

ICS Radiation Test Results

**RH137H  
NEGATIVE ADJUSTABLE REGULATOR "BIASED"  
(LINEAR TECHNOLOGY CORPORATION)  
P.O. # 46147L**

.....  
.  
. DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR "BIASED" .  
. (LINEAR TECHNOLOGY CORPORATION) .  
. RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV .  
.  
. D/C 0709A || PACKAGE TO-39, 3 LEAD CAN || LOT# 40641855.1 W-5 .  
. LOG# 1603 || TEST DATE 05/31/07 || RTP# 690 .  
. P.O.# 46147L .  
.  
. 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

**RH137H**

**Negative Adjustable Regulator**

**Linear Technology Corporation**

D/C 0709A, Lot# 10641855.1, Wafer # 5

Test Date 05-31-07

Log# 1603 and 1604, TID Test

P.O.# 46147L

This test consisted of two test logs, 1603 and 1604. The test was to compare the radiation effects differences between two bias conditions: Log 1603, had +30 volts and Log 1604 was unbiased with all leads grounded. The 16 test requirements and two "information only" test are stated in test procedure RTP 690, dated March 23, 2007.

The test results indicated was very little difference between the two bias conditions for all parameters tested except for the Voltage Reference parameters (VR1-VR4). The test results of the two tests (biased and unbiased) were less than the LTC data sheet limits of 20krad(Si) at the 50krad(Si) test level.

There were two differences noted with the four Voltage Reference parameters.

1. There was annealing taking place during the 168-hour at 100°C Anneal on the biased devices Log 1603. Typically, this was about 6mV. The unbiased devices (Log 1604) indicated very little, if any, annealing.
2. The minimum reference voltage difference was within 1mV between the biased and unbiased conditions. The maximum reference voltage indicated up to an 8mV difference between the two bias conditions, with the unbiased devices indicating the greatest change.

PARAMETER	<u>MAXIMUM VOLTAGE</u>		<u>MINIMUM VOLTAGE</u>	
	BIASED	UNBIASED	BIASED	UNBIASED
VR1	-1.251	-1.244	-1.254	-1.253
VR2	-1.252	-1.244	-1.254	-1.253
VR3	-1.242	-1.234	-1.243	-1.243
VR4	-1.251	-1.244	-1.253	-1.253

These lots **PASSED** the 16 test requirements as stated in the Radiation Test Procedure RTP 690, dated March 23, 2007.

**NOTE:** To simplify the following data analysis, all negative numbers, except for the Voltage Reference parameters have been converted to Absolute numbers. This matches with the Absolute numbers used on the manufacturers data sheets.

## TID BIASED DEVICES, Log 1603

**Voltage Reference VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.251V and minimum voltage was -1.254V.

**Voltage Reference VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.252V and minimum voltage was -1.254V.

**Voltage Reference VDIFF=3V IL=0.5A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.242V and minimum voltage was -1.243V.

**Voltage Reference VDIFF=40V IL=0.05A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.251V and minimum voltage was -1.253V.

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0009%/V.

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0012%/V.

**Load Regulation 1 VOUT<=5V IL=10mA 0.5A: The Post-Radiation limit at 50krad(Si)** was 25mV maximum. The parameter maximum was 11.8mV.

**INFORMATION ONLY Load Regulation 2 VOUT>=5V IL=10mA 0.5A: At 50krad(Si)**, the parameter maximum was 0.356%.

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 75.2µA.

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 73.7µA.

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 71.6µA.

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.697µA.

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.89µA.

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.45µA.

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 5mA maximum. The parameter maximum was 1.32mA.

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si)** was 0.5A minimum. The parameter minimum was 1.17A.

**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 0.15A minimum. The parameter minimum was 0.296A.

**INFORMATION ONLY Ripple Rejection CADJ=10 $\mu$ F, Vout=10V: At 50krad(Si),** the parameter minimum was 122dB.

## **TID UNBIASED (GROUNDED) DEVICES, Log 1604**

**Voltage Reference VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.253V.

**Voltage Reference VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.253V.

**Voltage Reference VDIFF=3V IL=0.5A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.234V and minimum voltage was -1.243V.

**Voltage Reference VDIFF=40V IL=0.05A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.244V and minimum voltage was -1.253V.

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0009%/V.

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0019%/V.

**Load Regulation 1 VOUT<=5V IL=10mA 0.5A: The Post-Radiation limit at 50krad(Si)** was 25mV maximum. The parameter maximum was 11.3mV.

**INFORMATION ONLY Load Regulation 2 VOUT>=5V IL=10mA 0.5A: At 50krad(Si),** the parameter maximum was 0.575%.

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100 $\mu$ A maximum. The parameter maximum was 76.1 $\mu$ A.

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100 $\mu$ A maximum. The parameter maximum was 72.5 $\mu$ A.

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100 $\mu$ A maximum. The parameter maximum was 71.7 $\mu$ A.

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si)** was 5 $\mu$ A maximum. The parameter maximum was 1.6 $\mu$ A.

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5 $\mu$ A maximum. The parameter maximum was 0.4 $\mu$ A.

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5 $\mu$ A maximum. The parameter maximum was 1.00 $\mu$ A.

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 5mA maximum. The parameter maximum was -1.42mA.

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si)** was 0.5A minimum. The parameter minimum was 1.12A.

**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 0.15A minimum. The parameter minimum was 0.28A.

**INFORMATION ONLY** Ripple Rejection CADJ=10 $\mu$ F, Vout=10V: At 50krad(Si), the parameter minimum was 124dB.

**ANOMOLIES:**

There was one anomaly in the parameter test list. **Load Regulation 2 VOUT $\geq$ 5V IL=10mA 0.5A was an *INFORMATION ONLY* test.** The *Load Regulation* test condition of 10mA-500mA exceeds datasheet test condition of 10mA-200mA so, the datasheet limit of 0.5% does not apply to *Load Regulation* test as performed in this analysis.

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](mailto:mike@icsrad.com).

ICS Radiation Technologies, Inc.

Dr. Michael K. Gauthier, P.E.  
President  
August 29, 2007



**RADIATION TEST PROCEDURE**

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits Exposure Levels rad(Si)			Units
			20k	50k	100k	
NOTE: Vin MAX = 30V						
1	Voltage Reference	VDIF=3V, IL=10mA	-1.225 -1.275	-1.225 -1.275	-1.225 -1.275	V Min V Max
2	Voltage Reference	VDIF=40V, IL=10mA	-1.225 -1.275	-1.225 -1.275	-1.225 -1.275	V Min V Max
3	Voltage Reference	VDIF=3V, IL=0.5A	-1.200 -1.300	-1.200 -1.300	-1.200 -1.300	V Min V Max
4	Voltage Reference	VDIF=40V, IL=0.05A	-1.200 -1.300	-1.200 -1.300	-1.200 -1.300	V Min V Max
5	Line Regulation 1	$3V \leq (V_{in}-V_{out}) \leq 36V$ Iout=10mA	0.02	0.02	0.02	%/V Max
6	Line Regulation 2	$3V \leq (V_{in}-V_{out}) \leq 40V$ Iout=10mA	0.02	0.02	0.03	%/V Max
7	Load Regulation 1	$10mA \leq I_{out} \leq 0.5A$ Vout $\leq 5V$	25	25	25	mV Max
8	Load Regulation 2	$10mA \leq I_{out} \leq 0.5A$ Vout $\geq 5V$	0.5	0.5	0.5	% Max
9	Adjust Pin Current 1	VDIF=3V, IL=10mA	100	100	100	$\mu A$ Max
10	Adjust Pin Current 2	VDIF=5V, IL=10mA	100	100	100	$\mu A$ Max
11	Adjust Pin Current 3	VDIF=40V, IL=10mA	100	100	100	$\mu A$ Max
12	Adjust Pin Current Change	VDIF=5V $10mA \leq I_{out} \leq 0.5A$	5	5	5	$\mu A$ Max
13	Adjust Pin Current Change	VDIF=3V to 36V IL=10mA	5	5	5	$\mu A$ Max
14	Adjust Pin Current Change	VDIF=3V to 40V IL=10mA	5	5	5	$\mu A$ Max

March 23, 2007

RADIATION TEST PROCEDURE

No. 690

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits Exposure Levels rad(Si)			Units
			20k	50k	100k	
15	Minimum Load Current	VDIF=40V	5	5	5	mA Max
16	Short Circuit Current	VDIF=15V	0.5	0.5	0.5	A Min
17	Short Circuit Current	VDIF=40V	0.15	0.15	0.15	A Min
18	Ripple Rejection	CADJ=10 $\mu$ F, Vout=10V	Record	Record	Record	dB

Measurements shall be made at room (ambient) temperature.

Test conducted using an Analog Devices LTS-2020 Component Test System, with the LTS-2101 Family Board, LTS0606 Regulator Socket Assembly, LTS0325/RH137 DUT board .

Software: RH137H/K 1.04 program. "RH137HK.SR4

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

Return samples to customer.



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

REFERENCE OUTPUT VDIFF=3V IL=10mA		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00
	844	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.252E+00	-1.256E+00
	845	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.256E+00
	846	-1.255E+00	-1.253E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.255E+00
	847	-1.257E+00	-1.256E+00	-1.255E+00	-1.254E+00	-1.253E+00	-1.258E+00
	848	-1.256E+00	-1.254E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.256E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.255E+00	-1.254E+00	-1.253E+00	-1.258E+00
	MEAN	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.252E+00	-1.256E+00
	MAXIMUM	-1.255E+00	-1.253E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.255E+00
	+P 99/90	-1.252E+00	-1.248E+00	-1.249E+00	-1.248E+00	-1.247E+00	-1.250E+00
	-P 99/90	-1.260E+00	-1.260E+00	-1.258E+00	-1.257E+00	-1.256E+00	-1.262E+00
	SIGMA	8.165E-04	1.258E-03	1.000E-03	1.000E-03	9.574E-04	1.258E-03

REFERENCE OUTPUT VDIFF=3V IL=10mA		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	844		2.000E-03	3.000E-03	4.000E-03	4.000E-03	0.000E+00
	845		2.000E-03	3.000E-03	4.000E-03	5.000E-03	0.000E+00
	846		2.000E-03	2.000E-03	3.000E-03	4.000E-03	0.000E+00
	847		1.000E-03	2.000E-03	3.000E-03	4.000E-03	-1.000E-03
	848		2.000E-03	3.000E-03	5.000E-03	5.000E-03	0.000E+00
	MINIMUM		1.000E-03	2.000E-03	3.000E-03	4.000E-03	-1.000E-03
	MEAN		1.750E-03	2.500E-03	3.500E-03	4.250E-03	-2.500E-04
	MAXIMUM		2.000E-03	3.000E-03	4.000E-03	5.000E-03	0.000E+00
	+P 99/90		4.083E-03	5.194E-03	6.194E-03	6.583E-03	2.083E-03
	-P 99/90		-5.830E-04	-1.939E-04	8.061E-04	1.917E-03	-2.583E-03
	SIGMA		5.000E-04	5.774E-04	5.774E-04	5.000E-04	5.000E-04

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

REFERENCE OUTPUT VDIFF=40V IL=10MA		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00
	844	-1.256E+00	-1.255E+00	-1.254E+00	-1.252E+00	-1.252E+00	-1.257E+00
	845	-1.256E+00	-1.255E+00	-1.254E+00	-1.252E+00	-1.252E+00	-1.257E+00
	846	-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.256E+00
	847	-1.257E+00	-1.256E+00	-1.256E+00	-1.254E+00	-1.253E+00	-1.258E+00
	848	-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.252E+00	-1.256E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.256E+00	-1.254E+00	-1.253E+00	-1.258E+00
	MEAN	-1.256E+00	-1.255E+00	-1.254E+00	-1.252E+00	-1.252E+00	-1.257E+00
	MAXIMUM	-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.256E+00
	+P 99/90	-1.252E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.248E+00	-1.253E+00
	-P 99/90	-1.260E+00	-1.259E+00	-1.260E+00	-1.257E+00	-1.256E+00	-1.261E+00
	SIGMA	8.165E-04	8.165E-04	1.258E-03	1.000E-03	8.165E-04	8.165E-04

REFERENCE OUTPUT VDIFF=40V IL=10MA		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	844		1.000E-03	2.000E-03	4.000E-03	4.000E-03	-1.000E-03
	845		1.000E-03	2.000E-03	4.000E-03	4.000E-03	-1.000E-03
	846		1.000E-03	2.000E-03	3.000E-03	4.000E-03	-1.000E-03
	847		1.000E-03	1.000E-03	3.000E-03	4.000E-03	-1.000E-03
	848		2.000E-03	2.000E-03	4.000E-03	4.000E-03	0.000E+00
	MINIMUM		1.000E-03	1.000E-03	3.000E-03	4.000E-03	-1.000E-03
	MEAN		1.000E-03	1.750E-03	3.500E-03	4.000E-03	-1.000E-03
	MAXIMUM		1.000E-03	2.000E-03	4.000E-03	4.000E-03	-1.000E-03
	+P 99/90		1.000E-03	4.083E-03	6.194E-03	4.000E-03	-1.000E-03
	-P 99/90		1.000E-03	-5.830E-04	8.061E-04	4.000E-03	-1.000E-03
	SIGMA		1.282E-16	5.000E-04	5.774E-04	0.000E+00	1.282E-16

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

REFERENCE OUTPUT VDIFF=3V IL=0.5A		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.246E+00	-1.245E+00	-1.245E+00	-1.247E+00	-1.246E+00	-1.247E+00
	844	-1.248E+00	-1.243E+00	-1.244E+00	-1.242E+00	-1.246E+00	-1.251E+00
	845	-1.247E+00	-1.244E+00	-1.244E+00	-1.242E+00	-1.244E+00	-1.249E+00
	846	-1.247E+00	-1.243E+00	-1.242E+00	-1.243E+00	-1.244E+00	-1.248E+00
	847	-1.248E+00	-1.244E+00	-1.242E+00	-1.242E+00	-1.244E+00	-1.252E+00
	848	-1.247E+00	-1.243E+00	-1.242E+00	-1.242E+00	-1.246E+00	-1.249E+00
	MINIMUM	-1.248E+00	-1.244E+00	-1.244E+00	-1.243E+00	-1.246E+00	-1.252E+00
	MEAN	-1.247E+00	-1.243E+00	-1.243E+00	-1.242E+00	-1.245E+00	-1.250E+00
	MAXIMUM	-1.247E+00	-1.243E+00	-1.242E+00	-1.242E+00	-1.244E+00	-1.248E+00
	+P 99/90	-1.245E+00	-1.241E+00	-1.237E+00	-1.240E+00	-1.240E+00	-1.241E+00
	-P 99/90	-1.250E+00	-1.246E+00	-1.248E+00	-1.245E+00	-1.249E+00	-1.258E+00
	SIGMA	5.774E-04	5.774E-04	1.155E-03	5.000E-04	1.000E-03	1.826E-03

REFERENCE OUTPUT VDIFF=3V IL=0.5A		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		1.000E-03	1.000E-03	-1.000E-03	0.000E+00	-1.000E-03
	844		5.000E-03	4.000E-03	6.000E-03	2.000E-03	-3.000E-03
	845		3.000E-03	3.000E-03	5.000E-03	3.000E-03	-2.000E-03
	846		4.000E-03	5.000E-03	4.000E-03	3.000E-03	-1.000E-03
	847		4.000E-03	6.000E-03	6.000E-03	4.000E-03	-4.000E-03
	848		4.000E-03	5.000E-03	5.000E-03	1.000E-03	-2.000E-03
	MINIMUM		3.000E-03	3.000E-03	4.000E-03	2.000E-03	-4.000E-03
	MEAN		4.000E-03	4.500E-03	5.250E-03	3.000E-03	-2.500E-03
	MAXIMUM		5.000E-03	6.000E-03	6.000E-03	4.000E-03	-1.000E-03
	+P 99/90		7.810E-03	1.052E-02	9.717E-03	6.810E-03	3.524E-03
	-P 99/90		1.902E-04	-1.524E-03	7.826E-04	-8.098E-04	-8.524E-03
	SIGMA		8.165E-04	1.291E-03	9.574E-04	8.165E-04	1.291E-03

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV  
  
 D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
 LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
 P.O# 46147L  
  
**I C S RADIATION TECHNOLOGIES, INC.**  
 Page 4 of 35



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

REFERENCE OUTPUT VDIFF=40V IL=0.05A		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.246E+00	-1.256E+00
	844	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.254E+00	-1.245E+00
	845	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.256E+00
	846	-1.255E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.251E+00	-1.258E+00
	847	-1.257E+00	-1.255E+00	-1.255E+00	-1.253E+00	-1.253E+00	-1.245E+00
	848	-1.256E+00	-1.254E+00	-1.253E+00	-1.251E+00	-1.252E+00	-1.256E+00
	MINIMUM	-1.257E+00	-1.255E+00	-1.255E+00	-1.253E+00	-1.254E+00	-1.258E+00
	MEAN	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.252E+00	-1.252E+00
	MAXIMUM	-1.255E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.251E+00	-1.245E+00
	+P 99/90	-1.252E+00	-1.250E+00	-1.247E+00	-1.248E+00	-1.245E+00	-1.219E+00
	-P 99/90	-1.260E+00	-1.258E+00	-1.259E+00	-1.256E+00	-1.259E+00	-1.285E+00
	SIGMA	8.165E-04	8.165E-04	1.258E-03	8.165E-04	1.500E-03	6.976E-03

REFERENCE OUTPUT VDIFF=40V IL=0.05A		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.000E+00	0.000E+00	0.000E+00	1.000E-02	0.000E+00
	844		2.000E-03	3.000E-03	4.000E-03	2.000E-03	1.100E-02
	845		2.000E-03	3.000E-03	4.000E-03	5.000E-03	0.000E+00
	846		2.000E-03	3.000E-03	4.000E-03	4.000E-03	-3.000E-03
	847		2.000E-03	2.000E-03	4.000E-03	4.000E-03	1.200E-02
	848		2.000E-03	3.000E-03	5.000E-03	4.000E-03	0.000E+00
	MINIMUM		2.000E-03	2.000E-03	4.000E-03	2.000E-03	-3.000E-03
	MEAN		2.000E-03	2.750E-03	4.000E-03	3.750E-03	5.000E-03
	MAXIMUM		2.000E-03	3.000E-03	4.000E-03	5.000E-03	1.200E-02
	+P 99/90		2.000E-03	5.083E-03	4.000E-03	9.621E-03	4.054E-02
	-P 99/90		2.000E-03	4.170E-04	4.000E-03	-2.121E-03	-3.054E-02
	SIGMA		0.000E+00	5.000E-04	0.000E+00	1.258E-03	7.616E-03

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

---

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

=====

LINE REG 1 VDIFF=3V TO 36V IL=10MA

(%/V)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	7.00E-04	5.00E-04	4.00E-04	5.00E-04	6.00E-04	5.00E-04
	844	9.00E-04	9.00E-04	9.00E-04	5.00E-04	7.00E-04	5.00E-04
	845	4.00E-04	7.00E-04	3.00E-04	8.00E-04	9.00E-04	1.00E-04
	846	4.00E-04	3.00E-04	8.00E-04	9.00E-04	9.00E-04	5.00E-04
	847	3.00E-04	3.00E-04	5.00E-04	3.00E-04	5.00E-04	6.00E-04
	848	4.00E-04	5.00E-04	6.00E-04	6.00E-04	1.00E-03	4.00E-04
	MINIMUM	3.00E-04	3.00E-04	3.00E-04	3.00E-04	5.00E-04	1.00E-04
	MEAN	4.80E-04	5.40E-04	6.20E-04	6.20E-04	8.00E-04	4.20E-04
	MAXIMUM	9.00E-04	9.00E-04	9.00E-04	9.00E-04	1.00E-03	6.00E-04
	+P 99/90	1.74E-03	1.94E-03	1.90E-03	1.90E-03	1.69E-03	1.45E-03
	-P 99/90	-7.84E-04	-8.60E-04	-6.65E-04	-6.65E-04	-9.35E-05	-6.15E-04
	SIGMA	2.71E-04	3.00E-04	2.75E-04	2.75E-04	1.91E-04	2.22E-04

-----

LINE REG 1 VDIFF=3V TO 36V IL=10MA

(%/V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-2.00E-04	-3.00E-04	-2.00E-04	-1.00E-04	-2.00E-04
	844		0.00E+00	0.00E+00	-4.00E-04	-2.00E-04	-4.00E-04
	845		3.00E-04	-1.00E-04	4.00E-04	5.00E-04	-3.00E-04
	846		-1.00E-04	4.00E-04	5.00E-04	5.00E-04	1.00E-04
	847		0.00E+00	2.00E-04	0.00E+00	2.00E-04	3.00E-04
	848		1.00E-04	2.00E-04	2.00E-04	6.00E-04	0.00E+00
	MINIMUM		-1.00E-04	-1.00E-04	-4.00E-04	-2.00E-04	-4.00E-04
	MEAN		5.00E-05	1.25E-04	1.25E-04	2.50E-04	-7.50E-05
	MAXIMUM		3.00E-04	4.00E-04	5.00E-04	5.00E-04	3.00E-04
	+P 99/90		8.58E-04	1.16E-03	2.04E-03	1.80E-03	1.47E-03
	-P 99/90		-7.58E-04	-9.10E-04	-1.79E-03	-1.30E-03	-1.62E-03
	SIGMA		1.73E-04	2.22E-04	4.11E-04	3.32E-04	3.30E-04

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

I C S RADIATION TECHNOLOGIES, INC.





I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

=====

LINE REG 2 VDIFF=3V TO 40V IL=10MA

(%/V)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	1.70E-03	8.00E-04	1.40E-03	1.40E-03	5.00E-04	1.50E-03
	844	4.00E-04	7.00E-04	8.00E-04	1.10E-03	1.10E-03	1.20E-03
	845	7.00E-04	1.20E-03	1.70E-03	1.20E-03	9.00E-04	4.00E-04
	846	7.00E-04	1.50E-03	1.50E-03	1.20E-03	8.00E-04	6.00E-04
	847	1.10E-03	6.00E-04	1.50E-03	3.00E-04	5.00E-04	5.00E-04
	848	1.10E-03	1.50E-03	1.40E-03	9.00E-04	5.00E-04	7.00E-04
	MINIMUM	4.00E-04	6.00E-04	8.00E-04	3.00E-04	5.00E-04	4.00E-04
	MEAN	8.00E-04	1.10E-03	1.38E-03	9.40E-04	7.60E-04	6.80E-04
	MAXIMUM	1.10E-03	1.50E-03	1.70E-03	1.20E-03	1.10E-03	1.20E-03
	+P 99/90	2.14E-03	3.08E-03	3.22E-03	2.97E-03	1.93E-03	2.36E-03
	-P 99/90	-5.40E-04	-8.80E-04	-4.62E-04	-1.09E-03	-4.07E-04	-9.97E-04
	SIGMA	2.87E-04	4.24E-04	3.95E-04	4.36E-04	2.50E-04	3.59E-04

-----

LINE REG 2 VDIFF=3V TO 40V IL=10MA

(%/V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-9.00E-04	-3.00E-04	-3.00E-04	-1.20E-03	-2.00E-04
	844		3.00E-04	4.00E-04	7.00E-04	7.00E-04	8.00E-04
	845		5.00E-04	1.00E-03	5.00E-04	2.00E-04	-3.00E-04
	846		8.00E-04	8.00E-04	5.00E-04	1.00E-04	-1.00E-04
	847		-5.00E-04	4.00E-04	-8.00E-04	-6.00E-04	-6.00E-04
	848		4.00E-04	3.00E-04	-2.00E-04	-6.00E-04	-4.00E-04
	MINIMUM		-5.00E-04	4.00E-04	-8.00E-04	-6.00E-04	-6.00E-04
	MEAN		2.75E-04	6.50E-04	2.25E-04	1.00E-04	-5.00E-05
	MAXIMUM		8.00E-04	1.00E-03	7.00E-04	7.00E-04	8.00E-04
	+P 99/90		2.87E-03	2.05E-03	3.44E-03	2.60E-03	2.76E-03
	-P 99/90		-2.32E-03	-7.50E-04	-2.99E-03	-2.40E-03	-2.86E-03
	SIGMA		5.56E-04	3.00E-04	6.90E-04	5.35E-04	6.03E-04

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

I C S RADIATION TECHNOLOGIES, INC.



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

LOAD REG1 VOUT<=5V IL=10MA TO 0.5A

(MV)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.00E+01	-1.11E+01	-1.12E+01	-4.16E+00	-4.97E+00	-9.83E+00
	844	-8.32E+00	-1.15E+01	-1.23E+01	-1.03E+01	-5.64E+00	-5.27E+00
	845	-9.08E+00	-1.01E+01	-9.30E+00	-9.40E+00	-7.19E+00	-7.53E+00
	846	-7.65E+00	-1.06E+01	-1.08E+01	-8.94E+00	-7.61E+00	-7.44E+00
	847	-9.26E+00	-1.13E+01	-1.33E+01	-1.18E+01	-8.44E+00	-5.14E+00
	848	-8.62E+00	-1.08E+01	-1.18E+01	-9.47E+00	-5.29E+00	-7.17E+00
	MINIMUM	-9.26E+00	-1.15E+01	-1.33E+01	-1.18E+01	-8.44E+00	-7.53E+00
	MEAN	-8.59E+00	-1.08E+01	-1.15E+01	-9.96E+00	-6.83E+00	-6.51E+00
	MAXIMUM	-7.65E+00	-1.01E+01	-9.30E+00	-8.94E+00	-5.29E+00	-5.14E+00
	+P 99/90	-5.12E+00	-7.82E+00	-3.27E+00	-4.19E+00	-1.36E+00	-3.56E-01
	-P 99/90	-1.20E+01	-1.39E+01	-1.98E+01	-1.57E+01	-1.23E+01	-1.27E+01
	SIGMA	7.42E-01	6.47E-01	1.77E+00	1.24E+00	1.17E+00	1.32E+00

LOAD REG1 VOUT<=5V IL=10MA TO 0.5A

(MV)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-1.06E+00	-1.20E+00	5.86E+00	5.05E+00	1.87E-01
	844		-3.13E+00	-4.03E+00	-1.94E+00	2.68E+00	3.05E+00
	845		-9.94E-01	-2.19E-01	-3.20E-01	1.89E+00	1.55E+00
	846		-2.91E+00	-3.18E+00	-1.30E+00	3.40E-02	2.02E-01
	847		-2.04E+00	-4.08E+00	-2.49E+00	8.24E-01	4.13E+00
	848		-2.19E+00	-3.22E+00	-8.43E-01	3.33E+00	1.45E+00
	MINIMUM		-3.13E+00	-4.08E+00	-2.49E+00	3.40E-02	2.02E-01
	MEAN		-2.27E+00	-2.88E+00	-1.51E+00	1.36E+00	2.23E+00
	MAXIMUM		-9.94E-01	-2.19E-01	-3.20E-01	2.68E+00	4.13E+00
	+P 99/90		2.27E+00	5.61E+00	2.84E+00	6.78E+00	1.02E+01
	-P 99/90		-6.81E+00	-1.14E+01	-5.86E+00	-4.07E+00	-5.78E+00
	SIGMA		9.73E-01	1.82E+00	9.33E-01	1.16E+00	1.72E+00

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

LOAD REG 2 VOUT>=5V IL=10MA TO 0.5A

(%)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-2.71E+00	-3.08E-01	-2.95E-01	-1.22E+00	-3.73E-01	-2.71E-01
	844	-2.20E-01	-3.11E-01	-3.27E-01	-2.68E-01	-2.11E-01	-1.69E-01
	845	-2.36E-01	-2.74E-01	-2.77E-01	-2.56E-01	-2.66E-01	-2.22E-01
	846	-2.18E-01	-2.85E-01	-3.17E-01	-2.65E-01	-4.38E-01	-4.66E-01
	847	-2.58E-01	-3.71E-01	-6.54E-01	-3.56E-01	-2.61E-01	-1.97E-01
	848	-2.48E-01	-2.82E-01	-2.95E-01	-3.15E-01	-3.16E-01	-2.36E-01
	MINIMUM	-2.58E-01	-3.71E-01	-6.54E-01	-3.56E-01	-4.38E-01	-4.66E-01
	MEAN	-2.36E-01	-3.05E-01	-3.74E-01	-2.92E-01	-2.98E-01	-2.58E-01
	MAXIMUM	-2.18E-01	-2.74E-01	-2.77E-01	-2.56E-01	-2.11E-01	-1.69E-01
	+P 99/90	-1.50E-01	-1.02E-01	4.42E-01	-7.37E-02	1.64E-01	3.80E-01
	-P 99/90	-3.22E-01	-5.07E-01	-1.19E+00	-5.10E-01	-7.61E-01	-8.96E-01
	SIGMA	1.85E-02	4.34E-02	1.75E-01	4.68E-02	9.92E-02	1.37E-01

LOAD REG 2 VOUT>=5V IL=10MA TO 0.5A

(%)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		2.40E+00	2.42E+00	1.49E+00	2.34E+00	2.44E+00
	844		-9.10E-02	-1.07E-01	-4.80E-02	9.00E-03	5.10E-02
	845		-3.80E-02	-4.10E-02	-2.00E-02	-3.00E-02	1.40E-02
	846		-6.70E-02	-9.90E-02	-4.70E-02	-2.20E-01	-2.48E-01
	847		-1.13E-01	-3.96E-01	-9.80E-02	-3.00E-03	6.10E-02
	848		-3.40E-02	-4.70E-02	-6.70E-02	-6.80E-02	1.20E-02
	MINIMUM		-1.13E-01	-3.96E-01	-9.80E-02	-2.20E-01	-2.48E-01
	MEAN		-7.73E-02	-1.61E-01	-5.33E-02	-6.10E-02	-3.05E-02
	MAXIMUM		-3.80E-02	-4.10E-02	-2.00E-02	9.00E-03	6.10E-02
	+P 99/90		7.30E-02	5.84E-01	9.85E-02	4.39E-01	6.53E-01
	-P 99/90		-2.28E-01	-9.05E-01	-2.05E-01	-5.61E-01	-7.14E-01
	SIGMA		3.22E-02	1.60E-01	3.25E-02	1.07E-01	1.46E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

BIAS CURRENT 1 VDIFF=3V IL=10MA

(UA)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.49E+01	-7.44E+01	-7.53E+01	-7.49E+01	-6.65E+01	-6.50E+01
	844	-6.80E+01	-7.27E+01	-7.34E+01	-7.31E+01	-6.46E+01	-6.55E+01
	845	-7.05E+01	-7.41E+01	-7.54E+01	-7.52E+01	-6.62E+01	-6.73E+01
	846	-6.31E+01	-7.26E+01	-7.34E+01	-7.37E+01	-6.41E+01	-6.57E+01
	847	-6.33E+01	-7.30E+01	-7.46E+01	-6.94E+01	-6.41E+01	-6.51E+01
	848	-6.41E+01	-7.46E+01	-7.37E+01	-7.48E+01	-6.57E+01	-6.67E+01
	MINIMUM	-7.05E+01	-7.46E+01	-7.54E+01	-7.52E+01	-6.62E+01	-6.73E+01
	MEAN	-6.58E+01	-7.34E+01	-7.41E+01	-7.32E+01	-6.49E+01	-6.61E+01
	MAXIMUM	-6.31E+01	-7.26E+01	-7.34E+01	-6.94E+01	-6.41E+01	-6.51E+01
	+P 99/90	-4.89E+01	-7.01E+01	-6.94E+01	-6.17E+01	-6.04E+01	-6.17E+01
	-P 99/90	-8.27E+01	-7.67E+01	-7.88E+01	-8.48E+01	-6.95E+01	-7.05E+01
	SIGMA	3.63E+00	7.05E-01	1.01E+00	2.48E+00	9.69E-01	9.46E-01

BIAS CURRENT 1 VDIFF=3V IL=10MA

(UA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-9.59E+00	-1.05E+01	-1.00E+01	-1.66E+00	-1.70E-01
	844		-4.71E+00	-5.38E+00	-5.11E+00	3.33E+00	2.49E+00
	845		-3.59E+00	-4.93E+00	-4.71E+00	4.36E+00	3.24E+00
	846		-9.44E+00	-1.03E+01	-1.06E+01	-9.90E-01	-2.60E+00
	847		-9.65E+00	-1.12E+01	-6.04E+00	-7.60E-01	-1.79E+00
	848		-1.05E+01	-9.52E+00	-1.06E+01	-1.52E+00	-2.59E+00
	MINIMUM		-9.65E+00	-1.12E+01	-1.06E+01	-9.90E-01	-2.60E+00
	MEAN		-6.85E+00	-7.95E+00	-6.61E+00	1.49E+00	3.35E-01
	MAXIMUM		-3.59E+00	-4.93E+00	-4.71E+00	4.36E+00	3.24E+00
	+P 99/90		7.85E+00	7.24E+00	6.03E+00	1.44E+01	1.41E+01
	-P 99/90		-2.15E+01	-2.31E+01	-1.93E+01	-1.14E+01	-1.35E+01
	SIGMA		3.15E+00	3.25E+00	2.71E+00	2.76E+00	2.96E+00

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**





I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

BIAS CURRENT 2 VDIFF=5V IL=10MA

(UA)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.50E+01	-7.03E+01	-7.19E+01	-7.21E+01	-6.67E+01	-6.51E+01
	844	-6.44E+01	-6.95E+01	-6.93E+01	-7.03E+01	-6.48E+01	-6.56E+01
	845	-6.70E+01	-7.09E+01	-7.14E+01	-7.18E+01	-6.62E+01	-6.75E+01
	846	-6.33E+01	-6.79E+01	-6.96E+01	-7.37E+01	-6.48E+01	-6.58E+01
	847	-6.37E+01	-6.97E+01	-7.08E+01	-6.96E+01	-6.45E+01	-6.47E+01
	848	-6.41E+01	-7.08E+01	-7.04E+01	-7.10E+01	-6.57E+01	-6.68E+01
	MINIMUM	-6.70E+01	-7.09E+01	-7.14E+01	-7.37E+01	-6.62E+01	-6.75E+01
	MEAN	-6.45E+01	-6.97E+01	-7.03E+01	-7.13E+01	-6.52E+01	-6.61E+01
	MAXIMUM	-6.33E+01	-6.79E+01	-6.93E+01	-6.96E+01	-6.45E+01	-6.47E+01
	+P 99/90	-5.67E+01	-6.40E+01	-6.56E+01	-6.28E+01	-6.16E+01	-6.06E+01
	-P 99/90	-7.23E+01	-7.55E+01	-7.50E+01	-7.98E+01	-6.88E+01	-7.16E+01
	SIGMA	1.67E+00	1.23E+00	1.01E+00	1.82E+00	7.71E-01	1.17E+00

BIAS CURRENT 2 VDIFF=5V IL=10MA

(UA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-5.29E+00	-6.82E+00	-7.07E+00	-1.66E+00	-8.00E-02
	844		-5.06E+00	-4.89E+00	-5.86E+00	-3.90E-01	-1.21E+00
	845		-3.86E+00	-4.42E+00	-4.84E+00	7.90E-01	-5.40E-01
	846		-4.62E+00	-6.31E+00	-1.05E+01	-1.57E+00	-2.55E+00
	847		-6.00E+00	-7.14E+00	-5.91E+00	-7.70E-01	-1.04E+00
	848		-6.71E+00	-6.31E+00	-6.96E+00	-1.66E+00	-2.77E+00
	MINIMUM		-6.00E+00	-7.14E+00	-1.05E+01	-1.57E+00	-2.55E+00
	MEAN		-4.89E+00	-5.69E+00	-6.77E+00	-4.85E-01	-1.34E+00
	MAXIMUM		-3.86E+00	-4.42E+00	-4.84E+00	7.90E-01	-5.40E-01
	+P 99/90		-7.16E-01	1.75E-01	4.93E+00	4.10E+00	2.67E+00
	-P 99/90		-9.05E+00	-1.16E+01	-1.85E+01	-5.07E+00	-5.34E+00
	SIGMA		8.93E-01	1.26E+00	2.51E+00	9.82E-01	8.58E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

BIAS CURRENT 3 VDIFF=40V IL=10MA		(UA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.60E+01	-7.02E+01	-7.19E+01	-7.19E+01	-6.70E+01	-6.51E+01
	844	-6.44E+01	-6.88E+01	-6.90E+01	-6.98E+01	-6.48E+01	-6.58E+01
	845	-6.62E+01	-7.01E+01	-7.13E+01	-7.16E+01	-6.63E+01	-6.77E+01
	846	-6.34E+01	-6.86E+01	-6.99E+01	-6.98E+01	-6.49E+01	-6.59E+01
	847	-6.37E+01	-6.91E+01	-7.02E+01	-6.97E+01	-6.45E+01	-6.54E+01
	848	-6.43E+01	-7.03E+01	-7.01E+01	-7.13E+01	-6.61E+01	-6.72E+01
	MINIMUM	-6.62E+01	-7.03E+01	-7.13E+01	-7.16E+01	-6.63E+01	-6.77E+01
	MEAN	-6.44E+01	-6.94E+01	-7.01E+01	-7.05E+01	-6.53E+01	-6.64E+01
	MAXIMUM	-6.34E+01	-6.86E+01	-6.90E+01	-6.97E+01	-6.45E+01	-6.54E+01
	+P 99/90	-5.86E+01	-6.62E+01	-6.56E+01	-6.61E+01	-6.15E+01	-6.17E+01
	-P 99/90	-7.02E+01	-7.26E+01	-7.46E+01	-7.48E+01	-6.92E+01	-7.11E+01
	SIGMA	1.24E+00	6.88E-01	9.58E-01	9.22E-01	8.23E-01	1.00E+00

BIAS CURRENT 3 VDIFF=40V IL=10MA		(UA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-4.26E+00	-5.88E+00	-5.95E+00	-1.00E+00	8.60E-01
	844		-4.40E+00	-4.62E+00	-5.42E+00	-4.60E-01	-1.48E+00
	845		-3.95E+00	-5.11E+00	-5.42E+00	-1.40E-01	-1.48E+00
	846		-5.19E+00	-6.46E+00	-6.35E+00	-1.48E+00	-2.50E+00
	847		-5.38E+00	-6.54E+00	-6.05E+00	-7.70E-01	-1.71E+00
	848		-5.95E+00	-5.73E+00	-7.02E+00	-1.75E+00	-2.86E+00
	MINIMUM		-5.38E+00	-6.54E+00	-6.35E+00	-1.48E+00	-2.50E+00
	MEAN		-4.73E+00	-5.68E+00	-5.81E+00	-7.12E-01	-1.79E+00
	MAXIMUM		-3.95E+00	-4.62E+00	-5.42E+00	-1.40E-01	-1.48E+00
	+P 99/90		-1.60E+00	-1.18E+00	-3.63E+00	1.96E+00	4.66E-01
	-P 99/90		-7.86E+00	-1.02E+01	-7.99E+00	-3.38E+00	-4.05E+00
	SIGMA		6.71E-01	9.65E-01	4.67E-01	5.73E-01	4.84E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
 RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV  
  
 D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
 LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
 P.O# 46147L  
  
**I C S RADIATION TECHNOLOGIES, INC.**  
 Page 20 of 35



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A

(UA)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	5.80E-01	-3.10E-01	1.30E-01	7.04E+01	3.60E-01	3.60E-01
	844	-3.60E-01	4.90E-01	-1.80E-01	-6.20E-01	-2.20E-01	4.00E-02
	845	-1.83E+00	4.50E-01	-2.70E-01	-4.00E-02	0.00E+00	4.00E-02
	846	-1.30E-01	1.80E-01	-2.00E-02	-6.97E-01	-2.70E-01	9.00E-02
	847	0.00E+00	-1.96E+00	-9.80E-01	-7.00E-02	-1.24E+00	4.00E-02
	848	0.00E+00	-5.30E-01	-6.70E-01	-5.80E-01	1.80E-01	-1.80E-01
	MINIMUM	-1.83E+00	-1.96E+00	-9.80E-01	-6.97E-01	-1.24E+00	-1.80E-01
	MEAN	-4.64E-01	-2.74E-01	-4.24E-01	-4.01E-01	-3.11E-01	6.00E-03
	MAXIMUM	0.00E+00	4.90E-01	-2.00E-02	-4.00E-02	1.80E-01	9.00E-02
	+P 99/90	3.49E+00	5.21E+00	1.56E+00	1.23E+00	2.27E+00	1.23E-01
	-P 99/90	-4.41E+00	-5.76E+00	-2.40E+00	-2.04E+00	-2.89E+00	-1.11E-01
	SIGMA	8.47E-01	1.17E+00	4.24E-01	3.50E-01	5.53E-01	2.50E-02

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A

(UA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-8.90E-01	-4.50E-01	6.98E+01	-2.20E-01	-2.20E-01
	844		8.50E-01	1.80E-01	-2.60E-01	1.40E-01	4.00E-01
	845		2.28E+00	1.56E+00	1.79E+00	1.83E+00	1.87E+00
	846		3.10E-01	1.10E-01	-5.67E-01	-1.40E-01	2.20E-01
	847		-1.96E+00	-9.80E-01	-7.00E-02	-1.24E+00	4.00E-02
	848		-5.30E-01	-6.70E-01	-5.80E-01	1.80E-01	-1.80E-01
	MINIMUM		-1.96E+00	-9.80E-01	-5.67E-01	-1.24E+00	4.00E-02
	MEAN		3.70E-01	2.18E-01	2.23E-01	1.47E-01	6.33E-01
	MAXIMUM		2.28E+00	1.56E+00	1.79E+00	1.83E+00	1.87E+00
	+P 99/90		8.59E+00	5.07E+00	5.19E+00	6.08E+00	4.54E+00
	-P 99/90		-7.85E+00	-4.64E+00	-4.74E+00	-5.79E+00	-3.28E+00
	SIGMA		1.76E+00	1.04E+00	1.06E+00	1.27E+00	8.38E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

BIAS CHANGE VDIFF=3V TO 36V IL=10MA

(UA)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	6.20E-01	3.10E-01	7.60E-01	1.80E-01	1.80E-01	2.00E-01
	844	-2.70E-01	4.00E-02	4.00E-01	8.90E-01	1.80E-01	1.30E-01
	845	9.00E-02	-2.20E-01	-9.00E-02	4.00E-02	9.00E-02	2.20E-01
	846	1.30E-01	8.50E-01	-9.00E-02	4.00E-01	9.00E-02	-1.30E-01
	847	2.70E-01	-1.60E-01	4.90E-01	1.10E-01	3.10E-01	5.60E-01
	848	4.00E-02	3.60E-01	7.00E-02	1.30E-01	2.70E-01	3.10E-01
	MINIMUM	-2.70E-01	-2.20E-01	-9.00E-02	4.00E-02	9.00E-02	-1.30E-01
	MEAN	5.20E-02	1.74E-01	1.56E-01	3.14E-01	1.88E-01	2.18E-01
	MAXIMUM	2.70E-01	8.50E-01	4.90E-01	8.90E-01	3.10E-01	5.60E-01
	+P 99/90	1.13E+00	2.48E+00	1.61E+00	2.12E+00	6.73E-01	1.55E+00
	-P 99/90	-1.02E+00	-2.13E+00	-1.30E+00	-1.49E+00	-2.97E-01	-1.11E+00
	SIGMA	2.30E-01	4.94E-01	3.11E-01	3.86E-01	1.04E-01	2.85E-01

BIAS CHANGE VDIFF=3V TO 36V IL=10MA

(UA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-3.10E-01	1.40E-01	-4.40E-01	-4.40E-01	-4.20E-01
	844		3.10E-01	6.70E-01	1.16E+00	4.50E-01	4.00E-01
	845		-3.10E-01	-1.80E-01	-5.00E-02	0.00E+00	1.30E-01
	846		7.20E-01	-2.20E-01	2.70E-01	-4.00E-02	-2.60E-01
	847		-4.30E-01	2.20E-01	-1.60E-01	4.00E-02	2.90E-01
	848		3.20E-01	3.00E-02	9.00E-02	2.30E-01	2.70E-01
	MINIMUM		-4.30E-01	-2.20E-01	-1.60E-01	-4.00E-02	-2.60E-01
	MEAN		7.25E-02	1.23E-01	3.05E-01	1.13E-01	1.40E-01
	MAXIMUM		7.20E-01	6.70E-01	1.16E+00	4.50E-01	4.00E-01
	+P 99/90		2.59E+00	2.06E+00	3.10E+00	1.17E+00	1.49E+00
	-P 99/90		-2.45E+00	-1.82E+00	-2.49E+00	-9.48E-01	-1.21E+00
	SIGMA		5.40E-01	4.16E-01	5.98E-01	2.27E-01	2.89E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**





I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

BIAS CHANGE VDIFF=3V TO 40V IL=10MA

(UA)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	3.10E-01	3.10E-01	4.00E-02	-1.60E-01	1.80E-01	2.00E-01
	844	-5.80E-01	1.60E-01	7.40E-01	4.50E-01	9.00E-02	0.00E+00
	845	4.90E-01	-5.10E-01	8.50E-01	1.80E-01	-1.80E-01	1.80E-01
	846	-9.00E-02	-5.80E-01	-2.70E-01	4.00E-01	-1.80E-01	9.00E-02
	847	1.80E-01	2.00E-01	-4.20E-01	9.00E-02	2.70E-01	1.80E-01
	848	4.00E-02	2.00E-01	7.80E-01	2.00E-01	9.00E-02	1.80E-01
	MINIMUM	-5.80E-01	-5.80E-01	-4.20E-01	9.00E-02	-1.80E-01	0.00E+00
	MEAN	8.00E-03	-1.06E-01	3.36E-01	2.64E-01	1.80E-02	1.26E-01
	MAXIMUM	4.90E-01	2.00E-01	8.50E-01	4.50E-01	2.70E-01	1.80E-01
	+P 99/90	2.12E+00	1.85E+00	3.43E+00	1.07E+00	1.05E+00	5.28E-01
	-P 99/90	-2.11E+00	-2.07E+00	-2.76E+00	-5.41E-01	-1.01E+00	-2.76E-01
	SIGMA	4.54E-01	4.20E-01	6.63E-01	1.73E-01	2.20E-01	8.62E-02

BIAS CHANGE VDIFF=3V TO 40V IL=10MA

(UA)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.00E+00	-2.70E-01	-4.70E-01	-1.30E-01	-1.10E-01
	844		7.40E-01	1.32E+00	1.03E+00	6.70E-01	5.80E-01
	845		-1.00E+00	3.60E-01	-3.10E-01	-6.70E-01	-3.10E-01
	846		-4.90E-01	-1.80E-01	4.90E-01	-9.00E-02	1.80E-01
	847		2.00E-02	-6.00E-01	-9.00E-02	9.00E-02	0.00E+00
	848		1.60E-01	7.40E-01	1.60E-01	5.00E-02	1.40E-01
	MINIMUM		-1.00E+00	-6.00E-01	-3.10E-01	-6.70E-01	-3.10E-01
	MEAN		-1.83E-01	2.25E-01	2.80E-01	6.94E-18	1.13E-01
	MAXIMUM		7.40E-01	1.32E+00	1.03E+00	6.70E-01	5.80E-01
	+P 99/90		3.28E+00	4.09E+00	3.09E+00	2.58E+00	1.85E+00
	-P 99/90		-3.65E+00	-3.64E+00	-2.53E+00	-2.58E+00	-1.62E+00
	SIGMA		7.43E-01	8.29E-01	6.03E-01	5.52E-01	3.72E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

MINIMUM LOAD CURRENT VDIFF=40V		(MA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.26E+00	-1.26E+00	-1.26E+00	-1.28E+00	-1.28E+00	-1.20E+00
	844	-1.28E+00	-1.26E+00	-1.26E+00	-1.28E+00	-1.28E+00	-1.22E+00
	845	-1.26E+00	-1.32E+00	-1.32E+00	-1.30E+00	-1.36E+00	-1.30E+00
	846	-1.26E+00	-1.28E+00	-1.28E+00	-1.25E+00	-1.32E+00	-1.26E+00
	847	-1.20E+00	-1.22E+00	-1.22E+00	-1.24E+00	-1.28E+00	-1.20E+00
	848	-1.28E+00	-1.30E+00	-1.30E+00	-1.32E+00	-1.34E+00	-1.28E+00
	MINIMUM	-1.28E+00	-1.32E+00	-1.32E+00	-1.32E+00	-1.36E+00	-1.30E+00
	MEAN	-1.25E+00	-1.27E+00	-1.27E+00	-1.28E+00	-1.31E+00	-1.25E+00
	MAXIMUM	-1.20E+00	-1.22E+00	-1.22E+00	-1.24E+00	-1.28E+00	-1.20E+00
	+P 99/90	-1.10E+00	-1.08E+00	-1.08E+00	-1.15E+00	-1.13E+00	-1.05E+00
	-P 99/90	-1.40E+00	-1.47E+00	-1.47E+00	-1.40E+00	-1.49E+00	-1.46E+00
	SIGMA	3.21E-02	4.16E-02	4.16E-02	2.72E-02	3.84E-02	4.43E-02

MINIMUM LOAD CURRENT VDIFF=40V		(MA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.00E+00	0.00E+00	-2.00E-02	-1.90E-02	5.80E-02
	844		2.00E-02	2.00E-02	0.00E+00	1.00E-03	5.80E-02
	845		-6.30E-02	-6.30E-02	-4.20E-02	-1.01E-01	-4.40E-02
	846		-2.00E-02	-2.00E-02	1.00E-02	-6.00E-02	-2.00E-03
	847		-1.60E-02	-1.60E-02	-3.60E-02	-7.40E-02	3.00E-03
	848		-2.00E-02	-2.00E-02	-4.10E-02	-6.00E-02	-2.00E-03
	MINIMUM		-6.30E-02	-6.30E-02	-4.20E-02	-1.01E-01	-4.40E-02
	MEAN		-1.98E-02	-1.98E-02	-1.70E-02	-5.85E-02	3.75E-03
	MAXIMUM		2.00E-02	2.00E-02	1.00E-02	1.00E-03	5.80E-02
	+P 99/90		1.39E-01	1.39E-01	1.04E-01	1.43E-01	1.99E-01
	-P 99/90		-1.78E-01	-1.78E-01	-1.38E-01	-2.60E-01	-1.92E-01
	SIGMA		3.40E-02	3.40E-02	2.58E-02	4.32E-02	4.19E-02

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

SHORT CIRCUIT CURRENT VIN-VOUT=15V

(A)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.14E+00	-1.14E+00	-1.14E+00	-1.14E+00	-1.13E+00	-1.14E+00
	844	-1.52E+00	-1.18E+00	-1.18E+00	-1.17E+00	-1.18E+00	-1.15E+00
	845	-1.19E+00	-1.21E+00	-1.21E+00	-1.21E+00	-1.22E+00	-1.19E+00
	846	-1.20E+00	-1.21E+00	-1.21E+00	-1.22E+00	-1.22E+00	-1.21E+00
	847	-1.19E+00	-1.20E+00	-1.21E+00	-1.22E+00	-1.21E+00	-1.18E+00
	848	-1.16E+00	-1.18E+00	-1.18E+00	-1.18E+00	-1.18E+00	-1.16E+00
	MINIMUM	-1.52E+00	-1.21E+00	-1.21E+00	-1.22E+00	-1.22E+00	-1.21E+00
	MEAN	-1.25E+00	-1.20E+00	-1.20E+00	-1.20E+00	-1.20E+00	-1.18E+00
	MAXIMUM	-1.16E+00	-1.18E+00	-1.18E+00	-1.17E+00	-1.18E+00	-1.15E+00
	+P 99/90	-4.82E-01	-1.12E+00	-1.12E+00	-1.10E+00	-1.11E+00	-1.07E+00
	-P 99/90	-2.02E+00	-1.27E+00	-1.28E+00	-1.31E+00	-1.30E+00	-1.28E+00
	SIGMA	1.65E-01	1.63E-02	1.70E-02	2.26E-02	2.08E-02	2.30E-02

SHORT CIRCUIT CURRENT VIN-VOUT=15V

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00
	844		3.41E-01	3.41E-01	3.46E-01	3.42E-01	3.70E-01
	845		-2.80E-02	-2.80E-02	-2.80E-02	-3.70E-02	-3.00E-03
	846		-1.60E-02	-1.60E-02	-2.10E-02	-2.50E-02	-8.00E-03
	847		-5.00E-03	-2.20E-02	-3.30E-02	-2.00E-02	8.00E-03
	848		-2.10E-02	-2.10E-02	-8.49E+02	-2.00E-02	-3.00E-03
	MINIMUM		-2.80E-02	-2.80E-02	-3.30E-02	-3.70E-02	-8.00E-03
	MEAN		7.30E-02	6.88E-02	6.60E-02	6.50E-02	9.18E-02
	MAXIMUM		3.41E-01	3.41E-01	3.46E-01	3.42E-01	3.70E-01
	+P 99/90		9.08E-01	9.16E-01	9.37E-01	9.27E-01	9.58E-01
	-P 99/90		-7.62E-01	-7.78E-01	-8.05E-01	-7.97E-01	-7.74E-01
	SIGMA		1.79E-01	1.82E-01	1.87E-01	1.85E-01	1.86E-01

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

SHORT CIRCUIT CURRENT VIN-VOUT=40V

(A)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-2.58E-01	-2.80E-01	-2.80E-01	-2.80E-01	-2.56E-01	-2.64E-01
	844	-2.91E-01	-3.02E-01	-3.02E-01	-2.96E-01	-2.78E-01	-2.83E-01
	845	-2.91E-01	-3.02E-01	-3.07E-01	-3.07E-01	-2.89E-01	-2.77E-01
	846	-3.08E-01	-3.34E-01	-3.24E-01	-3.24E-01	-3.06E-01	-3.00E-01
	847	-2.91E-01	-3.13E-01	-3.24E-01	-3.07E-01	-3.00E-01	-2.94E-01
	848	-2.58E-01	-2.96E-01	-2.91E-01	-2.96E-01	-2.78E-01	-2.72E-01
	MINIMUM	-3.08E-01	-3.34E-01	-3.24E-01	-3.24E-01	-3.06E-01	-3.00E-01
	MEAN	-2.88E-01	-3.09E-01	-3.10E-01	-3.06E-01	-2.90E-01	-2.85E-01
	MAXIMUM	-2.58E-01	-2.96E-01	-2.91E-01	-2.96E-01	-2.78E-01	-2.72E-01
	+P 99/90	-2.48E-01	-2.39E-01	-2.56E-01	-2.52E-01	-2.33E-01	-2.37E-01
	-P 99/90	-3.27E-01	-3.80E-01	-3.63E-01	-3.60E-01	-3.48E-01	-3.34E-01
	SIGMA	8.50E-03	1.51E-02	1.14E-02	1.16E-02	1.24E-02	1.04E-02

SHORT CIRCUIT CURRENT VIN-VOUT=40V

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-2.20E-02	-2.20E-02	-2.20E-02	2.00E-03	-6.00E-03
	844		-1.10E-02	-1.10E-02	-5.00E-03	1.30E-02	8.00E-03
	845		-1.10E-02	-1.60E-02	-1.60E-02	2.00E-03	1.40E-02
	846		-2.60E-02	-1.60E-02	-1.60E-02	2.00E-03	8.00E-03
	847		-2.20E-02	-3.30E-02	-1.60E-02	-9.00E-03	-3.00E-03
	848		-3.80E-02	-3.30E-02	-3.80E-02	-2.00E-02	-1.40E-02
	MINIMUM		-2.60E-02	-3.30E-02	-1.60E-02	-9.00E-03	-3.00E-03
	MEAN		-1.75E-02	-1.90E-02	-1.33E-02	2.00E-03	6.75E-03
	MAXIMUM		-1.10E-02	-1.10E-02	-5.00E-03	1.30E-02	1.40E-02
	+P 99/90		1.83E-02	2.59E-02	1.24E-02	4.39E-02	3.98E-02
	-P 99/90		-5.33E-02	-6.39E-02	-3.89E-02	-3.99E-02	-2.63E-02
	SIGMA		7.68E-03	9.63E-03	5.50E-03	8.98E-03	7.09E-03

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



---

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"

RIPPLE REJECTION CADJ=10UF VOUT=10V		(DB)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	1.25E+02	1.27E+02	1.26E+02	1.24E+02	1.29E+02	1.27E+02
	844	1.23E+02	1.25E+02	1.25E+02	1.25E+02	1.25E+02	1.25E+02
	845	1.24E+02	1.25E+02	1.24E+02	1.23E+02	1.23E+02	1.26E+02
	846	1.25E+02	1.26E+02	1.26E+02	1.25E+02	1.25E+02	1.25E+02
	847	1.24E+02	1.25E+02	1.23E+02	1.23E+02	1.24E+02	1.27E+02
	848	1.25E+02	1.23E+02	1.27E+02	1.22E+02	1.24E+02	1.23E+02
	MINIMUM	1.23E+02	1.23E+02	1.23E+02	1.22E+02	1.23E+02	1.23E+02
	MEAN	1.24E+02	1.25E+02	1.25E+02	1.24E+02	1.24E+02	1.25E+02
	MAXIMUM	1.25E+02	1.26E+02	1.27E+02	1.25E+02	1.25E+02	1.27E+02
	+P 99/90	1.29E+02	1.27E+02	1.32E+02	1.30E+02	1.29E+02	1.30E+02
	-P 99/90	1.19E+02	1.22E+02	1.18E+02	1.18E+02	1.20E+02	1.21E+02
	SIGMA	9.97E-01	5.67E-01	1.53E+00	1.26E+00	1.02E+00	9.36E-01

RIPPLE REJECTION CADJ=10UF VOUT=10V		(DB)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	"BIASED"	"BIASED"
						ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		1.96E+00	1.75E+00	-6.00E-01	4.85E+00	2.04E+00
	844		2.03E+00	1.90E+00	2.10E+00	2.69E+00	2.55E+00
	845		1.26E+00	6.10E-01	-8.70E-01	-2.20E-01	2.82E+00
	846		8.50E-01	1.24E+00	-7.00E-02	5.00E-02	-3.10E-01
	847		1.12E+00	-1.23E+00	-1.07E+00	-1.50E-01	2.94E+00
	848		-2.13E+00	1.64E+00	-2.57E+00	-1.13E+00	-2.02E+00
	MINIMUM		8.50E-01	-1.23E+00	-1.07E+00	-2.20E-01	-3.10E-01
	MEAN		1.32E+00	6.30E-01	2.25E-02	5.93E-01	2.00E+00
	MAXIMUM		2.03E+00	1.90E+00	2.10E+00	2.69E+00	2.94E+00
	+P 99/90		3.68E+00	6.92E+00	6.79E+00	7.14E+00	9.23E+00
	-P 99/90		-1.05E+00	-5.66E+00	-6.75E+00	-5.95E+00	-5.23E+00
	SIGMA		5.06E-01	1.35E+00	1.45E+00	1.40E+00	1.55E+00

DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "BIASED"  
RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-PIN || LOT# 10641855.1 || WAFER# 5  
LOG# 1603 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

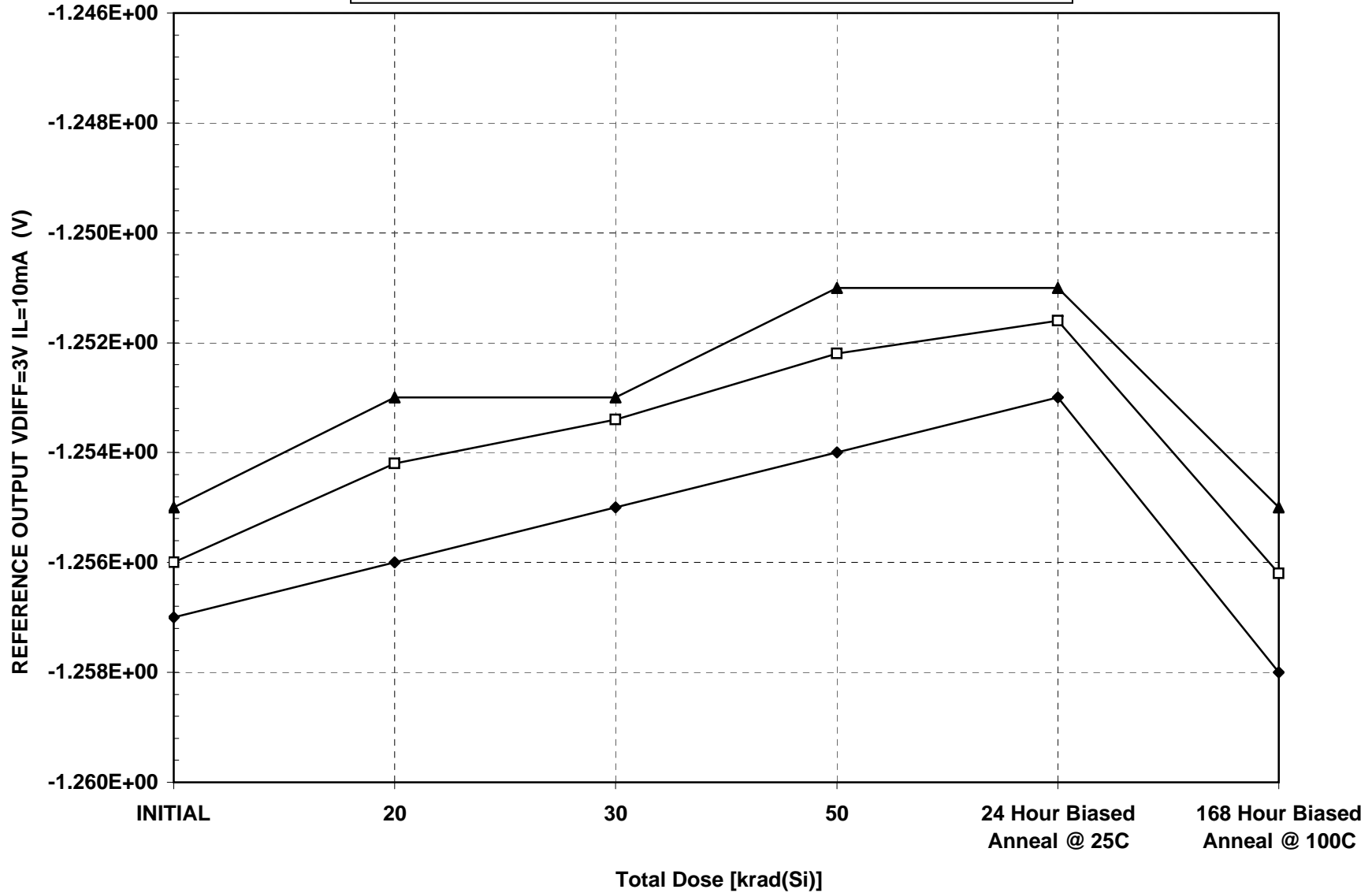
**I C S RADIATION TECHNOLOGIES, INC.**



# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

REFERENCE OUTPUT VDIFF=3V IL=10mA (V)

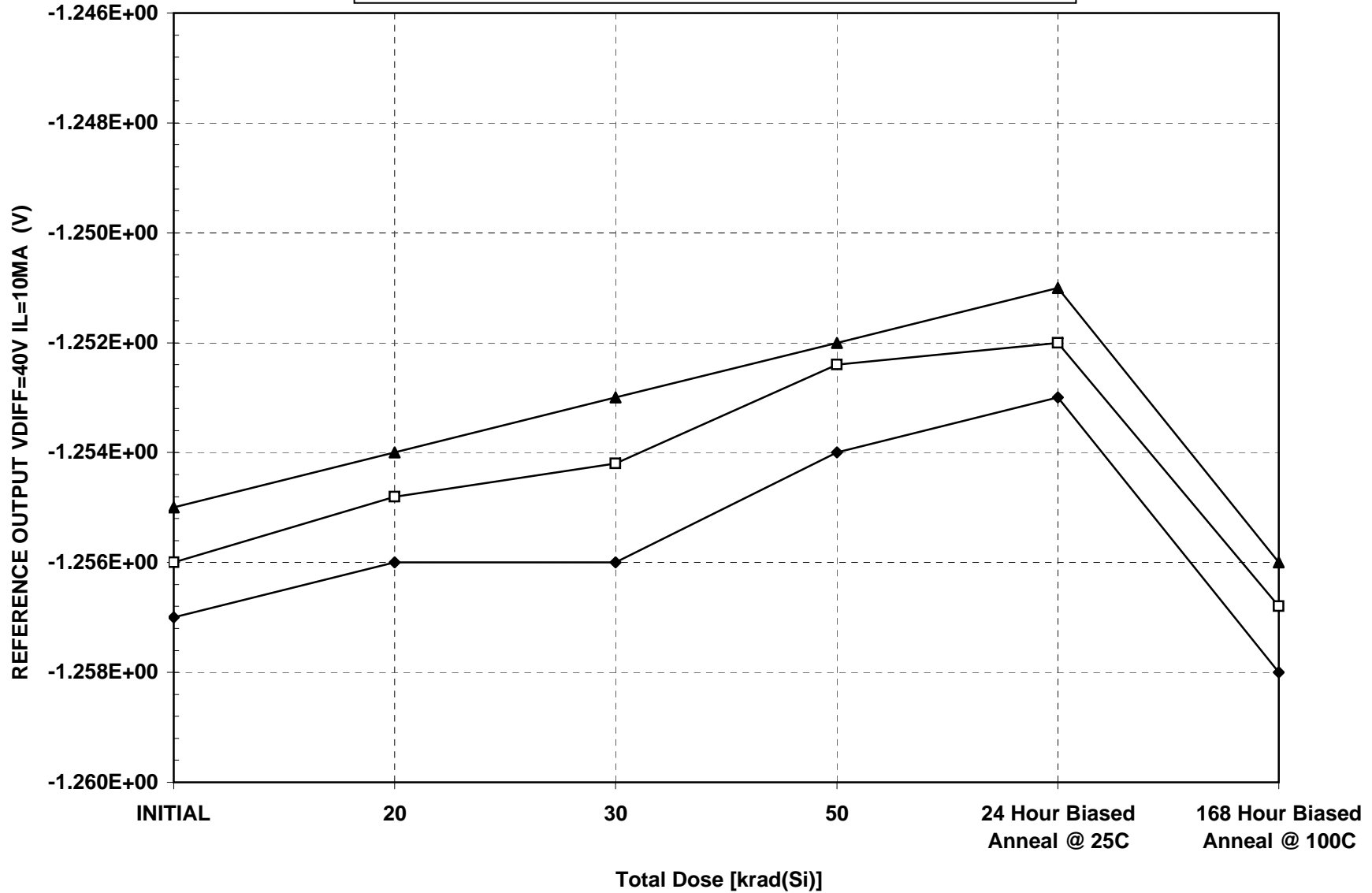


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

I C S Radiation Test Results Log # 1603 5/31/07

REFERENCE OUTPUT VDIFF=40V IL=10MA (V)

