

Radiation Test Results

**RH1009MW
2.5Volt Reference
Linear Technology Corporation
D/C 0649A, Lot 415009.1
Test Date 05-17-07
Log# 1577 and 1578, ELDRS Test
P.O.# 46026L**

This test consisted of two test logs, Logs 1577 and 1578. The test was to compare the radiation effects differences between two bias conditions: Log 1577, +15 volts to the Cathode (pin 8) and Log 1578 which had all leads grounded. The two test requirements are stated in test procedure RTP 693, dated March 23, 2007. There were also seven *Information Only* parameters tested.

There was very little difference noted between the two bias conditions for all parameters tested. The test results of the two tests (both bias conditions) were less than the LTC data sheet limits of 20krad(Si) at the 50krad(Si) test level.

These lots **PASSED** the two test requirements as stated in the Radiation Test Procedure RTP 693, dated March 23, 2007. There were also seven "Information Only" tests included.

TID BIASED DEVICES, Log 1577

Information Only, Reference Voltage @ 200 μ A: The **Reference Voltage @ 200 μ A** is an information only test. The minimum reference voltage 2.4986V the initial test. The maximum voltage was 2.5017V at the 24 hour 25°C anneal test level.

Information Only, Reference Voltage @ 400 μ A: The **Reference Voltage @ 400 μ A** is an information only test. The minimum reference voltage 2.4988V the initial test. The maximum voltage was 2.5019V at the 24 hour 25°C anneal test level.

PASSED - Reference Voltage @ 1mA: **The Post-Radiation limit at 50krad(Si)** was 2.495V minimum and 2.505V maximum. The parameter minimum voltage was 2.5002V . The maximum voltage was 2.5022V.

Information Only, Reference Voltage @ 3mA: The **Reference Voltage @ 3mA** is an information only test. The minimum reference voltage 2.4999V the initial test. The maximum voltage was 2.5033V at the 24 hour 25°C anneal test level.

Information Only, Reference Voltage @ 10mA: The **Reference Voltage @ 10mA** is an information only test. The minimum reference voltage 2.5027V the initial test. The maximum voltage was 2.5066V at the 24 hour 25°C anneal test level.

PASSED - Load Regulation at IL= 400 μ A to 10mA: The Post-Radiation limit at 50krad(Si) was 8mV maximum. The minimum voltage was -4.65mV . The maximum voltage was -4.33mV.

Information Only, Reverse Dynamic Impedance : The **Reverse Dynamic Impedance** is an information only test. The minimum impedance was 0.38Ω at the initial test level. The maximum impedance was 0.47Ω at the 24 hour 25°C anneal test level.

Information Only, Adjust Range High : The **Adjust Range High** is an information only test. The minimum voltage was 215mV at the initial test level. The maximum voltage was 221mV after the 15, 50krad(Si) and 24 hour 25°C anneal test levels.

Information Only, Adjust Range Low : The **Adjust Range Low** is an information only test. The minimum voltage was -153mV after the initial, 50krad(Si), and 24 hour 25°C anneal test levels. The maximum voltage was -152mV after all test levels.

TID GROUNDED DEVICES, Log 1578

Information Only, Reference Voltage @ 200 μ A: The **Reference Voltage @ 200 μ A** is an information only test. The minimum reference voltage 2.4979V the initial test. The maximum voltage was 2.5022V at the 24 hour 25°C anneal test level.

Information Only, Reference Voltage @ 400 μ A: The **Reference Voltage @ 400 μ A** is an information only test. The minimum reference voltage 2.4981V the initial test. The maximum voltage was 2.5024V at the 50krad(Si) and 24 hour 25°C anneal test levels.

PASSED - Reference Voltage @ 1mA: The Post-Radiation limit at 50krad(Si) was 2.495V minimum and 2.505V maximum. The minimum voltage was 2.4995V . The maximum voltage was 2.5027V.

Information Only, Reference Voltage @ 3mA: The **Reference Voltage @ 3mA** is an information only test. The minimum reference voltage 2.4991V the initial test. The maximum voltage was 2.5038V at the 24 hour 25°C anneal test level.

Information Only, Reference Voltage @ 10mA: The **Reference Voltage @ 10mA** is an information only test. The minimum reference voltage 2.5016V the initial test. The maximum voltage was 2.5053V at the 50krad(Si) and the 24 hour 25°C anneal test levels.

PASSED - Load Regulation at IL= 400 μ A to 10mA: The Post-Radiation limit at 50krad(Si) was 8mV maximum. The minimum voltage was -4.74mV . The maximum voltage was -4.11mV.

Information Only, Reverse Dynamic Impedance : The **Reverse Dynamic Impedance** is an information only test. The minimum impedance was 0.35Ω at the initial test level. The maximum impedance was 0.48Ω the 50krad(Si) test level.

Information Only, Adjust Range High : The **Adjust Range High** is an information only test. The minimum voltage was 215mV at the initial test level. The maximum voltage was 221mV after the 30, 50krad(Si), and 24 hour 25 °C anneal test level.

Information Only, Adjust Range Low : The **Adjust Range Low** is an information only test. The maximum voltage was -152mV after all test levels. The minimum voltage was -152mV after all test levels.

ANOMOLIES:

1. There was one anomaly. The 7.5krad(Si) test level was missed. The first test level was 15krad(Si).
Missing the 7.5krad(Si) test point had no effect on the other tested levels.

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.

ICS Radiation Technologies, Inc.

Dr. Michael K. Gauthier, P.E.

President

August 20, 2007

March 23, 2007

RADIATION TEST PROCEDURE

No. 693

Device Type: RH1009MW 2.5 Volt REFERENCE
Manufacturer: Linear Technology Corp.
Lot No: Date Code:

Package Type: W 10-lead Flat Pack
No. of Devices Supplied: 11
No. of Devices to be tested: Bias Condition #1, 5 Devices
Bias Condition #2, 5 Devices
Control, 1 Device

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RADIATION CONDITIONS: MIL-STD-883E, Method 1019.6

Facility: Shepherd Low Dose, Co60 Energy: 1.25 MeV

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

"ON" BIAS CONDITION # 1

Pin #	Name	Voltage
1	N/C	N/C
2	N/C	N/C
3	N/C	N/C
4	Anode	Ground
5	N/C	N/C
6	N/C	N/C
7	N/C	N/C
8	Cathode	12.4kΩ to +15 Volts
9	N/C	N/C
10	N/C	N/C

"OFF" BIAS CONDITION # 2 All pins to GROUND.

