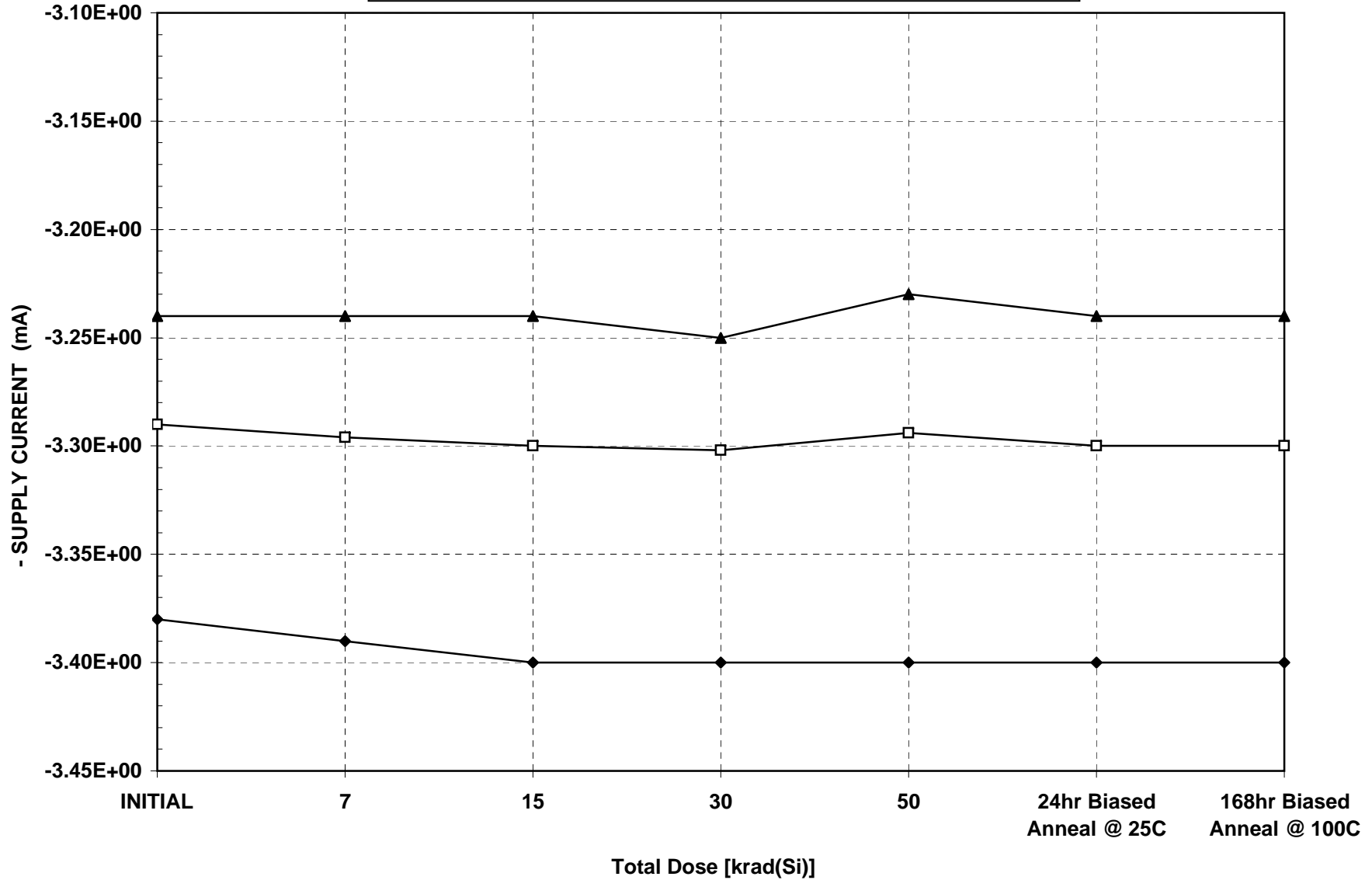
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

I C S Radiation Test Results Log # 1573 5/24/07

- SUPPLY CURRENT (mA)



◆ MINIMUM

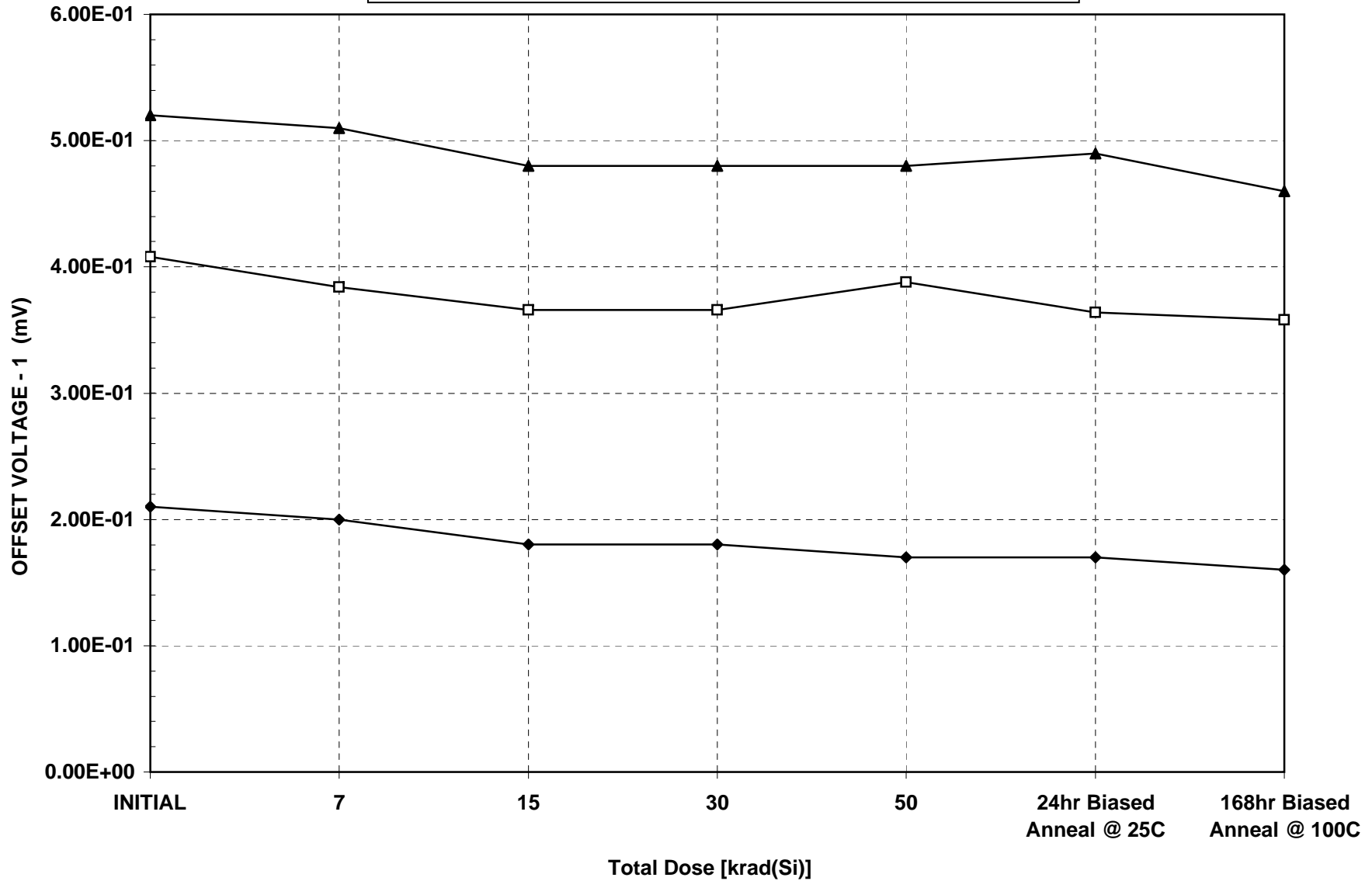
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

OFFSET VOLTAGE - 1 (mV)



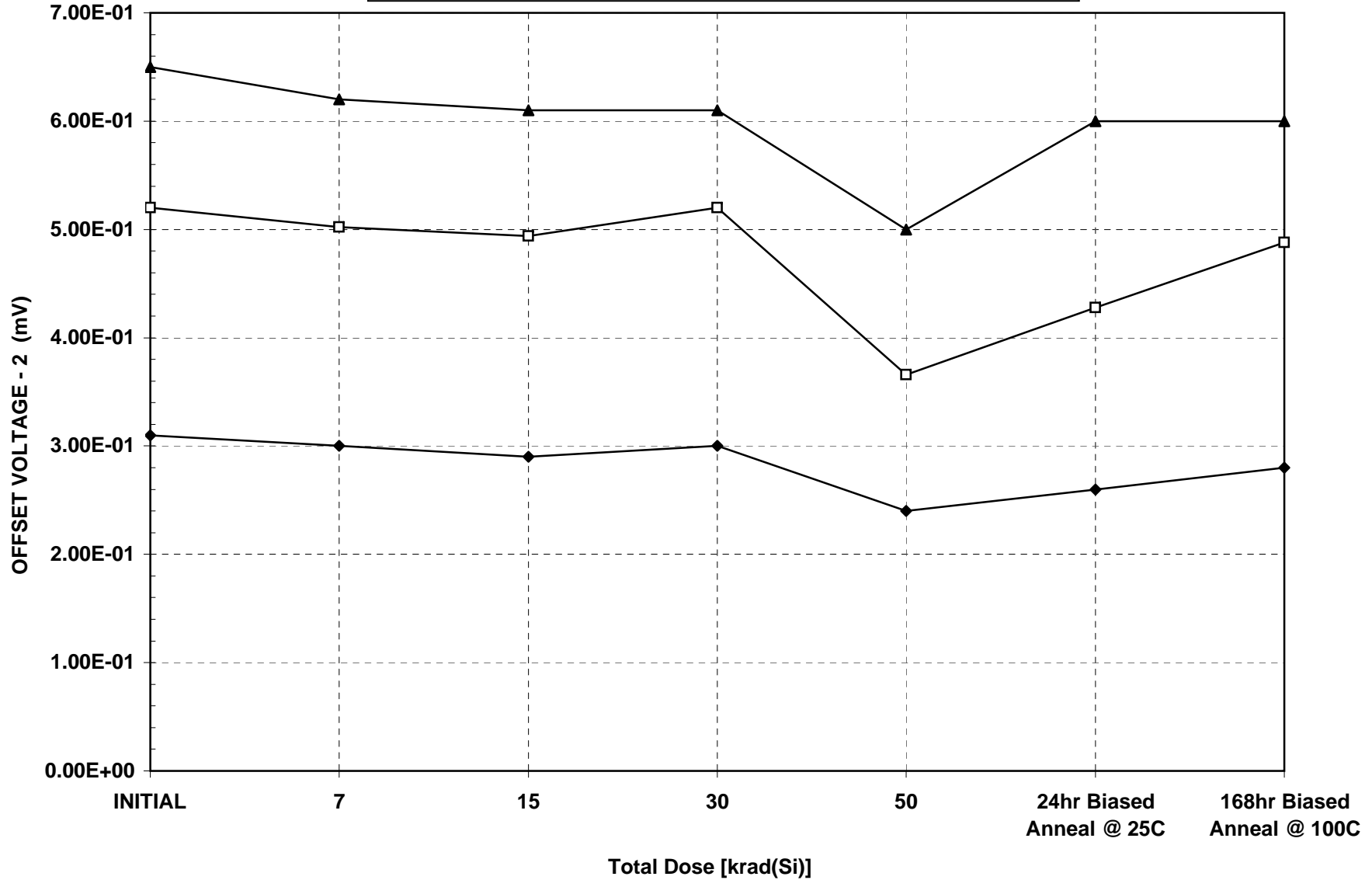
◆ MINIMUM

□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1573 5/24/07

OFFSET VOLTAGE - 2 (mV)

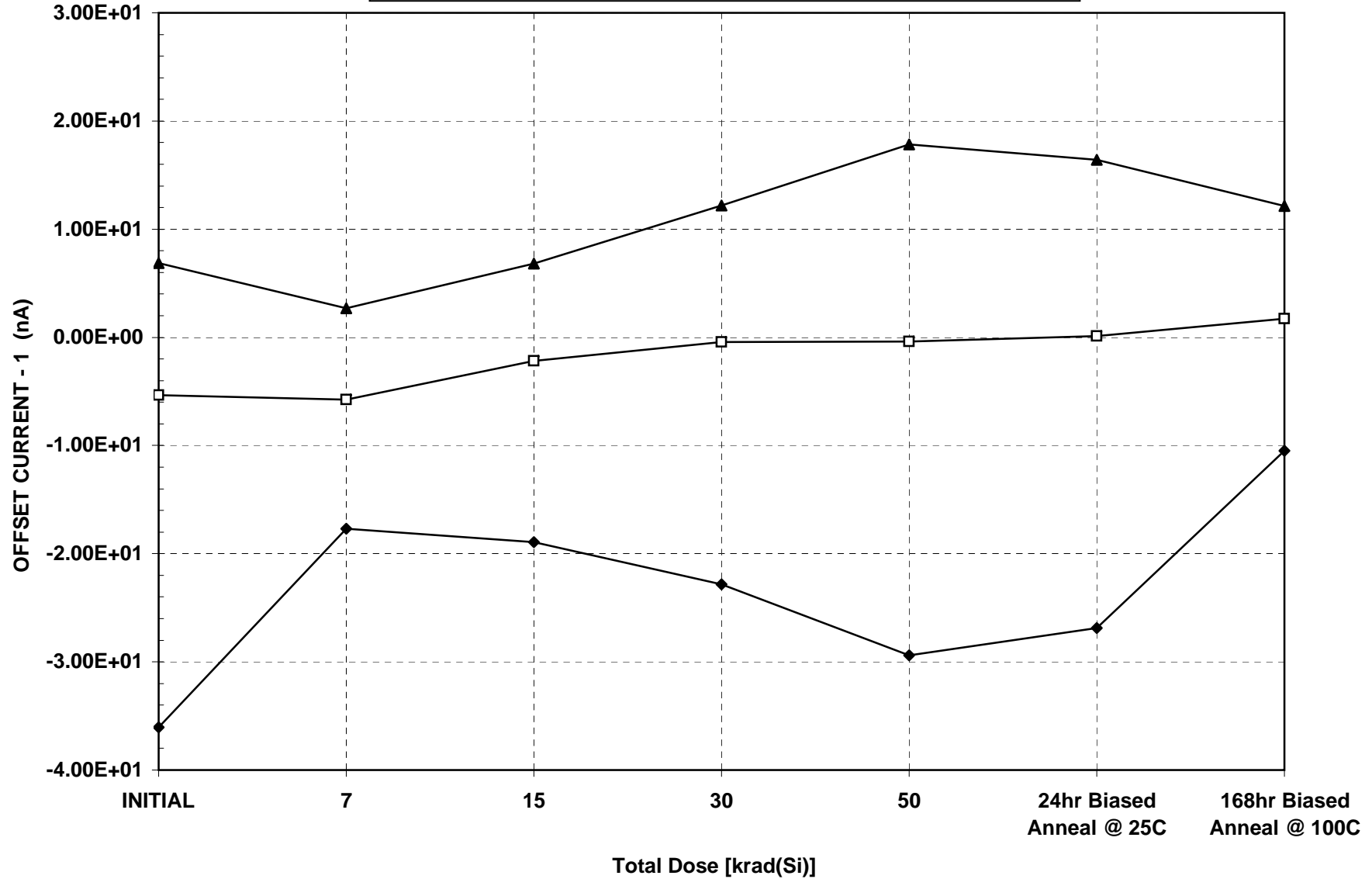


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

OFFSET CURRENT - 1 (nA)



◆ MINIMUM

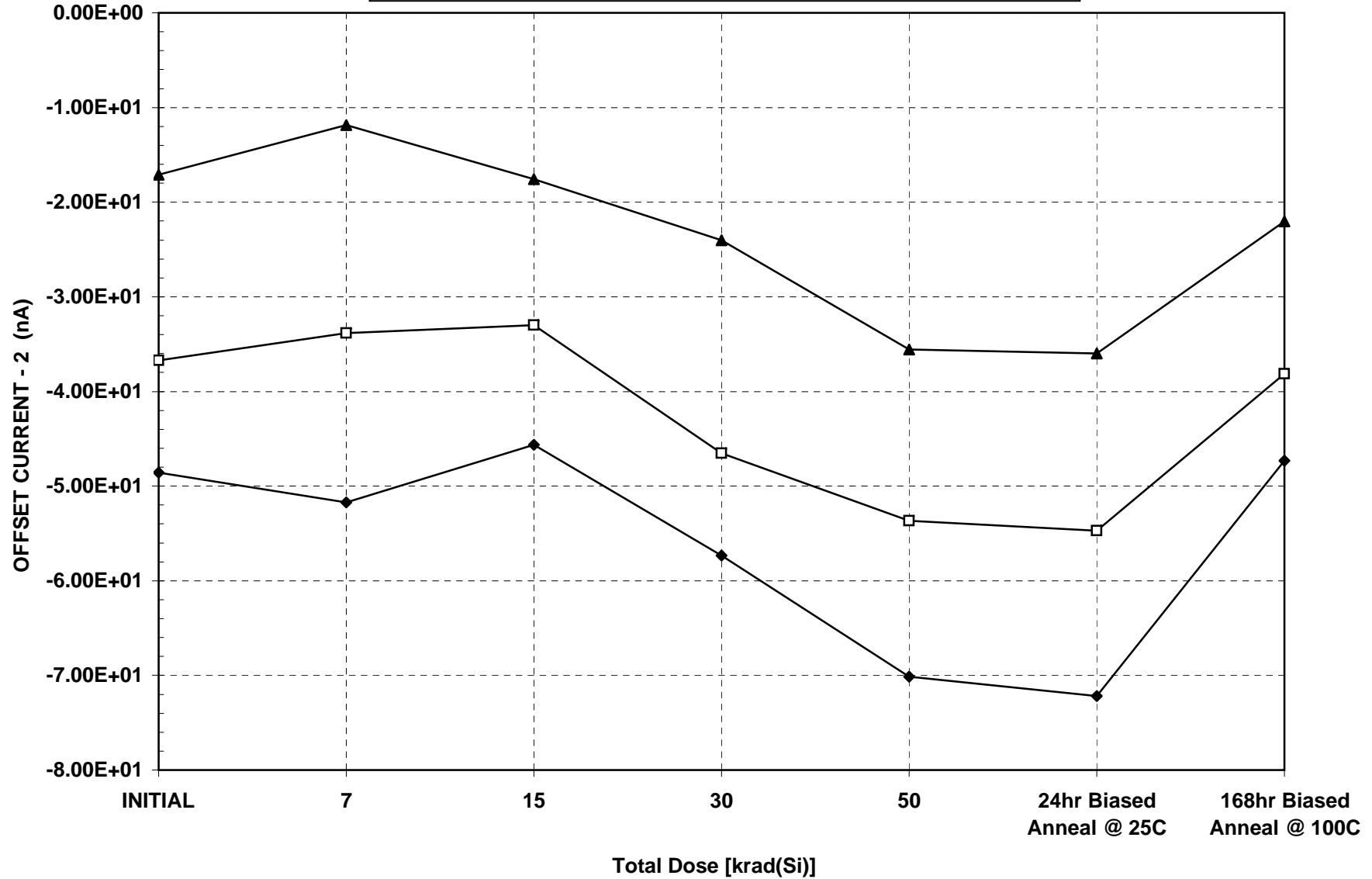
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

I C S Radiation Test Results Log # 1573 5/24/07

OFFSET CURRENT - 2 (nA)



◆ MINIMUM

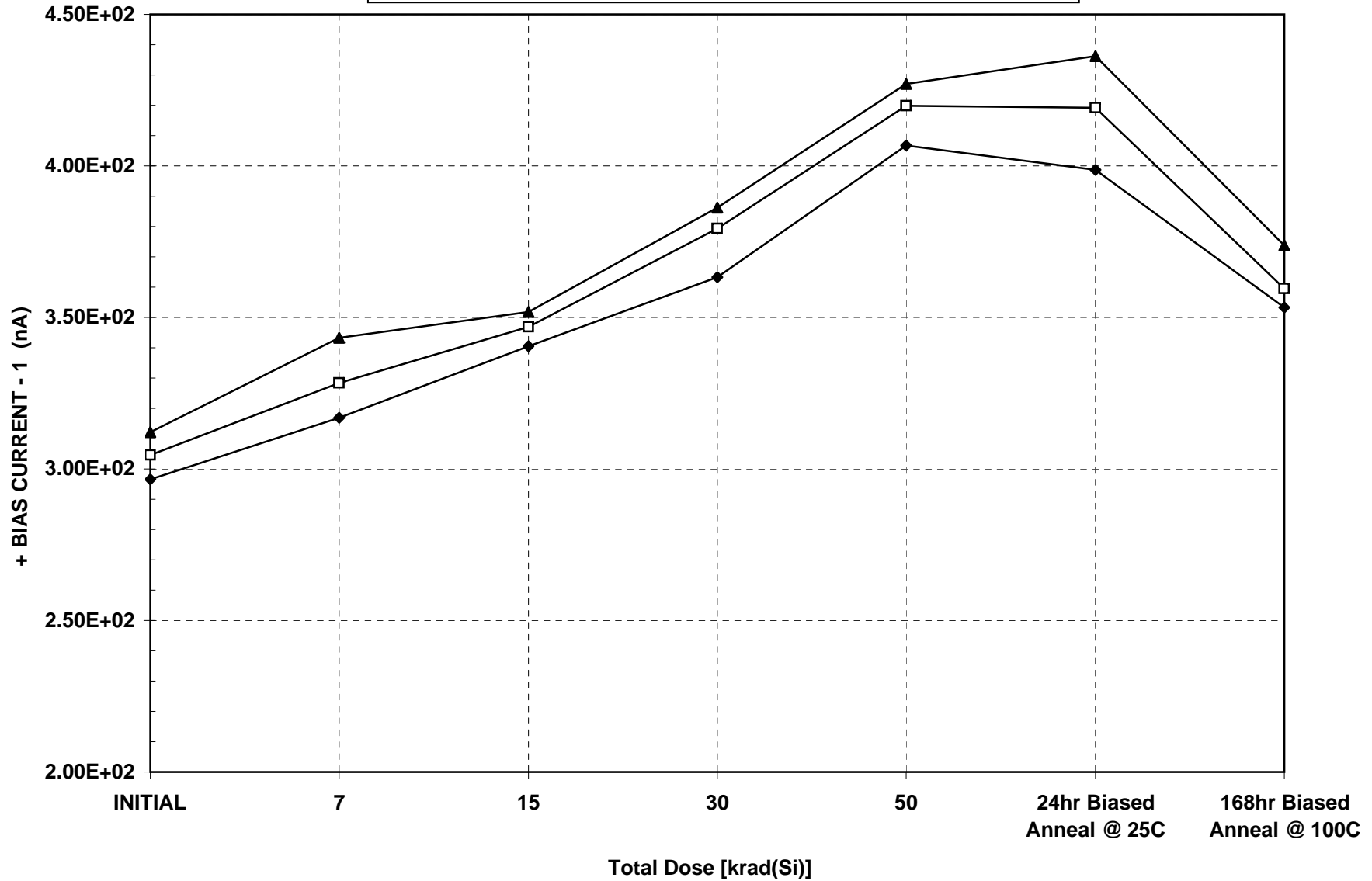
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

+ BIAS CURRENT - 1 (nA)



◆ MINIMUM

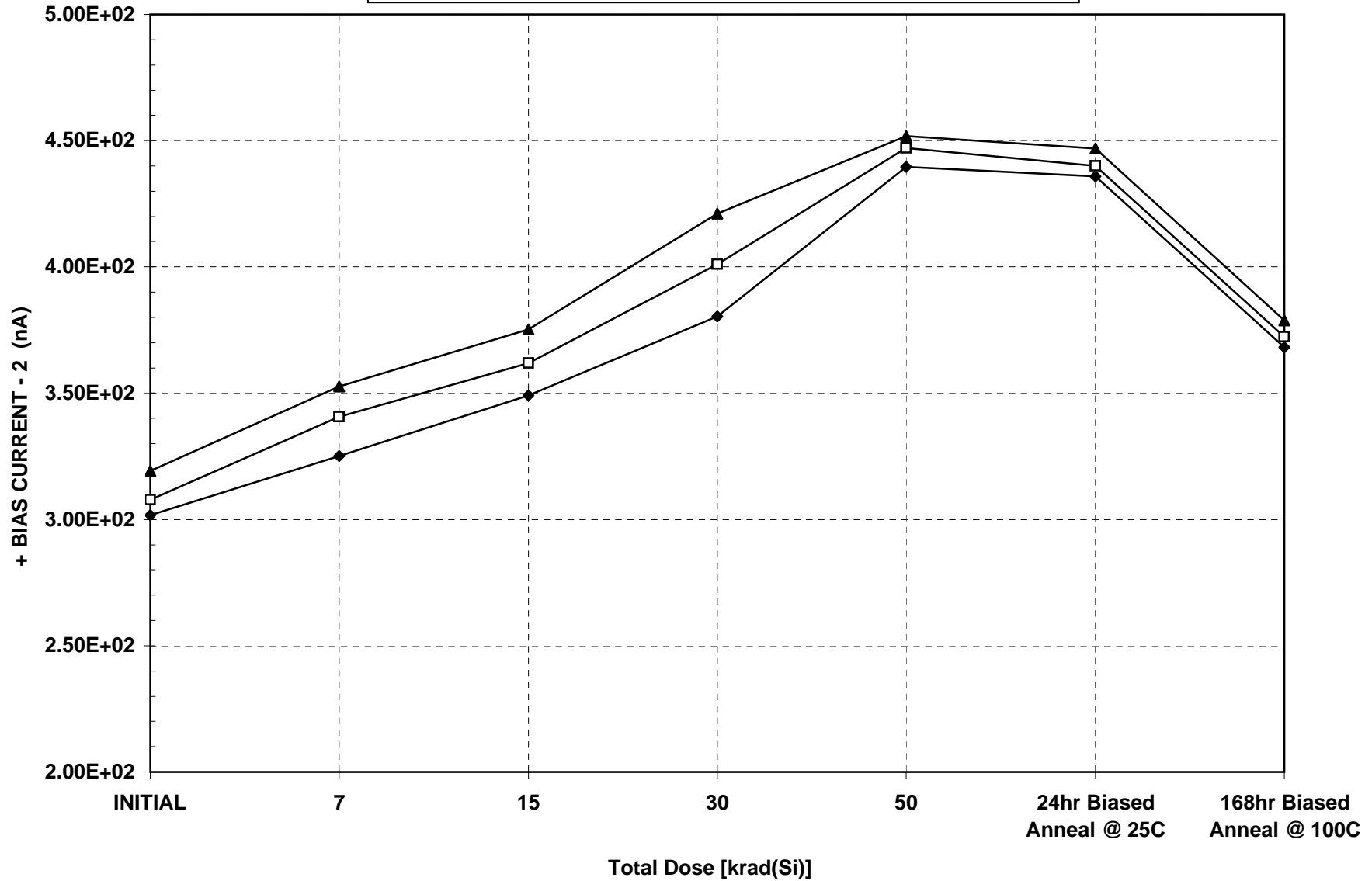
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