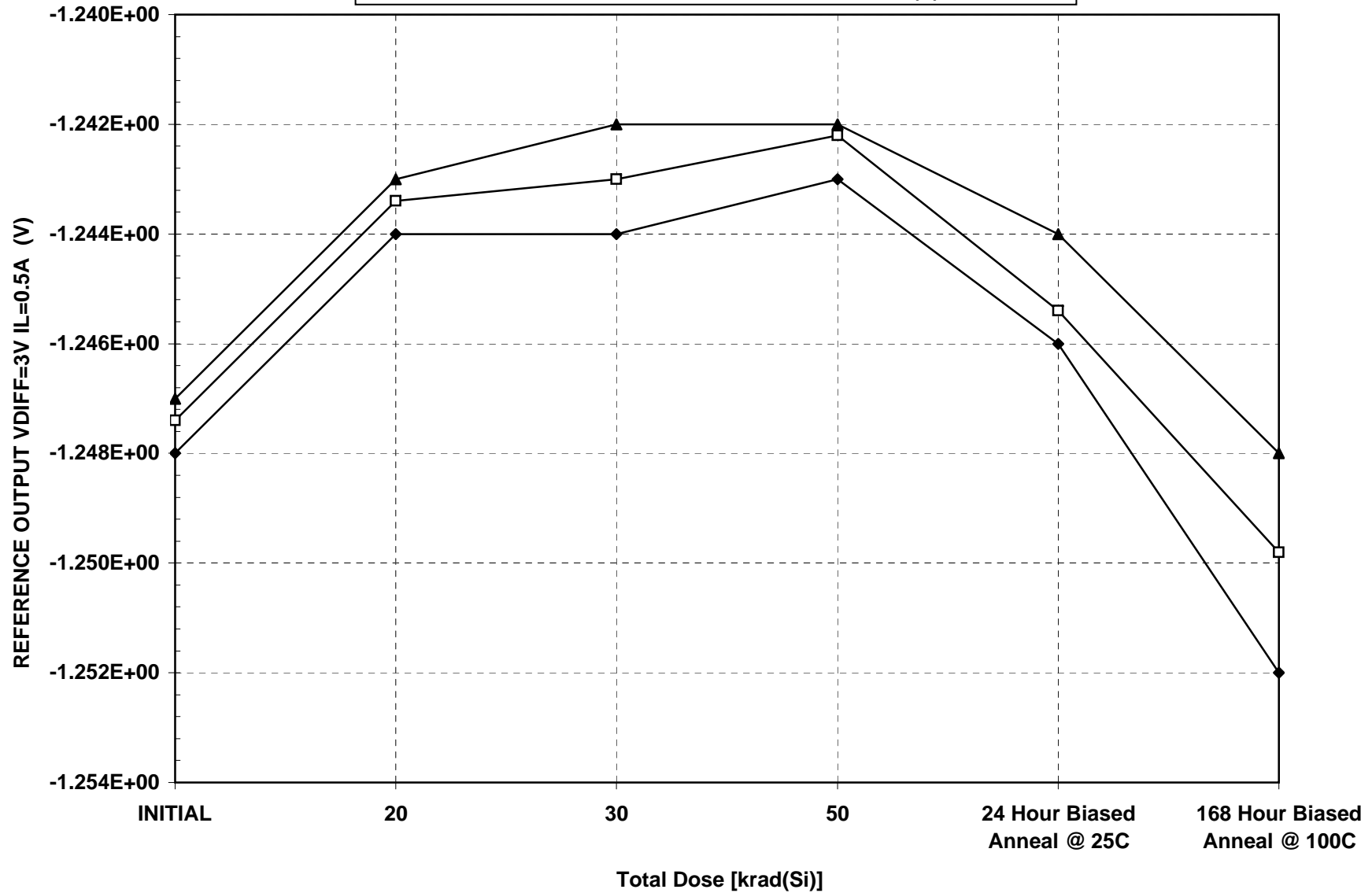


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

I C S Radiation Test Results Log # 1603 5/31/07

REFERENCE OUTPUT VDIFF=3V IL=0.5A (V)

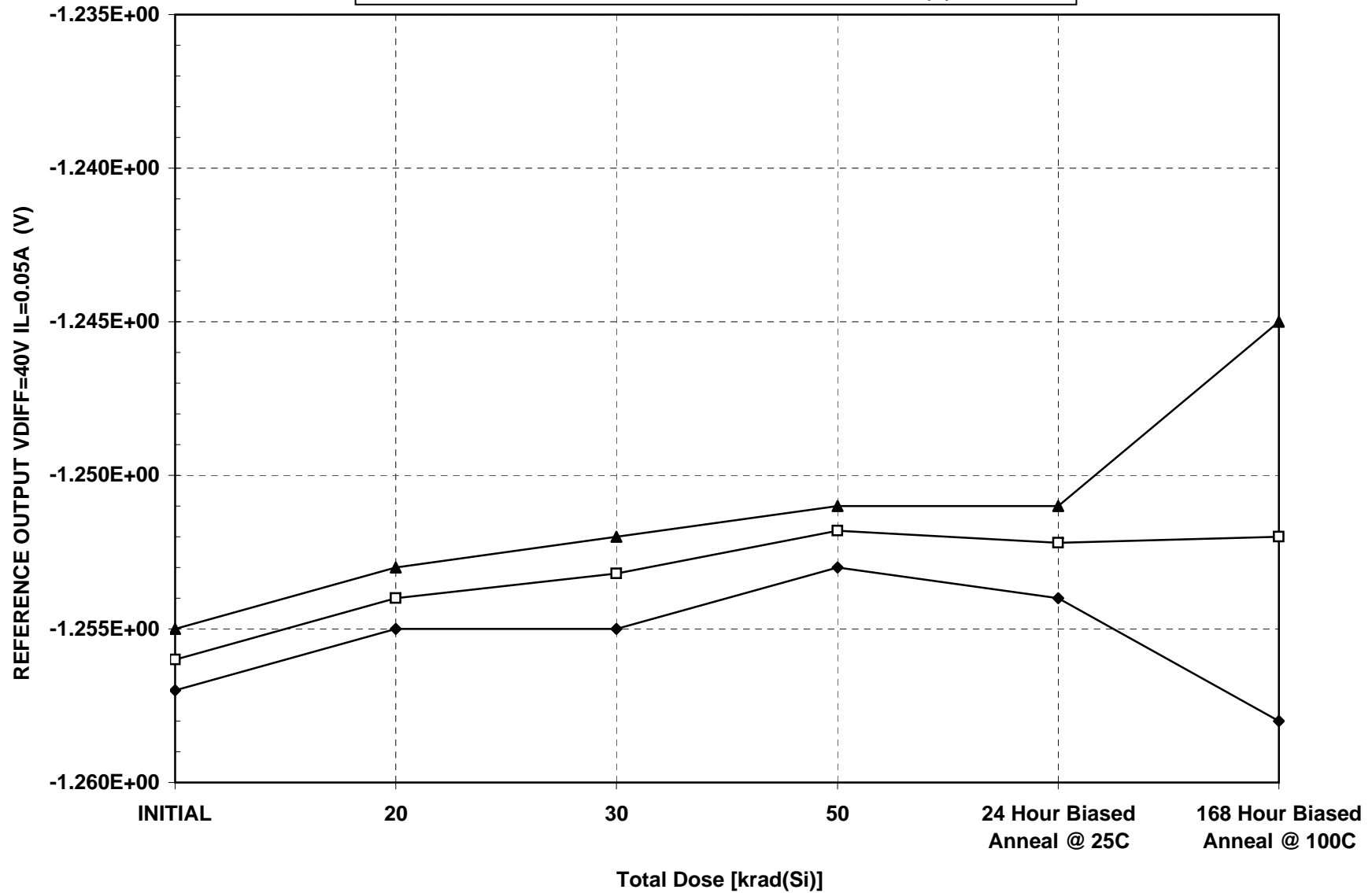


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

REFERENCE OUTPUT VDIFF=40V IL=0.05A (V)

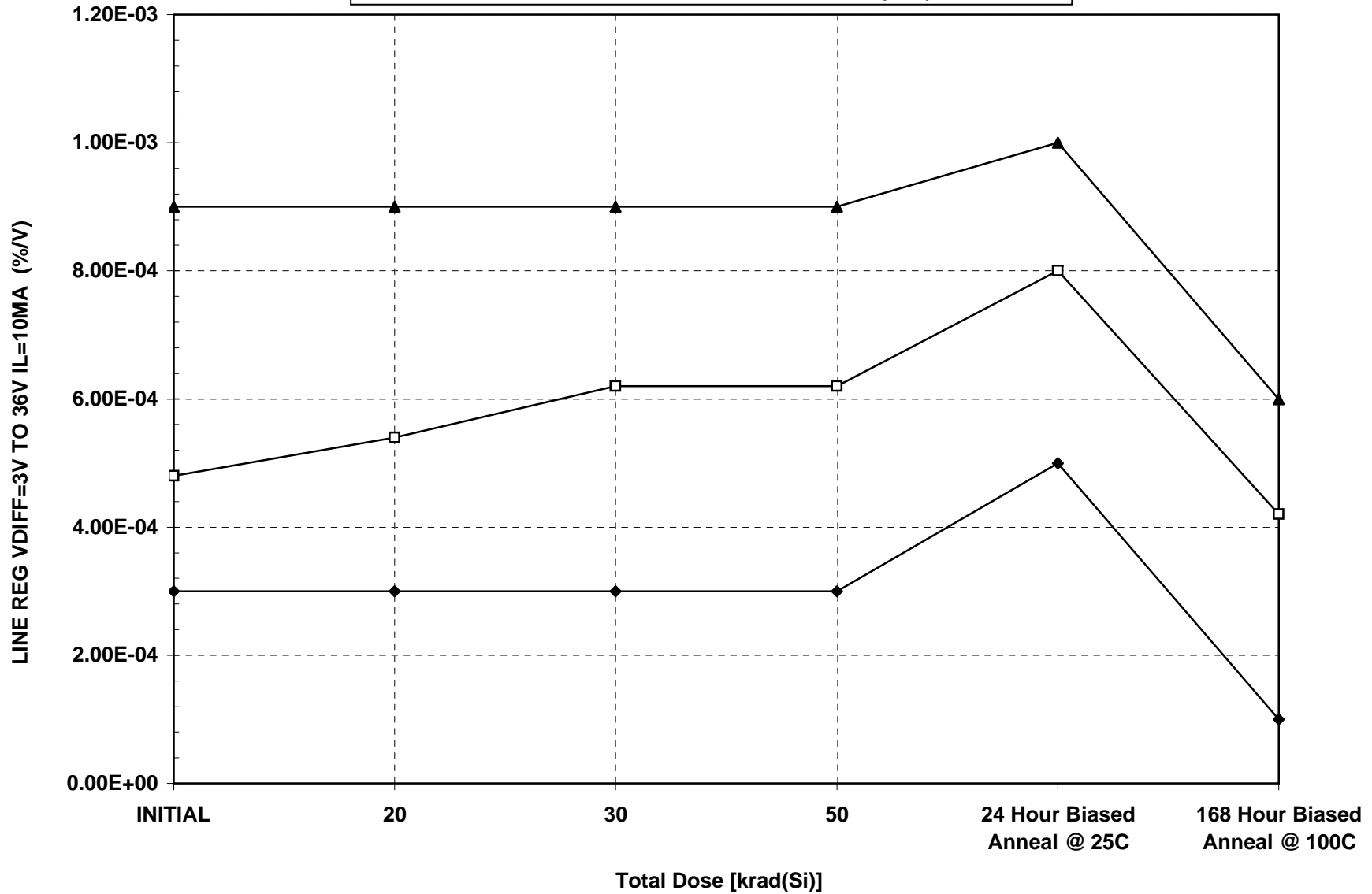


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

LINE REG VDIFF=3V TO 36V IL=10MA (%V)



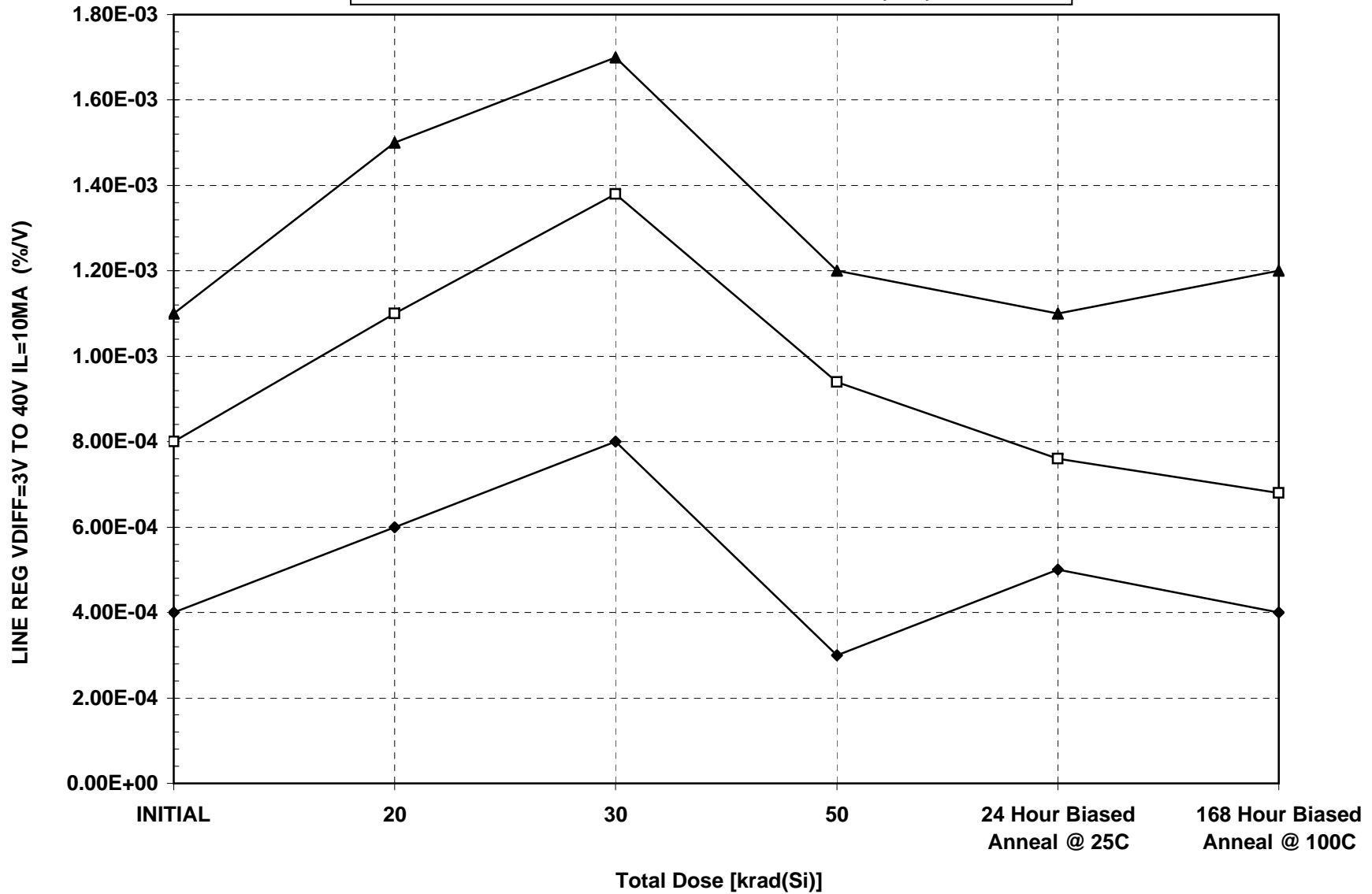
◆ MINIMUM      □ MEAN      ▲ MAXIMUM



# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

LINE REG VDIFF=3V TO 40V IL=10MA (%V)

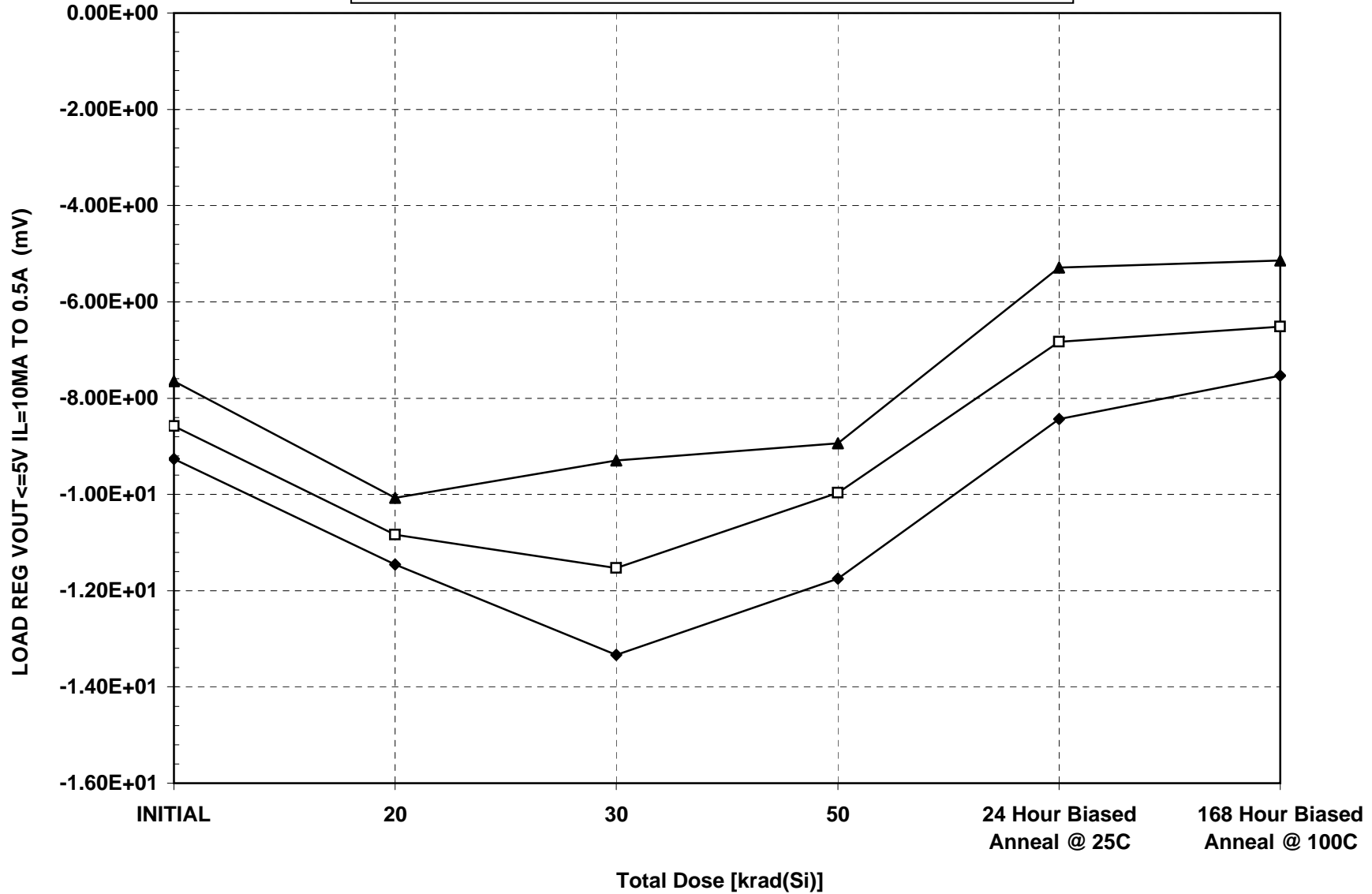


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

LOAD REG VOUT<=5V IL=10MA TO 0.5A (mV)

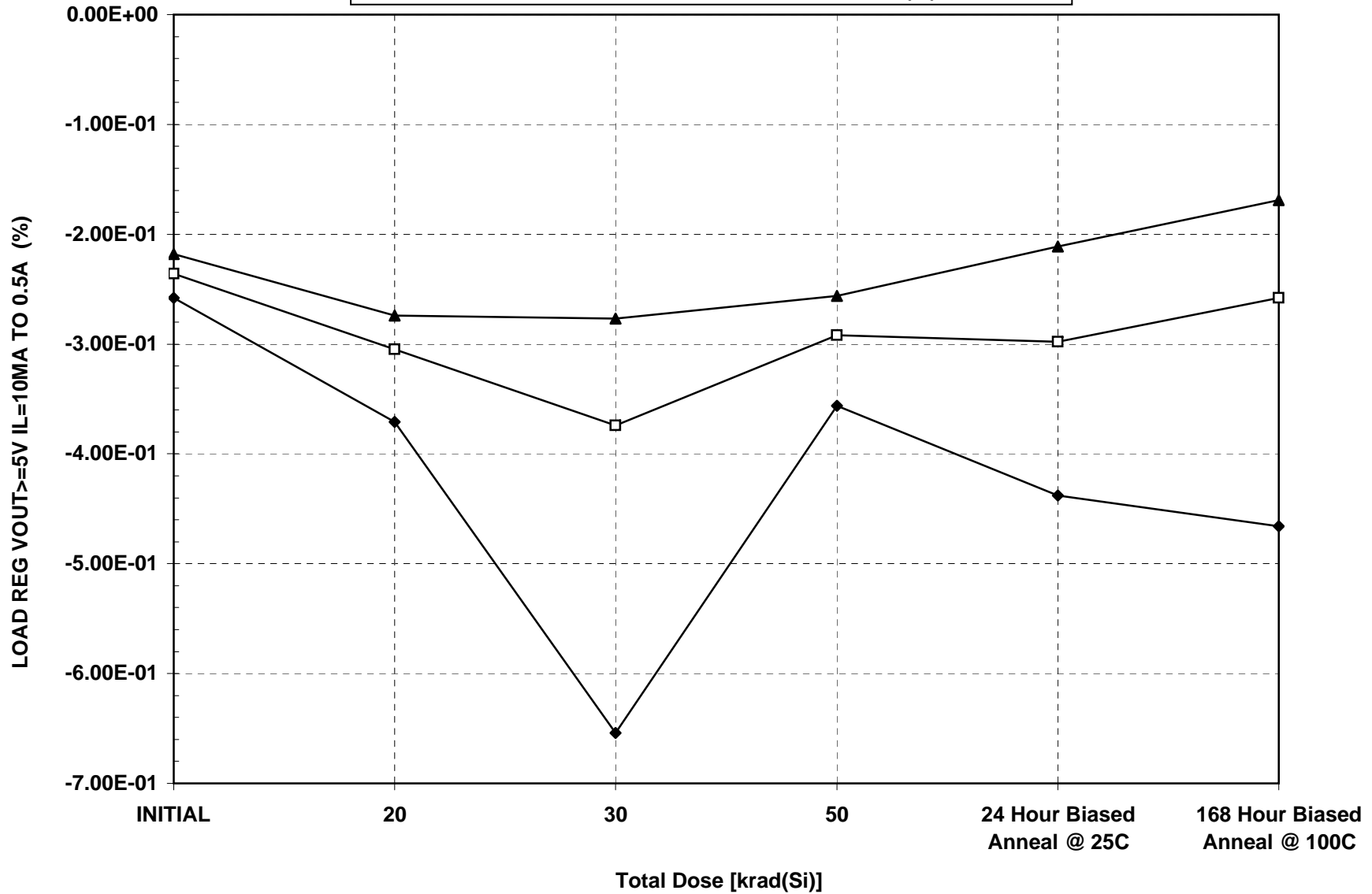


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

LOAD REG VOUT >= 5V IL=10MA TO 0.5A (%)

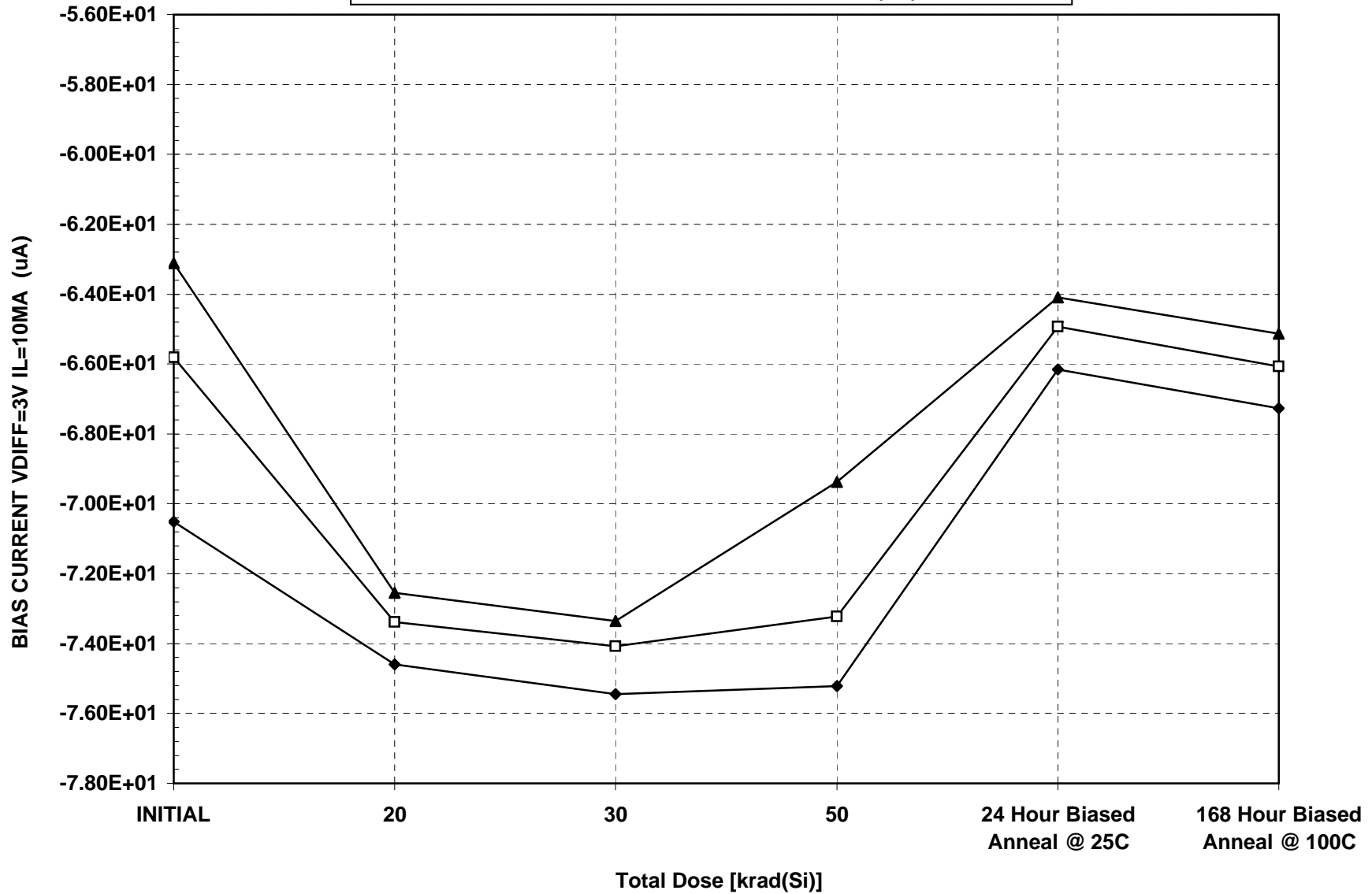


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

BIAS CURRENT VDIFF=3V IL=10MA (uA)

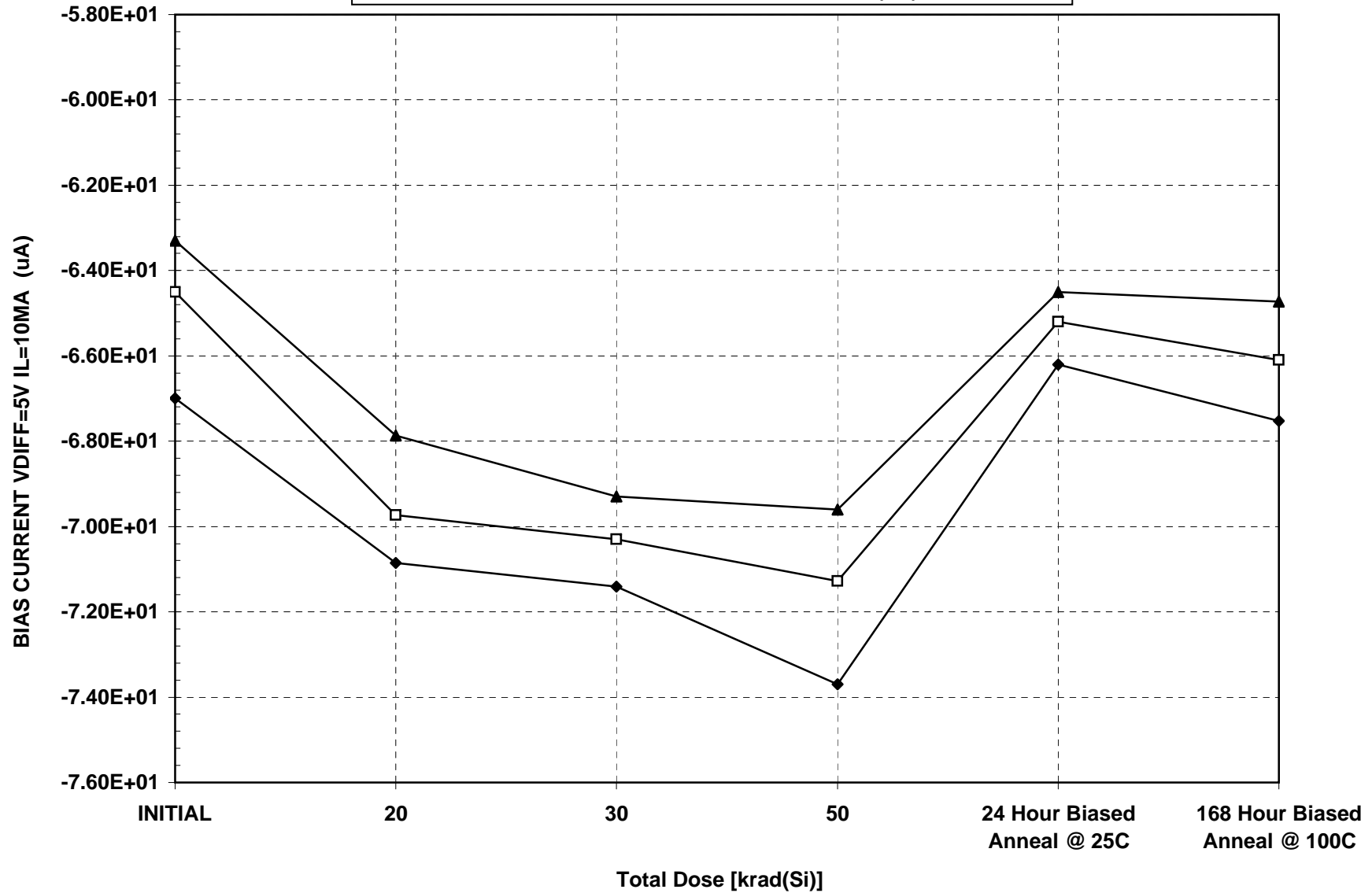


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

BIAS CURRENT VDIFF=5V IL=10MA ( $\mu$ A)

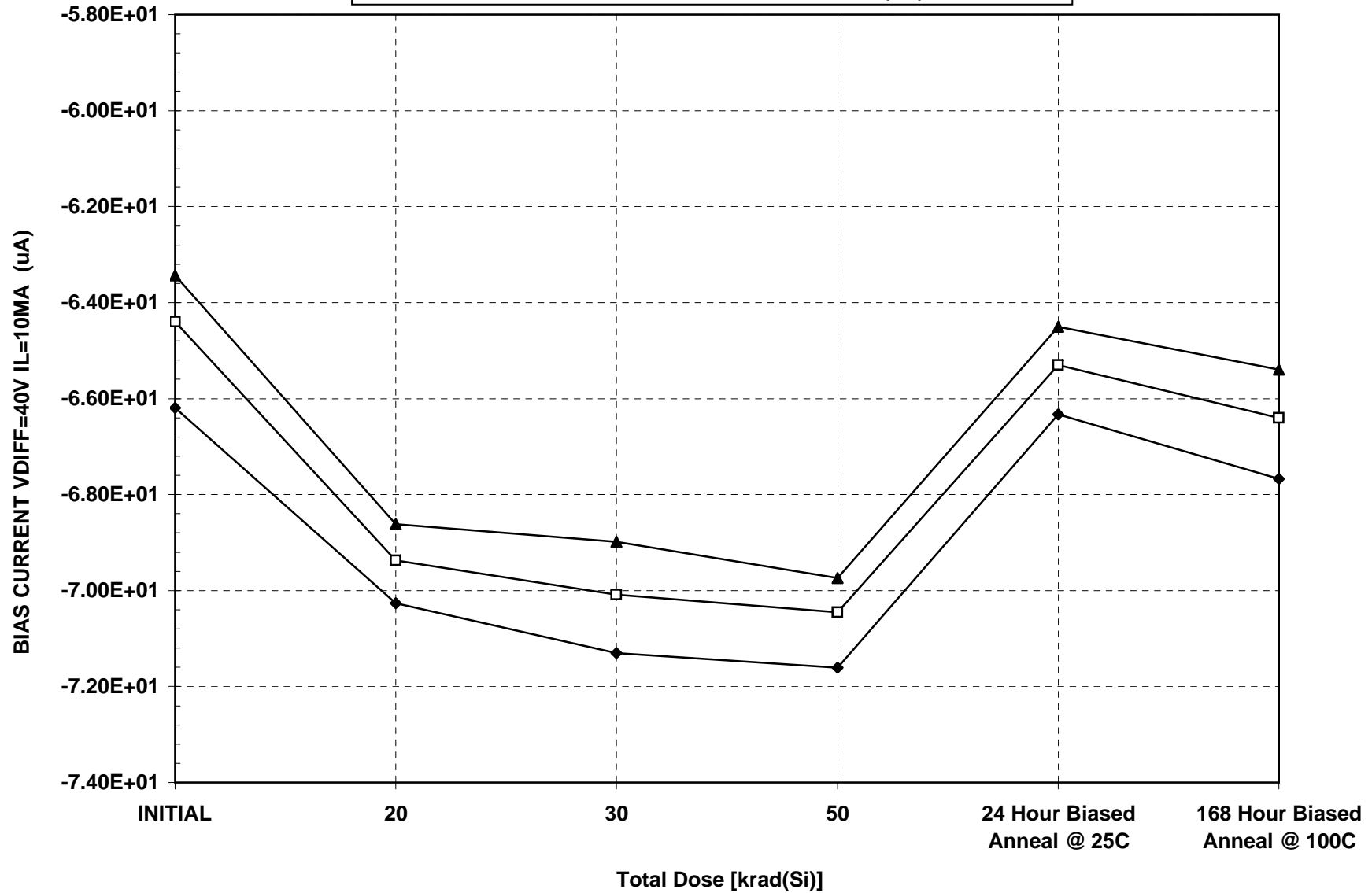


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

BIAS CURRENT VDIFF=40V IL=10MA (uA)

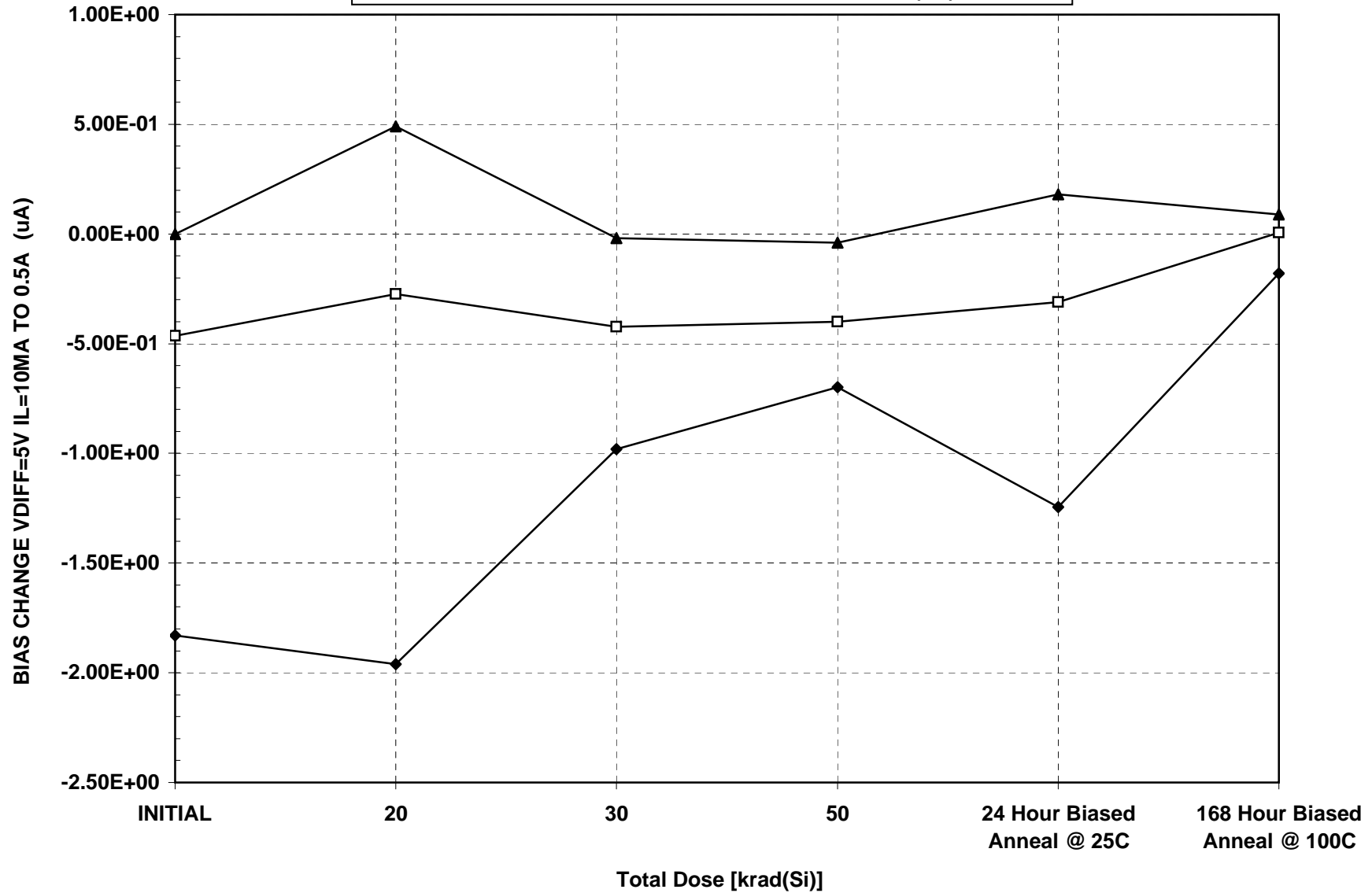


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A ( $\mu$ A)

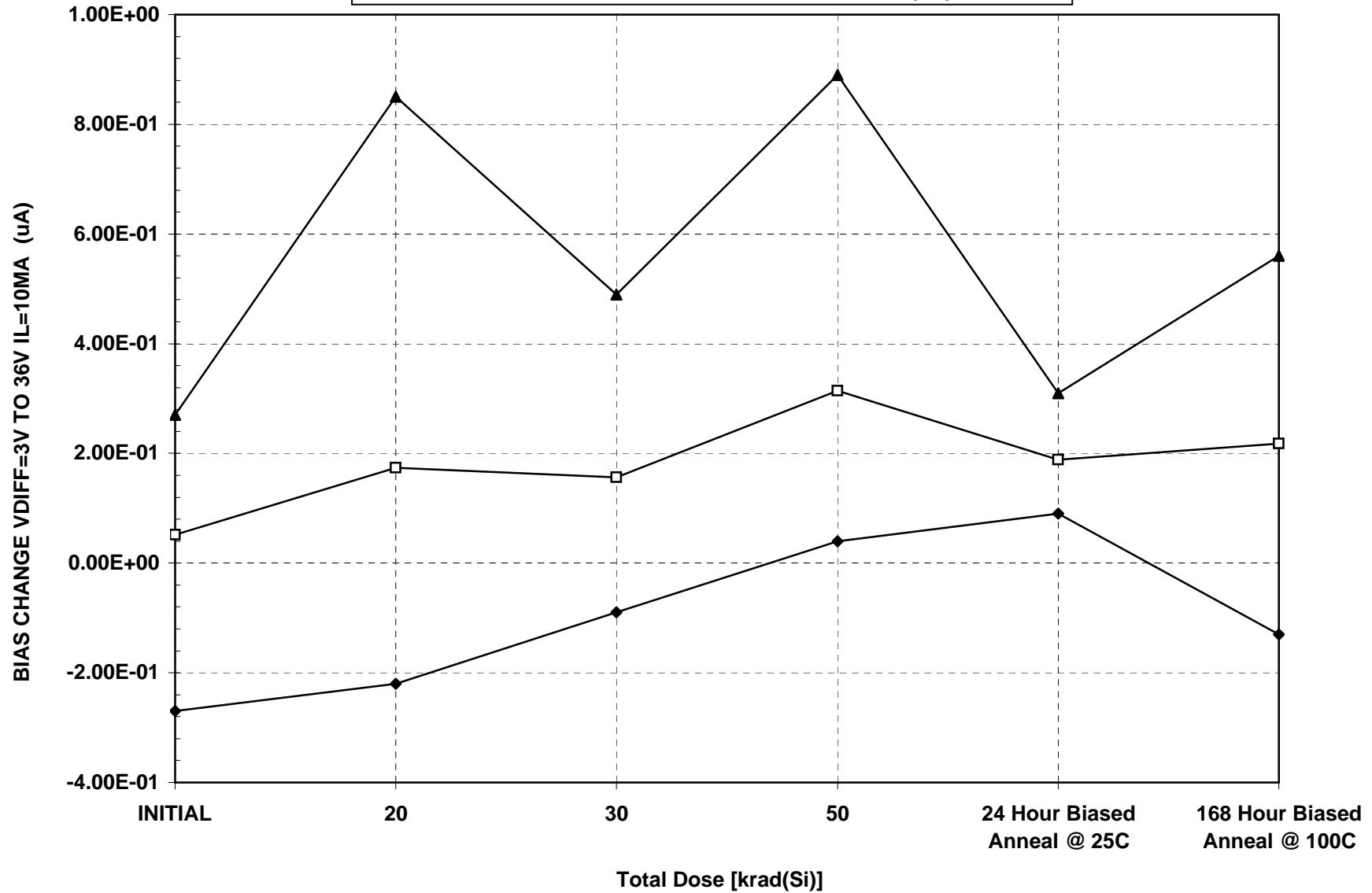


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

BIAS CHANGE VDIFF=3V TO 36V IL=10MA (uA)



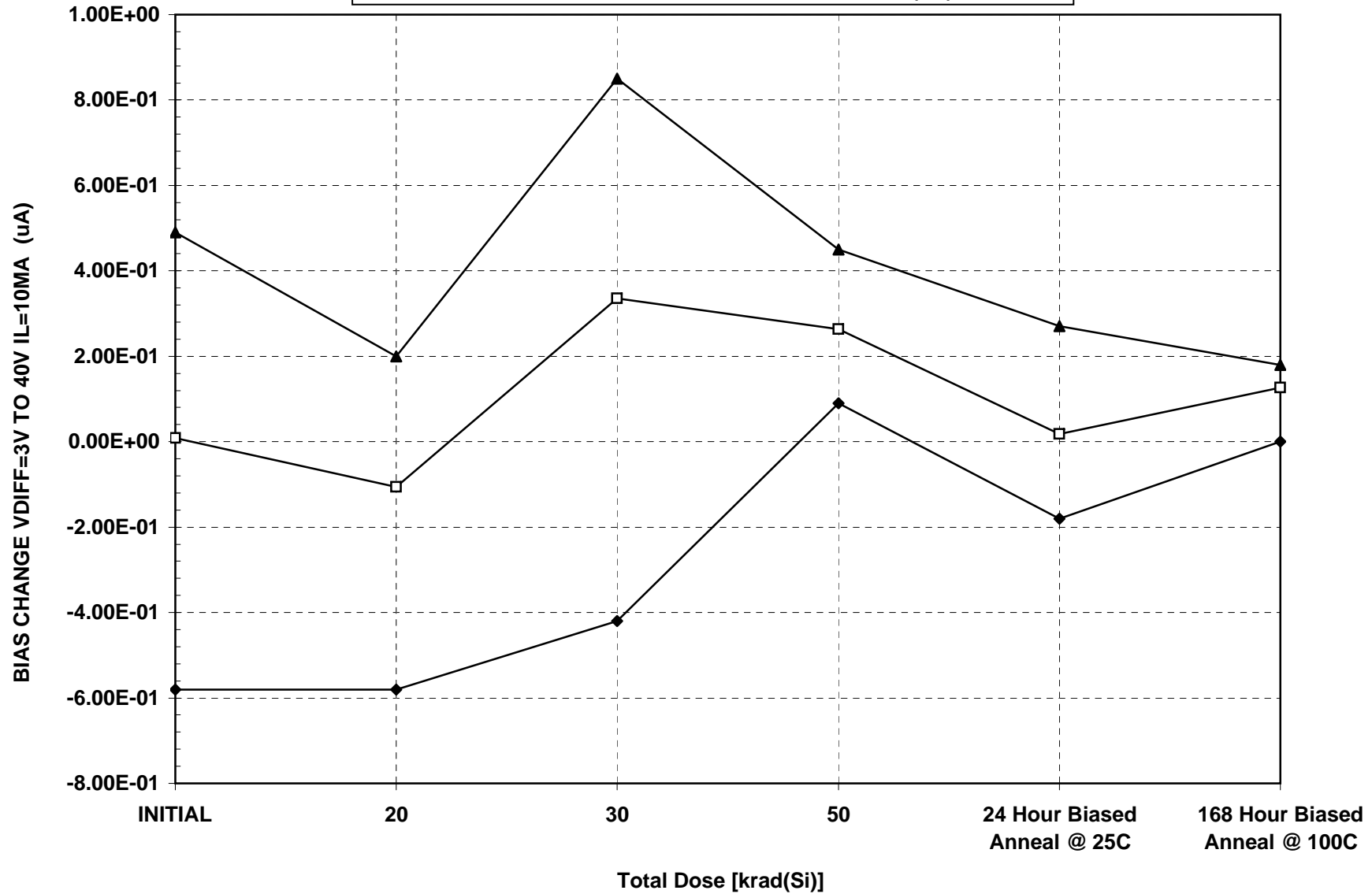
◆ MINIMUM    □ MEAN    ▲ MAXIMUM



# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

BIAS CHANGE VDIFF=3V TO 40V IL=10MA (uA)

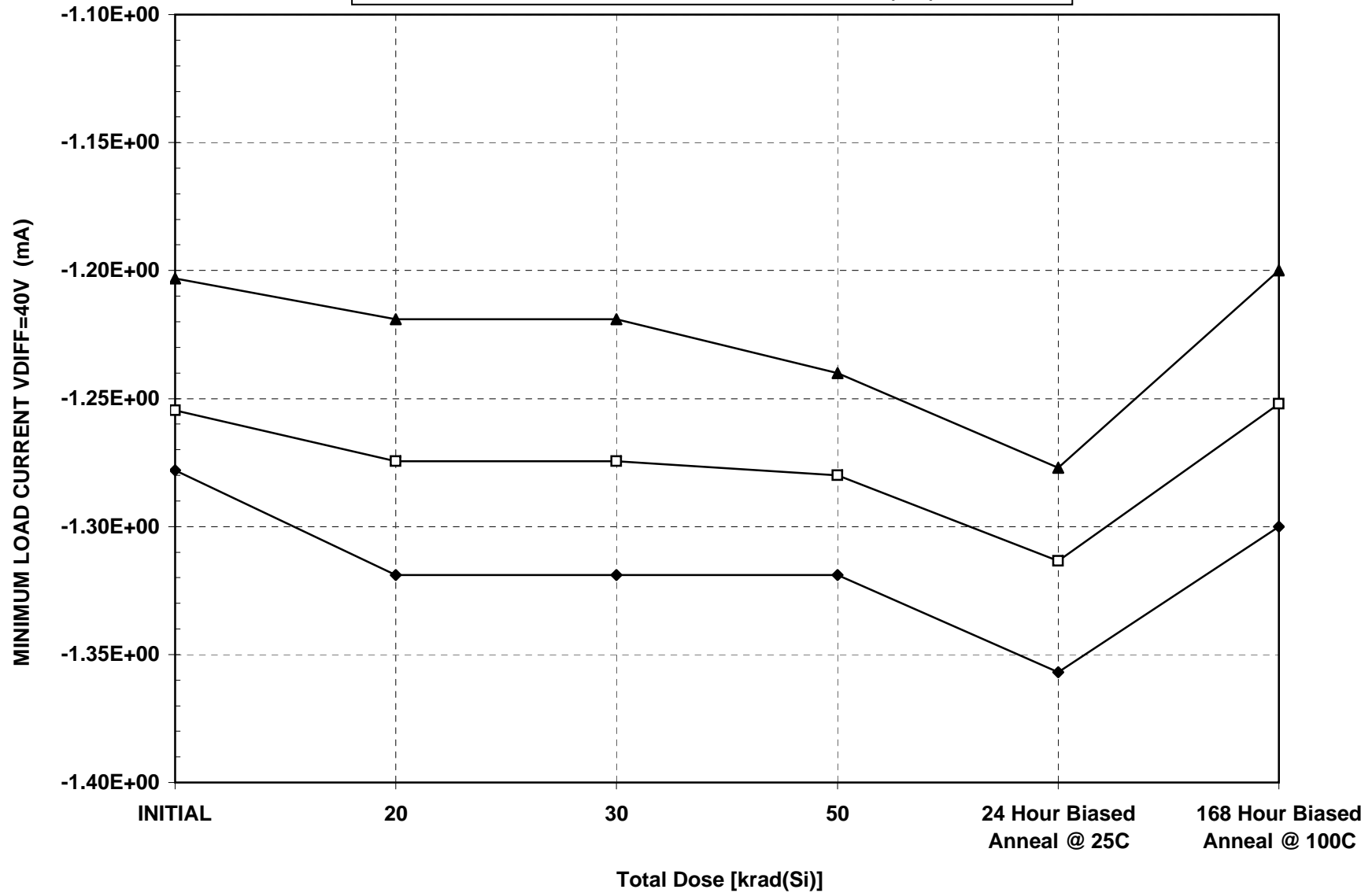


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

MINIMUM LOAD CURRENT VDIFF=40V (mA)

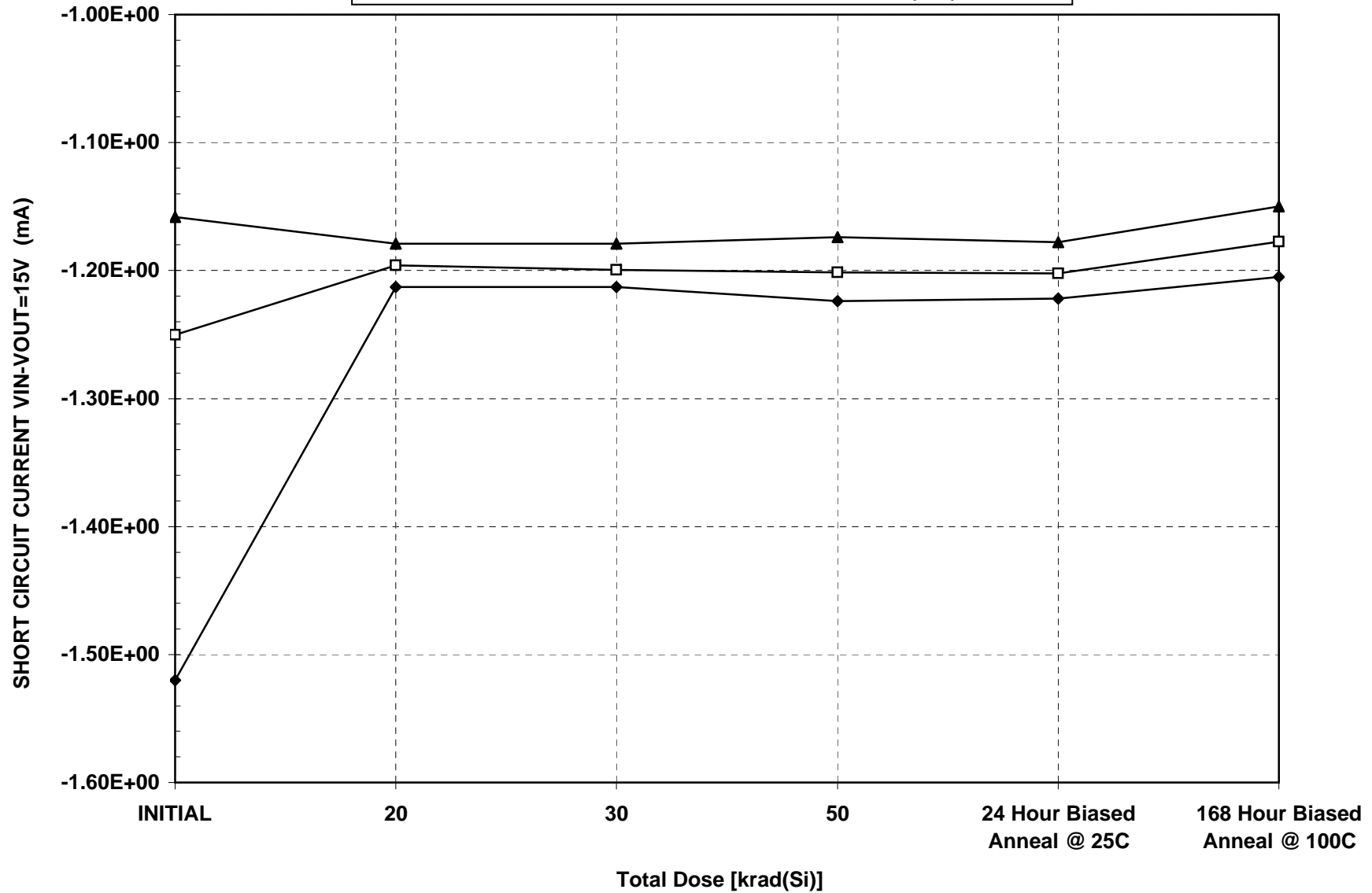


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

SHORT CIRCUIT CURRENT VIN-VOUT=15V (mA)

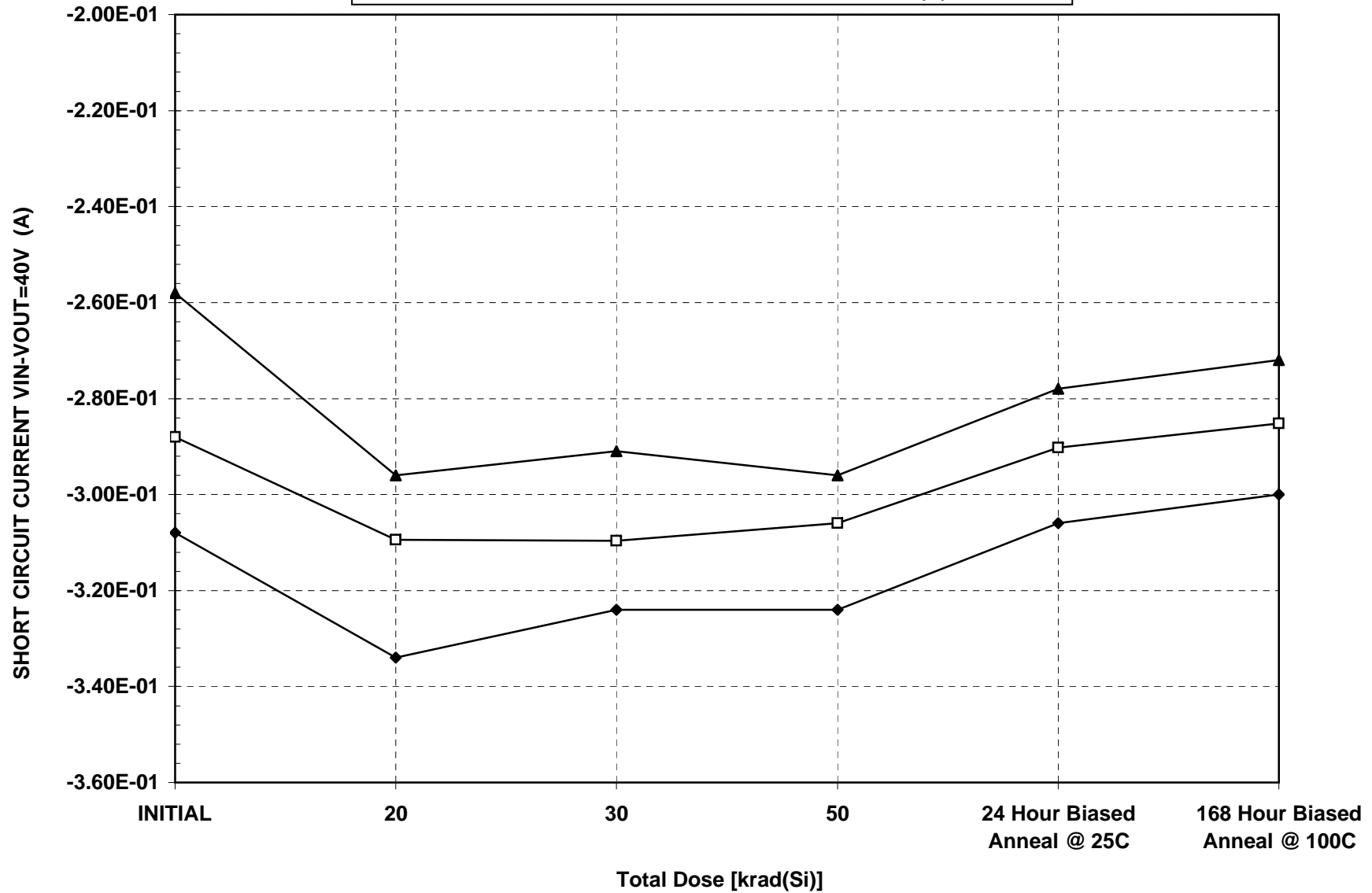


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

SHORT CIRCUIT CURRENT VIN-VOUT=40V (A)

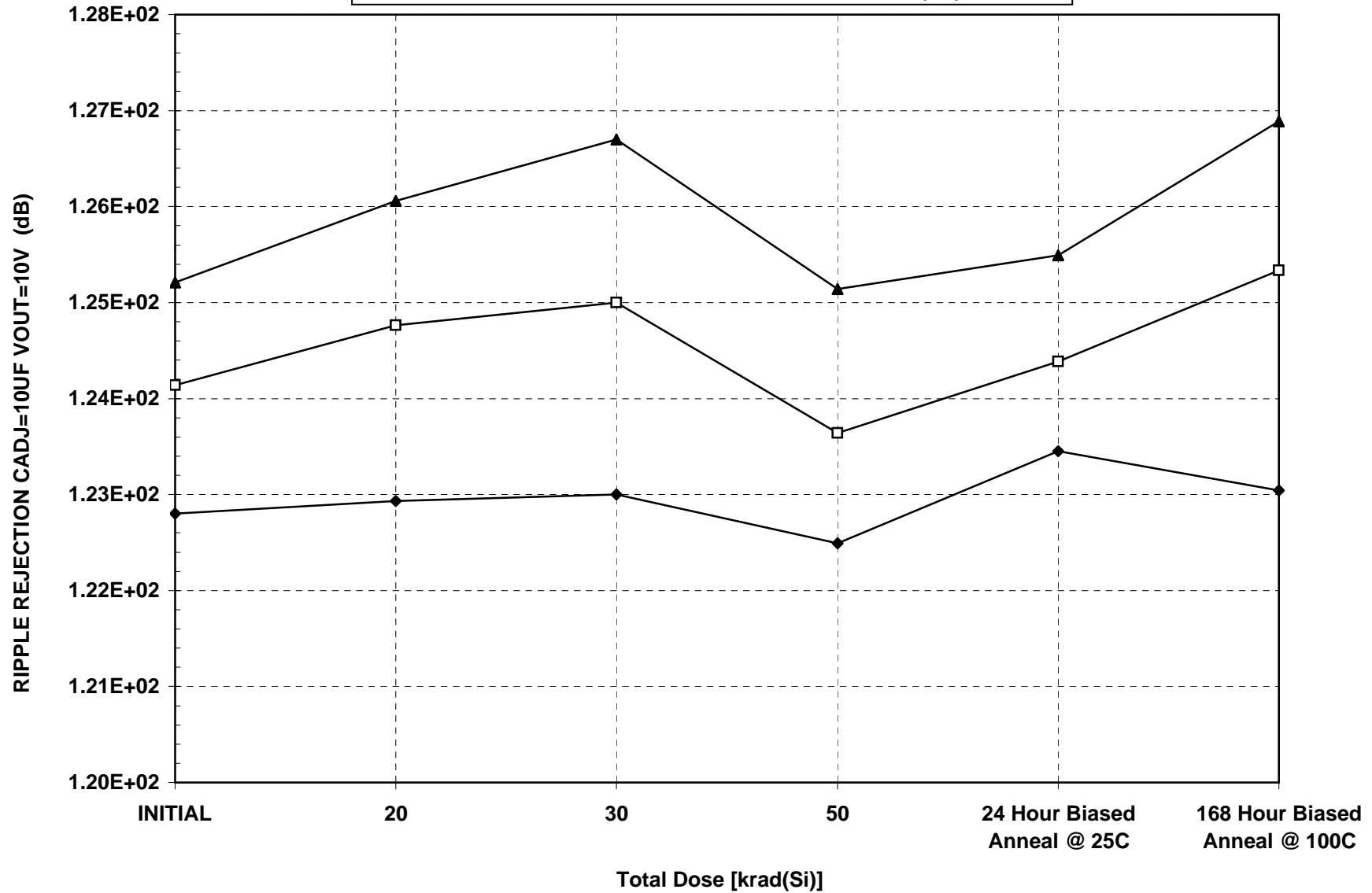


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1603 5/31/07

RIPPLE REJECTION CADJ=10UF VOUT=10V (dB)



◆ MINIMUM      □ MEAN      ▲ MAXIMUM

ICS Radiation Test Results

**RH137H  
NEGATIVE ADJUSTABLE REGULATOR "UNBIASED"  
(LINEAR TECHNOLOGY CORPORATION)  
P.O. # 46147L**

.....  
.  
. DEVICE TYPE: RH137H NEGATIVE ADJUSTABLE REGULATOR "UNBIASED" .  
. (LINEAR TECHNOLOGY CORPORATION) .  
. RADIATION SOURCE: SHEPHERD 484 (Co60), 1.25MeV .  
.  
.D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5 .  
. LOG# 1604 || TEST DATE 06/31/07 || RTP# 690 .  
. P.O.# 46147L .  
.  
. 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

**RH137H**

**Negative Adjustable Regulator**

**Linear Technology Corporation**

D/C 0709A, Lot# 10641855.1, Wafer # 5

Test Date 05-31-07

Log# 1603 and 1604, TID Test

P.O.# 46147L

This test consisted of two test logs, 1603 and 1604. The test was to compare the radiation effects differences between two bias conditions: Log 1603, had +30 volts and Log 1604 was unbiased with all leads grounded. The 16 test requirements and two "information only" test are stated in test procedure RTP 690, dated March 23, 2007.

The test results indicated was very little difference between the two bias conditions for all parameters tested except for the Voltage Reference parameters (VR1-VR4). The test results of the two tests (biased and unbiased) were less than the LTC data sheet limits of 20krad(Si) at the 50krad(Si) test level.

There were two differences noted with the four Voltage Reference parameters.

1. There was annealing taking place during the 168-hour at 100°C Anneal on the biased devices Log 1603. Typically, this was about 6mV. The unbiased devices (Log 1604) indicated very little, if any, annealing.
2. The minimum reference voltage difference was within 1mV between the biased and unbiased conditions. The maximum reference voltage indicated up to an 8mV difference between the two bias conditions, with the unbiased devices indicating the greatest change.

PARAMETER	<u>MAXIMUM VOLTAGE</u>		<u>MINIMUM VOLTAGE</u>	
	BIASED	UNBIASED	BIASED	UNBIASED
VR1	-1.251	-1.244	-1.254	-1.253
VR2	-1.252	-1.244	-1.254	-1.253
VR3	-1.242	-1.234	-1.243	-1.243
VR4	-1.251	-1.244	-1.253	-1.253

These lots **PASSED** the 16 test requirements as stated in the Radiation Test Procedure RTP 690, dated March 23, 2007.

**NOTE:** To simplify the following data analysis, all negative numbers, except for the Voltage Reference parameters have been converted to Absolute numbers. This matches with the Absolute numbers used on the manufacturers data sheets.

## TID BIASED DEVICES, Log 1603

**Voltage Reference VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.251V and minimum voltage was -1.254V.

**Voltage Reference VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.252V and minimum voltage was -1.254V.

**Voltage Reference VDIFF=3V IL=0.5A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.242V and minimum voltage was -1.243V.

**Voltage Reference VDIFF=40V IL=0.05A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.251V and minimum voltage was -1.253V.

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0009%/V.

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0012%/V.

**Load Regulation 1 VOUT<=5V IL=10mA 0.5A: The Post-Radiation limit at 50krad(Si)** was 25mV maximum. The parameter maximum was 11.8mV.

**INFORMATION ONLY Load Regulation 2 VOUT>=5V IL=10mA 0.5A: At 50krad(Si)**, the parameter maximum was 0.356%.

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 75.2µA.

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 73.7µA.