NOTE: DUTs are mounted in 14-pin F/P carriers with pin-1 of the DUT to pin-2 of the carrier. Pins 1, 7, 8, & 14 of the carrier are open.

March 23, 2007

RADIATION TEST PROCEDURE

No. 693

Device Type: RH1009MW 2.5 Volt REFERENCE
Manufacturer: Linear Technology Corp.

TEST	TEST NAME	TEST CONDITIONS	Limits				Units	
			Exposure Levels	20k	50k	100k		
1 Reference Voltage	IR=1mA, +Vin = 10V			2.495 2.505	2.495 2.505	2.495 2.505	2.495 2.505	V Min V Max
2 Reference Voltage	400µA ≤ IR ≤ 10mA +Vin = 10V			6	8	10	12	mV Max

Measurements shall be made at room (ambient) temperature.

Test conducted using an Analog Devices LTS-2020 Component Test System, with the LTS-2302 DAC Family Board, LTS0602 Socket Assembly, LTS0325/RH1009 DUT board .

Software: RH1009, 1.00 "RH1009.SRC".

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

Return samples to customer.

ICS Radiation Test Results

**RH1009MW 2.5 VOLT REFERENCE
(LINEAR TECHNOLOGY CORPORATION)
P.O. # 46026L**

DEVICE TYPE: RH1009MW 2.5V REFERENCE
(LINEAR TECHNOLOGY CORPORATION)
RADIATION SOURCE: SHEPHERD LOW DOSE(Co60), 1.25MeV

/C	0649A		PACKAGE	10-PIN F/P		LOT#	RAD	SAMPLE
LOG#	1577		TEST DATE	05/17/07		RTP#	693	
			P.O.#	46026L				

Test Conductor: AJ Kenna
Test Administrator: Michael K. Gauthier

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

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

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

REFERENCE VOLTAGE @ 200UA

(V)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	2.497E+00	****	2.497E+00	2.497E+00	2.497E+00	2.498E+00	2.497E+00
	681	2.501E+00	****	2.501E+00	2.501E+00	2.502E+00	2.502E+00	2.501E+00
	682	2.499E+00	****	2.499E+00	2.499E+00	2.500E+00	2.500E+00	2.499E+00
	683	2.500E+00	****	2.500E+00	2.500E+00	2.500E+00	2.501E+00	2.500E+00
	684	2.500E+00	****	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
	685	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MINIMUM	2.499E+00	****	2.499E+00	2.499E+00	2.500E+00	2.500E+00	2.499E+00	
MEAN	2.500E+00	****	2.500E+00	2.500E+00	2.501E+00	2.501E+00	2.500E+00	
MAXIMUM	2.501E+00	****	2.501E+00	2.501E+00	2.502E+00	2.502E+00	2.501E+00	
+P 99/90	2.504E+00	****	2.504E+00	2.504E+00	2.504E+00	2.504E+00	2.504E+00	
-P 99/90	2.496E+00	****	2.496E+00	2.497E+00	2.497E+00	2.497E+00	2.497E+00	
SIGMA	8.204E-04	****	8.468E-04	8.204E-04	7.537E-04	7.450E-04	7.893E-04	

REFERENCE VOLTAGE @ 200UA

(V)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	0.000E+00	0.000E+00	-2.000E-04	1.000E-04	0.000E+00	
	681	****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
	682	****	2.000E-04	6.000E-04	1.000E-03	1.100E-03	7.000E-04	
	683	****	3.000E-04	6.000E-04	7.000E-04	9.000E-04	5.000E-04	
	684	****	2.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
	685	****	3.000E-04	6.000E-04	7.000E-04	9.000E-04	6.000E-04	
MINIMUM		****	2.000E-04	6.000E-04	7.000E-04	9.000E-04	5.000E-04	
MEAN		****	2.600E-04	6.000E-04	8.000E-04	9.400E-04	6.000E-04	
MAXIMUM		****	3.000E-04	6.000E-04	1.000E-03	1.100E-03	7.000E-04	
+P 99/90		****	5.156E-04	6.000E-04	1.371E-03	1.357E-03	9.299E-04	
-P 99/90		****	4.433E-06	6.000E-04	2.285E-04	5.227E-04	2.701E-04	
SIGMA		****	5.477E-05	2.432E-16	1.225E-04	8.944E-05	7.071E-05	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1

LOG# 1577 || TEST DATE 5/17/07 || RTP# 693

P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

REFERENCE VOLTAGE @ 400UA

(V)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	2.498E+00	****	2.498E+00	2.498E+00	2.497E+00	2.498E+00	2.498E+00
	681	2.501E+00	****	2.501E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
	682	2.499E+00	****	2.499E+00	2.499E+00	2.500E+00	2.500E+00	2.500E+00
	683	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
	684	2.501E+00	****	2.501E+00	2.501E+00	2.501E+00	2.502E+00	2.501E+00
	685	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MINIMUM	2.499E+00	****	2.499E+00	2.499E+00	2.500E+00	2.500E+00	2.500E+00	2.500E+00
MEAN	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MAXIMUM	2.501E+00	****	2.501E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
+P 99/90	2.504E+00	****	2.504E+00	2.504E+00	2.504E+00	2.504E+00	2.504E+00	2.504E+00
-P 99/90	2.496E+00	****	2.496E+00	2.497E+00	2.497E+00	2.498E+00	2.497E+00	2.497E+00
SIGMA	8.204E-04	****	8.468E-04	8.204E-04	7.450E-04	7.232E-04	7.969E-04	7.969E-04

REFERENCE VOLTAGE @ 400UA

(V)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	0.000E+00	0.000E+00	-2.000E-04	1.000E-04	0.000E+00	
	681	****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
	682	****	2.000E-04	6.000E-04	1.000E-03	1.200E-03	7.000E-04	
	683	****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
	684	****	2.000E-04	6.000E-04	8.000E-04	1.000E-03	7.000E-04	
	685	****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
MINIMUM		****	2.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
MEAN		****	2.600E-04	6.000E-04	8.400E-04	9.800E-04	6.400E-04	
MAXIMUM		****	3.000E-04	6.000E-04	1.000E-03	1.200E-03	7.000E-04	
+P 99/90		****	5.156E-04	6.000E-04	1.257E-03	1.588E-03	8.956E-04	
-P 99/90		****	4.433E-06	6.000E-04	4.227E-04	3.716E-04	3.844E-04	
SIGMA		****	5.477E-05	1.986E-16	8.944E-05	1.304E-04	5.477E-05	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