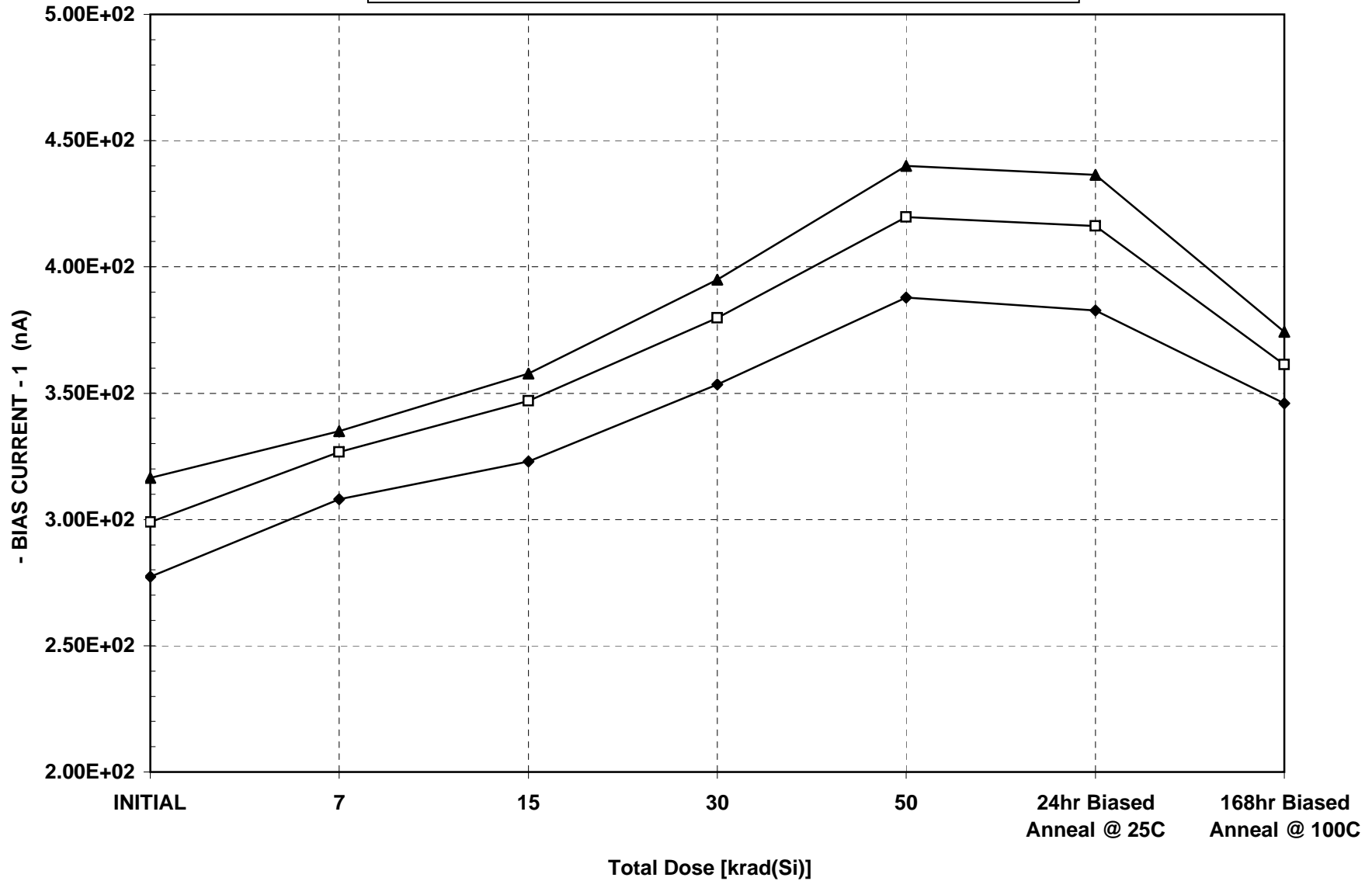
+ BIAS CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1573 5/24/07

- BIAS CURRENT - 1 (nA)

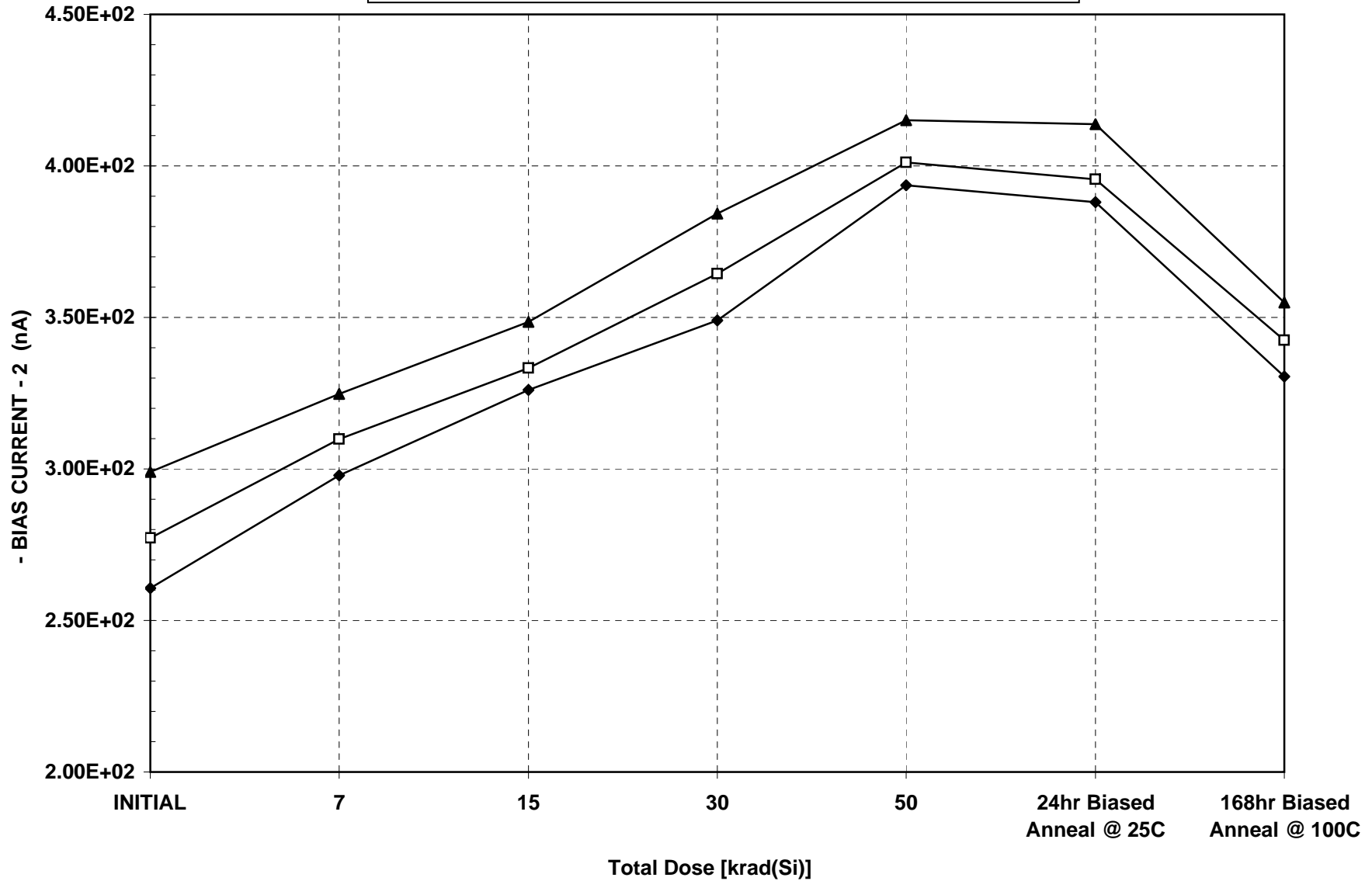


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

- BIAS CURRENT - 2 (nA)



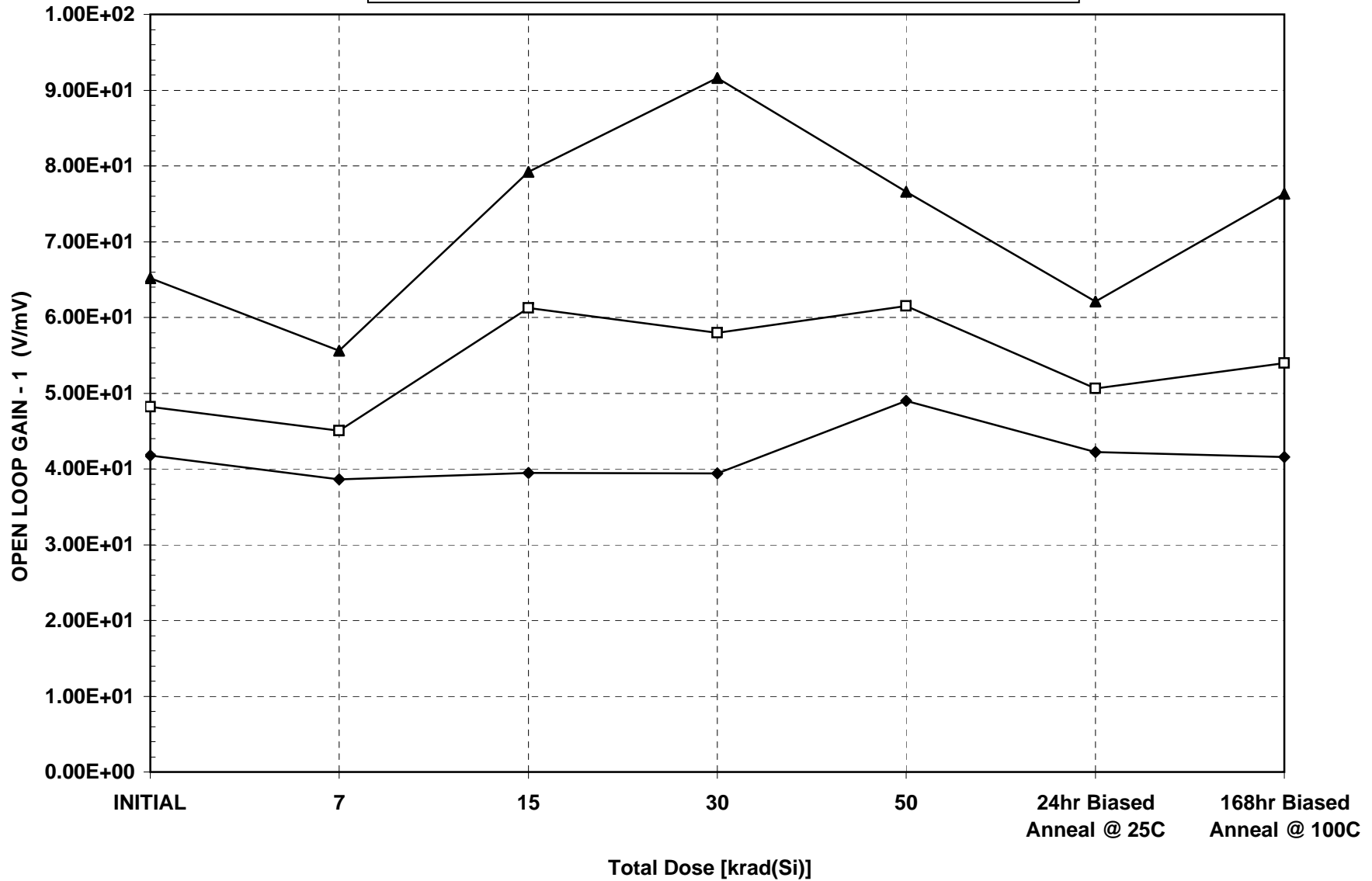
◆ MINIMUM

□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)
I C S Radiation Test Results Log # 1573 5/24/07

OPEN LOOP GAIN - 1 (V/mV)

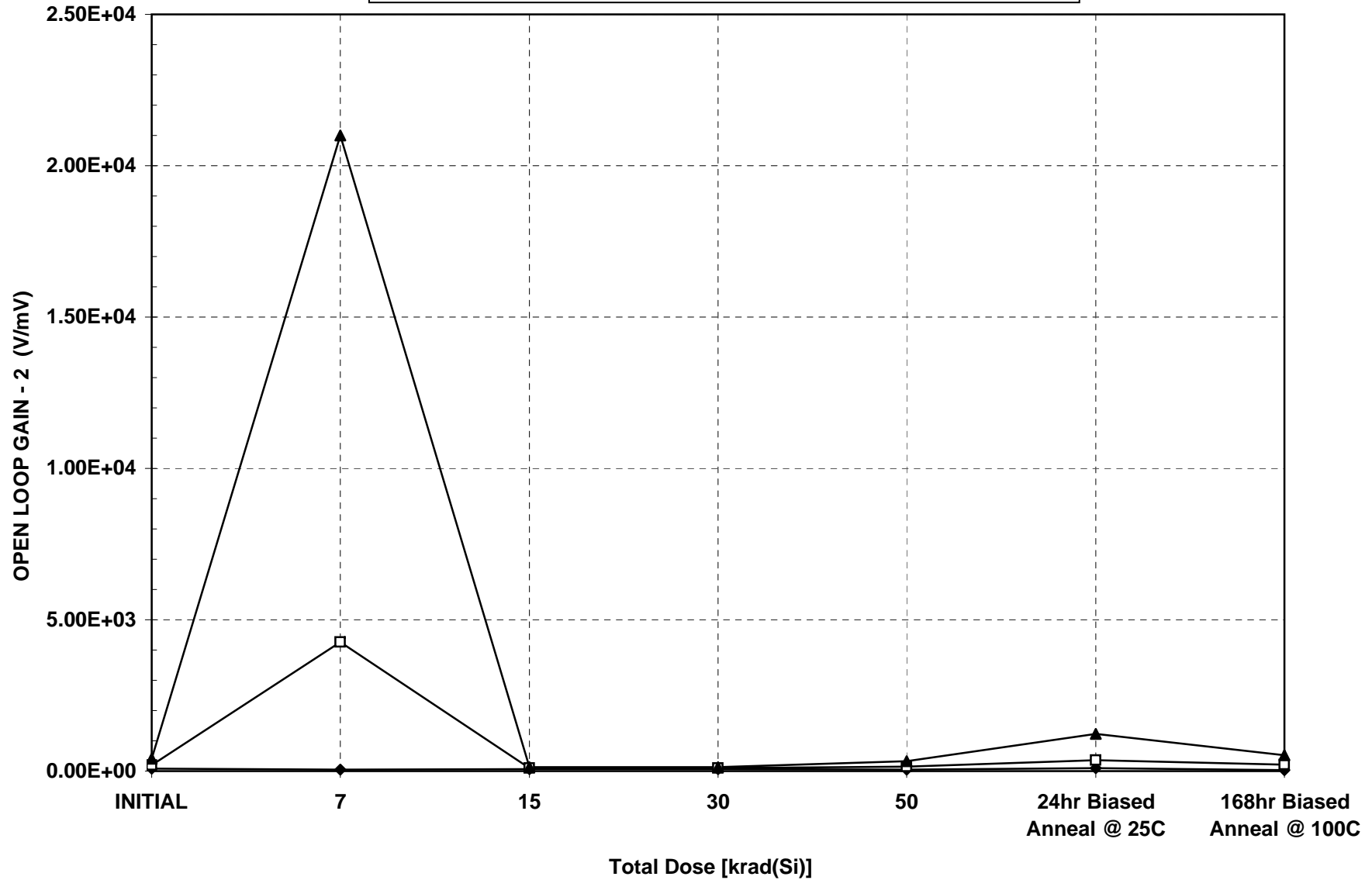


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

OPEN LOOP GAIN - 2 (V/mV)



◆ MINIMUM

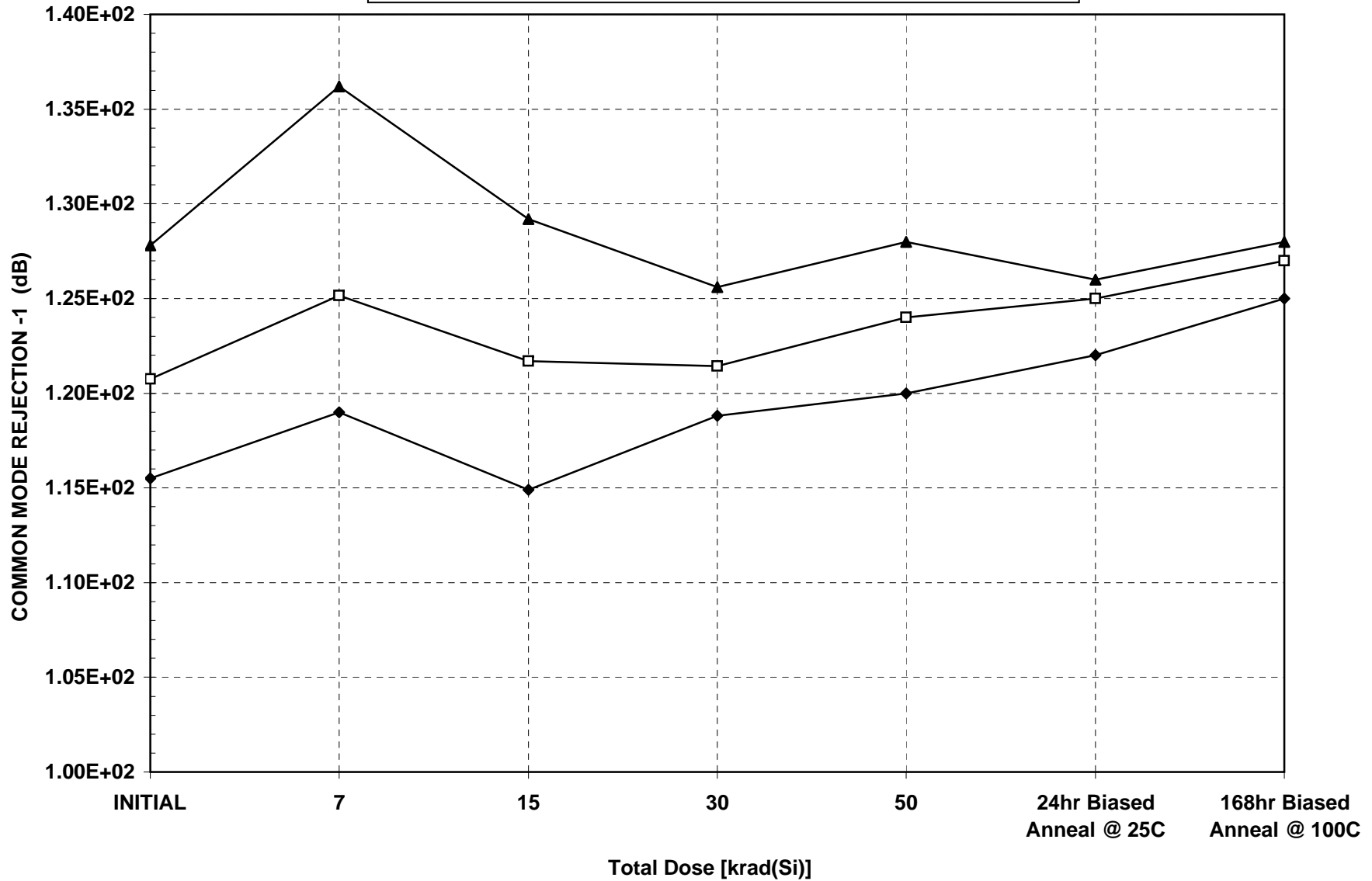
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

COMMON MODE REJECTION -1 (dB)



◆ MINIMUM

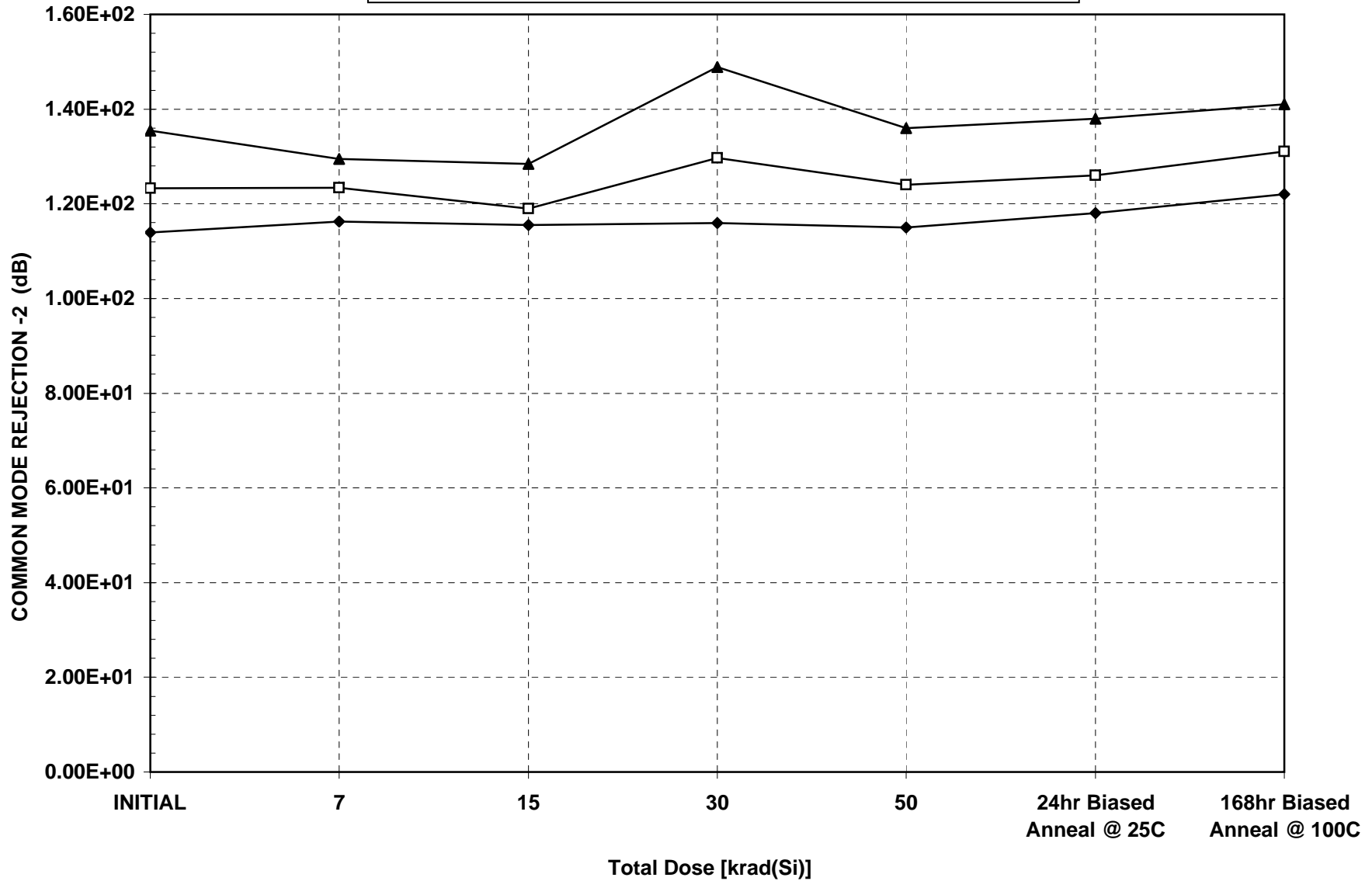
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

COMMON MODE REJECTION -2 (dB)

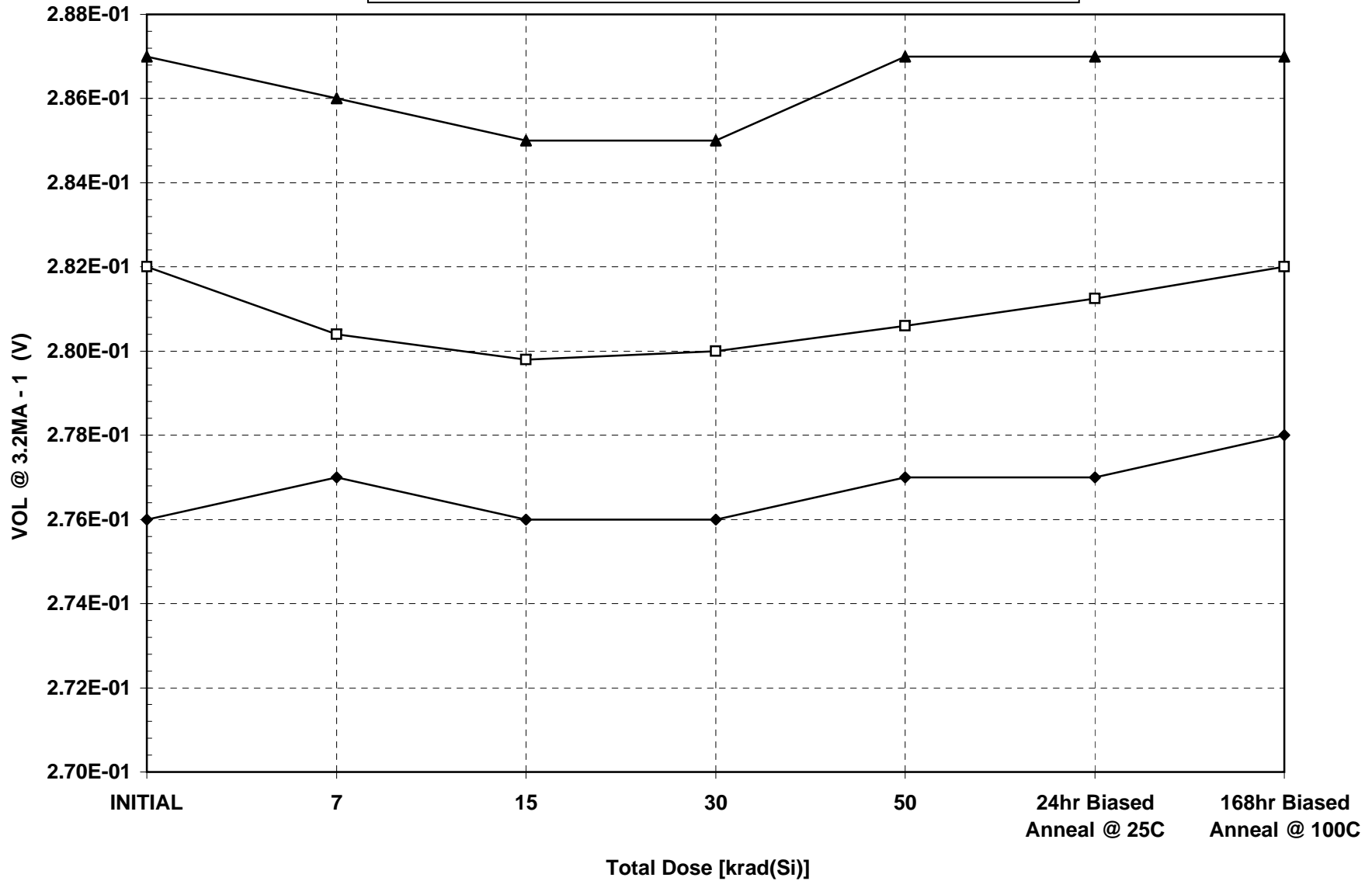


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

VOL @ 3.2MA - 1 (V)

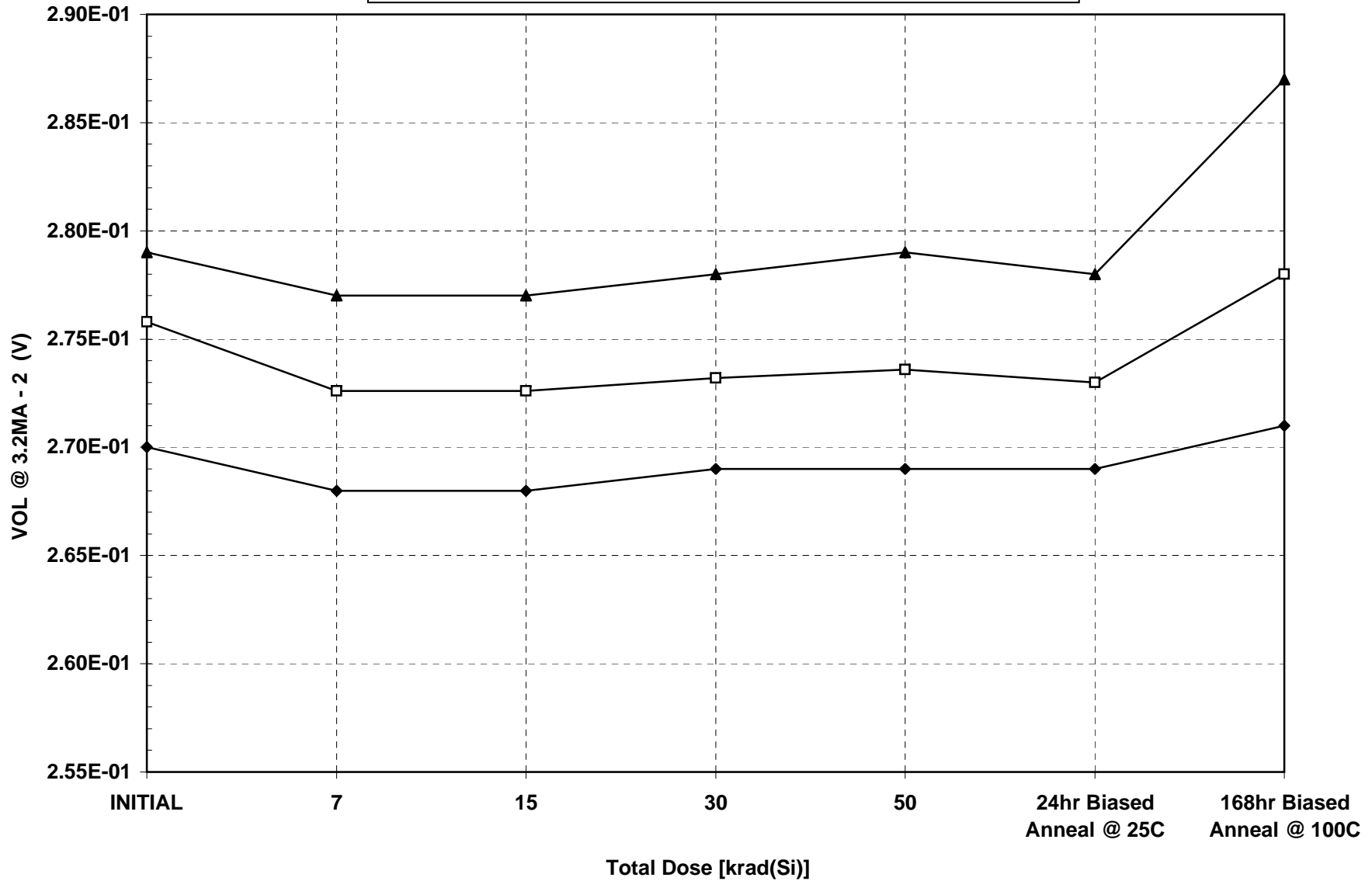


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

VOL @ 3.2MA - 2 (V)