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 71.6µA.

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.697µA.

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.89µA.

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.45µA.

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 5mA maximum. The parameter maximum was 1.32mA.

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si)** was 0.5A minimum. The parameter minimum was 1.17A.



**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 0.15A minimum. The parameter minimum was 0.296A.

**INFORMATION ONLY Ripple Rejection CADJ=10 $\mu$ F, Vout=10V: At 50krad(Si),** the parameter minimum was 122dB.

## **TID UNBIASED (GROUNDED) DEVICES, Log 1604**

**Voltage Reference VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.253V.

**Voltage Reference VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.253V.

**Voltage Reference VDIFF=3V IL=0.5A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.234V and minimum voltage was -1.243V.

**Voltage Reference VDIFF=40V IL=0.05A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.244V and minimum voltage was -1.253V.

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0009%/V.

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0019%/V.

**Load Regulation 1 VOUT<=5V IL=10mA 0.5A: The Post-Radiation limit at 50krad(Si)** was 25mV maximum. The parameter maximum was 11.3mV.

**INFORMATION ONLY Load Regulation 2 VOUT>=5V IL=10mA 0.5A: At 50krad(Si),** the parameter maximum was 0.575%.

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100 $\mu$ A maximum. The parameter maximum was 76.1 $\mu$ A.

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100 $\mu$ A maximum. The parameter maximum was 72.5 $\mu$ A.

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100 $\mu$ A maximum. The parameter maximum was 71.7 $\mu$ A.

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si)** was 5 $\mu$ A maximum. The parameter maximum was 1.6 $\mu$ A.

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5 $\mu$ A maximum. The parameter maximum was 0.4 $\mu$ A.

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5 $\mu$ A maximum. The parameter maximum was 1.00 $\mu$ A.

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 5mA maximum. The parameter maximum was -1.42mA.

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si)** was 0.5A minimum. The parameter minimum was 1.12A.

**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 0.15A minimum. The parameter minimum was 0.28A.

**INFORMATION ONLY** Ripple Rejection CADJ=10 $\mu$ F, Vout=10V: At 50krad(Si), the parameter minimum was 124dB.

**ANOMOLIES:**

There was one anomaly in the parameter test list. **Load Regulation 2 VOUT $\geq$ 5V IL=10mA 0.5A was an *INFORMATION ONLY* test.** The *Load Regulation* test condition of 10mA-500mA exceeds datasheet test condition of 10mA-200mA so, the datasheet limit of 0.5% does not apply to *Load Regulation* test as performed in this analysis.

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](mailto:mike@icsrad.com).

ICS Radiation Technologies, Inc.

Dr. Michael K. Gauthier, P.E.  
President  
August 29, 2007



RADIATION TEST PROCEDURE

**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits			Units
			Exposure Levels rad(Si)			
			20k	50k	100k	
NOTE: Vin MAX = 30V						
1	Voltage Reference	VDIF=3V, IL=10mA	-1.225 -1.275	-1.225 -1.275	-1.225 -1.275	V Min V Max
2	Voltage Reference	VDIF=40V, IL=10mA	-1.225 -1.275	-1.225 -1.275	-1.225 -1.275	V Min V Max
3	Voltage Reference	VDIF=3V, IL=0.5A	-1.200 -1.300	-1.200 -1.300	-1.200 -1.300	V Min V Max
4	Voltage Reference	VDIF=40V, IL=0.05A	-1.200 -1.300	-1.200 -1.300	-1.200 -1.300	V Min V Max
5	Line Regulation 1	$3V \leq (V_{in}-V_{out}) \leq 36V$ Iout=10mA	0.02	0.02	0.02	%/V Max
6	Line Regulation 2	$3V \leq (V_{in}-V_{out}) \leq 40V$ Iout=10mA	0.02	0.02	0.03	%/V Max
7	Load Regulation 1	$10mA \leq I_{out} \leq 0.5A$ Vout $\leq 5V$	25	25	25	mV Max
8	Load Regulation 2	$10mA \leq I_{out} \leq 0.5A$ Vout $\geq 5V$	0.5	0.5	0.5	% Max
9	Adjust Pin Current 1	VDIF=3V, IL=10mA	100	100	100	$\mu A$ Max
10	Adjust Pin Current 2	VDIF=5V, IL=10mA	100	100	100	$\mu A$ Max
11	Adjust Pin Current 3	VDIF=40V, IL=10mA	100	100	100	$\mu A$ Max
12	Adjust Pin Current Change	VDIF=5V $10mA \leq I_{out} \leq 0.5A$	5	5	5	$\mu A$ Max
13	Adjust Pin Current Change	VDIF=3V to 36V IL=10mA	5	5	5	$\mu A$ Max
14	Adjust Pin Current Change	VDIF=3V to 40V IL=10mA	5	5	5	$\mu A$ Max

March 23, 2007

RADIATION TEST PROCEDURE

No. 690

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits Exposure Levels rad(Si)			Units
			20k	50k	100k	
15	Minimum Load Current	VDIF=40V	5	5	5	mA Max
16	Short Circuit Current	VDIF=15V	0.5	0.5	0.5	A Min
17	Short Circuit Current	VDIF=40V	0.15	0.15	0.15	A Min
18	Ripple Rejection	CADJ=10 $\mu$ F, Vout=10V	Record	Record	Record	dB

Measurements shall be made at room (ambient) temperature.

Test conducted using an Analog Devices LTS-2020 Component Test System, with the LTS-2101 Family Board, LTS0606 Regulator Socket Assembly, LTS0325/RH137 DUT board .

Software: RH137H/K 1.04 program. "RH137HK.SR4

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

Return samples to customer.

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

REFERENCE OUTPUT VDIFF=3V IL=10mA		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.253E+00
	849	-1.257E+00	-1.256E+00	-1.254E+00	-1.253E+00	-1.254E+00	-1.245E+00
	850	-1.256E+00	-1.255E+00	-1.253E+00	-1.252E+00	-1.252E+00	-1.244E+00
	852	-1.252E+00	-1.255E+00	-1.249E+00	-1.248E+00	-1.248E+00	-1.241E+00
	853	-1.248E+00	-1.247E+00	-1.245E+00	-1.244E+00	-1.244E+00	-1.245E+00
	854	-1.256E+00	-1.255E+00	-1.254E+00	-1.253E+00	-1.253E+00	-1.255E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.254E+00	-1.253E+00	-1.254E+00	-1.255E+00
	MEAN	-1.254E+00	-1.254E+00	-1.251E+00	-1.250E+00	-1.250E+00	-1.246E+00
	MAXIMUM	-1.248E+00	-1.247E+00	-1.245E+00	-1.244E+00	-1.244E+00	-1.241E+00
	+P 99/90	-1.236E+00	-1.236E+00	-1.233E+00	-1.232E+00	-1.231E+00	-1.221E+00
	-P 99/90	-1.271E+00	-1.271E+00	-1.269E+00	-1.268E+00	-1.270E+00	-1.271E+00
	SIGMA	3.768E-03	3.715E-03	3.937E-03	3.937E-03	4.147E-03	5.292E-03

REFERENCE OUTPUT VDIFF=3V IL=10mA		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	5.00E+01	1.00E+02	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.000E-03
	849		1.000E-03	3.000E-03	4.000E-03	3.000E-03	1.200E-02
	850		1.000E-03	3.000E-03	4.000E-03	4.000E-03	1.200E-02
	852		-3.000E-03	3.000E-03	4.000E-03	4.000E-03	1.100E-02
	853		1.000E-03	3.000E-03	4.000E-03	4.000E-03	3.000E-03
	854		1.000E-03	2.000E-03	3.000E-03	3.000E-03	1.000E-03
	MINIMUM		-3.000E-03	2.000E-03	3.000E-03	3.000E-03	1.000E-03
	MEAN		2.000E-04	2.800E-03	3.800E-03	3.600E-03	7.800E-03
	MAXIMUM		1.000E-03	3.000E-03	4.000E-03	4.000E-03	1.200E-02
	+P 99/90		8.547E-03	4.887E-03	5.887E-03	6.156E-03	3.280E-02
	-P 99/90		-8.147E-03	7.133E-04	1.713E-03	1.044E-03	-1.720E-02
	SIGMA		1.789E-03	4.472E-04	4.472E-04	5.477E-04	5.357E-03

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

REFERENCE OUTPUT VDIFF=40V IL=10mA		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.253E+00
	849	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.254E+00	-1.246E+00
	850	-1.256E+00	-1.255E+00	-1.253E+00	-1.252E+00	-1.252E+00	-1.244E+00
	852	-1.252E+00	-1.255E+00	-1.249E+00	-1.248E+00	-1.248E+00	-1.242E+00
	853	-1.249E+00	-1.247E+00	-1.246E+00	-1.244E+00	-1.245E+00	-1.246E+00
	854	-1.257E+00	-1.255E+00	-1.254E+00	-1.253E+00	-1.254E+00	-1.255E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.254E+00	-1.255E+00
	MEAN	-1.254E+00	-1.254E+00	-1.251E+00	-1.250E+00	-1.251E+00	-1.247E+00
	MAXIMUM	-1.249E+00	-1.247E+00	-1.246E+00	-1.244E+00	-1.245E+00	-1.242E+00
	+P 99/90	-1.238E+00	-1.236E+00	-1.234E+00	-1.232E+00	-1.232E+00	-1.223E+00
	-P 99/90	-1.271E+00	-1.271E+00	-1.269E+00	-1.268E+00	-1.269E+00	-1.270E+00
	SIGMA	3.564E-03	3.715E-03	3.782E-03	3.937E-03	3.975E-03	4.980E-03

REFERENCE OUTPUT VDIFF=40V IL=10mA		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.000E-03
	849		1.000E-03	2.000E-03	4.000E-03	3.000E-03	1.100E-02
	850		1.000E-03	3.000E-03	4.000E-03	4.000E-03	1.200E-02
	852		-3.000E-03	3.000E-03	4.000E-03	4.000E-03	1.000E-02
	853		2.000E-03	3.000E-03	5.000E-03	4.000E-03	3.000E-03
	854		2.000E-03	3.000E-03	4.000E-03	3.000E-03	2.000E-03
	MINIMUM		-3.000E-03	2.000E-03	4.000E-03	3.000E-03	2.000E-03
	MEAN		6.000E-04	2.800E-03	4.200E-03	3.600E-03	7.600E-03
	MAXIMUM		2.000E-03	3.000E-03	5.000E-03	4.000E-03	1.200E-02
	+P 99/90		1.028E-02	4.887E-03	6.287E-03	6.156E-03	2.963E-02
	-P 99/90		-9.076E-03	7.133E-04	2.113E-03	1.044E-03	-1.443E-02
	SIGMA		2.074E-03	4.472E-04	4.472E-04	5.477E-04	4.722E-03

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

REFERENCE OUTPUT VDIFF=3V IL=0.5A		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.246E+00	-1.245E+00	-1.245E+00	-1.247E+00	-1.251E+00	-1.252E+00
	849	-1.247E+00	-1.245E+00	-1.244E+00	-1.243E+00	-1.249E+00	-1.243E+00
	850	-1.245E+00	-1.245E+00	-1.242E+00	-1.240E+00	-1.243E+00	-1.242E+00
	852	-1.242E+00	-1.243E+00	-1.237E+00	-1.237E+00	-1.241E+00	-1.240E+00
	853	-1.240E+00	-1.236E+00	-1.234E+00	-1.234E+00	-1.237E+00	-1.244E+00
	854	-1.245E+00	-1.243E+00	-1.243E+00	-1.242E+00	-1.248E+00	-1.246E+00
	MINIMUM	-1.247E+00	-1.245E+00	-1.244E+00	-1.243E+00	-1.249E+00	-1.246E+00
	MEAN	-1.244E+00	-1.242E+00	-1.240E+00	-1.239E+00	-1.244E+00	-1.243E+00
	MAXIMUM	-1.240E+00	-1.236E+00	-1.234E+00	-1.234E+00	-1.237E+00	-1.240E+00
	+P 99/90	-1.231E+00	-1.225E+00	-1.220E+00	-1.222E+00	-1.220E+00	-1.233E+00
	-P 99/90	-1.257E+00	-1.260E+00	-1.260E+00	-1.256E+00	-1.267E+00	-1.253E+00
	SIGMA	2.775E-03	3.715E-03	4.301E-03	3.701E-03	4.980E-03	2.236E-03

REFERENCE OUTPUT VDIFF=3V IL=0.5A		(V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		1.000E-03	1.000E-03	-1.000E-03	-5.000E-03	-6.000E-03
	849		2.000E-03	3.000E-03	4.000E-03	-2.000E-03	4.000E-03
	850		0.000E+00	3.000E-03	5.000E-03	2.000E-03	3.000E-03
	852		-1.000E-03	5.000E-03	5.000E-03	1.000E-03	2.000E-03
	853		4.000E-03	6.000E-03	6.000E-03	3.000E-03	-4.000E-03
	854		2.000E-03	2.000E-03	3.000E-03	-3.000E-03	-1.000E-03
	MINIMUM		-1.000E-03	2.000E-03	3.000E-03	-3.000E-03	-4.000E-03
	MEAN		1.400E-03	3.800E-03	4.600E-03	2.000E-04	8.000E-04
	MAXIMUM		4.000E-03	6.000E-03	6.000E-03	3.000E-03	4.000E-03
	+P 99/90		1.050E-02	1.147E-02	9.920E-03	1.228E-02	1.606E-02
	-P 99/90		-7.696E-03	-3.867E-03	-7.201E-04	-1.188E-02	-1.446E-02
	SIGMA		1.949E-03	1.643E-03	1.140E-03	2.588E-03	3.271E-03

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

REFERENCE OUTPUT VDIFF=40V IL=0.05A		(V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00	-1.256E+00
	849	-1.257E+00	-1.256E+00	-1.254E+00	-1.253E+00	-1.254E+00	-1.256E+00
	850	-1.255E+00	-1.254E+00	-1.253E+00	-1.251E+00	-1.252E+00	-1.254E+00
	852	-1.251E+00	-1.254E+00	-1.249E+00	-1.247E+00	-1.248E+00	-1.250E+00
	853	-1.248E+00	-1.246E+00	-1.245E+00	-1.244E+00	-1.244E+00	-1.247E+00
	854	-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.253E+00	-1.255E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.254E+00	-1.253E+00	-1.254E+00	-1.256E+00
	MEAN	-1.253E+00	-1.253E+00	-1.251E+00	-1.249E+00	-1.250E+00	-1.252E+00
	MAXIMUM	-1.248E+00	-1.246E+00	-1.245E+00	-1.244E+00	-1.244E+00	-1.247E+00
	+P 99/90	-1.236E+00	-1.235E+00	-1.233E+00	-1.232E+00	-1.231E+00	-1.235E+00
	-P 99/90	-1.271E+00	-1.271E+00	-1.269E+00	-1.267E+00	-1.270E+00	-1.270E+00
	SIGMA	3.782E-03	3.899E-03	3.937E-03	3.782E-03	4.147E-03	3.782E-03

REFERENCE OUTPUT VDIFF=40V IL=0.05A		(V)		[DELTA]			
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	849		1.000E-03	3.000E-03	4.000E-03	3.000E-03	1.000E-03
	850		1.000E-03	2.000E-03	4.000E-03	3.000E-03	1.000E-03
	852		-3.000E-03	2.000E-03	4.000E-03	3.000E-03	1.000E-03
	853		2.000E-03	3.000E-03	4.000E-03	4.000E-03	1.000E-03
	854		2.000E-03	2.000E-03	4.000E-03	3.000E-03	1.000E-03
	MINIMUM		-3.000E-03	2.000E-03	4.000E-03	3.000E-03	1.000E-03
	MEAN		6.000E-04	2.400E-03	4.000E-03	3.200E-03	1.000E-03
	MAXIMUM		2.000E-03	3.000E-03	4.000E-03	4.000E-03	1.000E-03
	+P 99/90		1.028E-02	4.956E-03	4.000E-03	5.287E-03	1.000E-03
	-P 99/90		-9.076E-03	-1.557E-04	4.000E-03	1.113E-03	1.000E-03
	SIGMA		2.074E-03	5.477E-04	9.930E-17	4.472E-04	9.930E-17

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

LINE REG VDIFF=3V TO 36V IL=10mA		(%V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	1.00E-04	5.00E-04	4.00E-04	5.00E-04	6.00E-04	5.00E-04
	849	3.00E-04	6.00E-04	4.00E-04	4.00E-04	8.00E-04	6.00E-04
	850	5.00E-04	7.00E-04	2.00E-04	9.00E-04	6.00E-04	4.00E-04
	852	7.00E-04	4.00E-04	8.00E-04	8.00E-04	7.00E-04	5.00E-04
	853	9.00E-04	6.00E-04	3.00E-04	9.00E-04	8.00E-04	7.00E-04
	854	5.00E-04	5.00E-04	5.00E-04	9.00E-04	8.00E-04	5.00E-04
	MINIMUM	3.00E-04	4.00E-04	2.00E-04	4.00E-04	6.00E-04	4.00E-04
	MEAN	5.80E-04	5.60E-04	4.40E-04	7.80E-04	7.40E-04	5.40E-04
	MAXIMUM	9.00E-04	7.00E-04	8.00E-04	9.00E-04	8.00E-04	7.00E-04
	+P 99/90	1.64E-03	1.09E-03	1.51E-03	1.79E-03	1.16E-03	1.07E-03
	-P 99/90	-4.84E-04	2.80E-05	-6.34E-04	-2.32E-04	3.23E-04	7.99E-06
	SIGMA	2.28E-04	1.14E-04	2.30E-04	2.17E-04	8.94E-05	1.14E-04

LINE REG VDIFF=3V TO 36V IL=10mA		(%V)		[DELTA]			
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		4.00E-04	3.00E-04	4.00E-04	5.00E-04	4.00E-04
	849		3.00E-04	1.00E-04	1.00E-04	5.00E-04	3.00E-04
	850		2.00E-04	-3.00E-04	4.00E-04	1.00E-04	-1.00E-04
	852		-3.00E-04	1.00E-04	1.00E-04	0.00E+00	-2.00E-04
	853		-3.00E-04	-6.00E-04	0.00E+00	-1.00E-04	-2.00E-04
	854		0.00E+00	0.00E+00	4.00E-04	3.00E-04	0.00E+00
	MINIMUM		-3.00E-04	-6.00E-04	0.00E+00	-1.00E-04	-2.00E-04
	MEAN		-2.00E-05	-1.40E-04	2.00E-04	1.60E-04	-4.00E-05
	MAXIMUM		3.00E-04	1.00E-04	4.00E-04	5.00E-04	3.00E-04
	+P 99/90		1.27E-03	1.28E-03	1.07E-03	1.28E-03	9.28E-04
	-P 99/90		-1.31E-03	-1.56E-03	-6.73E-04	-9.64E-04	-1.01E-03
	SIGMA		2.77E-04	3.05E-04	1.87E-04	2.41E-04	2.07E-04

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

LINE REG VDIFF=3V TO 40V IL=10mA		(%/V)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	1.20E-03	8.00E-04	1.40E-03	1.40E-03	5.00E-04	1.50E-03
	849	1.10E-03	9.00E-04	1.00E-03	7.00E-04	7.00E-04	9.00E-04
	850	5.00E-04	1.60E-03	1.60E-03	1.80E-03	4.00E-04	7.00E-04
	852	1.20E-03	1.60E-03	1.30E-03	1.50E-03	5.00E-04	6.00E-04
	853	1.60E-03	1.50E-03	1.40E-03	1.90E-03	1.40E-03	7.00E-04
	854	1.00E-03	1.40E-03	1.40E-03	1.30E-03	1.00E-03	5.00E-04
	MINIMUM	5.00E-04	9.00E-04	1.00E-03	7.00E-04	4.00E-04	5.00E-04
	MEAN	1.08E-03	1.40E-03	1.34E-03	1.44E-03	8.00E-04	6.80E-04
	MAXIMUM	1.60E-03	1.60E-03	1.60E-03	1.90E-03	1.40E-03	9.00E-04
	+P 99/90	2.93E-03	2.76E-03	2.36E-03	3.67E-03	2.70E-03	1.37E-03
	-P 99/90	-7.69E-04	3.96E-05	3.18E-04	-7.88E-04	-1.10E-03	-1.21E-05
	SIGMA	3.96E-04	2.92E-04	2.19E-04	4.77E-04	4.06E-04	1.48E-04

LINE REG VDIFF=3V TO 40V IL=10mA		(%/V)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-4.00E-04	2.00E-04	2.00E-04	-7.00E-04	3.00E-04
	849		-2.00E-04	-1.00E-04	-4.00E-04	-4.00E-04	-2.00E-04
	850		1.10E-03	1.10E-03	1.30E-03	-1.00E-04	2.00E-04
	852		4.00E-04	1.00E-04	3.00E-04	-7.00E-04	-6.00E-04
	853		-1.00E-04	-2.00E-04	3.00E-04	-2.00E-04	-9.00E-04
	854		4.00E-04	4.00E-04	3.00E-04	0.00E+00	-5.00E-04
	MINIMUM		-2.00E-04	-2.00E-04	-4.00E-04	-7.00E-04	-9.00E-04
	MEAN		3.20E-04	2.60E-04	3.60E-04	-2.80E-04	-4.00E-04
	MAXIMUM		1.10E-03	1.10E-03	1.30E-03	0.00E+00	2.00E-04
	+P 99/90		2.73E-03	2.70E-03	3.19E-03	1.01E-03	1.55E-03
	-P 99/90		-2.09E-03	-2.18E-03	-2.47E-03	-1.57E-03	-2.35E-03
	SIGMA		5.17E-04	5.22E-04	6.07E-04	2.77E-04	4.18E-04

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

LOAD REG VOUT<=5V IL=10mA TO 0.5A		(mV)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-9.60E+00	-1.11E+01	-1.12E+01	-4.16E+00	-4.97E+00	-9.83E+00
	849	-1.01E+01	-9.10E+00	-1.03E+01	-1.01E+01	-5.17E+00	-4.99E+00
	850	-1.09E+01	-9.79E+00	-1.13E+01	-1.13E+01	-8.62E+00	-5.59E+00
	852	-9.95E+00	-1.13E+01	-1.23E+01	-1.04E+01	-7.56E+00	-8.22E+00
	853	-8.67E+00	-1.09E+01	-1.09E+01	-9.28E+00	-7.26E+00	-5.19E+00
	854	-1.14E+01	-1.13E+01	-1.13E+01	-1.05E+01	-5.86E+00	-8.44E+00
	MINIMUM	-1.14E+01	-1.13E+01	-1.23E+01	-1.13E+01	-8.62E+00	-8.44E+00
	MEAN	-1.02E+01	-1.05E+01	-1.12E+01	-1.03E+01	-6.90E+00	-6.48E+00
	MAXIMUM	-8.67E+00	-9.10E+00	-1.03E+01	-9.28E+00	-5.17E+00	-4.99E+00
	+P 99/90	-5.31E+00	-5.89E+00	-7.85E+00	-6.89E+00	-4.60E-01	1.45E+00
	-P 99/90	-1.51E+01	-1.50E+01	-1.46E+01	-1.37E+01	-1.33E+01	-1.44E+01
	SIGMA	1.05E+00	9.81E-01	7.21E-01	7.33E-01	1.38E+00	1.70E+00

LOAD REG VOUT<=5V IL=10mA TO 0.5A		(mV)		[DELTA]			
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-1.48E+00	-1.62E+00	5.44E+00	4.63E+00	-2.34E-01
	849		9.88E-01	-2.02E-01	-1.70E-02	4.92E+00	5.10E+00
	850		1.15E+00	-3.87E-01	-3.87E-01	2.31E+00	5.34E+00
	852		-1.35E+00	-2.31E+00	-4.55E-01	2.39E+00	1.73E+00
	853		-2.22E+00	-2.21E+00	-6.06E-01	1.41E+00	3.49E+00
	854		1.51E-01	1.18E-01	9.60E-01	5.56E+00	2.98E+00
	MINIMUM		-2.22E+00	-2.31E+00	-6.06E-01	1.41E+00	1.73E+00
	MEAN		-2.57E-01	-9.97E-01	-1.01E-01	3.32E+00	3.73E+00
	MAXIMUM		1.15E+00	1.18E-01	9.60E-01	5.56E+00	5.34E+00
	+P 99/90		6.64E+00	4.44E+00	2.85E+00	1.18E+01	1.08E+01
	-P 99/90		-7.15E+00	-6.43E+00	-3.05E+00	-5.12E+00	-3.30E+00
	SIGMA		1.48E+00	1.16E+00	6.31E-01	1.81E+00	1.51E+00

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

LOAD REG VOUT> =5V IL=10mA TO 0.5A		(%)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-2.64E-01	-3.08E-01	-2.95E-01	-1.22E+00	-3.73E-01	-2.71E-01
	849	-2.79E-01	-2.86E-01	-2.64E-01	-2.81E-01	-1.83E-01	-1.66E-01
	850	-2.89E-01	-3.04E-01	-3.18E-01	-3.27E-01	-2.44E-01	-1.61E-01
	852	-2.67E-01	-3.25E-01	-3.74E-01	-3.11E-01	-2.84E-01	-3.64E-01
	853	-2.65E-01	-2.92E-01	-2.93E-01	-5.75E-01	-3.20E-01	-1.53E-01
	854	-2.92E-01	-2.82E-01	-4.61E-01	-3.47E-01	-2.02E-01	-2.44E-01
	MINIMUM	-2.92E-01	-3.25E-01	-4.61E-01	-5.75E-01	-3.20E-01	-3.64E-01
	MEAN	-2.78E-01	-2.98E-01	-3.42E-01	-3.68E-01	-2.47E-01	-2.18E-01
	MAXIMUM	-2.65E-01	-2.82E-01	-2.64E-01	-2.81E-01	-1.83E-01	-1.53E-01
	+P 99/90	-2.21E-01	-2.17E-01	2.13E-02	1.83E-01	1.76E-02	2.01E-01
	-P 99/90	-3.36E-01	-3.79E-01	-7.05E-01	-9.19E-01	-5.11E-01	-6.36E-01
	SIGMA	1.23E-02	1.73E-02	7.79E-02	1.18E-01	5.66E-02	8.97E-02

LOAD REG VOUT> =5V IL=10mA TO 0.5A		(%)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-4.40E-02	-3.10E-02	-9.60E-01	-1.09E-01	-7.00E-03
	849		-7.00E-03	1.50E-02	-2.00E-03	9.60E-02	1.13E-01
	850		-1.50E-02	-2.90E-02	-3.80E-02	4.50E-02	1.28E-01
	852		-5.80E-02	-1.07E-01	-4.40E-02	-1.70E-02	-9.70E-02
	853		-2.70E-02	-2.80E-02	-3.10E-01	-5.50E-02	1.12E-01
	854		1.00E-02	-1.69E-01	-5.50E-02	9.00E-02	4.80E-02
	MINIMUM		-5.80E-02	-1.69E-01	-3.10E-01	-5.50E-02	-9.70E-02
	MEAN		-1.94E-02	-6.36E-02	-8.98E-02	3.18E-02	6.08E-02
	MAXIMUM		1.00E-02	1.50E-02	-2.00E-03	9.60E-02	1.28E-01
	+P 99/90		9.92E-02	2.80E-01	4.92E-01	3.41E-01	4.97E-01
	-P 99/90		-1.38E-01	-4.07E-01	-6.72E-01	-2.78E-01	-3.75E-01
	SIGMA		2.54E-02	7.35E-02	1.25E-01	6.63E-02	9.34E-02

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

BIAS CURRENT VDIFF=3V IL=10mA		(uA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.47E+01	-7.44E+01	-7.53E+01	-7.49E+01	-6.65E+01	-6.50E+01
	849	-6.25E+01	-7.01E+01	-7.23E+01	-7.31E+01	-6.53E+01	-6.52E+01
	850	-6.25E+01	-6.96E+01	-7.24E+01	-7.32E+01	-6.50E+01	-7.05E+01
	852	-6.32E+01	-7.04E+01	-7.28E+01	-7.35E+01	-6.76E+01	-7.13E+01
	853	-6.60E+01	-7.30E+01	-7.52E+01	-7.61E+01	-6.97E+01	-7.36E+01
	854	-6.25E+01	-6.89E+01	-7.13E+01	-7.24E+01	-6.62E+01	-7.01E+01
	MINIMUM	-6.60E+01	-7.30E+01	-7.52E+01	-7.61E+01	-6.97E+01	-7.36E+01
	MEAN	-6.33E+01	-7.04E+01	-7.28E+01	-7.37E+01	-6.68E+01	-7.01E+01
	MAXIMUM	-6.25E+01	-6.89E+01	-7.13E+01	-7.24E+01	-6.50E+01	-6.52E+01
	+P 99/90	-5.62E+01	-6.32E+01	-6.61E+01	-6.71E+01	-5.76E+01	-5.57E+01
	-P 99/90	-7.05E+01	-7.76E+01	-7.95E+01	-8.02E+01	-7.59E+01	-8.45E+01
	SIGMA	1.53E+00	1.55E+00	1.44E+00	1.40E+00	1.95E+00	3.09E+00

BIAS CURRENT VDIFF=3V IL=10mA		(uA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-9.77E+00	-1.07E+01	-1.02E+01	-1.84E+00	-3.50E-01
	849		-7.52E+00	-9.74E+00	-1.06E+01	-2.72E+00	-2.63E+00
	850		-7.12E+00	-9.92E+00	-1.08E+01	-2.55E+00	-8.03E+00
	852		-7.21E+00	-9.61E+00	-1.03E+01	-4.42E+00	-8.12E+00
	853		-6.94E+00	-9.16E+00	-1.01E+01	-3.71E+00	-7.58E+00
	854		-6.44E+00	-8.85E+00	-9.98E+00	-3.70E+00	-7.62E+00
	MINIMUM		-7.52E+00	-9.92E+00	-1.08E+01	-4.42E+00	-8.12E+00
	MEAN		-7.05E+00	-9.46E+00	-1.03E+01	-3.42E+00	-6.80E+00
	MAXIMUM		-6.44E+00	-8.85E+00	-9.98E+00	-2.55E+00	-2.63E+00
	+P 99/90		-5.19E+00	-7.40E+00	-8.79E+00	2.01E-01	4.13E+00
	-P 99/90		-8.91E+00	-1.15E+01	-1.19E+01	-7.04E+00	-1.77E+01
	SIGMA		3.99E-01	4.40E-01	3.32E-01	7.76E-01	2.34E+00

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

BIAS CURRENT VDIFF=5V IL=10mA		(uA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.47E+01	-7.03E+01	-7.19E+01	-7.21E+01	-6.67E+01	-6.51E+01
	849	-6.37E+01	-6.69E+01	-6.86E+01	-6.97E+01	-6.54E+01	-6.53E+01
	850	-6.25E+01	-6.61E+01	-6.90E+01	-7.00E+01	-6.53E+01	-6.75E+01
	852	-6.35E+01	-6.69E+01	-6.93E+01	-7.03E+01	-6.75E+01	-6.81E+01
	853	-6.60E+01	-6.97E+01	-7.19E+01	-7.25E+01	-6.97E+01	-7.07E+01
	854	-6.25E+01	-6.54E+01	-6.76E+01	-6.84E+01	-6.62E+01	-6.68E+01
	MINIMUM	-6.60E+01	-6.97E+01	-7.19E+01	-7.25E+01	-6.97E+01	-7.07E+01
	MEAN	-6.36E+01	-6.70E+01	-6.93E+01	-7.02E+01	-6.68E+01	-6.77E+01
	MAXIMUM	-6.25E+01	-6.54E+01	-6.76E+01	-6.84E+01	-6.53E+01	-6.53E+01
	+P 99/90	-5.70E+01	-5.94E+01	-6.18E+01	-6.33E+01	-5.81E+01	-5.83E+01
	-P 99/90	-7.03E+01	-7.46E+01	-7.68E+01	-7.71E+01	-7.55E+01	-7.70E+01
	SIGMA	1.42E+00	1.64E+00	1.60E+00	1.48E+00	1.87E+00	2.00E+00

BIAS CURRENT VDIFF=5V IL=10mA		(uA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-5.65E+00	-7.18E+00	-7.43E+00	-2.02E+00	-4.40E-01
	849		-3.23E+00	-4.91E+00	-5.98E+00	-1.64E+00	-1.55E+00
	850		-3.69E+00	-6.53E+00	-7.58E+00	-2.81E+00	-5.04E+00
	852		-3.33E+00	-5.82E+00	-6.80E+00	-4.02E+00	-4.59E+00
	853		-3.73E+00	-5.91E+00	-6.49E+00	-3.75E+00	-4.73E+00
	854		-2.83E+00	-5.01E+00	-5.82E+00	-3.61E+00	-4.24E+00
	MINIMUM		-3.73E+00	-6.53E+00	-7.58E+00	-4.02E+00	-5.04E+00
	MEAN		-3.36E+00	-5.64E+00	-6.53E+00	-3.17E+00	-4.03E+00
	MAXIMUM		-2.83E+00	-4.91E+00	-5.82E+00	-1.64E+00	-1.55E+00
	+P 99/90		-1.64E+00	-2.48E+00	-3.25E+00	1.34E+00	2.58E+00
	-P 99/90		-5.08E+00	-8.79E+00	-9.82E+00	-7.67E+00	-1.06E+01
	SIGMA		3.69E-01	6.76E-01	7.04E-01	9.65E-01	1.42E+00

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

BIAS CURRENT VDIFF=40V IL=10mA		(uA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.52E+01	-7.02E+01	-7.19E+01	-7.19E+01	-6.60E+01	-6.51E+01
	849	-6.29E+01	-6.57E+01	-6.87E+01	-6.89E+01	-6.57E+01	-6.55E+01
	850	-6.27E+01	-6.53E+01	-6.86E+01	-6.97E+01	-6.56E+01	-6.68E+01
	852	-6.36E+01	-6.61E+01	-6.89E+01	-6.94E+01	-6.79E+01	-6.75E+01
	853	-6.61E+01	-6.92E+01	-7.17E+01	-7.17E+01	-6.97E+01	-6.97E+01
	854	-6.28E+01	-6.46E+01	-6.76E+01	-6.86E+01	-6.66E+01	-6.60E+01
	MINIMUM	-6.61E+01	-6.92E+01	-7.17E+01	-7.17E+01	-6.97E+01	-6.97E+01
	MEAN	-6.36E+01	-6.62E+01	-6.91E+01	-6.97E+01	-6.71E+01	-6.71E+01
	MAXIMUM	-6.27E+01	-6.46E+01	-6.76E+01	-6.86E+01	-6.56E+01	-6.55E+01
	+P 99/90	-5.69E+01	-5.79E+01	-6.19E+01	-6.41E+01	-5.90E+01	-5.95E+01
	-P 99/90	-7.03E+01	-7.45E+01	-7.63E+01	-7.52E+01	-7.52E+01	-7.47E+01
	SIGMA	1.44E+00	1.78E+00	1.54E+00	1.20E+00	1.73E+00	1.64E+00

BIAS CURRENT VDIFF=40V IL=10mA		(uA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-5.02E+00	-6.64E+00	-6.71E+00	-7.90E-01	1.00E-01
	849		-2.80E+00	-5.82E+00	-6.05E+00	-2.82E+00	-2.64E+00
	850		-2.62E+00	-5.87E+00	-7.03E+00	-2.91E+00	-4.11E+00
	852		-2.54E+00	-5.34E+00	-5.78E+00	-4.34E+00	-3.89E+00
	853		-3.11E+00	-5.62E+00	-5.55E+00	-3.62E+00	-3.62E+00
	854		-1.85E+00	-4.88E+00	-5.82E+00	-3.80E+00	-3.27E+00
	MINIMUM		-3.11E+00	-5.87E+00	-7.03E+00	-4.34E+00	-4.11E+00
	MEAN		-2.58E+00	-5.51E+00	-6.05E+00	-3.50E+00	-3.51E+00
	MAXIMUM		-1.85E+00	-4.88E+00	-5.55E+00	-2.82E+00	-2.64E+00
	+P 99/90		-4.14E-01	-3.61E+00	-3.35E+00	-5.28E-01	-8.16E-01
	-P 99/90		-4.75E+00	-7.41E+00	-8.74E+00	-6.47E+00	-6.20E+00
	SIGMA		4.65E-01	4.07E-01	5.78E-01	6.36E-01	5.77E-01

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

BIAS CHANGE VDIFF=5V IL=10mA TO 0.5A		(uA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-6.20E-01	-3.10E-01	1.30E-01	7.04E+01	3.60E-01	3.60E-01
	849	0.00E+00	1.30E-01	0.00E+00	-6.20E-01	-3.10E-01	2.20E-01
	850	-2.20E-01	-1.16E+00	7.10E-01	0.00E+00	-2.70E-01	-1.11E+00
	852	2.20E-01	-4.00E-02	3.10E-01	-3.10E-01	-6.79E-01	-1.30E-01
	853	2.20E-01	-1.16E+00	-9.80E-01	-1.60E+00	-6.97E-01	9.00E-02
	854	9.00E-02	-1.16E+00	-1.16E+00	0.00E+00	-6.66E-01	2.50E+00
	MINIMUM	-2.20E-01	-1.16E+00	-1.16E+00	-1.60E+00	-6.97E-01	-1.11E+00
	MEAN	6.20E-02	-6.78E-01	-2.24E-01	-5.06E-01	-5.24E-01	3.14E-01
	MAXIMUM	2.20E-01	1.30E-01	7.10E-01	0.00E+00	-2.70E-01	2.50E+00
	+P 99/90	9.16E-01	2.41E+00	3.58E+00	2.59E+00	4.78E-01	6.51E+00
	-P 99/90	-7.92E-01	-3.77E+00	-4.03E+00	-3.60E+00	-1.53E+00	-5.89E+00
	SIGMA	1.83E-01	6.63E-01	8.15E-01	6.63E-01	2.15E-01	1.33E+00

BIAS CHANGE VDIFF=5V IL=10mA TO 0.5A		(uA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		3.10E-01	7.50E-01	7.10E+01	9.80E-01	9.80E-01
	849		1.30E-01	0.00E+00	-6.20E-01	-3.10E-01	2.20E-01
	850		-9.40E-01	9.30E-01	2.20E-01	-5.00E-02	-8.90E-01
	852		-2.60E-01	9.00E-02	-5.30E-01	-8.99E-01	-3.50E-01
	853		-1.38E+00	-1.20E+00	-1.82E+00	-9.17E-01	-1.30E-01
	854		-1.25E+00	-1.25E+00	-9.00E-02	-7.56E-01	2.41E+00
	MINIMUM		-1.38E+00	-1.25E+00	-1.82E+00	-9.17E-01	-8.90E-01
	MEAN		-7.40E-01	-2.86E-01	-5.68E-01	-5.86E-01	2.52E-01
	MAXIMUM		1.30E-01	9.30E-01	2.20E-01	-5.00E-02	2.41E+00
	+P 99/90		2.30E+00	4.06E+00	3.06E+00	1.22E+00	6.19E+00
	-P 99/90		-3.78E+00	-4.63E+00	-4.20E+00	-2.39E+00	-5.68E+00
	SIGMA		6.51E-01	9.31E-01	7.78E-01	3.87E-01	1.27E+00

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

BIAS CHANGE VDIFF=3V TO 36V IL=10mA		(uA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	7.10E-01	3.10E-01	7.60E-01	1.80E-01	1.80E-01	2.00E-01
	849	3.10E-01	-1.02E+00	-4.00E-01	-4.00E-01	3.10E-01	1.80E-01
	850	2.20E-01	2.70E-01	1.16E+00	-3.80E-01	2.70E-01	3.30E-01
	852	1.80E-01	3.10E-01	3.60E-01	3.10E-01	2.70E-01	1.34E+00
	853	2.20E-01	2.70E-01	3.60E-01	-2.70E-01	3.60E-01	2.70E-01
	854	1.80E-01	0.00E+00	-3.10E-01	0.00E+00	1.80E-01	2.20E-01
	MINIMUM	1.80E-01	-1.02E+00	-4.00E-01	-4.00E-01	1.80E-01	1.80E-01
	MEAN	2.22E-01	-3.40E-02	2.34E-01	-1.48E-01	2.78E-01	4.68E-01
	MAXIMUM	3.10E-01	3.10E-01	1.16E+00	3.10E-01	3.60E-01	1.34E+00
	+P 99/90	4.70E-01	2.60E+00	3.17E+00	1.26E+00	5.86E-01	2.76E+00
	-P 99/90	-2.58E-02	-2.67E+00	-2.71E+00	-1.56E+00	-3.05E-02	-1.82E+00
	SIGMA	5.31E-02	5.65E-01	6.30E-01	3.02E-01	6.61E-02	4.91E-01

BIAS CHANGE VDIFF=3V TO 36V IL=10mA		(uA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-4.00E-01	5.00E-02	-5.30E-01	-5.30E-01	-5.10E-01
	849		-1.33E+00	-7.10E-01	-7.10E-01	0.00E+00	-1.30E-01
	850		5.00E-02	9.40E-01	-6.00E-01	5.00E-02	1.10E-01
	852		1.30E-01	1.80E-01	1.30E-01	9.00E-02	1.16E+00
	853		5.00E-02	1.40E-01	-4.90E-01	1.40E-01	5.00E-02
	854		-1.80E-01	-4.90E-01	-1.80E-01	0.00E+00	4.00E-02
	MINIMUM		-1.33E+00	-7.10E-01	-7.10E-01	0.00E+00	-1.30E-01
	MEAN		-2.56E-01	1.20E-02	-3.70E-01	5.60E-02	2.46E-01
	MAXIMUM		1.30E-01	9.40E-01	1.30E-01	1.40E-01	1.16E+00
	+P 99/90		2.60E+00	3.04E+00	1.23E+00	3.37E-01	2.67E+00
	-P 99/90		-3.11E+00	-3.01E+00	-1.97E+00	-2.25E-01	-2.17E+00
	SIGMA		6.11E-01	6.48E-01	3.42E-01	6.02E-02	5.19E-01

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

BIAS CHANGE VDIFF=3V TO 40V IL=10mA		(uA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	6.70E-01	3.10E-01	4.00E-02	-1.60E-01	1.80E-01	2.00E-01
	849	0.00E+00	2.70E-01	1.80E-01	4.00E-01	9.00E-02	2.20E-01
	850	0.00E+00	4.70E-01	1.16E+00	1.60E-01	3.10E-01	-1.80E-01
	852	9.00E-02	5.30E-01	-2.00E-02	1.80E-01	0.00E+00	-5.60E-01
	853	3.60E-01	4.00E-01	4.90E-01	1.00E+00	3.10E-01	-2.90E-01
	854	-4.00E-02	4.00E-02	-4.50E-01	-5.10E-01	4.00E-02	2.70E-01
	MINIMUM	-4.00E-02	4.00E-02	-4.50E-01	-5.10E-01	0.00E+00	-5.60E-01
	MEAN	8.20E-02	3.42E-01	2.72E-01	2.46E-01	1.50E-01	-1.08E-01
	MAXIMUM	3.60E-01	5.30E-01	1.16E+00	1.00E+00	3.10E-01	2.70E-01
	+P 99/90	8.40E-01	1.25E+00	3.08E+00	2.78E+00	8.48E-01	1.53E+00
	-P 99/90	-6.76E-01	-5.66E-01	-2.54E+00	-2.28E+00	-5.48E-01	-1.75E+00
	SIGMA	1.63E-01	1.95E-01	6.02E-01	5.42E-01	1.49E-01	3.51E-01

BIAS CHANGE VDIFF=3V TO 40V IL=10mA		(uA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-3.60E-01	-6.30E-01	-8.30E-01	-4.90E-01	-4.70E-01
	849		2.70E-01	1.80E-01	4.00E-01	9.00E-02	2.20E-01
	850		4.70E-01	1.16E+00	1.60E-01	3.10E-01	-1.80E-01
	852		4.40E-01	-1.10E-01	9.00E-02	-9.00E-02	-6.50E-01
	853		4.00E-02	1.30E-01	6.40E-01	-5.00E-02	-6.50E-01
	854		8.00E-02	-4.10E-01	-4.70E-01	8.00E-02	3.10E-01
	MINIMUM		4.00E-02	-4.10E-01	-4.70E-01	-9.00E-02	-6.50E-01
	MEAN		2.60E-01	1.90E-01	1.64E-01	6.80E-02	-1.90E-01
	MAXIMUM		4.70E-01	1.16E+00	6.40E-01	3.10E-01	3.10E-01
	+P 99/90		1.19E+00	2.95E+00	2.10E+00	7.99E-01	1.95E+00
	-P 99/90		-6.66E-01	-2.57E+00	-1.77E+00	-6.63E-01	-2.33E+00
	SIGMA		1.98E-01	5.90E-01	4.15E-01	1.57E-01	4.59E-01

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

MINIMUM LOAD CURRENT VDIFF=40V		(mA)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.26E+00	-1.26E+00	-1.26E+00	-1.28E+00	-1.28E+00	-1.20E+00
	849	-1.20E+00	-1.22E+00	-1.22E+00	-1.24E+00	-1.24E+00	-1.24E+00
	850	-1.20E+00	-1.20E+00	-1.22E+00	-1.22E+00	-1.22E+00	-1.22E+00
	852	-1.28E+00	-1.20E+00	-1.30E+00	-1.30E+00	-1.32E+00	-1.30E+00
	853	-1.38E+00	-1.40E+00	-1.40E+00	-1.42E+00	-1.42E+00	-1.42E+00
	854	-1.20E+00	-1.22E+00	-1.22E+00	-1.24E+00	-1.24E+00	-1.22E+00
	MINIMUM	-1.38E+00	-1.40E+00	-1.40E+00	-1.42E+00	-1.42E+00	-1.42E+00
	MEAN	-1.25E+00	-1.25E+00	-1.27E+00	-1.28E+00	-1.29E+00	-1.28E+00
	MAXIMUM	-1.20E+00	-1.20E+00	-1.22E+00	-1.22E+00	-1.22E+00	-1.22E+00
	+P 99/90	-8.93E-01	-8.58E-01	-9.02E-01	-9.03E-01	-8.99E-01	-8.93E-01
	-P 99/90	-1.61E+00	-1.64E+00	-1.64E+00	-1.66E+00	-1.67E+00	-1.67E+00
	SIGMA	7.71E-02	8.36E-02	7.90E-02	8.13E-02	8.30E-02	8.28E-02

MINIMUM LOAD CURRENT VDIFF=40V		(mA)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.00E+00	0.00E+00	-2.00E-02	-1.90E-02	5.80E-02
	849		-1.90E-02	-1.60E-02	-3.60E-02	-3.50E-02	-3.70E-02
	850		1.00E-03	-1.60E-02	-1.60E-02	-1.60E-02	-1.70E-02
	852		7.60E-02	-2.00E-02	-2.00E-02	-4.00E-02	-2.20E-02
	853		-1.90E-02	-2.00E-02	-4.00E-02	-4.00E-02	-3.70E-02
	854		-1.60E-02	-1.60E-02	-3.60E-02	-3.50E-02	-1.70E-02
	MINIMUM		-1.90E-02	-2.00E-02	-4.00E-02	-4.00E-02	-3.70E-02
	MEAN		4.60E-03	-1.76E-02	-2.96E-02	-3.32E-02	-2.60E-02
	MAXIMUM		7.60E-02	-1.60E-02	-1.60E-02	-1.60E-02	-1.70E-02
	+P 99/90		1.95E-01	-7.38E-03	2.08E-02	1.32E-02	2.18E-02
	-P 99/90		-1.86E-01	-2.78E-02	-8.00E-02	-7.96E-02	-7.38E-02
	SIGMA		4.08E-02	2.19E-03	1.08E-02	9.93E-03	1.02E-02

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

SHORT CIRCUIT CURRENT VIN-VOUT=15V

(A)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-1.14E+00	-1.14E+00	-1.14E+00	-1.14E+00	-1.13E+00	-1.14E+00
	849	-1.17E+00	-1.18E+00	-1.17E+00	-1.17E+00	-1.17E+00	-1.18E+00
	850	-1.13E+00	-1.13E+00	-1.13E+00	-1.12E+00	-1.13E+00	-1.14E+00
	852	-1.19E+00	-1.13E+00	-1.20E+00	-1.19E+00	-1.19E+00	-1.21E+00
	853	-1.14E+00	-1.14E+00	-1.15E+00	-1.14E+00	-1.14E+00	-1.15E+00
	854	-1.22E+00	-1.24E+00	-1.24E+00	-1.24E+00	-1.23E+00	-1.24E+00
	MINIMUM	-1.22E+00	-1.24E+00	-1.24E+00	-1.24E+00	-1.23E+00	-1.24E+00
	MEAN	-1.17E+00	-1.16E+00	-1.18E+00	-1.17E+00	-1.17E+00	-1.19E+00
	MAXIMUM	-1.13E+00	-1.13E+00	-1.13E+00	-1.12E+00	-1.13E+00	-1.14E+00
	+P 99/90	-9.93E-01	-9.59E-01	-9.81E-01	-9.68E-01	-9.75E-01	-9.99E-01
	-P 99/90	-1.35E+00	-1.37E+00	-1.37E+00	-1.38E+00	-1.37E+00	-1.37E+00
	SIGMA	3.81E-02	4.38E-02	4.18E-02	4.36E-02	4.20E-02	4.00E-02

SHORT CIRCUIT CURRENT VIN-VOUT=15V

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00
	849		-7.00E-03	-5.00E-03	1.00E-03	2.00E-03	-1.40E-02
	850		-2.00E-03	1.00E-03	6.00E-03	2.00E-03	-1.40E-02
	852		5.90E-02	-5.00E-03	0.00E+00	2.00E-03	-2.00E-02
	853		-2.00E-03	-5.00E-03	0.00E+00	2.00E-03	-9.00E-03
	854		-1.10E-02	-1.10E-02	-1.10E-02	-9.00E-03	-1.40E-02
	MINIMUM		-1.10E-02	-1.10E-02	-1.10E-02	-9.00E-03	-2.00E-02
	MEAN		7.40E-03	-5.00E-03	-8.00E-04	-2.00E-04	-1.42E-02
	MAXIMUM		5.90E-02	1.00E-03	6.00E-03	2.00E-03	-9.00E-03
	+P 99/90		1.43E-01	1.48E-02	2.82E-02	2.28E-02	3.99E-03
	-P 99/90		-1.28E-01	-2.48E-02	-2.98E-02	-2.32E-02	-3.24E-02
	SIGMA		2.91E-02	4.24E-03	6.22E-03	4.92E-03	3.90E-03

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

SHORT CIRCUIT CURRENT VIN-VOUT=40V

(A)

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	-2.58E-01	-2.80E-01	-2.80E-01	-2.80E-01	-2.56E-01	-2.64E+02
	849	-2.74E-01	-3.04E-01	-3.02E-01	-3.02E-01	-2.83E-01	-3.05E-01
	850	-2.63E-01	-2.88E-01	-2.96E-01	-2.96E-01	-2.72E-01	-3.00E-01
	852	-2.80E-01	-2.93E-01	-3.07E-01	-3.02E-01	-2.83E-01	-3.11E-01
	853	-2.47E-01	-2.77E-01	-2.80E-01	-2.80E-01	-2.56E-01	-2.77E-01
	854	-2.91E-01	-3.18E-01	-3.13E-01	-3.24E-01	-2.94E-01	-3.22E-01
	MINIMUM	-2.91E-01	-3.18E-01	-3.13E-01	-3.24E-01	-2.94E-01	-3.22E-01
	MEAN	-2.71E-01	-2.96E-01	-3.00E-01	-3.01E-01	-2.78E-01	-3.03E-01
	MAXIMUM	-2.47E-01	-2.77E-01	-2.80E-01	-2.80E-01	-2.56E-01	-2.77E-01
	+P 99/90	-1.93E-01	-2.23E-01	-2.41E-01	-2.27E-01	-2.11E-01	-2.25E-01
	-P 99/90	-3.49E-01	-3.69E-01	-3.58E-01	-3.74E-01	-3.45E-01	-3.81E-01
	SIGMA	1.68E-02	1.57E-02	1.26E-02	1.58E-02	1.44E-02	1.67E-02

SHORT CIRCUIT CURRENT VIN-VOUT=40V

(A)

[DELTA]

FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-2.20E-02	-2.20E-02	-2.20E-02	2.00E-03	-2.64E+02
	849		-3.00E-02	-2.80E-02	-2.80E-02	-9.00E-03	-3.10E-02
	850		-2.50E-02	-3.30E-02	-3.30E-02	-9.00E-03	-3.70E-02
	852		-1.30E-02	-2.70E-02	-2.20E-02	-3.00E-03	-3.10E-02
	853		-3.00E-02	-3.30E-02	-3.30E-02	-9.00E-03	-3.00E-02
	854		-2.70E-02	-2.20E-02	-3.30E-02	-3.00E-03	-3.10E-02
	MINIMUM		-3.00E-02	-3.30E-02	-3.30E-02	-9.00E-03	-3.70E-02
	MEAN		-2.50E-02	-2.86E-02	-2.98E-02	-6.60E-03	-3.20E-02
	MAXIMUM		-1.30E-02	-2.20E-02	-2.20E-02	-3.00E-03	-3.00E-02
	+P 99/90		7.83E-03	-7.07E-03	-7.08E-03	8.73E-03	-1.88E-02
	-P 99/90		-5.78E-02	-5.01E-02	-5.25E-02	-2.19E-02	-4.52E-02
	SIGMA		7.04E-03	4.62E-03	4.87E-03	3.29E-03	2.83E-03

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"

RIPPLE REJECTION CADJ=10uF VOUT=10V		(dB)					
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842	1.27E+02	1.27E+02	1.26E+02	1.24E+02	1.29E+02	1.27E+02
	849	1.24E+02	1.24E+02	1.25E+02	1.24E+02	1.23E+02	1.23E+02
	850	1.26E+02	1.23E+02	1.25E+02	1.26E+02	1.25E+02	1.24E+02
	852	1.24E+02	1.24E+02	1.25E+02	1.24E+02	1.24E+02	1.23E+02
	853	1.25E+02	1.27E+02	1.25E+02	1.25E+02	1.24E+02	1.24E+02
	854	1.24E+02	1.23E+02	1.23E+02	1.24E+02	1.25E+02	1.25E+02
	MINIMUM	1.24E+02	1.23E+02	1.23E+02	1.24E+02	1.23E+02	1.23E+02
	MEAN	1.25E+02	1.24E+02	1.25E+02	1.25E+02	1.24E+02	1.24E+02
	MAXIMUM	1.26E+02	1.27E+02	1.25E+02	1.26E+02	1.25E+02	1.25E+02
	+P 99/90	1.28E+02	1.33E+02	1.28E+02	1.29E+02	1.28E+02	1.28E+02
	-P 99/90	1.21E+02	1.16E+02	1.21E+02	1.20E+02	1.20E+02	1.20E+02
	SIGMA	7.27E-01	1.78E+00	8.44E-01	9.63E-01	8.38E-01	8.08E-01

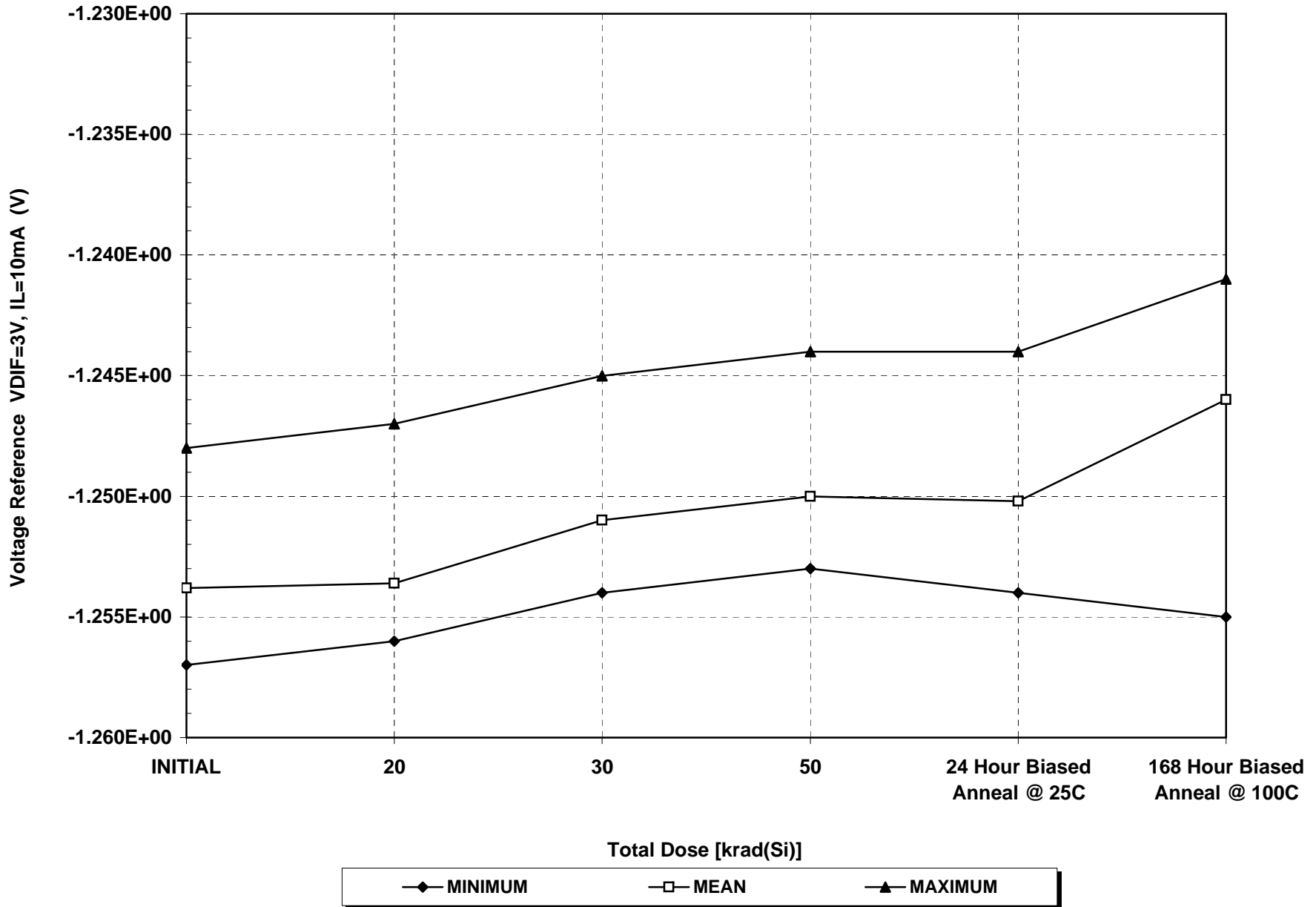
RIPPLE REJECTION CADJ=10uF VOUT=10V		(dB)			[DELTA]		
FLUENCE	krad(Si)	INITIAL	2.00E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		5.00E+01	5.00E+01	5.00E+01	ANNEAL	ANNEAL
						25C	100C
----- S/N -----							
CONTROL	842		-6.60E-01	-8.70E-01	-3.22E+00	2.23E+00	-5.80E-01
	849		-1.70E-01	9.70E-01	-1.20E-01	-1.09E+00	-1.20E+00
	850		-2.36E+00	-1.00E+00	8.70E-01	-9.00E-01	-1.40E+00
	852		-7.80E-01	6.30E-01	-2.30E-01	-1.50E-01	-1.66E+00
	853		2.35E+00	-9.00E-02	2.60E-01	-1.34E+00	-8.80E-01
	854		-6.50E-01	-4.60E-01	7.00E-01	1.71E+00	1.14E+00
	MINIMUM		-2.36E+00	-1.00E+00	-2.30E-01	-1.34E+00	-1.66E+00
	MEAN		-3.22E-01	1.00E-02	2.96E-01	-3.54E-01	-8.00E-01
	MAXIMUM		2.35E+00	9.70E-01	8.70E-01	1.71E+00	1.14E+00
	+P 99/90		7.64E+00	3.74E+00	2.56E+00	5.41E+00	4.43E+00
	-P 99/90		-8.28E+00	-3.72E+00	-1.97E+00	-6.12E+00	-6.03E+00
	SIGMA		1.71E+00	8.00E-01	4.86E-01	1.24E+00	1.12E+00

DEVICE TYPE RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC) "UNBIASED"  
RADIATION SOURCE SHEPHERD 484 (Co60), 1.25MeV

D/C 0709A || PACKAGE TO-39, 3-LEAD CAN || LOT# 10641855.1 W-5  
LOG# 1604 || TEST DATE 05/31/07 || RTP# 690  
P.O# 46147L

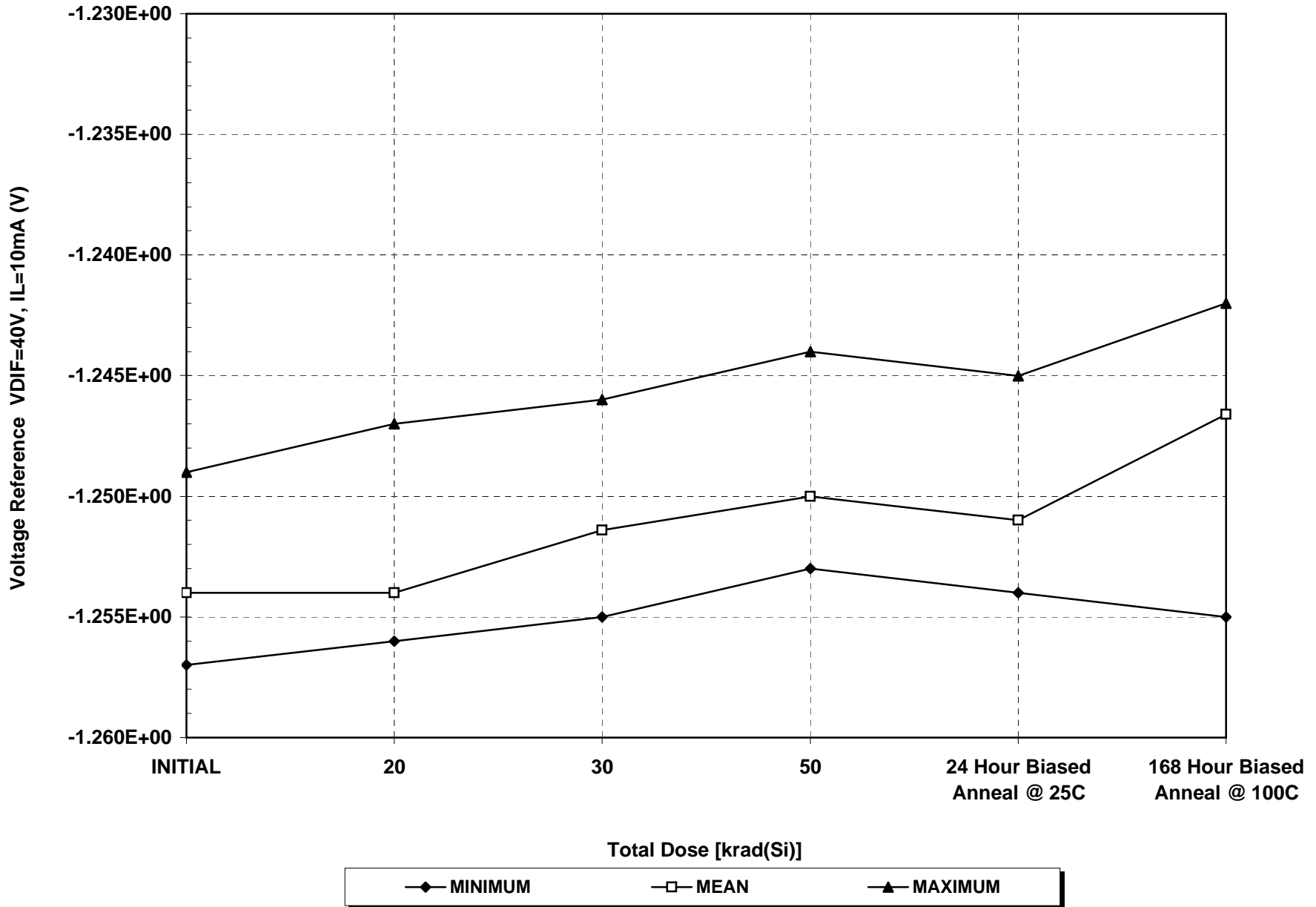
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results Log # 1604 5/31/07