REFERENCE VOLTAGE @ 1MA

(V)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	2.498E+00	****	2.498E+00	2.498E+00	2.498E+00	2.498E+00	2.498E+00
	681	2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
	682	2.499E+00	****	2.499E+00	2.500E+00	2.500E+00	2.500E+00	2.500E+00
	683	2.500E+00	****	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
	684	2.501E+00	****	2.500E+00	2.501E+00	2.502E+00	2.502E+00	2.502E+00
	685	2.500E+00	****	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MINIMUM	2.499E+00	****	2.499E+00	2.500E+00	2.500E+00	2.500E+00	2.500E+00	2.500E+00
MEAN	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MAXIMUM	2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
+P 99/90	2.504E+00	****	2.504E+00	2.505E+00	2.505E+00	2.505E+00	2.505E+00	2.505E+00
-P 99/90	2.497E+00	****	2.497E+00	2.497E+00	2.498E+00	2.498E+00	2.497E+00	2.497E+00
SIGMA	8.204E-04	****	8.414E-04	8.167E-04	7.403E-04	7.176E-04	7.893E-04	7.893E-04

REFERENCE VOLTAGE @ 1MA

(V)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	1.000E-04	1.000E-04	-1.000E-04	2.000E-04	1.000E-04	
	681	****	3.000E-04	6.000E-04	9.000E-04	1.000E-03	7.000E-04	
	682	****	2.000E-04	6.000E-04	1.100E-03	1.300E-03	8.000E-04	
	683	****	3.000E-04	7.000E-04	8.000E-04	9.000E-04	6.000E-04	
	684	****	-7.000E-04	6.000E-04	8.000E-04	1.000E-03	7.000E-04	
	685	****	3.000E-04	6.000E-04	8.000E-04	1.000E-03	6.000E-04	
MINIMUM		****	-7.000E-04	6.000E-04	8.000E-04	9.000E-04	6.000E-04	
MEAN		****	8.000E-05	6.200E-04	8.800E-04	1.040E-03	6.800E-04	
MAXIMUM		****	3.000E-04	7.000E-04	1.100E-03	1.300E-03	8.000E-04	
+P 99/90		****	2.125E-03	8.287E-04	1.488E-03	1.748E-03	1.070E-03	
-P 99/90		****	-1.965E-03	4.113E-04	2.716E-04	3.324E-04	2.896E-04	
SIGMA		****	4.382E-04	4.472E-05	1.304E-04	1.517E-04	8.367E-05	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

REFERENCE VOLTAGE @ 3MA

(V)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	2.499E+00	****	2.499E+00	2.499E+00	2.499E+00	2.499E+00	2.499E+00
	681	2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.503E+00	2.503E+00
	682	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
	683	2.501E+00	****	2.501E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
	684	2.502E+00	****	2.502E+00	2.502E+00	2.503E+00	2.503E+00	2.502E+00
	685	2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
MINIMUM	2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MEAN	2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
MAXIMUM	2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.503E+00	2.503E+00	2.503E+00
+P 99/90	2.505E+00	****	2.505E+00	2.506E+00	2.506E+00	2.506E+00	2.506E+00	2.506E+00
-P 99/90	2.497E+00	****	2.498E+00	2.498E+00	2.499E+00	2.499E+00	2.498E+00	2.498E+00
SIGMA	8.204E-04	****	8.185E-04	8.185E-04	7.403E-04	7.057E-04	7.893E-04	

REFERENCE VOLTAGE @ 3MA

(V)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	0.000E+00	0.000E+00	-2.000E-04	1.000E-04	1.000E-04	
	681	****	3.000E-04	7.000E-04	1.100E-03	1.200E-03	8.000E-04	
	682	****	3.000E-04	7.000E-04	1.300E-03	1.500E-03	9.000E-04	
	683	****	4.000E-04	8.000E-04	1.000E-03	1.100E-03	7.000E-04	
	684	****	3.000E-04	7.000E-04	1.000E-03	1.100E-03	8.000E-04	
	685	****	4.000E-04	8.000E-04	1.000E-03	1.100E-03	7.000E-04	
MINIMUM		****	3.000E-04	7.000E-04	1.000E-03	1.100E-03	7.000E-04	
MEAN		****	3.400E-04	7.400E-04	1.080E-03	1.200E-03	7.800E-04	
MAXIMUM		****	4.000E-04	8.000E-04	1.300E-03	1.500E-03	9.000E-04	
+P 99/90		****	5.956E-04	9.956E-04	1.688E-03	2.008E-03	1.170E-03	
-P 99/90		****	8.443E-05	4.844E-04	4.716E-04	3.918E-04	3.896E-04	
SIGMA		****	5.477E-05	5.477E-05	1.304E-04	1.732E-04	8.367E-05	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

REFERENCE VOLTAGE @ 10MA

(V)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	2.501E+00	****	2.502E+00	2.502E+00	2.501E+00	2.502E+00	2.502E+00
	681	2.505E+00	****	2.505E+00	2.506E+00	2.503E+00	2.507E+00	2.506E+00
	682	2.503E+00	****	2.503E+00	2.504E+00	2.505E+00	2.505E+00	2.504E+00
	683	2.504E+00	****	2.504E+00	2.505E+00	2.505E+00	2.505E+00	2.505E+00
	684	2.504E+00	****	2.505E+00	2.505E+00	2.506E+00	2.506E+00	2.505E+00
	685	2.504E+00	****	2.505E+00	2.505E+00	2.505E+00	2.506E+00	2.505E+00
MINIMUM	2.503E+00	****	2.503E+00	2.504E+00	2.503E+00	2.505E+00	2.504E+00	
MEAN	2.504E+00	****	2.504E+00	2.505E+00	2.505E+00	2.506E+00	2.505E+00	
MAXIMUM	2.505E+00	****	2.505E+00	2.506E+00	2.506E+00	2.507E+00	2.506E+00	
+P 99/90	2.508E+00	****	2.509E+00	2.509E+00	2.509E+00	2.509E+00	2.509E+00	
-P 99/90	2.500E+00	****	2.500E+00	2.501E+00	2.500E+00	2.502E+00	2.501E+00	
SIGMA	8.075E-04	****	8.843E-04	8.860E-04	9.607E-04	6.979E-04	7.925E-04	