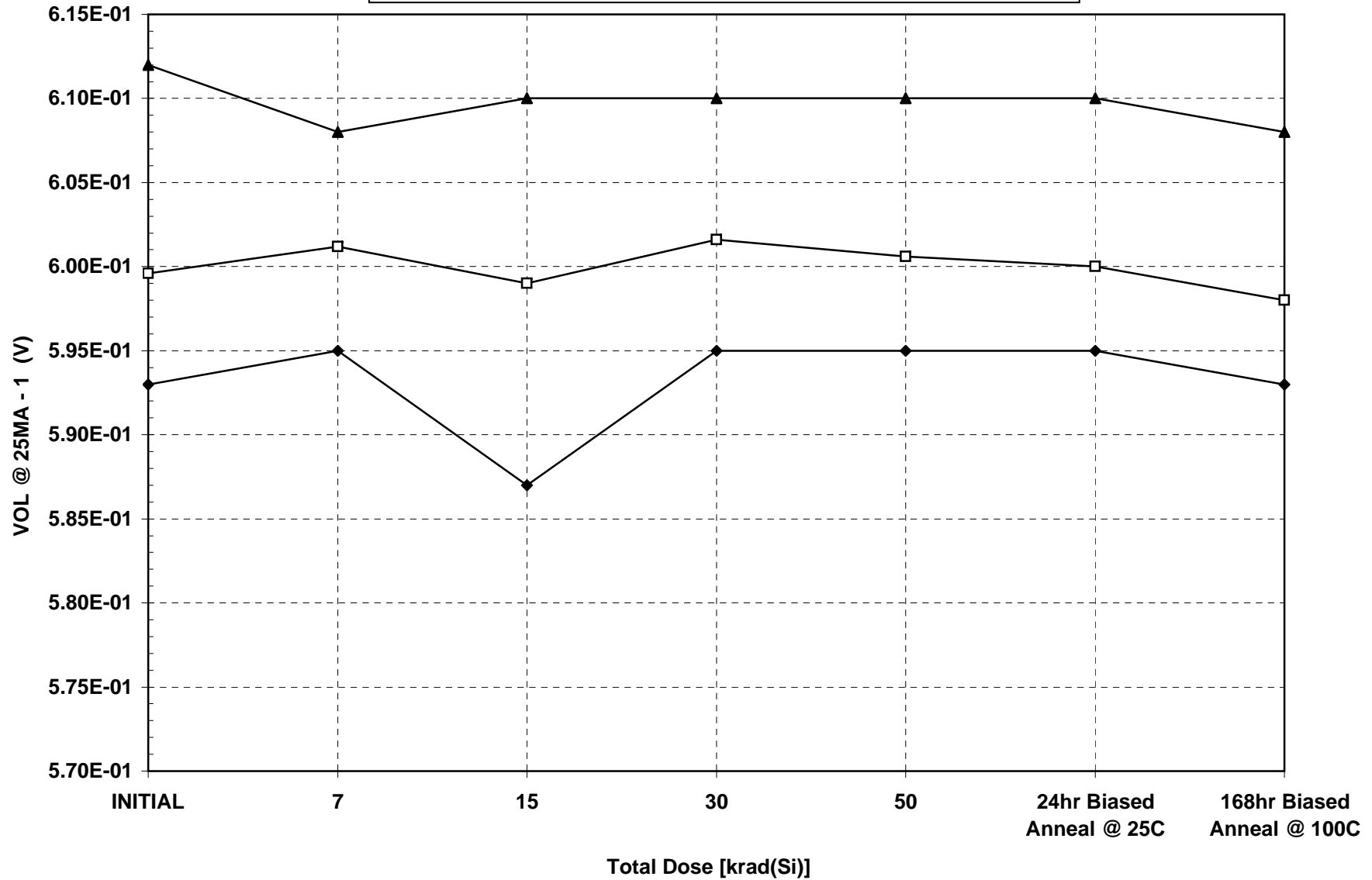


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

I C S Radiation Test Results Log # 1573 5/24/07

VOL @ 25MA - 1 (V)



◆ MINIMUM

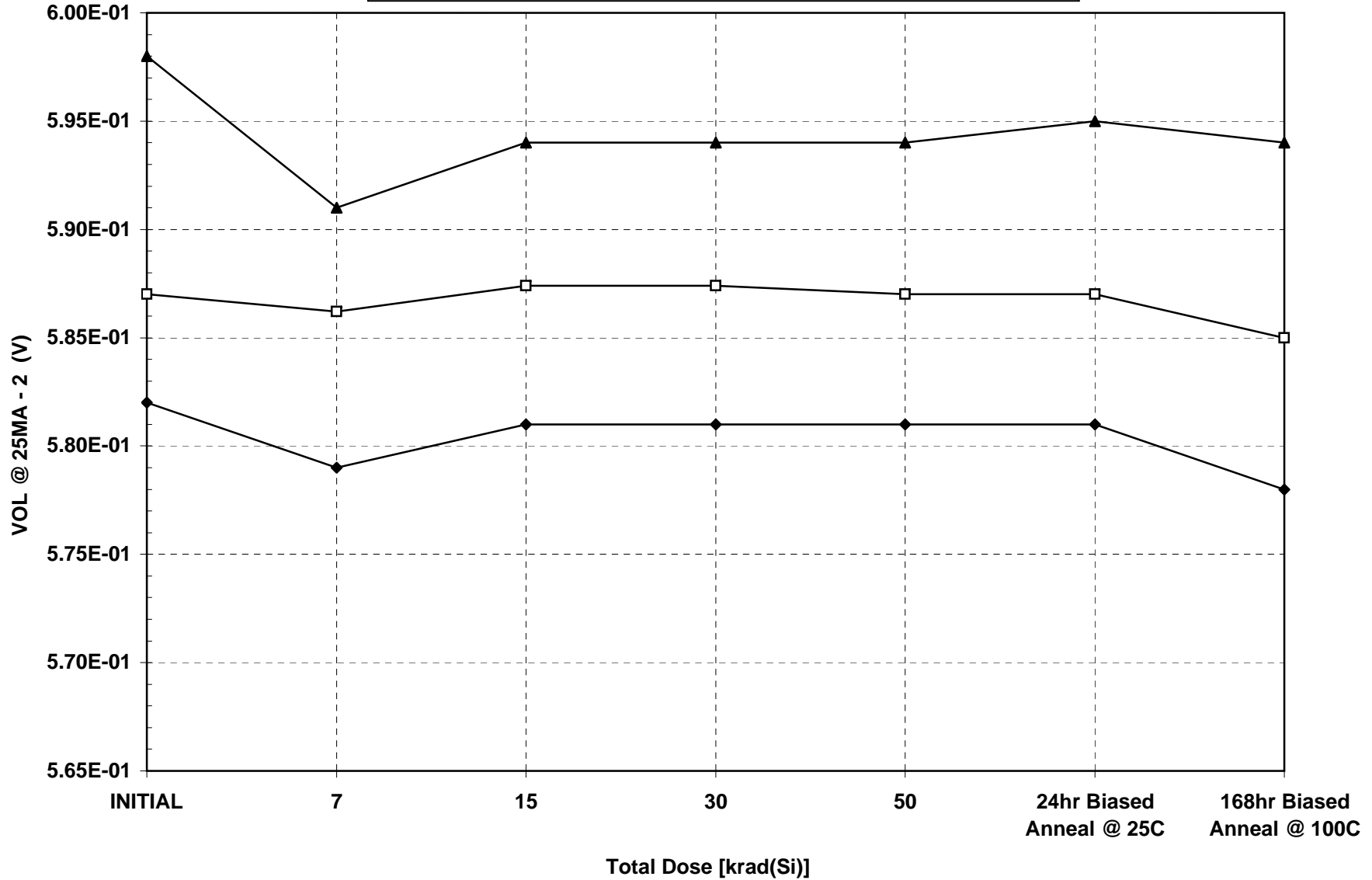
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

VOL @ 25MA - 2 (V)

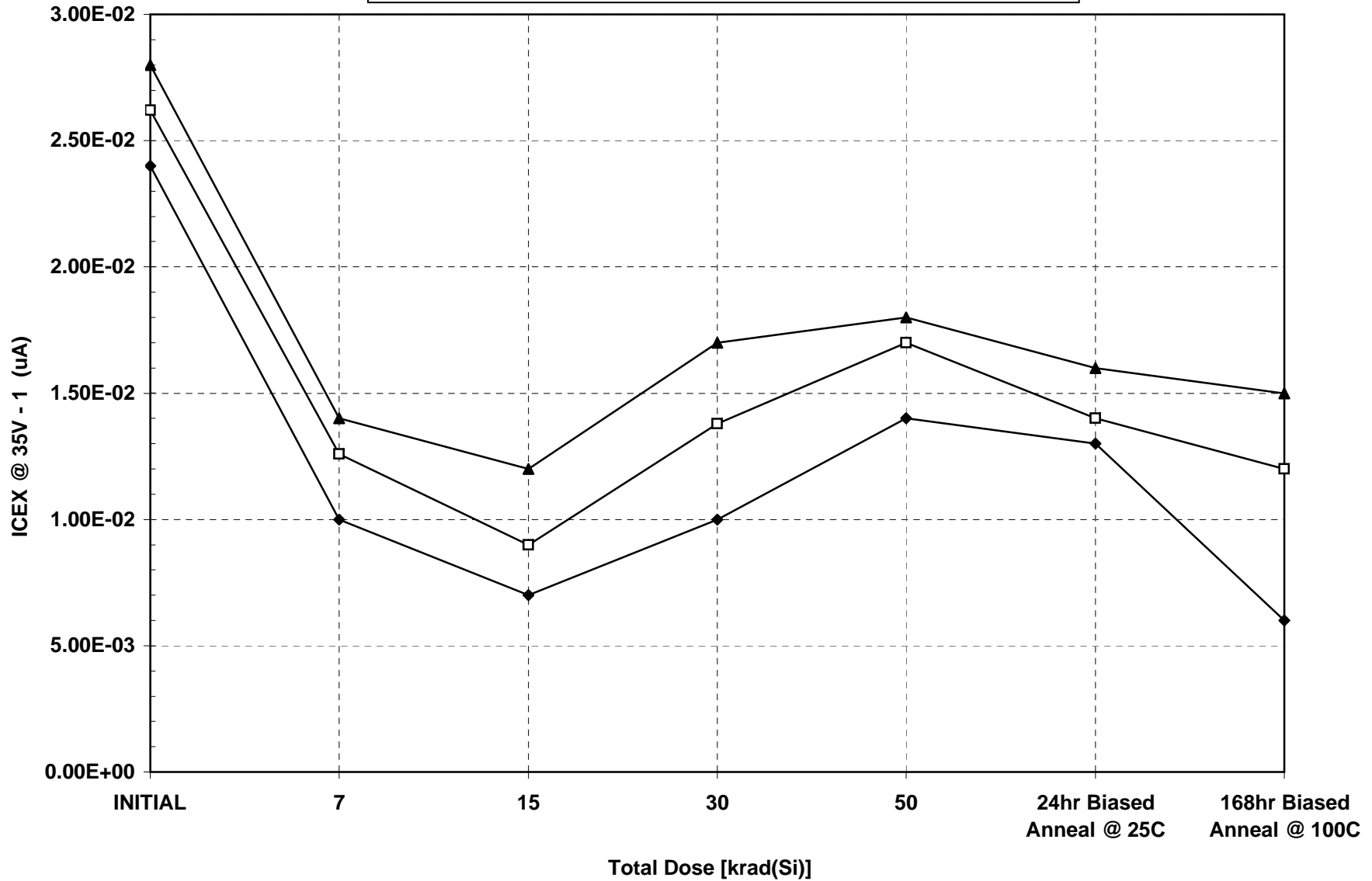


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

IC S Radiation Test Results Log # 1573 5/24/07

ICEX @ 35V - 1 (uA)



◆ MINIMUM

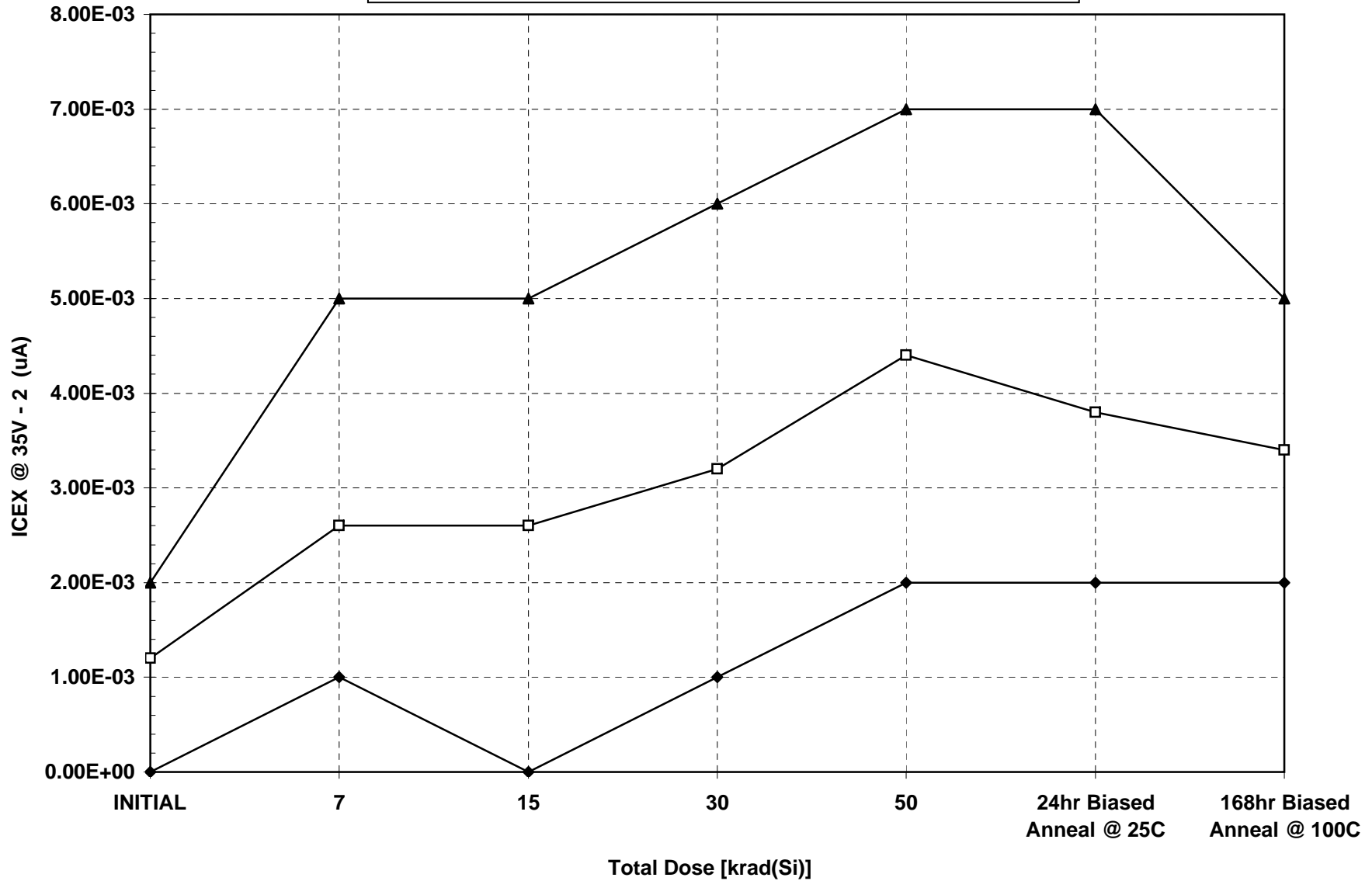
□ MEAN

▲ MAXIMUM

RH119W DUAL COMPARATORS (LTC)

I C S Radiation Test Results Log # 1573 5/24/07

ICEX @ 35V - 2 (uA)



◆ MINIMUM

□ MEAN

▲ MAXIMUM

Radiation Test Results

RH119MW
Dual Comparator
Linear Technology Corporation
D/C 0637A, Lot 401782.2
Log# 1573 [Test Date 05-24-07]
Log# 1662 [Test Date 01-14-08]
ELDRS Test - P.O.# 46026L

This test consisted of two test logs, Logs 1573 and 1662. The test was to compare ELDRS radiation effects differences between the two bias conditions: Log 1573, ± 15 volts and Log 1662, which had all leads grounded. The twenty test parameters requirements are stated in test procedure RTP 686 dated March 21, 2007. There was one *Information Only* parameter tested.

The test results indicate there is little difference between the two bias conditions, The test results were less than the LTC data sheet limits of 20krad(Si) at the 50krad(Si) test level.

Both the biased and unbiased (grounded) lots **PASSED** all of the parameter test requirements as stated in the Radiation Test Procedure RTP 692, dated March 23, 2007.

ELDRS BIASED DEVICES, Log 1573

Information Only, + Supply Current @ $V_{+}=5V$, $V_{-}=0V$: The + Supply Current @ $V_{+}=5V$, $V_{-}=0V$ is an information only test. The minimum current was 2.46mA at the 7 and 50krad test levels. The maximum current was 2.60mA at the 7, 50krad, 24 hour 25°C anneal, and 168 hour 100°C anneal test level.

PASSED, + Supply Current @ $V_{\pm}15V$: The Post-Radiation limit at 50krad(Si) was 11.5mA maximum. The parameter minimum current was 7.40mA. The maximum current was 7.78mA.

PASSED, - Supply Current @ $V_{\pm}15V$: The Post-Radiation limit at 50krad(Si) was -4.5mA maximum. The parameter minimum current was -3.40mA. The maximum current was -3.23mA.

PASSED, Offset Voltage-1: The Post-Radiation limit at 50krad(Si) was $\pm 4.0mV$ maximum. The parameter minimum voltage was 0.17mV. The maximum voltage was 0.48mV.

PASSED, Offset Voltage-2: The Post-Radiation limit at 50krad(Si) was $\pm 4.0mV$ maximum. The parameter minimum voltage was 0.24mV. The maximum voltage was 0.50mV.

PASSED, Offset Current-1: The Post-Radiation limit at 50krad(Si) was $\pm 150\text{nA}$ maximum. The parameter minimum current was -29.4nA . The maximum current was 17.9nA .

PASSED, Offset Current-2: The Post-Radiation limit at 50krad(Si) was $\pm 150\text{nA}$ maximum. The parameter minimum current was -70.1nA . The maximum current was -35.6nA .

PASSED, + Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 407nA . The maximum current was 427nA .

PASSED, + Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 440nA . The maximum current was 452nA .

PASSED, - Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 388nA . The maximum current was 440nA .

PASSED, - Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 394nA . The maximum current was 415nA .

PASSED, Open Loop Gain-1: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 49.0V/mV . The maximum gain was 76.6V/mV .

PASSED, Open Loop Gain-2: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 52.6V/mV . The maximum gain was 333V/mV .

PASSED, Common Mode Rejection-1: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 120dB . The maximum rejection was 128dB .

PASSED, Common Mode Rejection-2: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 115dB . The maximum rejection was 136dB .

PASSED, VOL @ 3.2mA-1: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.277V . The maximum voltage was 0.287V .

PASSED, VOL @ 3.2mA-2: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.269V . The maximum voltage was 0.279V .

PASSED, VOL @ 25mA-1: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.595V . The maximum voltage was 0.610V .

PASSED, VOL @ 25mA-2: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.581V . The maximum voltage was 0.594V .

PASSED, ICEX @ 35V-1: The Post-Radiation limit at 50krad(Si) was $2\mu\text{A}$ maximum. The parameter minimum current was $0.014\mu\text{A}$. The maximum current was $0.018\mu\text{A}$.

PASSED, ICEX @ 35V-2: The Post-Radiation limit at 50krad(Si) was $2\mu\text{A}$ maximum. The parameter minimum current was $0.002\mu\text{A}$. The maximum current was $0.007\mu\text{A}$.

ELDRS GROUNDED DEVICES, Log 1662

Information Only, + Supply Current @ $V_+=5\text{V}$, $V_-=0\text{V}$: The **+ Supply Current @ $V_+=5\text{V}$, $V_-=0\text{V}$** is an information only test. The minimum current was 2.50mA at the initial test level. The maximum current was 2.70mA at the 50krad test level

PASSED, + Supply Current @ $V_{\pm}15\text{V}$: The Post-Radiation limit at 50krad(Si) was 11.5mA maximum. The parameter minimum current was 7.39mA . The maximum current was 7.88mA .

PASSED, - Supply Current @ $V_{\pm 15V}$: The Post-Radiation limit at 50krad(Si) was -4.5mA maximum. The parameter minimum current was -3.39mA. The maximum current was -3.22mA.

PASSED, Offset Voltage-1: The Post-Radiation limit at 50krad(Si) was ± 4.0 mV maximum. The parameter minimum voltage was 0.13mV. The maximum voltage was 0.50mV.

PASSED, Offset Voltage-2: The Post-Radiation limit at 50krad(Si) was ± 4.0 mV maximum. The parameter minimum voltage was 0.26mV. The maximum voltage was 0.48mV.

PASSED, Offset Current-1: The Post-Radiation limit at 50krad(Si) was ± 150 nA maximum. The parameter minimum current was -2.88nA. The maximum current was 26.4nA.

PASSED, Offset Current-2: The Post-Radiation limit at 50krad(Si) was ± 150 nA maximum. The parameter minimum current was -62.7nA. The maximum current was -25.5nA.

PASSED, + Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 441nA. The maximum current was 473nA.

PASSED, + Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 460nA. The maximum current was 546nA.

PASSED, - Bias Current-1: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 460nA. The maximum current was 522nA.

PASSED, - Bias Current-2: The Post-Radiation limit at 50krad(Si) was 1000nA maximum. The parameter minimum current was 457nA. The maximum current was 514nA.

PASSED, Open Loop Gain-1: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 35.5V/mV. The maximum gain was 68.5V/mV.

PASSED, Open Loop Gain-2: The Post-Radiation limit at 50krad(Si) was 10V/mV minimum. The parameter minimum gain was 40V/mV. The maximum gain was 253V/mV.

PASSED, Common Mode Rejection-1: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 115dB. The maximum rejection was 131dB.

PASSED, Common Mode Rejection-2: The Post-Radiation limit at 50krad(Si) was 90dB minimum. The parameter minimum rejection was 112dB. The maximum current was 124dB.

PASSED, VOL @ 3.2mA-1: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.270V. The maximum voltage was 0.291V.

PASSED, VOL @ 3.2mA-2: The Post-Radiation limit at 50krad(Si) was 0.4V maximum. The parameter minimum voltage was 0.266V. The maximum voltage was 0.286V.

PASSED, VOL @ 25mA-1: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.576V. The maximum voltage was 0.606V.

PASSED, VOL @ 25mA-2: The Post-Radiation limit at 50krad(Si) was 1.5V maximum. The parameter minimum voltage was 0.566V. The maximum voltage was 0.595V.

PASSED, ICEx @ 35V-1: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.000 μ A. The maximum current was 0.002 μ A.

PASSED, ICEx @ 35V -2: The Post-Radiation limit at 50krad(Si) was 2 μ A maximum. The parameter minimum current was 0.000 μ A. The maximum current was 0.003 μ A.

ANOMOLIES:

1. There were no device anomalies during this test.

If you should require any further clarification on this matter, please contact me directly: TEL-562-923-1837, FAX-562-923-3609, or E-Mail mike@icsrad.com.

Dr. Michael K. Gauthier, P.E.
President
ICS Radiation Technologies, Inc.
April 30, 2008

RADIATION TEST PROCEDURE

No. 692

Device Type: RH119 Dual Comparator
Manufacturer: LTC
Lot No: Wafer# Date Code:
Package Type: H (10-pin TO-5 Can), J (10-pin DIP), W (10-pin Flat Pack)
No. of Devices Supplied: 11
No. of Devices to be tested: Bias Condition #1, 5 Devices
Bias Condition #2, 5 Devices
Control, 1 Device

=====

RADIATION CONDITIONS: MIL STD 883E, Test Method 1019.6

Facility: Shepherd Low Dose, Co60 Energy: 1.25 MeV

Total Dose krad(Si)	7	15	30	50	Biased Anneal 24 hr @ 25°C	Biased Anneal 168 hr @ 100°C
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Dose Rate rad(Si)/s	Less than 0.010 [36rad (Si)/hour]
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BIAS CONDITIONS DURING IRRADIATION:

“ON” BIAS CONDITION # 1

Pin #	Name
1	Out 1
2	Gnd 1
3	+IN 1
4	- IN 1
5	VS-
6	Out 2
7	Gnd 2
8	+ IN 2
9	- IN 2
10	VS+

See Figure 1, Page 2.

“OFF” BIAS CONDITION # 2 All pins to GROUND.

March 23, 2007

RADIATION TEST PROCEDURE

No. 692

Figure 1 – TOTAL DOSE BIAS CONDITIONS, RH119

RADIATION TEST PROCEDURE

Device Type: RH119 DUAL COMPARATOR

Electrical Parameter Measurement Conditions:

TEST CONDITIONS: $V_S = \pm 15V$.