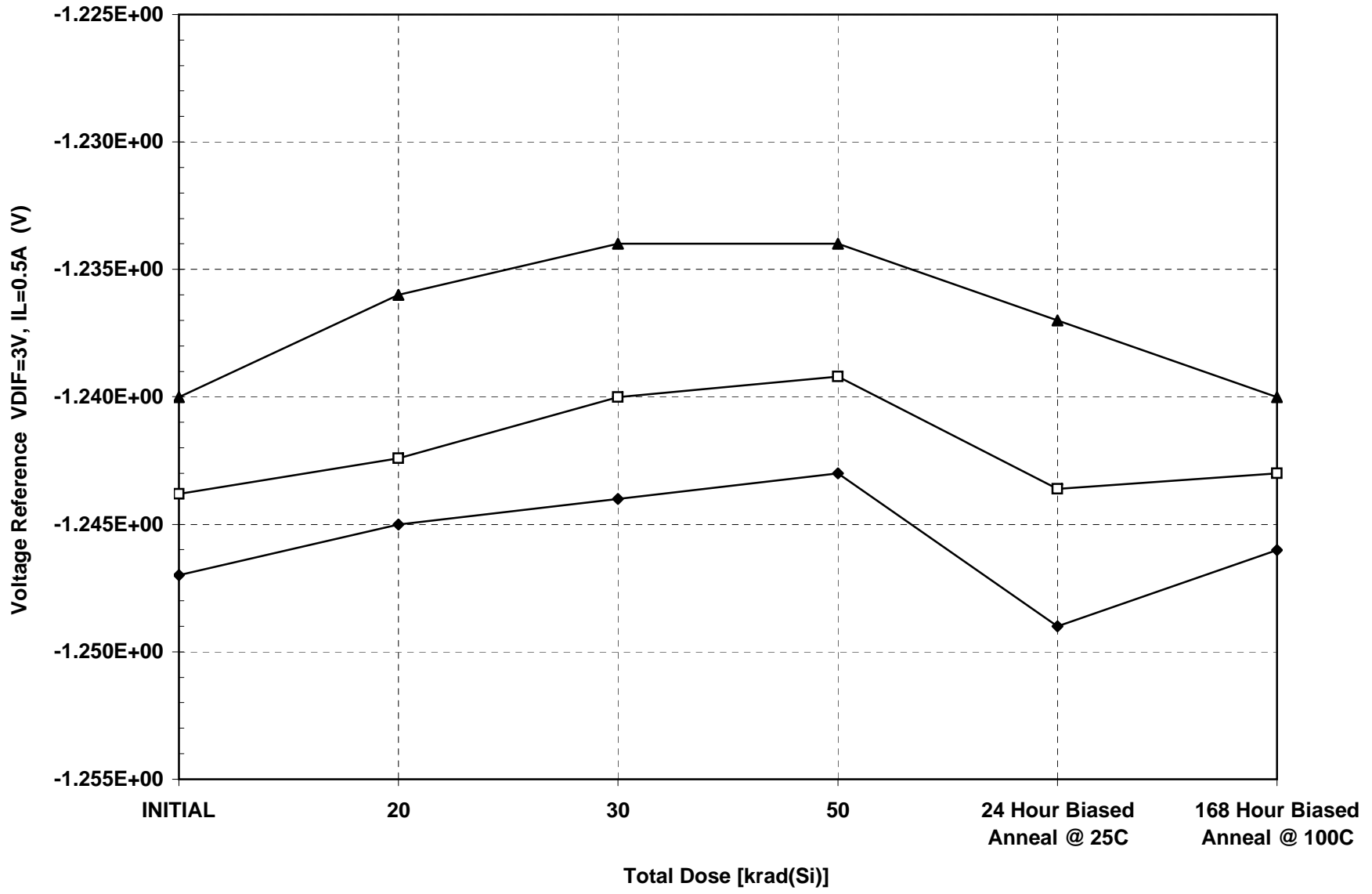




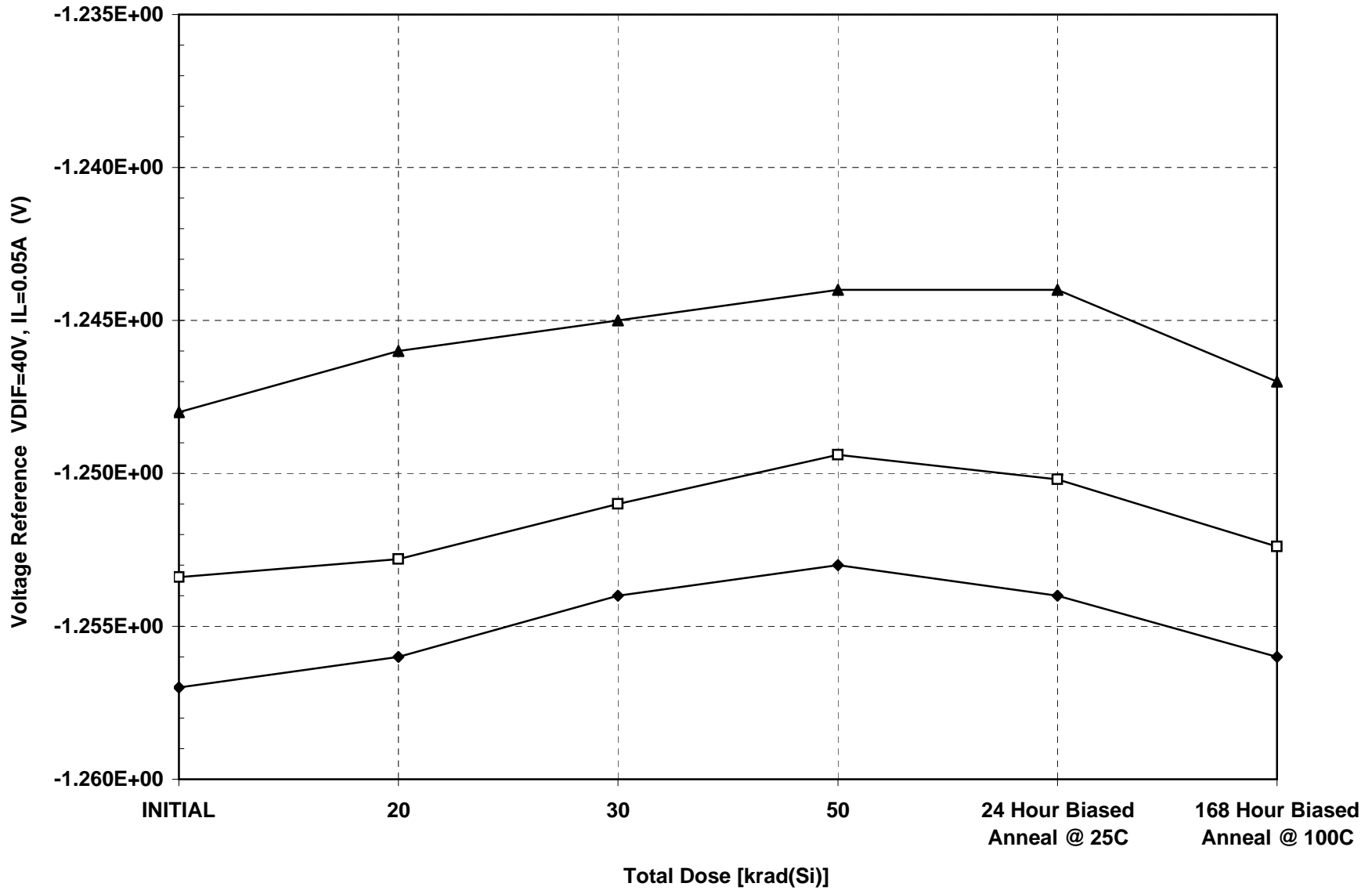
I C S Radiation Test Results Log # 1604 5/31/07



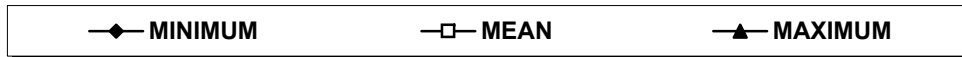
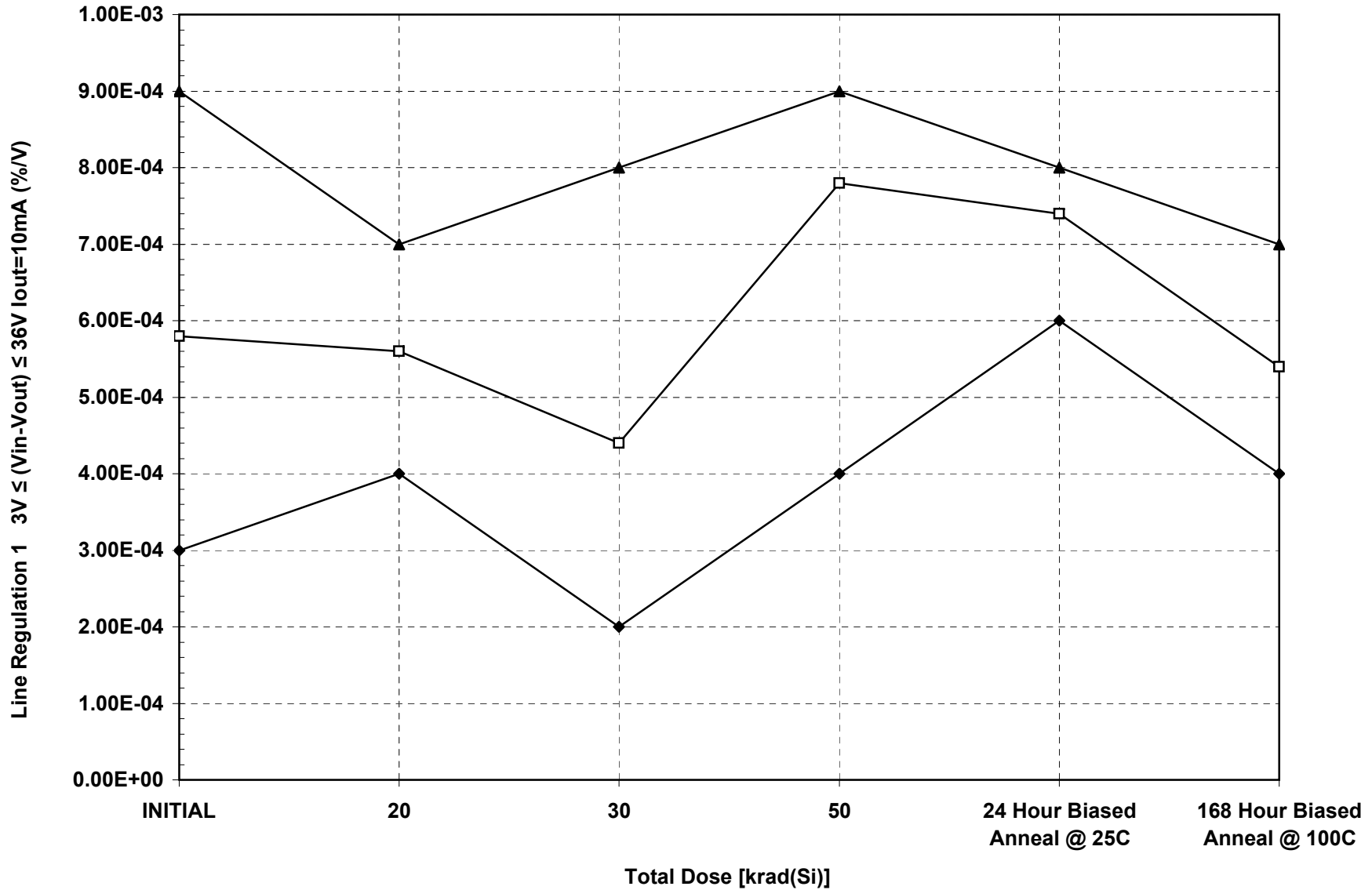
I C S Radiation Test Results Log # 1604 5/31/07



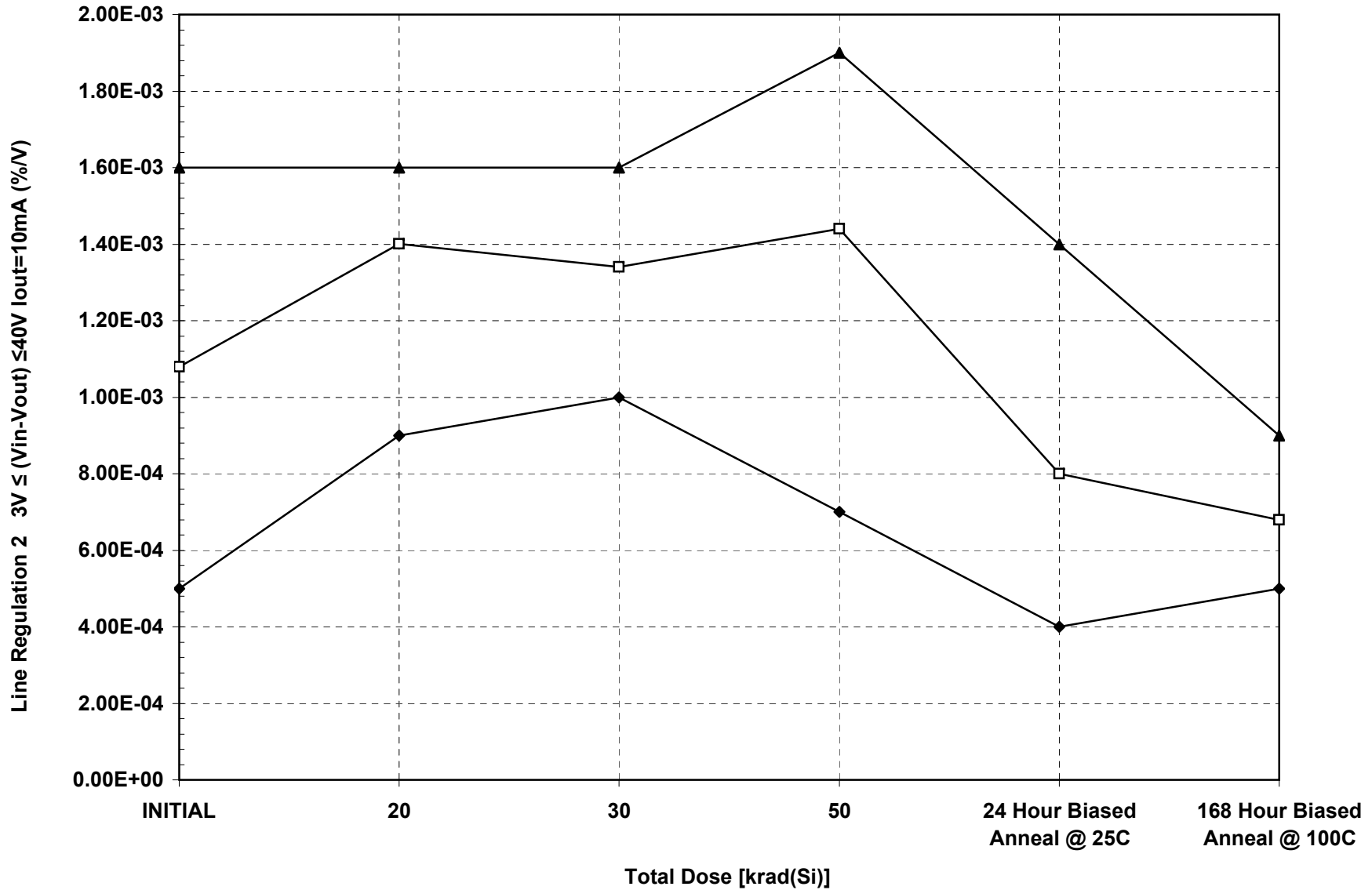
I C S Radiation Test Results Log # 1604 5/31/07



I C S Radiation Test Results Log # 1604 5/31/07

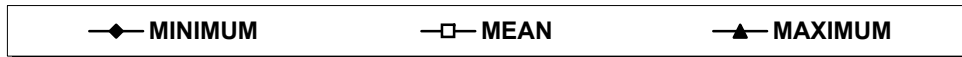
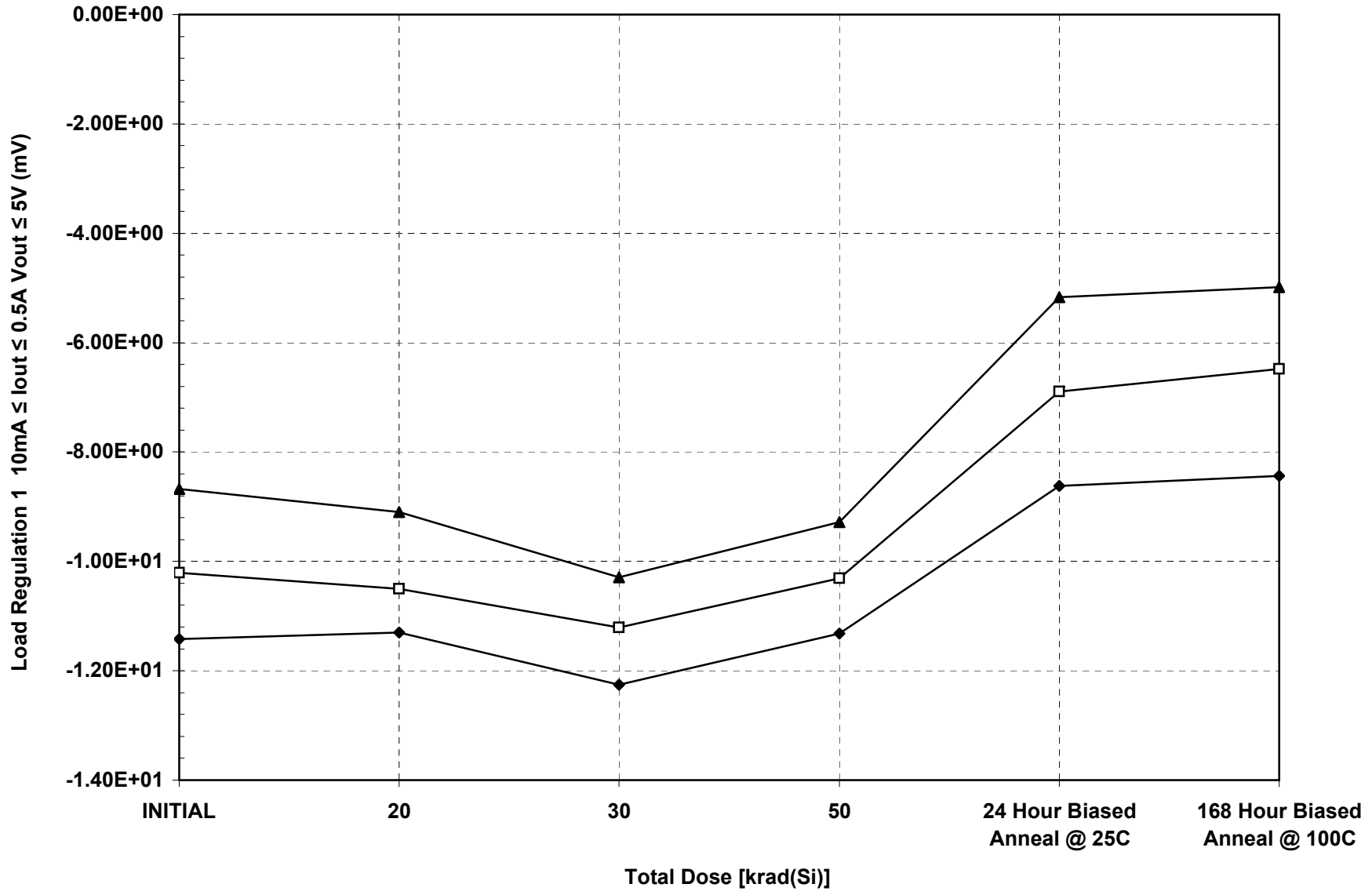


I C S Radiation Test Results Log # 1604 5/31/07

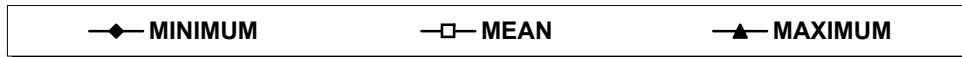
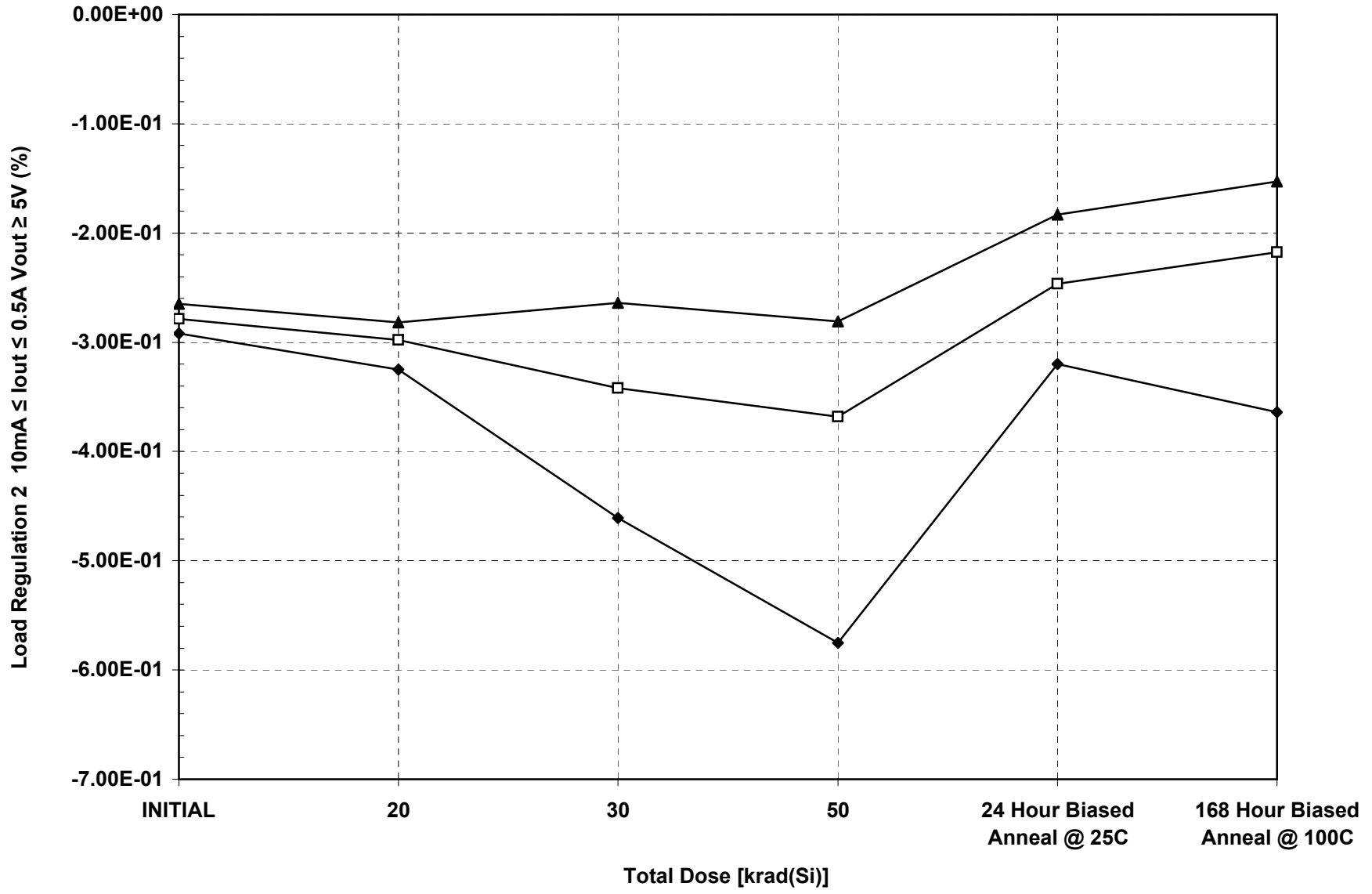


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

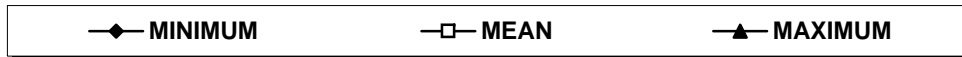
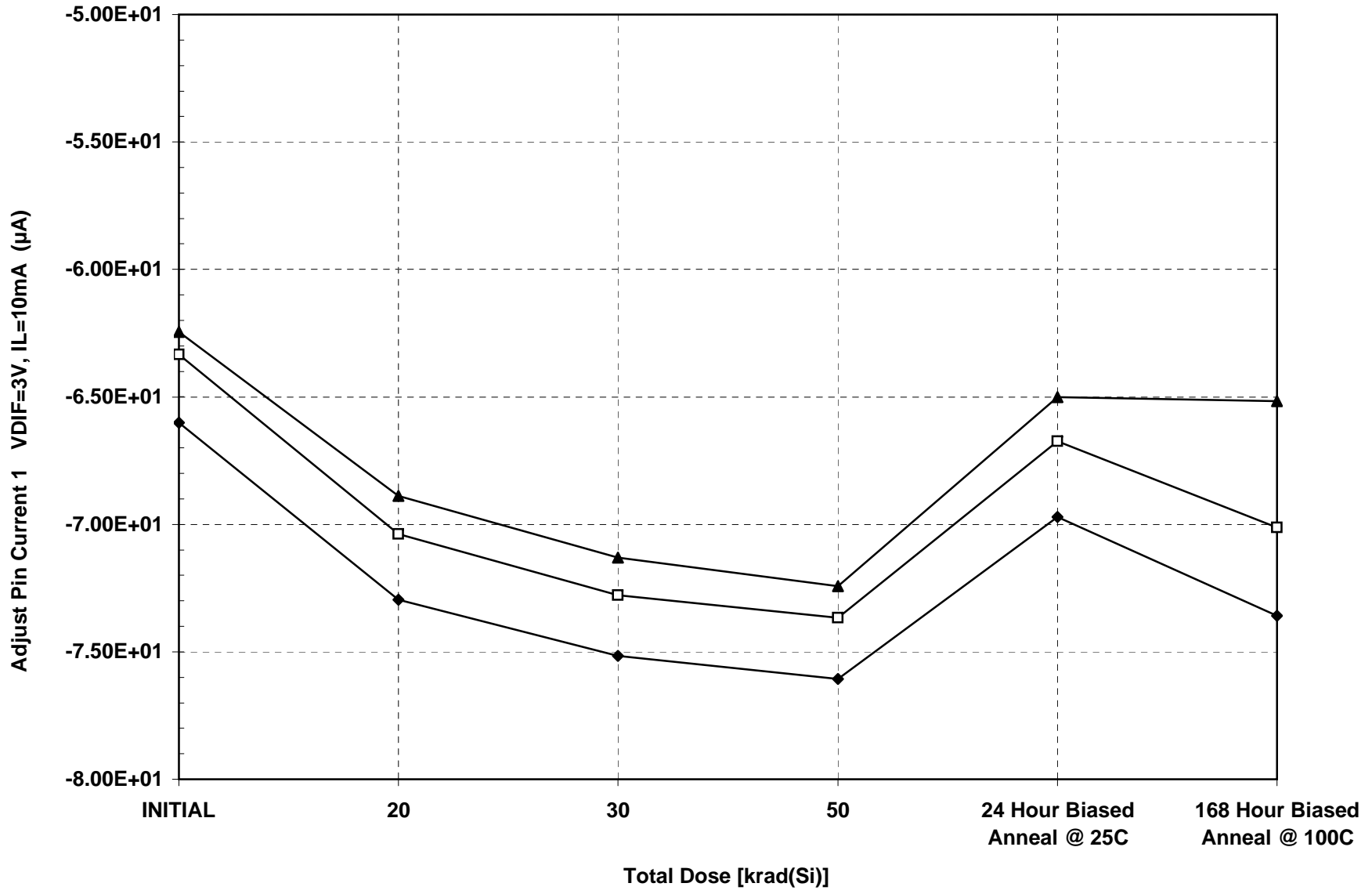
I C S Radiation Test Results Log # 1604 5/31/07



I C S Radiation Test Results Log # 1604 5/31/07

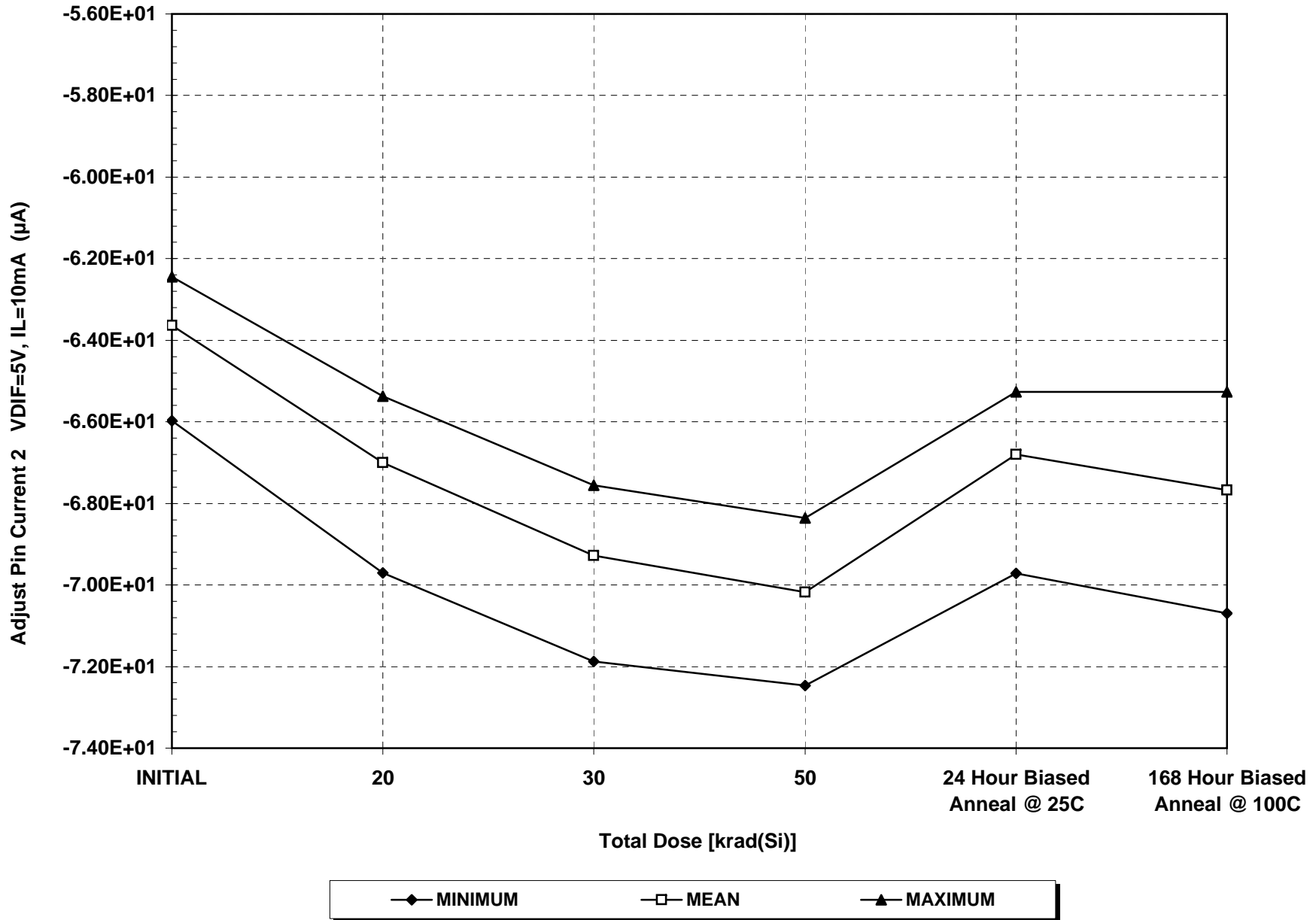


I C S Radiation Test Results Log # 1604 5/31/07

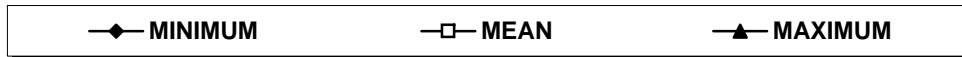
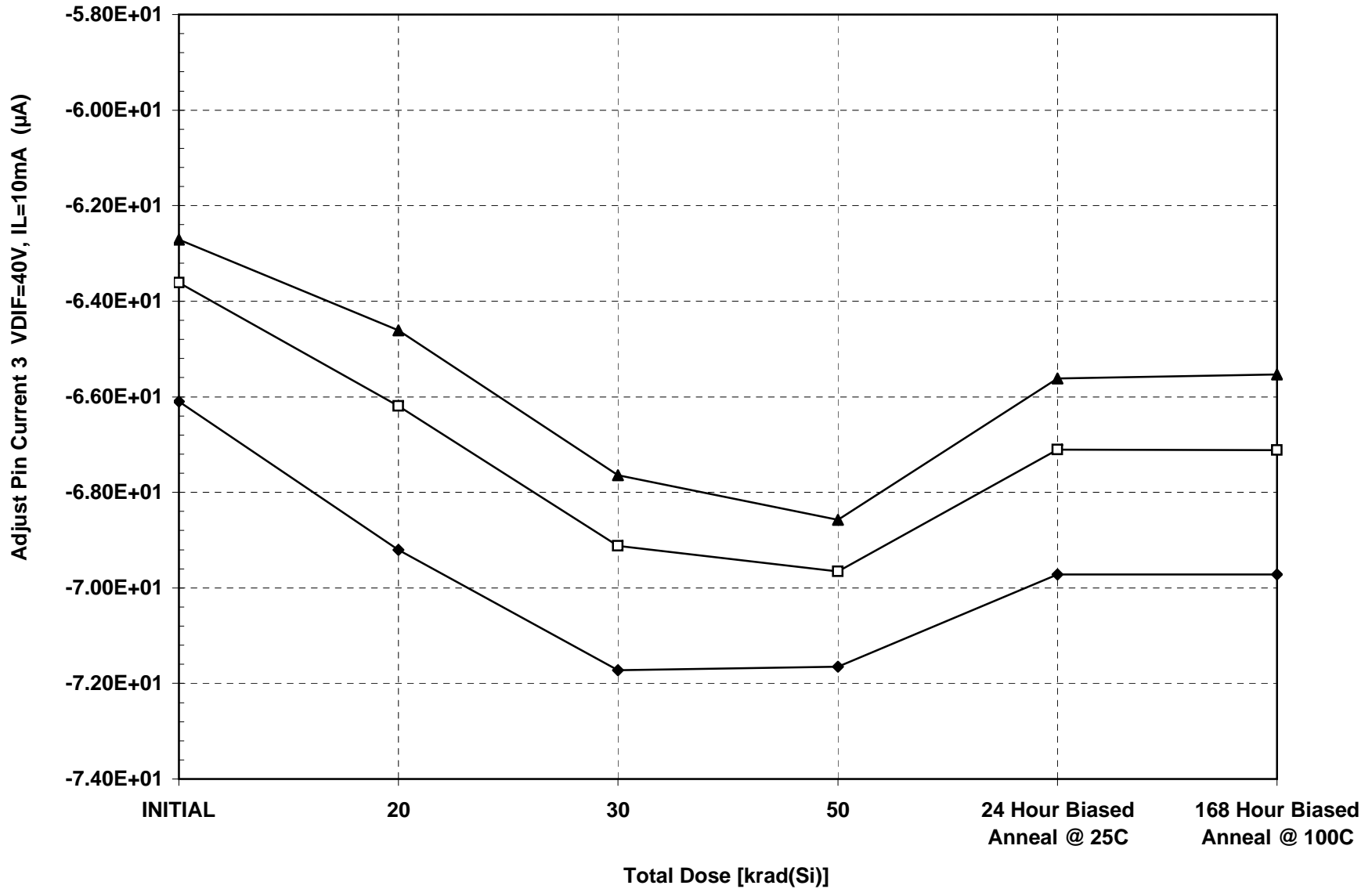




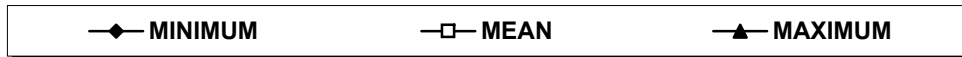
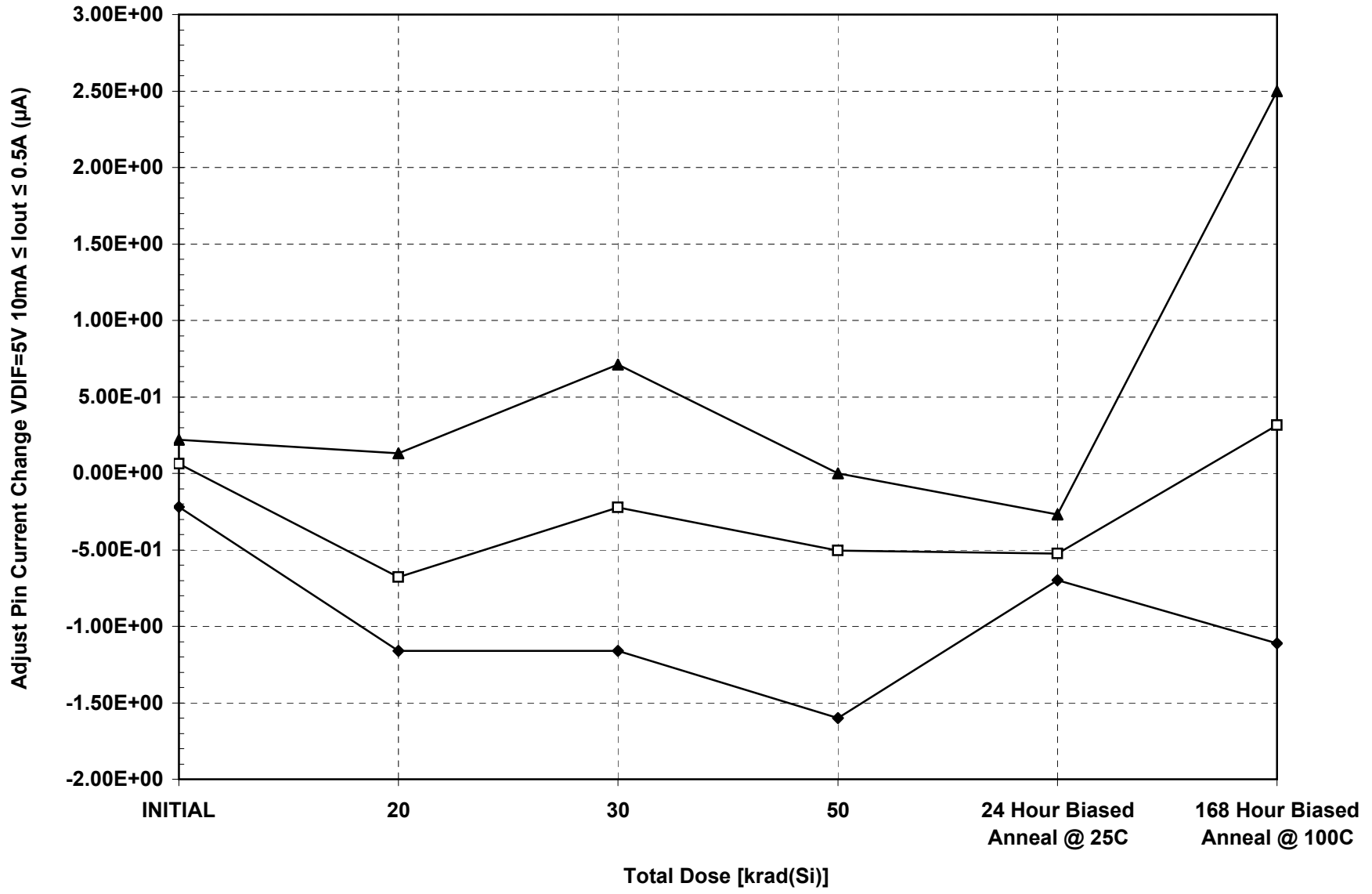
I C S Radiation Test Results Log # 1604 5/31/07



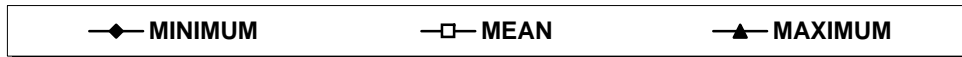
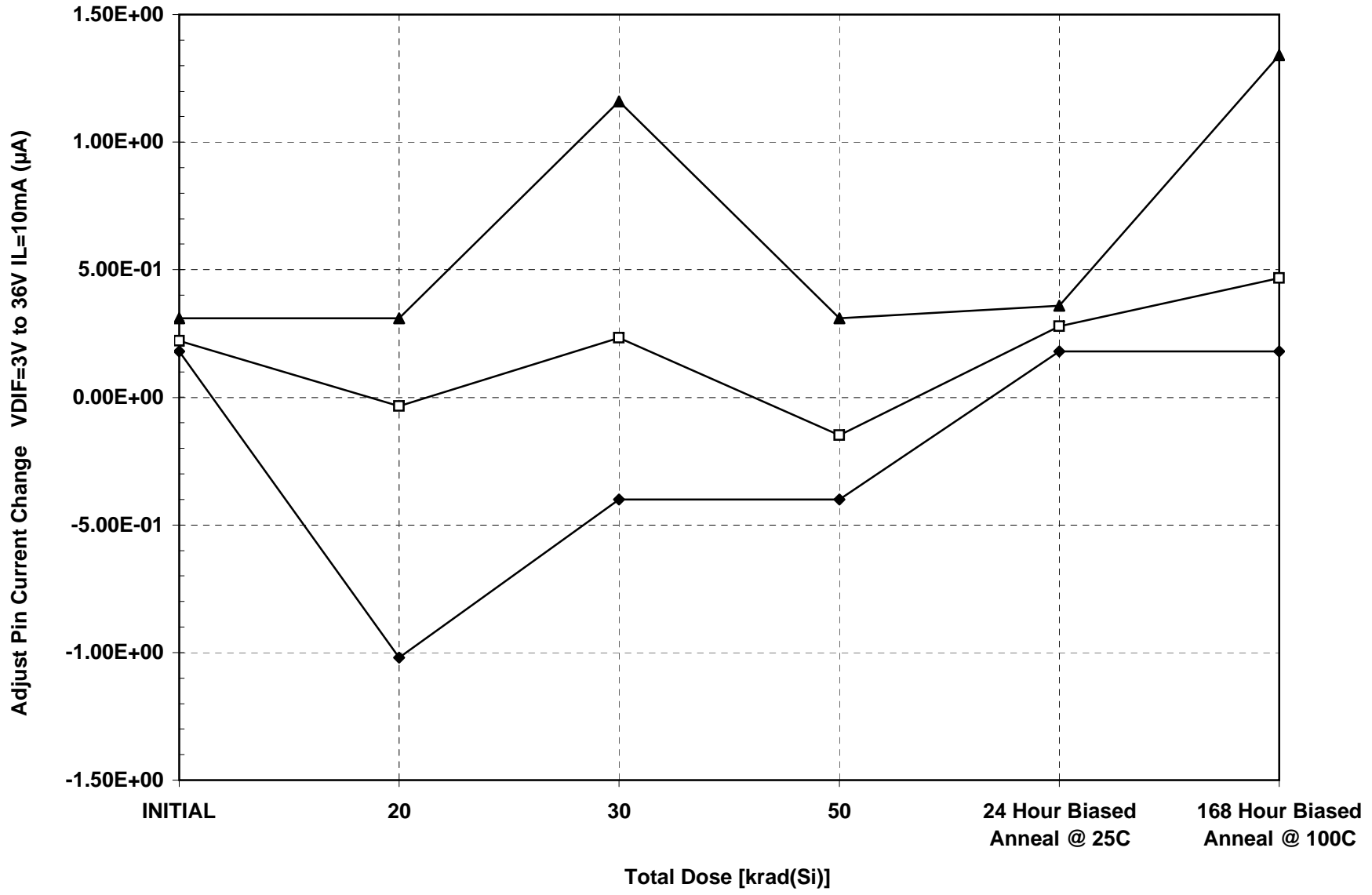
I C S Radiation Test Results Log # 1604 5/31/07



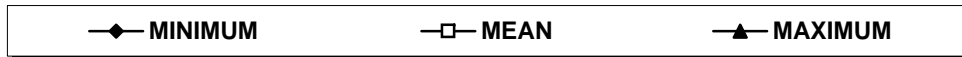
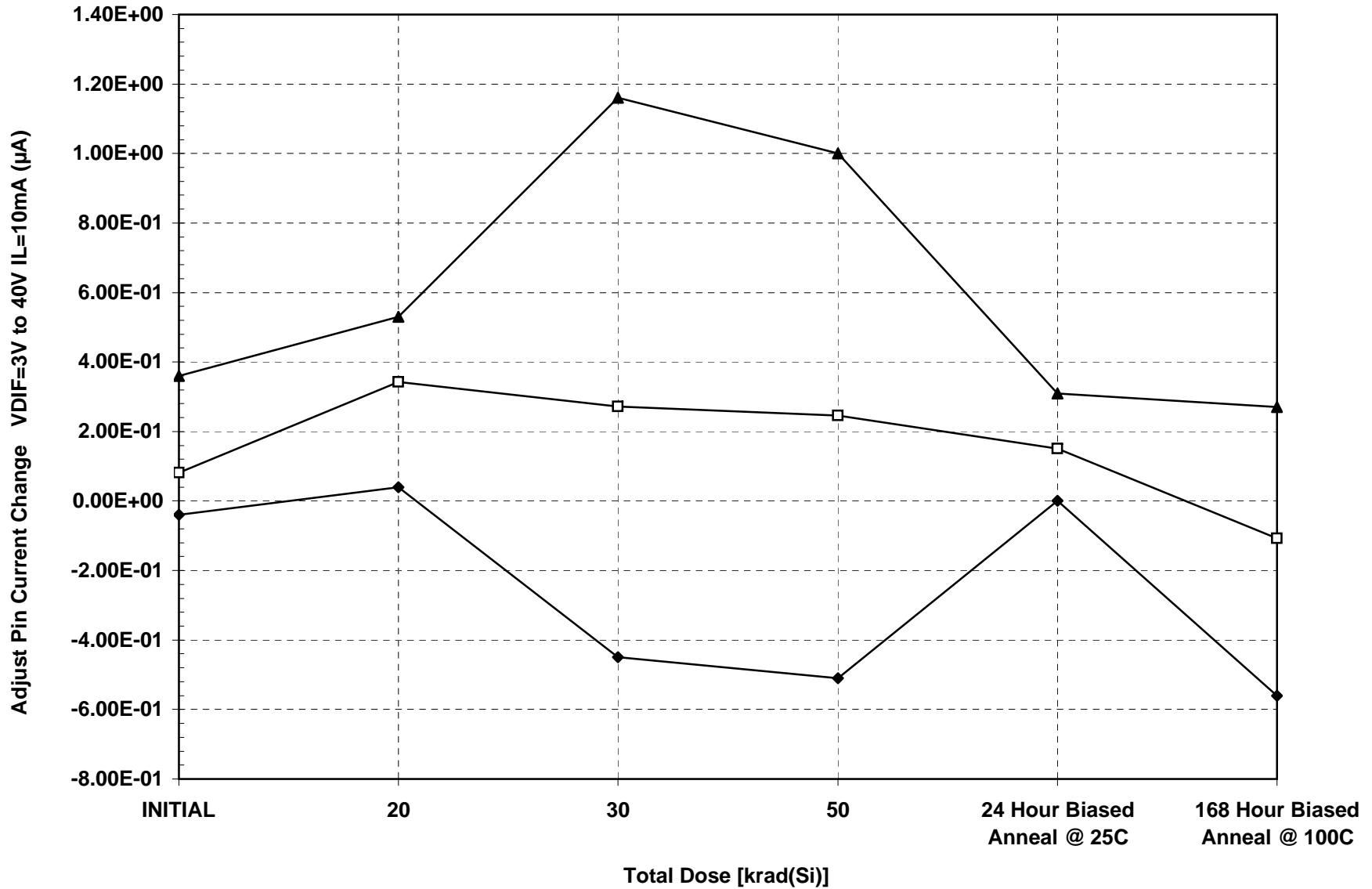
I C S Radiation Test Results Log # 1604 5/31/07



I C S Radiation Test Results Log # 1604 5/31/07



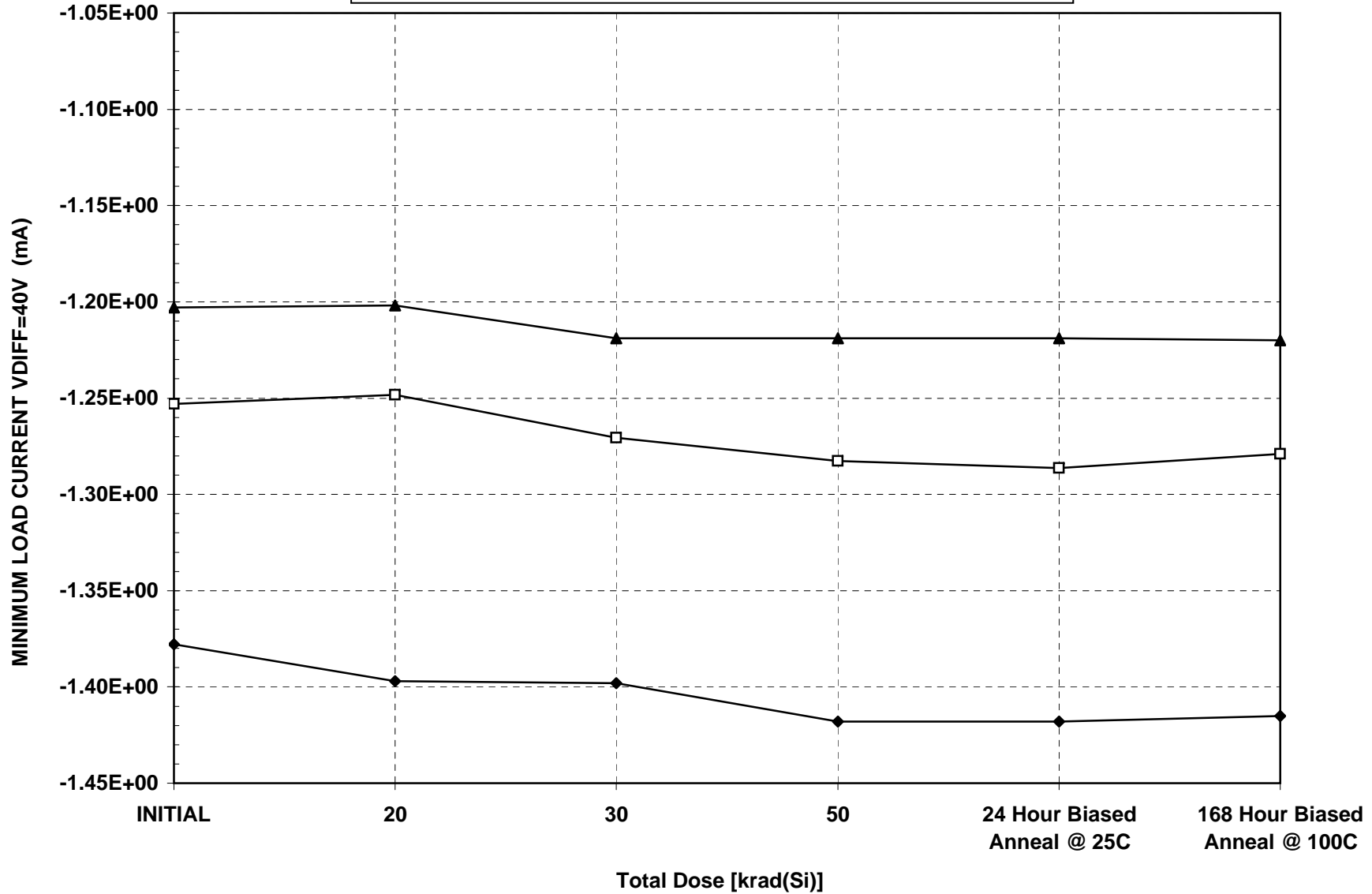
I C S Radiation Test Results Log # 1604 5/31/07



# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1604 5/31/07

MINIMUM LOAD CURRENT VDIFF=40V (mA)

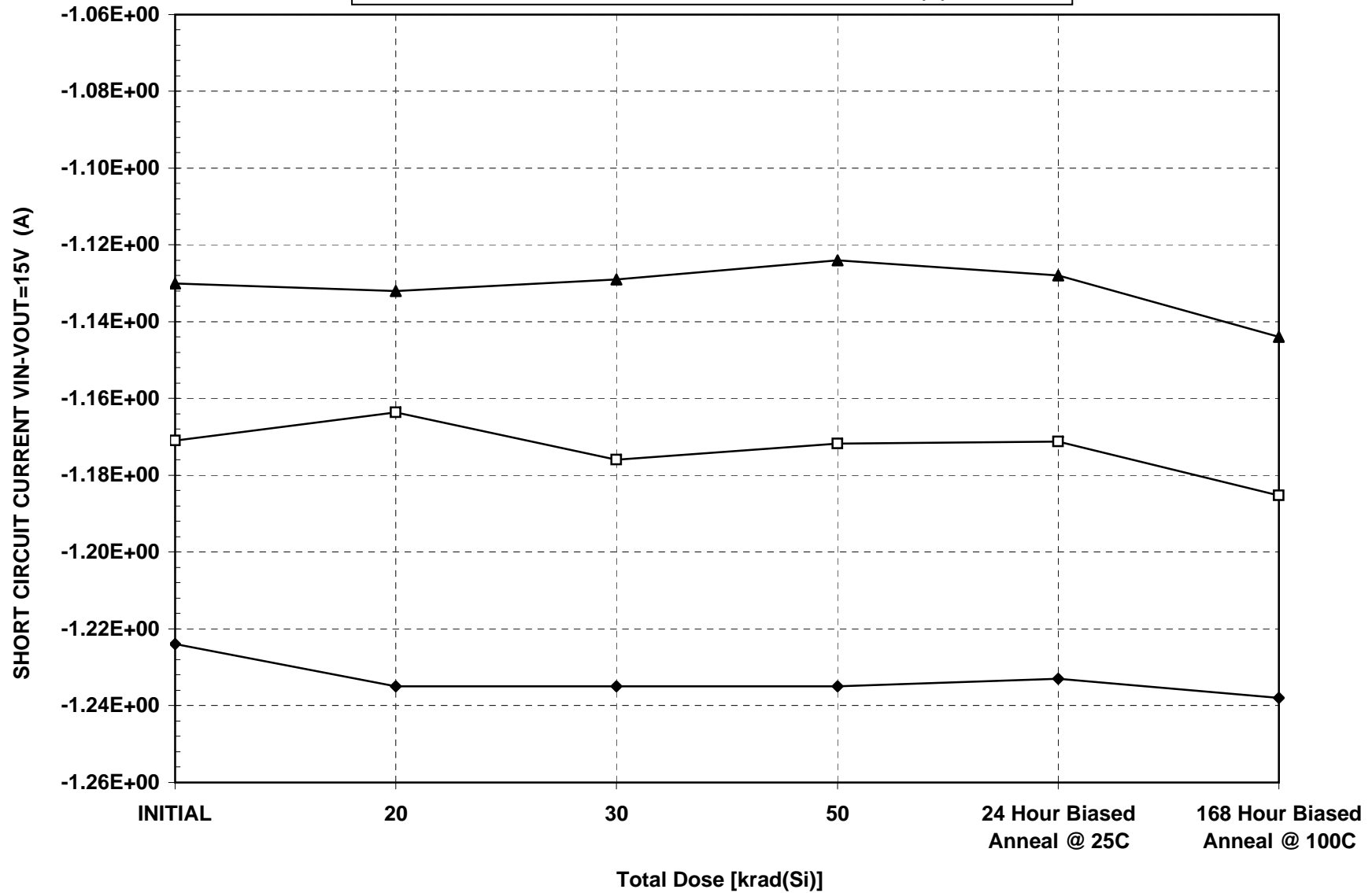


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1604 5/31/07

SHORT CIRCUIT CURRENT VIN-VOUT=15V (A)

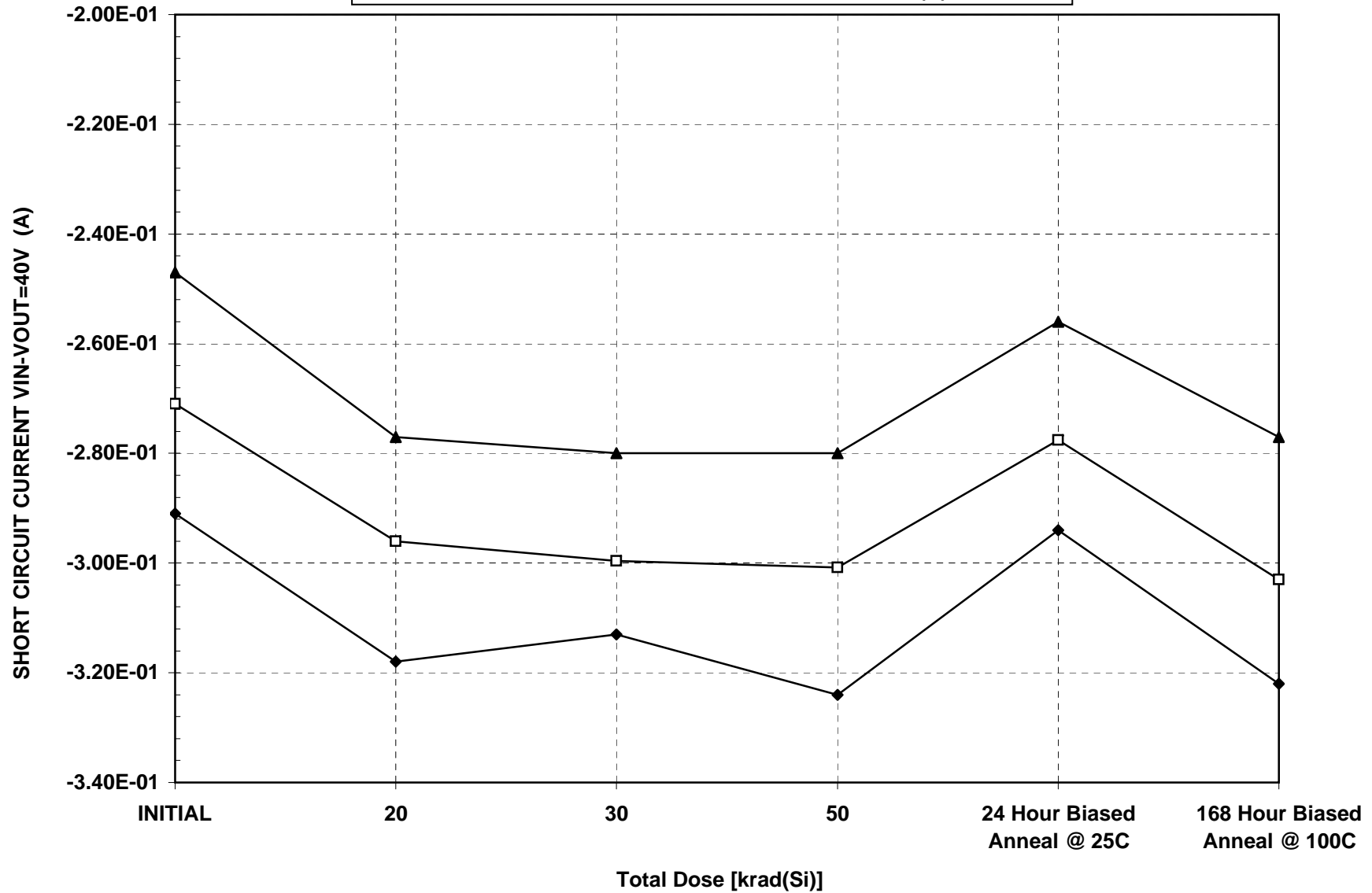


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1604 5/31/07

SHORT CIRCUIT CURRENT VIN-VOUT=40V (A)



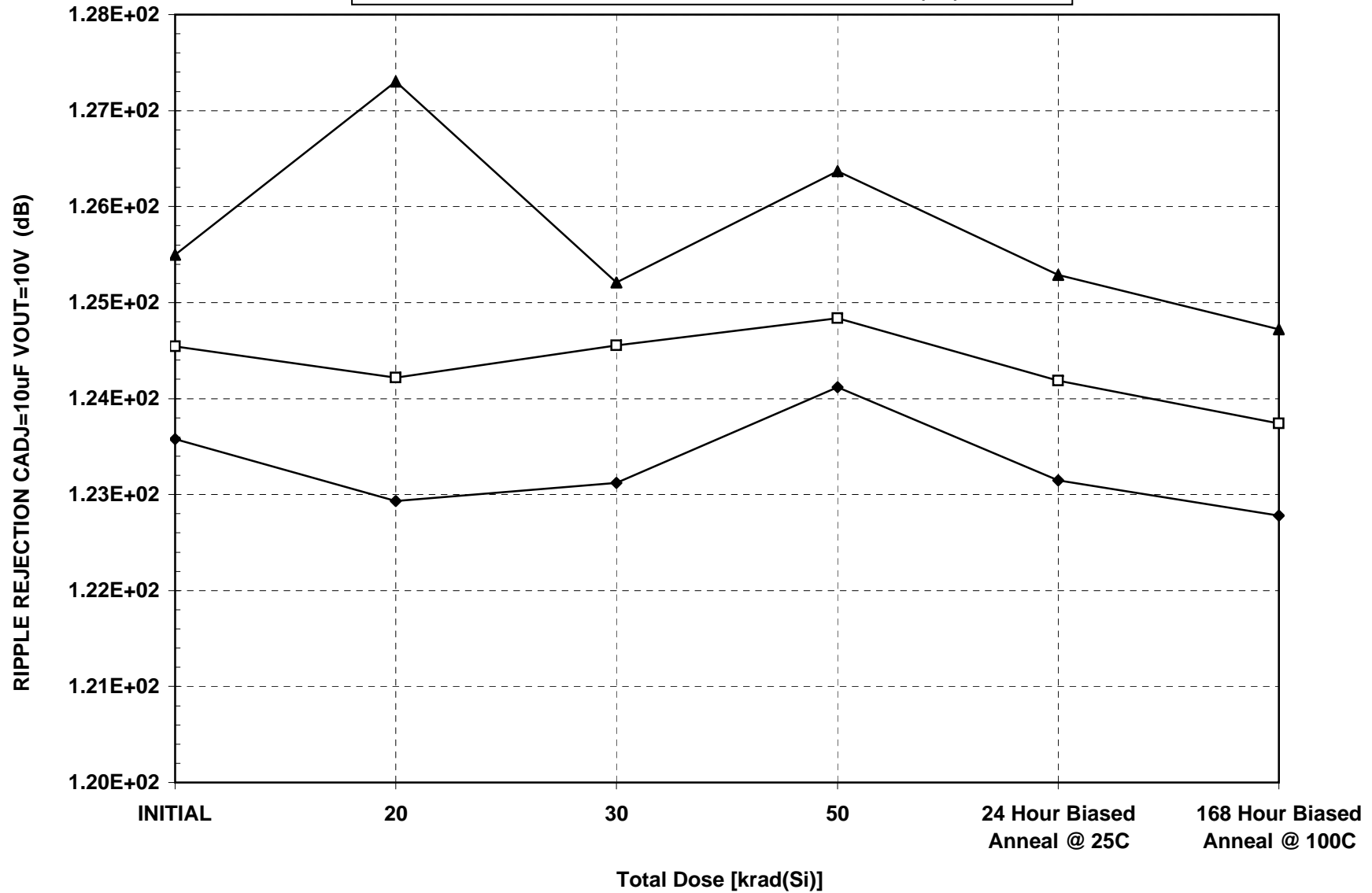
◆ MINIMUM      □ MEAN      ▲ MAXIMUM



# RH137H NEGATIVE ADJUSTABLE REGULATOR (LTC)

IC S Radiation Test Results Log # 1604 5/31/07

RIPPLE REJECTION CADJ=10uF VOUT=10V (dB)



◆ MINIMUM      □ MEAN      ▲ MAXIMUM



## Radiation Test Results

**RH137H**

**Negative Adjustable Regulator  
Linear Technology Corporation**

D/C 0709A, Lot# 423723.1 , Wafer # 5  
Test Date 08-08-07, Fab# 10641855.1  
Log# 1605 and 1606, TID Test  
P.O.# 46146L

This ELDRS test consisted of two test logs, 1605 and 1606. The test was to compare the radiation effects differences between two bias conditions: Log 1605, had +30 volts and Log 1606 was unbiased with all leads grounded. The 16 test requirements and two "information only" test are stated in test procedure RTP 696, dated March 23, 2007.

These lots **PASSED** the 16 test requirements as stated in the Radiation Test Procedure RTP 696, dated March 23, 2007 at 50krad(Si).

**NOTE:** *To simplify the following data analysis, all negative numbers, except for the Voltage Reference parameters have been converted to Absolute numbers. This matches with the Absolute numbers used on the manufacturers data sheets.*

### **ELDRS BIASED DEVICES, Log 1605**

**Voltage Reference VDIFF=3V IL=10mA:** The Post-Radiation limit at 50krad(Si) was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.251V.

**Voltage Reference VDIFF=40V IL=10mA:** The Post-Radiation limit at 50krad(Si) was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.251V.

**Voltage Reference VDIFF=3V IL=0.5A:** The Post-Radiation limit at 50krad(Si) was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.239V and minimum voltage was -1.245V.

**Voltage Reference VDIFF=40V IL=0.05A:** The Post-Radiation limit at 50krad(Si) was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.244V and minimum voltage was -1.251V.

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA:** The Post-Radiation limit at 50krad(Si) was 0.02%/V maximum. The parameter maximum was 0.0011%/V.

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA:** The Post-Radiation limit at 50krad(Si) was 0.02%/V maximum. The parameter maximum was 0.0019%/V.

**Load Regulation 1 VOUT<=5V IL=10mA 0.5A:** The Post-Radiation limit at 50krad(Si) was 25mV maximum. The parameter maximum was 6.16mV.

**INFORMATION ONLY Load Regulation 2  $V_{OUT} \geq 5V$   $I_L = 10mA$  0.5A: At 50krad(Si), the parameter maximum was 0.207%.**

**Bias Current 1  $V_{DIFF} = 3V$   $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 100 $\mu A$  maximum. The parameter maximum was 68  $\mu A$ .**

**Bias Current 2  $V_{DIFF} = 5V$   $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 100 $\mu A$  maximum. The parameter maximum was 67.8 $\mu A$ .**

**Bias Current 3  $V_{DIFF} = 40V$   $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 100 $\mu A$  maximum. The parameter maximum was 68.2 $\mu A$ .**

**Bias Change  $V_{DIFF} = 5V$   $I_L = 10mA$  to 0.5A: The Post-Radiation limit at 50krad(Si) was 5 $\mu A$  maximum. The parameter maximum was 0.36 $\mu A$ .**

**Bias Change  $V_{DIFF} = 3V$  to 36V  $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 5 $\mu A$  maximum. The parameter maximum was 0.36 $\mu A$ .**

**Bias Change  $V_{DIFF} = 3V$  to 40V  $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 5 $\mu A$  maximum. The parameter maximum was 0.13 $\mu A$ .**

**Minimum Load Current  $V_{DIFF} = 40V$ : The Post-Radiation limit at 50krad(Si) was 5mA maximum. The parameter maximum was 1.45mA.**

**Short Circuit Current  $V_{DIFF} = 15V$ : The Post-Radiation limit at 50krad(Si) was 0.5A minimum. The parameter minimum was 1.28A.**

**Short Circuit Current  $V_{DIFF} = 40V$ : The Post-Radiation limit at 50krad(Si) was 0.15A minimum. The parameter minimum was 0.301A.**

**INFORMATION ONLY Ripple Rejection  $C_{ADJ} = 10\mu F$ ,  $V_{out} = 10V$ : At 50krad(Si), the parameter minimum was 121dB.**

## **ELDRS UNBIASED (GROUNDED) DEVICES, Log 1606**

**Voltage Reference  $V_{DIFF} = 3V$   $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.248V and minimum voltage was -1.249V.**

**Voltage Reference  $V_{DIFF} = 40V$   $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.248V and minimum voltage was -1.250V.**

**Voltage Reference  $V_{DIFF} = 3V$   $I_L = 0.5A$ : The Post-Radiation limit at 50krad(Si) was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.241V and minimum voltage was -1.244V.**

**Voltage Reference  $V_{DIFF} = 40V$   $I_L = 0.05A$ : The Post-Radiation limit at 50krad(Si) was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.248V and minimum voltage was -1.250V.**

**Line Regulation 1  $V_{DEFF} = 3V$  TO 36V  $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 0.02%/V maximum. The parameter maximum was 0.0008%/V.**

**Line Regulation 2  $V_{DEFF} = 3V$  TO 40V  $I_L = 10mA$ : The Post-Radiation limit at 50krad(Si) was 0.02%/V maximum. The parameter maximum was 0.0011%/V.**

**Load Regulation 1  $V_{OUT} \leq 5V$   $I_L = 10mA$  0.5A: The Post-Radiation limit at 50krad(Si) was 25mV maximum. The parameter maximum was 6.97mV.**

**INFORMATION ONLY Load Regulation 2  $V_{OUT} \geq 5V$   $I_L = 10mA$  0.5A: At 50krad(Si), the parameter maximum was 0.297%.**

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 67.1µA.