REFERENCE VOLTAGE @ 10MA

(V)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	1.000E-04	1.000E-04	-1.000E-04	1.000E-04	5.000E-04	
	681	****	5.000E-04	1.000E-03	-1.700E-03	1.700E-03	1.200E-03	
	682	****	3.000E-04	8.000E-04	1.800E-03	2.000E-03	1.200E-03	
	683	****	6.000E-04	1.000E-03	1.400E-03	1.600E-03	1.100E-03	
	684	****	5.000E-04	1.000E-03	1.300E-03	1.600E-03	1.000E-03	
	685	****	6.000E-04	1.100E-03	1.400E-03	1.600E-03	1.100E-03	
MINIMUM		****	3.000E-04	8.000E-04	-1.700E-03	1.600E-03	1.000E-03	
MEAN		****	5.000E-04	9.800E-04	8.400E-04	1.700E-03	1.120E-03	
MAXIMUM		****	6.000E-04	1.100E-03	1.800E-03	2.000E-03	1.200E-03	
+P 99/90		****	1.071E-03	1.491E-03	7.526E-03	2.508E-03	1.510E-03	
-P 99/90		****	-7.147E-05	4.689E-04	-5.846E-03	8.918E-04	7.296E-04	
SIGMA		****	1.225E-04	1.095E-04	1.433E-03	1.732E-04	8.367E-05	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

LOAD REG. 400UA TO 10MA

(MV)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670	-3.88E+00	****	-3.91E+00	-3.86E+00	-3.83E+00	-3.82E+00	-4.30E+00
	681	-3.85E+00	****	-4.10E+00	-4.35E+00	-4.58E+00	-4.65E+00	-4.51E+00
	682	-3.85E+00	****	-4.00E+00	-4.15E+00	-4.65E+00	-4.68E+00	-4.34E+00
	683	-3.88E+00	****	-4.17E+00	-4.32E+00	-4.50E+00	-4.54E+00	-4.41E+00
	684	-3.80E+00	****	-4.08E+00	-4.18E+00	-4.33E+00	-4.39E+00	-4.19E+00
	685	-3.77E+00	****	-4.09E+00	-4.31E+00	-4.44E+00	-4.52E+00	-4.26E+00
MINIMUM	-3.88E+00	****	-4.17E+00	-4.35E+00	-4.65E+00	-4.68E+00	-4.51E+00	
MEAN	-3.83E+00	****	-4.09E+00	-4.26E+00	-4.50E+00	-4.56E+00	-4.34E+00	
MAXIMUM	-3.77E+00	****	-4.00E+00	-4.15E+00	-4.33E+00	-4.39E+00	-4.19E+00	
+P 99/90	-3.62E+00	****	-3.81E+00	-3.84E+00	-3.92E+00	-4.02E+00	-3.76E+00	
-P 99/90	-4.04E+00	****	-4.37E+00	-4.68E+00	-5.08E+00	-5.09E+00	-4.93E+00	
SIGMA	4.42E-02	****	6.06E-02	9.04E-02	1.24E-01	1.15E-01	1.25E-01	

LOAD REG. 400UA TO 10MA

(MV)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	-3.00E-02	2.00E-02	5.00E-02	6.00E-02	-4.20E-01	
	681	****	-2.50E-01	-5.00E-01	-7.30E-01	-8.00E-01	-6.60E-01	
	682	****	-1.50E-01	-3.00E-01	-8.00E-01	-8.30E-01	-4.90E-01	
	683	****	-2.90E-01	-4.40E-01	-6.20E-01	-6.60E-01	-5.30E-01	
	684	****	-2.80E-01	-3.80E-01	-5.30E-01	-5.90E-01	-3.90E-01	
	685	****	-3.20E-01	-5.40E-01	-6.70E-01	-7.50E-01	-4.90E-01	
MINIMUM		****	-3.20E-01	-5.40E-01	-8.00E-01	-8.30E-01	-6.60E-01	
MEAN		****	-2.58E-01	-4.32E-01	-6.70E-01	-7.26E-01	-5.12E-01	
MAXIMUM		****	-1.50E-01	-3.00E-01	-5.30E-01	-5.90E-01	-3.90E-01	
+P 99/90		****	4.69E-02	1.36E-02	-1.88E-01	-2.61E-01	-5.67E-02	
-P 99/90		****	-5.63E-01	-8.78E-01	-1.15E+00	-1.19E+00	-9.67E-01	
SIGMA		****	6.53E-02	9.55E-02	1.03E-01	9.96E-02	9.76E-02	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

REVERSE DYNAMIC IMPEDANCE

(OHM)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	4.00E-01	****	4.00E-01	3.90E-01	3.90E-01	3.80E-01	4.40E-01
	681	3.90E-01	****	4.20E-01	4.30E-01	4.60E-01	4.60E-01	4.60E-01
	682	3.90E-01	****	4.00E-01	4.10E-01	4.60E-01	4.70E-01	4.40E-01
	683	3.90E-01	****	4.30E-01	4.30E-01	4.60E-01	4.50E-01	4.40E-01
	684	3.90E-01	****	4.10E-01	4.10E-01	4.40E-01	4.40E-01	4.20E-01
	685	3.80E-01	****	4.10E-01	4.40E-01	4.40E-01	4.50E-01	4.30E-01
MINIMUM	3.80E-01	****	4.00E-01	4.10E-01	4.40E-01	4.40E-01	4.20E-01	
MEAN	3.88E-01	****	4.14E-01	4.24E-01	4.52E-01	4.54E-01	4.38E-01	
MAXIMUM	3.90E-01	****	4.30E-01	4.40E-01	4.60E-01	4.70E-01	4.60E-01	
+P 99/90	4.09E-01	****	4.67E-01	4.87E-01	5.03E-01	5.07E-01	5.07E-01	
-P 99/90	3.67E-01	****	3.61E-01	3.61E-01	4.01E-01	4.01E-01	3.69E-01	
SIGMA	4.47E-03	****	1.14E-02	1.34E-02	1.10E-02	1.14E-02	1.48E-02	

REVERSE DYNAMIC IMPEDANCE

(OHM)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	0.00E+00	-1.00E-02	-1.00E-02	-2.00E-02	4.00E-02	
	681	****	3.00E-02	4.00E-02	7.00E-02	7.00E-02	7.00E-02	
	682	****	1.00E-02	2.00E-02	7.00E-02	8.00E-02	5.00E-02	
	683	****	4.00E-02	4.00E-02	7.00E-02	6.00E-02	5.00E-02	
	684	****	2.00E-02	2.00E-02	5.00E-02	5.00E-02	3.00E-02	
	685	****	3.00E-02	6.00E-02	6.00E-02	7.00E-02	5.00E-02	
MINIMUM		****	1.00E-02	2.00E-02	5.00E-02	5.00E-02	3.00E-02	
MEAN		****	2.60E-02	3.60E-02	6.40E-02	6.60E-02	5.00E-02	
MAXIMUM		****	4.00E-02	6.00E-02	7.00E-02	8.00E-02	7.00E-02	
+P 99/90		****	7.92E-02	1.14E-01	1.06E-01	1.19E-01	1.16E-01	
-P 99/90		****	-2.72E-02	-4.21E-02	2.23E-02	1.28E-02	-1.60E-02	
SIGMA		****	1.14E-02	1.67E-02	8.94E-03	1.14E-02	1.41E-02	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