Electrical Parametric Measurement Conditions **

TEST	TEST NAME	TEST CONDITIONS	Limits Exposure Levels rad(Si)				Units
			20k	50k	100k	200k	
1	+ SUPPLY CURRENT	$V_+=5V, V_-=0V$	Record	Record	Record	Record	mA
2	+ SUPPLY CURRENT	$V_S=\pm 15V$	11.5	11.5	11.5	11.5	mA Max
3	- SUPPLY CURRENT		4.5	4.5	4.5	4.5	mA Max
4	OFFSET VOLTAGE – 1		4.0	4.0	4.0	8.0	mV \pm Max
5	OFFSET VOLTAGE – 2		4.0	4.0	4.0	8.0	mV \pm Max
6	OFFSET CURRENT – 1		100	150	300	500	nA \pm Max
7	OFFSET CURRENT – 2		100	150	300	500	nA \pm Max
8	+ BIAS CURRENT – 1		750	1000	1500	2000	nA Max
9	+ BIAS CURRENT – 2		750	1000	1500	2000	nA Max
10	- BIAS CURRENT – 1		750	1000	1500	2000	nA Max
11	- BIAS CURRENT – 2		750	1000	1500	2000	nA Max
12	OPEN LOOP GAIN – 1		10	10	10	5	V/mV Min
13	OPEN LOOP GAIN – 2		10	10	10	5	V/mV Min
14	COMMON MODE REJECTION – 1		90	90	90	90	dB Min
15	COMMON MODE REJECTION – 2		90	90	90	90	dB Min
16	VOL @ 3.2MA – 1		0.4	0.4	0.4	0.4	V Max
17	VOL @ 3.2MA – 2		0.4	0.4	0.4	0.4	V Max
18	VOL @ 25MA – 1		1.5	1.5	1.5	1.5	V Max
19	VOL @ 25MA – 2		1.5	1.5	1.5	1.5	V Max
20	ICEX @ 35V – 1		2.0	2.0	2.0	2.0	μ A
21	ICEX @ 35V – 2		2.0	2.0	2.0	2.0	μ A

***Measurements shall be made at room ambient temperature.**

****Tests conducted using an Analog Devices LTS2020 Component Test System, with the LTS2100 OP AMP Family Board, LTS-0608 Comparator Socket Assembly, LTS0325/LM119J/H [J (10-pin DIP) H (10-pin TO-5 Can)] Test Card. W (10-pin Flat Pack) use 14-pin F/P to DIP adaptor.**

Software: BGSS – 960626B, Rev. 1.10. “LM119JH.SRC”

Data Processing use King Program: P99/90 Ktl =4.666 for 5 devices

Return samples to customer.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.51E-03	2.58E-03	2.56E-03	2.57E-03	2.59E-03	2.57E-03	2.58E-03
	177	2.61E-03	2.63E-03	2.66E-03	2.66E-03	2.68E-03	2.66E-03	2.62E-03
	178	2.57E-03	2.55E-03	2.60E-03	2.59E-03	2.62E-03	2.61E-03	2.58E-03
	182	2.52E-03	2.54E-03	2.55E-03	2.55E-03	2.57E-03	2.57E-03	2.56E-03
	183	2.65E-03	2.67E-03	2.67E-03	2.68E-03	2.70E-03	2.69E-03	2.69E-03
	184	2.50E-03	2.51E-03	2.51E-03	2.51E-03	2.52E-03	2.53E-03	2.52E-03
MINIMUM		2.50E-03	2.51E-03	2.51E-03	2.51E-03	2.52E-03	2.53E-03	2.52E-03
MEAN		2.57E-03	2.58E-03	2.60E-03	2.60E-03	2.62E-03	2.61E-03	2.59E-03
MAXIMUM		2.65E-03	2.67E-03	2.67E-03	2.68E-03	2.70E-03	2.69E-03	2.69E-03
+P 99/90		2.86E-03	2.89E-03	2.92E-03	2.93E-03	2.97E-03	2.92E-03	2.90E-03
-P 99/90		2.28E-03	2.27E-03	2.28E-03	2.26E-03	2.27E-03	2.31E-03	2.29E-03
SIGMA		6.20E-05	6.71E-05	6.91E-05	7.19E-05	7.50E-05	6.50E-05	6.47E-05

+ SUPPLY CURRENT

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		7.00E-05	5.00E-05	6.00E-05	8.00E-05	6.00E-05	7.00E-05
	177		2.00E-05	5.00E-05	5.00E-05	7.00E-05	5.00E-05	1.00E-05
	178		-2.00E-05	3.00E-05	2.00E-05	5.00E-05	4.00E-05	1.00E-05
	182		2.00E-05	3.00E-05	3.00E-05	5.00E-05	5.00E-05	4.00E-05
	183		2.00E-05	2.00E-05	3.00E-05	5.00E-05	4.00E-05	4.00E-05
	184		1.00E-05	1.00E-05	1.00E-05	2.00E-05	3.00E-05	2.00E-05
MINIMUM			-2.00E-05	1.00E-05	1.00E-05	2.00E-05	3.00E-05	1.00E-05
MEAN			1.00E-05	2.80E-05	2.80E-05	4.80E-05	4.20E-05	2.40E-05
MAXIMUM			2.00E-05	5.00E-05	5.00E-05	7.00E-05	5.00E-05	4.00E-05
+P 99/90			9.08E-05	9.72E-05	9.72E-05	1.31E-04	8.10E-05	9.48E-05
-P 99/90			-7.08E-05	-4.12E-05	-4.12E-05	-3.55E-05	2.96E-06	-4.68E-05
SIGMA			1.73E-05	1.48E-05	1.48E-05	1.79E-05	8.37E-06	1.52E-05

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ SUPPLY CURRENT

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	7.49E-03	7.58E-03	7.56E-03	7.56E-03	7.60E-03	7.57E-03	7.59E-03
	177	7.74E-03	7.76E-03	7.79E-03	7.78E-03	7.80E-03	7.78E-03	7.74E-03
	178	7.54E-03	7.52E-03	7.55E-03	7.55E-03	7.57E-03	7.56E-03	7.54E-03
	182	7.44E-03	7.45E-03	7.46E-03	7.46E-03	7.48E-03	7.48E-03	7.46E-03
	183	7.84E-03	7.86E-03	7.86E-03	7.85E-03	7.88E-03	7.87E-03	7.86E-03
	184	7.38E-03	7.39E-03	7.40E-03	7.39E-03	7.39E-03	7.40E-03	7.40E-03
MINIMUM		7.38E-03	7.39E-03	7.40E-03	7.39E-03	7.39E-03	7.40E-03	7.40E-03
MEAN		7.59E-03	7.60E-03	7.61E-03	7.61E-03	7.62E-03	7.62E-03	7.60E-03
MAXIMUM		7.84E-03	7.86E-03	7.86E-03	7.85E-03	7.88E-03	7.87E-03	7.86E-03
+P 99/90		8.50E-03	8.55E-03	8.56E-03	8.54E-03	8.60E-03	8.55E-03	8.50E-03
-P 99/90		6.67E-03	6.65E-03	6.66E-03	6.67E-03	6.65E-03	6.69E-03	6.70E-03
SIGMA		1.96E-04	2.04E-04	2.03E-04	2.01E-04	2.09E-04	2.00E-04	1.94E-04

+ SUPPLY CURRENT

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		9.00E-05	7.00E-05	7.00E-05	1.10E-04	8.00E-05	1.00E-04
	177		2.00E-05	5.00E-05	4.00E-05	6.00E-05	4.00E-05	0.00E+00
	178		-2.00E-05	1.00E-05	1.00E-05	3.00E-05	2.00E-05	0.00E+00
	182		1.00E-05	2.00E-05	2.00E-05	4.00E-05	4.00E-05	2.00E-05
	183		2.00E-05	2.00E-05	1.00E-05	4.00E-05	3.00E-05	2.00E-05
	184		1.00E-05	2.00E-05	1.00E-05	1.00E-05	2.00E-05	2.00E-05
MINIMUM			-2.00E-05	1.00E-05	1.00E-05	1.00E-05	2.00E-05	0.00E+00
MEAN			8.00E-06	2.40E-05	1.80E-05	3.60E-05	3.00E-05	1.20E-05
MAXIMUM			2.00E-05	5.00E-05	4.00E-05	6.00E-05	4.00E-05	2.00E-05
+P 99/90			8.47E-05	9.48E-05	7.88E-05	1.21E-04	7.67E-05	6.31E-05
-P 99/90			-6.87E-05	-4.68E-05	-4.28E-05	-4.88E-05	-1.67E-05	-3.91E-05
SIGMA			1.64E-05	1.52E-05	1.30E-05	1.82E-05	1.00E-05	1.10E-05

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- SUPPLY CURRENT

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	-3.24E-03	-3.24E-03	-3.24E-03	-3.24E-03	-3.24E-03	-3.24E-03	-3.25E-03
	177	-3.36E-03	-3.36E-03	-3.35E-03	-3.37E-03	-3.35E-03	-3.36E-03	-3.36E-03
	178	-3.27E-03	-3.27E-03	-3.27E-03	-3.26E-03	-3.27E-03	-3.27E-03	-3.26E-03
	182	-3.21E-03	-3.21E-03	-3.22E-03	-3.21E-03	-3.22E-03	-3.21E-03	-3.21E-03
	183	-3.40E-03	-3.39E-03	-3.40E-03	-3.39E-03	-3.39E-03	-3.39E-03	-3.40E-03
	184	-3.23E-03	-3.23E-03	-3.23E-03	-3.23E-03	-3.22E-03	-3.23E-03	-3.23E-03
	MINIMUM	-3.40E-03	-3.39E-03	-3.40E-03	-3.39E-03	-3.39E-03	-3.39E-03	-3.40E-03
	MEAN	-3.29E-03	-3.29E-03	-3.29E-03	-3.29E-03	-3.29E-03	-3.29E-03	-3.29E-03
	MAXIMUM	-3.21E-03	-3.21E-03	-3.22E-03	-3.21E-03	-3.22E-03	-3.21E-03	-3.21E-03
	+P 99/90	-2.91E-03	-2.92E-03	-2.93E-03	-2.91E-03	-2.93E-03	-2.92E-03	-2.90E-03
	-P 99/90	-3.68E-03	-3.66E-03	-3.66E-03	-3.68E-03	-3.65E-03	-3.66E-03	-3.68E-03
	SIGMA	8.26E-05	7.95E-05	7.83E-05	8.26E-05	7.71E-05	7.95E-05	8.35E-05

- SUPPLY CURRENT

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.00E-05
	177	0.00E+00	1.00E-05	-1.00E-05	1.00E-05	0.00E+00	0.00E+00	0.00E+00
	178	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00	1.00E-05
	182	0.00E+00	-1.00E-05	0.00E+00	-1.00E-05	0.00E+00	0.00E+00	0.00E+00
	183	1.00E-05	0.00E+00	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0.00E+00
	184	0.00E+00	0.00E+00	0.00E+00	1.00E-05	0.00E+00	0.00E+00	0.00E+00
	MINIMUM	0.00E+00	-1.00E-05	-1.00E-05	-1.00E-05	0.00E+00	0.00E+00	0.00E+00
	MEAN	2.00E-06	0.00E+00	2.00E-06	4.00E-06	2.00E-06	2.00E-06	2.00E-06
	MAXIMUM	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05
	+P 99/90	2.29E-05	3.30E-05	4.10E-05	4.57E-05	2.29E-05	2.29E-05	2.29E-05
	-P 99/90	-1.89E-05	-3.30E-05	-3.70E-05	-3.77E-05	-1.89E-05	-1.89E-05	-1.89E-05
	SIGMA	4.47E-06	7.07E-06	8.37E-06	8.94E-06	4.47E-06	4.47E-06	4.47E-06

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET VOLTAGE - 1		(V)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	4.10E-04	4.10E-04	4.20E-04	4.20E-04	4.10E-04	4.20E-04	4.20E-04	
	177	3.90E-04	3.80E-04	3.60E-04	3.60E-04	3.50E-04	3.50E-04	3.40E-04	
	178	3.90E-04	4.00E-04	3.80E-04	3.70E-04	3.80E-04	3.60E-04	3.70E-04	
	182	5.40E-04	5.40E-04	5.10E-04	5.10E-04	5.00E-04	5.10E-04	5.10E-04	
	183	3.00E-04	2.80E-04	2.50E-04	2.50E-04	2.40E-04	2.50E-04	2.40E-04	
	184	1.80E-04	1.70E-04	1.70E-04	1.50E-04	1.30E-04	1.80E-04	1.50E-04	
	MINIMUM	1.80E-04	1.70E-04	1.70E-04	1.50E-04	1.30E-04	1.80E-04	1.50E-04	
	MEAN	3.60E-04	3.54E-04	3.34E-04	3.28E-04	3.20E-04	3.30E-04	3.22E-04	
	MAXIMUM	5.40E-04	5.40E-04	5.10E-04	5.10E-04	5.00E-04	5.10E-04	5.10E-04	
	+P 99/90	9.78E-04	1.00E-03	9.41E-04	9.61E-04	9.77E-04	9.14E-04	9.58E-04	
	-P 99/90	-2.58E-04	-2.92E-04	-2.73E-04	-3.05E-04	-3.37E-04	-2.54E-04	-3.14E-04	
	SIGMA	1.32E-04	1.38E-04	1.30E-04	1.36E-04	1.41E-04	1.25E-04	1.36E-04	

OFFSET VOLTAGE - 1		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		0.00E+00	1.00E-05	1.00E-05	0.00E+00	1.00E-05	1.00E-05
	177		-1.00E-05	-3.00E-05	-3.00E-05	-4.00E-05	-4.00E-05	-5.00E-05
	178		1.00E-05	-1.00E-05	-2.00E-05	-1.00E-05	-3.00E-05	-2.00E-05
	182		0.00E+00	-3.00E-05	-3.00E-05	-4.00E-05	-3.00E-05	-3.00E-05
	183		-2.00E-05	-5.00E-05	-5.00E-05	-6.00E-05	-5.00E-05	-6.00E-05
	184		-1.00E-05	-1.00E-05	-3.00E-05	-5.00E-05	0.00E+00	-3.00E-05
	MINIMUM		-2.00E-05	-5.00E-05	-5.00E-05	-6.00E-05	-5.00E-05	-6.00E-05
	MEAN		-6.00E-06	-2.60E-05	-3.20E-05	-4.00E-05	-3.00E-05	-3.80E-05
	MAXIMUM		1.00E-05	-1.00E-05	-2.00E-05	-1.00E-05	0.00E+00	-2.00E-05
	+P 99/90		4.72E-05	5.21E-05	1.91E-05	4.73E-05	5.73E-05	3.87E-05
	-P 99/90		-5.92E-05	-1.04E-04	-8.31E-05	-1.27E-04	-1.17E-04	-1.15E-04
	SIGMA		1.14E-05	1.67E-05	1.10E-05	1.87E-05	1.87E-05	1.64E-05

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET VOLTAGE - 2

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	4.60E-04	4.60E-04	4.50E-04	4.70E-04	4.70E-04	4.70E-04	4.80E-04
	177	5.00E-04	5.00E-04	5.10E-04	4.90E-04	4.80E-04	4.90E-04	4.90E-04
	178	2.80E-04	2.70E-04	2.80E-04	2.80E-04	2.60E-04	2.80E-04	2.90E-04
	182	4.70E-04	4.60E-04	4.50E-04	4.50E-04	4.30E-04	4.50E-04	4.40E-04
	183	3.40E-04	3.90E-04	3.50E-04	3.50E-04	3.40E-04	3.60E-04	3.50E-04
	184	3.80E-04	3.90E-04	3.90E-04	3.80E-04	3.70E-04	3.90E-04	3.80E-04
MINIMUM		2.80E-04	2.70E-04	2.80E-04	2.80E-04	2.60E-04	2.80E-04	2.90E-04
MEAN		3.94E-04	4.02E-04	3.96E-04	3.90E-04	3.76E-04	3.94E-04	3.90E-04
MAXIMUM		5.00E-04	5.00E-04	5.10E-04	4.90E-04	4.80E-04	4.90E-04	4.90E-04
+P 99/90		8.19E-04	8.11E-04	8.10E-04	7.76E-04	7.70E-04	7.74E-04	7.53E-04
-P 99/90		-3.06E-05	-6.64E-06	-1.82E-05	3.82E-06	-1.80E-05	1.41E-05	2.71E-05
SIGMA		9.10E-05	8.76E-05	8.88E-05	8.28E-05	8.44E-05	8.14E-05	7.78E-05

OFFSET VOLTAGE - 2

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		0.00E+00	-1.00E-05	1.00E-05	1.00E-05	1.00E-05	2.00E-05
	177		0.00E+00	1.00E-05	-1.00E-05	-2.00E-05	-1.00E-05	-1.00E-05
	178		-1.00E-05	0.00E+00	0.00E+00	-2.00E-05	0.00E+00	1.00E-05
	182		-1.00E-05	-2.00E-05	-2.00E-05	-4.00E-05	-2.00E-05	-3.00E-05
	183		5.00E-05	1.00E-05	1.00E-05	0.00E+00	2.00E-05	1.00E-05
	184		1.00E-05	1.00E-05	0.00E+00	-1.00E-05	1.00E-05	0.00E+00
MINIMUM			-1.00E-05	-2.00E-05	-2.00E-05	-4.00E-05	-2.00E-05	-3.00E-05
MEAN			8.00E-06	2.00E-06	-4.00E-06	-1.80E-05	-1.08E-05	-4.00E-06
MAXIMUM			5.00E-05	1.00E-05	1.00E-05	0.00E+00	2.00E-05	1.00E-05
+P 99/90			1.24E-04	6.28E-05	4.92E-05	5.12E-05	7.38E-05	7.41E-05
-P 99/90			-1.08E-04	-5.88E-05	-5.72E-05	-8.72E-05	-7.38E-05	-8.21E-05
SIGMA			2.49E-05	1.30E-05	1.14E-05	1.48E-05	1.58E-05	1.67E-05

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET CURRENT - 1

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	-3.81E-09	-8.80E-10	7.68E-09	8.30E-09	8.01E-09	3.05E-09	6.90E-10
	177	-1.27E-08	-1.31E-08	-1.47E-08	-1.42E-08	-2.88E-09	-6.96E-09	-6.39E-09
	178	-1.33E-09	4.86E-09	1.21E-08	1.91E-08	2.64E-08	2.01E-08	6.84E-09
	182	-5.17E-09	-2.20E-09	-5.70E-09	-1.14E-09	1.14E-08	6.46E-09	1.60E-09
	183	2.57E-09	-8.60E-10	5.84E-09	6.60E-09	1.04E-08	1.16E-08	2.79E-09
	184	5.60E-09	7.39E-09	2.91E-09	6.65E-09	1.29E-08	1.94E-08	1.08E-08
	MINIMUM	-1.27E-08	-1.31E-08	-1.47E-08	-1.42E-08	-2.88E-09	-6.96E-09	-6.39E-09
	MEAN	-2.20E-09	-7.76E-10	8.20E-11	3.40E-09	1.16E-08	1.01E-08	3.13E-09
	MAXIMUM	5.60E-09	7.39E-09	1.21E-08	1.91E-08	2.64E-08	2.01E-08	1.08E-08
	+P 99/90	3.10E-08	3.62E-08	4.88E-08	6.04E-08	6.01E-08	6.19E-08	3.32E-08
	-P 99/90	-3.54E-08	-3.78E-08	-4.87E-08	-5.36E-08	-3.69E-08	-4.16E-08	-2.69E-08
	SIGMA	7.12E-09	7.93E-09	1.04E-08	1.22E-08	1.04E-08	1.11E-08	6.44E-09

OFFSET CURRENT - 1

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.93E-09	1.15E-08	1.21E-08	1.18E-08	6.86E-09	4.50E-09
	177		-4.00E-10	-2.03E-09	-1.52E-09	9.79E-09	5.71E-09	6.28E-09
	178		6.19E-09	1.34E-08	2.04E-08	2.77E-08	2.14E-08	8.17E-09
	182		2.97E-09	-5.30E-10	4.03E-09	1.65E-08	1.16E-08	6.77E-09
	183		-3.43E-09	3.27E-09	4.03E-09	7.78E-09	9.04E-09	2.20E-10
	184		1.79E-09	-2.69E-09	1.05E-09	7.25E-09	1.38E-08	5.20E-09
	MINIMUM		-3.43E-09	-2.69E-09	-1.52E-09	7.25E-09	5.71E-09	2.20E-10
	MEAN		1.42E-09	2.28E-09	5.60E-09	1.38E-08	1.23E-08	5.33E-09
	MAXIMUM		6.19E-09	1.34E-08	2.04E-08	2.77E-08	2.14E-08	8.17E-09
	+P 99/90		1.83E-08	3.32E-08	4.57E-08	5.40E-08	3.99E-08	1.96E-08
	-P 99/90		-1.54E-08	-2.86E-08	-3.45E-08	-2.64E-08	-1.52E-08	-8.90E-09
	SIGMA		3.61E-09	6.63E-09	8.60E-09	8.61E-09	5.91E-09	3.05E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OFFSET CURRENT - 2

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	-2.22E-08	-2.28E-08	-1.60E-08	-1.42E-08	-1.27E-08	-1.29E-08	-1.17E-08
	177	-2.20E-08	-2.14E-08	-1.62E-08	-2.84E-08	-2.55E-08	-2.17E-08	-1.63E-08
	178	-1.90E-08	-2.09E-08	-3.18E-08	-3.54E-08	-5.26E-08	-4.22E-08	-1.16E-08
	182	-2.55E-08	-1.49E-08	-2.20E-08	-3.22E-08	-3.95E-08	-4.18E-08	-1.11E-08
	183	-3.48E-08	-3.38E-08	-4.22E-08	-5.37E-08	-6.27E-08	-5.94E-08	-2.01E-08
	184	-1.86E-08	-1.72E-08	-2.21E-08	-3.24E-08	-4.22E-08	-4.78E-08	-2.23E-08
MINIMUM		-3.48E-08	-3.38E-08	-4.22E-08	-5.37E-08	-6.27E-08	-5.94E-08	-2.23E-08
MEAN		-2.40E-08	-2.16E-08	-2.68E-08	-3.64E-08	-4.45E-08	-4.26E-08	-1.63E-08
MAXIMUM		-1.86E-08	-1.49E-08	-1.62E-08	-2.84E-08	-2.55E-08	-2.17E-08	-1.11E-08
+P 99/90		7.19E-09	1.25E-08	2.09E-08	1.01E-08	2.10E-08	2.11E-08	6.95E-09
-P 99/90		-5.51E-08	-5.57E-08	-7.46E-08	-8.30E-08	-1.10E-07	-1.06E-07	-3.95E-08
SIGMA		6.68E-09	7.32E-09	1.02E-08	9.97E-09	1.40E-08	1.36E-08	4.98E-09

OFFSET CURRENT - 2

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		-6.20E-10	6.17E-09	7.98E-09	9.53E-09	9.27E-09	1.06E-08
	177		6.10E-10	5.77E-09	-6.46E-09	-3.52E-09	2.30E-10	5.62E-09
	178		-1.93E-09	-1.28E-08	-1.65E-08	-3.36E-08	-2.32E-08	7.39E-09
	182		1.06E-08	3.44E-09	-6.76E-09	-1.41E-08	-1.64E-08	1.43E-08
	183		1.06E-09	-7.31E-09	-1.89E-08	-2.79E-08	-2.45E-08	1.47E-08
	184		1.44E-09	-3.46E-09	-1.38E-08	-2.36E-08	-2.92E-08	-3.64E-09
MINIMUM			-1.93E-09	-1.28E-08	-1.89E-08	-3.36E-08	-2.92E-08	-3.64E-09
MEAN			2.36E-09	-2.88E-09	-1.25E-08	-2.05E-08	-1.86E-08	7.68E-09
MAXIMUM			1.06E-08	5.77E-09	-6.46E-09	-3.52E-09	2.30E-10	1.47E-08
+P 99/90			2.47E-08	3.28E-08	1.39E-08	3.50E-08	3.50E-08	4.27E-08
-P 99/90			-2.00E-08	-3.86E-08	-3.88E-08	-7.60E-08	-7.22E-08	-2.74E-08
SIGMA			4.79E-09	7.65E-09	5.65E-09	1.19E-08	1.15E-08	7.51E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ BIAS CURRENT - 1

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N								
CONTROL	185	2.81E-07	2.84E-07	2.82E-07	2.87E-07	2.88E-07	2.81E-07	2.92E-07
	177	3.53E-07	3.69E-07	3.92E-07	4.26E-07	4.63E-07	4.63E-07	3.66E-07
	178	3.55E-07	3.49E-07	3.71E-07	4.04E-07	4.41E-07	4.39E-07	3.54E-07
	182	3.79E-07	4.08E-07	4.20E-07	4.46E-07	4.48E-07	5.12E-07	3.94E-07
	183	3.61E-07	3.78E-07	4.11E-07	4.44E-07	4.73E-07	4.70E-07	3.70E-07
	184	3.45E-07	3.56E-07	3.73E-07	4.11E-07	4.49E-07	4.52E-07	3.53E-07
	MINIMUM	3.45E-07	3.49E-07	3.71E-07	4.04E-07	4.41E-07	4.39E-07	3.53E-07
	MEAN	3.59E-07	3.72E-07	3.93E-07	4.26E-07	4.55E-07	4.67E-07	3.67E-07
	MAXIMUM	3.79E-07	4.08E-07	4.20E-07	4.46E-07	4.73E-07	5.12E-07	3.94E-07
	+P 99/90	4.17E-07	4.79E-07	4.95E-07	5.16E-07	5.16E-07	5.96E-07	4.45E-07
	-P 99/90	3.00E-07	2.65E-07	2.91E-07	3.36E-07	3.94E-07	3.39E-07	2.90E-07
	SIGMA	1.26E-08	2.30E-08	2.19E-08	1.93E-08	1.31E-08	2.75E-08	1.66E-08

+ BIAS CURRENT - 1

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N								
CONTROL	185		2.36E-09	6.70E-10	5.71E-09	6.19E-09	7.00E-11	1.05E-08
	177		1.57E-08	3.89E-08	7.27E-08	1.10E-07	1.10E-07	1.32E-08
	178		-5.33E-09	1.60E-08	4.88E-08	8.60E-08	8.45E-08	-1.13E-09
	182		2.92E-08	4.09E-08	6.77E-08	6.92E-08	1.33E-07	1.51E-08
	183		1.75E-08	4.98E-08	8.35E-08	1.13E-07	1.09E-07	9.28E-09
	184		1.05E-08	2.76E-08	6.52E-08	1.04E-07	1.07E-07	7.77E-09
	MINIMUM		-5.33E-09	1.60E-08	4.88E-08	6.92E-08	8.45E-08	-1.13E-09
	MEAN		1.35E-08	3.46E-08	6.76E-08	9.64E-08	1.09E-07	8.84E-09
	MAXIMUM		2.92E-08	4.98E-08	8.35E-08	1.13E-07	1.33E-07	1.51E-08
	+P 99/90		7.21E-08	9.57E-08	1.26E-07	1.82E-07	1.89E-07	3.82E-08
	-P 99/90		-4.51E-08	-2.64E-08	8.66E-09	1.04E-08	2.83E-08	-2.05E-08
	SIGMA		1.26E-08	1.31E-08	1.26E-08	1.84E-08	1.72E-08	6.29E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

+ BIAS CURRENT - 2

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.88E-07	2.91E-07	2.97E-07	2.89E-07	3.01E-07	2.93E-07	3.01E-07
	177	3.70E-07	3.90E-07	4.12E-07	4.49E-07	5.13E-07	4.49E-07	3.80E-07
	178	3.74E-07	3.88E-07	4.17E-07	4.70E-07	5.32E-07	5.29E-07	3.88E-07
	182	3.81E-07	4.19E-07	4.46E-07	4.53E-07	5.46E-07	5.49E-07	4.01E-07
	183	3.70E-07	3.97E-07	4.17E-07	4.63E-07	5.28E-07	4.62E-07	3.88E-07
	184	3.52E-07	3.86E-07	3.99E-07	4.46E-07	4.60E-07	4.59E-07	3.78E-07
	MINIMUM	3.52E-07	3.86E-07	3.99E-07	4.46E-07	4.60E-07	4.49E-07	3.78E-07
	MEAN	3.69E-07	3.96E-07	4.18E-07	4.56E-07	5.16E-07	4.90E-07	3.87E-07
	MAXIMUM	3.81E-07	4.19E-07	4.46E-07	4.70E-07	5.46E-07	5.49E-07	4.01E-07
	+P 99/90	4.20E-07	4.59E-07	4.98E-07	5.03E-07	6.71E-07	7.05E-07	4.29E-07
	-P 99/90	3.19E-07	3.33E-07	3.38E-07	4.09E-07	3.61E-07	2.74E-07	3.44E-07
	SIGMA	1.08E-08	1.36E-08	1.71E-08	1.01E-08	3.33E-08	4.62E-08	9.12E-09

+ BIAS CURRENT - 2

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.74E-09	8.28E-09	1.18E-09	1.26E-08	4.39E-09	1.28E-08
	177		2.07E-08	4.20E-08	7.89E-08	1.44E-07	7.87E-08	9.95E-09
	178		1.42E-08	4.36E-08	9.65E-08	1.59E-07	1.56E-07	1.40E-08
	182		3.83E-08	6.48E-08	7.23E-08	1.65E-07	1.68E-07	1.99E-08
	183		2.69E-08	4.68E-08	9.29E-08	1.58E-07	9.19E-08	1.84E-08
	184		3.45E-08	4.74E-08	9.45E-08	1.09E-07	1.07E-07	2.60E-08
	MINIMUM		1.42E-08	4.20E-08	7.23E-08	1.09E-07	7.87E-08	9.95E-09
	MEAN		2.69E-08	4.89E-08	8.70E-08	1.47E-07	1.20E-07	1.77E-08
	MAXIMUM		3.83E-08	6.48E-08	9.65E-08	1.65E-07	1.68E-07	2.60E-08
	+P 99/90		7.29E-08	9.15E-08	1.37E-07	2.53E-07	3.05E-07	4.60E-08
	-P 99/90		-1.90E-08	6.27E-09	3.67E-08	4.06E-08	-6.42E-08	-1.07E-08
	SIGMA		9.85E-09	9.14E-09	1.08E-08	2.28E-08	3.96E-08	6.08E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- BIAS CURRENT - 1

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	2.86E-07	2.89E-07	2.91E-07	2.90E-07	2.93E-07	2.92E-07	2.92E-07
	177	3.51E-07	3.66E-07	3.87E-07	4.25E-07	4.60E-07	4.57E-07	3.61E-07
	178	3.53E-07	3.72E-07	3.89E-07	4.27E-07	4.73E-07	4.66E-07	3.67E-07
	182	3.79E-07	4.01E-07	4.24E-07	4.69E-07	5.22E-07	5.18E-07	3.98E-07
	183	3.70E-07	3.88E-07	4.07E-07	4.51E-07	4.96E-07	4.91E-07	3.82E-07
	184	3.47E-07	3.65E-07	3.90E-07	4.28E-07	4.72E-07	4.73E-07	3.66E-07
MINIMUM		3.47E-07	3.65E-07	3.89E-07	4.25E-07	4.60E-07	4.57E-07	3.61E-07
MEAN		3.60E-07	3.78E-07	4.03E-07	4.40E-07	4.85E-07	4.81E-07	3.75E-07
MAXIMUM		3.79E-07	4.01E-07	4.24E-07	4.69E-07	5.22E-07	5.18E-07	3.98E-07
+P 99/90		4.24E-07	4.52E-07	4.79E-07	5.29E-07	5.98E-07	5.93E-07	4.44E-07
-P 99/90		2.96E-07	3.05E-07	3.26E-07	3.51E-07	3.71E-07	3.69E-07	3.05E-07
SIGMA		1.38E-08	1.58E-08	1.64E-08	1.92E-08	2.43E-08	2.39E-08	1.49E-08

- BIAS CURRENT - 1

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		3.72E-09	5.07E-09	4.32E-09	7.24E-09	6.58E-09	6.05E-09
	177		1.49E-08	3.83E-08	7.40E-08	1.09E-07	1.06E-07	1.02E-08
	178		1.94E-08	7.08E-08	7.43E-08	1.20E-07	1.13E-07	1.41E-08
	182		2.19E-08	2.81E-08	8.97E-08	1.42E-07	1.38E-07	1.86E-08
	183		1.87E-08	2.01E-08	8.09E-08	1.27E-07	1.22E-07	1.22E-08
	184		1.75E-08	4.29E-08	8.13E-08	1.25E-07	1.26E-07	1.93E-08
MINIMUM			1.49E-08	2.01E-08	7.40E-08	1.09E-07	1.06E-07	1.02E-08
MEAN			1.85E-08	4.00E-08	8.00E-08	1.25E-07	1.21E-07	1.49E-08
MAXIMUM			2.19E-08	7.08E-08	8.97E-08	1.42E-07	1.38E-07	1.93E-08
+P 99/90			3.04E-08	1.30E-07	1.10E-07	1.81E-07	1.78E-07	3.33E-08
-P 99/90			6.57E-09	-5.02E-08	4.99E-08	6.89E-08	6.36E-08	-3.59E-09
SIGMA			2.55E-09	1.93E-08	6.45E-09	1.20E-08	1.23E-08	3.96E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