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 67.2µA.

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 67.6µA.

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.27µA.

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.31A.

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.53µA.

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 5mA maximum. The parameter maximum was -1.39mA.

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si)** was 0.5A minimum. The parameter minimum was 1.13A.

**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 0.15A minimum. The parameter minimum was 0.301A.

**INFORMATION ONLY Ripple Rejection CADJ=10µF, Vout=10V: At 50krad(Si),** the parameter minimum was 124dB.

## **ANOMOLIES:**

- 1. The control device, S/N 843, was damaged during the 15krad(Si) testing.** There is initial and 7krad(Si) data. There was good uniformity in the test data, so the loss of the control device was not that important.
- 2. Load Regulation 2 VOUT>=5V IL=10mA 0.5A was an INFORMATION ONLY test.** The *Load Regulation* test condition of 10mA-500mA exceeds datasheet test condition of 10mA-200mA so, the datasheet limit of 0.5% does not apply to *Load Regulation* test as performed in this analysis.
- 3. S/N 857 marginally FAILED (but subsequently recovered).** The parameter **Bias Change VDEF=5V IL=10mA to 0.5A.** exceeded the 50krad(Si) test limit at the 7krad(Si) level. The limit maximum is 5 µA and S/N 857 measured 6.28 µA. S/N 857 measured typical values for the other test levels and the all other parameters. The analysis of all the test measurements for S/N 857 indicates that the over limit measurement was an anomalous reading that may have been caused by noise.

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](mailto:mike@icsrad.com).

ICS Radiation Technologies, Inc.

Dr. Michael K. Gauthier, P.E.  
President  
November 17, 2007



RADIATION TEST PROCEDURE

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits			Units
			Exposure Levels rad(Si)			
			20k	50k	100k	
1	Voltage Reference	VDIF=3V, IL=10mA	-1.225	-1.225	-1.225	V Min
			-1.275	-1.275	-1.275	V Max
2	Voltage Reference	VDIF=40V, IL=10mA	-1.225	-1.225	-1.225	V Min
			-1.275	-1.275	-1.275	V Max
3	Voltage Reference	VDIF=3V, IL=0.5A	-1.200	-1.200	-1.200	V Min
			-1.300	-1.300	-1.300	V Max
4	Voltage Reference	VDIF=40V, IL=0.05A	-1.200	-1.200	-1.200	V Min
			-1.300	-1.300	-1.300	V Max
5	Line Regulation 1	$3V \leq (V_{in}-V_{out}) \leq 36V$ I <sub>out</sub> =10mA	0.02	0.02	0.02	%/V Max
6	Line Regulation 2	$3V \leq (V_{in}-V_{out}) \leq 40V$ I <sub>out</sub> =10mA	0.02	0.02	0.03	%/V Max
7	Load Regulation 1	$10mA \leq I_{out} \leq 0.5A$ V <sub>out</sub> ≤ 5V	25	25	25	mV Max
8	Load Regulation 2	$10mA \leq I_{out} \leq 0.5A$ V <sub>out</sub> ≥ 5V	0.5	0.5	0.5	% Max
9	Adjust Pin Current 1	VDIF=3V, IL=10mA	100	100	100	μA Max
10	Adjust Pin Current 2	VDIF=5V, IL=10mA	100	100	100	μA Max
11	Adjust Pin Current 3	VDIF=40V, IL=10mA	100	100	100	μA Max
12	Adjust Pin Current Change	VDIF=5V $10mA \leq I_{out} \leq 0.5A$	5	5	5	μA Max
13	Adjust Pin Current Change	VDIF=3V to 36V IL=10mA	5	5	5	μA Max
14	Adjust Pin Current Change	VDIF=3V to 40V IL=10mA	5	5	5	μA Max

**RADIATION TEST PROCEDURE**

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits			Units
			Exposure Levels rad(Si)			
			20k	50k	100k	
15	Minimum Load Current	VDIF=40V	5	5	5	mA Max
16	Short Circuit Current	VDIF=15V	0.5	0.5	0.5	A Min
17	Short Circuit Current	VDIF=40V	0.15	0.15	0.15	A Min
18	Ripple Rejection	CADJ=10μF, Vout=10V	Record	Record	Record	dB

Measurements shall be made at room (ambient) temperature.

Test conducted using an Analog Devices LTS-2020 Component Test System, with the LTS-2101 Family Board, LTS0606 Regulator Socket Assembly, LTS0325/RH137 DUT board .

Software: RH137H/K 1.021 program.

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

Return samples to customer.



I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=3V IL=10MA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

S/N								
CONTROL	843	-1.257E+00	-1.257E+00	****	****	****	****	****
	855	-1.255E+00	-1.254E+00	-1.253E+00	-1.251E+00	-1.249E+00	-1.248E+00	-1.251E+00
	856	-1.249E+00	-1.249E+00	-1.248E+00	-1.246E+00	-1.244E+00	-1.244E+00	-1.246E+00
	857	-1.253E+00	-1.252E+00	-1.252E+00	-1.250E+00	-1.247E+00	-1.247E+00	-1.249E+00
	858	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.250E+00	-1.250E+00	-1.252E+00
	859	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.253E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.253E+00
	MEAN	-1.254E+00	-1.253E+00	-1.253E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.250E+00
	MAXIMUM	-1.249E+00	-1.249E+00	-1.248E+00	-1.246E+00	-1.244E+00	-1.244E+00	-1.246E+00
	+P 99/90	-1.239E+00	-1.240E+00	-1.239E+00	-1.237E+00	-1.235E+00	-1.235E+00	-1.237E+00
	-P 99/90	-1.270E+00	-1.267E+00	-1.266E+00	-1.264E+00	-1.261E+00	-1.261E+00	-1.263E+00
	SIGMA	3.347E-03	2.966E-03	2.881E-03	2.881E-03	2.775E-03	2.739E-03	2.775E-03

REFERENCE OUTPUT VDIFF=3V IL=10MA

[DELTA]

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

S/N								
CONTROL	843	0.000E+00	****	****	****	****	****	****
	855	1.000E-03	2.000E-03	4.000E-03	6.000E-03	7.000E-03	4.000E-03	4.000E-03
	856	0.000E+00	1.000E-03	3.000E-03	5.000E-03	5.000E-03	3.000E-03	3.000E-03
	857	1.000E-03	1.000E-03	3.000E-03	6.000E-03	6.000E-03	4.000E-03	4.000E-03
	858	1.000E-03	2.000E-03	4.000E-03	7.000E-03	7.000E-03	5.000E-03	5.000E-03
	859	1.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	4.000E-03	4.000E-03
	MINIMUM	0.000E+00	1.000E-03	3.000E-03	5.000E-03	5.000E-03	3.000E-03	3.000E-03
	MEAN	8.000E-04	1.600E-03	3.600E-03	6.000E-03	6.200E-03	4.000E-03	4.000E-03
	MAXIMUM	1.000E-03	2.000E-03	4.000E-03	7.000E-03	7.000E-03	5.000E-03	5.000E-03
	+P 99/90	2.887E-03	4.156E-03	6.156E-03	9.299E-03	1.010E-02	7.299E-03	7.299E-03
	-P 99/90	-1.287E-03	-9.557E-04	1.044E-03	2.701E-03	2.296E-03	7.006E-04	7.006E-04
	SIGMA	4.472E-04	5.477E-04	5.477E-04	7.071E-04	8.367E-04	7.071E-04	7.071E-04

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=40V IL=10MA		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.257E+00	-1.258E+00	****	****	****	****	****
	855	-1.255E+00	-1.254E+00	-1.254E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.251E+00
	856	-1.250E+00	-1.249E+00	-1.248E+00	-1.247E+00	-1.244E+00	-1.244E+00	-1.246E+00
	857	-1.253E+00	-1.253E+00	-1.252E+00	-1.250E+00	-1.247E+00	-1.247E+00	-1.250E+00
	858	-1.258E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.253E+00
	859	-1.258E+00	-1.257E+00	-1.256E+00	-1.254E+00	-1.251E+00	-1.251E+00	-1.253E+00
	MINIMUM	-1.258E+00	-1.257E+00	-1.256E+00	-1.254E+00	-1.251E+00	-1.251E+00	-1.253E+00
	MEAN	-1.255E+00	-1.254E+00	-1.253E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.251E+00
	MAXIMUM	-1.250E+00	-1.249E+00	-1.248E+00	-1.247E+00	-1.244E+00	-1.244E+00	-1.246E+00
	+P 99/90	-1.239E+00	-1.239E+00	-1.238E+00	-1.238E+00	-1.235E+00	-1.235E+00	-1.237E+00
	-P 99/90	-1.271E+00	-1.268E+00	-1.268E+00	-1.264E+00	-1.262E+00	-1.262E+00	-1.264E+00
	SIGMA	3.421E-03	3.114E-03	3.162E-03	2.739E-03	2.966E-03	2.966E-03	2.881E-03

REFERENCE OUTPUT VDIFF=40V IL=10MA		[DELTA]						
		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.000E-03	****	****	****	****	****
	855		1.000E-03	1.000E-03	4.000E-03	6.000E-03	6.000E-03	4.000E-03
	856		1.000E-03	2.000E-03	3.000E-03	6.000E-03	6.000E-03	4.000E-03
	857		0.000E+00	1.000E-03	3.000E-03	6.000E-03	6.000E-03	3.000E-03
	858		2.000E-03	3.000E-03	5.000E-03	7.000E-03	7.000E-03	5.000E-03
	859		1.000E-03	2.000E-03	4.000E-03	7.000E-03	7.000E-03	5.000E-03
	MINIMUM		0.000E+00	1.000E-03	3.000E-03	6.000E-03	6.000E-03	3.000E-03
	MEAN		1.000E-03	1.800E-03	3.800E-03	6.400E-03	6.400E-03	4.200E-03
	MAXIMUM		2.000E-03	3.000E-03	5.000E-03	7.000E-03	7.000E-03	5.000E-03
	+P 99/90		4.299E-03	5.704E-03	7.704E-03	8.956E-03	8.956E-03	8.104E-03
	-P 99/90		-2.299E-03	-2.104E-03	-1.039E-04	3.844E-03	3.844E-03	2.961E-04
	SIGMA		7.071E-04	8.367E-04	8.367E-04	5.477E-04	5.477E-04	8.367E-04

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=3V IL=0.5A		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.254E+00	-1.255E+00	****	****	****	****	****
	855	-1.250E+00	-1.250E+00	-1.243E+00	-1.245E+00	-1.243E+00	-1.241E+00	-1.245E+00
	856	-1.244E+00	-1.245E+00	-1.239E+00	-1.242E+00	-1.239E+00	-1.239E+00	-1.241E+00
	857	-1.247E+00	-1.249E+00	-1.242E+00	-1.242E+00	-1.242E+00	-1.240E+00	-1.243E+00
	858	-1.249E+00	-1.252E+00	-1.245E+00	-1.245E+00	-1.245E+00	-1.243E+00	-1.245E+00
	859	-1.252E+00	-1.251E+00	-1.243E+00	-1.243E+00	-1.245E+00	-1.243E+00	-1.245E+00
	MINIMUM	-1.252E+00	-1.252E+00	-1.245E+00	-1.245E+00	-1.245E+00	-1.243E+00	-1.245E+00
	MEAN	-1.248E+00	-1.249E+00	-1.242E+00	-1.243E+00	-1.243E+00	-1.241E+00	-1.244E+00
	MAXIMUM	-1.244E+00	-1.245E+00	-1.239E+00	-1.242E+00	-1.239E+00	-1.239E+00	-1.241E+00
	+P 99/90	-1.234E+00	-1.237E+00	-1.232E+00	-1.236E+00	-1.231E+00	-1.233E+00	-1.235E+00
	-P 99/90	-1.263E+00	-1.262E+00	-1.253E+00	-1.250E+00	-1.254E+00	-1.250E+00	-1.252E+00
	SIGMA	3.050E-03	2.702E-03	2.191E-03	1.517E-03	2.490E-03	1.789E-03	1.789E-03

REFERENCE OUTPUT VDIFF=3V IL=0.5A		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.000E-03	****	****	****	****	****
	855		0.000E+00	7.000E-03	5.000E-03	7.000E-03	9.000E-03	5.000E-03
	856		-1.000E-03	5.000E-03	2.000E-03	5.000E-03	5.000E-03	3.000E-03
	857		-2.000E-03	5.000E-03	5.000E-03	5.000E-03	7.000E-03	4.000E-03
	858		-3.000E-03	4.000E-03	4.000E-03	4.000E-03	6.000E-03	4.000E-03
	859		1.000E-03	9.000E-03	9.000E-03	7.000E-03	9.000E-03	7.000E-03
	MINIMUM		-3.000E-03	4.000E-03	2.000E-03	4.000E-03	5.000E-03	3.000E-03
	MEAN		-1.000E-03	6.000E-03	5.000E-03	5.600E-03	7.200E-03	4.600E-03
	MAXIMUM		1.000E-03	9.000E-03	9.000E-03	7.000E-03	9.000E-03	7.000E-03
	+P 99/90		6.378E-03	1.533E-02	1.690E-02	1.186E-02	1.555E-02	1.168E-02
	-P 99/90		-8.378E-03	-3.332E-03	-6.896E-03	-6.601E-04	-1.147E-03	-2.476E-03
	SIGMA		1.581E-03	2.000E-03	2.550E-03	1.342E-03	1.789E-03	1.517E-03

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=40V IL=0.05A

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843	-1.257E+00	-1.258E+00	****	****	****	****	****
	855	-1.255E+00	-1.254E+00	-1.253E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.251E+00
	856	-1.249E+00	-1.249E+00	-1.248E+00	-1.246E+00	-1.244E+00	-1.244E+00	-1.246E+00
	857	-1.253E+00	-1.252E+00	-1.251E+00	-1.249E+00	-1.247E+00	-1.247E+00	-1.249E+00
	858	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.250E+00	-1.250E+00	-1.252E+00
	859	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.253E+00
	MINIMUM	-1.257E+00	-1.256E+00	-1.255E+00	-1.253E+00	-1.251E+00	-1.251E+00	-1.253E+00
	MEAN	-1.254E+00	-1.253E+00	-1.252E+00	-1.250E+00	-1.248E+00	-1.248E+00	-1.250E+00
	MAXIMUM	-1.249E+00	-1.249E+00	-1.248E+00	-1.246E+00	-1.244E+00	-1.244E+00	-1.246E+00
	+P 99/90	-1.239E+00	-1.240E+00	-1.239E+00	-1.237E+00	-1.235E+00	-1.235E+00	-1.237E+00
	-P 99/90	-1.270E+00	-1.267E+00	-1.266E+00	-1.264E+00	-1.261E+00	-1.261E+00	-1.263E+00
	SIGMA	3.347E-03	2.966E-03	2.966E-03	2.966E-03	2.775E-03	2.775E-03	2.775E-03

REFERENCE OUTPUT VDIFF=40V IL=0.05A

[DELTA]

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843		-1.000E-03	****	****	****	****	****
	855		1.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	4.000E-03
	856		0.000E+00	1.000E-03	3.000E-03	5.000E-03	5.000E-03	3.000E-03
	857		1.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	4.000E-03
	858		1.000E-03	2.000E-03	4.000E-03	7.000E-03	7.000E-03	5.000E-03
	859		1.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	4.000E-03
	MINIMUM		0.000E+00	1.000E-03	3.000E-03	5.000E-03	5.000E-03	3.000E-03
	MEAN		8.000E-04	1.800E-03	3.800E-03	6.000E-03	6.000E-03	4.000E-03
	MAXIMUM		1.000E-03	2.000E-03	4.000E-03	7.000E-03	7.000E-03	5.000E-03
	+P 99/90		2.887E-03	3.887E-03	5.887E-03	9.299E-03	9.299E-03	7.299E-03
	-P 99/90		-1.287E-03	-2.867E-04	1.713E-03	2.701E-03	2.701E-03	7.006E-04
	SIGMA		4.472E-04	4.472E-04	4.472E-04	7.071E-04	7.071E-04	7.071E-04

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-BIASED  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LINE REG VDIFF=3V TO 36V IL=10MA		( %V )						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	5.00E-04	3.00E-04	****	****	****	****	****
	855	6.00E-04	5.00E-04	3.00E-04	9.00E-04	5.00E-04	6.00E-04	9.00E-04
	856	4.00E-04	6.00E-04	5.00E-04	7.00E-04	1.00E-03	1.00E-03	3.00E-04
	857	3.00E-04	4.00E-04	5.00E-04	5.00E-04	1.10E-03	1.20E-03	9.00E-04
	858	4.00E-04	5.00E-04	1.00E-03	6.00E-04	1.10E-03	1.30E-03	8.00E-04
	859	4.00E-04	5.00E-04	8.00E-04	5.00E-04	8.00E-04	1.20E-03	8.00E-04
	MINIMUM	3.00E-04	4.00E-04	3.00E-04	5.00E-04	5.00E-04	6.00E-04	3.00E-04
	MEAN	4.20E-04	5.00E-04	6.20E-04	6.40E-04	9.00E-04	1.06E-03	7.40E-04
	MAXIMUM	6.00E-04	6.00E-04	1.00E-03	9.00E-04	1.10E-03	1.30E-03	9.00E-04
	+P 99/90	9.31E-04	8.30E-04	1.91E-03	1.42E-03	2.09E-03	2.36E-03	1.91E-03
	-P 99/90	-9.11E-05	1.70E-04	-6.75E-04	-1.41E-04	-2.90E-04	-2.43E-04	-4.31E-04
	SIGMA	1.10E-04	7.07E-05	2.77E-04	1.67E-04	2.55E-04	2.79E-04	2.51E-04

LINE REG VDIFF=3V TO 36V IL=10MA		[DELTA]		( %V )				
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-2.00E-04	****	****	****	****	****
	855		-1.00E-04	-3.00E-04	3.00E-04	-1.00E-04	0.00E+00	3.00E-04
	856		2.00E-04	1.00E-04	3.00E-04	6.00E-04	6.00E-04	-1.00E-04
	857		1.00E-04	2.00E-04	2.00E-04	8.00E-04	9.00E-04	6.00E-04
	858		1.00E-04	6.00E-04	2.00E-04	7.00E-04	9.00E-04	4.00E-04
	859		1.00E-04	4.00E-04	1.00E-04	4.00E-04	8.00E-04	4.00E-04
	MINIMUM		-1.00E-04	-3.00E-04	1.00E-04	-1.00E-04	0.00E+00	-1.00E-04
	MEAN		8.00E-05	2.00E-04	2.20E-04	4.80E-04	6.40E-04	3.20E-04
	MAXIMUM		2.00E-04	6.00E-04	3.00E-04	8.00E-04	9.00E-04	6.00E-04
	+P 99/90		5.91E-04	1.78E-03	6.10E-04	2.14E-03	2.40E-03	1.53E-03
	-P 99/90		-4.31E-04	-1.38E-03	-1.70E-04	-1.18E-03	-1.12E-03	-8.88E-04
	SIGMA		1.10E-04	3.39E-04	8.37E-05	3.56E-04	3.78E-04	2.59E-04

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LINE REG VDIFF=3V TO 40V IL=10MA									(%/V)
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL	
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour	
----- S/N -----									
CONTROL	843	1.00E-03	4.00E-04	****	****	****	****	****	
	855	7.00E-04	6.00E-04	7.00E-04	6.00E-04	5.00E-04	9.00E-04	7.00E-04	
	856	1.00E-04	9.00E-04	5.00E-04	9.00E-04	8.00E-04	8.00E-04	6.00E-04	
	857	5.00E-04	3.00E-04	5.00E-04	7.00E-04	1.90E-03	1.10E-03	5.00E-04	
	858	7.00E-04	7.00E-04	1.20E-03	9.00E-04	9.00E-04	1.10E-03	9.00E-04	
	859	4.00E-04	1.10E-03	5.00E-04	8.00E-04	1.50E-03	8.00E-04	9.00E-04	
	MINIMUM	1.00E-04	3.00E-04	5.00E-04	6.00E-04	5.00E-04	8.00E-04	5.00E-04	
	MEAN	4.80E-04	7.20E-04	6.80E-04	7.80E-04	1.12E-03	9.40E-04	7.20E-04	
	MAXIMUM	7.00E-04	1.10E-03	1.20E-03	9.00E-04	1.90E-03	1.10E-03	9.00E-04	
	+P 99/90	1.64E-03	2.14E-03	2.10E-03	1.39E-03	3.77E-03	1.65E-03	1.55E-03	
	-P 99/90	-6.82E-04	-6.95E-04	-7.35E-04	1.72E-04	-1.53E-03	2.32E-04	-1.15E-04	
	SIGMA	2.49E-04	3.03E-04	3.03E-04	1.30E-04	5.67E-04	1.52E-04	1.79E-04	

LINE REG VDIFF=3V TO 40V IL=10MA									[DELTA]	(%/V)
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL		
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour		
----- S/N -----										
CONTROL	843		-6.00E-04	****	****	****	****	****		
	855		-1.00E-04	0.00E+00	-1.00E-04	-2.00E-04	2.00E-04	0.00E+00		
	856		8.00E-04	4.00E-04	8.00E-04	7.00E-04	7.00E-04	5.00E-04		
	857		-2.00E-04	0.00E+00	2.00E-04	1.40E-03	6.00E-04	0.00E+00		
	858		0.00E+00	5.00E-04	2.00E-04	2.00E-04	4.00E-04	2.00E-04		
	859		7.00E-04	1.00E-04	4.00E-04	1.10E-03	4.00E-04	5.00E-04		
	MINIMUM		-2.00E-04	0.00E+00	-1.00E-04	-2.00E-04	2.00E-04	0.00E+00		
	MEAN		2.40E-04	2.00E-04	3.00E-04	6.40E-04	4.60E-04	2.40E-04		
	MAXIMUM		8.00E-04	5.00E-04	8.00E-04	1.40E-03	7.00E-04	5.00E-04		
	+P 99/90		2.44E-03	1.29E-03	1.85E-03	3.67E-03	1.37E-03	1.41E-03		
	-P 99/90		-1.96E-03	-8.94E-04	-1.25E-03	-2.39E-03	-4.50E-04	-9.31E-04		
	SIGMA		4.72E-04	2.35E-04	3.32E-04	6.50E-04	1.95E-04	2.51E-04		

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LOAD REG VOUT<=5V IL=10MA TO 0.5A

(mV)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-5.95E+00	-3.25E+00	****	****	****	****	****
	855	-6.06E+00	-5.52E+00	-1.04E+01	-7.01E+00	-5.56E+00	-7.26E+00	-5.76E+00
	856	-7.41E+00	-2.66E+00	-8.81E+00	-5.29E+00	-4.99E+00	-4.92E+00	-4.73E+00
	857	-7.19E+00	-4.80E+00	-9.45E+00	-7.12E+00	-5.09E+00	-7.29E+00	-6.10E+00
	858	-8.00E+00	-4.63E+00	-1.02E+01	-7.83E+00	-5.27E+00	-6.99E+00	-7.49E+00
	859	-6.87E+00	-4.58E+00	-1.22E+01	-1.04E+01	-6.16E+00	-7.24E+00	-8.34E+00
	MINIMUM	-8.00E+00	-5.52E+00	-1.22E+01	-1.04E+01	-6.16E+00	-7.29E+00	-8.34E+00
	MEAN	-7.11E+00	-4.44E+00	-1.02E+01	-7.53E+00	-5.41E+00	-6.74E+00	-6.48E+00
	MAXIMUM	-6.06E+00	-2.66E+00	-8.81E+00	-5.29E+00	-4.99E+00	-4.92E+00	-4.73E+00
	+P 99/90	-3.77E+00	5.24E-01	-4.19E+00	1.12E+00	-3.21E+00	-1.95E+00	1.96E-01
	-P 99/90	-1.04E+01	-9.40E+00	-1.62E+01	-1.62E+01	-7.62E+00	-1.15E+01	-1.32E+01
	SIGMA	7.14E-01	1.06E+00	1.29E+00	1.85E+00	4.73E-01	1.03E+00	1.43E+00

LOAD REG VOUT<=5V IL=10MA TO 0.5A

[DELTA]

(mV)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		2.70E+00	****	****	****	****	****
	855		5.39E-01	-4.36E+00	-9.43E-01	5.05E-01	-1.20E+00	3.03E-01
	856		4.75E+00	-1.40E+00	2.12E+00	2.43E+00	2.49E+00	2.68E+00
	857		2.39E+00	-2.26E+00	6.70E-02	2.11E+00	-1.01E-01	1.09E+00
	858		3.37E+00	-2.16E+00	1.69E-01	2.73E+00	1.01E+00	5.06E-01
	859		2.29E+00	-5.36E+00	-3.52E+00	7.07E-01	-3.71E-01	-1.47E+00
	MINIMUM		5.39E-01	-5.36E+00	-3.52E+00	5.05E-01	-1.20E+00	-1.47E+00
	MEAN		2.67E+00	-3.11E+00	-4.21E-01	1.69E+00	3.67E-01	6.23E-01
	MAXIMUM		4.75E+00	-1.40E+00	2.12E+00	2.73E+00	2.49E+00	2.68E+00
	+P 99/90		9.89E+00	4.70E+00	9.18E+00	6.45E+00	7.02E+00	7.59E+00
	-P 99/90		-4.55E+00	-1.09E+01	-1.00E+01	-3.07E+00	-6.29E+00	-6.35E+00
	SIGMA		1.55E+00	1.67E+00	2.06E+00	1.02E+00	1.43E+00	1.49E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LOAD REG VOUT>=5V IL=10MA TO 0.5A

(%)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-4.87E-01	-1.84E-01	****	****	****	****	****
	855	-5.45E-01	-1.68E-01	-2.46E-01	-3.92E-01	-1.89E-01	-2.16E-01	-1.73E-01
	856	-2.72E-01	-1.67E-01	-3.90E-01	-1.83E-01	-1.70E-01	-2.14E-01	-2.27E-01
	857	-2.93E-01	-1.88E-01	-2.85E-01	-2.39E-01	-1.82E-01	-2.16E-01	-1.81E-01
	858	-2.42E-01	-4.41E-01	-2.71E-01	-3.33E-01	-2.07E-01	-2.27E-01	-2.08E-01
	859	-2.50E-01	-2.39E-01	-3.55E-01	-3.30E-01	-1.95E-01	-2.05E-01	-2.63E-01
	MINIMUM	-5.45E-01	-4.41E-01	-3.90E-01	-3.92E-01	-2.07E-01	-2.27E-01	-2.63E-01
	MEAN	-3.20E-01	-2.41E-01	-3.09E-01	-2.95E-01	-1.89E-01	-2.16E-01	-2.10E-01
	MAXIMUM	-2.42E-01	-1.67E-01	-2.46E-01	-1.83E-01	-1.70E-01	-2.05E-01	-1.73E-01
	+P 99/90	2.73E-01	3.00E-01	-2.69E-02	9.33E-02	-1.24E-01	-1.79E-01	-4.04E-02
	-P 99/90	-9.14E-01	-7.81E-01	-5.92E-01	-6.84E-01	-2.53E-01	-2.52E-01	-3.80E-01
	SIGMA	1.27E-01	1.16E-01	6.05E-02	8.33E-02	1.39E-02	7.83E-03	3.64E-02

LOAD REG VOUT>=5V IL=10MA TO 0.5A

[DELTA]

(%)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		3.03E-01	****	****	****	****	****
	855		3.77E-01	2.99E-01	1.53E-01	3.56E-01	3.29E-01	3.72E-01
	856		1.05E-01	-1.18E-01	8.90E-02	1.02E-01	5.80E-02	4.50E-02
	857		1.05E-01	8.00E-03	5.40E-02	1.11E-01	7.70E-02	1.12E-01
	858		-1.99E-01	-2.90E-02	-9.10E-02	3.50E-02	1.50E-02	3.40E-02
	859		1.10E-02	-1.05E-01	-8.00E-02	5.50E-02	4.50E-02	-1.30E-02
	MINIMUM		-1.99E-01	-1.18E-01	-9.10E-02	3.50E-02	1.50E-02	-1.30E-02
	MEAN		7.98E-02	1.10E-02	2.50E-02	1.32E-01	1.05E-01	1.10E-01
	MAXIMUM		3.77E-01	2.99E-01	1.53E-01	3.56E-01	3.29E-01	3.72E-01
	+P 99/90		1.05E+00	8.01E-01	5.24E-01	7.35E-01	6.99E-01	8.24E-01
	-P 99/90		-8.88E-01	-7.79E-01	-4.74E-01	-4.71E-01	-4.89E-01	-6.04E-01
	SIGMA		2.07E-01	1.69E-01	1.07E-01	1.29E-01	1.27E-01	1.53E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-BIASED  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CURRENT VDIFF=3V IL=10MA		(uA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-7.34E+01	-7.46E+01	****	****	****	****	****
	855	-6.85E+01	-6.88E+01	-6.41E+01	-6.27E+01	-6.22E+01	-6.30E+01	-6.31E+01
	856	-7.13E+01	-7.17E+01	-6.71E+01	-6.53E+01	-6.48E+01	-6.58E+01	-6.61E+01
	857	-6.98E+01	-7.05E+01	-6.34E+01	-6.32E+01	-6.35E+01	-6.48E+01	-6.46E+01
	858	-7.39E+01	-7.48E+01	-6.75E+01	-6.81E+01	-6.80E+01	-6.84E+01	-6.87E+01
	859	-7.20E+01	-7.13E+01	-6.40E+01	-6.54E+01	-6.45E+01	-6.57E+01	-6.51E+01
	MINIMUM	-7.39E+01	-7.48E+01	-6.75E+01	-6.81E+01	-6.80E+01	-6.84E+01	-6.87E+01
	MEAN	-7.11E+01	-7.14E+01	-6.52E+01	-6.49E+01	-6.46E+01	-6.56E+01	-6.55E+01
	MAXIMUM	-6.85E+01	-6.88E+01	-6.34E+01	-6.27E+01	-6.22E+01	-6.30E+01	-6.31E+01
	+P 99/90	-6.14E+01	-6.13E+01	-5.63E+01	-5.49E+01	-5.45E+01	-5.64E+01	-5.58E+01
	-P 99/90	-8.07E+01	-8.16E+01	-7.41E+01	-7.49E+01	-7.46E+01	-7.47E+01	-7.52E+01
	SIGMA	2.07E+00	2.18E+00	1.91E+00	2.15E+00	2.15E+00	1.97E+00	2.08E+00

BIAS CURRENT VDIFF=3V IL=10MA		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.19E+00	****	****	****	****	****
	855		-3.40E-01	4.32E+00	5.78E+00	6.27E+00	5.44E+00	5.40E+00
	856		-4.70E-01	4.19E+00	6.00E+00	6.50E+00	5.44E+00	5.18E+00
	857		-7.00E-01	6.46E+00	6.62E+00	6.36E+00	5.08E+00	5.22E+00
	858		-8.80E-01	6.41E+00	5.77E+00	5.91E+00	5.44E+00	5.22E+00
	859		6.90E-01	7.98E+00	6.62E+00	7.52E+00	6.24E+00	6.87E+00
	MINIMUM		-8.80E-01	4.19E+00	5.77E+00	5.91E+00	5.08E+00	5.18E+00
	MEAN		-3.40E-01	5.87E+00	6.16E+00	6.51E+00	5.53E+00	5.58E+00
	MAXIMUM		6.90E-01	7.98E+00	6.62E+00	7.52E+00	6.24E+00	6.87E+00
	+P 99/90		2.52E+00	1.34E+01	8.17E+00	9.33E+00	7.52E+00	8.97E+00
	-P 99/90		-3.20E+00	-1.62E+00	4.14E+00	3.69E+00	3.53E+00	2.18E+00
	SIGMA		6.12E-01	1.61E+00	4.32E-01	6.04E-01	4.27E-01	7.27E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CURRENT VDIFF=5V IL=10MA		(uA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-7.01E+01	-7.11E+01	****	****	****	****	****
	855	-6.53E+01	-6.58E+01	-6.41E+01	-6.25E+01	-6.22E+01	-6.32E+01	-6.29E+01
	856	-6.74E+01	-6.83E+01	-6.71E+01	-6.54E+01	-6.46E+01	-6.60E+01	-6.60E+01
	857	-6.62E+01	-6.68E+01	-6.34E+01	-6.34E+01	-6.35E+01	-6.48E+01	-6.47E+01
	858	-7.08E+01	-7.04E+01	-6.75E+01	-6.81E+01	-6.78E+01	-6.87E+01	-6.85E+01
	859	-6.85E+01	-6.77E+01	-6.41E+01	-6.54E+01	-6.44E+01	-6.58E+01	-6.51E+01
	MINIMUM	-7.08E+01	-7.04E+01	-6.75E+01	-6.81E+01	-6.78E+01	-6.87E+01	-6.85E+01
	MEAN	-6.76E+01	-6.78E+01	-6.52E+01	-6.50E+01	-6.45E+01	-6.57E+01	-6.54E+01
	MAXIMUM	-6.53E+01	-6.58E+01	-6.34E+01	-6.25E+01	-6.22E+01	-6.32E+01	-6.29E+01
	+P 99/90	-5.77E+01	-5.96E+01	-5.64E+01	-5.49E+01	-5.48E+01	-5.63E+01	-5.59E+01
	-P 99/90	-7.76E+01	-7.60E+01	-7.41E+01	-7.50E+01	-7.42E+01	-7.50E+01	-7.50E+01
	SIGMA	2.14E+00	1.76E+00	1.90E+00	2.16E+00	2.08E+00	2.00E+00	2.05E+00

BIAS CURRENT VDIFF=5V IL=10MA		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.08E+00	****	****	****	****	****
	855		-4.70E-01	1.21E+00	2.79E+00	3.07E+00	2.06E+00	2.37E+00
	856		-9.20E-01	3.10E-01	1.99E+00	2.75E+00	1.43E+00	1.34E+00
	857		-5.40E-01	2.87E+00	2.81E+00	2.77E+00	1.45E+00	1.59E+00
	858		3.70E-01	3.34E+00	2.70E+00	2.98E+00	2.10E+00	2.32E+00
	859		8.20E-01	4.36E+00	3.14E+00	4.09E+00	2.72E+00	3.39E+00
	MINIMUM		-9.20E-01	3.10E-01	1.99E+00	2.75E+00	1.43E+00	1.34E+00
	MEAN		-1.48E-01	2.42E+00	2.69E+00	3.13E+00	1.95E+00	2.20E+00
	MAXIMUM		8.20E-01	4.36E+00	3.14E+00	4.09E+00	2.72E+00	3.39E+00
	+P 99/90		3.20E+00	1.01E+01	4.66E+00	5.71E+00	4.45E+00	5.94E+00
	-P 99/90		-3.50E+00	-5.22E+00	7.11E-01	5.53E-01	-5.48E-01	-1.54E+00
	SIGMA		7.17E-01	1.64E+00	4.23E-01	5.53E-01	5.36E-01	8.02E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CURRENT VDIFF=40V IL=10MA		(uA)							
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL	
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour	
----- S/N -----									
CONTROL	843	-6.93E+01	-7.07E+01	****	****	****	****	****	
	855	-6.41E+01	-6.51E+01	-6.44E+01	-6.28E+01	-6.28E+01	-6.34E+01	-6.33E+01	
	856	-6.74E+01	-6.83E+01	-6.71E+01	-6.56E+01	-6.49E+01	-6.62E+01	-6.64E+01	
	857	-6.55E+01	-6.67E+01	-6.36E+01	-6.44E+01	-6.36E+01	-6.51E+01	-6.49E+01	
	858	-6.99E+01	-7.04E+01	-6.79E+01	-6.85E+01	-6.82E+01	-6.92E+01	-6.87E+01	
	859	-6.82E+01	-6.75E+01	-6.44E+01	-6.54E+01	-6.47E+01	-6.60E+01	-6.51E+01	
	MINIMUM	-6.99E+01	-7.04E+01	-6.79E+01	-6.85E+01	-6.82E+01	-6.92E+01	-6.87E+01	
	MEAN	-6.70E+01	-6.76E+01	-6.55E+01	-6.53E+01	-6.48E+01	-6.60E+01	-6.57E+01	
	MAXIMUM	-6.41E+01	-6.51E+01	-6.36E+01	-6.28E+01	-6.28E+01	-6.34E+01	-6.33E+01	
	+P 99/90	-5.63E+01	-5.84E+01	-5.65E+01	-5.56E+01	-5.51E+01	-5.60E+01	-5.63E+01	
	-P 99/90	-7.78E+01	-7.68E+01	-7.44E+01	-7.51E+01	-7.45E+01	-7.59E+01	-7.50E+01	
	SIGMA	2.30E+00	1.97E+00	1.92E+00	2.09E+00	2.07E+00	2.13E+00	2.00E+00	

BIAS CURRENT VDIFF=40V IL=10MA		[DELTA]		(uA)					
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL	
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour	
----- S/N -----									
CONTROL	843		-1.36E+00	****	****	****	****	****	
	855		-1.01E+00	-3.10E-01	1.32E+00	1.32E+00	7.10E-01	7.60E-01	
	856		-8.70E-01	2.70E-01	1.77E+00	2.49E+00	1.16E+00	9.40E-01	
	857		-1.28E+00	1.91E+00	1.09E+00	1.90E+00	4.00E-01	6.00E-01	
	858		-5.00E-01	2.03E+00	1.47E+00	1.75E+00	7.40E-01	1.28E+00	
	859		6.90E-01	3.88E+00	2.79E+00	3.51E+00	2.28E+00	3.13E+00	
	MINIMUM		-1.28E+00	-3.10E-01	1.09E+00	1.32E+00	4.00E-01	6.00E-01	
	MEAN		-5.94E-01	1.56E+00	1.69E+00	2.19E+00	1.06E+00	1.34E+00	
	MAXIMUM		6.90E-01	3.88E+00	2.79E+00	3.51E+00	2.28E+00	3.13E+00	
	+P 99/90		3.00E+00	9.25E+00	4.78E+00	6.14E+00	4.49E+00	6.15E+00	
	-P 99/90		-4.19E+00	-6.14E+00	-1.41E+00	-1.76E+00	-2.37E+00	-3.47E+00	
	SIGMA		7.71E-01	1.65E+00	6.64E-01	8.47E-01	7.35E-01	1.03E+00	

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.29E+00	2.79E+00	****	****	****	****	****
	855	-1.25E+00	1.00E+00	0.00E+00	4.00E-02	-3.60E-01	-3.60E-01	-3.60E-01
	856	-1.56E+00	-2.56E+00	0.00E+00	-9.00E-02	1.80E-01	-2.20E-01	0.00E+00
	857	-2.03E+00	-6.28E+00	-9.00E-02	-1.80E-01	9.00E-02	-9.00E-02	2.20E-01
	858	7.10E-01	-3.54E+00	-4.00E-01	-9.00E-02	0.00E+00	1.80E-01	0.00E+00
	859	-5.80E-01	5.10E-01	1.80E-01	0.00E+00	-1.80E-01	-3.60E-01	0.00E+00
	MINIMUM	-2.03E+00	-6.28E+00	-4.00E-01	-1.80E-01	-3.60E-01	-3.60E-01	-3.60E-01
	MEAN	-9.42E-01	-2.17E+00	-6.20E-02	-6.40E-02	-5.40E-02	-1.70E-01	-2.80E-02
	MAXIMUM	7.10E-01	1.00E+00	1.80E-01	4.00E-02	1.80E-01	1.80E-01	2.20E-01
	+P 99/90	4.02E+00	1.19E+01	9.31E-01	3.38E-01	9.57E-01	8.83E-01	9.45E-01
	-P 99/90	-5.90E+00	-1.62E+01	-1.06E+00	-4.66E-01	-1.07E+00	-1.22E+00	-1.00E+00
	SIGMA	1.06E+00	3.01E+00	2.13E-01	8.62E-02	2.17E-01	2.26E-01	2.09E-01

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A

[DELTA]

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		4.08E+00	****	****	****	****	****
	855		2.25E+00	1.25E+00	1.29E+00	8.90E-01	8.90E-01	8.90E-01
	856		-1.00E+00	1.56E+00	1.47E+00	1.74E+00	1.34E+00	1.56E+00
	857		-4.25E+00	1.94E+00	1.85E+00	2.12E+00	1.94E+00	2.25E+00
	858		-4.25E+00	-1.11E+00	-8.00E-01	-7.10E-01	-5.30E-01	-7.10E-01
	859		1.09E+00	7.60E-01	5.80E-01	4.00E-01	2.20E-01	5.80E-01
	MINIMUM		-4.25E+00	-1.11E+00	-8.00E-01	-7.10E-01	-5.30E-01	-7.10E-01
	MEAN		-1.23E+00	8.80E-01	8.78E-01	8.88E-01	7.72E-01	9.14E-01
	MAXIMUM		2.25E+00	1.94E+00	1.85E+00	2.12E+00	1.94E+00	2.25E+00
	+P 99/90		1.27E+01	6.45E+00	5.75E+00	6.12E+00	5.26E+00	6.11E+00
	-P 99/90		-1.52E+01	-4.69E+00	-4.00E+00	-4.35E+00	-3.72E+00	-4.28E+00
	SIGMA		2.99E+00	1.19E+00	1.05E+00	1.12E+00	9.62E-01	1.11E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-BIASED  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CHANGE VDIFF=3V TO 36V IL=10MA		(uA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	5.80E-01	4.20E-01	****	****	****	****	****
	855	4.90E-01	-5.30E-01	2.70E-01	1.80E-01	2.20E-01	2.70E-01	1.30E-01
	856	7.60E-01	-2.20E-01	1.80E-01	3.60E-01	9.00E-02	2.20E-01	2.70E-01
	857	6.70E-01	6.70E-01	2.20E-01	2.20E-01	2.70E-01	4.50E-01	2.20E-01
	858	-2.50E-01	-1.30E-01	1.80E-01	3.10E-01	1.80E-01	3.60E-01	0.00E+00
	859	3.80E-01	4.00E-01	2.20E-01	4.00E-02	3.60E-01	1.80E-01	2.00E-02
	MINIMUM	-2.50E-01	-5.30E-01	1.80E-01	4.00E-02	9.00E-02	1.80E-01	0.00E+00
	MEAN	4.10E-01	3.80E-02	2.14E-01	2.22E-01	2.24E-01	2.96E-01	1.28E-01
	MAXIMUM	7.60E-01	6.70E-01	2.70E-01	3.60E-01	3.60E-01	4.50E-01	2.70E-01
	+P 99/90	2.27E+00	2.31E+00	3.87E-01	8.01E-01	6.94E-01	8.06E-01	6.83E-01
	-P 99/90	-1.45E+00	-2.23E+00	4.07E-02	-3.57E-01	-2.46E-01	-2.14E-01	-4.27E-01
	SIGMA	3.98E-01	4.87E-01	3.71E-02	1.24E-01	1.01E-01	1.09E-01	1.19E-01

BIAS CHANGE VDIFF=3V TO 36V IL=10MA		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.60E-01	****	****	****	****	****
	855		-1.02E+00	-2.20E-01	-3.10E-01	-2.70E-01	-2.20E-01	-3.60E-01
	856		-9.80E-01	-5.80E-01	-4.00E-01	-6.70E-01	-5.40E-01	-4.90E-01
	857		0.00E+00	-4.50E-01	-4.50E-01	-4.00E-01	-2.20E-01	-4.50E-01
	858		1.20E-01	4.30E-01	5.60E-01	4.30E-01	6.10E-01	2.50E-01
	859		2.00E-02	-1.60E-01	-3.40E-01	-2.00E-02	-2.00E-01	-3.60E-01
	MINIMUM		-1.02E+00	-5.80E-01	-4.50E-01	-6.70E-01	-5.40E-01	-4.90E-01
	MEAN		-3.72E-01	-1.96E-01	-1.88E-01	-1.86E-01	-1.14E-01	-2.82E-01
	MAXIMUM		1.20E-01	4.30E-01	5.60E-01	4.30E-01	6.10E-01	2.50E-01
	+P 99/90		2.31E+00	1.62E+00	1.78E+00	1.76E+00	1.89E+00	1.13E+00
	-P 99/90		-3.06E+00	-2.01E+00	-2.16E+00	-2.13E+00	-2.11E+00	-1.69E+00
	SIGMA		5.75E-01	3.89E-01	4.22E-01	4.17E-01	4.29E-01	3.03E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CHANGE VDIFF=3V TO 40V IL=10MA

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843	-7.00E-02	3.10E-01	****	****	****	****	****
	855	-9.00E-02	-4.00E-02	9.00E-02	1.80E-01	1.30E-01	1.80E-01	4.00E-02
	856	3.80E-01	-1.30E-01	2.70E-01	1.80E-01	0.00E+00	9.00E-02	-4.00E-02
	857	1.80E-01	2.20E-01	2.70E-01	3.60E-01	9.00E-02	0.00E+00	1.80E-01
	858	4.00E-01	4.00E-01	1.30E-01	0.00E+00	9.00E-02	-4.00E-02	0.00E+00
	859	7.00E-02	1.30E-01	4.00E-02	4.00E-02	9.00E-02	2.20E-01	0.00E+00
	MINIMUM	-9.00E-02	-1.30E-01	4.00E-02	0.00E+00	0.00E+00	-4.00E-02	-4.00E-02
	MEAN	1.88E-01	1.16E-01	1.60E-01	1.52E-01	8.00E-02	9.00E-02	3.60E-02
	MAXIMUM	4.00E-01	4.00E-01	2.70E-01	3.60E-01	1.30E-01	2.20E-01	1.80E-01
	+P 99/90	1.16E+00	1.10E+00	6.52E-01	8.14E-01	3.04E-01	6.12E-01	4.34E-01
	-P 99/90	-7.83E-01	-8.64E-01	-3.32E-01	-5.10E-01	-1.44E-01	-4.32E-01	-3.62E-01
	SIGMA	2.08E-01	2.10E-01	1.05E-01	1.42E-01	4.80E-02	1.12E-01	8.53E-02

BIAS CHANGE VDIFF=3V TO 40V IL=10MA

[DELTA]

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843		3.80E-01	****	****	****	****	****
	855		5.00E-02	1.80E-01	2.70E-01	2.20E-01	2.70E-01	1.30E-01
	856		-5.10E-01	-1.10E-01	-2.00E-01	-3.80E-01	-2.90E-01	-4.20E-01
	857		4.00E-02	9.00E-02	1.80E-01	-9.00E-02	-1.80E-01	0.00E+00
	858		0.00E+00	-2.70E-01	-4.00E-01	-3.10E-01	-4.40E-01	-4.00E-01
	859		6.00E-02	-3.00E-02	-3.00E-02	2.00E-02	1.50E-01	-7.00E-02
	MINIMUM		-5.10E-01	-2.70E-01	-4.00E-01	-3.80E-01	-4.40E-01	-4.20E-01
	MEAN		-7.20E-02	-2.80E-02	-3.60E-02	-1.08E-01	-9.80E-02	-1.52E-01
	MAXIMUM		6.00E-02	1.80E-01	2.70E-01	2.20E-01	2.70E-01	1.30E-01
	+P 99/90		1.08E+00	7.88E-01	1.24E+00	1.03E+00	1.30E+00	9.97E-01
	-P 99/90		-1.22E+00	-8.44E-01	-1.31E+00	-1.25E+00	-1.49E+00	-1.30E+00
	SIGMA		2.46E-01	1.75E-01	2.74E-01	2.44E-01	2.99E-01	2.46E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

MINIMUM LOAD CURRENT VDIFF=40V

(mA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.28E+00	-1.26E+00	****	****	****	****	****
	855	-1.20E+00	-1.18E+00	-1.22E+00	-1.24E+00	-1.28E+00	-1.28E+00	-1.24E+00
	856	-1.30E+00	-1.30E+00	-1.32E+00	-1.34E+00	-1.37E+00	-1.37E+00	-1.34E+00
	857	-1.24E+00	-1.26E+00	-1.28E+00	-1.30E+00	-1.34E+00	-1.34E+00	-1.30E+00
	858	-1.34E+00	-1.36E+00	-1.37E+00	-1.41E+00	-1.45E+00	-1.45E+00	-1.42E+00
	859	-1.22E+00	-1.24E+00	-1.28E+00	-1.30E+00	-1.34E+00	-1.34E+00	-1.30E+00
	MINIMUM	-1.34E+00	-1.36E+00	-1.37E+00	-1.41E+00	-1.45E+00	-1.45E+00	-1.42E+00
	MEAN	-1.26E+00	-1.27E+00	-1.30E+00	-1.32E+00	-1.36E+00	-1.36E+00	-1.32E+00
	MAXIMUM	-1.20E+00	-1.18E+00	-1.22E+00	-1.24E+00	-1.28E+00	-1.28E+00	-1.24E+00
	+P 99/90	-1.00E+00	-9.64E-01	-1.03E+00	-1.02E+00	-1.06E+00	-1.06E+00	-1.01E+00
	-P 99/90	-1.52E+00	-1.57E+00	-1.56E+00	-1.62E+00	-1.65E+00	-1.65E+00	-1.63E+00
	SIGMA	5.56E-02	6.51E-02	5.66E-02	6.40E-02	6.36E-02	6.36E-02	6.64E-02

MINIMUM LOAD CURRENT VDIFF=40V

[DELTA]

(mA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		2.30E-02	****	****	****	****	****
	855		1.90E-02	-1.90E-02	-3.80E-02	-7.70E-02	-7.80E-02	-3.60E-02
	856		-2.00E-03	-2.40E-02	-4.30E-02	-7.70E-02	-7.70E-02	-4.30E-02
	857		-1.60E-02	-3.80E-02	-5.80E-02	-9.70E-02	-9.80E-02	-5.60E-02
	858		-2.10E-02	-3.70E-02	-7.70E-02	-1.16E-01	-1.17E-01	-8.10E-02
	859		-2.10E-02	-5.80E-02	-7.80E-02	-1.17E-01	-1.18E-01	-7.60E-02
	MINIMUM		-2.10E-02	-5.80E-02	-7.80E-02	-1.17E-01	-1.18E-01	-8.10E-02
	MEAN		-8.20E-03	-3.52E-02	-5.88E-02	-9.68E-02	-9.76E-02	-5.84E-02
	MAXIMUM		1.90E-02	-1.90E-02	-3.80E-02	-7.70E-02	-7.70E-02	-3.60E-02
	+P 99/90		7.15E-02	3.55E-02	2.80E-02	-4.63E-03	-4.25E-03	3.39E-02
	-P 99/90		-8.79E-02	-1.06E-01	-1.46E-01	-1.89E-01	-1.91E-01	-1.51E-01
	SIGMA		1.71E-02	1.52E-02	1.86E-02	1.98E-02	2.00E-02	1.98E-02

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

SHORT CIRCUIT CURRENT VIN-VOUT=15V

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.10E+00	-1.10E+00	****	****	****	****	****
	855	-9.99E-01	-1.17E+00	-1.19E+00	-1.19E+00	-1.21E+00	-1.20E+00	-1.19E+00
	856	-1.12E+00	-1.13E+00	-1.14E+00	-1.15E+00	-1.15E+00	-1.15E+00	-1.14E+00
	857	-1.18E+00	-1.20E+00	-1.21E+00	-1.22E+00	-1.23E+00	-1.23E+00	-1.21E+00
	858	-1.17E+00	-9.75E-01	-1.21E+00	-1.21E+00	-1.22E+00	-1.22E+00	-1.20E+00
	859	-1.21E+00	-1.05E+00	-1.26E+00	-1.27E+00	-1.28E+00	-1.28E+00	-1.25E+00
	MINIMUM	-1.21E+00	-1.20E+00	-1.26E+00	-1.27E+00	-1.28E+00	-1.28E+00	-1.25E+00
	MEAN	-1.13E+00	-1.10E+00	-1.20E+00	-1.21E+00	-1.22E+00	-1.22E+00	-1.20E+00
	MAXIMUM	-9.99E-01	-9.75E-01	-1.14E+00	-1.15E+00	-1.15E+00	-1.15E+00	-1.14E+00
	+P 99/90	-7.49E-01	-6.82E-01	-1.01E+00	-1.00E+00	-1.00E+00	-9.98E-01	-1.02E+00
	-P 99/90	-1.52E+00	-1.53E+00	-1.40E+00	-1.41E+00	-1.43E+00	-1.44E+00	-1.38E+00
	SIGMA	8.25E-02	9.04E-02	4.23E-02	4.43E-02	4.60E-02	4.68E-02	3.83E-02

SHORT CIRCUIT CURRENT VIN-VOUT=15V

[DELTA]

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		2.00E-03	****	****	****	****	****
	855		-1.70E-01	-1.90E-01	-1.92E-01	-2.08E-01	-2.01E-01	-1.89E-01
	856		-9.00E-03	-2.80E-02	-3.00E-02	-3.50E-02	-3.40E-02	-2.70E-02
	857		-2.00E-02	-3.40E-02	-4.10E-02	-5.20E-02	-5.60E-02	-3.30E-02
	858		1.91E-01	-4.50E-02	-4.70E-02	-5.70E-02	-5.60E-02	-3.30E-02
	859		1.58E-01	-5.10E-02	-5.80E-02	-6.90E-02	-6.80E-02	-3.90E-02
	MINIMUM		-1.70E-01	-1.90E-01	-1.92E-01	-2.08E-01	-2.01E-01	-1.89E-01
	MEAN		3.00E-02	-6.96E-02	-7.36E-02	-8.42E-02	-8.30E-02	-6.42E-02
	MAXIMUM		1.91E-01	-2.80E-02	-3.00E-02	-3.50E-02	-3.40E-02	-2.70E-02
	+P 99/90		7.15E-01	2.47E-01	2.39E-01	2.44E-01	2.30E-01	2.62E-01
	-P 99/90		-6.55E-01	-3.86E-01	-3.86E-01	-4.12E-01	-3.96E-01	-3.90E-01
	SIGMA		1.47E-01	6.79E-02	6.70E-02	7.03E-02	6.71E-02	6.99E-02

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-BIASED  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

SHORT CIRCUIT CURRENT VIN-VOUT=40V

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-2.83E-01	-2.69E-01	****	****	****	****	****
	855	-3.10E-01	-3.03E-01	-2.78E-01	-2.80E-01	-2.79E-01	-2.78E-01	-2.82E-01
	856	-2.88E-01	-2.80E-01	-2.50E-01	-2.57E-01	-2.51E-01	-2.50E-01	-2.60E-01
	857	-3.16E-01	-3.08E-01	-2.78E-01	-2.91E-01	-2.84E-01	-2.84E-01	-2.88E-01
	858	-2.88E-01	-2.80E-01	-2.56E-01	-2.57E-01	-2.62E-01	-2.56E-01	-2.55E-01
	859	-3.27E-01	-3.25E-01	-3.00E-01	-3.07E-01	-3.01E-01	-3.00E-01	-2.99E-01
	MINIMUM	-3.27E-01	-3.25E-01	-3.00E-01	-3.07E-01	-3.01E-01	-3.00E-01	-2.99E-01
	MEAN	-3.06E-01	-2.99E-01	-2.72E-01	-2.78E-01	-2.75E-01	-2.74E-01	-2.77E-01
	MAXIMUM	-2.88E-01	-2.80E-01	-2.50E-01	-2.57E-01	-2.51E-01	-2.50E-01	-2.55E-01
	+P 99/90	-2.25E-01	-2.09E-01	-1.79E-01	-1.77E-01	-1.85E-01	-1.78E-01	-1.89E-01
	-P 99/90	-3.87E-01	-3.89E-01	-3.66E-01	-3.80E-01	-3.66E-01	-3.70E-01	-3.64E-01
	SIGMA	1.74E-02	1.93E-02	2.00E-02	2.18E-02	1.95E-02	2.06E-02	1.87E-02

SHORT CIRCUIT CURRENT VIN-VOUT=40V

[DELTA]

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		1.40E-02	****	****	****	****	****
	855		7.00E-03	3.20E-02	3.00E-02	3.10E-02	3.20E-02	2.80E-02
	856		8.00E-03	3.80E-02	3.10E-02	3.70E-02	3.80E-02	2.80E-02
	857		8.00E-03	3.80E-02	2.50E-02	3.20E-02	3.20E-02	2.80E-02
	858		8.00E-03	3.20E-02	3.10E-02	2.60E-02	3.20E-02	3.30E-02
	859		2.00E-03	2.70E-02	2.00E-02	2.60E-02	2.70E-02	2.80E-02
	MINIMUM		2.00E-03	2.70E-02	2.00E-02	2.60E-02	2.70E-02	2.80E-02
	MEAN		6.60E-03	3.34E-02	2.74E-02	3.04E-02	3.22E-02	2.90E-02
	MAXIMUM		8.00E-03	3.80E-02	3.10E-02	3.70E-02	3.80E-02	3.30E-02
	+P 99/90		1.88E-02	5.52E-02	4.99E-02	5.19E-02	5.04E-02	3.94E-02
	-P 99/90		-5.57E-03	1.16E-02	4.88E-03	8.87E-03	1.40E-02	1.86E-02
	SIGMA		2.61E-03	4.67E-03	4.83E-03	4.62E-03	3.90E-03	2.24E-03

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

RIPPLE REJECTION CADJ=10UF VOUT=10V		(dB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	1.26E+02	1.25E+02	****	****	****	****	****
	855	1.25E+02	1.24E+02	1.21E+02	1.45E+02	1.22E+02	1.19E+02	1.21E+02
	856	1.24E+02	1.23E+02	1.26E+02	1.23E+02	1.21E+02	1.22E+02	1.23E+02
	857	1.25E+02	1.24E+02	1.24E+02	1.23E+02	1.22E+02	1.28E+02	1.24E+02
	858	1.25E+02	1.25E+02	1.22E+02	1.23E+02	1.25E+02	1.24E+02	1.26E+02
	859	1.26E+02	1.27E+02	1.25E+02	1.24E+02	1.23E+02	1.24E+02	1.23E+02
	MINIMUM	1.24E+02	1.23E+02	1.21E+02	1.23E+02	1.21E+02	1.19E+02	1.21E+02
	MEAN	1.25E+02	1.25E+02	1.24E+02	1.28E+02	1.23E+02	1.24E+02	1.24E+02
	MAXIMUM	1.26E+02	1.27E+02	1.26E+02	1.45E+02	1.25E+02	1.28E+02	1.26E+02
	+P 99/90	1.29E+02	1.32E+02	1.34E+02	1.73E+02	1.29E+02	1.40E+02	1.32E+02
	-P 99/90	1.21E+02	1.17E+02	1.14E+02	8.19E+01	1.17E+02	1.07E+02	1.15E+02
	SIGMA	8.38E-01	1.53E+00	2.10E+00	9.79E+00	1.31E+00	3.44E+00	1.82E+00

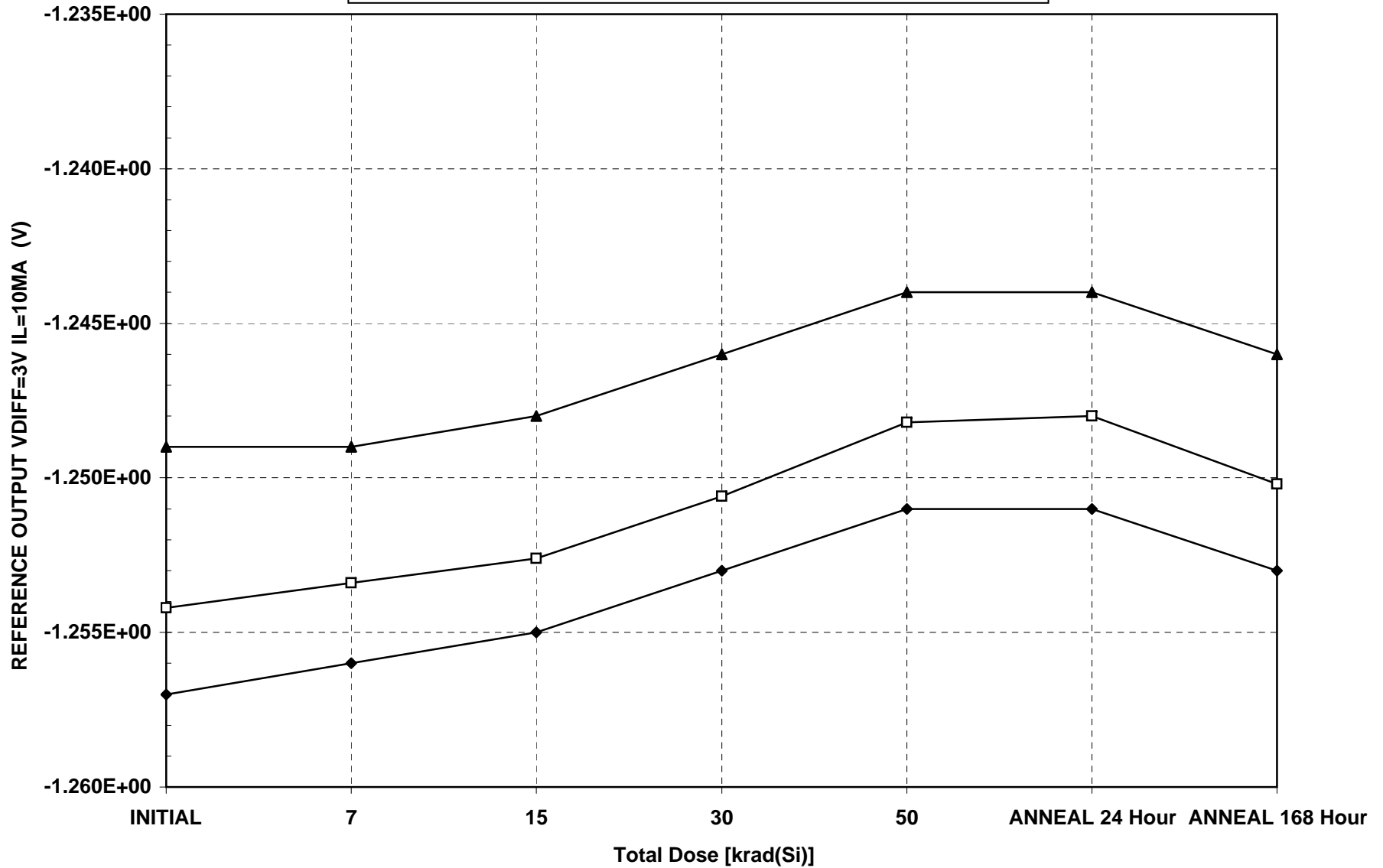
RIPPLE REJECTION CADJ=10UF VOUT=10V		[DELTA]		(dB)				
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.71E+00	****	****	****	****	****
	855		-1.78E+00	-4.14E+00	1.97E+01	-3.75E+00	-6.67E+00	-4.03E+00
	856		-8.60E-01	2.19E+00	-1.17E+00	-2.80E+00	-1.76E+00	-1.23E+00
	857		-1.60E+00	-1.08E+00	-2.42E+00	-2.97E+00	2.97E+00	-1.68E+00
	858		2.10E-01	-2.26E+00	-1.68E+00	-1.30E-01	-2.70E-01	1.68E+00
	859		6.10E-01	-9.70E-01	-2.54E+00	-3.13E+00	-2.78E+00	-3.22E+00
	MINIMUM		-1.78E+00	-4.14E+00	-2.54E+00	-3.75E+00	-6.67E+00	-4.03E+00
	MEAN		-6.84E-01	-1.25E+00	2.37E+00	-2.56E+00	-1.70E+00	-1.70E+00
	MAXIMUM		6.10E-01	2.19E+00	1.97E+01	-1.30E-01	2.97E+00	1.68E+00
	+P 99/90		4.29E+00	9.52E+00	4.75E+01	3.99E+00	1.47E+01	8.58E+00
	-P 99/90		-5.66E+00	-1.20E+01	-4.28E+01	-9.10E+00	-1.82E+01	-1.20E+01
	SIGMA		1.07E+00	2.31E+00	9.68E+00	1.40E+00	3.53E+00	2.20E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-BIASED  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1605 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

REFERENCE OUTPUT VDIFF=3V IL=10MA (V)