ADJUST RANGE HIGH

(MA)

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N

CONTROL	670	2.18E+02	****	2.15E+02	2.17E+02	2.21E+02	2.17E+02	2.18E+02
	681	2.18E+02	****	2.15E+02	2.17E+02	2.18E+02	2.19E+02	2.19E+02
	682	2.15E+02	****	2.20E+02	2.19E+02	2.21E+02	2.20E+02	2.20E+02
	683	2.20E+02	****	2.17E+02	2.20E+02	2.19E+02	2.18E+02	2.17E+02
	684	2.16E+02	****	2.18E+02	2.20E+02	2.21E+02	2.19E+02	2.19E+02
	685	2.16E+02	****	2.21E+02	2.16E+02	2.20E+02	2.21E+02	2.20E+02
MINIMUM		2.15E+02	****	2.15E+02	2.16E+02	2.18E+02	2.18E+02	2.17E+02
MEAN		2.17E+02	****	2.18E+02	2.19E+02	2.20E+02	2.19E+02	2.19E+02
MAXIMUM		2.20E+02	****	2.21E+02	2.20E+02	2.21E+02	2.21E+02	2.20E+02
+P 99/90		2.27E+02	****	2.28E+02	2.28E+02	2.25E+02	2.24E+02	2.26E+02
-P 99/90		2.07E+02	****	2.08E+02	2.09E+02	2.15E+02	2.15E+02	2.13E+02
SIGMA		2.16E+00	****	2.22E+00	2.09E+00	1.07E+00	9.07E-01	1.39E+00

ADJUST RANGE HIGH

(MV)

[DELTA]

FLUENCE FLUX	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N

CONTROL	670	****	-3.40E+00	-1.10E+00	2.50E+00	-1.30E+00	-4.00E-01	
	681	****	-3.10E+00	-1.00E+00	3.00E-01	1.00E+00	1.50E+00	
	682	****	4.80E+00	4.40E+00	6.10E+00	5.50E+00	5.60E+00	
	683	****	-3.10E+00	2.00E-01	-8.00E-01	-1.90E+00	-3.30E+00	
	684	****	2.40E+00	4.40E+00	4.50E+00	3.40E+00	3.20E+00	
	685	****	4.70E+00	0.00E+00	4.60E+00	4.70E+00	4.50E+00	
MINIMUM		****	-3.10E+00	-1.00E+00	-8.00E-01	-1.90E+00	-3.30E+00	
MEAN		****	1.14E+00	1.60E+00	2.94E+00	2.54E+00	2.30E+00	
MAXIMUM		****	4.80E+00	4.40E+00	6.10E+00	5.50E+00	5.60E+00	
+P 99/90		****	1.97E+01	1.37E+01	1.70E+01	1.66E+01	1.86E+01	
-P 99/90		****	-1.75E+01	-1.05E+01	-1.11E+01	-1.15E+01	-1.40E+01	
SIGMA		****	3.99E+00	2.60E+00	3.01E+00	3.01E+00	3.48E+00	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED
 RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
 LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
 P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REF (LTC) BIASED

ADJUST RANGE LOW

(MV)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.53E+02	-1.52E+02
	681	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.53E+02	-1.52E+02
	682	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.53E+02	-1.53E+02	-1.52E+02
	683	-1.53E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.53E+02	-1.52E+02
	684	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02
	685	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02
MINIMUM		-1.53E+02	****	-1.52E+02	2.50E+00	-1.53E+02	-1.53E+02	-1.52E+02
MEAN		-1.52E+02	****	-1.52E+02	2.50E+00	-1.52E+02	-1.52E+02	-1.52E+02
MAXIMUM		-1.52E+02	****	-1.52E+02	2.50E+00	-1.52E+02	-1.52E+02	-1.52E+02
+P 99/90		-1.51E+02	****	-1.51E+02	2.50E+00	-1.51E+02	-1.51E+02	-1.52E+02
-P 99/90		-1.54E+02	****	-1.53E+02	2.50E+00	-1.53E+02	-1.54E+02	-1.53E+02
SIGMA		2.70E-01	****	1.92E-01	8.20E-04	1.92E-01	2.41E-01	1.30E-01

ADJUST RANGE LOW

(MV)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670	****	-5.00E-01	1.54E+02	0.00E+00	-7.00E-01	-5.00E-01	
	681	****	0.00E+00	1.55E+02	4.00E-01	-2.00E-01	3.00E-01	
	682	****	-1.00E-01	1.54E+02	-6.00E-01	-6.00E-01	-5.00E-01	
	683	****	5.00E-01	1.55E+02	4.00E-01	-2.00E-01	3.00E-01	
	684	****	5.00E-01	1.55E+02	2.00E-01	3.00E-01	1.00E-01	
	685	****	-1.00E-01	1.55E+02	-3.00E-01	-3.00E-01	-4.00E-01	
MINIMUM		****	-1.00E-01	1.54E+02	-6.00E-01	-6.00E-01	-5.00E-01	
MEAN		****	1.60E-01	1.55E+02	2.00E-02	-2.00E-01	-4.00E-02	
MAXIMUM		****	5.00E-01	1.55E+02	4.00E-01	3.00E-01	3.00E-01	
+P 99/90		****	1.62E+00	1.56E+02	2.12E+00	1.31E+00	1.76E+00	
-P 99/90		****	-1.30E+00	1.53E+02	-2.08E+00	-1.71E+00	-1.84E+00	
SIGMA		****	3.13E-01	2.71E-01	4.49E-01	3.24E-01	3.85E-01	

DEVICE TYPE: RH1009 2.5V REF (LTC) BIASED

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1577 || TEST DATE 5/17/07 || RTP# 693
P.O.# 46026L

I C S RADIATION TECHNOLOGIES, INC.