- BIAS CURRENT - 2

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	2.74E-07	2.78E-07	2.77E-07	2.80E-07	2.82E-07	2.82E-07	2.81E-07
	177	3.55E-07	3.76E-07	3.99E-07	4.38E-07	4.81E-07	4.76E-07	3.70E-07
	178	3.58E-07	3.74E-07	3.98E-07	4.41E-07	4.88E-07	4.85E-07	3.81E-07
	182	3.70E-07	3.95E-07	4.20E-07	4.61E-07	5.14E-07	5.08E-07	3.95E-07
	183	3.46E-07	3.70E-07	3.86E-07	4.22E-07	4.57E-07	4.55E-07	3.66E-07
	184	3.36E-07	3.61E-07	3.81E-07	4.18E-07	4.64E-07	4.60E-07	3.66E-07
MINIMUM		3.36E-07	3.61E-07	3.81E-07	4.18E-07	4.57E-07	4.55E-07	3.66E-07
MEAN		3.53E-07	3.75E-07	3.97E-07	4.36E-07	4.81E-07	4.77E-07	3.76E-07
MAXIMUM		3.70E-07	3.95E-07	4.20E-07	4.61E-07	5.14E-07	5.08E-07	3.95E-07
+P 99/90		4.12E-07	4.33E-07	4.67E-07	5.16E-07	5.86E-07	5.76E-07	4.33E-07
-P 99/90		2.94E-07	3.18E-07	3.27E-07	3.56E-07	3.76E-07	3.78E-07	3.18E-07
SIGMA		1.26E-08	1.23E-08	1.49E-08	1.71E-08	2.25E-08	2.13E-08	1.24E-08

- BIAS CURRENT - 2

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		4.07E-09	2.32E-09	5.69E-09	7.87E-09	7.38E-09	7.15E-09
	177		2.09E-08	4.47E-08	8.29E-08	1.26E-07	1.22E-07	1.52E-08
	178		1.59E-08	4.03E-08	8.25E-08	1.30E-07	1.27E-07	2.25E-08
	182		2.52E-08	5.00E-08	9.15E-08	1.45E-07	1.38E-07	2.52E-08
	183		2.39E-08	3.99E-08	7.57E-08	1.11E-07	1.09E-07	1.96E-08
	184		2.51E-08	4.50E-08	8.21E-08	1.28E-07	1.24E-07	3.00E-08
MINIMUM			1.59E-08	3.99E-08	7.57E-08	1.11E-07	1.09E-07	1.52E-08
MEAN			2.22E-08	4.40E-08	8.29E-08	1.28E-07	1.24E-07	2.25E-08
MAXIMUM			2.52E-08	5.00E-08	9.15E-08	1.45E-07	1.38E-07	3.00E-08
+P 99/90			4.04E-08	6.31E-08	1.09E-07	1.84E-07	1.74E-07	4.86E-08
-P 99/90			4.03E-09	2.48E-08	5.67E-08	7.17E-08	7.39E-08	-3.62E-09
SIGMA			3.89E-09	4.11E-09	5.61E-09	1.20E-08	1.07E-08	5.60E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OPEN LOOP GAIN - 1		(V/mV)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N		-----							
CONTROL	185	4.22E+01	4.60E+01	4.99E+01	4.23E+01	4.21E+01	6.83E+01	6.85E+01	
	177	6.01E+01	3.48E+01	7.91E+01	6.81E+01	4.34E+01	4.90E+01	4.78E+01	
	178	5.93E+01	4.22E+01	4.60E+01	3.81E+01	4.18E+01	4.21E+01	4.23E+01	
	182	5.72E+01	7.48E+01	6.71E+01	5.42E+01	4.28E+01	6.32E+01	8.17E+01	
	183	4.92E+01	5.98E+01	5.31E+01	3.82E+01	6.85E+01	5.84E+01	5.62E+01	
	184	6.38E+01	6.30E+01	5.78E+01	5.48E+01	3.55E+01	6.82E+01	4.40E+01	
	MINIMUM	4.92E+01	3.48E+01	4.60E+01	3.81E+01	3.55E+01	4.21E+01	4.23E+01	
	MEAN	5.79E+01	5.49E+01	6.06E+01	5.07E+01	4.64E+01	5.62E+01	5.44E+01	
	MAXIMUM	6.38E+01	7.48E+01	7.91E+01	6.81E+01	6.85E+01	6.82E+01	8.17E+01	
	+P 99/90	8.32E+01	1.31E+02	1.21E+02	1.10E+02	1.06E+02	1.06E+02	1.30E+02	
	-P 99/90	3.26E+01	-2.07E+01	6.05E-01	-8.65E+00	-1.31E+01	6.77E+00	-2.11E+01	
	SIGMA	5.43E+00	1.62E+01	1.29E+01	1.27E+01	1.28E+01	1.06E+01	1.62E+01	

OPEN LOOP GAIN - 1		(V/mV)				[DELTA]			
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N		-----							
CONTROL	185		3.80E+00	7.70E+00	1.00E-01	-1.00E-01	2.61E+01	2.63E+01	
	177		-2.53E+01	1.90E+01	8.00E+00	-1.67E+01	-1.11E+01	-1.23E+01	
	178		-1.71E+01	-1.33E+01	-2.12E+01	-1.75E+01	-1.72E+01	-1.70E+01	
	182		1.76E+01	9.90E+00	-3.00E+00	-1.44E+01	6.00E+00	2.45E+01	
	183		1.06E+01	3.90E+00	-1.10E+01	1.93E+01	9.20E+00	7.00E+00	
	184		-8.00E-01	-6.00E+00	-9.00E+00	-2.83E+01	4.40E+00	-1.98E+01	
	MINIMUM		-2.53E+01	-1.33E+01	-2.12E+01	-2.83E+01	-1.72E+01	-1.98E+01	
	MEAN		-3.00E+00	2.70E+00	-7.24E+00	-1.15E+01	-1.74E+00	-3.52E+00	
	MAXIMUM		1.76E+01	1.90E+01	8.00E+00	1.93E+01	9.20E+00	2.45E+01	
	+P 99/90		8.14E+01	6.22E+01	4.29E+01	7.27E+01	5.27E+01	8.44E+01	
	-P 99/90		-8.74E+01	-5.68E+01	-5.74E+01	-9.57E+01	-5.62E+01	-9.14E+01	
	SIGMA		1.81E+01	1.28E+01	1.08E+01	1.80E+01	1.17E+01	1.88E+01	

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

OPEN LOOP GAIN - 2		(V/mV)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	1.03E+02	1.39E+02	2.00E+02	1.01E+02	8.70E+01	1.41E+02	1.78E+02	
	177	6.22E+01	6.57E+01	4.69E+01	8.15E+01	2.53E+02	1.94E+02	5.08E+01	
	178	7.19E+01	9.04E+01	2.62E+02	1.91E+02	7.46E+01	5.65E+01	4.46E+01	
	182	5.88E+01	2.11E+02	5.15E+01	1.01E+02	6.96E+01	5.49E+01	6.84E+01	
	183	7.86E+01	5.53E+01	6.15E+01	9.32E+01	2.08E+02	5.98E+01	9.16E+01	
	184	9.12E+01	4.03E+01	2.87E+02	1.29E+02	4.00E+01	9.32E+01	1.12E+02	
	MINIMUM	5.88E+01	4.03E+01	4.69E+01	8.15E+01	4.00E+01	5.49E+01	4.46E+01	
	MEAN	7.25E+01	9.25E+01	1.42E+02	1.19E+02	1.29E+02	9.16E+01	7.35E+01	
	MAXIMUM	9.12E+01	2.11E+02	2.87E+02	1.91E+02	2.53E+02	1.94E+02	1.12E+02	
	+P 99/90	1.33E+02	4.12E+02	7.10E+02	3.23E+02	5.72E+02	3.67E+02	2.06E+02	
	-P 99/90	1.17E+01	-2.27E+02	-4.26E+02	-8.49E+01	-3.14E+02	-1.84E+02	-5.85E+01	
	SIGMA	1.30E+01	6.86E+01	1.22E+02	4.37E+01	9.49E+01	5.91E+01	2.83E+01	

OPEN LOOP GAIN - 2		(V/mV)					[DELTA]	
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		3.52E+01	9.64E+01	-2.00E+00	-1.63E+01	3.74E+01	7.44E+01
	177		3.50E+00	-1.53E+01	1.93E+01	1.91E+02	1.31E+02	-1.14E+01
	178		1.85E+01	1.90E+02	1.19E+02	2.70E+00	-1.54E+01	-2.73E+01
	182		1.52E+02	-7.30E+00	4.20E+01	1.08E+01	-3.90E+00	9.60E+00
	183		-2.33E+01	-1.71E+01	1.46E+01	1.29E+02	-1.88E+01	1.30E+01
	184		-5.09E+01	1.96E+02	3.75E+01	-5.12E+01	2.00E+00	2.10E+01
	MINIMUM		-5.09E+01	-1.71E+01	1.46E+01	-5.12E+01	-1.88E+01	-2.73E+01
	MEAN		1.99E+01	6.93E+01	4.64E+01	5.65E+01	1.90E+01	9.80E-01
	MAXIMUM		1.52E+02	1.96E+02	1.19E+02	1.91E+02	1.31E+02	2.10E+01
	+P 99/90		3.86E+02	5.97E+02	2.43E+02	5.23E+02	3.14E+02	9.35E+01
	-P 99/90		-3.46E+02	-4.59E+02	-1.50E+02	-4.10E+02	-2.76E+02	-9.15E+01
	SIGMA		7.84E+01	1.13E+02	4.21E+01	9.99E+01	6.33E+01	1.98E+01

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

COMMON MODE REJECTION -1		(dB)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	1.12E+02	1.13E+02	1.13E+02	1.19E+02	1.17E+02	1.12E+02	1.14E+02	
	177	1.15E+02	1.28E+02	1.20E+02	1.36E+02	1.31E+02	1.32E+02	1.20E+02	
	178	1.20E+02	1.26E+02	1.45E+02	1.23E+02	1.17E+02	1.23E+02	1.26E+02	
	182	1.10E+02	1.15E+02	1.15E+02	1.17E+02	1.15E+02	1.09E+02	1.17E+02	
	183	1.17E+02	1.28E+02	1.19E+02	1.27E+02	1.25E+02	1.19E+02	1.46E+02	
	184	1.19E+02	1.15E+02	1.52E+02	1.14E+02	1.15E+02	1.10E+02	1.13E+02	
	MINIMUM	1.10E+02	1.15E+02	1.15E+02	1.14E+02	1.15E+02	1.09E+02	1.13E+02	
	MEAN	1.16E+02	1.22E+02	1.30E+02	1.23E+02	1.21E+02	1.19E+02	1.25E+02	
	MAXIMUM	1.20E+02	1.28E+02	1.52E+02	1.36E+02	1.31E+02	1.32E+02	1.46E+02	
	+P 99/90	1.35E+02	1.53E+02	2.10E+02	1.64E+02	1.54E+02	1.64E+02	1.86E+02	
	-P 99/90	9.66E+01	9.19E+01	5.03E+01	8.27E+01	8.70E+01	7.35E+01	6.31E+01	
	SIGMA	4.16E+00	6.51E+00	1.71E+01	8.73E+00	7.21E+00	9.66E+00	1.32E+01	

COMMON MODE REJECTION - 1		(dB)				[DELTA]			
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185		6.00E-01	1.00E-01	6.90E+00	4.20E+00	-3.00E-01	2.00E+00	
	177		1.27E+01	5.40E+00	2.13E+01	1.63E+01	1.71E+01	5.30E+00	
	178		5.30E+00	2.42E+01	2.60E+00	-3.20E+00	2.60E+00	6.10E+00	
	182		5.60E+00	5.30E+00	7.30E+00	5.40E+00	-5.00E-01	7.50E+00	
	183		1.09E+01	1.80E+00	1.02E+01	8.30E+00	2.60E+00	2.97E+01	
	184		-3.40E+00	3.38E+01	-4.40E+00	-3.60E+00	-9.10E+00	-5.80E+00	
	MINIMUM		-3.40E+00	1.80E+00	-4.40E+00	-3.60E+00	-9.10E+00	-5.80E+00	
	MEAN		6.22E+00	1.41E+01	7.40E+00	4.64E+00	2.54E+00	8.56E+00	
	MAXIMUM		1.27E+01	3.38E+01	2.13E+01	1.63E+01	1.71E+01	2.97E+01	
	+P 99/90		3.55E+01	7.99E+01	5.19E+01	4.36E+01	4.66E+01	6.90E+01	
	-P 99/90		-2.31E+01	-5.17E+01	-3.71E+01	-3.43E+01	-4.15E+01	-5.19E+01	
	SIGMA		6.28E+00	1.41E+01	9.53E+00	8.36E+00	9.44E+00	1.30E+01	

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

COMMON MODE REJECTION - 2		(dB)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	1.12E+02	1.14E+02	1.19E+02	1.13E+02	1.14E+02	1.11E+02	1.15E+02	
	177	1.14E+02	1.23E+02	1.26E+02	1.36E+02	1.22E+02	1.25E+02	1.26E+02	
	178	1.20E+02	1.15E+02	1.17E+02	1.24E+02	1.14E+02	1.18E+02	1.20E+02	
	182	1.20E+02	1.10E+02	1.24E+02	1.14E+02	1.17E+02	1.20E+02	1.13E+02	
	183	1.19E+02	1.17E+02	1.14E+02	1.58E+02	1.24E+02	1.26E+02	1.18E+02	
	184	1.11E+02	1.25E+02	1.18E+02	1.20E+02	1.12E+02	1.16E+02	1.11E+02	
MINIMUM		1.11E+02	1.10E+02	1.14E+02	1.14E+02	1.12E+02	1.16E+02	1.11E+02	
MEAN		1.17E+02	1.18E+02	1.20E+02	1.31E+02	1.18E+02	1.21E+02	1.17E+02	
MAXIMUM		1.20E+02	1.25E+02	1.26E+02	1.58E+02	1.24E+02	1.26E+02	1.26E+02	
+P 99/90		1.37E+02	1.46E+02	1.43E+02	2.13E+02	1.40E+02	1.41E+02	1.44E+02	
-P 99/90		9.71E+01	9.05E+01	9.65E+01	4.85E+01	9.53E+01	1.01E+02	9.05E+01	
SIGMA		4.23E+00	5.91E+00	5.01E+00	1.76E+01	4.80E+00	4.26E+00	5.79E+00	

COMMON MODE REJECTION - 2		(dB)				[DELTA]			
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185		2.40E+00	7.60E+00	7.00E-01	2.60E+00	-8.00E-01	3.40E+00	
	177		9.20E+00	1.25E+01	2.27E+01	8.10E+00	1.13E+01	1.19E+01	
	178		-4.70E+00	-3.30E+00	3.80E+00	-5.80E+00	-2.10E+00	-4.00E-01	
	182		-1.01E+01	3.70E+00	-6.20E+00	-3.70E+00	-8.00E-01	-7.20E+00	
	183		-1.90E+00	-4.60E+00	3.95E+01	4.60E+00	6.70E+00	-5.00E-01	
	184		1.40E+01	7.20E+00	8.90E+00	1.30E+00	5.00E+00	-3.00E-01	
MINIMUM			-1.01E+01	-4.60E+00	-6.20E+00	-5.80E+00	-2.10E+00	-7.20E+00	
MEAN			1.30E+00	3.10E+00	1.37E+01	9.00E-01	4.02E+00	7.00E-01	
MAXIMUM			1.40E+01	1.25E+01	3.95E+01	8.10E+00	1.13E+01	1.19E+01	
+P 99/90			4.80E+01	3.66E+01	9.67E+01	2.77E+01	2.98E+01	3.30E+01	
-P 99/90			-4.54E+01	-3.04E+01	-6.92E+01	-2.59E+01	-2.17E+01	-3.16E+01	
SIGMA			1.00E+01	7.17E+00	1.78E+01	5.74E+00	5.52E+00	6.92E+00	

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 3.2MA - 1		(V)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	2.81E-01	2.83E-01	2.83E-01	2.82E-01	2.84E-01	2.83E-01	2.84E-01	
	177	2.85E-01	2.85E-01	2.86E-01	2.86E-01	2.89E-01	2.88E-01	2.87E-01	
	178	2.67E-01	2.66E-01	2.68E-01	2.68E-01	2.70E-01	2.70E-01	2.70E-01	
	182	2.83E-01	2.85E-01	2.85E-01	2.84E-01	2.87E-01	2.87E-01	2.87E-01	
	183	2.86E-01	2.87E-01	2.88E-01	2.87E-01	2.91E-01	2.90E-01	2.90E-01	
	184	2.69E-01	2.69E-01	2.70E-01	2.69E-01	2.71E-01	2.72E-01	2.71E-01	
	MINIMUM	2.67E-01	2.66E-01	2.68E-01	2.68E-01	2.70E-01	2.70E-01	2.70E-01	
	MEAN	2.78E-01	2.78E-01	2.79E-01	2.79E-01	2.82E-01	2.81E-01	2.81E-01	
	MAXIMUM	2.86E-01	2.87E-01	2.88E-01	2.87E-01	2.91E-01	2.90E-01	2.90E-01	
	+P 99/90	3.21E-01	3.25E-01	3.24E-01	3.23E-01	3.29E-01	3.26E-01	3.26E-01	
	-P 99/90	2.35E-01	2.32E-01	2.35E-01	2.35E-01	2.34E-01	2.37E-01	2.36E-01	
	SIGMA	9.22E-03	1.00E-02	9.58E-03	9.47E-03	1.02E-02	9.58E-03	9.67E-03	

VOL @ 3.2MA - 1		(V)				[DELTA]			
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185		2.00E-03	2.00E-03	1.00E-03	3.00E-03	2.00E-03	3.00E-03	
	177		0.00E+00	1.00E-03	1.00E-03	4.00E-03	3.00E-03	2.00E-03	
	178		-1.00E-03	1.00E-03	1.00E-03	3.00E-03	3.00E-03	3.00E-03	
	182		2.00E-03	2.00E-03	1.00E-03	4.00E-03	4.00E-03	4.00E-03	
	183		1.00E-03	2.00E-03	1.00E-03	5.00E-03	4.00E-03	4.00E-03	
	184		0.00E+00	1.00E-03	0.00E+00	2.00E-03	3.00E-03	2.00E-03	
	MINIMUM		-1.00E-03	1.00E-03	0.00E+00	2.00E-03	3.00E-03	2.00E-03	
	MEAN		4.00E-04	1.40E-03	8.00E-04	3.60E-03	3.40E-03	3.00E-03	
	MAXIMUM		2.00E-03	2.00E-03	1.00E-03	5.00E-03	4.00E-03	4.00E-03	
	+P 99/90		5.72E-03	3.96E-03	2.89E-03	8.92E-03	5.96E-03	7.67E-03	
	-P 99/90		-4.92E-03	-1.16E-03	-1.29E-03	-1.72E-03	8.44E-04	-1.67E-03	
	SIGMA		1.14E-03	5.48E-04	4.47E-04	1.14E-03	5.48E-04	1.00E-03	

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDERS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 3.2MA - 2		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	2.82E-01	2.84E-01	2.83E-01	2.83E-01	2.85E-01	2.84E-01	2.84E-01
	177	2.81E-01	2.82E-01	2.83E-01	2.82E-01	2.86E-01	2.85E-01	2.84E-01
	178	2.62E-01	2.62E-01	2.63E-01	2.63E-01	2.66E-01	2.65E-01	2.65E-01
	182	2.79E-01	2.81E-01	2.81E-01	2.81E-01	2.84E-01	2.83E-01	2.83E-01
	183	2.75E-01	2.77E-01	2.78E-01	2.77E-01	2.80E-01	2.80E-01	2.80E-01
	184	2.68E-01	2.69E-01	2.69E-01	2.68E-01	2.71E-01	2.71E-01	2.71E-01
	MINIMUM	2.62E-01	2.62E-01	2.63E-01	2.63E-01	2.66E-01	2.65E-01	2.65E-01
	MEAN	2.73E-01	2.74E-01	2.75E-01	2.74E-01	2.77E-01	2.77E-01	2.77E-01
	MAXIMUM	2.81E-01	2.82E-01	2.83E-01	2.82E-01	2.86E-01	2.85E-01	2.84E-01
	+P 99/90	3.10E-01	3.14E-01	3.14E-01	3.13E-01	3.17E-01	3.16E-01	3.15E-01
	-P 99/90	2.36E-01	2.34E-01	2.35E-01	2.35E-01	2.37E-01	2.37E-01	2.38E-01
	SIGMA	7.91E-03	8.53E-03	8.50E-03	8.35E-03	8.59E-03	8.50E-03	8.26E-03

VOL @ 3.2MA - 2		(V)				[DELTA]		
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		2.00E-03	1.00E-03	1.00E-03	3.00E-03	2.00E-03	2.00E-03
	177		1.00E-03	2.00E-03	1.00E-03	5.00E-03	4.00E-03	3.00E-03
	178		0.00E+00	1.00E-03	1.00E-03	4.00E-03	3.00E-03	3.00E-03
	182		2.00E-03	2.00E-03	2.00E-03	5.00E-03	4.00E-03	4.00E-03
	183		2.00E-03	3.00E-03	2.00E-03	5.00E-03	5.00E-03	5.00E-03
	184		1.00E-03	1.00E-03	0.00E+00	3.00E-03	3.00E-03	3.00E-03
	MINIMUM		0.00E+00	1.00E-03	0.00E+00	3.00E-03	3.00E-03	3.00E-03
	MEAN		1.20E-03	1.80E-03	1.20E-03	4.40E-03	3.80E-03	3.60E-03
	MAXIMUM		2.00E-03	3.00E-03	2.00E-03	5.00E-03	5.00E-03	5.00E-03
	+P 99/90		5.10E-03	5.70E-03	5.10E-03	8.57E-03	7.70E-03	7.77E-03
	-P 99/90		-2.70E-03	-2.10E-03	-2.70E-03	2.27E-04	-1.04E-04	-5.73E-04
	SIGMA		8.37E-04	8.37E-04	8.37E-04	8.94E-04	8.37E-04	8.94E-04

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 25MA - 1		(V)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	6.03E-01	5.98E-01	6.01E-01	5.97E-01	6.00E-01	6.01E-01	5.99E-01	
	177	5.99E-01	5.99E-01	5.98E-01	5.96E-01	6.02E-01	6.03E-01	6.04E-01	
	178	5.74E-01	5.75E-01	5.74E-01	5.73E-01	5.76E-01	5.76E-01	5.78E-01	
	182	6.00E-01	5.99E-01	6.02E-01	5.99E-01	6.01E-01	6.02E-01	6.02E-01	
	183	6.03E-01	6.01E-01	6.04E-01	6.01E-01	6.06E-01	6.06E-01	6.05E-01	
	184	5.83E-01	5.82E-01	5.84E-01	5.82E-01	5.86E-01	5.86E-01	5.85E-01	
	MINIMUM	5.74E-01	5.75E-01	5.74E-01	5.73E-01	5.76E-01	5.76E-01	5.78E-01	
	MEAN	5.92E-01	5.91E-01	5.91E-01	5.90E-01	5.94E-01	5.95E-01	5.95E-01	
	MAXIMUM	6.03E-01	6.01E-01	6.04E-01	6.01E-01	6.06E-01	6.06E-01	6.05E-01	
	+P 99/90	6.51E-01	6.47E-01	6.59E-01	6.47E-01	6.53E-01	6.55E-01	6.53E-01	
	-P 99/90	5.33E-01	5.36E-01	5.23E-01	5.33E-01	5.35E-01	5.34E-01	5.37E-01	
	SIGMA	1.26E-02	1.19E-02	1.45E-02	1.22E-02	1.27E-02	1.30E-02	1.24E-02	

VOL @ 25MA - 1		(V)					[DELTA]	
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		-5.00E-03	-2.00E-03	-6.00E-03	-3.00E-03	-2.00E-03	-4.00E-03
	177		0.00E+00	-1.00E-03	-3.00E-03	3.00E-03	4.00E-03	5.00E-03
	178		1.00E-03	0.00E+00	-1.00E-03	2.00E-03	2.00E-03	4.00E-03
	182		-1.00E-03	2.00E-03	-1.00E-03	1.00E-03	2.00E-03	2.00E-03
	183		-2.00E-03	1.00E-03	-2.00E-03	3.00E-03	3.00E-03	2.00E-03
	184		-1.00E-03	1.00E-03	-1.00E-03	3.00E-03	3.00E-03	2.00E-03
	MINIMUM		-2.00E-03	-1.00E-03	-3.00E-03	1.00E-03	2.00E-03	2.00E-03
	MEAN		-6.00E-04	6.00E-04	-1.60E-03	2.40E-03	2.80E-03	3.00E-03
	MAXIMUM		1.00E-03	2.00E-03	-1.00E-03	3.00E-03	4.00E-03	5.00E-03
	+P 99/90		4.72E-03	5.92E-03	2.57E-03	6.57E-03	6.70E-03	9.60E-03
	-P 99/90		-5.92E-03	-4.72E-03	-5.77E-03	-1.77E-03	-1.10E-03	-3.60E-03
	SIGMA		1.14E-03	1.14E-03	8.94E-04	8.94E-04	8.37E-04	1.41E-03

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

VOL @ 25MA - 2		(V)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185	6.01E-01	5.96E-01	5.99E-01	5.96E-01	5.99E-01	5.98E-01	5.96E-01	
	177	5.90E-01	5.89E-01	5.88E-01	5.88E-01	5.92E-01	5.95E-01	5.96E-01	
	178	5.63E-01	5.64E-01	5.62E-01	5.62E-01	5.66E-01	5.67E-01	5.67E-01	
	182	5.91E-01	5.92E-01	5.93E-01	5.90E-01	5.95E-01	5.94E-01	5.94E-01	
	183	5.84E-01	5.85E-01	5.86E-01	5.84E-01	5.87E-01	5.89E-01	5.88E-01	
	184	5.76E-01	5.76E-01	5.78E-01	5.76E-01	5.81E-01	5.81E-01	5.79E-01	
	MINIMUM	5.63E-01	5.64E-01	5.62E-01	5.62E-01	5.66E-01	5.67E-01	5.67E-01	
	MEAN	5.81E-01	5.81E-01	5.81E-01	5.80E-01	5.84E-01	5.85E-01	5.85E-01	
	MAXIMUM	5.91E-01	5.92E-01	5.93E-01	5.90E-01	5.95E-01	5.95E-01	5.96E-01	
	+P 99/90	6.35E-01	6.34E-01	6.38E-01	6.33E-01	6.38E-01	6.39E-01	6.41E-01	
	-P 99/90	5.27E-01	5.28E-01	5.25E-01	5.27E-01	5.31E-01	5.31E-01	5.29E-01	
	SIGMA	1.16E-02	1.13E-02	1.21E-02	1.14E-02	1.15E-02	1.16E-02	1.19E-02	

VOL @ 25MA - 2		(V)				[DELTA]			
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR	
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED	
							ANNEAL	ANNEAL	
							25C	100C	
S/N -----									
CONTROL	185		-5.00E-03	-2.00E-03	-5.00E-03	-2.00E-03	-3.00E-03	-5.00E-03	
	177		-1.00E-03	-2.00E-03	-2.00E-03	2.00E-03	5.00E-03	6.00E-03	
	178		1.00E-03	-1.00E-03	-1.00E-03	3.00E-03	4.00E-03	4.00E-03	
	182		1.00E-03	2.00E-03	-7.00E-03	4.00E-03	3.00E-03	3.00E-03	
	183		1.00E-03	2.00E-03	-8.00E-03	3.00E-03	5.00E-03	4.00E-03	
	184		0.00E+00	2.00E-03	0.00E+00	5.00E-03	5.00E-03	3.00E-03	
	MINIMUM		-1.00E-03	-2.00E-03	-8.00E-03	2.00E-03	3.00E-03	3.00E-03	
	MEAN		4.00E-04	6.00E-04	-3.60E-03	3.40E-03	4.40E-03	4.00E-03	
	MAXIMUM		1.00E-03	2.00E-03	0.00E+00	5.00E-03	5.00E-03	6.00E-03	
	+P 99/90		4.57E-03	9.70E-03	1.34E-02	8.72E-03	8.57E-03	9.71E-03	
	-P 99/90		-3.77E-03	-8.50E-03	-2.06E-02	-1.92E-03	2.27E-04	-1.71E-03	
	SIGMA		8.94E-04	1.95E-03	3.65E-03	1.14E-03	8.94E-04	1.22E-03	