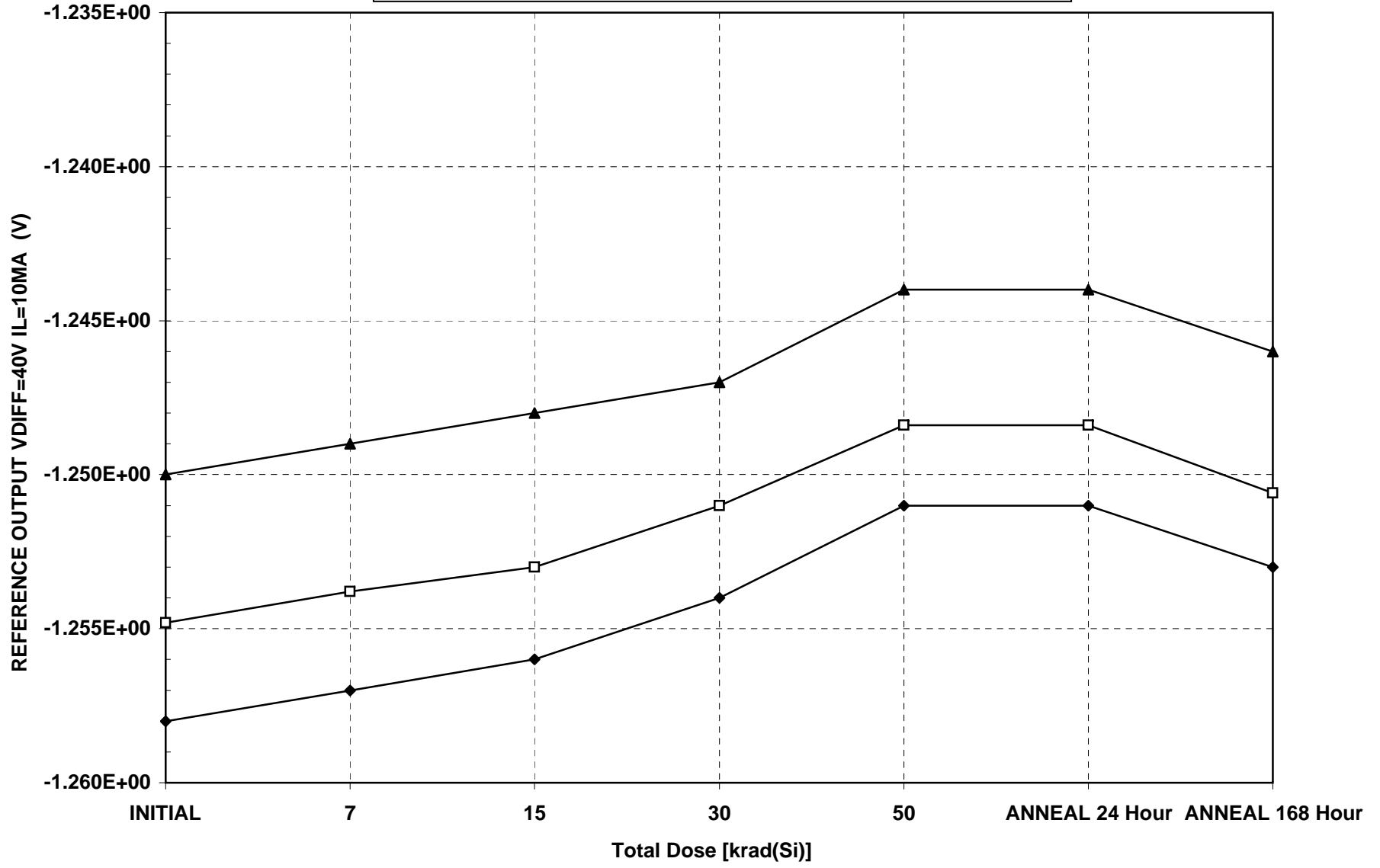


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

REFERENCE OUTPUT VDIFF=40V IL=10MA (V)

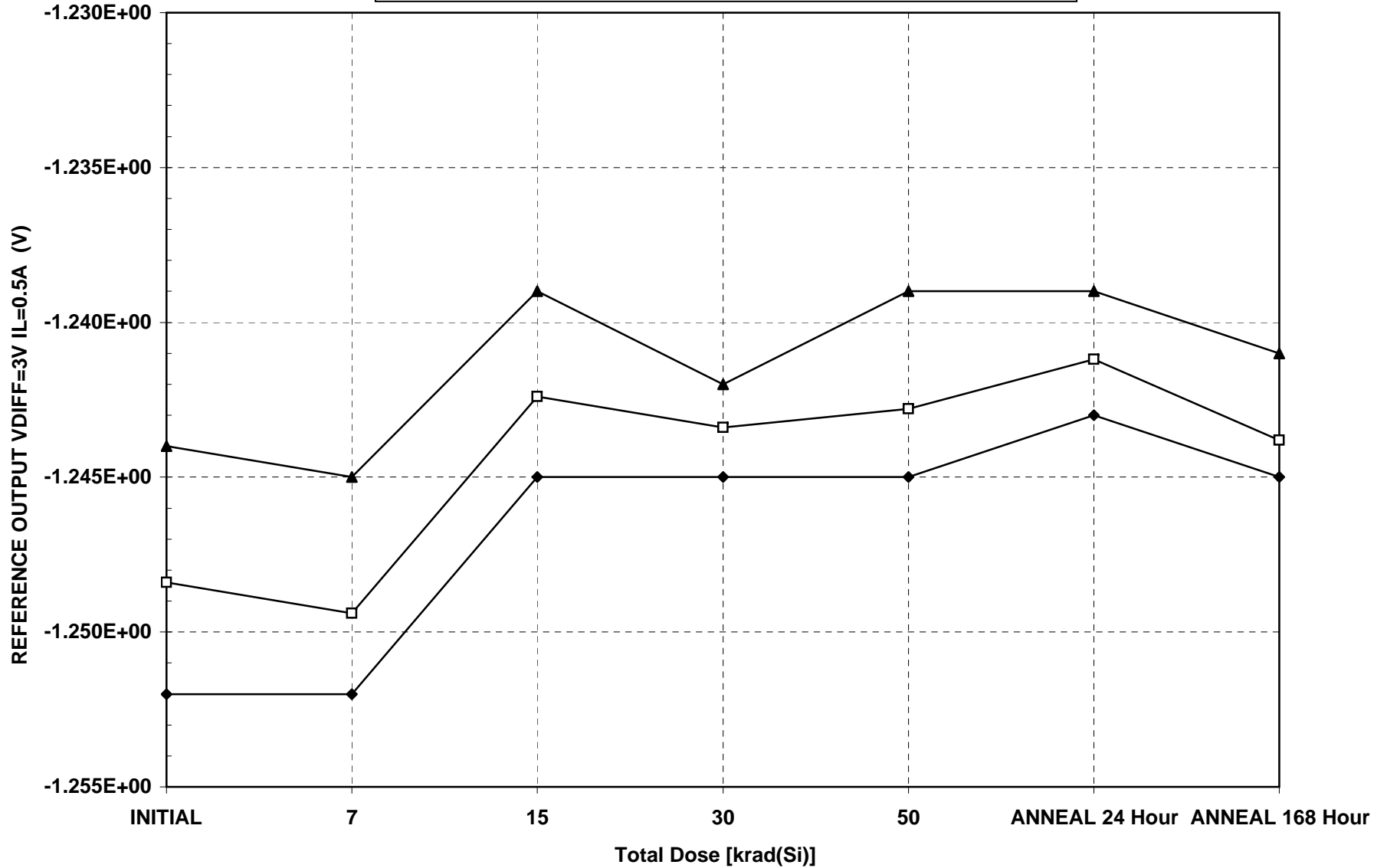


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

REFERENCE OUTPUT VDIFF=3V IL=0.5A (V)

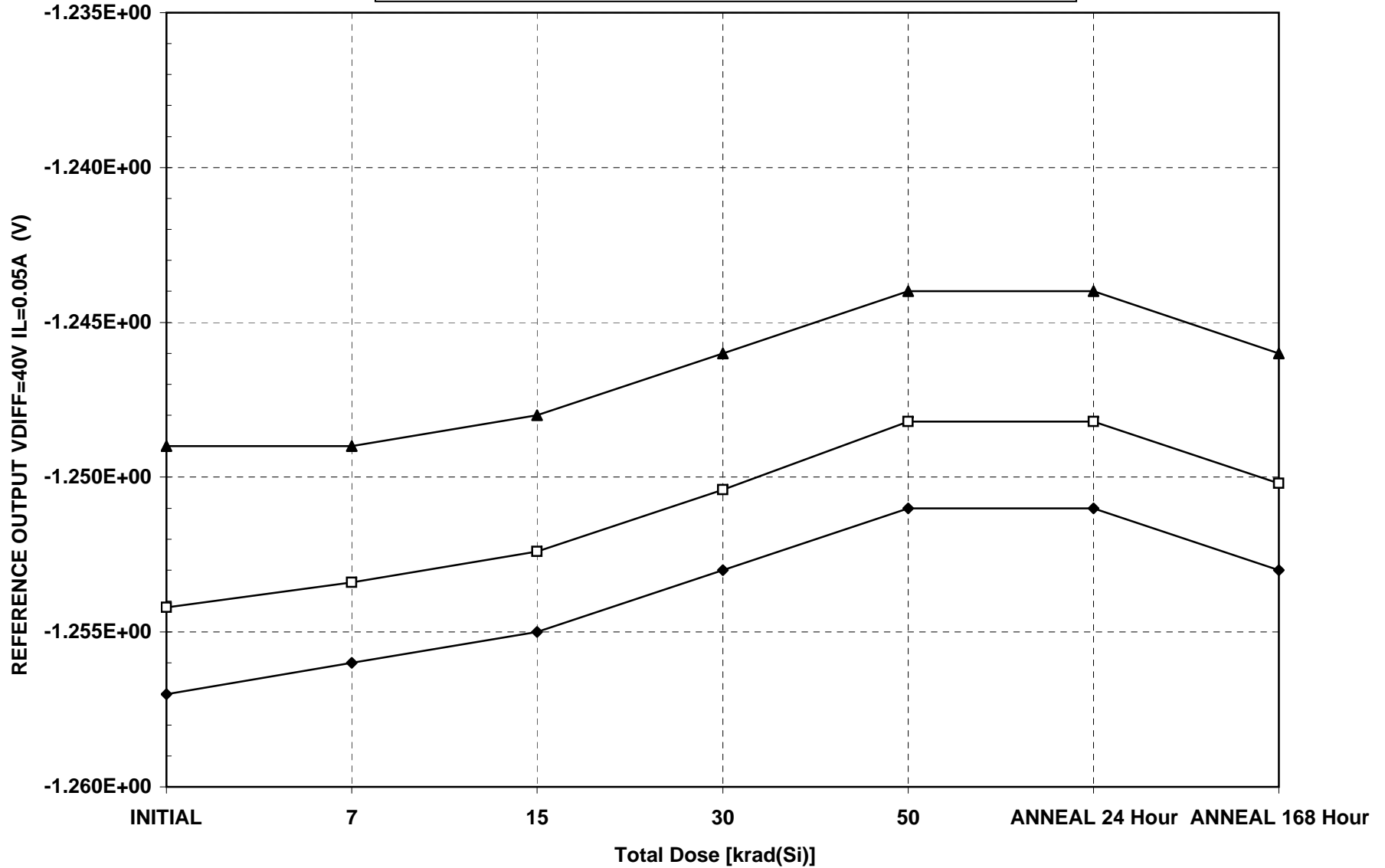


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

REFERENCE OUTPUT VDIFF=40V IL=0.05A (V)

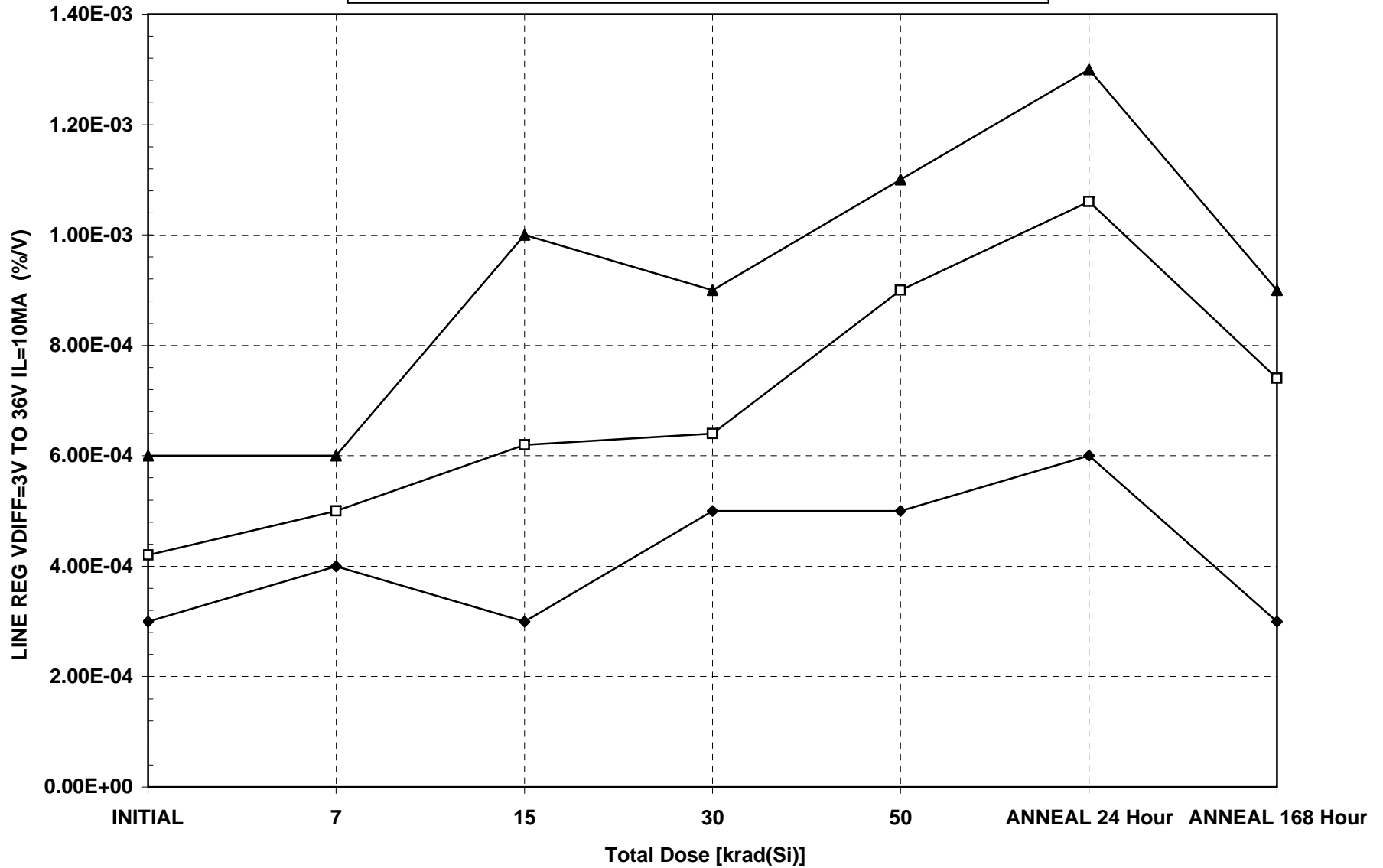


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

LINE REG VDIFF=3V TO 36V IL=10MA (%/V)

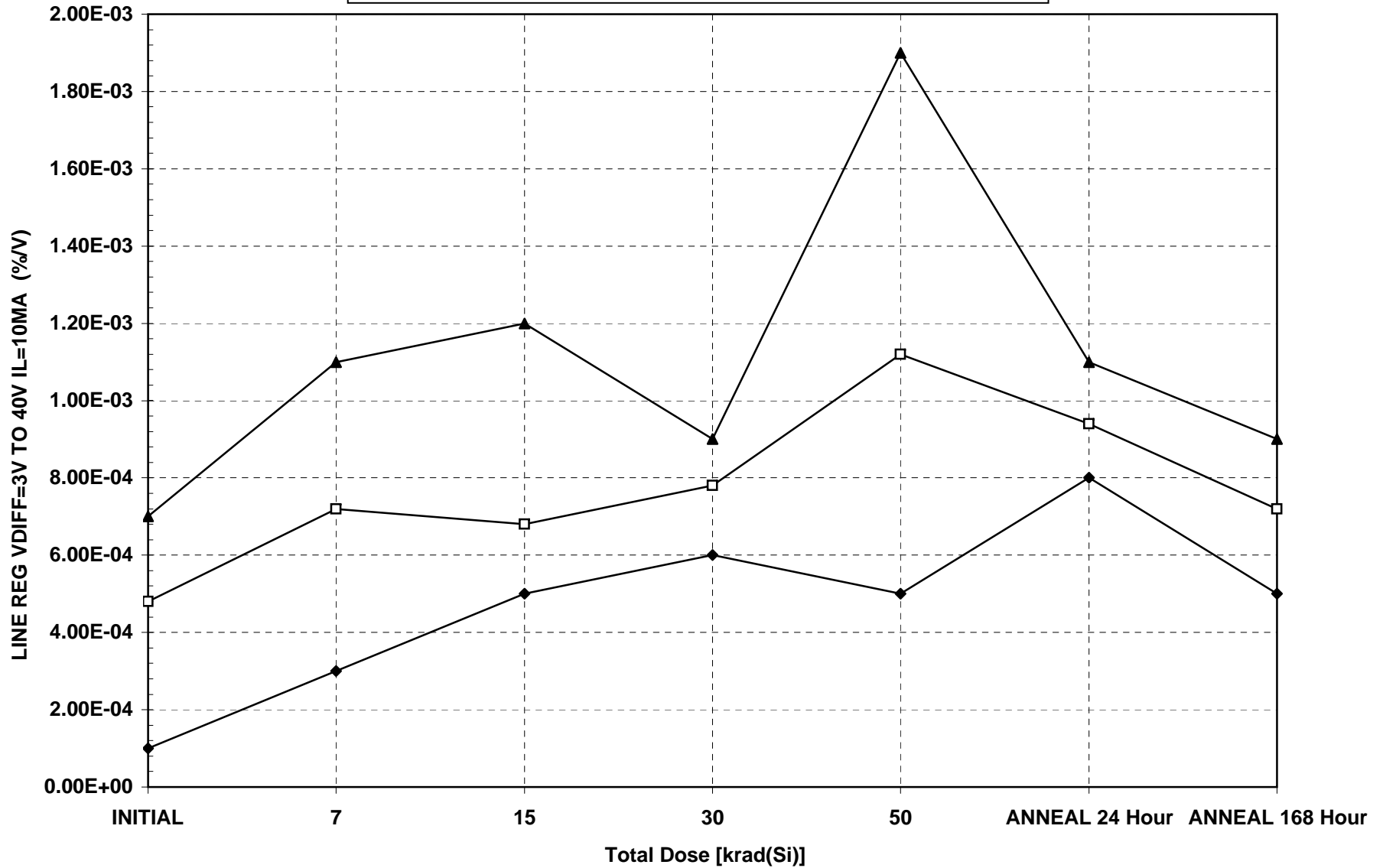


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

LINE REG VDIFF=3V TO 40V IL=10MA (%/V)



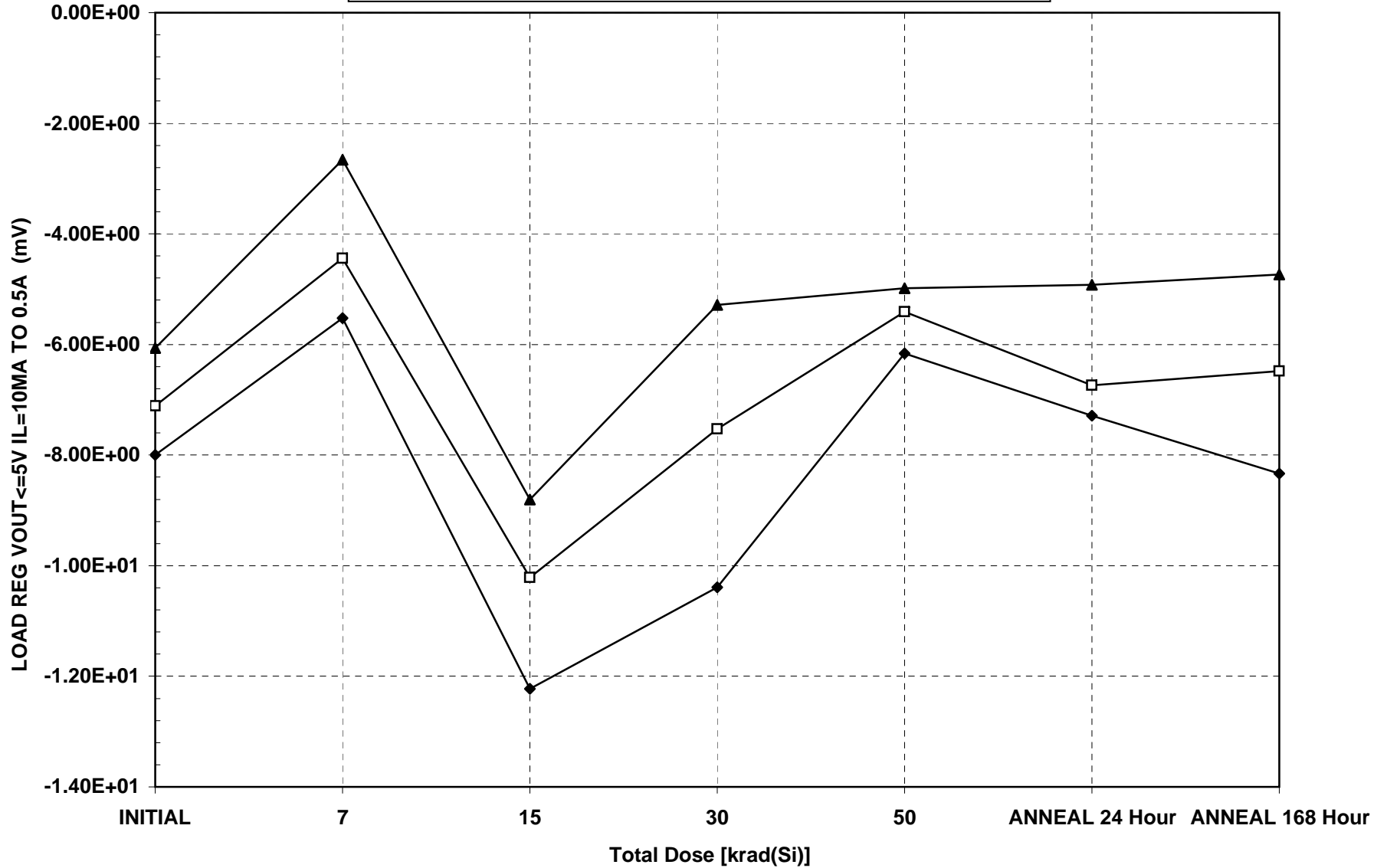
◆ MINIMUM      □ MEAN      ▲ MAXIMUM



RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

LOAD REG VOUT<=5V IL=10MA TO 0.5A (mV)

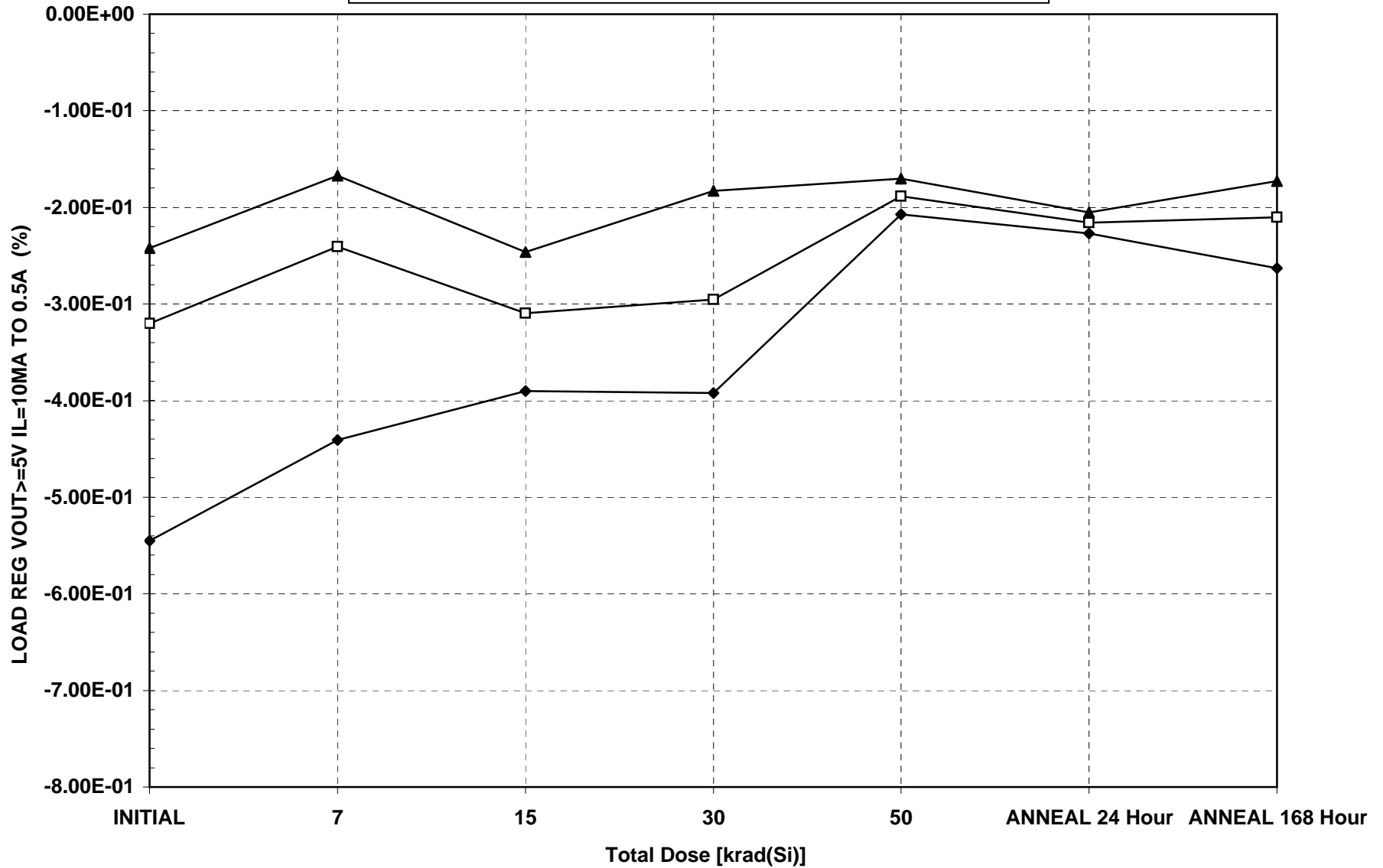


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

LOAD REG VOUT $\geq$ 5V IL=10MA TO 0.5A (%)

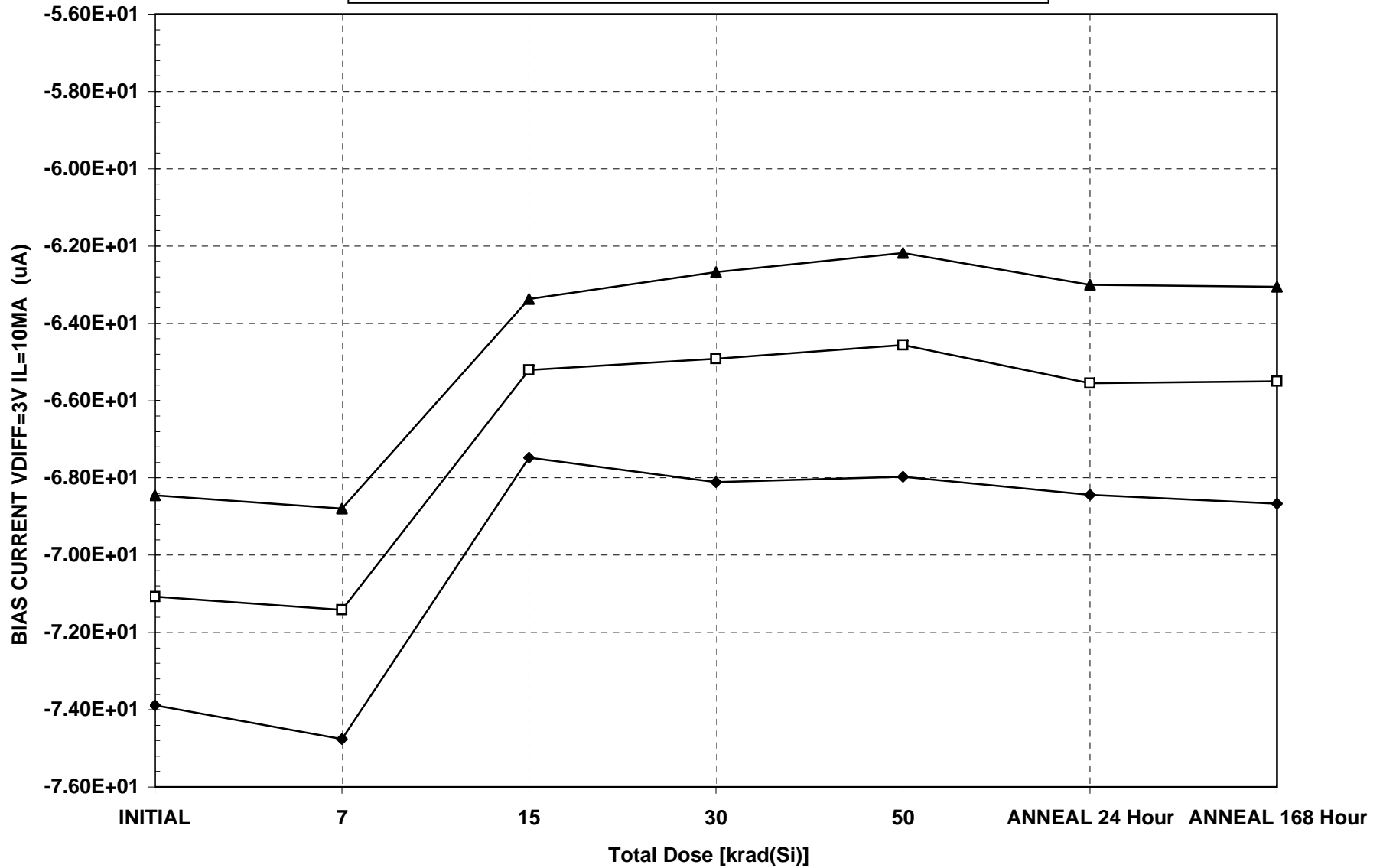


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

BIAS CURRENT VDIFF=3V IL=10MA (uA)

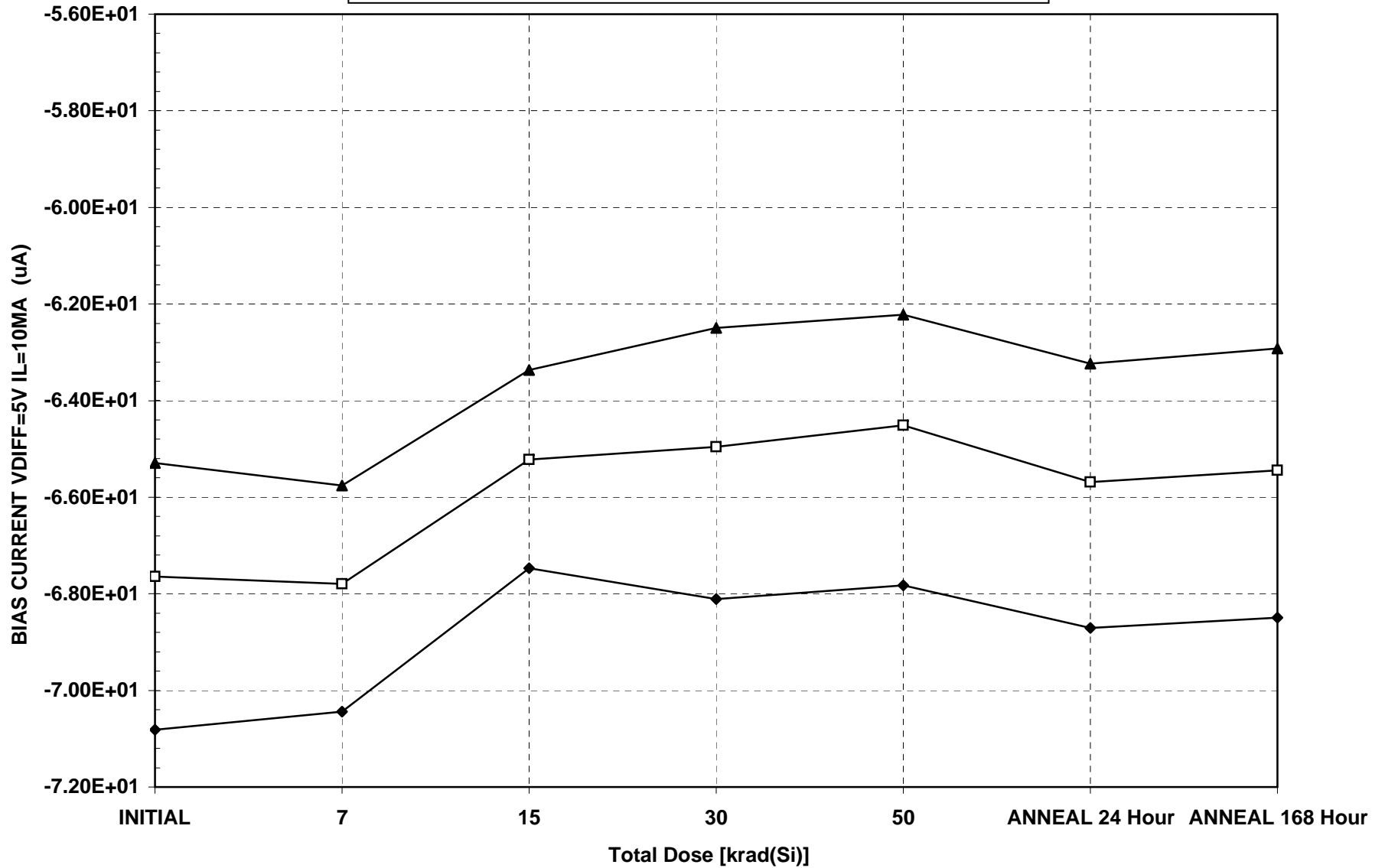


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

BIAS CURRENT VDIFF=5V IL=10MA (uA)

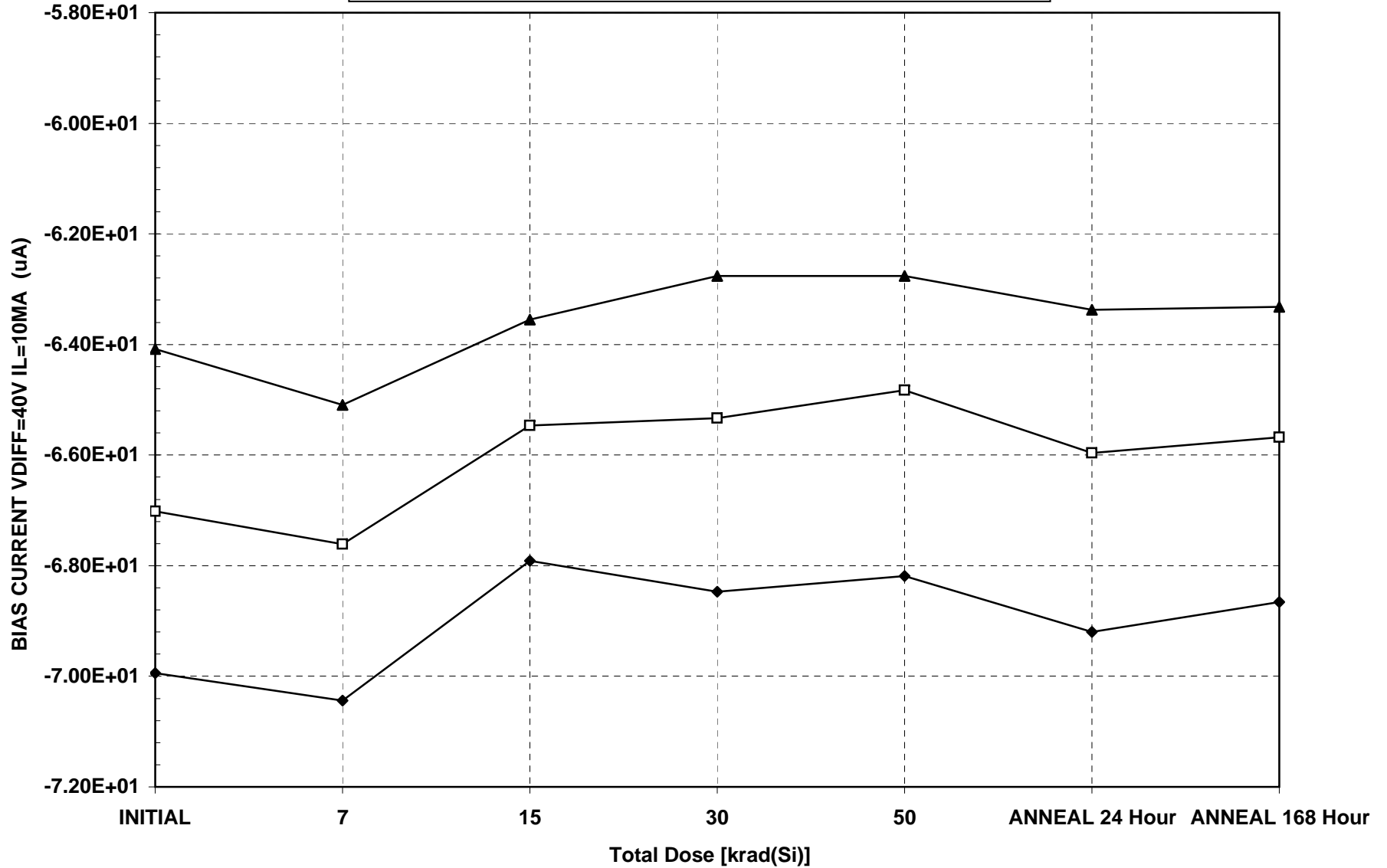


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

BIAS CURRENT VDIFF=40V IL=10MA (uA)

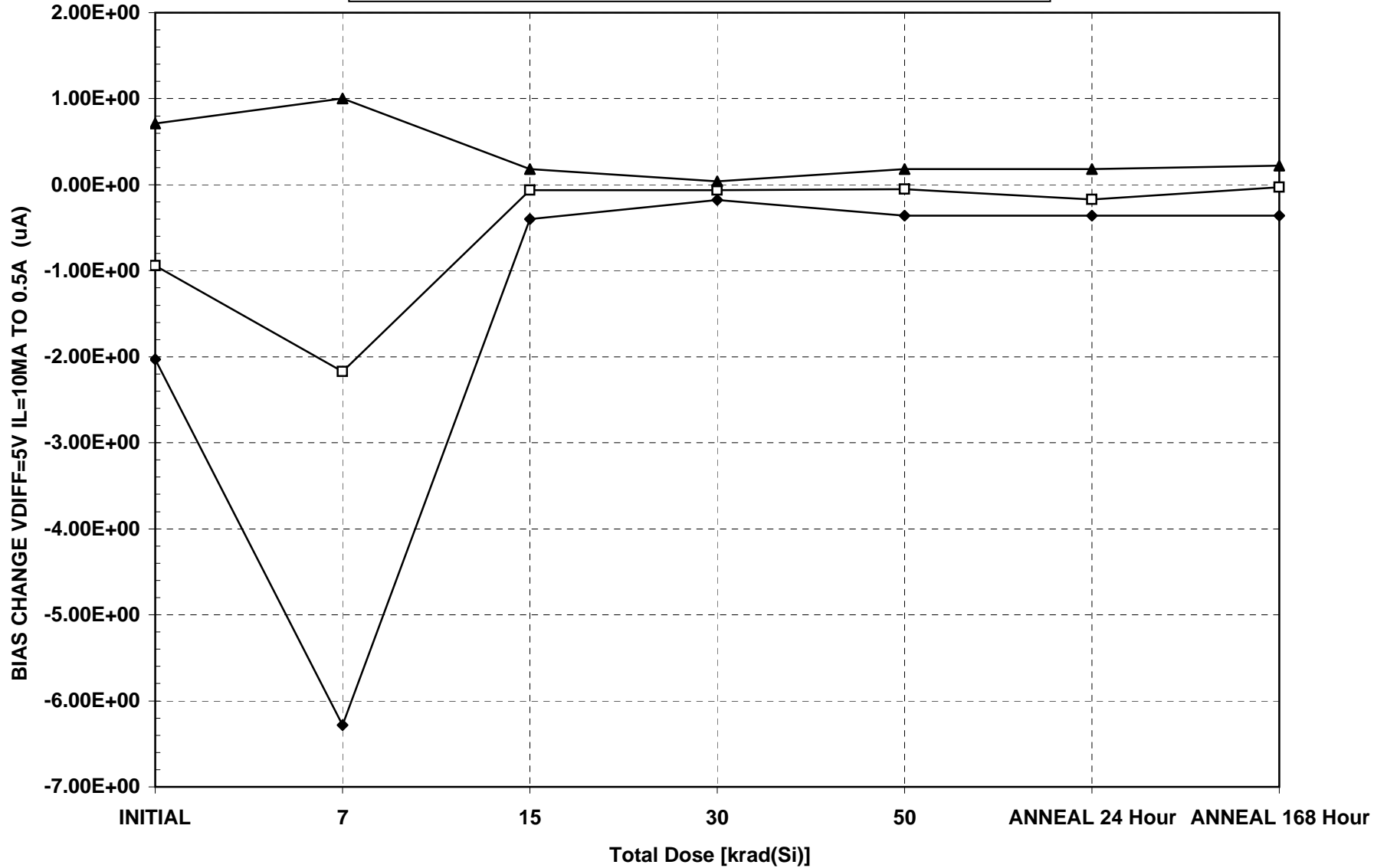


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

I C S Radiation Test Results Log # 1605 8/08/07

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A (uA)

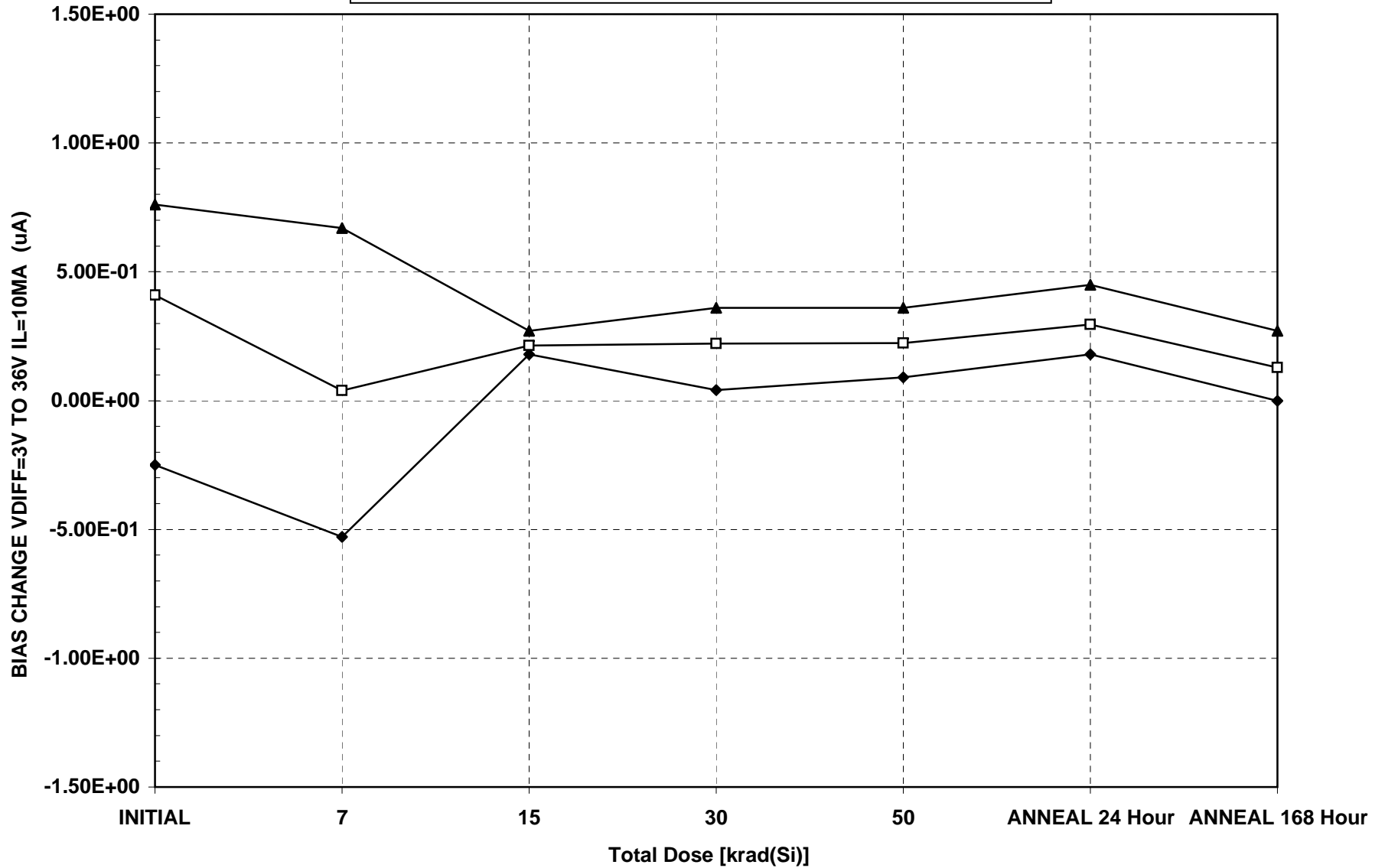


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

BIAS CHANGE VDIFF=3V TO 36V IL=10MA (uA)

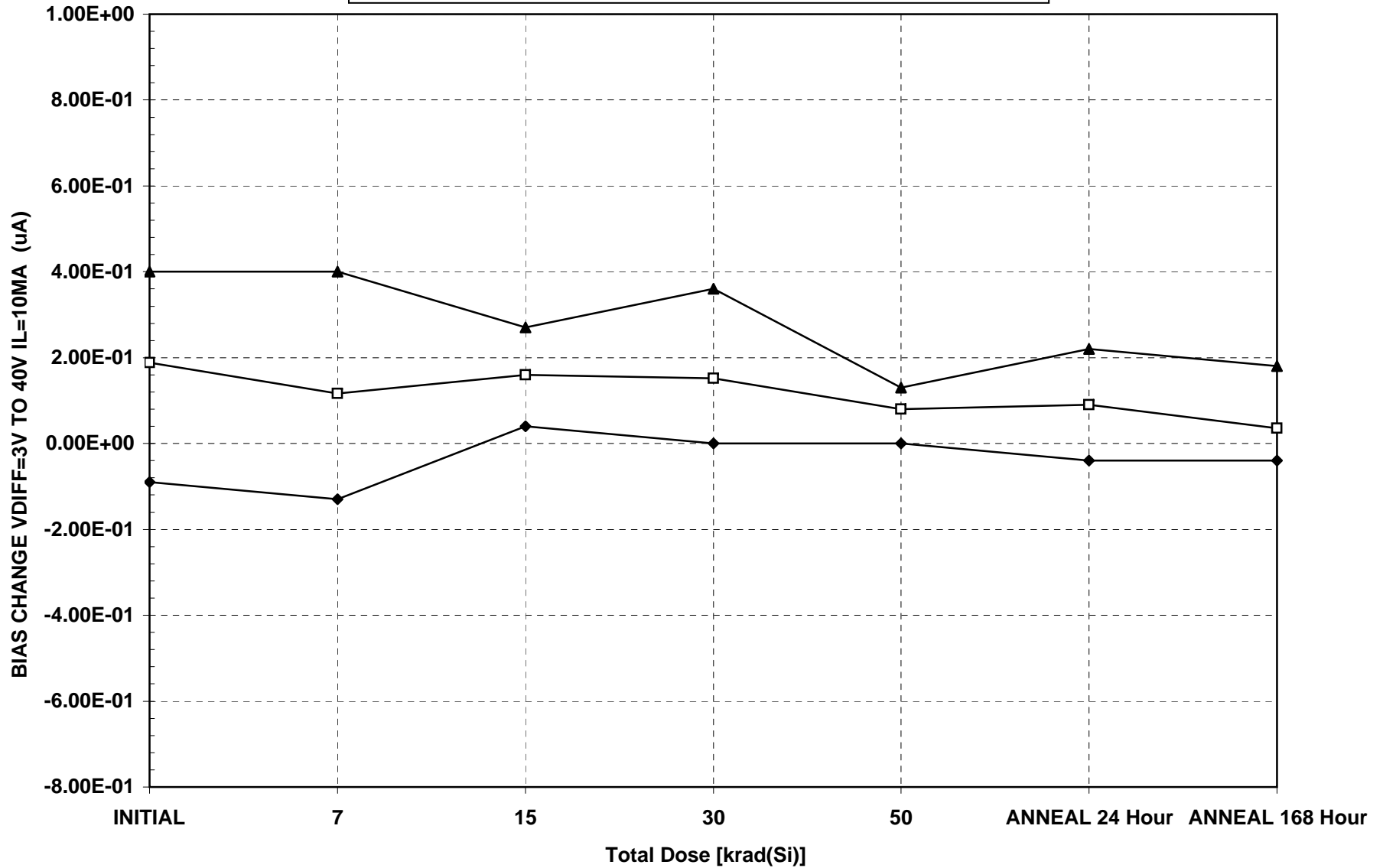


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

BIAS CHANGE VDIFF=3V TO 40V IL=10MA (uA)



◆ MINIMUM

□ MEAN

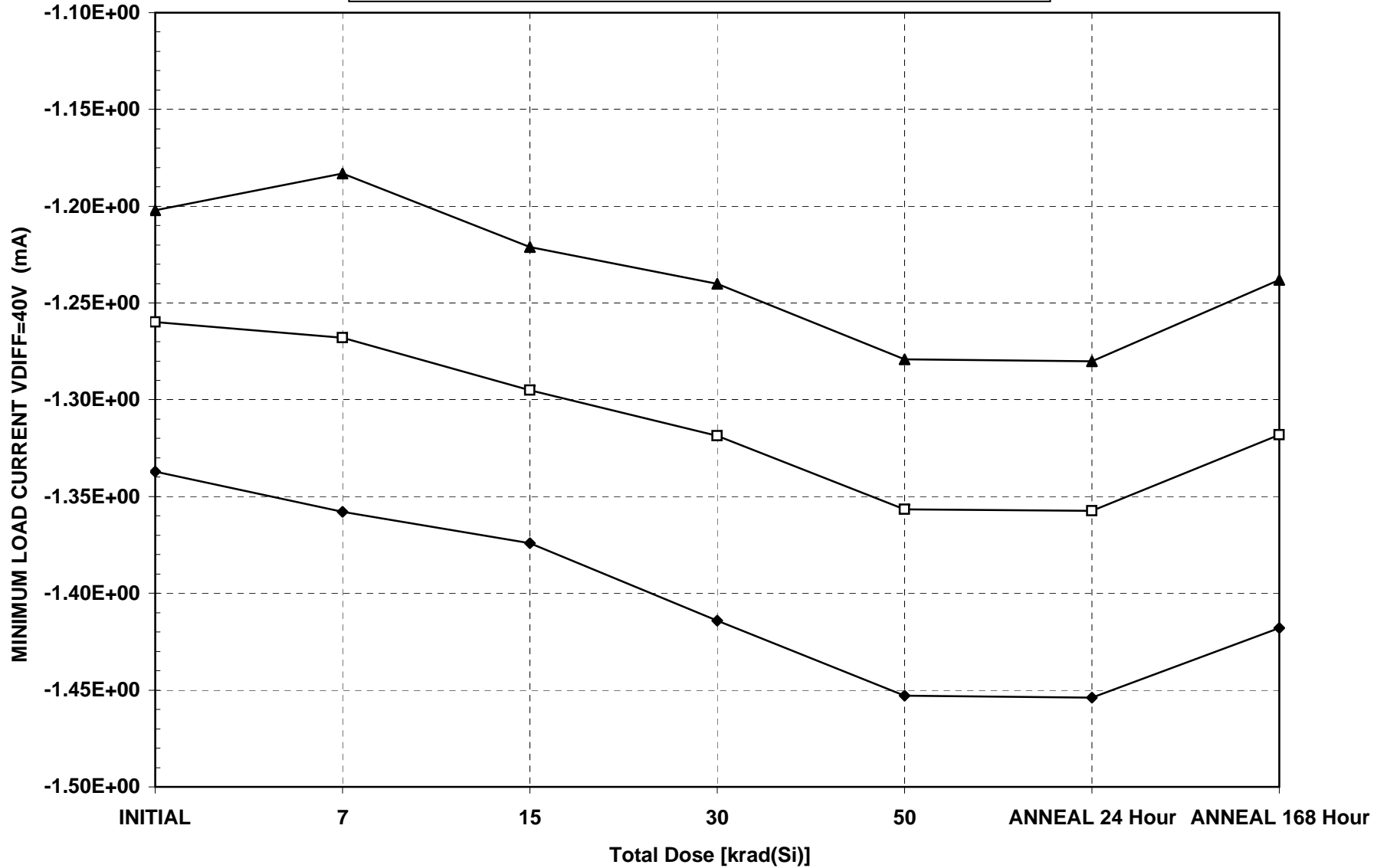
▲ MAXIMUM



RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

MINIMUM LOAD CURRENT VDIFF=40V (mA)

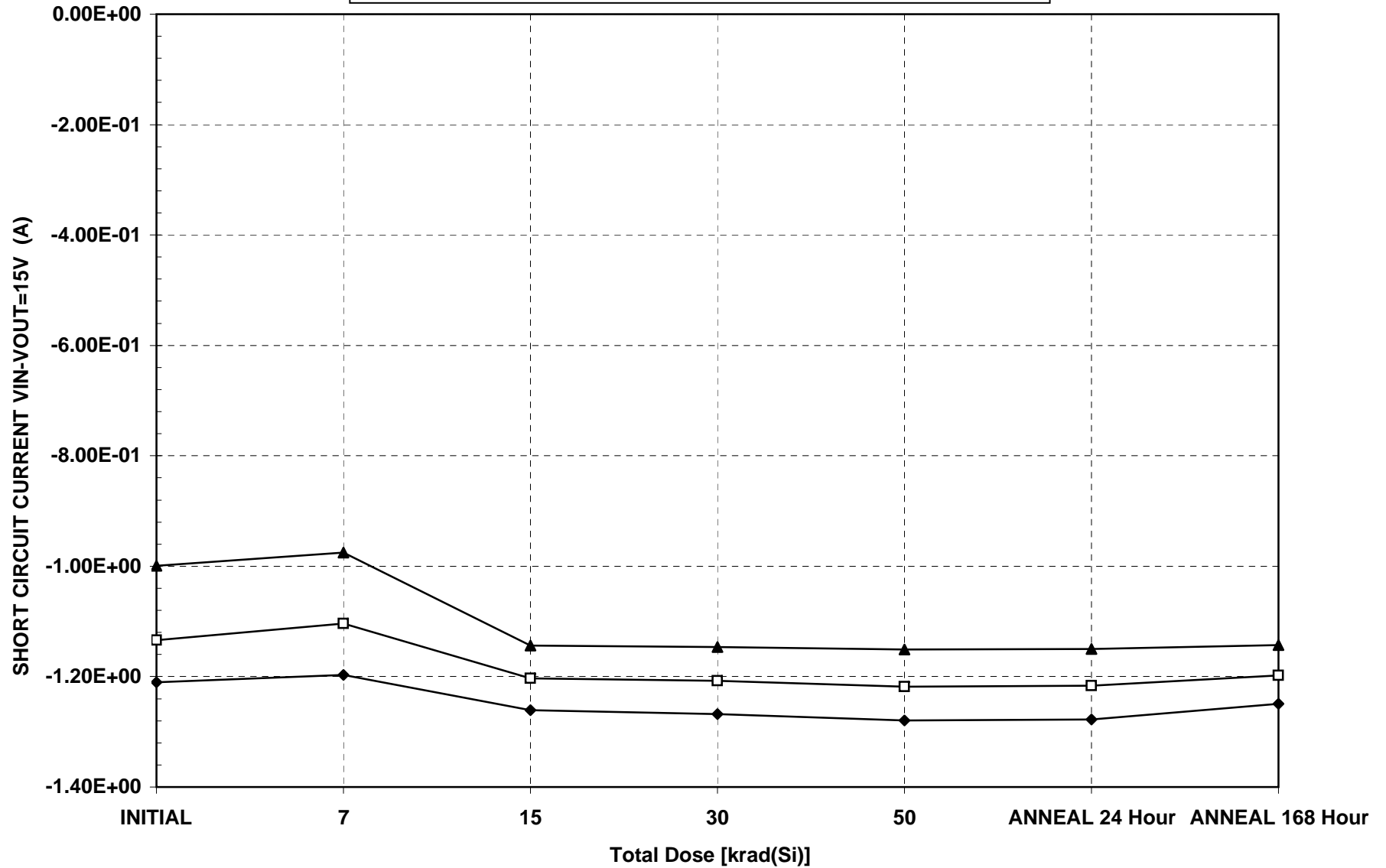


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

I C S Radiation Test Results Log # 1605 8/08/07

SHORT CIRCUIT CURRENT VIN-VOUT=15V (A)

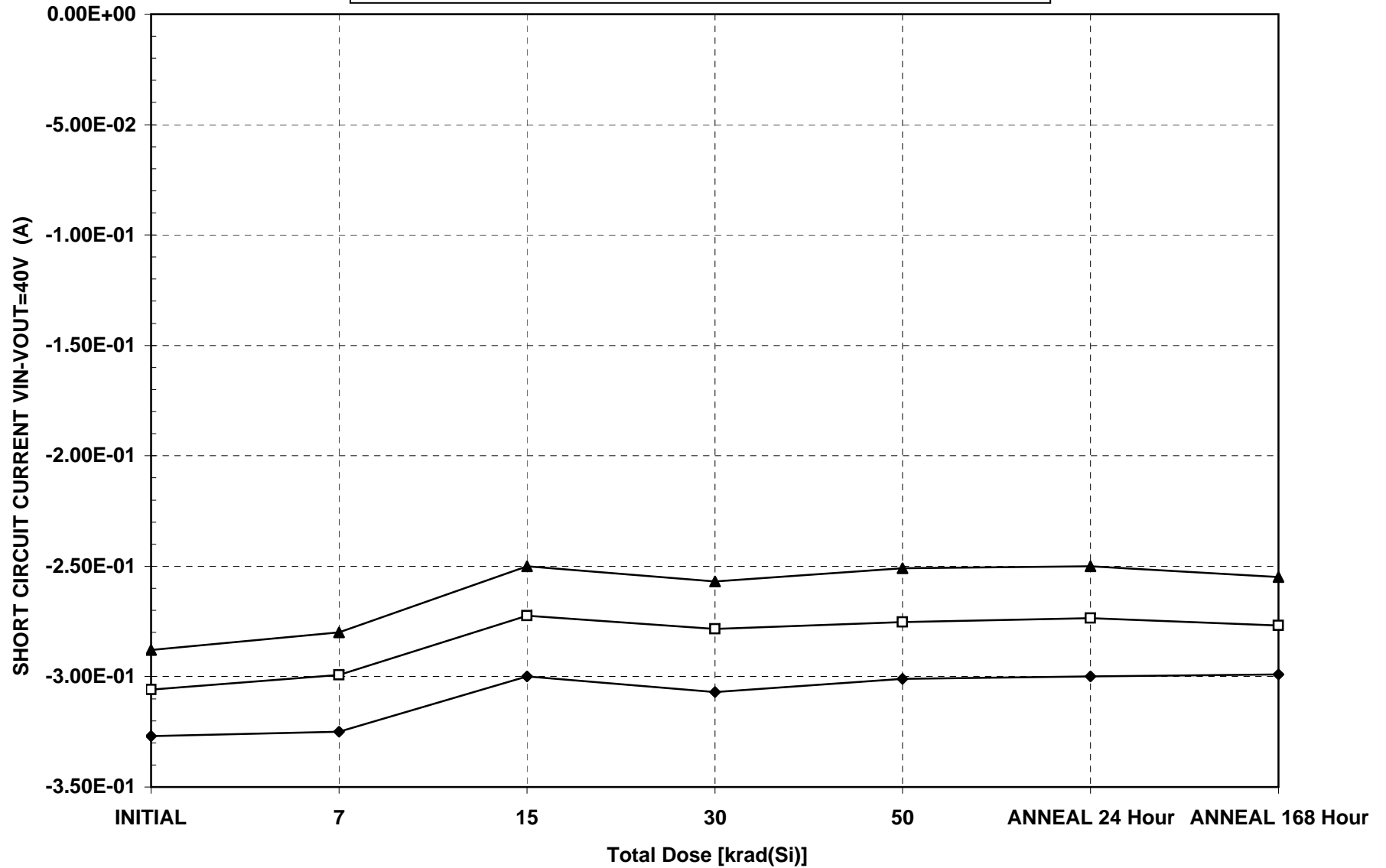


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

SHORT CIRCUIT CURRENT VIN-VOUT=40V (A)

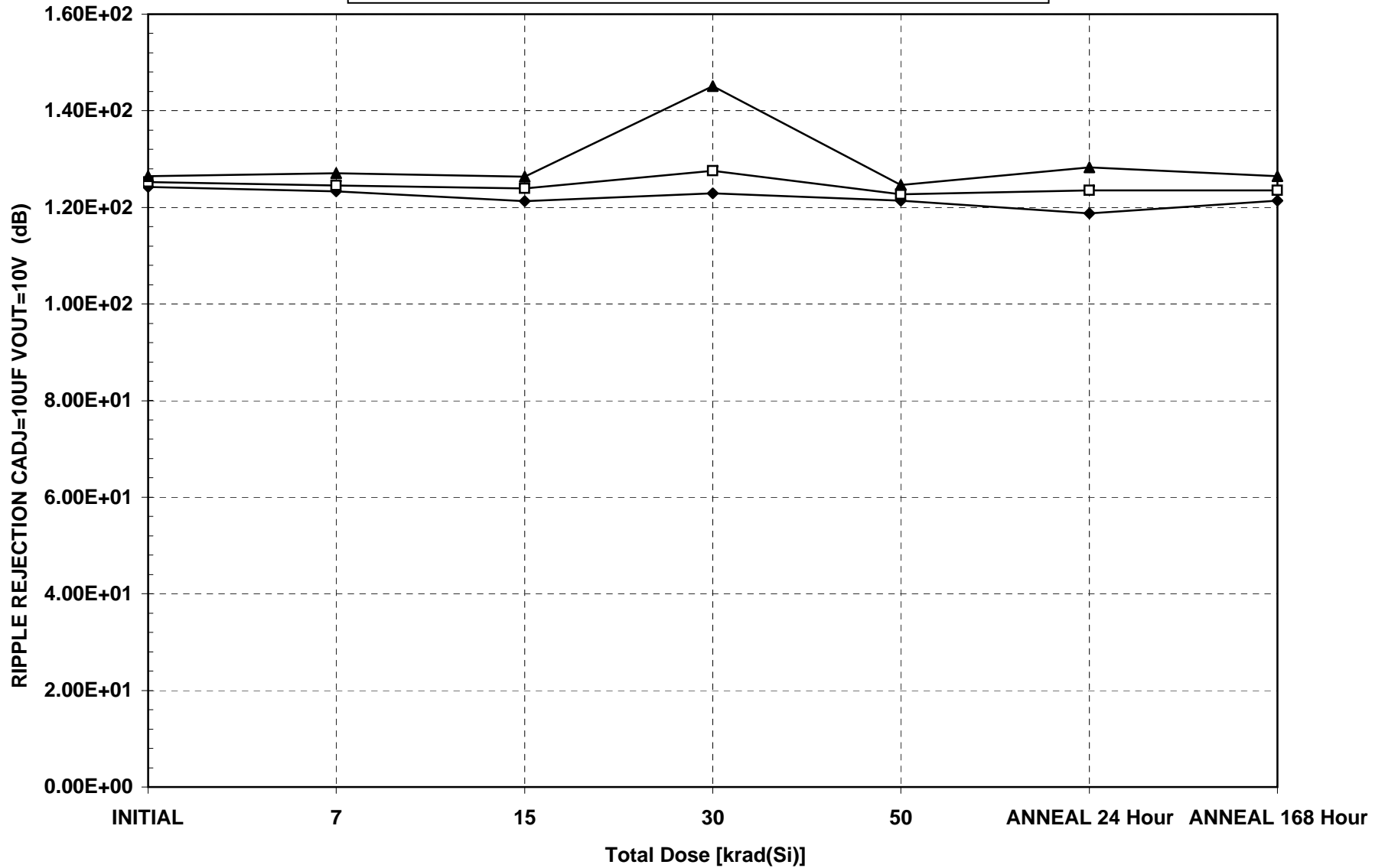


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1605 8/08/07

RIPPLE REJECTION CADJ=10UF VOUT=10V (dB)



◆ MINIMUM      □ MEAN      ▲ MAXIMUM



## Radiation Test Results

**RH137H**

**Negative Adjustable Regulator  
Linear Technology Corporation**

D/C 0709A, Lot# 423723.1 , Wafer # 5  
Test Date 08-08-07, Fab# 10641855.1  
Log# 1605 and 1606, ELDRS Test  
P.O.# 46146L

This ELDRS test consisted of two test logs, 1605 and 1606. The test was to compare the radiation effects differences between two bias conditions: Log 1605, had +30 volts and Log 1606 was unbiased with all leads grounded. The 16 test requirements and two "information only" test are stated in test procedure RTP 696, dated March 23, 2007.

These lots **PASSED** the 16 test requirements as stated in the Radiation Test Procedure RTP 696, dated March 23, 2007 at 50krad(Si).

**NOTE:** *To simplify the following data analysis, all negative numbers, except for the Voltage Reference parameters have been converted to Absolute numbers. This matches with the Absolute numbers used on the manufacturers data sheets.*

### **ELDRS BIASED DEVICES, Log 1605**

**Voltage Reference VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.251V.

**Voltage Reference VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.244V and minimum voltage was -1.251V.

**Voltage Reference VDIFF=3V IL=0.5A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.239V and minimum voltage was -1.245V.

**Voltage Reference VDIFF=40V IL=0.05A: The Post-Radiation limit at 50krad(Si)** was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.244V and minimum voltage was -1.251V.

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0011%/V.

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 0.02%/V maximum. The parameter maximum was 0.0019%/V.

**Load Regulation 1 VOUT<=5V IL=10mA 0.5A: The Post-Radiation limit at 50krad(Si)** was 25mV maximum. The parameter maximum was 6.16mV.