ICS Radiation Test Results

RH1009MW 2.5 VOLT REFERENCE (LINEAR TECHNOLOGY CORPORATION) P.O. # 46026L

.....
DEVICE TYPE: RH1009MW 2.5 VOLT REFERENCE
(LINEAR TECHNOLOGY CORPORATION)
RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV
D/C 0649A || PACKAGE 10-PIN F/P || LOT# RAD SAMPLE
LOG# 1578 || TEST DATE 05/17/07 || RTP# 693
P.O.#46026L
Test Conductor: AJ Kenna
Test Administrator: Dr. 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

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

REFRENCE VOLTAGE @ 200UA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL	168 HOUR BIASED ANNEAL
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	25C	100C
<hr/>								
S/N								
CONTROL	670		2.497E+00	****	2.497E+00	2.497E+00	2.490E+00	2.497E+00
	686		2.501E+00	****	2.501E+00	2.501E+00	2.502E+00	2.501E+00
	687		2.500E+00	****	2.500E+00	2.500E+00	2.501E+00	2.500E+00
	688		2.498E+00	****	2.498E+00	2.499E+00	2.499E+00	2.499E+00
	689		2.499E+00	****	2.499E+00	2.500E+00	2.500E+00	2.500E+00
	691		2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00
MINIMUM			2.498E+00	****	2.498E+00	2.499E+00	2.499E+00	2.499E+00
MEAN			2.500E+00	****	2.500E+00	2.500E+00	2.501E+00	2.500E+00
MAXIMUM			2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00
+P 99/90			2.506E+00	****	2.506E+00	2.507E+00	2.507E+00	2.506E+00
-P 99/90			2.493E+00	****	2.493E+00	2.494E+00	2.495E+00	2.494E+00
SIGMA			1.394E-03	****	1.381E-03	1.366E-03	1.303E-03	1.301E-03
<hr/>								

REFRENCE VOLTAGE @ 200UA

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL	168 HOUR BIASED ANNEAL
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	25C	100C
<hr/>								
S/N								
CONTROL	670		****	-1.000E-04	0.000E+00	-7.400E-03	0.000E+00	-1.000E-04
	686		****	2.000E-04	5.000E-04	7.000E-04	8.000E-04	4.000E-04
	687		****	2.000E-04	5.000E-04	1.200E-03	8.000E-04	5.000E-04
	688		****	2.000E-04	6.000E-04	1.000E-03	1.100E-03	7.000E-04
	689		****	3.000E-04	7.000E-04	8.000E-04	1.000E-03	5.000E-04
	691		****	2.000E-04	6.000E-04	8.000E-04	9.000E-04	5.000E-04
MINIMUM			****	2.000E-04	5.000E-04	7.000E-04	8.000E-04	4.000E-04
MEAN			****	2.200E-04	5.800E-04	9.000E-04	9.200E-04	5.200E-04
MAXIMUM			****	3.000E-04	7.000E-04	1.200E-03	1.100E-03	7.000E-04
+P 99/90			****	4.287E-04	9.704E-04	1.833E-03	1.528E-03	1.031E-03
-P 99/90			****	1.133E-05	1.896E-04	-3.320E-05	3.116E-04	8.865E-06
SIGMA			****	4.472E-05	8.367E-05	2.000E-04	1.304E-04	1.095E-04
<hr/>								

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

REFRENCE VOLTAGE @ 400UA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		2.50E+00	****	2.50E+00	2.50E+00	2.50E+00	2.50E+00
	686		2.50E+00	****	2.50E+00	2.50E+00	2.50E+00	2.50E+00
	687		2.50E+00	****	2.50E+00	2.50E+00	2.50E+00	2.50E+00
	688		2.50E+00	****	2.50E+00	2.50E+00	2.50E+00	2.50E+00
	689		2.50E+00	****	2.50E+00	2.50E+00	2.50E+00	2.50E+00
	691		2.50E+00	****	2.50E+00	2.50E+00	2.50E+00	2.50E+00
MINIMUM		2.498E+00	****	2.498E+00	2.499E+00	2.499E+00	2.499E+00	2.499E+00
MEAN		2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MAXIMUM		2.502E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
+P 99/90		2.506E+00	****	2.507E+00	2.507E+00	2.507E+00	2.507E+00	2.506E+00
-P 99/90		2.493E+00	****	2.494E+00	2.494E+00	2.495E+00	2.495E+00	2.495E+00
SIGMA		1.381E-03	****	1.366E-03	1.348E-03	1.326E-03	1.285E-03	1.285E-03

REFRENCE VOLTAGE @ 400UA

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		****	-1.000E-04	0.000E+00	-1.000E-04	0.000E+00	-1.000E-04
	686		****	2.000E-04	6.000E-04	7.000E-04	9.000E-04	5.000E-04
	687		****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	5.000E-04
	688		****	2.000E-04	7.000E-04	1.000E-03	1.200E-03	8.000E-04
	689		****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	5.000E-04
	691		****	2.000E-04	6.000E-04	9.000E-04	9.000E-04	5.000E-04
MINIMUM		****	2.000E-04	6.000E-04	7.000E-04	9.000E-04	5.000E-04	5.000E-04
MEAN		****	2.400E-04	6.200E-04	8.400E-04	9.600E-04	5.600E-04	5.600E-04
MAXIMUM		****	3.000E-04	7.000E-04	1.000E-03	1.200E-03	8.000E-04	8.000E-04
+P 99/90		****	4.956E-04	8.287E-04	1.372E-03	1.586E-03	1.186E-03	1.186E-03
-P 99/90		****	-1.557E-05	4.113E-04	3.080E-04	3.340E-04	-6.601E-05	
SIGMA		****	5.477E-05	4.472E-05	1.140E-04	1.342E-04	1.342E-04	

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

REFRENCE VOLTAGE @ 1MA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		2.498E+00	****	2.498E+00	2.498E+00	2.498E+00	2.498E+00
	686		2.501E+00	****	2.502E+00	2.502E+00	2.502E+00	2.502E+00
	687		2.500E+00	****	2.500E+00	2.501E+00	2.501E+00	2.501E+00
	688		2.498E+00	****	2.499E+00	2.499E+00	2.500E+00	2.499E+00
	689		2.500E+00	****	2.500E+00	2.500E+00	2.501E+00	2.500E+00
	691		2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.502E+00
MINIMUM		2.498E+00	****	2.499E+00	2.499E+00	2.500E+00	2.500E+00	2.499E+00
MEAN		2.500E+00	****	2.501E+00	2.501E+00	2.501E+00	2.501E+00	2.501E+00
MAXIMUM		2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.503E+00	2.502E+00
+P 99/90		2.507E+00	****	2.507E+00	2.507E+00	2.507E+00	2.507E+00	2.507E+00
-P 99/90		2.494E+00	****	2.494E+00	2.495E+00	2.495E+00	2.495E+00	2.495E+00
SIGMA		1.415E-03	****	1.395E-03	1.358E-03	1.301E-03	1.301E-03	1.264E-03