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

ICEX @ 35V - 1

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185	3.00E-09	0.00E+00	0.00E+00	4.00E-09	0.00E+00	0.00E+00	0.00E+00
	177	0.00E+00	4.00E-09	2.00E-09	0.00E+00	1.00E-09	2.00E-09	2.00E-09
	178	2.00E-09	0.00E+00	2.00E-09	1.00E-09	0.00E+00	3.00E-09	4.00E-09
	182	0.00E+00	3.00E-09	0.00E+00	0.00E+00	2.00E-09	2.00E-09	4.00E-09
	183	0.00E+00	0.00E+00	0.00E+00	2.00E-09	1.00E-09	1.00E-09	3.00E-09
	184	2.00E-09	0.00E+00	0.00E+00	1.00E-09	0.00E+00	4.00E-09	1.00E-09
MINIMUM		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-09	1.00E-09
MEAN		8.00E-10	1.40E-09	8.00E-10	1.00E-09	8.00E-10	2.40E-09	2.80E-09
MAXIMUM		2.00E-09	4.00E-09	2.00E-09	2.00E-09	2.00E-09	4.00E-09	4.00E-09
+P 99/90		5.91E-09	1.05E-08	5.91E-09	4.81E-09	4.70E-09	7.72E-09	8.88E-09
-P 99/90		-4.31E-09	-7.70E-09	-4.31E-09	-2.81E-09	-3.10E-09	-2.92E-09	-3.28E-09
SIGMA		1.10E-09	1.95E-09	1.10E-09	8.16E-10	8.37E-10	1.14E-09	1.30E-09

ICEX @ 35V - 1

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
S/N -----								
CONTROL	185		-3.00E-09	-3.00E-09	1.00E-09	-3.00E-09	-3.00E-09	-3.00E-09
	177		4.00E-09	2.00E-09	1.00E-09	1.00E-09	2.00E-09	2.00E-09
	178		-2.00E-09	0.00E+00	-2.00E-09	-2.00E-09	1.00E-09	2.00E-09
	182		3.00E-09	0.00E+00	2.00E-09	2.00E-09	2.00E-09	4.00E-09
	183		0.00E+00	0.00E+00	1.00E-09	1.00E-09	1.00E-09	3.00E-09
	184		-2.00E-09	-2.00E-09	-1.00E-09	-2.00E-09	2.00E-09	-1.00E-09
MINIMUM			-2.00E-09	-2.00E-09	-2.00E-09	-2.00E-09	1.00E-09	-1.00E-09
MEAN			6.00E-10	0.00E+00	2.00E-10	0.00E+00	1.60E-09	2.00E-09
MAXIMUM			4.00E-09	2.00E-09	2.00E-09	2.00E-09	2.00E-09	4.00E-09
+P 99/90			1.36E-08	6.60E-09	7.87E-09	8.73E-09	4.16E-09	1.07E-08
-P 99/90			-1.24E-08	-6.60E-09	-7.47E-09	-8.73E-09	-9.56E-10	-6.73E-09
SIGMA			2.79E-09	1.41E-09	1.64E-09	1.87E-09	5.48E-10	1.87E-09

DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH119W DUAL COMPARATORS (LTC)

ICEX @ 35V - 2

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185	5.00E-09	0.00E+00	0.00E+00	2.00E-09	3.00E-09	0.00E+00	0.00E+00
	177	2.00E-09	5.00E-09	0.00E+00	0.00E+00	3.00E-09	0.00E+00	0.00E+00
	178	2.00E-09	3.00E-09	0.00E+00	0.00E+00	1.00E-09	3.00E-09	2.00E-09
	182	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-09	0.00E+00
	183	3.00E-09	1.00E-09	0.00E+00	4.00E-09	0.00E+00	0.00E+00	3.00E-09
	184	1.00E-09	0.00E+00	1.00E-09	2.00E-09	2.00E-09	0.00E+00	1.00E-09
MINIMUM		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MEAN		1.60E-09	1.80E-09	2.00E-10	1.20E-09	1.20E-09	1.00E-09	1.20E-09
MAXIMUM		3.00E-09	5.00E-09	1.00E-09	4.00E-09	3.00E-09	3.00E-09	3.00E-09
+P 99/90		6.92E-09	1.19E-08	2.29E-09	9.55E-09	7.28E-09	7.60E-09	7.28E-09
-P 99/90		-3.72E-09	-8.32E-09	-1.89E-09	-7.15E-09	-4.88E-09	-5.60E-09	-4.88E-09
SIGMA		1.14E-09	2.17E-09	4.47E-10	1.79E-09	1.30E-09	1.41E-09	1.30E-09

ICEX @ 35V - 2

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.30E-03	8.30E-03	8.30E-03	8.30E-03	BIASED	BIASED
							ANNEAL	ANNEAL
							25C	100C
S/N -----								
CONTROL	185		-5.00E-09	-5.00E-09	-3.00E-09	-2.00E-09	-5.00E-09	-5.00E-09
	177		3.00E-09	-2.00E-09	-2.00E-09	1.00E-09	-2.00E-09	-2.00E-09
	178		1.00E-09	-2.00E-09	-2.00E-09	-1.00E-09	1.00E-09	0.00E+00
	182		0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-09	0.00E+00
	183		-2.00E-09	-3.00E-09	-1.00E-09	-3.00E-09	-3.00E-09	0.00E+00
	184		-1.00E-09	0.00E+00	1.00E-09	1.00E-09	-1.00E-09	0.00E+00
MINIMUM			-2.00E-09	-3.00E-09	-2.00E-09	-3.00E-09	-3.00E-09	-2.00E-09
MEAN			2.00E-10	-1.40E-09	-8.00E-10	-4.00E-10	-6.00E-10	-4.00E-10
MAXIMUM			3.00E-09	0.00E+00	1.00E-09	1.00E-09	2.00E-09	0.00E+00
+P 99/90			9.18E-09	4.86E-09	5.28E-09	7.41E-09	9.08E-09	3.77E-09
-P 99/90			-8.78E-09	-7.66E-09	-6.88E-09	-8.21E-09	-1.03E-08	-4.57E-09
SIGMA			1.92E-09	1.34E-09	1.30E-09	1.67E-09	2.07E-09	8.94E-10

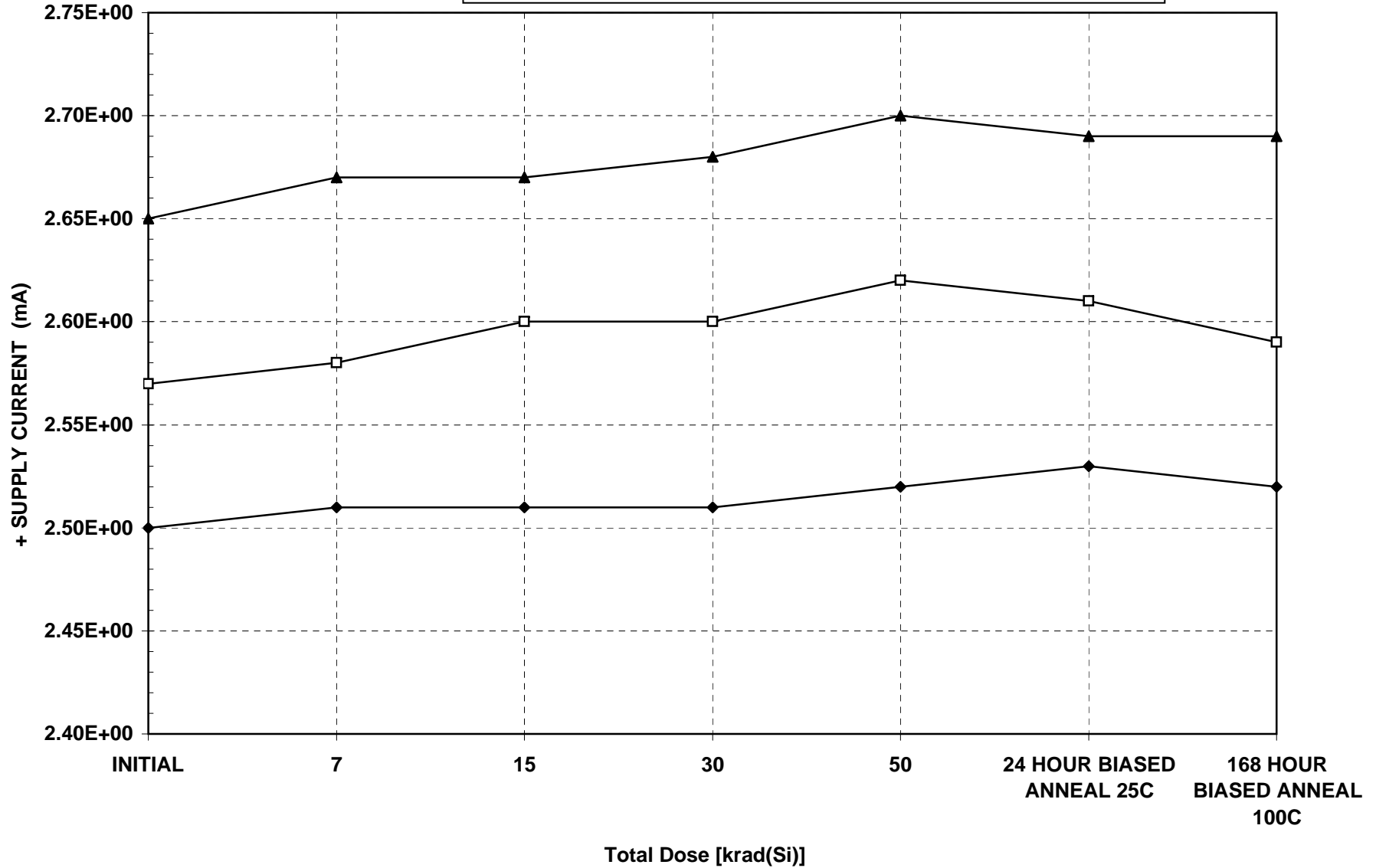
DEVICE TYPE: RH119 DUAL COMPARATOR (LTC)
 RADIATION SOURCE: LONGMIRE LABS GB-150 (Co60), 1.25MeV
 ELDRS UNBIASED

D/C 0637A || PACKAGE 10 PIN FLAT PACK || LOT# 401782.2
 LOG# 1662 || TEST DATE 1/14/08 || RTP# 686
 P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

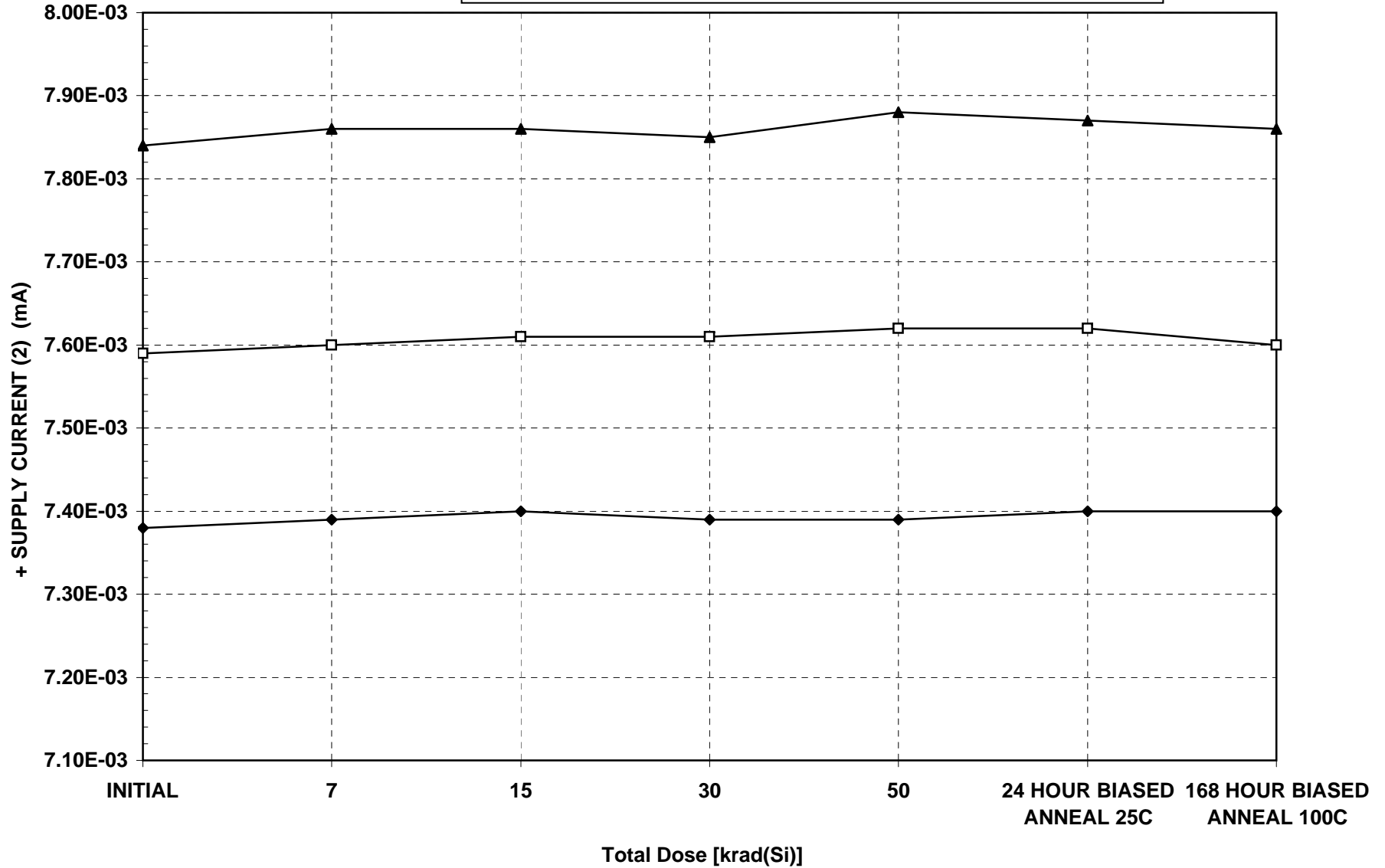
+ SUPPLY CURRENT (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

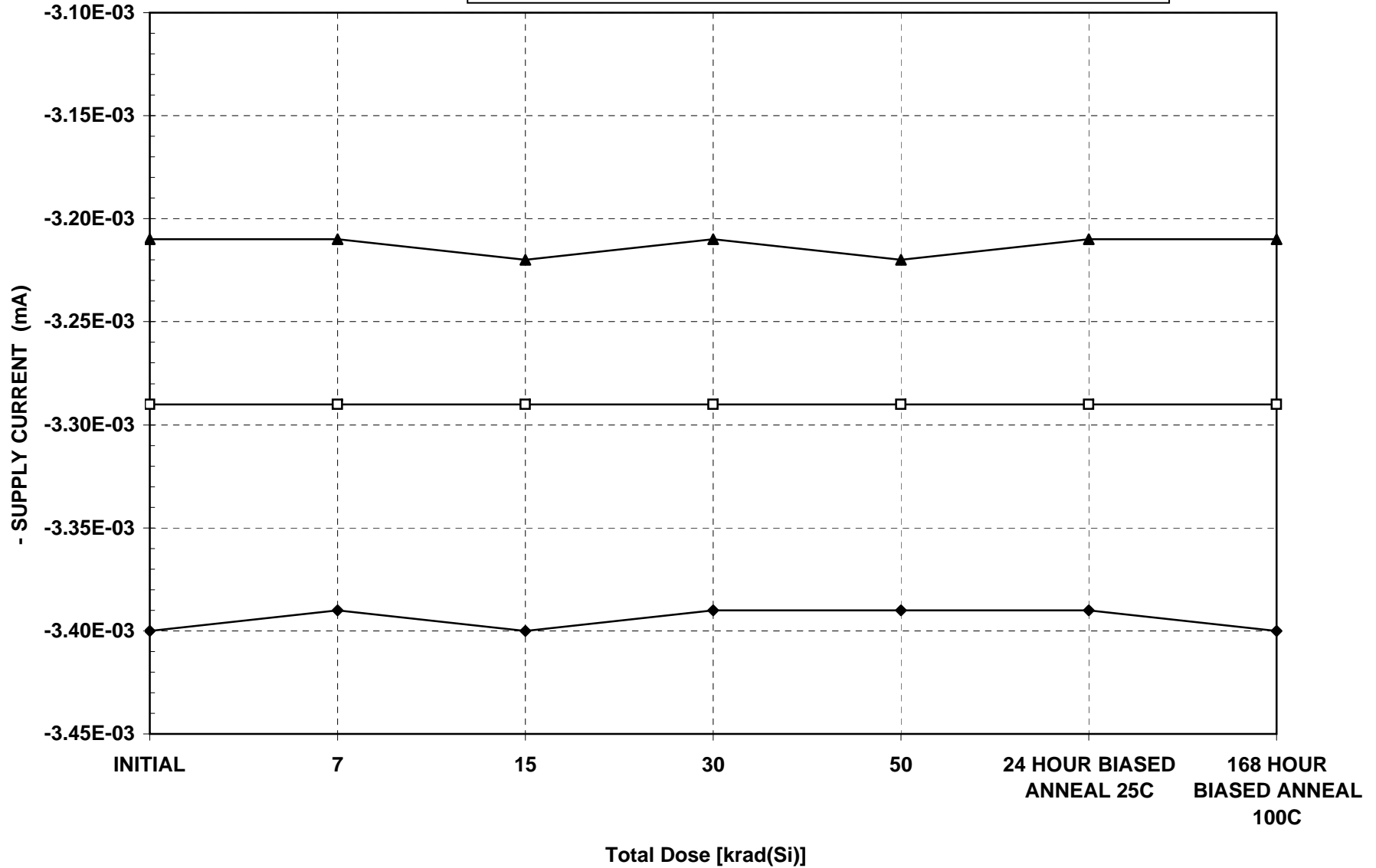
+ SUPPLY CURRENT (2) (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

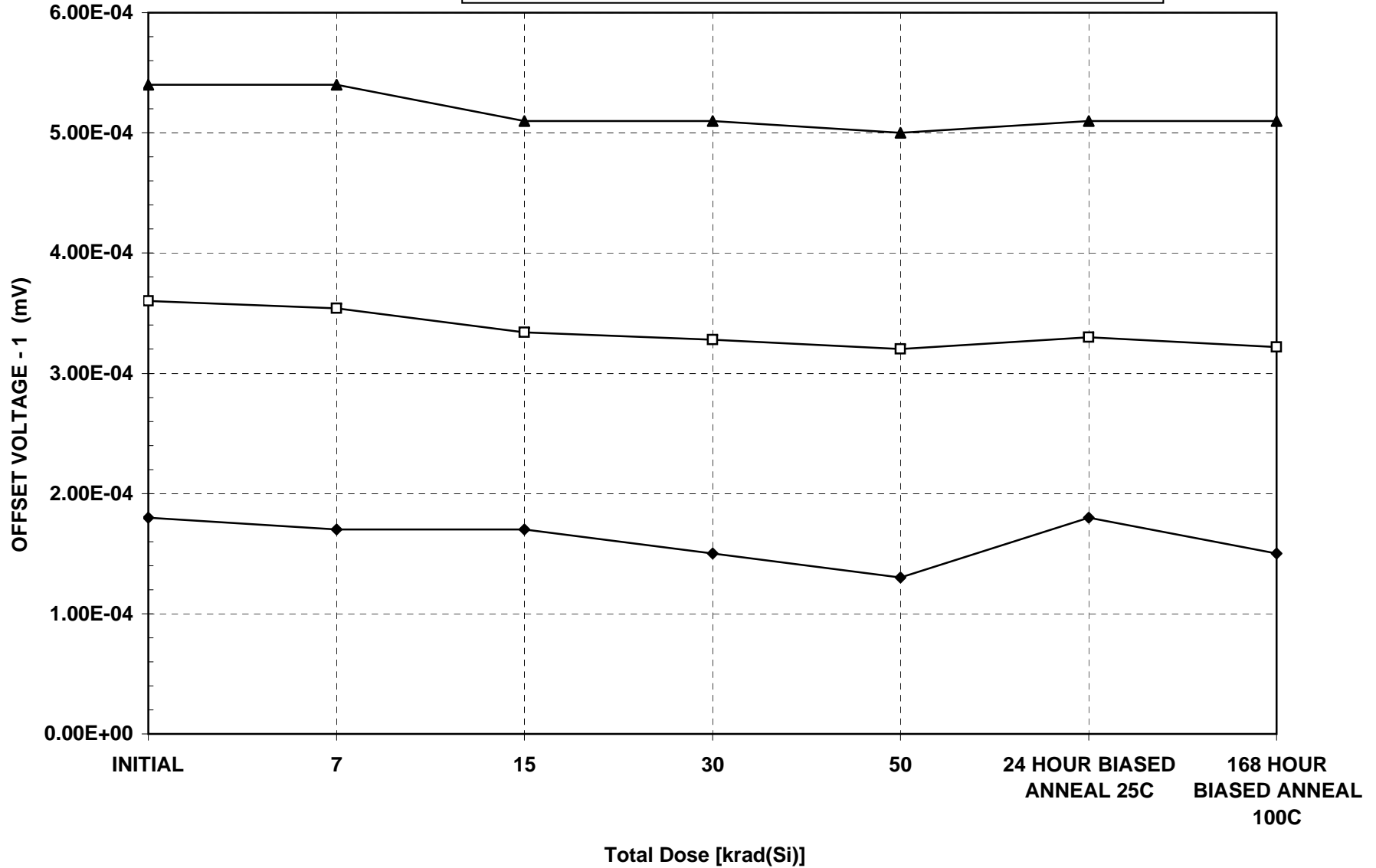
- SUPPLY CURRENT (mA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

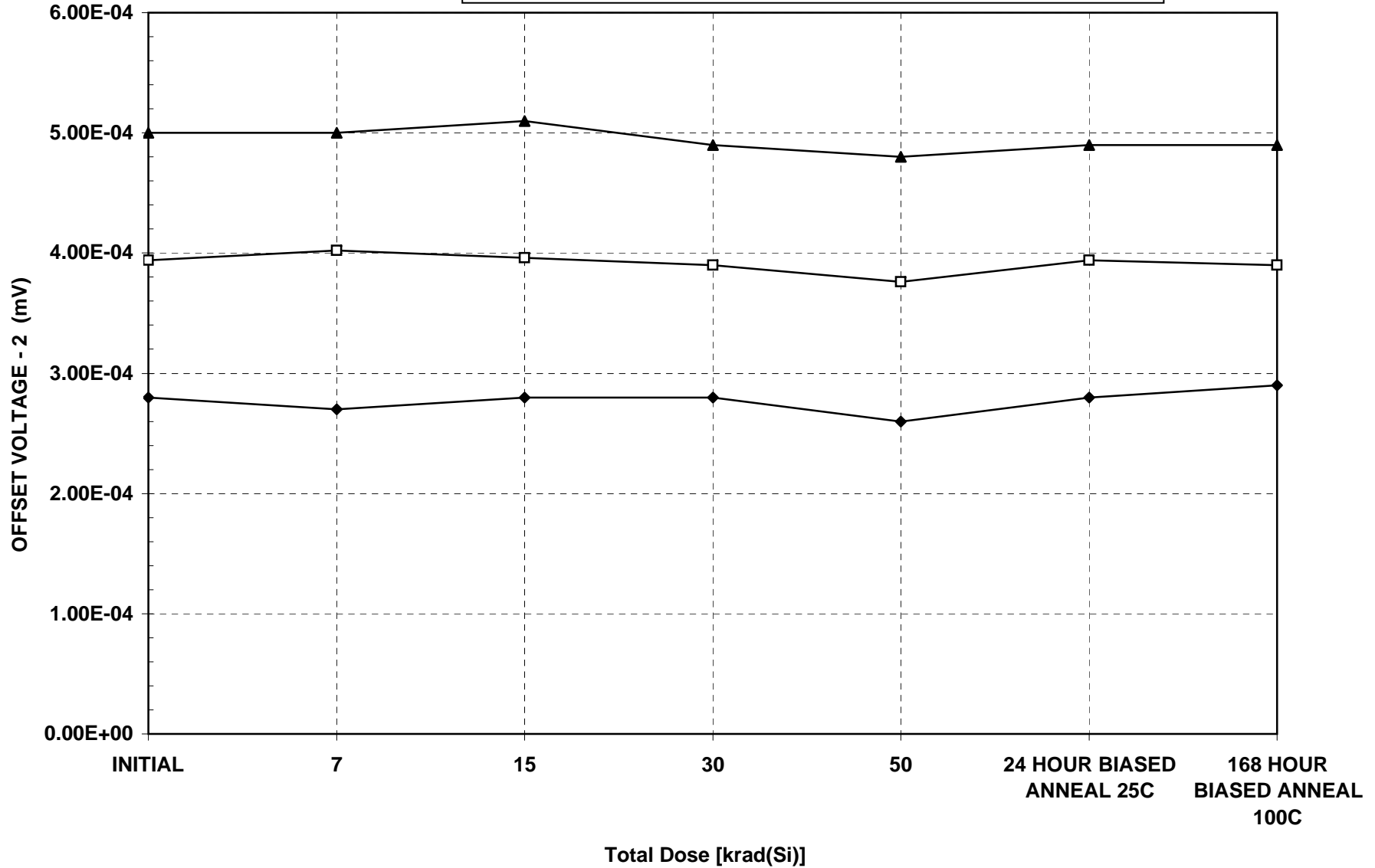
OFFSET VOLTAGE - 1 (mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

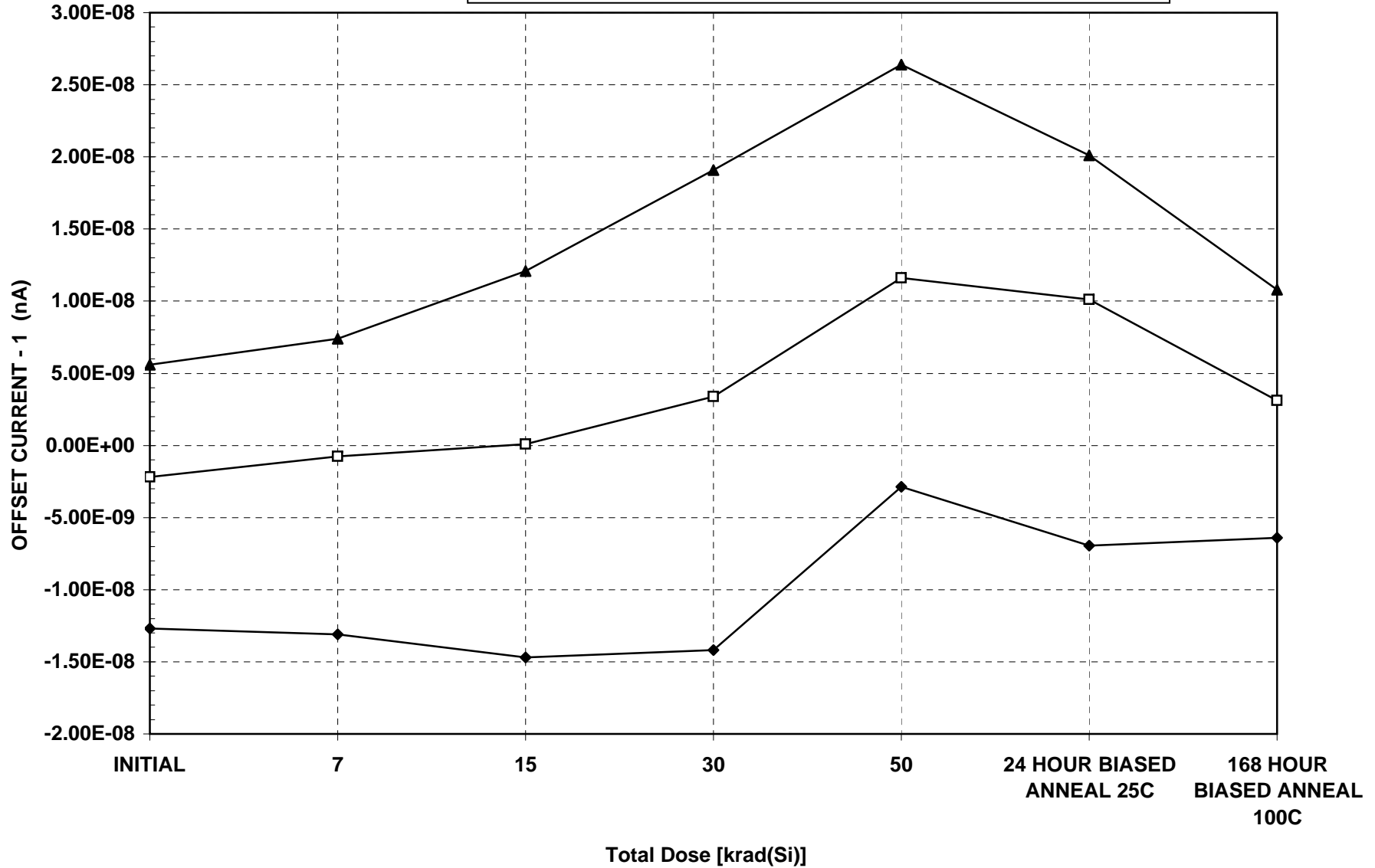
OFFSET VOLTAGE - 2 (mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