**INFORMATION ONLY Load Regulation 2 VOUT $\geq$ 5V IL=10mA 0.5A: At 50krad(Si), the parameter maximum was 0.207%.**

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si) was 100 $\mu$ A maximum. The parameter maximum was 68  $\mu$ A.**

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si) was 100 $\mu$ A maximum. The parameter maximum was 67.8 $\mu$ A.**

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si) was 100 $\mu$ A maximum. The parameter maximum was 68.2 $\mu$ A.**

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si) was 5 $\mu$ A maximum. The parameter maximum was 0.36 $\mu$ A.**

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si) was 5 $\mu$ A maximum. The parameter maximum was 0.36 $\mu$ A.**

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si) was 5 $\mu$ A maximum. The parameter maximum was 0.13 $\mu$ A.**

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si) was 5mA maximum. The parameter maximum was 1.45mA.**

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si) was 0.5A minimum. The parameter minimum was 1.28A.**

**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si) was 0.15A minimum. The parameter minimum was 0.301A.**

**INFORMATION ONLY Ripple Rejection CADJ=10 $\mu$ F, Vout=10V: At 50krad(Si), the parameter minimum was 121dB.**

## **ELDRS UNBIASED (GROUNDED) DEVICES, Log 1606**

**Voltage Reference VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si) was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.248V and minimum voltage was -1.249V.**

**Voltage Reference VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si) was -1.225V maximum. The parameter minimum was -1.275V. The maximum voltage was -1.248V and minimum voltage was -1.250V.**

**Voltage Reference VDIFF=3V IL=0.5A: The Post-Radiation limit at 50krad(Si) was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.241V and minimum voltage was -1.244V.**

**Voltage Reference VDIFF=40V IL=0.05A: The Post-Radiation limit at 50krad(Si) was -1.200V maximum. The parameter minimum was -1.300V. The maximum voltage was -1.248V and minimum voltage was -1.250V.**

**Line Regulation 1 VDEFF=3V TO 36V IL=10mA: The Post-Radiation limit at 50krad(Si) was 0.02%/V maximum. The parameter maximum was 0.0008%/V.**

**Line Regulation 2 VDEFF=3V TO 40V IL=10mA: The Post-Radiation limit at 50krad(Si) was 0.02%/V maximum. The parameter maximum was 0.0011%/V.**

**Load Regulation 1 VOUT $\leq$ 5V IL=10mA 0.5A: The Post-Radiation limit at 50krad(Si) was 25mV maximum. The parameter maximum was 6.97mV.**

**INFORMATION ONLY Load Regulation 2 VOUT $\geq$ 5V IL=10mA 0.5A: At 50krad(Si), the parameter maximum was 0.297%.**

**Bias Current 1 VDIFF=3V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 67.1µA.

**Bias Current 2 VDIFF=5V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 67.2µA.

**Bias Current 3 VDIFF=40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 100µA maximum. The parameter maximum was 67.6µA.

**Bias Change VDIFF=5V IL=10mA to 0.5A: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.27µA.

**Bias Change VDIFF=3V to 36V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.31A.

**Bias Change VDIFF=3V to 40V IL=10mA: The Post-Radiation limit at 50krad(Si)** was 5µA maximum. The parameter maximum was 0.53µA.

**Minimum Load Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 5mA maximum. The parameter maximum was -1.39mA.

**Short Circuit Current VDIFF=15V: The Post-Radiation limit at 50krad(Si)** was 0.5A minimum. The parameter minimum was 1.23A.

**Short Circuit Current VDIFF=40V: The Post-Radiation limit at 50krad(Si)** was 0.15A minimum. The parameter minimum was 0.301A.

**INFORMATION ONLY Ripple Rejection CADJ=10µF, Vout=10V: At 50krad(Si),** the parameter minimum was 124dB.

## **ANOMOLIES:**

- 1. The control device, S/N 843, was damaged during the 15krad(Si) testing.** There is initial and 7krad(Si) data. There was good uniformity in the test data, so the loss of the control device was not that important.
- 2. Load Regulation 2 VOUT>=5V IL=10mA 0.5A was an INFORMATION ONLY test.** The *Load Regulation* test condition of 10mA-500mA exceeds datasheet test condition of 10mA-200mA so, the datasheet limit of 0.5% does not apply to *Load Regulation* test as performed in this analysis.
- 3. S/N 857 marginally FAILED (but subsequently recovered).** The parameter **Bias Change VDEF=5V IL=10mA to 0.5A.** exceeded the 50krad(Si) test limit at the 7krad(Si) level. The limit maximum is 5 µA and S/N 857 measured 6.28 µA. S/N 857 measured typical values for the other test levels and the all other parameters. The analysis of all the test measurements for S/N 857 indicates that the over limit measurement was an anomalous reading that may have been caused by noise.

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](mailto:mike@icsrad.com).

ICS Radiation Technologies, Inc.

Dr. Michael K. Gauthier, P.E.  
President  
November 17, 2007





**RADIATION TEST PROCEDURE**

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits			Units
			Exposure Levels rad(Si)			
			20k	50k	100k	
1	Voltage Reference	VDIF=3V, IL=10mA	-1.225	-1.225	-1.225	V Min
			-1.275	-1.275	-1.275	V Max
2	Voltage Reference	VDIF=40V, IL=10mA	-1.225	-1.225	-1.225	V Min
			-1.275	-1.275	-1.275	V Max
3	Voltage Reference	VDIF=3V, IL=0.5A	-1.200	-1.200	-1.200	V Min
			-1.300	-1.300	-1.300	V Max
4	Voltage Reference	VDIF=40V, IL=0.05A	-1.200	-1.200	-1.200	V Min
			-1.300	-1.300	-1.300	V Max
5	Line Regulation 1	$3V \leq (V_{in}-V_{out}) \leq 36V$ I <sub>out</sub> =10mA	0.02	0.02	0.02	%/V Max
6	Line Regulation 2	$3V \leq (V_{in}-V_{out}) \leq 40V$ I <sub>out</sub> =10mA	0.02	0.02	0.03	%/V Max
7	Load Regulation 1	$10mA \leq I_{out} \leq 0.5A$ V <sub>out</sub> ≤ 5V	25	25	25	mV Max
8	Load Regulation 2	$10mA \leq I_{out} \leq 0.5A$ V <sub>out</sub> ≥ 5V	0.5	0.5	0.5	% Max
9	Adjust Pin Current 1	VDIF=3V, IL=10mA	100	100	100	µA Max
10	Adjust Pin Current 2	VDIF=5V, IL=10mA	100	100	100	µA Max
11	Adjust Pin Current 3	VDIF=40V, IL=10mA	100	100	100	µA Max
12	Adjust Pin Current Change	VDIF=5V $10mA \leq I_{out} \leq 0.5A$	5	5	5	µA Max
13	Adjust Pin Current Change	VDIF=3V to 36V IL=10mA	5	5	5	µA Max
14	Adjust Pin Current Change	VDIF=3V to 40V IL=10mA	5	5	5	µA Max

**RADIATION TEST PROCEDURE**

**Device Type:** RH137H Negative Voltage Regulator  
**Manufacturer:** Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits			Units
			Exposure Levels rad(Si)			
			20k	50k	100k	
15	Minimum Load Current	VDIF=40V	5	5	5	mA Max
16	Short Circuit Current	VDIF=15V	0.5	0.5	0.5	A Min
17	Short Circuit Current	VDIF=40V	0.15	0.15	0.15	A Min
18	Ripple Rejection	CADJ=10µF, Vout=10V	Record	Record	Record	dB

Measurements shall be made at room (ambient) temperature.

Test conducted using an Analog Devices LTS-2020 Component Test System, with the LTS-2101 Family Board, LTS0606 Regulator Socket Assembly, LTS0325/RH137 DUT board .

Software: RH137H/K 1.021 program.

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

Return samples to customer.

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=3V IL=10MA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843	-1.257E+00	-1.257E+00	****	****	****	****	****
	860	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.251E+00
	861	-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.252E+00
	862	-1.255E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.249E+00	-1.250E+00	-1.253E+00
	863	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.252E+00
	864	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.251E+00
MINIMUM		-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.249E+00	-1.250E+00	-1.253E+00
MEAN		-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.252E+00
MAXIMUM		-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.251E+00
+P 99/90		-1.251E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.247E+00	-1.246E+00	-1.248E+00
-P 99/90		-1.259E+00	-1.256E+00	-1.257E+00	-1.254E+00	-1.251E+00	-1.252E+00	-1.256E+00
SIGMA		8.367E-04	5.477E-04	8.367E-04	5.477E-04	4.472E-04	7.071E-04	8.367E-04

REFERENCE OUTPUT VDIFF=3V IL=10MA

[DELTA]

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843	0.000E+00	****	****	****	****	****	****
	860	1.000E-03	2.000E-03	3.000E-03	5.000E-03	5.000E-03	3.000E-03	
	861	1.000E-03	2.000E-03	3.000E-03	6.000E-03	6.000E-03	3.000E-03	
	862	1.000E-03	1.000E-03	3.000E-03	6.000E-03	5.000E-03	2.000E-03	
	863	2.000E-03	3.000E-03	4.000E-03	7.000E-03	7.000E-03	4.000E-03	
	864	1.000E-03	2.000E-03	3.000E-03	6.000E-03	6.000E-03	3.000E-03	
MINIMUM		1.000E-03	1.000E-03	3.000E-03	5.000E-03	5.000E-03	2.000E-03	
MEAN		1.200E-03	2.000E-03	3.200E-03	6.000E-03	5.800E-03	3.000E-03	
MAXIMUM		2.000E-03	3.000E-03	4.000E-03	7.000E-03	7.000E-03	4.000E-03	
+P 99/90		3.287E-03	5.299E-03	5.287E-03	9.299E-03	9.704E-03	6.299E-03	
-P 99/90		-8.867E-04	-1.299E-03	1.113E-03	2.701E-03	1.896E-03	-2.994E-04	
SIGMA		4.472E-04	7.071E-04	4.472E-04	7.071E-04	8.367E-04	7.071E-04	

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=40V IL=10MA		(V)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.257E+00	-1.258E+00	****	****	****	****	****
	860	-1.255E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.252E+00
	861	-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.250E+00	-1.250E+00	-1.253E+00
	862	-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.250E+00	-1.250E+00	-1.253E+00
	863	-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.253E+00
	864	-1.255E+00	-1.253E+00	-1.253E+00	-1.251E+00	-1.248E+00	-1.249E+00	-1.252E+00
	MINIMUM	-1.256E+00	-1.254E+00	-1.254E+00	-1.252E+00	-1.250E+00	-1.250E+00	-1.253E+00
	MEAN	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.253E+00
	MAXIMUM	-1.255E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.248E+00	-1.249E+00	-1.252E+00
	+P 99/90	-1.253E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.245E+00	-1.247E+00	-1.250E+00
	-P 99/90	-1.258E+00	-1.256E+00	-1.258E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.255E+00
	SIGMA	5.477E-04	5.477E-04	8.944E-04	5.477E-04	8.367E-04	5.477E-04	5.477E-04

REFERENCE OUTPUT VDIFF=40V IL=10MA		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-1.000E-03	****	****	****	****	****
	860		2.000E-03	3.000E-03	4.000E-03	6.000E-03	6.000E-03	3.000E-03
	861		2.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	3.000E-03
	862		2.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	3.000E-03
	863		2.000E-03	2.000E-03	4.000E-03	7.000E-03	7.000E-03	3.000E-03
	864		2.000E-03	2.000E-03	4.000E-03	7.000E-03	6.000E-03	3.000E-03
	MINIMUM		2.000E-03	2.000E-03	4.000E-03	6.000E-03	6.000E-03	3.000E-03
	MEAN		2.000E-03	2.200E-03	4.000E-03	6.400E-03	6.200E-03	3.000E-03
	MAXIMUM		2.000E-03	3.000E-03	4.000E-03	7.000E-03	7.000E-03	3.000E-03
	+P 99/90		2.000E-03	4.287E-03	4.000E-03	8.956E-03	8.287E-03	3.000E-03
	-P 99/90		2.000E-03	1.133E-04	4.000E-03	3.844E-03	4.113E-03	3.000E-03
	SIGMA		0.000E+00	4.472E-04	0.000E+00	5.477E-04	4.472E-04	1.216E-16

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-GROUND  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=3V IL=0.5A

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843	-1.250E+00	-1.254E+00	****	****	****	****	****
	860	-1.248E+00	-1.250E+00	-1.243E+00	-1.243E+00	-1.243E+00	-1.243E+00	-1.245E+00
	861	-1.249E+00	-1.250E+00	-1.244E+00	-1.245E+00	-1.244E+00	-1.242E+00	-1.245E+00
	862	-1.251E+00	-1.251E+00	-1.245E+00	-1.246E+00	-1.244E+00	-1.243E+00	-1.246E+00
	863	-1.248E+00	-1.251E+00	-1.245E+00	-1.244E+00	-1.242E+00	-1.243E+00	-1.248E+00
	864	-1.249E+00	-1.250E+00	-1.244E+00	-1.245E+00	-1.241E+00	-1.241E+00	-1.244E+00
MINIMUM		-1.251E+00	-1.251E+00	-1.245E+00	-1.246E+00	-1.244E+00	-1.243E+00	-1.248E+00
MEAN		-1.249E+00	-1.250E+00	-1.244E+00	-1.245E+00	-1.243E+00	-1.242E+00	-1.246E+00
MAXIMUM		-1.248E+00	-1.250E+00	-1.243E+00	-1.243E+00	-1.241E+00	-1.241E+00	-1.244E+00
+P 99/90		-1.243E+00	-1.248E+00	-1.240E+00	-1.239E+00	-1.237E+00	-1.238E+00	-1.239E+00
-P 99/90		-1.255E+00	-1.253E+00	-1.248E+00	-1.250E+00	-1.249E+00	-1.247E+00	-1.253E+00
SIGMA		1.225E-03	5.477E-04	8.367E-04	1.140E-03	1.304E-03	8.944E-04	1.517E-03

REFERENCE OUTPUT VDIFF=3V IL=0.5A

[DELTA]

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843		-4.000E-03	****	****	****	****	****
	860		-2.000E-03	5.000E-03	5.000E-03	5.000E-03	5.000E-03	3.000E-03
	861		-1.000E-03	5.000E-03	4.000E-03	5.000E-03	7.000E-03	4.000E-03
	862		0.000E+00	6.000E-03	5.000E-03	5.000E-03	8.000E-03	5.000E-03
	863		-3.000E-03	3.000E-03	4.000E-03	6.000E-03	5.000E-03	0.000E+00
	864		-1.000E-03	5.000E-03	4.000E-03	8.000E-03	8.000E-03	5.000E-03
MINIMUM			-3.000E-03	3.000E-03	4.000E-03	5.000E-03	5.000E-03	0.000E+00
MEAN			-1.400E-03	4.800E-03	4.400E-03	6.200E-03	6.600E-03	3.400E-03
MAXIMUM			0.000E+00	6.000E-03	5.000E-03	8.000E-03	8.000E-03	5.000E-03
+P 99/90			3.920E-03	9.911E-03	6.956E-03	1.228E-02	1.368E-02	1.308E-02
-P 99/90			-6.720E-03	-3.113E-04	1.844E-03	1.163E-04	-4.763E-04	-6.276E-03
SIGMA			1.140E-03	1.095E-03	5.477E-04	1.304E-03	1.517E-03	2.074E-03

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

REFERENCE OUTPUT VDIFF=40V IL=0.05A

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.257E+00	-1.257E+00	****	****	****	****	****
	860	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.249E+00	-1.249E+00	-1.251E+00
	861	-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.253E+00
	862	-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.250E+00	-1.250E+00	-1.253E+00
	863	-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.253E+00
	864	-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.251E+00
MINIMUM		-1.256E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.250E+00	-1.250E+00	-1.253E+00
MEAN		-1.255E+00	-1.254E+00	-1.253E+00	-1.252E+00	-1.249E+00	-1.249E+00	-1.252E+00
MAXIMUM		-1.254E+00	-1.253E+00	-1.252E+00	-1.251E+00	-1.248E+00	-1.248E+00	-1.251E+00
+P 99/90		-1.251E+00	-1.251E+00	-1.250E+00	-1.249E+00	-1.246E+00	-1.246E+00	-1.247E+00
-P 99/90		-1.259E+00	-1.256E+00	-1.255E+00	-1.254E+00	-1.252E+00	-1.252E+00	-1.257E+00
SIGMA		8.367E-04	5.477E-04	5.477E-04	5.477E-04	7.071E-04	7.071E-04	1.095E-03

REFERENCE OUTPUT VDIFF=40V IL=0.05A

[DELTA]

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		0.000E+00	****	****	****	****	****
	860		1.000E-03	2.000E-03	3.000E-03	5.000E-03	5.000E-03	3.000E-03
	861		1.000E-03	2.000E-03	3.000E-03	6.000E-03	6.000E-03	2.000E-03
	862		2.000E-03	3.000E-03	4.000E-03	6.000E-03	6.000E-03	3.000E-03
	863		1.000E-03	2.000E-03	3.000E-03	6.000E-03	6.000E-03	2.000E-03
	864		1.000E-03	2.000E-03	3.000E-03	6.000E-03	6.000E-03	3.000E-03
MINIMUM			1.000E-03	2.000E-03	3.000E-03	5.000E-03	5.000E-03	2.000E-03
MEAN			1.200E-03	2.200E-03	3.200E-03	5.800E-03	5.800E-03	2.600E-03
MAXIMUM			2.000E-03	3.000E-03	4.000E-03	6.000E-03	6.000E-03	3.000E-03
+P 99/90			3.287E-03	4.287E-03	5.287E-03	7.887E-03	7.887E-03	5.156E-03
-P 99/90			-8.867E-04	1.133E-04	1.113E-03	3.713E-03	3.713E-03	4.433E-05
SIGMA			4.472E-04	4.472E-04	4.472E-04	4.472E-04	4.472E-04	5.477E-04

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LINE REG VDIFF=3V TO 36V IL=10MA									(%V)
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL	
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour	
----- S/N -----									
CONTROL	843	7.00E-04	1.00E-03	****	****	****	****	****	
	860	4.00E-04	5.00E-04	5.00E-04	4.00E-04	7.00E-04	7.00E-04	8.00E-04	
	861	7.00E-04	9.00E-04	3.00E-04	6.00E-04	8.00E-04	5.00E-04	8.00E-04	
	862	5.00E-04	5.00E-04	1.00E-04	6.00E-04	4.00E-04	9.00E-04	4.00E-04	
	863	9.00E-04	4.00E-04	5.00E-04	1.10E-03	8.00E-04	1.10E-03	5.00E-04	
	864	3.00E-04	4.00E-04	4.00E-04	7.00E-04	6.00E-04	8.00E-04	8.00E-04	
	MINIMUM	3.00E-04	4.00E-04	1.00E-04	4.00E-04	4.00E-04	5.00E-04	4.00E-04	
	MEAN	5.60E-04	5.40E-04	3.60E-04	6.80E-04	6.60E-04	8.00E-04	6.60E-04	
	MAXIMUM	9.00E-04	9.00E-04	5.00E-04	1.10E-03	8.00E-04	1.10E-03	8.00E-04	
	+P 99/90	1.68E-03	1.51E-03	1.14E-03	1.89E-03	1.44E-03	1.84E-03	1.57E-03	
	-P 99/90	-5.64E-04	-4.28E-04	-4.21E-04	-5.28E-04	-1.21E-04	-2.43E-04	-2.50E-04	
	SIGMA	2.41E-04	2.07E-04	1.67E-04	2.59E-04	1.67E-04	2.24E-04	1.95E-04	

LINE REG VDIFF=3V TO 36V IL=10MA		[DELTA]							(%V)
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL	
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour	
----- S/N -----									
CONTROL	843		3.00E-04	****	****	****	****	****	
	860		1.00E-04	1.00E-04	0.00E+00	3.00E-04	3.00E-04	4.00E-04	
	861		2.00E-04	-4.00E-04	-1.00E-04	1.00E-04	-2.00E-04	1.00E-04	
	862		0.00E+00	-4.00E-04	1.00E-04	-1.00E-04	4.00E-04	-1.00E-04	
	863		-5.00E-04	-4.00E-04	2.00E-04	-1.00E-04	2.00E-04	-4.00E-04	
	864		1.00E-04	1.00E-04	4.00E-04	3.00E-04	5.00E-04	5.00E-04	
	MINIMUM		-5.00E-04	-4.00E-04	-1.00E-04	-1.00E-04	-2.00E-04	-4.00E-04	
	MEAN		-2.00E-05	-2.00E-04	1.20E-04	1.00E-04	2.40E-04	1.00E-04	
	MAXIMUM		2.00E-04	1.00E-04	4.00E-04	3.00E-04	5.00E-04	5.00E-04	
	+P 99/90		1.27E-03	1.08E-03	1.02E-03	1.03E-03	1.50E-03	1.81E-03	
	-P 99/90		-1.31E-03	-1.48E-03	-7.78E-04	-8.33E-04	-1.02E-03	-1.61E-03	
	SIGMA		2.77E-04	2.74E-04	1.92E-04	2.00E-04	2.70E-04	3.67E-04	

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-GROUND  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LINE REG VDIFF=3V TO 40V IL=10MA

(%/V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	7.00E-04	7.00E-04	****	****	****	****	****
	860	5.00E-04	3.00E-04	5.00E-04	7.00E-04	5.00E-04	7.00E-04	6.00E-04
	861	7.00E-04	5.00E-04	1.40E-03	6.00E-04	1.10E-03	7.00E-04	1.10E-03
	862	8.00E-04	3.00E-04	1.00E-03	8.00E-04	8.00E-04	8.00E-04	9.00E-04
	863	3.00E-04	8.00E-04	1.30E-03	4.00E-04	8.00E-04	1.00E-03	5.00E-04
	864	6.00E-04	5.00E-04	3.00E-04	4.00E-04	8.00E-04	1.10E-03	9.00E-04
	MINIMUM	3.00E-04	3.00E-04	3.00E-04	4.00E-04	5.00E-04	7.00E-04	5.00E-04
	MEAN	5.80E-04	4.80E-04	9.00E-04	5.80E-04	8.00E-04	8.60E-04	8.00E-04
	MAXIMUM	8.00E-04	8.00E-04	1.40E-03	8.00E-04	1.10E-03	1.10E-03	1.10E-03
	+P 99/90	1.48E-03	1.44E-03	3.16E-03	1.41E-03	1.79E-03	1.71E-03	1.94E-03
	-P 99/90	-3.18E-04	-4.76E-04	-1.36E-03	-2.55E-04	-1.90E-04	1.24E-05	-3.43E-04
	SIGMA	1.92E-04	2.05E-04	4.85E-04	1.79E-04	2.12E-04	1.82E-04	2.45E-04

LINE REG VDIFF=3V TO 40V IL=10MA

[DELTA]

(%/V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		0.00E+00	****	****	****	****	****
	860		-2.00E-04	0.00E+00	2.00E-04	0.00E+00	2.00E-04	1.00E-04
	861		-2.00E-04	7.00E-04	-1.00E-04	4.00E-04	0.00E+00	4.00E-04
	862		-5.00E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	1.00E-04
	863		5.00E-04	1.00E-03	1.00E-04	5.00E-04	7.00E-04	2.00E-04
	864		-1.00E-04	-3.00E-04	-2.00E-04	2.00E-04	5.00E-04	3.00E-04
	MINIMUM		-5.00E-04	-3.00E-04	-2.00E-04	0.00E+00	0.00E+00	1.00E-04
	MEAN		-1.00E-04	3.20E-04	1.08E-20	2.20E-04	2.80E-04	2.20E-04
	MAXIMUM		5.00E-04	1.00E-03	2.00E-04	5.00E-04	7.00E-04	4.00E-04
	+P 99/90		1.61E-03	2.78E-03	7.38E-04	1.28E-03	1.73E-03	8.28E-04
	-P 99/90		-1.81E-03	-2.14E-03	-7.38E-04	-8.44E-04	-1.17E-03	-3.88E-04
	SIGMA		3.67E-04	5.26E-04	1.58E-04	2.28E-04	3.11E-04	1.30E-04

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LOAD REG VOUT<=5V IL=10MA TO 0.5A		(mV)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-8.52E+00	-4.28E+00	****	****	****	****	****
	860	-8.83E+00	-2.78E+00	-8.54E+00	-7.51E+00	-6.03E+00	-5.29E+00	-6.74E+00
	861	-7.87E+00	-3.59E+00	-8.93E+00	-7.23E+00	-5.07E+00	-6.77E+00	-7.46E+00
	862	-6.57E+00	-3.52E+00	-8.86E+00	-8.24E+00	-5.24E+00	-6.82E+00	-7.07E+00
	863	-8.19E+00	-3.76E+00	-8.35E+00	-8.20E+00	-6.45E+00	-5.93E+00	-4.87E+00
	864	-7.12E+00	-4.08E+00	-8.49E+00	-5.61E+00	-6.97E+00	-7.34E+00	-7.06E+00
	MINIMUM	-8.83E+00	-4.08E+00	-8.93E+00	-8.24E+00	-6.97E+00	-7.34E+00	-7.46E+00
	MEAN	-7.71E+00	-3.54E+00	-8.63E+00	-7.36E+00	-5.95E+00	-6.43E+00	-6.64E+00
	MAXIMUM	-6.57E+00	-2.78E+00	-8.35E+00	-5.61E+00	-5.07E+00	-5.29E+00	-4.87E+00
	+P 99/90	-3.58E+00	-1.31E+00	-7.48E+00	-2.36E+00	-2.20E+00	-2.63E+00	-1.86E+00
	-P 99/90	-1.18E+01	-5.77E+00	-9.79E+00	-1.24E+01	-9.70E+00	-1.02E+01	-1.14E+01
	SIGMA	8.86E-01	4.78E-01	2.47E-01	1.07E+00	8.04E-01	8.15E-01	1.02E+00

LOAD REG VOUT<=5V IL=10MA TO 0.5A		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		4.24E+00	****	****	****	****	****
	860		6.05E+00	2.87E-01	1.31E+00	2.80E+00	3.54E+00	2.09E+00
	861		4.28E+00	-1.06E+00	6.40E-01	2.80E+00	1.10E+00	4.04E-01
	862		3.05E+00	-2.29E+00	-1.67E+00	1.33E+00	-2.53E-01	-5.05E-01
	863		4.43E+00	-1.68E-01	-1.70E-02	1.74E+00	2.26E+00	3.32E+00
	864		3.05E+00	-1.36E+00	1.52E+00	1.52E-01	-2.19E-01	6.70E-02
	MINIMUM		3.05E+00	-2.29E+00	-1.67E+00	1.52E-01	-2.53E-01	-5.05E-01
	MEAN		4.17E+00	-9.19E-01	3.57E-01	1.76E+00	1.28E+00	1.07E+00
	MAXIMUM		6.05E+00	2.87E-01	1.52E+00	2.80E+00	3.54E+00	3.32E+00
	+P 99/90		9.94E+00	3.81E+00	6.34E+00	6.94E+00	8.91E+00	8.46E+00
	-P 99/90		-1.60E+00	-5.65E+00	-5.63E+00	-3.41E+00	-6.34E+00	-6.31E+00
	SIGMA		1.24E+00	1.01E+00	1.28E+00	1.11E+00	1.63E+00	1.58E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

LOAD REG VOUT>=5V IL=10MA TO 0.5A

(%)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-2.47E-01	-2.53E-01	****	****	****	****	****
	860	-2.77E-01	-7.42E-01	-2.71E-01	-2.47E-01	-1.96E-01	-1.77E-01	-2.23E-01
	861	-2.26E-01	-2.40E-01	-2.61E-01	-2.32E-01	-1.84E-01	-2.55E-01	-2.09E-01
	862	-2.26E-01	-3.22E-01	-2.58E-01	-2.70E-01	-2.97E-01	-2.38E-01	-2.16E-01
	863	-3.63E-01	-1.76E-01	-3.27E-01	-2.70E-01	-1.87E-01	-1.93E-01	-1.91E-01
	864	-2.35E-01	-1.83E-01	-2.84E-01	-1.85E-01	-2.23E-01	-2.15E-01	-2.15E-01
	MINIMUM	-3.63E-01	-7.42E-01	-3.27E-01	-2.70E-01	-2.97E-01	-2.55E-01	-2.23E-01
	MEAN	-2.65E-01	-3.33E-01	-2.80E-01	-2.41E-01	-2.17E-01	-2.16E-01	-2.11E-01
	MAXIMUM	-2.26E-01	-1.76E-01	-2.58E-01	-1.85E-01	-1.84E-01	-1.77E-01	-1.91E-01
	+P 99/90	7.56E-03	7.70E-01	-1.49E-01	-7.69E-02	2.26E-03	-6.70E-02	-1.54E-01
	-P 99/90	-5.38E-01	-1.43E+00	-4.11E-01	-4.05E-01	-4.37E-01	-3.64E-01	-2.67E-01
	SIGMA	5.85E-02	2.36E-01	2.81E-02	3.51E-02	4.71E-02	3.18E-02	1.21E-02

LOAD REG VOUT>=5V IL=10MA TO 0.5A

[DELTA]

(%)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-6.00E-03	****	****	****	****	****
	860		-4.65E-01	6.00E-03	3.00E-02	8.10E-02	1.00E-01	5.40E-02
	861		-1.40E-02	-3.50E-02	-6.00E-03	4.20E-02	-2.90E-02	1.70E-02
	862		-9.60E-02	-3.20E-02	-4.40E-02	-7.10E-02	-1.20E-02	1.00E-02
	863		1.87E-01	3.60E-02	9.30E-02	1.76E-01	1.70E-01	1.72E-01
	864		5.20E-02	-4.90E-02	5.00E-02	1.20E-02	2.00E-02	2.00E-02
	MINIMUM		-4.65E-01	-4.90E-02	-4.40E-02	-7.10E-02	-2.90E-02	1.00E-02
	MEAN		-6.72E-02	-1.48E-02	2.46E-02	4.80E-02	4.98E-02	5.46E-02
	MAXIMUM		1.87E-01	3.60E-02	9.30E-02	1.76E-01	1.70E-01	1.72E-01
	+P 99/90		1.08E+00	1.48E-01	2.69E-01	4.72E-01	4.39E-01	3.71E-01
	-P 99/90		-1.21E+00	-1.78E-01	-2.20E-01	-3.76E-01	-3.40E-01	-2.62E-01
	SIGMA		2.45E-01	3.50E-02	5.24E-02	9.08E-02	8.35E-02	6.78E-02

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-GROUND  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CURRENT VDIFF=3V IL=10MA		(uA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-7.58E+01	-7.39E+01	****	****	****	****	****
	860	-7.13E+01	-7.00E+01	-6.37E+01	-6.46E+01	-6.62E+01	-6.58E+01	-6.47E+01
	861	-7.31E+01	-7.10E+01	-6.51E+01	-6.59E+01	-6.71E+01	-6.71E+01	-6.64E+01
	862	-7.18E+01	-6.99E+01	-6.42E+01	-6.51E+01	-6.62E+01	-6.62E+01	-6.51E+01
	863	-7.45E+01	-7.31E+01	-6.57E+01	-6.68E+01	-6.66E+01	-6.81E+01	-6.78E+01
	864	-7.20E+01	-7.03E+01	-6.36E+01	-6.45E+01	-6.40E+01	-6.58E+01	-6.24E+01
	MINIMUM	-7.45E+01	-7.31E+01	-6.57E+01	-6.68E+01	-6.71E+01	-6.81E+01	-6.78E+01
	MEAN	-7.25E+01	-7.08E+01	-6.44E+01	-6.54E+01	-6.60E+01	-6.66E+01	-6.53E+01
	MAXIMUM	-7.13E+01	-6.99E+01	-6.36E+01	-6.45E+01	-6.40E+01	-6.58E+01	-6.24E+01
	+P 99/90	-6.67E+01	-6.46E+01	-6.01E+01	-6.08E+01	-6.05E+01	-6.19E+01	-5.59E+01
	-P 99/90	-7.84E+01	-7.70E+01	-6.87E+01	-6.99E+01	-7.16E+01	-7.13E+01	-7.46E+01
	SIGMA	1.26E+00	1.33E+00	9.20E-01	9.66E-01	1.19E+00	1.00E+00	1.99E+00

BIAS CURRENT VDIFF=3V IL=10MA		[DELTA]		(uA)				
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		1.95E+00	****	****	****	****	****
	860		1.39E+00	7.66E+00	6.79E+00	5.15E+00	5.57E+00	6.69E+00
	861		2.16E+00	8.07E+00	7.25E+00	6.01E+00	6.02E+00	6.78E+00
	862		1.95E+00	7.64E+00	6.73E+00	5.62E+00	5.59E+00	6.75E+00
	863		1.39E+00	8.77E+00	7.69E+00	7.87E+00	6.37E+00	6.69E+00
	864		1.67E+00	8.42E+00	7.47E+00	7.97E+00	6.20E+00	9.54E+00
	MINIMUM		1.39E+00	7.64E+00	6.73E+00	5.15E+00	5.57E+00	6.69E+00
	MEAN		1.71E+00	8.11E+00	7.19E+00	6.52E+00	5.95E+00	7.29E+00
	MAXIMUM		2.16E+00	8.77E+00	7.69E+00	7.97E+00	6.37E+00	9.54E+00
	+P 99/90		3.31E+00	1.04E+01	9.14E+00	1.26E+01	7.63E+00	1.32E+01
	-P 99/90		1.19E-01	5.83E+00	5.23E+00	4.08E-01	4.27E+00	1.42E+00
	SIGMA		3.41E-01	4.89E-01	4.19E-01	1.31E+00	3.60E-01	1.26E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CURRENT VDIFF=5V IL=10MA		(uA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-7.17E+01	-7.02E+01	****	****	****	****	****
	860	-6.83E+01	-6.68E+01	-6.35E+01	-6.45E+01	-6.64E+01	-6.57E+01	-6.49E+01
	861	-7.00E+01	-6.75E+01	-6.52E+01	-6.60E+01	-6.72E+01	-6.68E+01	-6.63E+01
	862	-6.90E+01	-6.73E+01	-6.41E+01	-6.51E+01	-6.62E+01	-6.62E+01	-6.50E+01
	863	-7.10E+01	-6.97E+01	-6.64E+01	-6.68E+01	-6.65E+01	-6.79E+01	-6.78E+01
	864	-6.86E+01	-6.60E+01	-6.36E+01	-6.46E+01	-6.38E+01	-6.59E+01	-6.24E+01
	MINIMUM	-7.10E+01	-6.97E+01	-6.64E+01	-6.68E+01	-6.72E+01	-6.79E+01	-6.78E+01
	MEAN	-6.94E+01	-6.75E+01	-6.46E+01	-6.54E+01	-6.60E+01	-6.65E+01	-6.53E+01
	MAXIMUM	-6.83E+01	-6.60E+01	-6.35E+01	-6.45E+01	-6.38E+01	-6.57E+01	-6.24E+01
	+P 99/90	-6.42E+01	-6.10E+01	-5.87E+01	-6.08E+01	-6.00E+01	-6.23E+01	-5.61E+01
	-P 99/90	-7.46E+01	-7.39E+01	-7.04E+01	-7.00E+01	-7.20E+01	-7.07E+01	-7.45E+01
	SIGMA	1.11E+00	1.38E+00	1.25E+00	9.85E-01	1.28E+00	8.95E-01	1.97E+00

BIAS CURRENT VDIFF=5V IL=10MA		[DELTA]		(uA)				
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		1.51E+00	****	****	****	****	****
	860		1.53E+00	4.81E+00	3.85E+00	1.95E+00	2.63E+00	3.37E+00
	861		2.42E+00	4.72E+00	3.99E+00	2.79E+00	3.12E+00	3.66E+00
	862		1.74E+00	4.93E+00	3.89E+00	2.79E+00	2.79E+00	4.00E+00
	863		1.31E+00	4.59E+00	4.26E+00	4.53E+00	3.12E+00	3.26E+00
	864		2.57E+00	5.01E+00	4.05E+00	4.78E+00	2.69E+00	6.17E+00
	MINIMUM		1.31E+00	4.59E+00	3.85E+00	1.95E+00	2.63E+00	3.26E+00
	MEAN		1.91E+00	4.81E+00	4.01E+00	3.37E+00	2.87E+00	4.09E+00
	MAXIMUM		2.57E+00	5.01E+00	4.26E+00	4.78E+00	3.12E+00	6.17E+00
	+P 99/90		4.50E+00	5.59E+00	4.76E+00	9.08E+00	3.97E+00	9.67E+00
	-P 99/90		-6.72E-01	4.04E+00	3.25E+00	-2.34E+00	1.77E+00	-1.49E+00
	SIGMA		5.54E-01	1.66E-01	1.62E-01	1.22E+00	2.35E-01	1.20E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-GROUND  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CURRENT VDIFF=40V IL=10MA		(uA)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-7.09E+01	-7.02E+01	****	****	****	****	****
	860	-6.77E+01	-6.59E+01	-6.39E+01	-6.46E+01	-6.66E+01	-6.60E+01	-6.51E+01
	861	-6.96E+01	-6.76E+01	-6.52E+01	-6.62E+01	-6.76E+01	-6.72E+01	-6.67E+01
	862	-6.78E+01	-6.71E+01	-6.46E+01	-6.54E+01	-6.66E+01	-6.65E+01	-6.51E+01
	863	-6.99E+01	-6.83E+01	-6.66E+01	-6.71E+01	-6.68E+01	-6.85E+01	-6.80E+01
	864	-6.85E+01	-6.66E+01	-6.38E+01	-6.48E+01	-6.42E+01	-6.61E+01	-6.29E+01
	MINIMUM	-6.99E+01	-6.83E+01	-6.66E+01	-6.71E+01	-6.76E+01	-6.85E+01	-6.80E+01
	MEAN	-6.87E+01	-6.71E+01	-6.48E+01	-6.56E+01	-6.63E+01	-6.69E+01	-6.56E+01
	MAXIMUM	-6.77E+01	-6.59E+01	-6.38E+01	-6.46E+01	-6.42E+01	-6.60E+01	-6.29E+01
	+P 99/90	-6.39E+01	-6.27E+01	-5.94E+01	-6.07E+01	-6.04E+01	-6.21E+01	-5.65E+01
	-P 99/90	-7.35E+01	-7.15E+01	-7.03E+01	-7.05E+01	-7.23E+01	-7.16E+01	-7.46E+01
	SIGMA	1.02E+00	9.45E-01	1.16E+00	1.05E+00	1.28E+00	1.01E+00	1.94E+00

BIAS CURRENT VDIFF=40V IL=10MA		[DELTA]		(uA)				
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		7.30E-01	****	****	****	****	****
	860		1.80E+00	3.79E+00	3.14E+00	1.10E+00	1.65E+00	2.59E+00
	861		1.98E+00	4.37E+00	3.42E+00	2.00E+00	2.46E+00	2.91E+00
	862		7.20E-01	3.25E+00	2.38E+00	1.23E+00	1.34E+00	2.72E+00
	863		1.58E+00	3.30E+00	2.79E+00	3.15E+00	1.43E+00	1.88E+00
	864		1.89E+00	4.68E+00	3.64E+00	4.27E+00	2.32E+00	5.58E+00
	MINIMUM		7.20E-01	3.25E+00	2.38E+00	1.10E+00	1.34E+00	1.88E+00
	MEAN		1.59E+00	3.88E+00	3.07E+00	2.35E+00	1.84E+00	3.14E+00
	MAXIMUM		1.98E+00	4.68E+00	3.64E+00	4.27E+00	2.46E+00	5.58E+00
	+P 99/90		3.98E+00	6.85E+00	5.41E+00	8.64E+00	4.25E+00	9.76E+00
	-P 99/90		-7.89E-01	9.07E-01	7.33E-01	-3.94E+00	-5.72E-01	-3.49E+00
	SIGMA		5.11E-01	6.37E-01	5.02E-01	1.35E+00	5.17E-01	1.42E+00

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-GROUND  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843	-1.25E+00	-2.23E+00	****	****	****	****	****
	860	4.50E-01	-3.80E-01	4.00E-02	-9.00E-02	-2.20E-01	-4.00E-02	9.00E-02
	861	-5.60E-01	-9.80E-01	0.00E+00	-2.70E-01	-2.20E-01	0.00E+00	-7.00E-02
	862	-8.00E-01	-8.90E-01	-9.00E-02	0.00E+00	-1.80E-01	-1.80E-01	0.00E+00
	863	-6.20E-01	-1.74E+00	9.00E-02	0.00E+00	-9.00E-02	1.30E-01	-2.70E-01
	864	7.00E-02	-1.83E+00	4.00E-02	2.70E-01	2.70E-01	9.00E-02	0.00E+00
	MINIMUM	-8.00E-01	-1.83E+00	-9.00E-02	-2.70E-01	-2.20E-01	-1.80E-01	-2.70E-01
	MEAN	-2.92E-01	-1.16E+00	1.60E-02	-1.80E-02	-8.80E-02	0.00E+00	-5.00E-02
	MAXIMUM	4.50E-01	-3.80E-01	9.00E-02	2.70E-01	2.70E-01	1.30E-01	9.00E-02
	+P 99/90	2.18E+00	1.69E+00	3.30E-01	8.92E-01	8.78E-01	5.67E-01	5.82E-01
	-P 99/90	-2.76E+00	-4.02E+00	-2.98E-01	-9.28E-01	-1.05E+00	-5.67E-01	-6.82E-01
	SIGMA	5.29E-01	6.12E-01	6.73E-02	1.95E-01	2.07E-01	1.21E-01	1.35E-01

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A

[DELTA]

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour

----- S/N -----								
CONTROL	843		-9.80E-01	****	****	****	****	****
	860		-8.30E-01	-4.10E-01	-5.40E-01	-6.70E-01	-4.90E-01	-3.60E-01
	861		-4.20E-01	5.60E-01	2.90E-01	3.40E-01	5.60E-01	4.90E-01
	862		-9.00E-02	7.10E-01	8.00E-01	6.20E-01	6.20E-01	8.00E-01
	863		-1.12E+00	7.10E-01	6.20E-01	5.30E-01	7.50E-01	3.50E-01
	864		-1.90E+00	-3.00E-02	2.00E-01	2.00E-01	2.00E-02	-7.00E-02
	MINIMUM		-1.90E+00	-4.10E-01	-5.40E-01	-6.70E-01	-4.90E-01	-3.60E-01
	MEAN		-8.72E-01	3.08E-01	2.74E-01	2.04E-01	2.92E-01	2.42E-01
	MAXIMUM		-9.00E-02	7.10E-01	8.00E-01	6.20E-01	7.50E-01	8.00E-01
	+P 99/90		2.37E+00	2.66E+00	2.68E+00	2.61E+00	2.71E+00	2.39E+00
	-P 99/90		-4.12E+00	-2.04E+00	-2.13E+00	-2.20E+00	-2.13E+00	-1.90E+00
	SIGMA		6.96E-01	5.04E-01	5.16E-01	5.15E-01	5.18E-01	4.59E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CHANGE VDIFF=3V TO 36V IL=10MA

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	3.60E-01	-2.00E-01	****	****	****	****	****
	860	4.90E-01	-9.00E-02	9.00E-02	9.00E-02	1.30E-01	2.20E-01	9.00E-02
	861	-2.00E-01	-2.90E-01	0.00E+00	1.80E-01	3.10E-01	1.80E-01	1.80E-01
	862	-4.90E-01	1.11E+00	1.80E-01	2.70E-01	1.80E-01	4.00E-02	0.00E+00
	863	6.70E-01	-9.40E-01	9.00E-02	1.80E-01	4.00E-02	8.90E-01	1.80E-01
	864	7.00E-02	-2.70E-01	3.60E-01	3.60E-01	-4.00E-02	9.00E-02	2.20E-01
	MINIMUM	-4.90E-01	-9.40E-01	0.00E+00	9.00E-02	-4.00E-02	4.00E-02	0.00E+00
	MEAN	1.08E-01	-9.60E-02	1.44E-01	2.16E-01	1.24E-01	2.84E-01	1.34E-01
	MAXIMUM	6.70E-01	1.11E+00	3.60E-01	3.60E-01	3.10E-01	8.90E-01	2.20E-01
	+P 99/90	2.34E+00	3.39E+00	7.81E-01	6.95E-01	7.49E-01	1.90E+00	5.48E-01
	-P 99/90	-2.12E+00	-3.58E+00	-4.93E-01	-2.63E-01	-5.01E-01	-1.33E+00	-2.80E-01
	SIGMA	4.78E-01	7.47E-01	1.36E-01	1.03E-01	1.34E-01	3.46E-01	8.88E-02

BIAS CHANGE VDIFF=3V TO 36V IL=10MA

[DELTA]

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		-5.60E-01	****	****	****	****	****
	860		-5.80E-01	-4.00E-01	-4.00E-01	-3.60E-01	-2.70E-01	-4.00E-01
	861		-9.00E-02	2.00E-01	3.80E-01	5.10E-01	3.80E-01	3.80E-01
	862		1.60E+00	6.70E-01	7.60E-01	6.70E-01	5.30E-01	4.90E-01
	863		-1.61E+00	-5.80E-01	-4.90E-01	-6.30E-01	2.20E-01	-4.90E-01
	864		-3.40E-01	2.90E-01	2.90E-01	-1.10E-01	2.00E-02	1.50E-01
	MINIMUM		-1.61E+00	-5.80E-01	-4.90E-01	-6.30E-01	-2.70E-01	-4.90E-01
	MEAN		-2.04E-01	3.60E-02	1.08E-01	1.60E-02	1.76E-01	2.60E-02
	MAXIMUM		1.60E+00	6.70E-01	7.60E-01	6.70E-01	5.30E-01	4.90E-01
	+P 99/90		5.22E+00	2.44E+00	2.61E+00	2.62E+00	1.64E+00	2.12E+00
	-P 99/90		-5.63E+00	-2.37E+00	-2.39E+00	-2.59E+00	-1.28E+00	-2.07E+00
	SIGMA		1.16E+00	5.15E-01	5.36E-01	5.58E-01	3.13E-01	4.48E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
 RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
 ELDRS-GROUND  
 D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
 LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
 PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**



I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

BIAS CHANGE VDIFF=3V TO 40V IL=10MA

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-2.00E-02	0.00E+00	****	****	****	****	****
	860	1.80E-01	-5.80E-01	9.00E-02	0.00E+00	2.70E-01	9.00E-02	1.30E-01
	861	-4.70E-01	4.50E-01	0.00E+00	2.20E-01	-9.00E-02	-4.00E-02	4.00E-02
	862	4.70E-01	-2.50E-01	9.00E-02	0.00E+00	4.00E-02	1.30E-01	0.00E+00
	863	9.00E-02	8.90E-01	0.00E+00	4.50E-01	3.60E-01	4.00E-01	9.00E-02
	864	2.20E-01	-3.60E-01	1.80E-01	2.70E-01	5.30E-01	2.70E-01	3.60E-01
	MINIMUM	-4.70E-01	-5.80E-01	0.00E+00	0.00E+00	-9.00E-02	-4.00E-02	0.00E+00
	MEAN	9.80E-02	3.00E-02	7.20E-02	1.88E-01	2.22E-01	1.70E-01	1.24E-01
	MAXIMUM	4.70E-01	8.90E-01	1.80E-01	4.50E-01	5.30E-01	4.00E-01	3.60E-01
	+P 99/90	1.72E+00	2.90E+00	4.23E-01	1.08E+00	1.38E+00	9.61E-01	7.81E-01
	-P 99/90	-1.52E+00	-2.84E+00	-2.79E-01	-7.07E-01	-9.37E-01	-6.21E-01	-5.33E-01
	SIGMA	3.47E-01	6.16E-01	7.53E-02	1.92E-01	2.48E-01	1.70E-01	1.41E-01

BIAS CHANGE VDIFF=3V TO 40V IL=10MA

[DELTA]

(uA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		2.00E-02	****	****	****	****	****
	860		-7.60E-01	-9.00E-02	-1.80E-01	9.00E-02	-9.00E-02	-5.00E-02
	861		9.20E-01	4.70E-01	6.90E-01	3.80E-01	4.30E-01	5.10E-01
	862		-7.20E-01	-3.80E-01	-4.70E-01	-4.30E-01	-3.40E-01	-4.70E-01
	863		8.00E-01	-9.00E-02	3.60E-01	2.70E-01	3.10E-01	0.00E+00
	864		-5.80E-01	-4.00E-02	5.00E-02	3.10E-01	5.00E-02	1.40E-01
	MINIMUM		-7.60E-01	-3.80E-01	-4.70E-01	-4.30E-01	-3.40E-01	-4.70E-01
	MEAN		-6.80E-02	-2.60E-02	9.00E-02	1.24E-01	7.20E-02	2.60E-02
	MAXIMUM		9.20E-01	4.70E-01	6.90E-01	3.80E-01	4.30E-01	5.10E-01
	+P 99/90		3.90E+00	1.41E+00	2.20E+00	1.65E+00	1.51E+00	1.68E+00
	-P 99/90		-4.04E+00	-1.46E+00	-2.02E+00	-1.40E+00	-1.37E+00	-1.62E+00
	SIGMA		8.51E-01	3.08E-01	4.53E-01	3.28E-01	3.09E-01	3.53E-01

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

MINIMUM LOAD CURRENT VDIFF=40V

(mA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.28E+00	-1.28E+00	****	****	****	****	****
	860	-1.24E+00	-1.24E+00	-1.24E+00	-1.26E+00	-1.30E+00	-1.30E+00	-1.28E+00
	861	-1.26E+00	-1.26E+00	-1.26E+00	-1.28E+00	-1.32E+00	-1.32E+00	-1.30E+00
	862	-1.24E+00	-1.24E+00	-1.26E+00	-1.26E+00	-1.30E+00	-1.30E+00	-1.30E+00
	863	-1.32E+00	-1.32E+00	-1.34E+00	-1.36E+00	-1.39E+00	-1.40E+00	-1.36E+00
	864	-1.22E+00	-1.22E+00	-1.22E+00	-1.24E+00	-1.28E+00	-1.28E+00	-1.26E+00
	MINIMUM	-1.32E+00	-1.32E+00	-1.34E+00	-1.36E+00	-1.39E+00	-1.40E+00	-1.36E+00
	MEAN	-1.26E+00	-1.26E+00	-1.26E+00	-1.28E+00	-1.32E+00	-1.32E+00	-1.30E+00
	MAXIMUM	-1.22E+00	-1.22E+00	-1.22E+00	-1.24E+00	-1.28E+00	-1.28E+00	-1.26E+00
	+P 99/90	-1.09E+00	-1.09E+00	-1.05E+00	-1.06E+00	-1.11E+00	-1.11E+00	-1.12E+00
	-P 99/90	-1.43E+00	-1.43E+00	-1.48E+00	-1.50E+00	-1.53E+00	-1.53E+00	-1.47E+00
	SIGMA	3.64E-02	3.63E-02	4.54E-02	4.65E-02	4.46E-02	4.48E-02	3.74E-02

MINIMUM LOAD CURRENT VDIFF=40V

[DELTA]

(mA)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		3.00E-03	****	****	****	****	****
	860		-1.00E-03	2.00E-03	-1.80E-02	-5.80E-02	-5.80E-02	-3.60E-02
	861		4.00E-03	2.00E-03	-1.70E-02	-5.70E-02	-5.80E-02	-3.60E-02
	862		-1.00E-03	-1.80E-02	-1.80E-02	-5.80E-02	-5.80E-02	-5.60E-02
	863		-1.00E-03	-2.30E-02	-4.20E-02	-7.70E-02	-7.80E-02	-4.10E-02
	864		-1.00E-03	1.00E-03	-1.80E-02	-5.70E-02	-5.80E-02	-3.60E-02
	MINIMUM		-1.00E-03	-2.30E-02	-4.20E-02	-7.70E-02	-7.80E-02	-5.60E-02
	MEAN		-8.88E-17	-7.20E-03	-2.26E-02	-6.14E-02	-6.20E-02	-4.10E-02
	MAXIMUM		4.00E-03	2.00E-03	-1.70E-02	-5.70E-02	-5.80E-02	-3.60E-02
	+P 99/90		1.04E-02	5.01E-02	2.80E-02	-2.06E-02	-2.03E-02	-5.91E-04
	-P 99/90		-1.04E-02	-6.45E-02	-7.32E-02	-1.02E-01	-1.04E-01	-8.14E-02
	SIGMA		2.24E-03	1.23E-02	1.09E-02	8.73E-03	8.94E-03	8.66E-03

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

SHORT CIRCUIT CURRENT VIN-VOUT=15V

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-1.10E+00	-9.91E-01	****	****	****	****	****
	860	-1.22E+00	-9.14E-01	-1.23E+00	-1.22E+00	-1.23E+00	-1.23E+00	-1.24E+00
	861	-1.13E+00	-1.01E+00	-1.14E+00	-1.14E+00	-1.13E+00	-1.13E+00	-1.15E+00
	862	-1.18E+00	-1.02E+00	-1.19E+00	-1.19E+00	-1.19E+00	-1.20E+00	-1.20E+00
	863	-1.14E+00	-1.15E+00	-1.16E+00	-1.16E+00	-1.17E+00	-1.16E+00	-1.18E+00
	864	-1.19E+00	-1.05E+00	-1.20E+00	-1.20E+00	-1.20E+00	-1.20E+00	-1.22E+00
	MINIMUM	-1.22E+00	-1.15E+00	-1.23E+00	-1.22E+00	-1.23E+00	-1.23E+00	-1.24E+00
	MEAN	-1.17E+00	-1.03E+00	-1.18E+00	-1.18E+00	-1.18E+00	-1.18E+00	-1.20E+00
	MAXIMUM	-1.13E+00	-9.14E-01	-1.14E+00	-1.14E+00	-1.13E+00	-1.13E+00	-1.15E+00
	+P 99/90	-1.00E+00	-6.39E-01	-1.02E+00	-1.02E+00	-1.02E+00	-1.01E+00	-1.04E+00
	-P 99/90	-1.34E+00	-1.42E+00	-1.34E+00	-1.34E+00	-1.35E+00	-1.36E+00	-1.36E+00
	SIGMA	3.64E-02	8.37E-02	3.42E-02	3.45E-02	3.51E-02	3.80E-02	3.52E-02

SHORT CIRCUIT CURRENT VIN-VOUT=15V

[DELTA]

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		1.08E-01	****	****	****	****	****
	860		3.07E-01	-6.00E-03	-3.00E-03	-8.00E-03	-1.20E-02	-2.20E-02
	861		1.18E-01	-7.00E-03	-3.00E-03	-2.00E-03	-1.00E-03	-2.20E-02
	862		1.58E-01	-1.20E-02	-8.00E-03	-1.30E-02	-1.80E-02	-2.70E-02
	863		-4.00E-03	-1.80E-02	-1.40E-02	-2.50E-02	-1.80E-02	-3.40E-02
	864		1.41E-01	-7.00E-03	-3.00E-03	-2.00E-03	-2.00E-03	-2.80E-02
	MINIMUM		-4.00E-03	-1.80E-02	-1.40E-02	-2.50E-02	-1.80E-02	-3.40E-02
	MEAN		1.44E-01	-1.00E-02	-6.20E-03	-1.00E-02	-1.02E-02	-2.66E-02
	MAXIMUM		3.07E-01	-6.00E-03	-3.00E-03	-2.00E-03	-1.00E-03	-2.20E-02
	+P 99/90		6.62E-01	1.36E-02	1.65E-02	3.46E-02	2.86E-02	-3.36E-03
	-P 99/90		-3.74E-01	-3.36E-02	-2.89E-02	-5.46E-02	-4.90E-02	-4.98E-02
	SIGMA		1.11E-01	5.05E-03	4.87E-03	9.57E-03	8.32E-03	4.98E-03

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

SHORT CIRCUIT CURRENT VIN-VOUT=40V

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	-2.77E-01	-2.69E-01	****	****	****	****	****
	860	-3.22E-01	-3.25E-01	-2.94E-01	-2.96E-01	-3.01E-01	-2.95E-01	-2.99E-01
	861	-2.88E-01	-2.86E-01	-2.56E-01	-2.57E-01	-2.57E-01	-2.56E-01	-2.60E-01
	862	-3.05E-01	-3.03E-01	-2.78E-01	-2.80E-01	-2.73E-01	-2.78E-01	-2.77E-01
	863	-2.83E-01	-2.80E-01	-2.50E-01	-2.57E-01	-2.57E-01	-2.56E-01	-2.55E-01
	864	-3.16E-01	-3.08E-01	-2.83E-01	-2.85E-01	-2.90E-01	-2.78E-01	-2.88E-01
	MINIMUM	-3.22E-01	-3.25E-01	-2.94E-01	-2.96E-01	-3.01E-01	-2.95E-01	-2.99E-01
	MEAN	-3.03E-01	-3.00E-01	-2.72E-01	-2.75E-01	-2.76E-01	-2.73E-01	-2.76E-01
	MAXIMUM	-2.83E-01	-2.80E-01	-2.50E-01	-2.57E-01	-2.57E-01	-2.56E-01	-2.55E-01
	+P 99/90	-2.23E-01	-2.17E-01	-1.86E-01	-1.94E-01	-1.84E-01	-1.95E-01	-1.89E-01
	-P 99/90	-3.82E-01	-3.84E-01	-3.59E-01	-3.56E-01	-3.67E-01	-3.50E-01	-3.62E-01
	SIGMA	1.70E-02	1.80E-02	1.86E-02	1.74E-02	1.97E-02	1.67E-02	1.85E-02

SHORT CIRCUIT CURRENT VIN-VOUT=40V

[DELTA]

(A)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		8.00E-03	****	****	****	****	****
	860		-3.00E-03	2.80E-02	2.60E-02	2.10E-02	2.70E-02	2.30E-02
	861		2.00E-03	3.20E-02	3.10E-02	3.10E-02	3.20E-02	2.80E-02
	862		2.00E-03	2.70E-02	2.50E-02	3.20E-02	2.70E-02	2.80E-02
	863		3.00E-03	3.30E-02	2.60E-02	2.60E-02	2.70E-02	2.80E-02
	864		8.00E-03	3.30E-02	3.10E-02	2.60E-02	3.80E-02	2.80E-02
	MINIMUM		-3.00E-03	2.70E-02	2.50E-02	2.10E-02	2.70E-02	2.30E-02
	MEAN		2.40E-03	3.06E-02	2.78E-02	2.72E-02	3.02E-02	2.70E-02
	MAXIMUM		8.00E-03	3.30E-02	3.10E-02	3.20E-02	3.80E-02	2.80E-02
	+P 99/90		2.07E-02	4.40E-02	4.16E-02	4.79E-02	5.29E-02	3.74E-02
	-P 99/90		-1.59E-02	1.72E-02	1.40E-02	6.49E-03	7.48E-03	1.66E-02
	SIGMA		3.91E-03	2.88E-03	2.95E-03	4.44E-03	4.87E-03	2.24E-03

**DEVICE TYPE: RH137H Negative Voltage Regulator  
(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

I C S Radiation Test Results  
RH137H Negative Voltage Regulator (Linear Technology Corp.)