REFRENCE VOLTAGE @ 1MA

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		****	0.000E+00	1.000E-04	0.000E+00	1.000E-04	0.000E+00
	686		****	2.000E-04	5.000E-04	8.000E-04	9.000E-04	4.000E-04
	687		****	3.000E-04	6.000E-04	8.000E-04	9.000E-04	5.000E-04
	688		****	3.000E-04	8.000E-04	1.200E-03	1.300E-03	9.000E-04
	689		****	3.000E-04	6.000E-04	9.000E-04	1.000E-03	5.000E-04
	691		****	3.000E-04	7.000E-04	9.000E-04	1.000E-03	5.000E-04
MINIMUM		****	2.000E-04	5.000E-04	8.000E-04	9.000E-04	4.000E-04	4.000E-04
MEAN		****	2.800E-04	6.400E-04	9.200E-04	1.020E-03	5.600E-04	5.600E-04
MAXIMUM		****	3.000E-04	8.000E-04	1.200E-03	1.300E-03	9.000E-04	9.000E-04
+P 99/90		****	4.887E-04	1.172E-03	1.687E-03	1.787E-03	1.470E-03	1.470E-03
-P 99/90		****	7.133E-05	1.080E-04	1.533E-04	2.533E-04	-3.496E-04	1.949E-04
SIGMA		****	4.472E-05	1.140E-04	1.643E-04	1.643E-04	1.949E-04	1.949E-04

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

REFRENCE VOLTAGE @ 3MA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		2.499E+00	****	2.499E+00	2.499E+00	2.499E+00	2.499E+00
	686		2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.503E+00
	687		2.501E+00	****	2.501E+00	2.502E+00	2.502E+00	2.501E+00
	688		2.499E+00	****	2.499E+00	2.500E+00	2.500E+00	2.500E+00
	689		2.500E+00	****	2.501E+00	2.501E+00	2.502E+00	2.501E+00
	691		2.503E+00	****	2.503E+00	2.503E+00	2.504E+00	2.503E+00
MINIMUM		2.499E+00	****	2.499E+00	2.500E+00	2.500E+00	2.501E+00	2.500E+00
MEAN		2.501E+00	****	2.501E+00	2.502E+00	2.502E+00	2.502E+00	2.502E+00
MAXIMUM		2.503E+00	****	2.503E+00	2.503E+00	2.504E+00	2.504E+00	2.503E+00
+P 99/90		2.508E+00	****	2.508E+00	2.508E+00	2.508E+00	2.508E+00	2.508E+00
-P 99/90		2.494E+00	****	2.495E+00	2.495E+00	2.496E+00	2.496E+00	2.495E+00
SIGMA		1.395E-03	****	1.392E-03	1.346E-03	1.313E-03	1.294E-03	1.326E-03

REFRENCE VOLTAGE @ 3MA

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		****	-1.000E-04	0.000E+00	-1.000E-04	0.000E+00	-1.000E-04
	686		****	3.000E-04	7.000E-04	1.000E-03	1.100E-03	6.000E-04
	687		****	4.000E-04	7.000E-04	1.000E-03	1.100E-03	6.000E-04
	688		****	3.000E-04	9.000E-04	1.300E-03	1.500E-03	9.000E-04
	689		****	3.000E-04	8.000E-04	1.100E-03	1.100E-03	6.000E-04
	691		****	3.000E-04	8.000E-04	1.100E-03	1.200E-03	7.000E-04
MINIMUM		****	3.000E-04	7.000E-04	1.000E-03	1.100E-03	6.000E-04	
MEAN		****	3.200E-04	7.800E-04	1.100E-03	1.200E-03	6.800E-04	
MAXIMUM		****	4.000E-04	9.000E-04	1.300E-03	1.500E-03	9.000E-04	
+P 99/90		****	5.287E-04	1.170E-03	1.671E-03	2.008E-03	1.288E-03	
-P 99/90		****	1.113E-04	3.896E-04	5.285E-04	3.918E-04	7.163E-05	
SIGMA		****	4.472E-05	8.367E-05	1.225E-04	1.732E-04	1.304E-04	

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

REFRENCE VOLTAGE @ 10MA

(V)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		2.501E+00	****	2.502E+00	2.502E+00	2.501E+00	2.502E+00
	686		2.505E+00	****	2.505E+00	2.506E+00	2.506E+00	2.505E+00
	687		2.504E+00	****	2.504E+00	2.505E+00	2.505E+00	2.505E+00
	688		2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.503E+00
	689		2.503E+00	****	2.504E+00	2.504E+00	2.505E+00	2.504E+00
	691		2.505E+00	****	2.506E+00	2.507E+00	2.507E+00	2.506E+00
MINIMUM		2.502E+00	****	2.502E+00	2.503E+00	2.503E+00	2.504E+00	2.503E+00
MEAN		2.504E+00	****	2.504E+00	2.505E+00	2.505E+00	2.505E+00	2.505E+00
MAXIMUM		2.505E+00	****	2.506E+00	2.507E+00	2.507E+00	2.507E+00	2.506E+00
+P 99/90		2.510E+00	****	2.511E+00	2.511E+00	2.512E+00	2.512E+00	2.511E+00
-P 99/90		2.497E+00	****	2.497E+00	2.498E+00	2.499E+00	2.499E+00	2.499E+00
SIGMA		1.455E-03	****	1.471E-03	1.346E-03	1.376E-03	1.335E-03	1.322E-03

REFRENCE VOLTAGE @ 10MA

(V)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		****	1.000E-04	1.000E-04	-1.000E-04	1.000E-04	-1.000E-04
	686		****	6.000E-04	9.000E-04	1.300E-03	1.500E-03	8.000E-04
	687		****	5.000E-04	1.000E-03	1.500E-03	1.500E-03	9.000E-04
	688		****	5.000E-04	1.300E-03	1.800E-03	2.000E-03	1.300E-03
	689		****	5.000E-04	1.200E-03	1.600E-03	1.600E-03	1.000E-03
	691		****	5.000E-04	1.100E-03	1.700E-03	1.700E-03	1.000E-03
MINIMUM		****	5.000E-04	9.000E-04	1.300E-03	1.500E-03	8.000E-04	
MEAN		****	5.200E-04	1.100E-03	1.580E-03	1.660E-03	1.000E-03	
MAXIMUM		****	6.000E-04	1.300E-03	1.800E-03	2.000E-03	1.300E-03	
+P 99/90		****	7.287E-04	1.838E-03	2.478E-03	2.628E-03	1.873E-03	
-P 99/90		****	3.113E-04	3.622E-04	6.825E-04	6.924E-04	1.271E-04	
SIGMA		****	4.472E-05	1.581E-04	1.924E-04	2.074E-04	1.871E-04	