OFFSET CURRENT - 1 (nA)

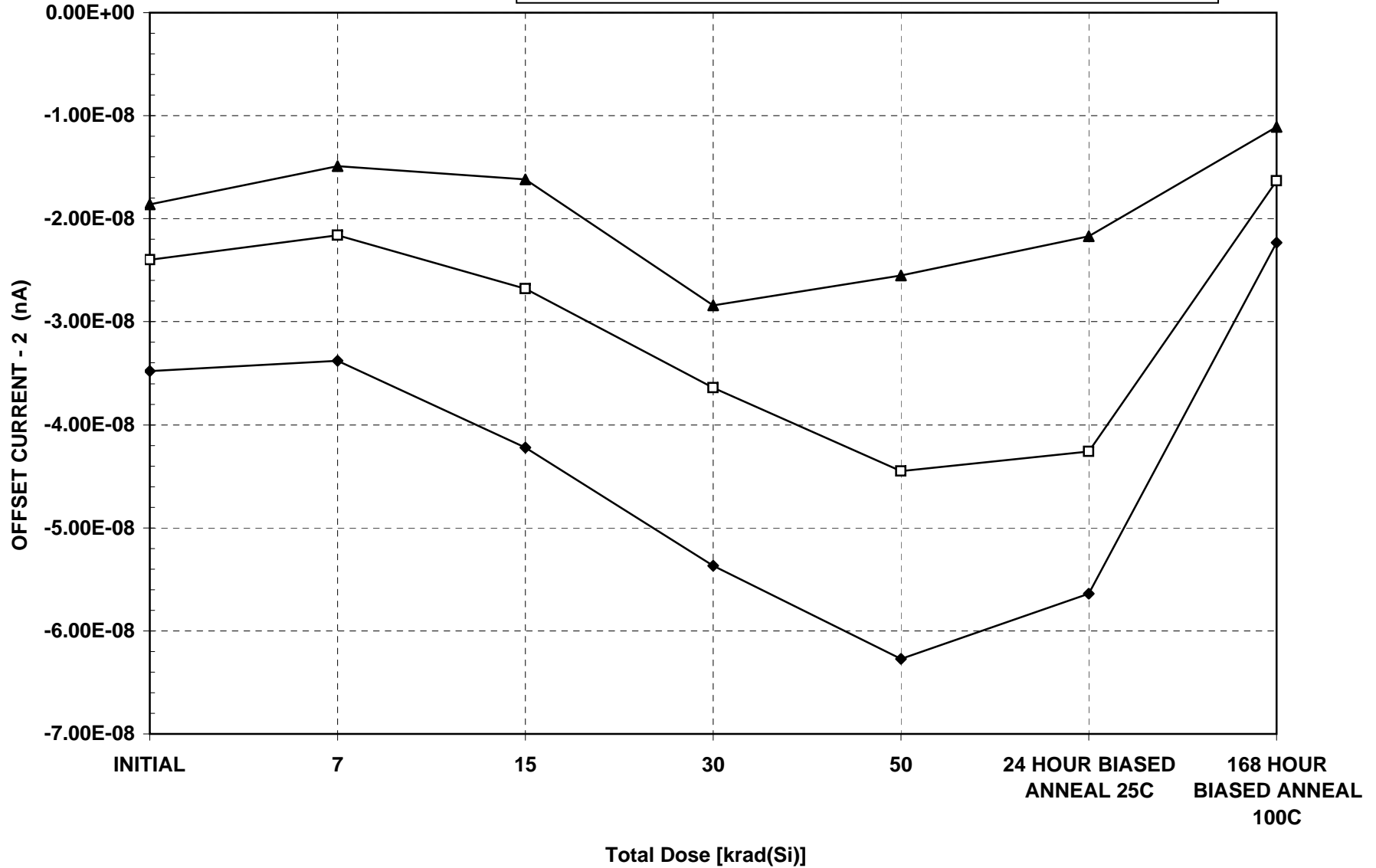


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

I C S Radiation Test Results Log # 1662 1/14/08

OFFSET CURRENT - 2 (nA)

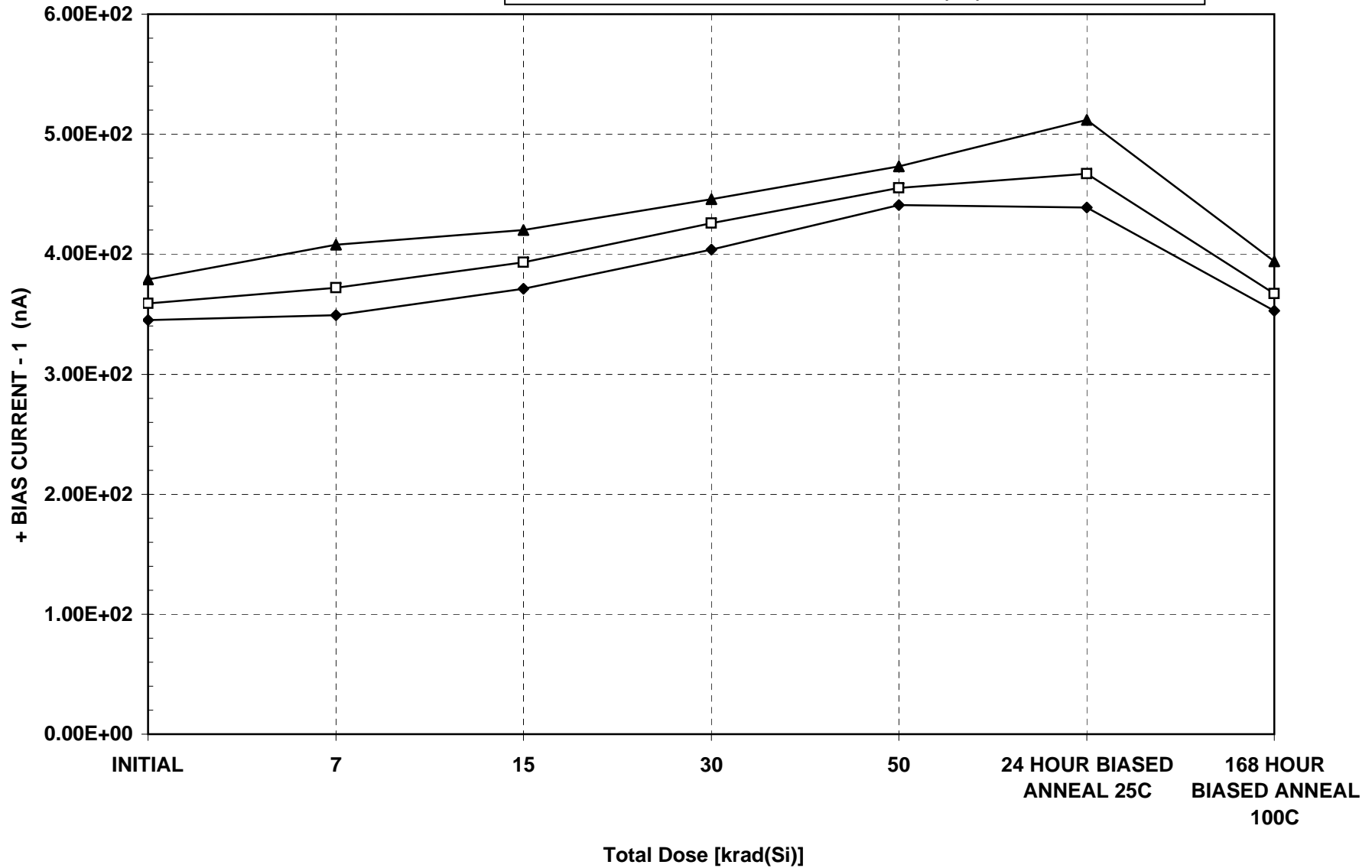


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

IC S Radiation Test Results Log # 1662 1/14/08

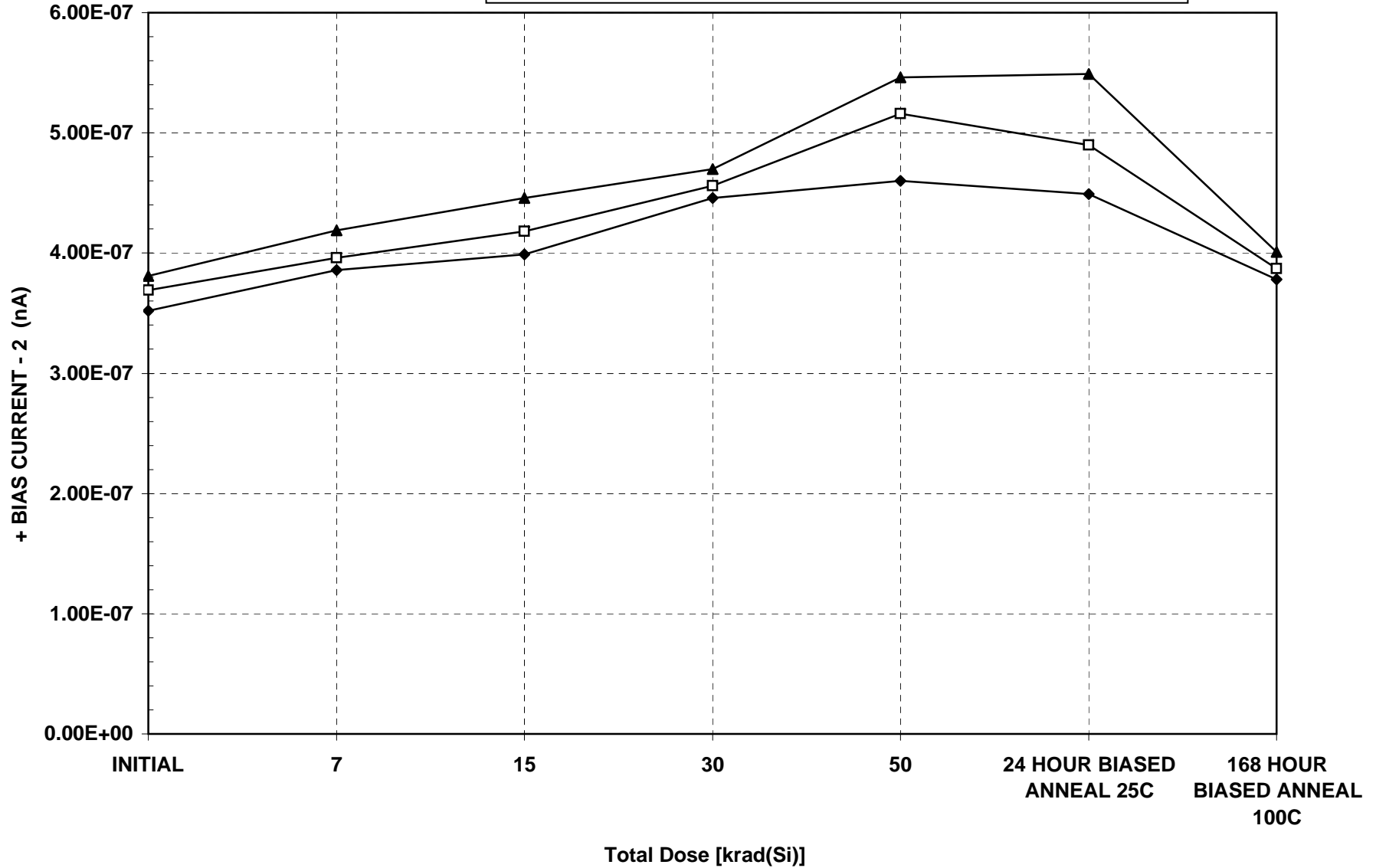
+ BIAS CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

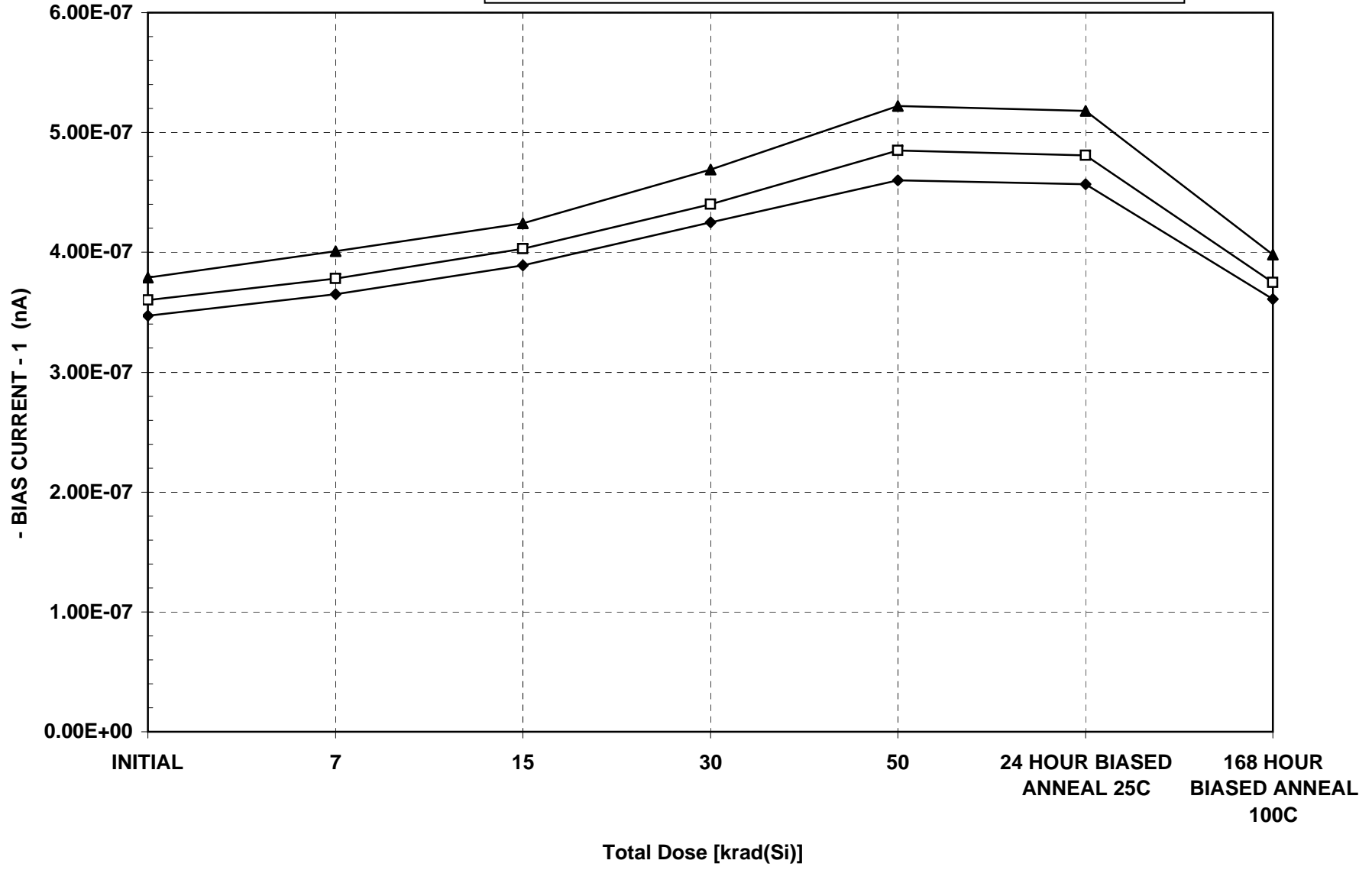
+ BIAS CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

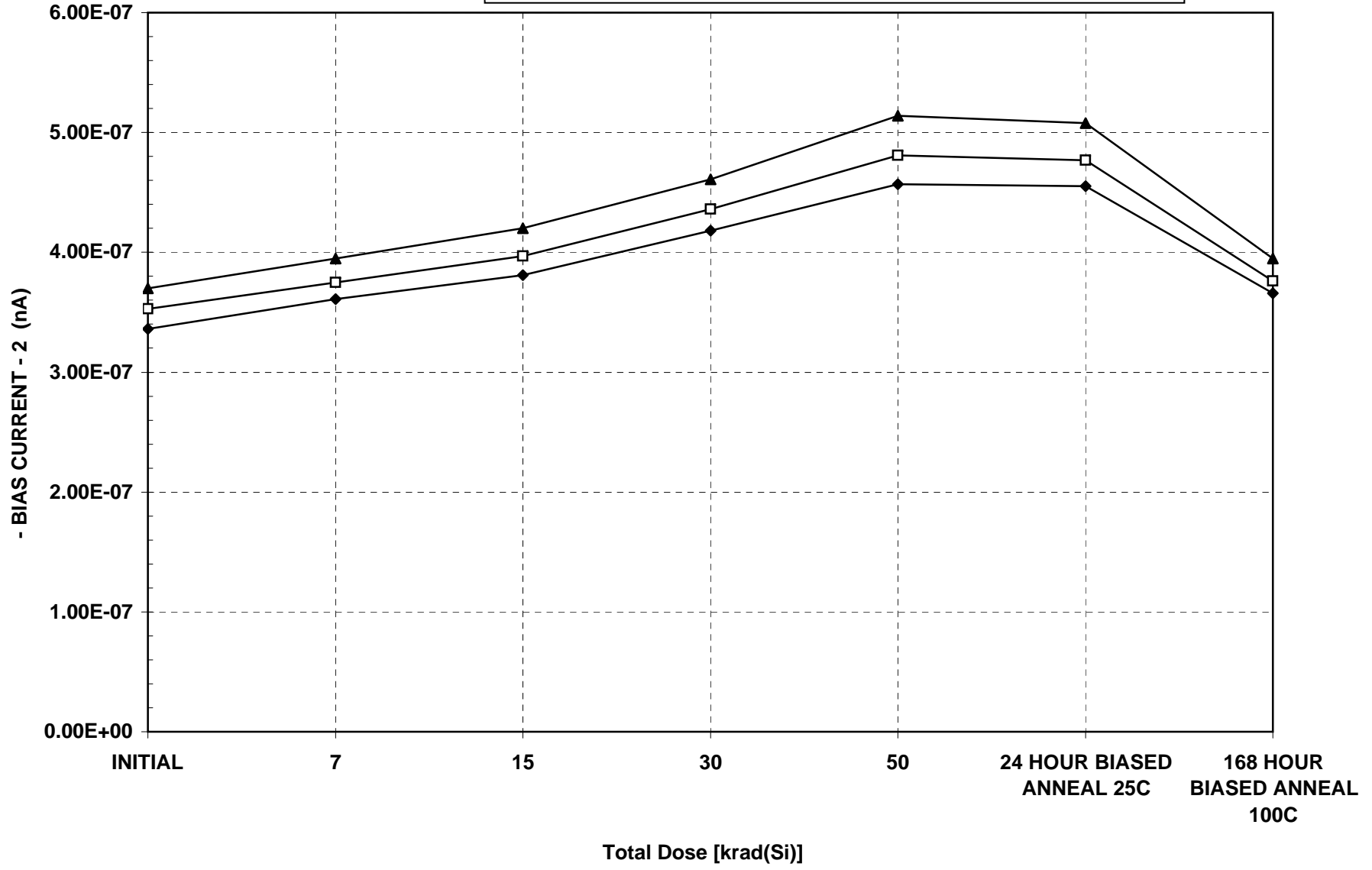
- BIAS CURRENT - 1 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

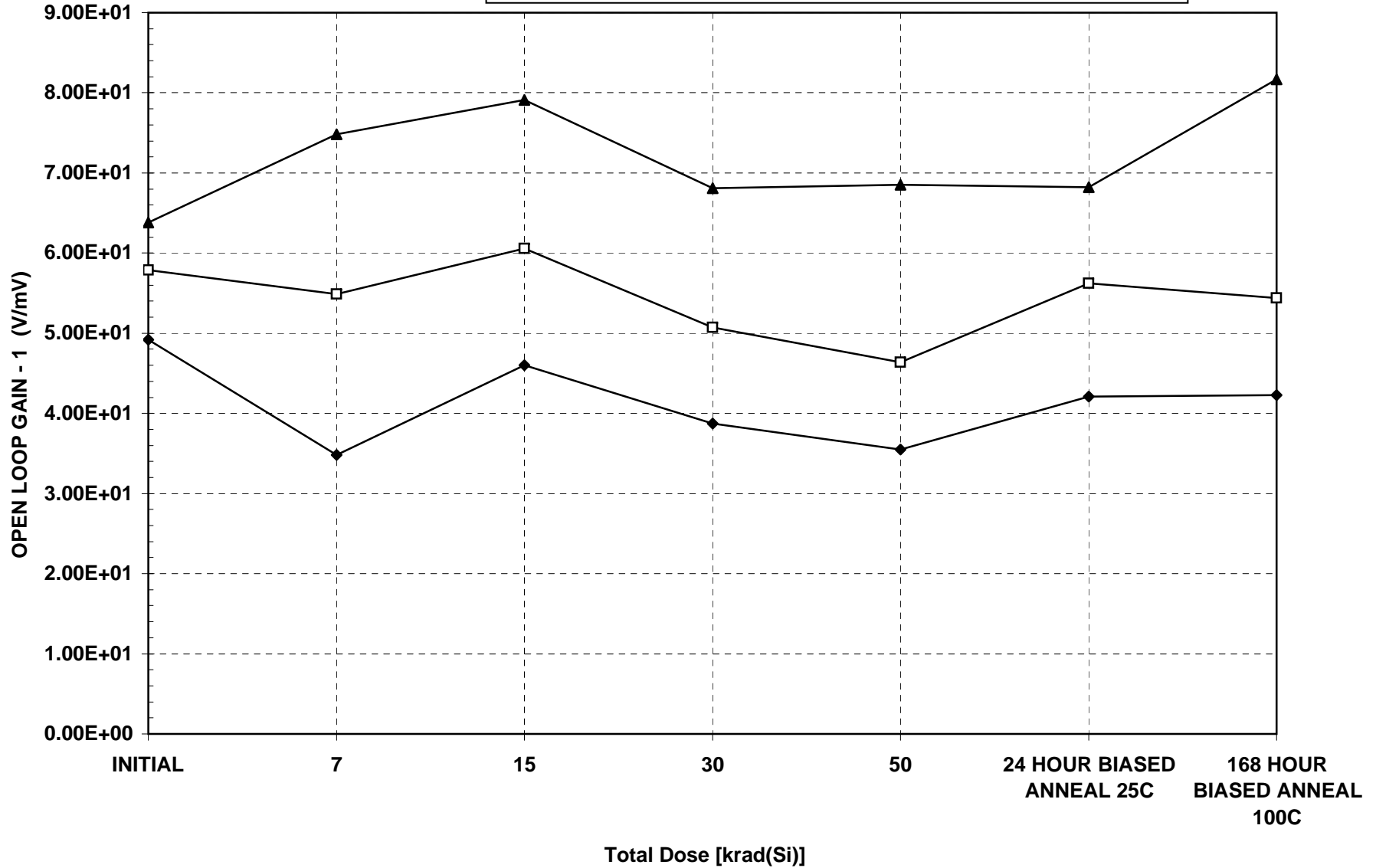
- BIAS CURRENT - 2 (nA)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

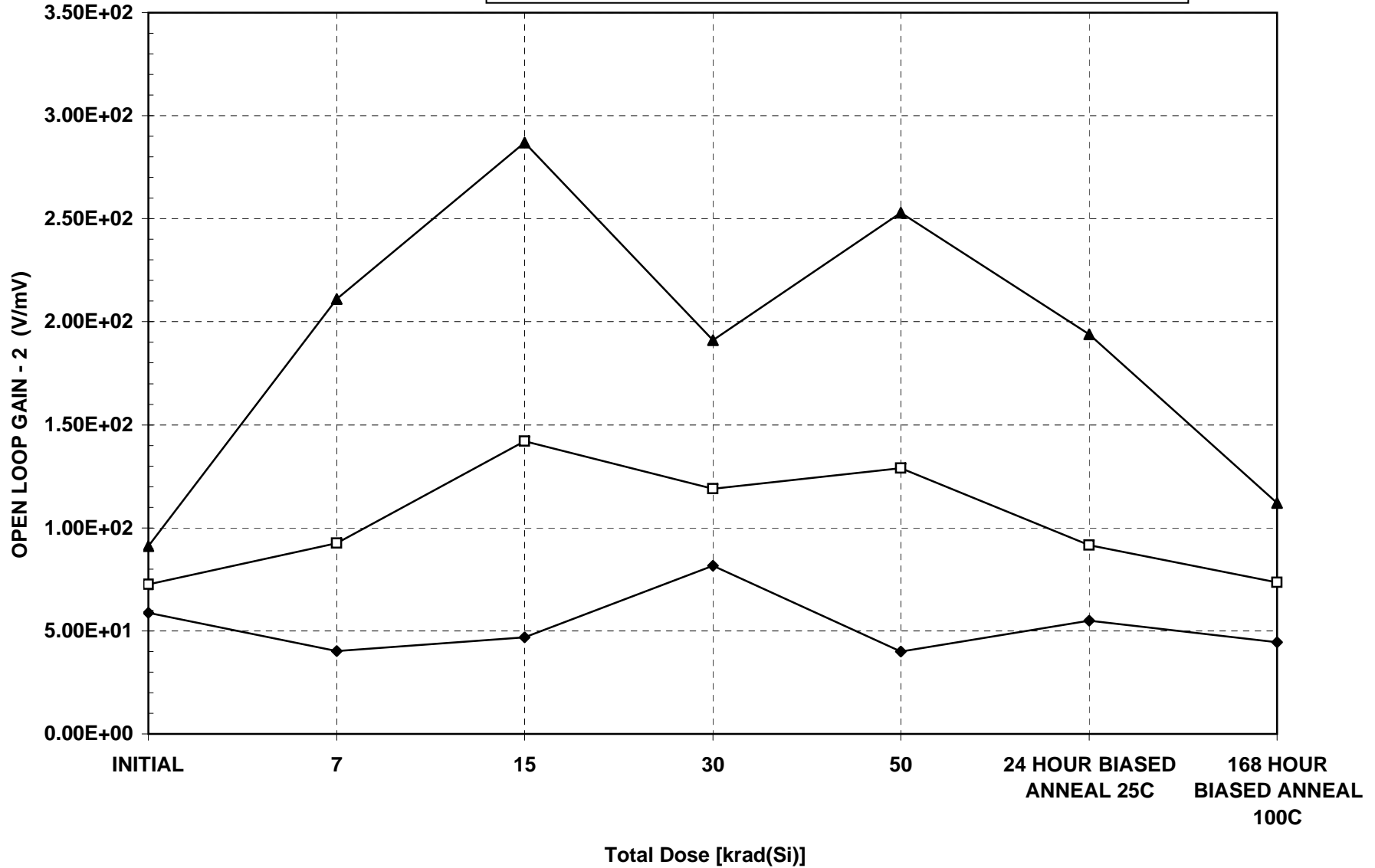
OPEN LOOP GAIN - 1 (V/mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