RIPPLE REJECTION CADJ=10UF VOUT=10V		(dB)						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843	1.23E+02	1.23E+02	****	****	****	****	****
	860	1.24E+02	1.24E+02	1.34E+02	1.22E+02	1.19E+02	1.20E+02	1.47E+02
	861	1.23E+02	1.25E+02	1.22E+02	1.22E+02	1.22E+02	1.23E+02	1.23E+02
	862	1.26E+02	1.24E+02	1.22E+02	1.23E+02	1.24E+02	1.24E+02	1.27E+02
	863	1.26E+02	1.25E+02	1.25E+02	1.25E+02	1.24E+02	1.24E+02	1.21E+02
	864	1.27E+02	1.25E+02	1.23E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
	MINIMUM	1.23E+02	1.24E+02	1.22E+02	1.22E+02	1.19E+02	1.20E+02	1.21E+02
	MEAN	1.25E+02	1.24E+02	1.25E+02	1.23E+02	1.23E+02	1.23E+02	1.28E+02
	MAXIMUM	1.27E+02	1.25E+02	1.34E+02	1.25E+02	1.24E+02	1.24E+02	1.47E+02
	+P 99/90	1.34E+02	1.27E+02	1.49E+02	1.30E+02	1.32E+02	1.31E+02	1.77E+02
	-P 99/90	1.17E+02	1.21E+02	1.02E+02	1.17E+02	1.13E+02	1.15E+02	7.99E+01
	SIGMA	1.76E+00	6.36E-01	5.07E+00	1.44E+00	2.05E+00	1.69E+00	1.04E+01

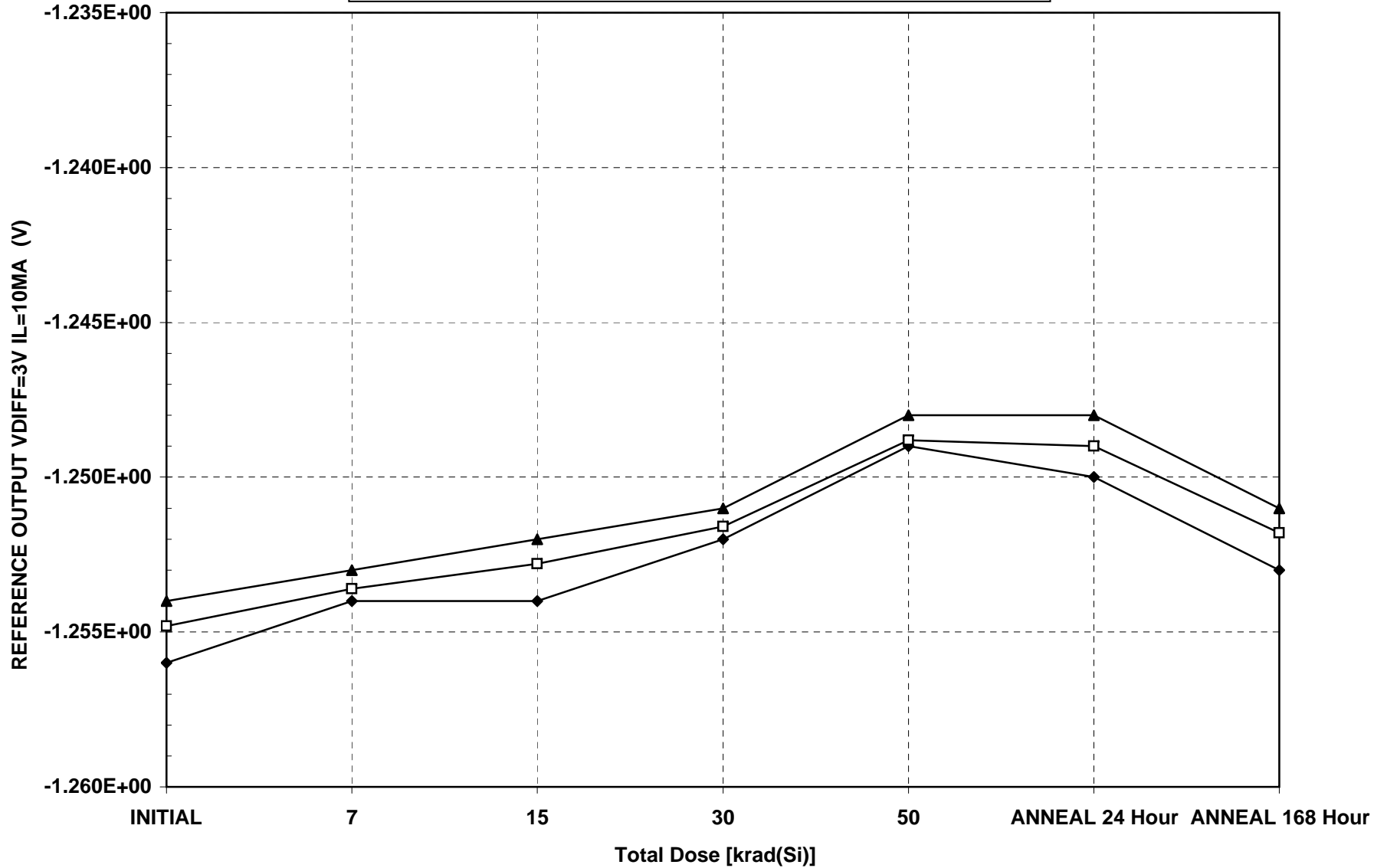
RIPPLE REJECTION CADJ=10UF VOUT=10V		[DELTA]						
FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	ANNEAL	ANNEAL
FLUX	rad(Si)/sec		8.23E-03	8.23E-03	8.23E-03	8.23E-03	24 Hour	168 Hour
----- S/N -----								
CONTROL	843		3.10E-01	****	****	****	****	****
	860		-2.70E-01	1.02E+01	-1.77E+00	-4.61E+00	-3.69E+00	2.28E+01
	861		1.69E+00	-1.10E+00	-1.15E+00	-1.43E+00	-3.60E-01	1.20E-01
	862		-2.46E+00	-4.46E+00	-3.25E+00	-2.60E+00	-2.03E+00	2.10E-01
	863		-1.16E+00	-6.90E-01	-4.10E-01	-1.99E+00	-2.15E+00	-4.50E+00
	864		-2.49E+00	-4.58E+00	-3.06E+00	-3.45E+00	-3.55E+00	-3.58E+00
	MINIMUM		-2.49E+00	-4.58E+00	-3.25E+00	-4.61E+00	-3.69E+00	-4.50E+00
	MEAN		-9.38E-01	-1.28E-01	-1.93E+00	-2.82E+00	-2.36E+00	3.01E+00
	MAXIMUM		1.69E+00	1.02E+01	-4.10E-01	-1.43E+00	-3.60E-01	2.28E+01
	+P 99/90		7.19E+00	2.81E+01	3.77E+00	3.03E+00	3.96E+00	5.56E+01
	-P 99/90		-9.06E+00	-2.83E+01	-7.63E+00	-8.66E+00	-8.68E+00	-4.96E+01
	SIGMA		1.74E+00	6.05E+00	1.22E+00	1.25E+00	1.35E+00	1.13E+01

**DEVICE TYPE: RH137H Negative Voltage Regulator**  
**(Linear Technology Corp)**  
RADIATION SOURCE SHEPHERD LOW DOSE (Co60), 1.25 MeV  
ELDRS-GROUND  
D/C 0709A || PACKAGE H 3-Lead (TO-39) || LOT# 423723.1  
LOG# 1606 || TEST DATE 8/8/07 || RTP# 696  
PO# 46146L  
**I C S RADIATION TECHNOLOGIES, INC.**

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

REFERENCE OUTPUT VDIFF=3V IL=10MA (V)

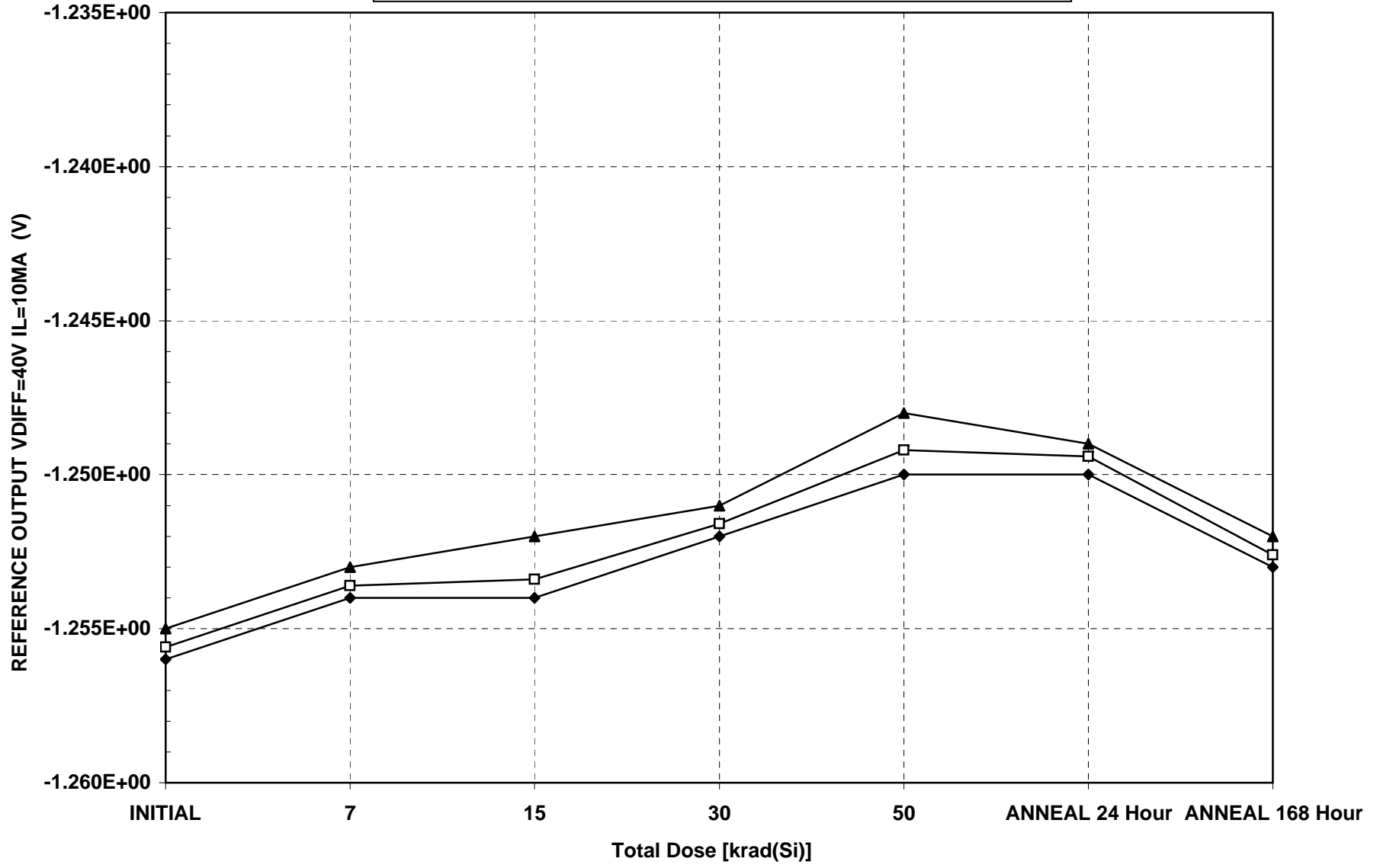


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

REFERENCE OUTPUT VDIFF=40V IL=10MA (V)

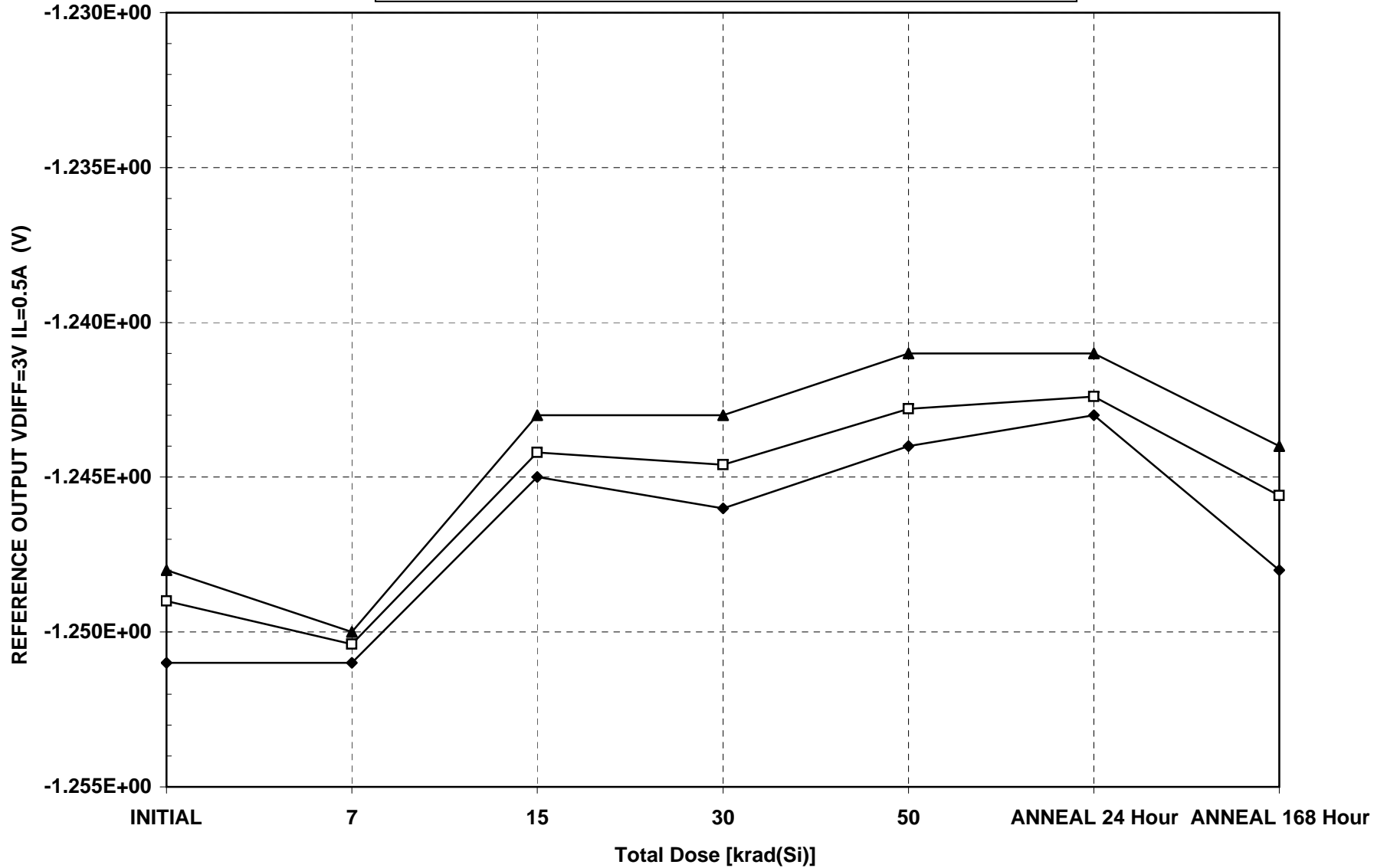


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

I C S Radiation Test Results Log # 1606 8/08/07

REFERENCE OUTPUT VDIFF=3V IL=0.5A (V)



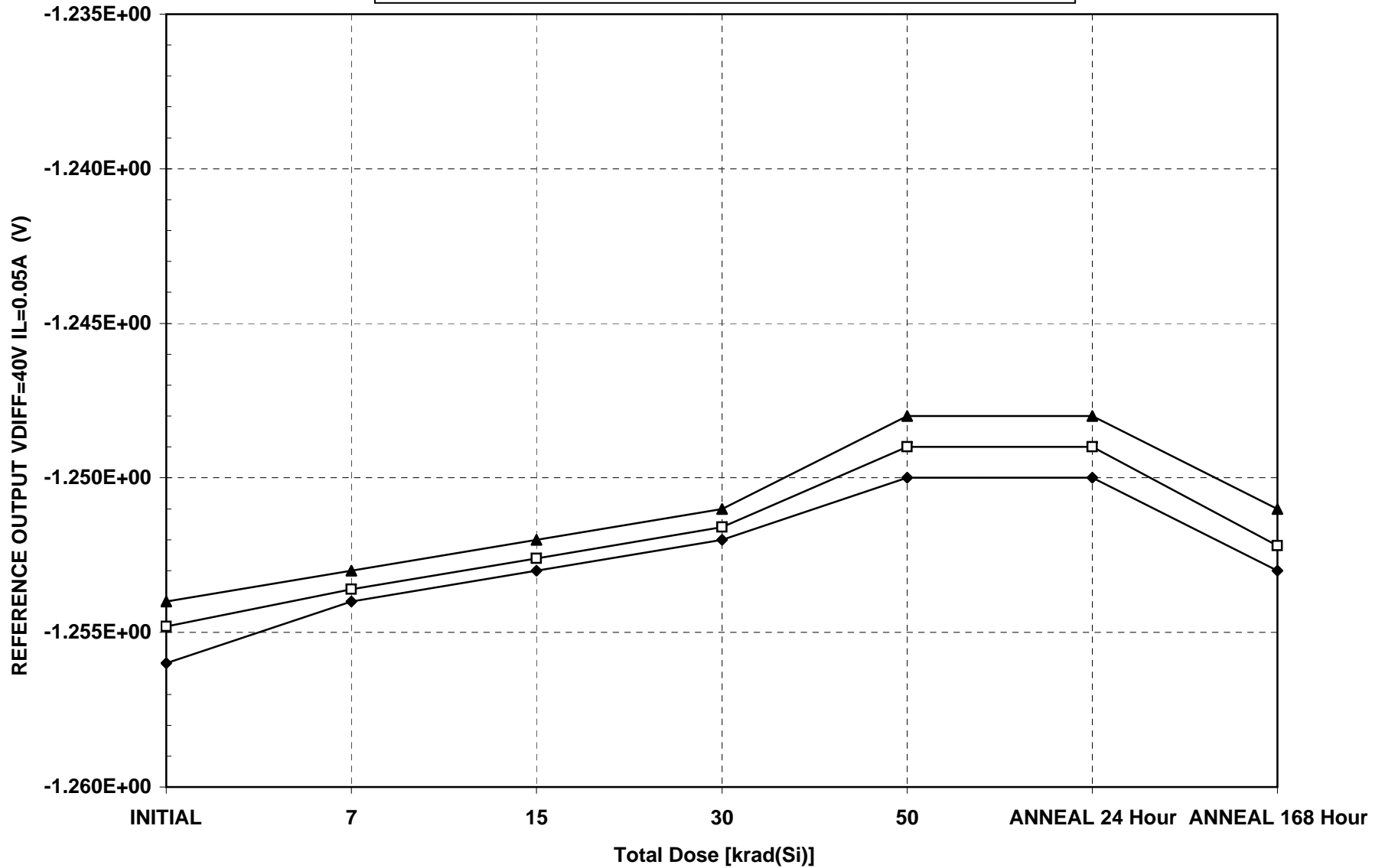
◆ MINIMUM    □ MEAN    ▲ MAXIMUM



# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

REFERENCE OUTPUT VDIFF=40V IL=0.05A (V)

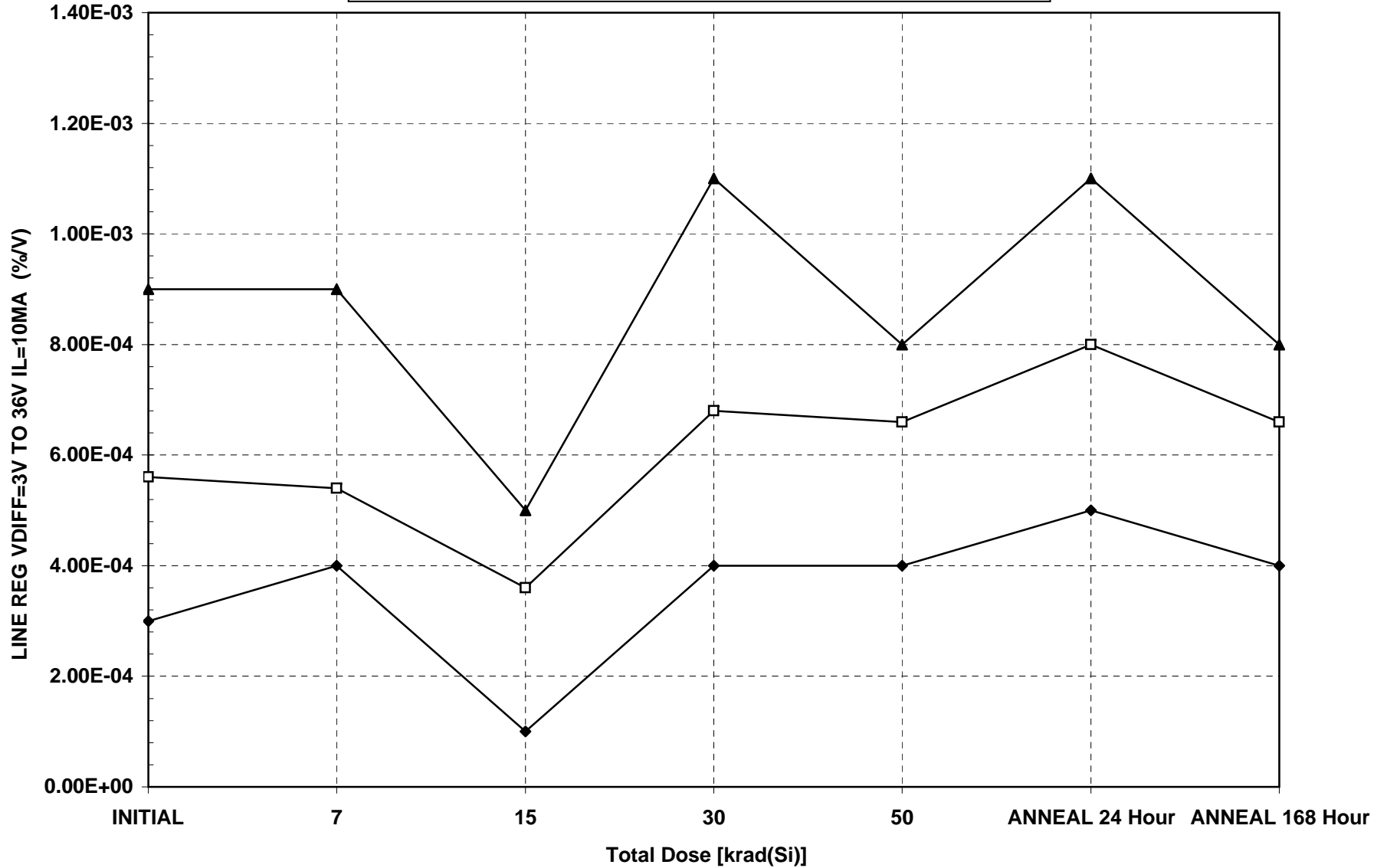


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

**RH137H Negative Voltage Regulator (Linear Technology Corp.)**

**IC S Radiation Test Results Log # 1606 8/08/07**

**LINE REG VDIFF=3V TO 36V IL=10MA (%V)**

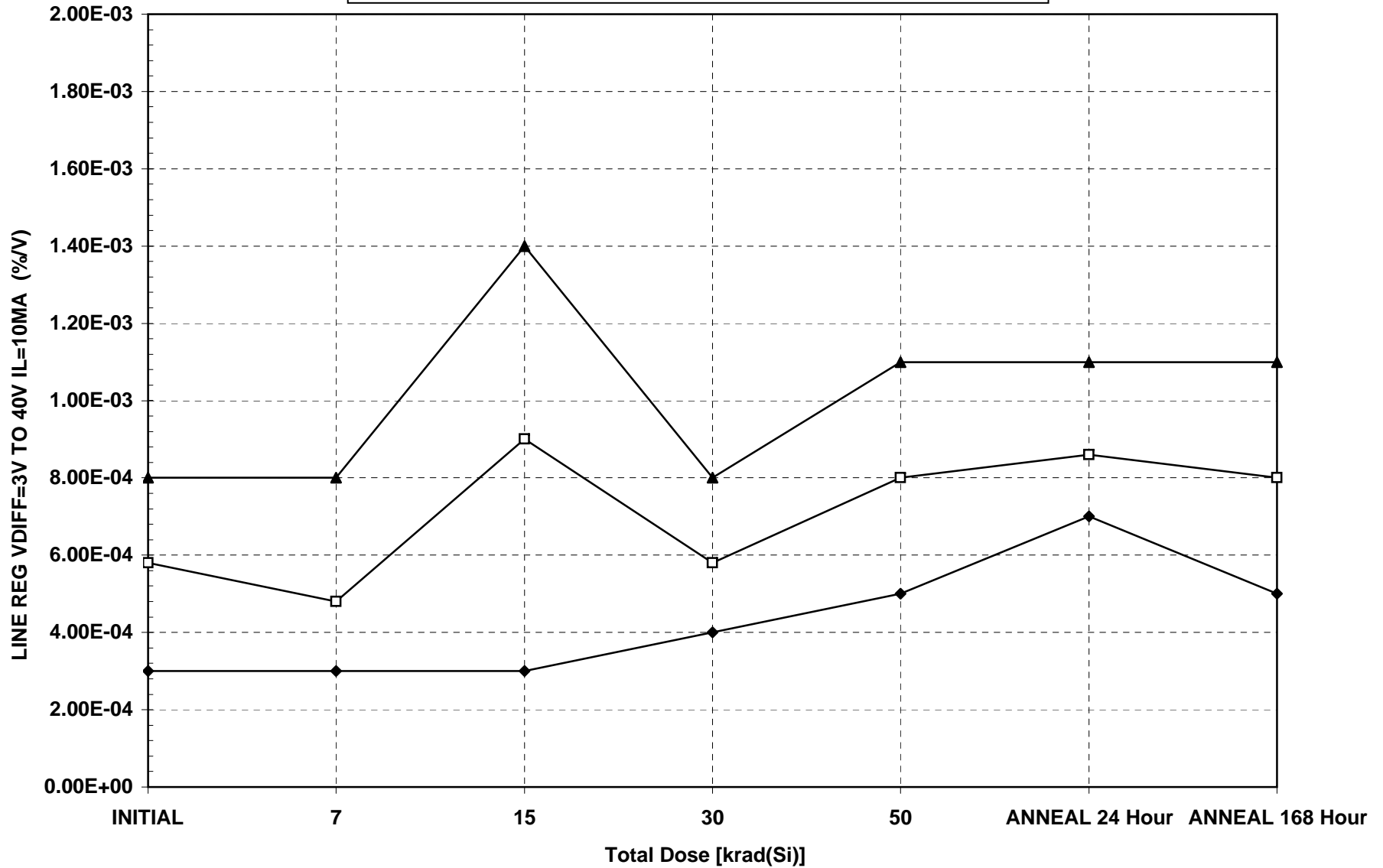


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

LINE REG VDIFF=3V TO 40V IL=10MA (%/V)

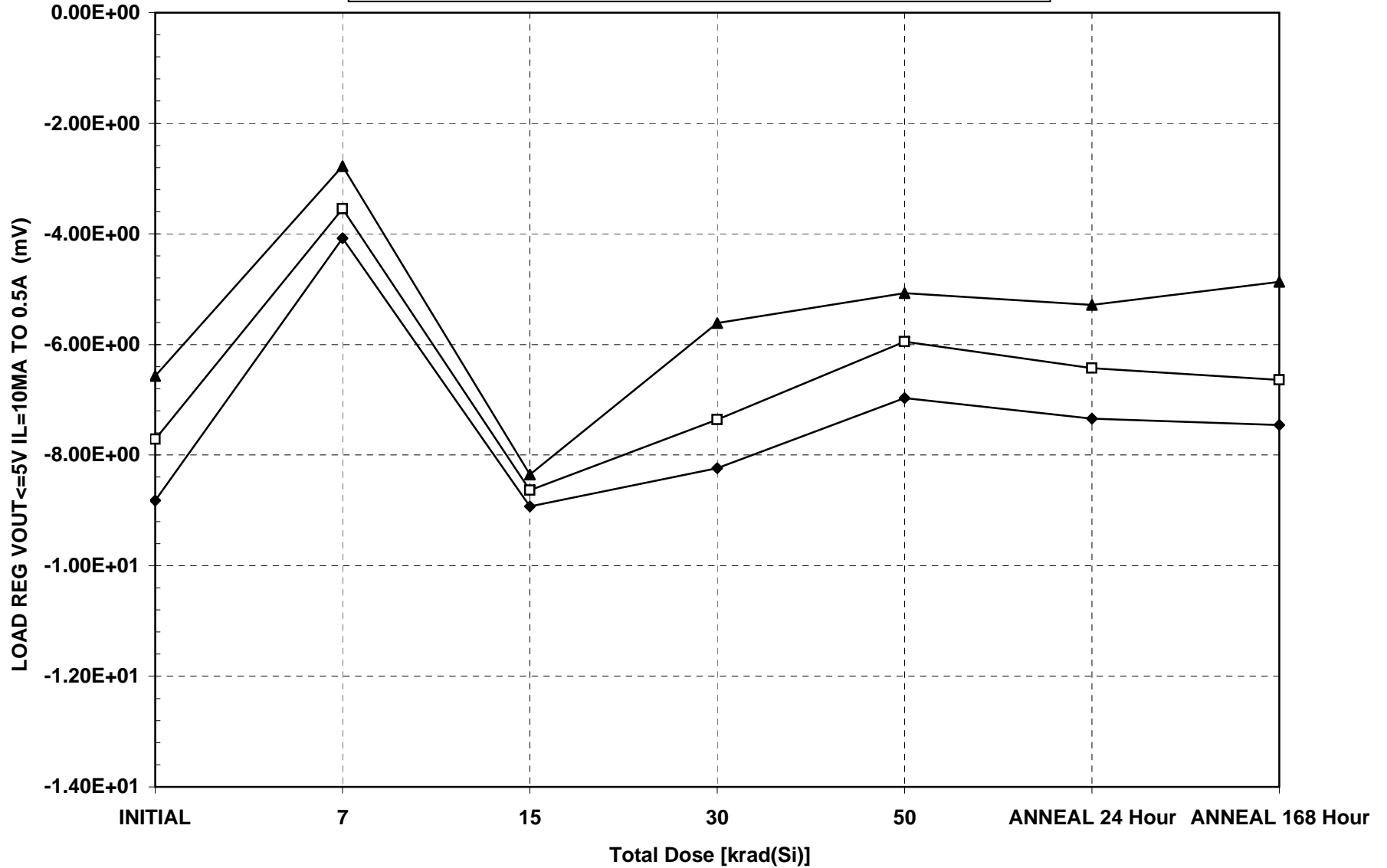


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

LOAD REG VOUT<=5V IL=10MA TO 0.5A (mV)

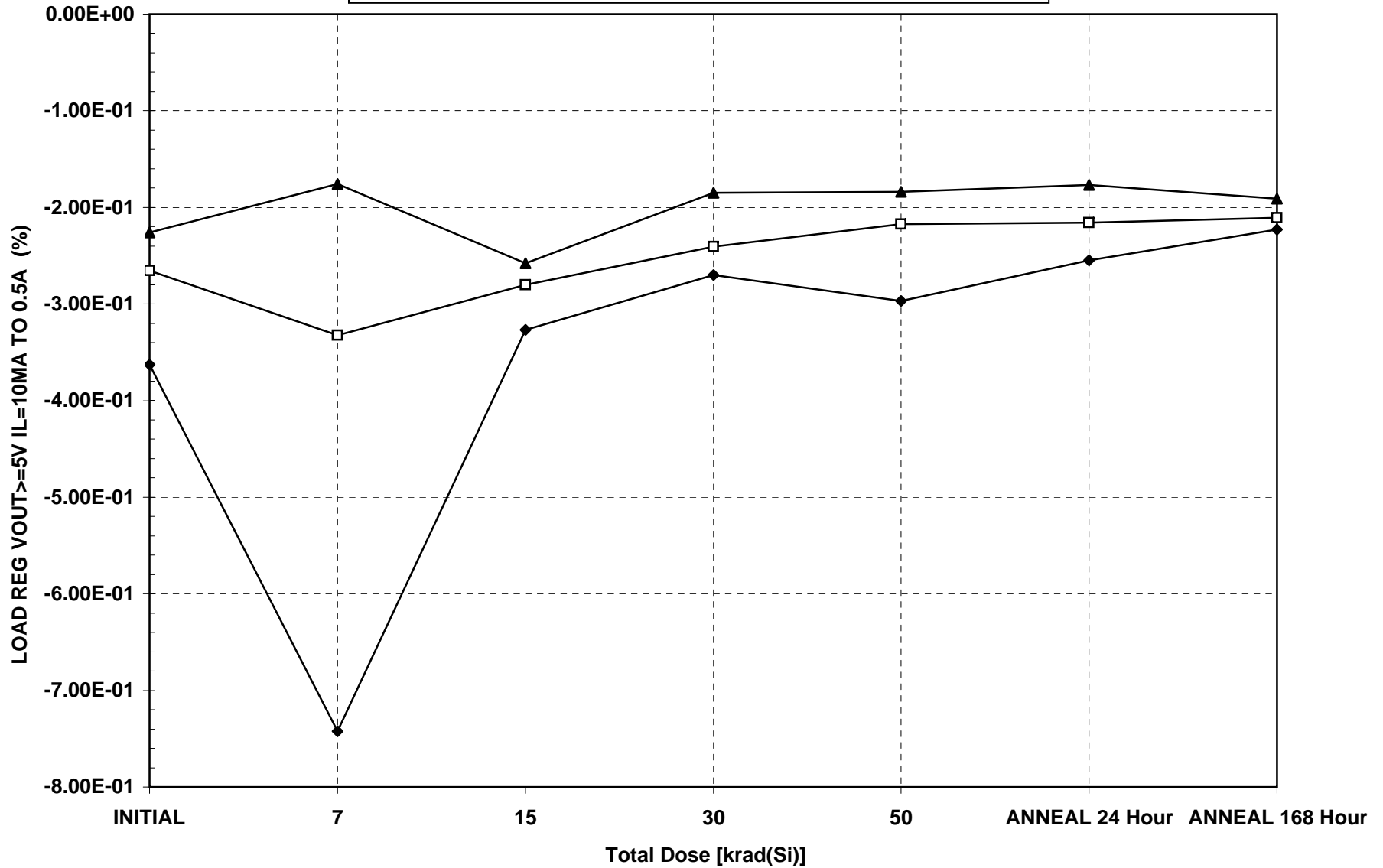


◆ MINIMUM    □ MEAN    ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

LOAD REG VOUT >= 5V IL = 10MA TO 0.5A (%)

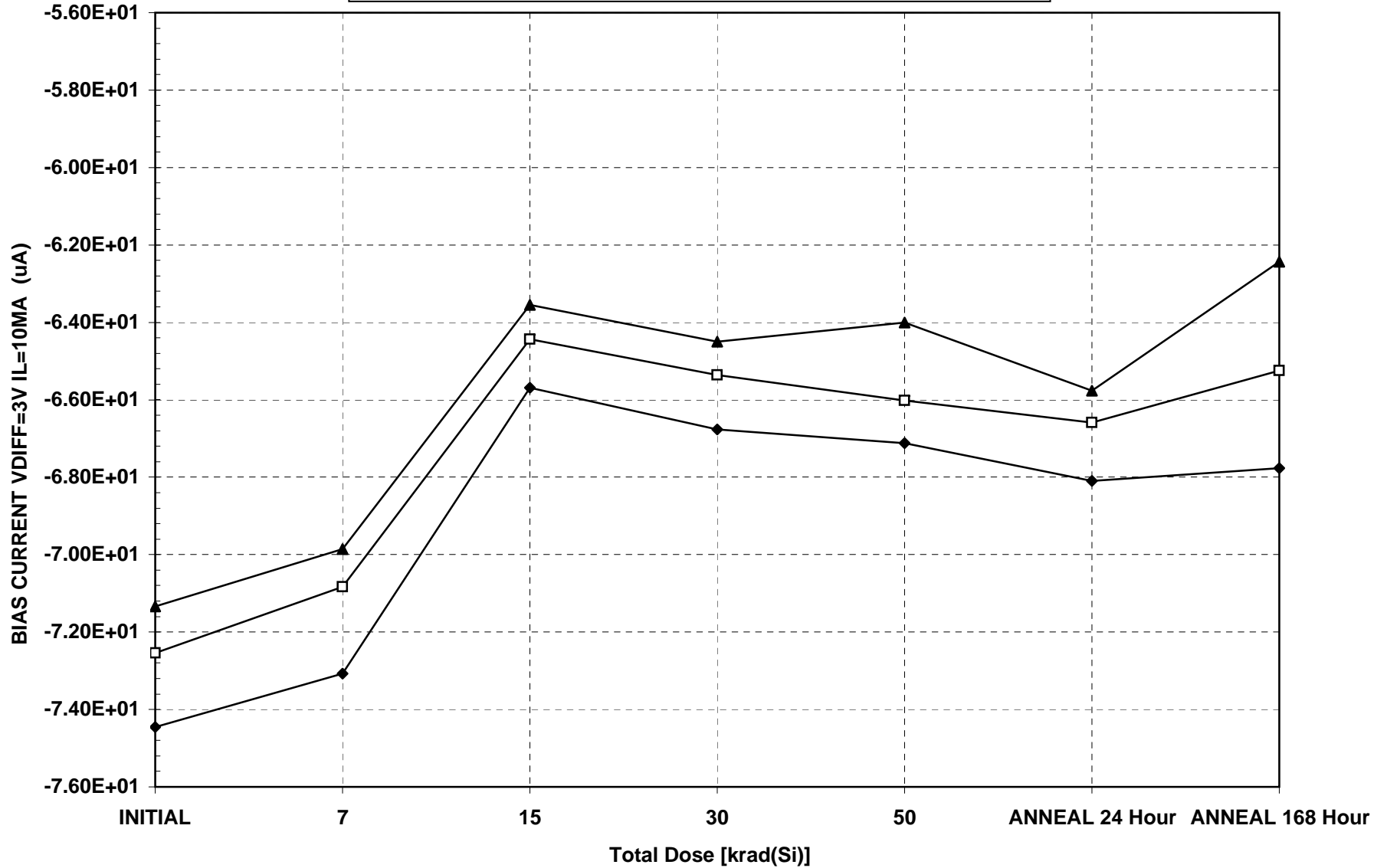


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

BIAS CURRENT VDIFF=3V IL=10MA (uA)

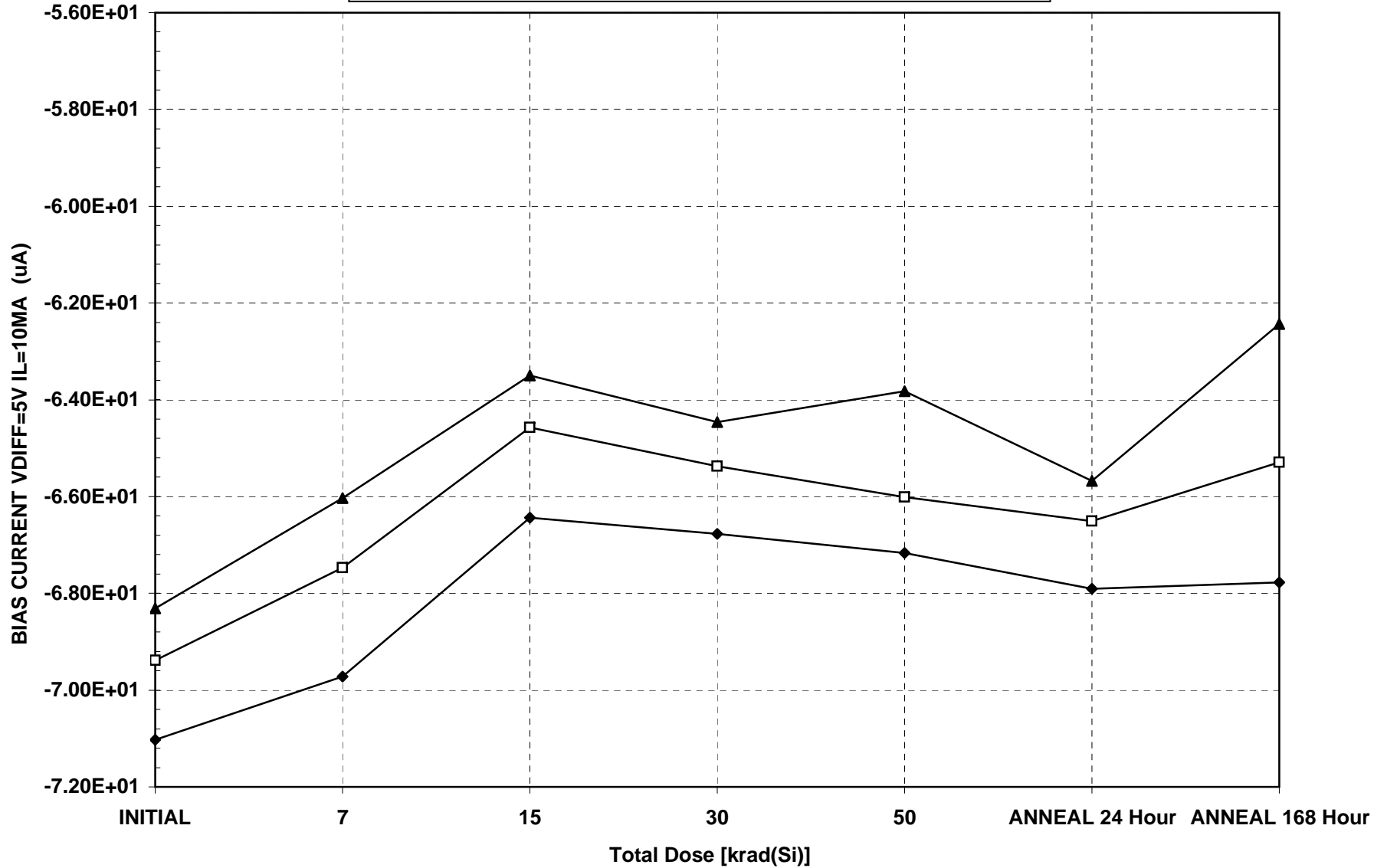


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

BIAS CURRENT VDIFF=5V IL=10MA (uA)

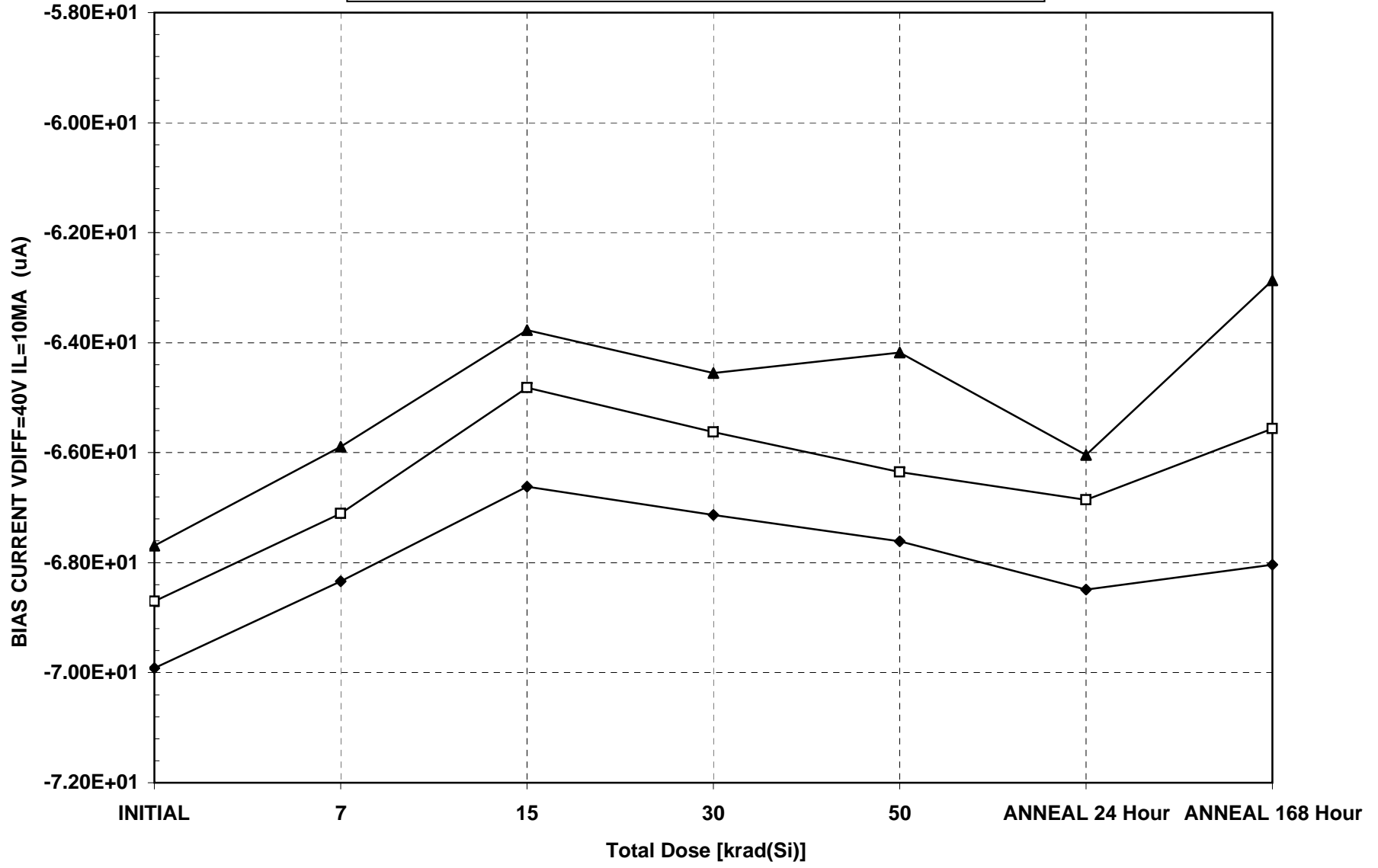


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

BIAS CURRENT VDIFF=40V IL=10MA (uA)



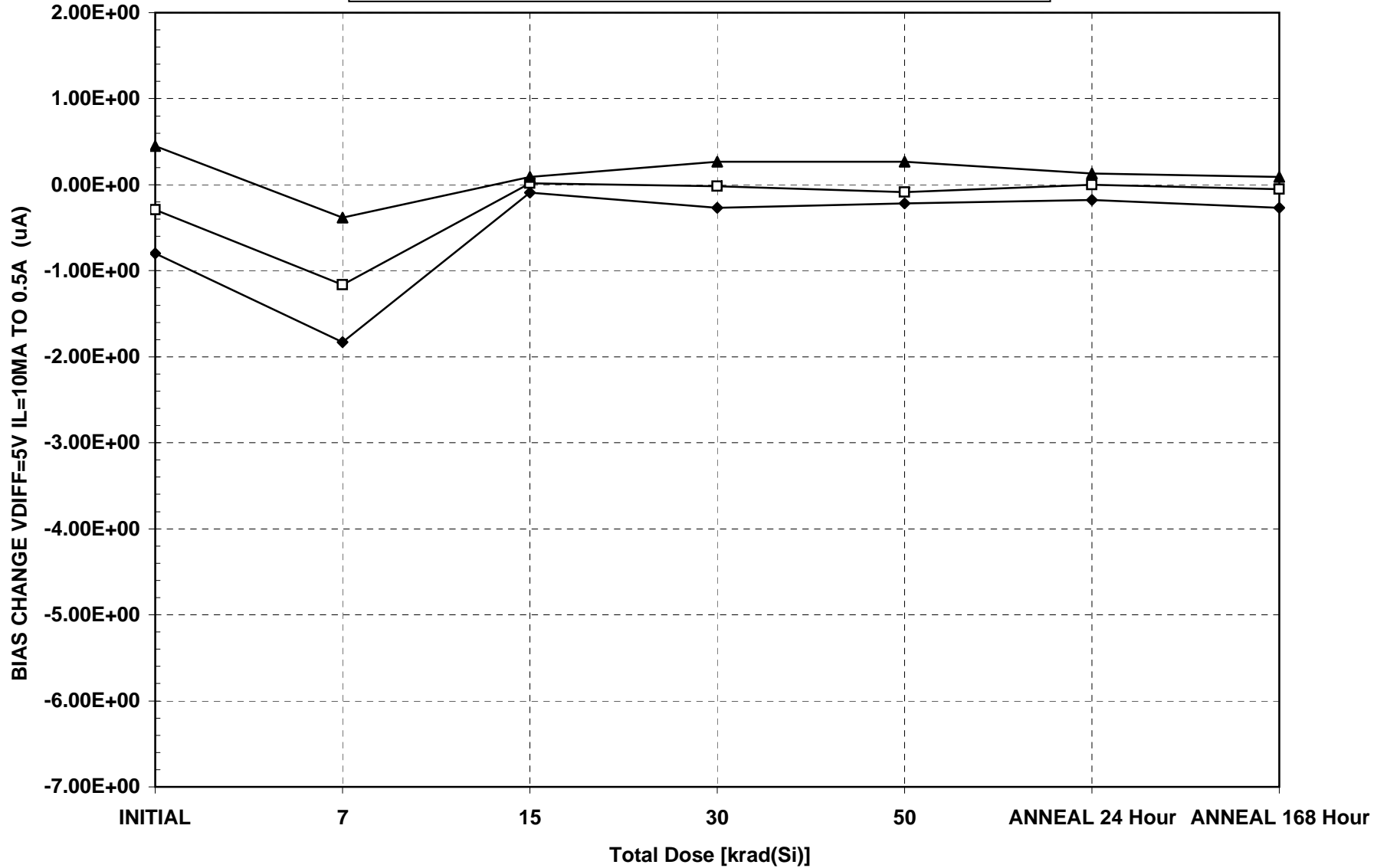
◆ MINIMUM    □ MEAN    ▲ MAXIMUM



# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

BIAS CHANGE VDIFF=5V IL=10MA TO 0.5A (uA)

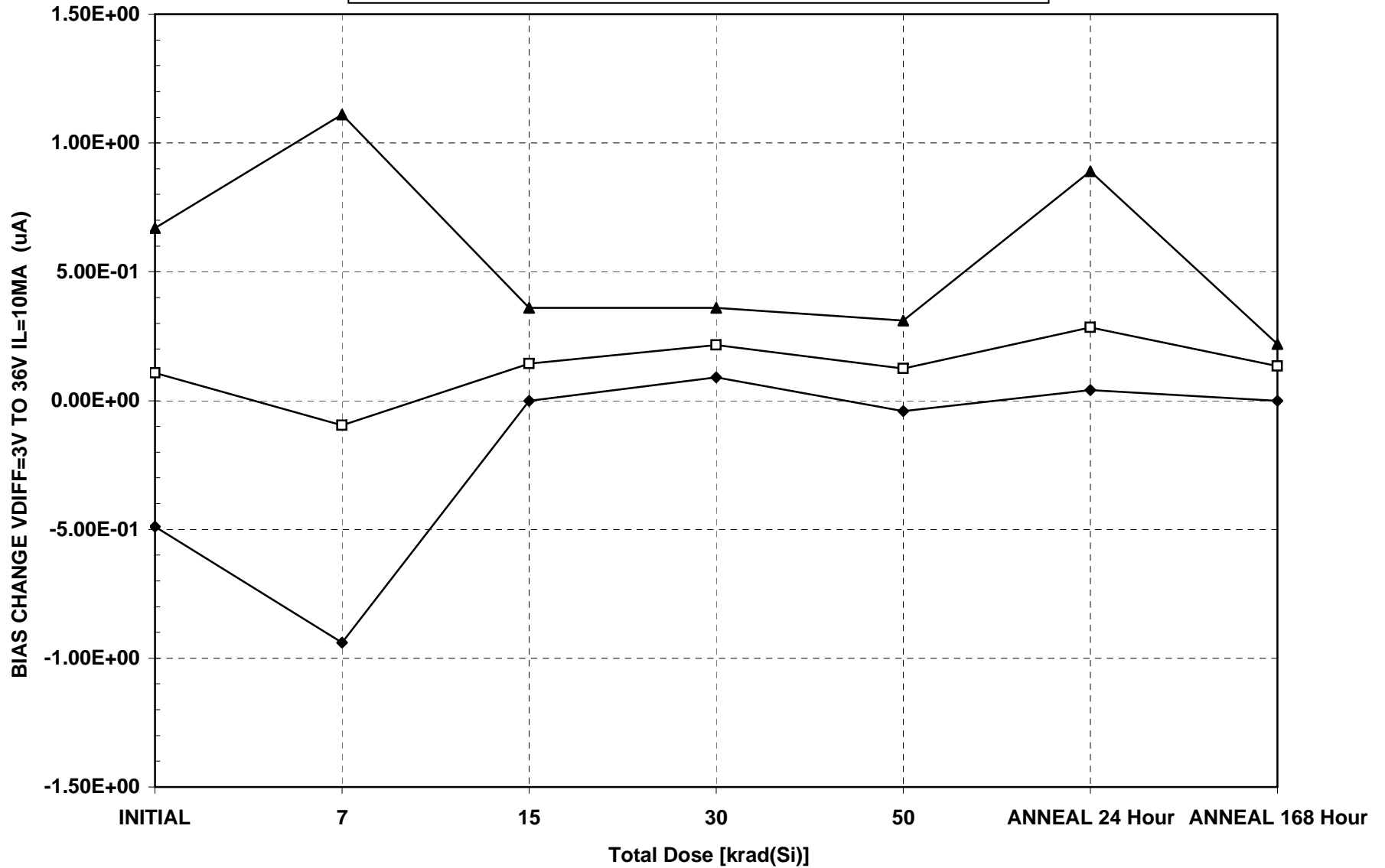


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

BIAS CHANGE VDIFF=3V TO 36V IL=10MA (uA)



◆ MINIMUM

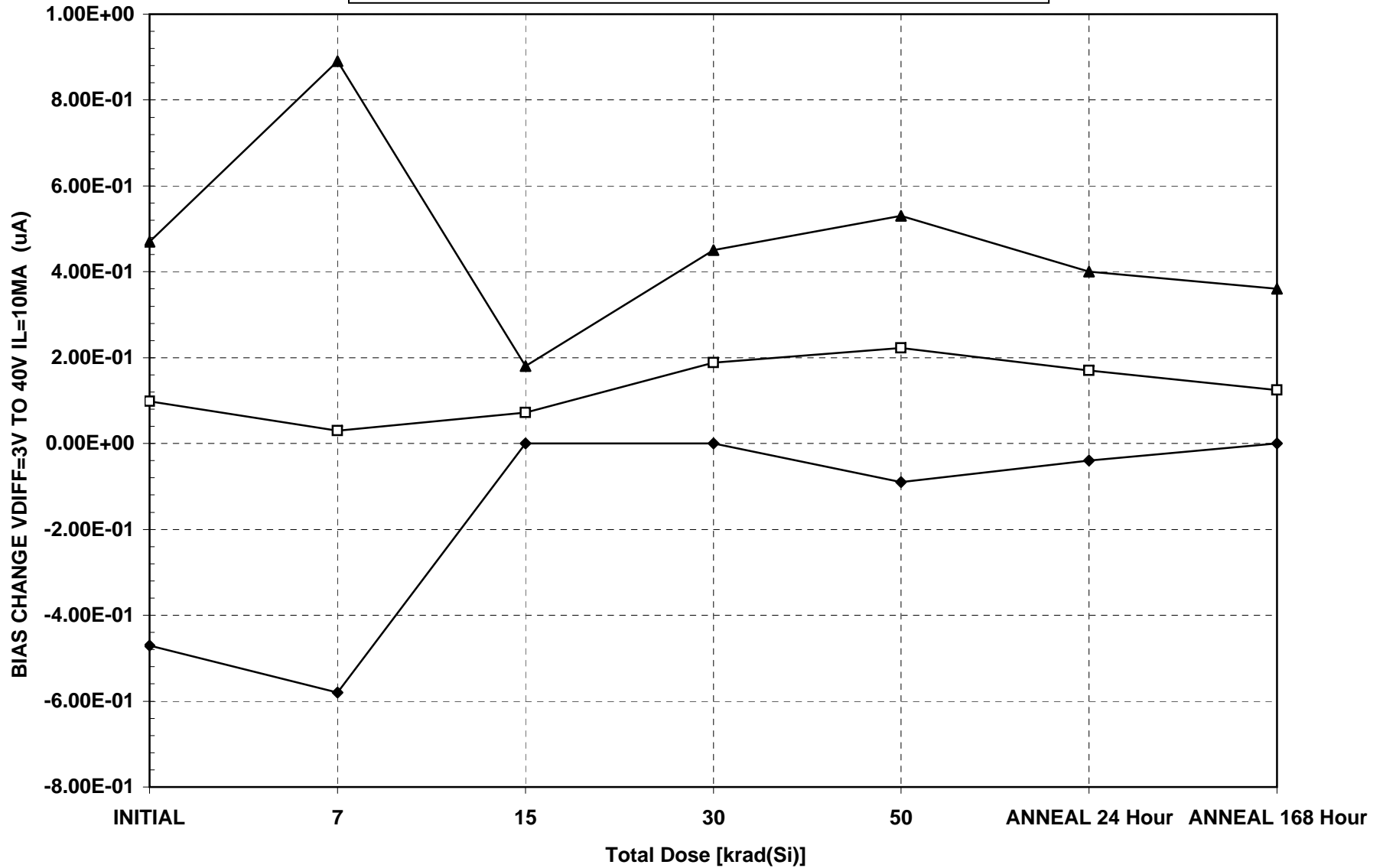
□ MEAN

▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

BIAS CHANGE VDIFF=3V TO 40V IL=10MA (uA)

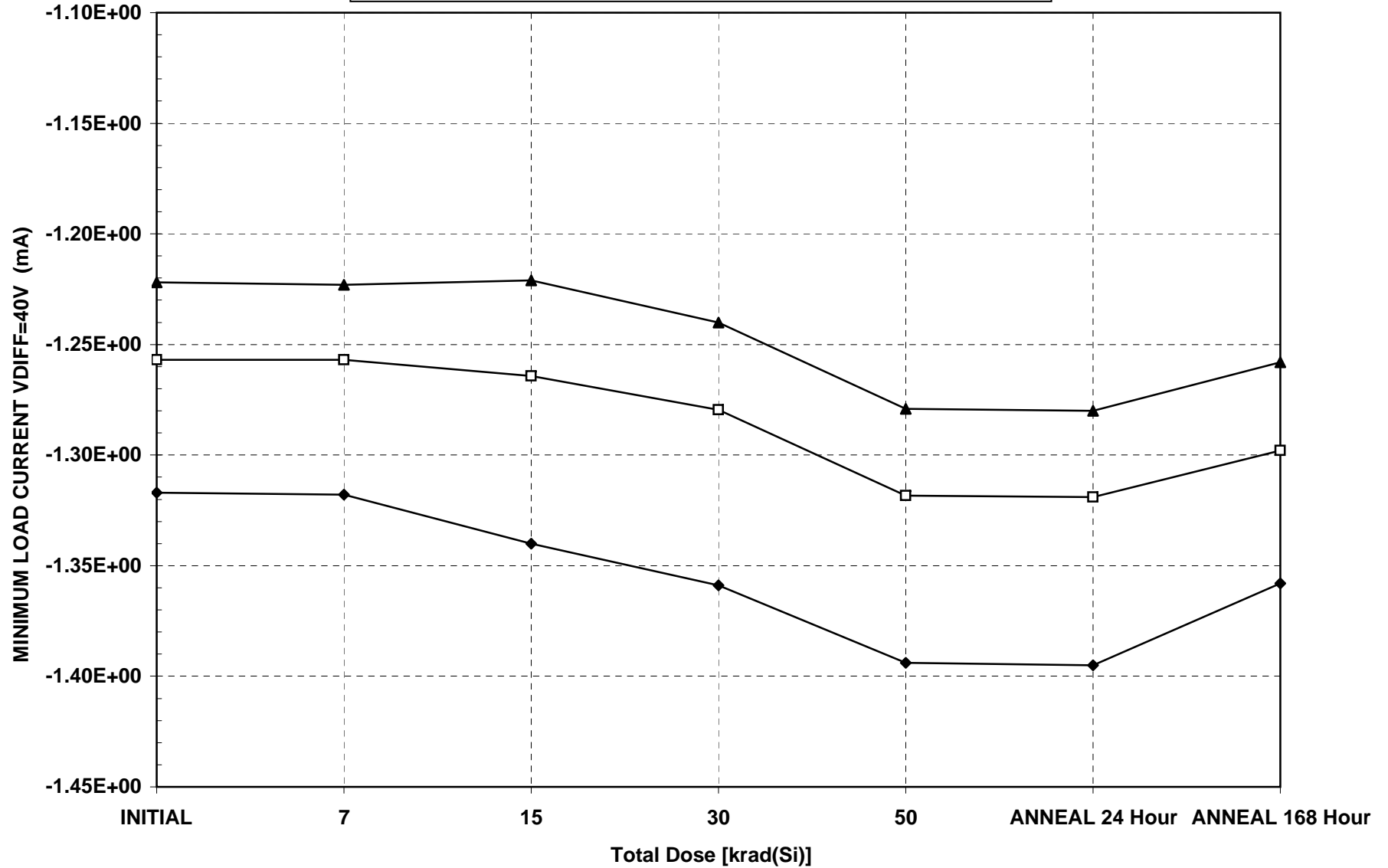


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

MINIMUM LOAD CURRENT VDIFF=40V (mA)

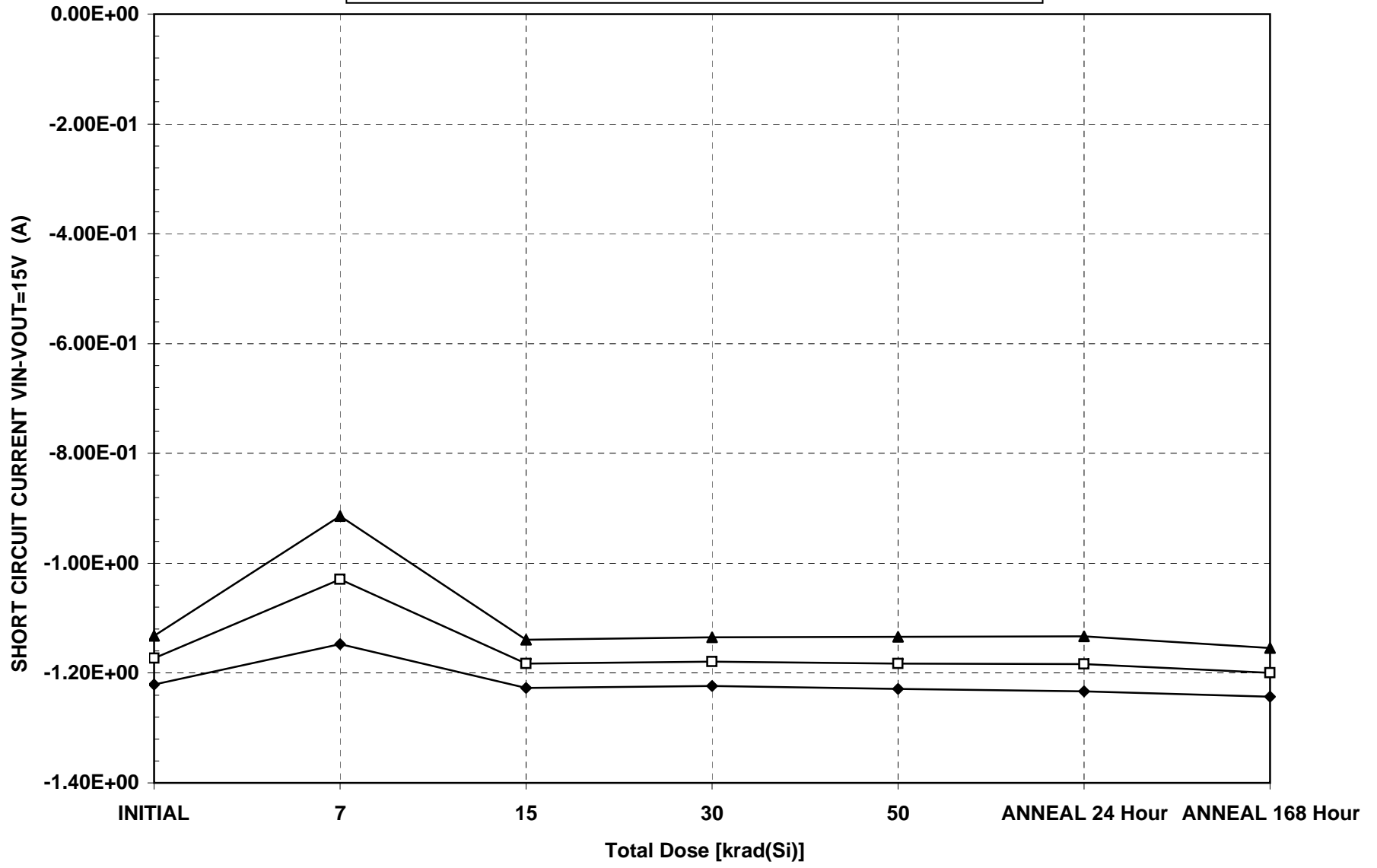


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

RH137H Negative Voltage Regulator (Linear Technology Corp.)

I C S Radiation Test Results Log # 1606 8/08/07

SHORT CIRCUIT CURRENT VIN-VOUT=15V (A)

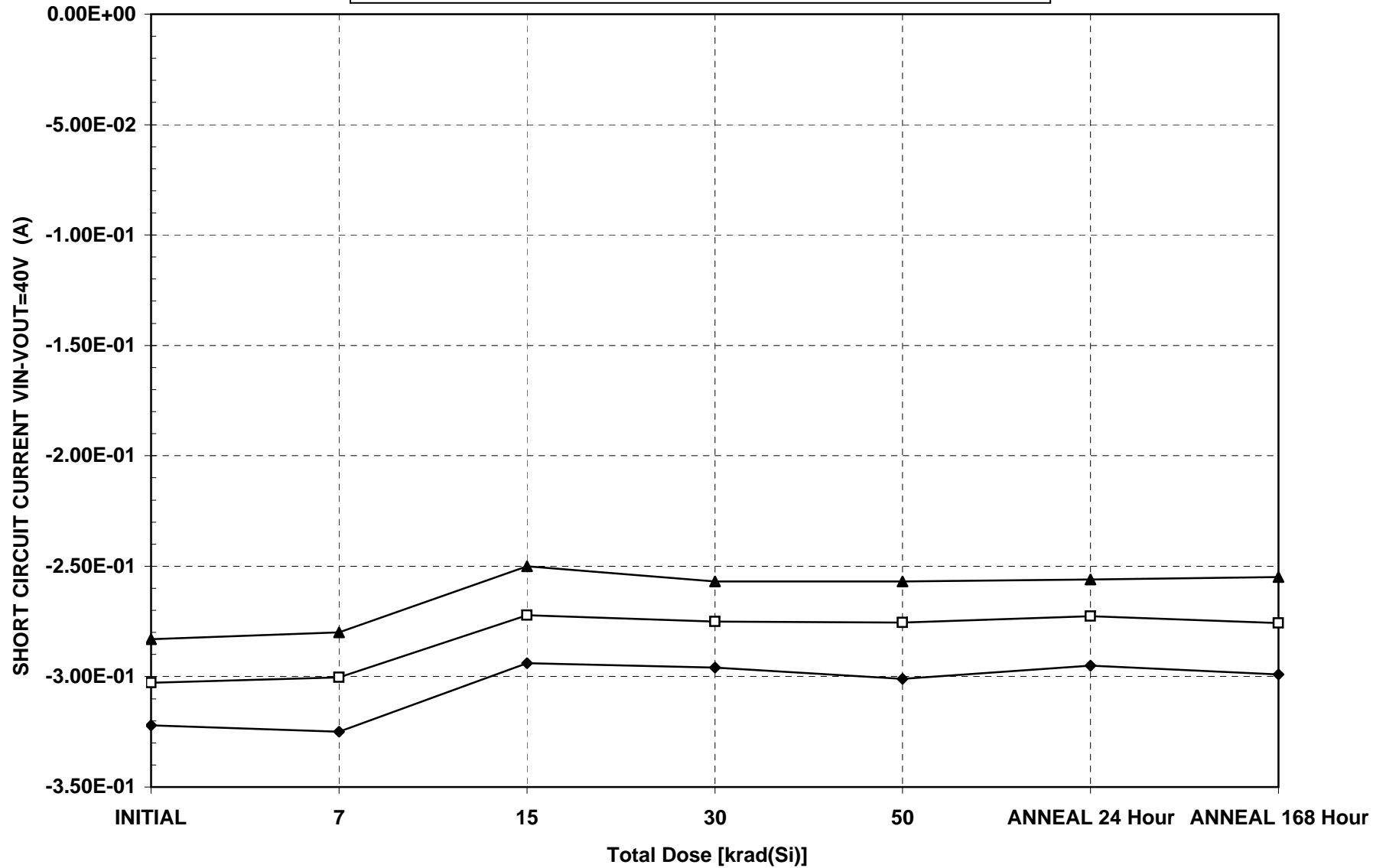


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

SHORT CIRCUIT CURRENT VIN-VOUT=40V (A)

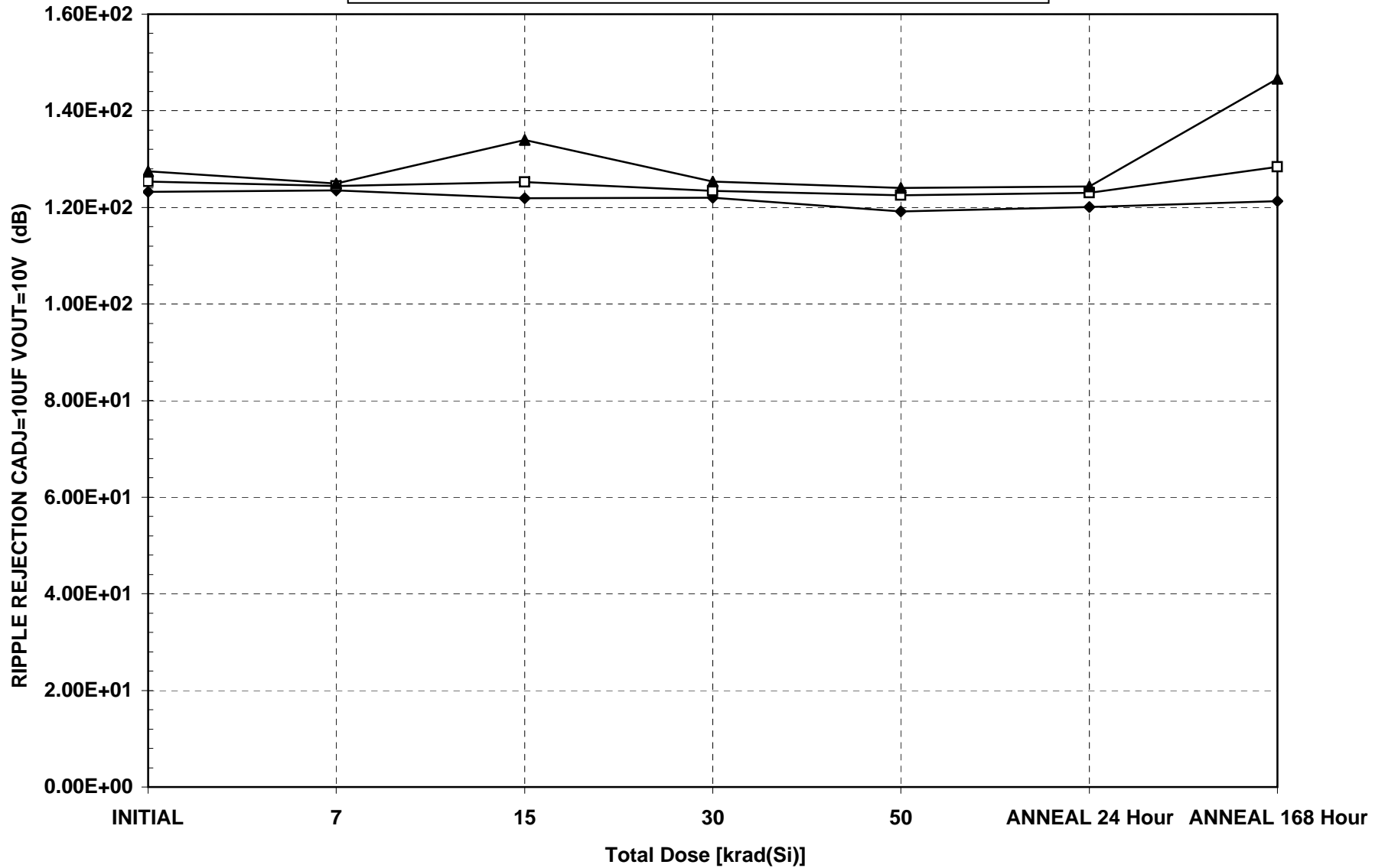


◆ MINIMUM      □ MEAN      ▲ MAXIMUM

# RH137H Negative Voltage Regulator (Linear Technology Corp.)

IC S Radiation Test Results Log # 1606 8/08/07

RIPPLE REJECTION CADJ=10UF VOUT=10V (dB)



◆ MINIMUM      □ MEAN      ▲ MAXIMUM