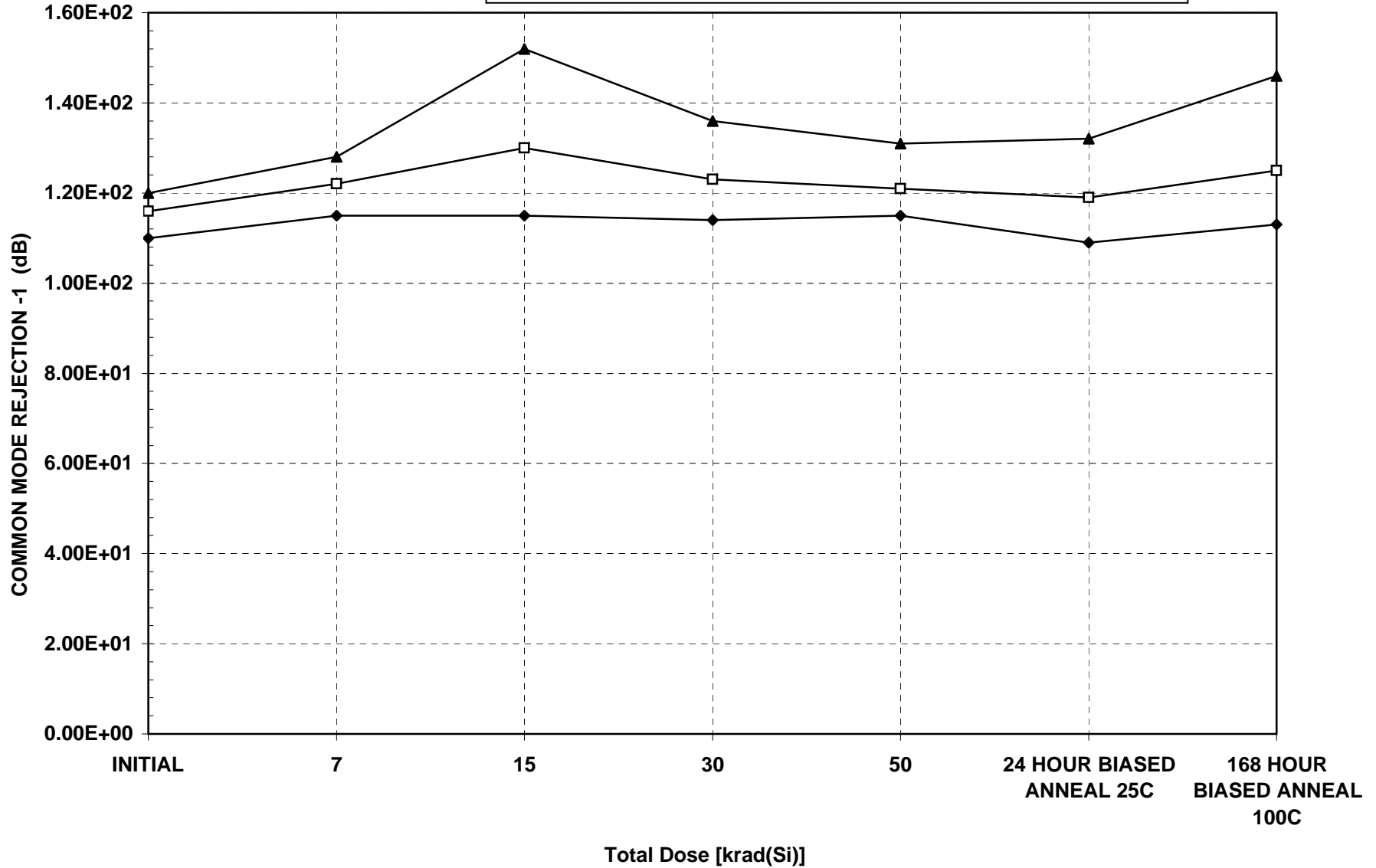
OPEN LOOP GAIN - 2 (V/mV)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

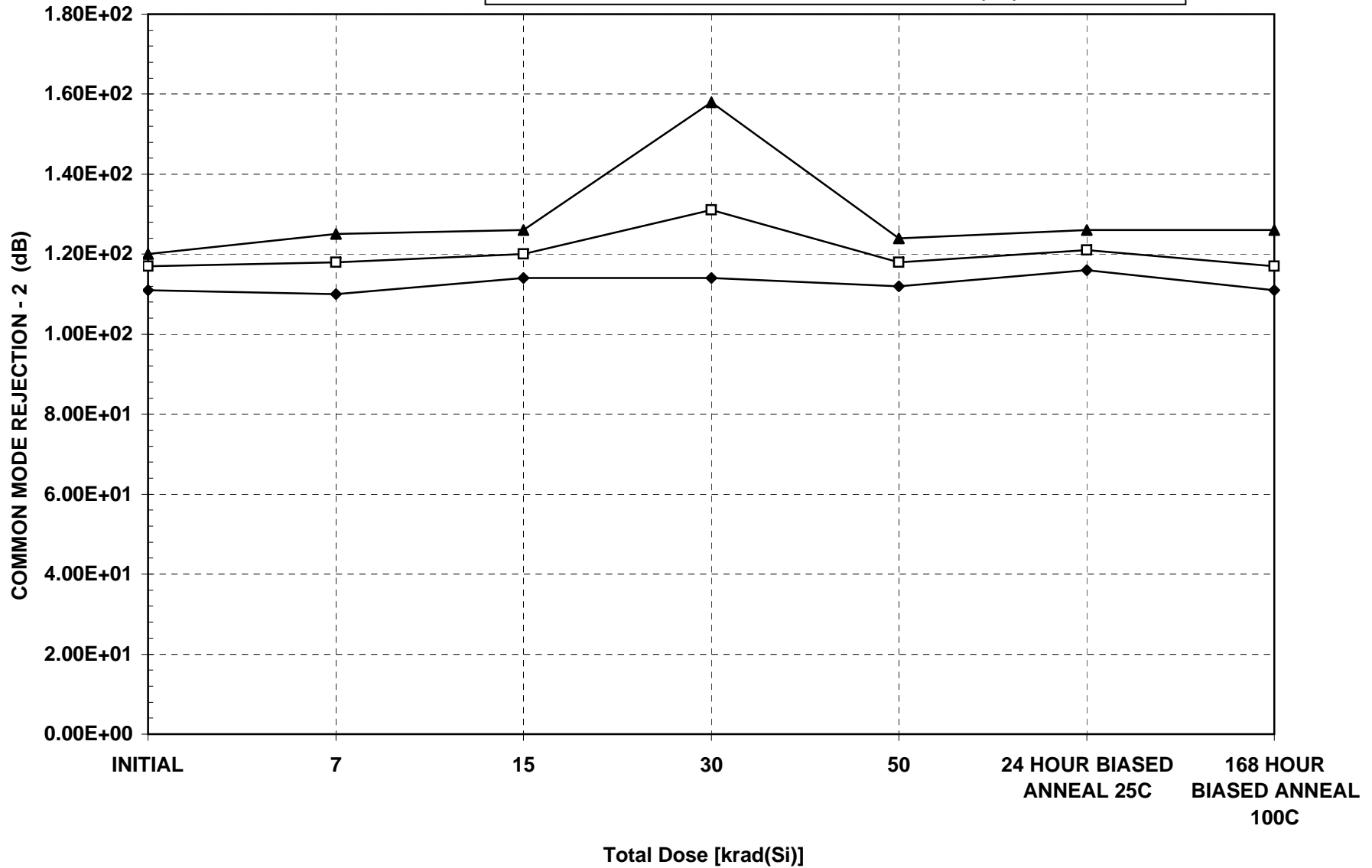
COMMON MODE REJECTION -1 (dB)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

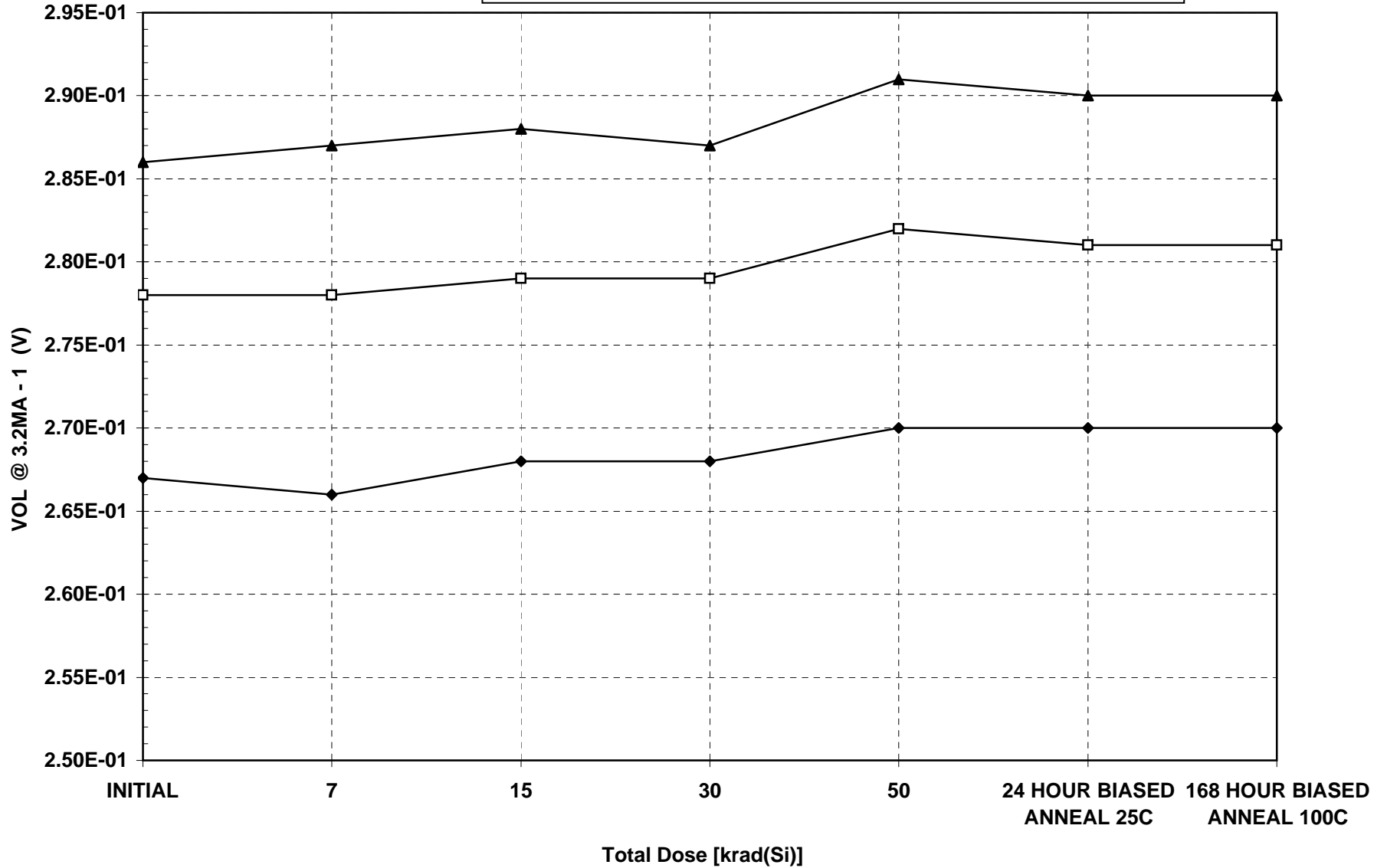
COMMON MODE REJECTION - 2 (dB)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
IC S Radiation Test Results Log # 1662 /14/08

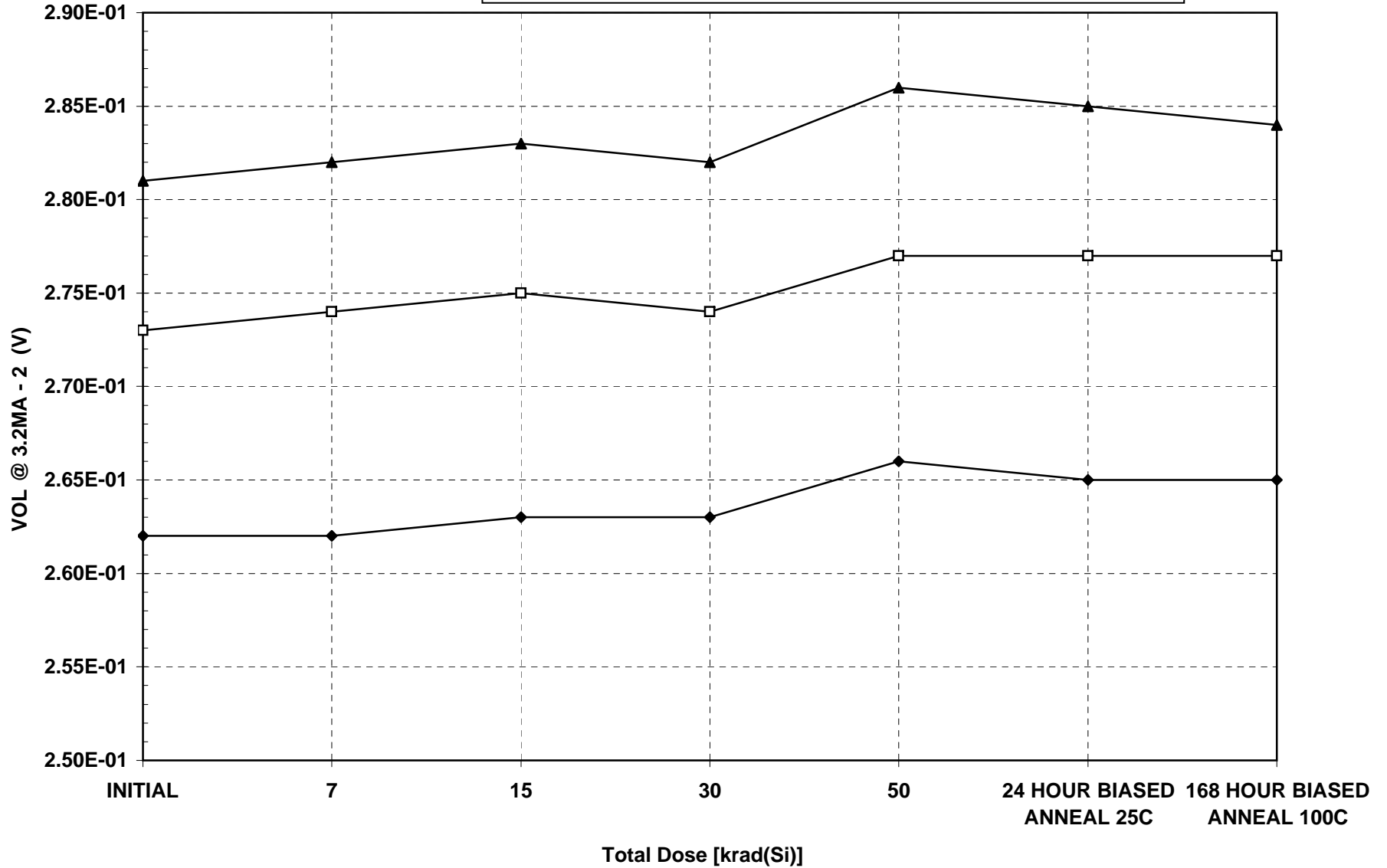
VOL @ 3.2MA - 1 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
IC S Radiation Test Results Log # 1662 1/14/08

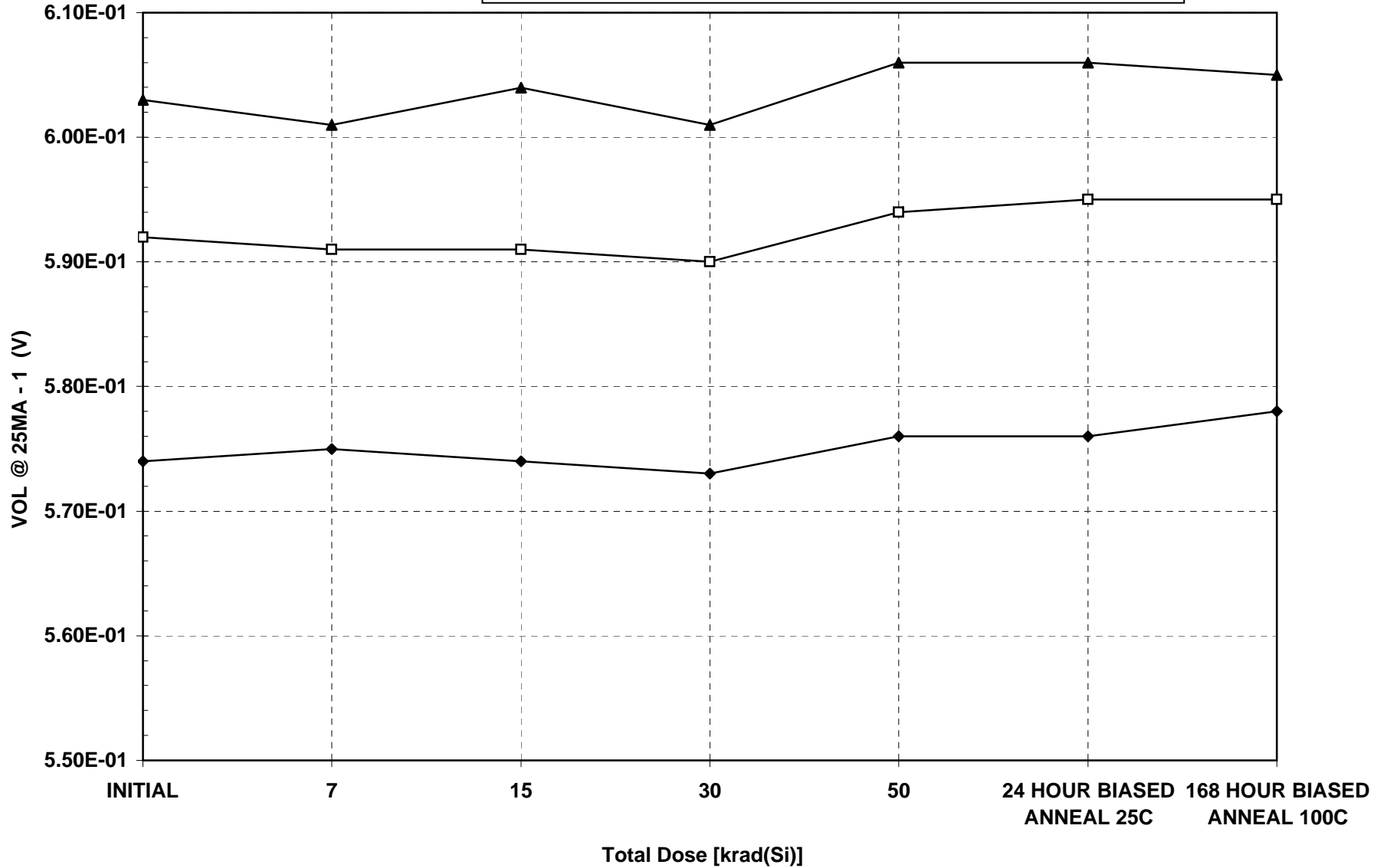
VOL @ 3.2MA - 2 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
IC S Radiation Test Results Log # 1662 1/14/08

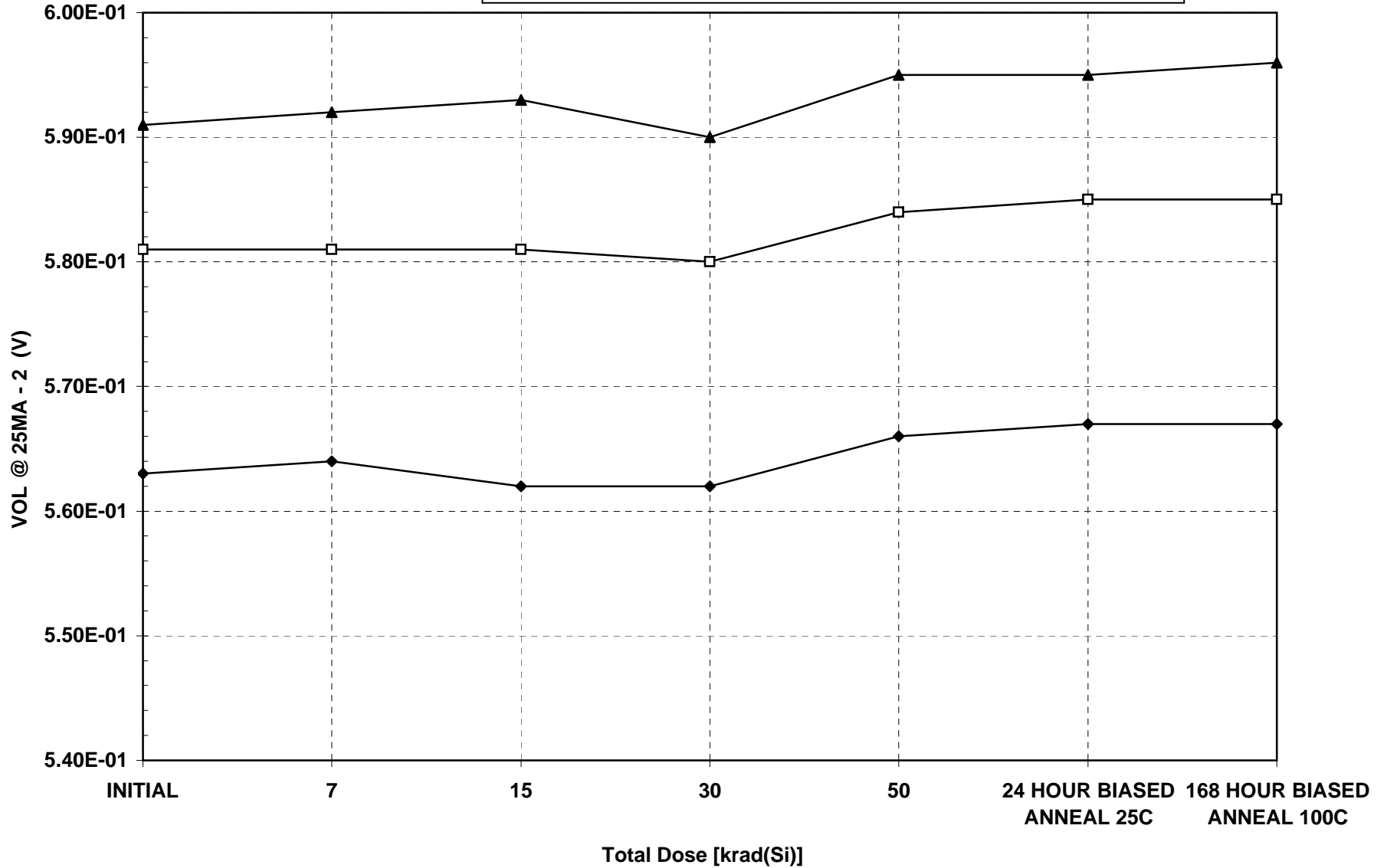
VOL @ 25MA - 1 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
IC S Radiation Test Results Log # 1662 1/14/08

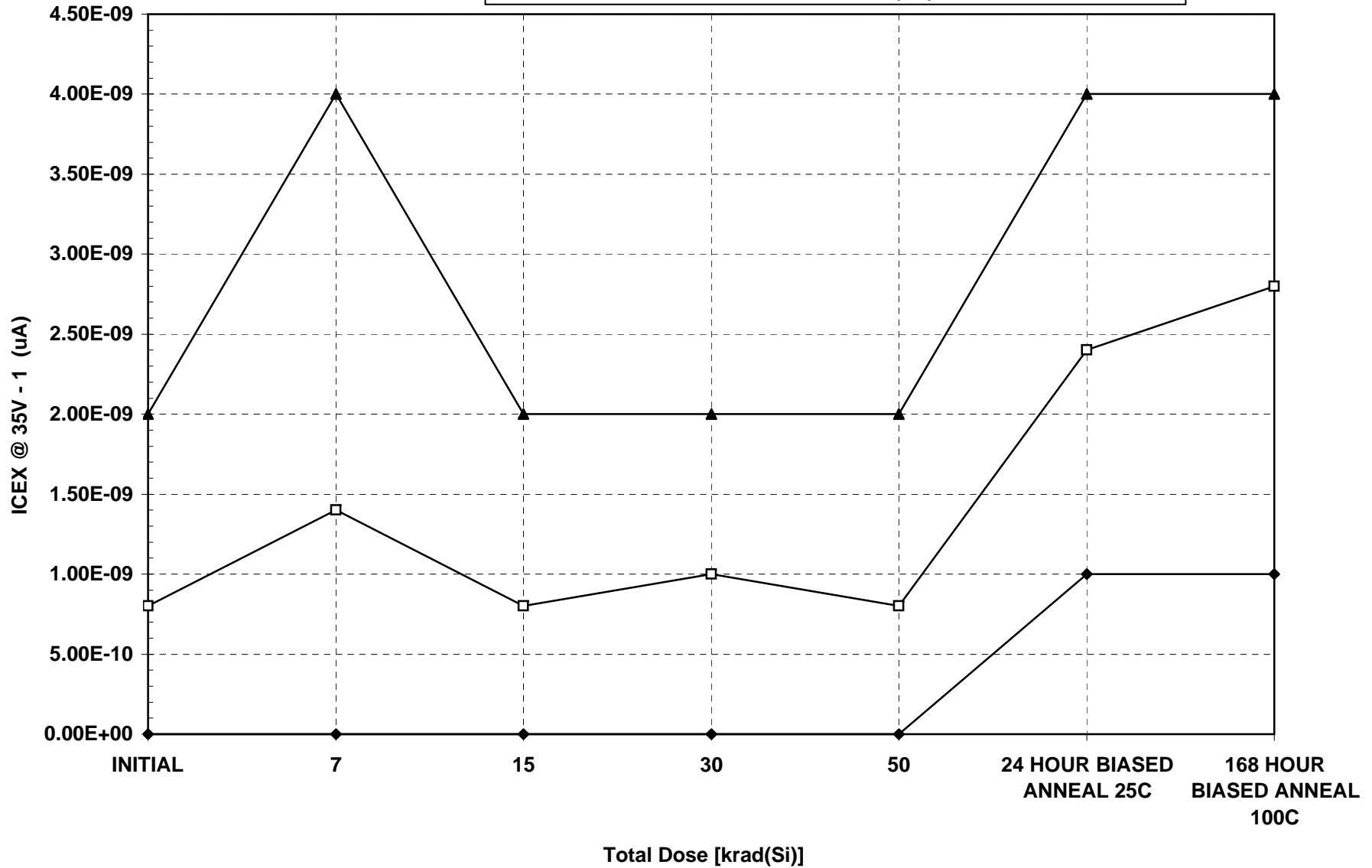
VOL @ 25MA - 2 (V)



◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)
I C S Radiation Test Results Log # 1662 1/14/08

ICEX @ 35V - 1 (uA)

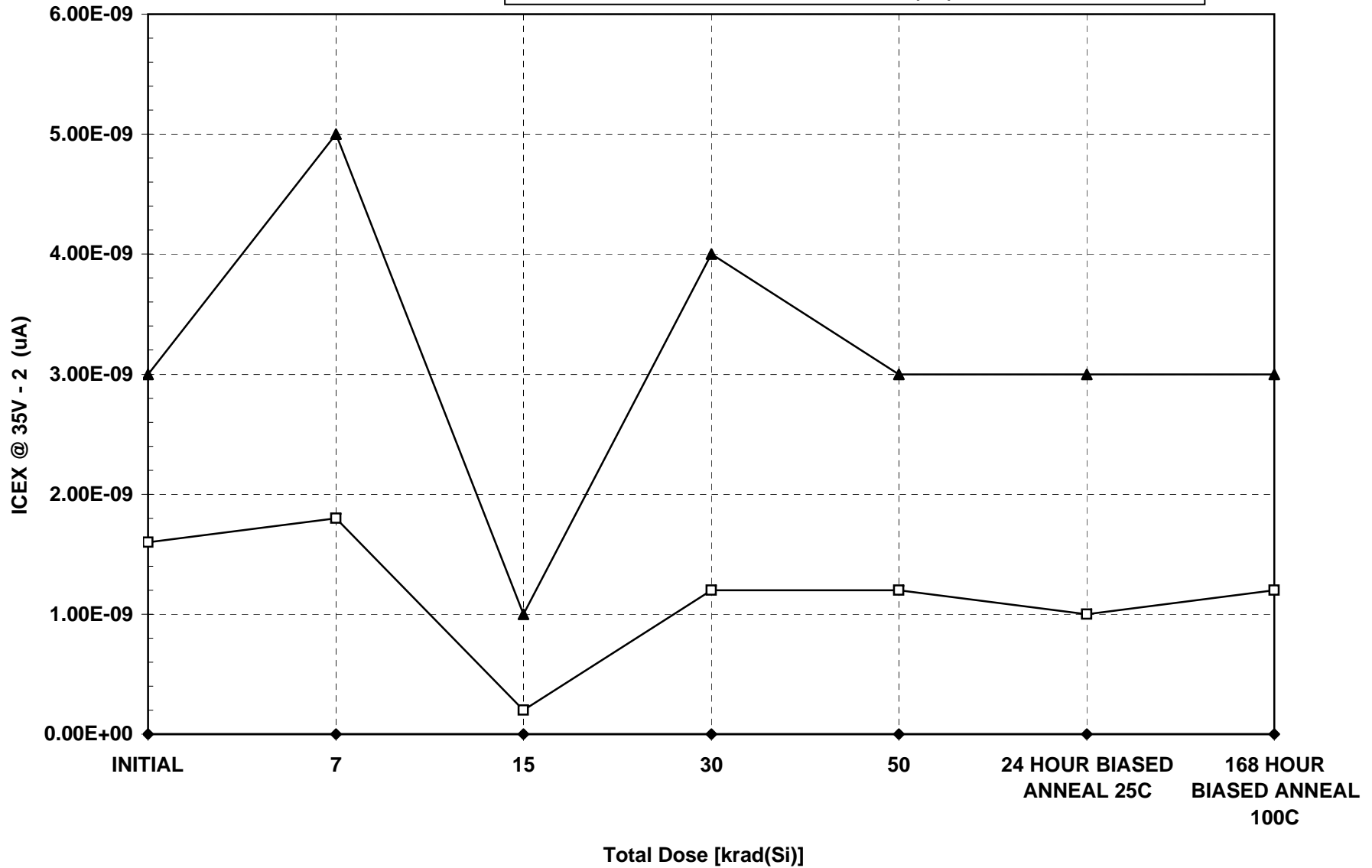


◆ MINIMUM □ MEAN ▲ MAXIMUM

RH119W DUAL COMPARATOR (LTC)

IC S Radiation Test Results Log # 1662 1/14/08

ICEX @ 35V - 2 (uA)



◆ MINIMUM □ MEAN ▲ MAXIMUM