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

LOAD REG. 400UA TO 10MA

(MV)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		-3.88E+00	****	-3.95E+00	-3.92E+00	-3.83E+00	-3.87E+00
	686		-3.53E+00	****	-3.82E+00	-3.86E+00	-4.11E+00	-4.14E+00
	687		-3.98E+00	****	-4.22E+00	-4.47E+00	-4.70E+00	-4.69E+00
	688		-3.57E+00	****	-3.78E+00	-4.12E+00	-4.29E+00	-4.36E+00
	689		-3.80E+00	****	-4.02E+00	-4.41E+00	-4.58E+00	-4.51E+00
	691		-3.93E+00	****	-4.11E+00	-4.34E+00	-4.74E+00	-4.70E+00
MINIMUM			-3.980E+00	****	-4.220E+00	-4.470E+00	-4.740E+00	-4.430E+00
MEAN			-3.762E+00	****	-3.990E+00	-4.240E+00	-4.484E+00	-4.480E+00
MAXIMUM			-3.530E+00	****	-3.780E+00	-3.860E+00	-4.110E+00	-4.140E+00
+P 99/90			-2.806E+00	****	-3.113E+00	-3.072E+00	-3.208E+00	-3.377E+00
-P 99/90			-4.718E+00	****	-4.867E+00	-5.408E+00	-5.760E+00	-5.583E+00
SIGMA			2.049E-01	****	1.879E-01	2.503E-01	2.734E-01	2.363E-01

LOAD REG. 400UA TO 10MA

(MV)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03		
<hr/>								
S/N								
CONTROL	670		****	-7.00E-02	-4.00E-02	5.00E-02	1.00E-02	1.00E-01
	686		****	-2.90E-01	-3.30E-01	-5.80E-01	-6.10E-01	-3.30E-01
	687		****	-2.40E-01	-4.90E-01	-7.20E-01	-7.10E-01	-4.20E-01
	688		****	-2.10E-01	-5.50E-01	-7.20E-01	-7.90E-01	-5.00E-01
	689		****	-2.20E-01	-6.10E-01	-7.80E-01	-7.10E-01	-5.30E-01
	691		****	-1.80E-01	-4.10E-01	-8.10E-01	-7.70E-01	-5.00E-01
MINIMUM			****	-2.90E-01	-6.10E-01	-8.10E-01	-7.90E-01	-5.30E-01
MEAN			****	-2.28E-01	-4.78E-01	-7.22E-01	-7.18E-01	-4.56E-01
MAXIMUM			****	-1.80E-01	-3.30E-01	-5.80E-01	-6.10E-01	-3.30E-01
+P 99/90			****	-3.73E-02	3.99E-02	-3.09E-01	-3.91E-01	-7.61E-02
-P 99/90			****	-4.19E-01	-9.96E-01	-1.13E+00	-1.05E+00	-8.36E-01
SIGMA			****	4.09E-02	1.11E-01	8.84E-02	7.01E-02	8.14E-02

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

REVERSE DYNAMIC IMPEDANCE

(OHM)

FLUENCE	krad(Si) FLUX	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670		4.00E-01	****	4.00E-01	4.10E-01	3.90E-01	3.80E-01
	686		3.50E-01	****	3.90E-01	3.80E-01	4.00E-01	4.10E-01
	687		4.10E-01	****	4.20E-01	4.50E-01	4.80E-01	4.70E-01
	688		3.80E-01	****	3.90E-01	4.10E-01	4.30E-01	4.40E-01
	689		3.90E-01	****	4.20E-01	4.50E-01	4.60E-01	4.50E-01
	691		4.00E-01	****	4.10E-01	4.40E-01	4.80E-01	4.70E-01
MINIMUM		3.50E-01	****	3.90E-01	3.80E-01	4.00E-01	4.10E-01	3.80E-01
MEAN		3.86E-01	****	4.06E-01	4.26E-01	4.50E-01	4.48E-01	4.22E-01
MAXIMUM		4.10E-01	****	4.20E-01	4.50E-01	4.80E-01	4.70E-01	4.60E-01
+P 99/90		4.93E-01	****	4.77E-01	5.68E-01	6.12E-01	5.64E-01	5.64E-01
-P 99/90		2.79E-01	****	3.35E-01	2.84E-01	2.88E-01	3.32E-01	2.80E-01
SIGMA		2.30E-02	****	1.52E-02	3.05E-02	3.46E-02	2.49E-02	3.03E-02

REVERSE DYNAMIC IMPEDANCE

(OHM)

[DELTA]

FLUENCE	krad(Si) FLUX	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670		****	0.00E+00	1.00E-02	-1.00E-02	-2.00E-02	-2.00E-02
	686		****	4.00E-02	3.00E-02	5.00E-02	6.00E-02	3.00E-02
	687		****	1.00E-02	4.00E-02	7.00E-02	6.00E-02	3.00E-02
	688		****	1.00E-02	3.00E-02	5.00E-02	6.00E-02	3.00E-02
	689		****	3.00E-02	6.00E-02	7.00E-02	6.00E-02	3.00E-02
	691		****	1.00E-02	4.00E-02	8.00E-02	7.00E-02	6.00E-02
MINIMUM		****	1.00E-02	3.00E-02	5.00E-02	6.00E-02	3.00E-02	3.00E-02
MEAN		****	2.00E-02	4.00E-02	6.40E-02	6.20E-02	3.60E-02	3.60E-02
MAXIMUM		****	4.00E-02	6.00E-02	8.00E-02	7.00E-02	6.00E-02	6.00E-02
+P 99/90		****	8.60E-02	9.71E-02	1.27E-01	8.29E-02	9.86E-02	9.86E-02
-P 99/90		****	-4.60E-02	-1.71E-02	1.40E-03	4.11E-02	-2.66E-02	
SIGMA		****	1.41E-02	1.22E-02	1.34E-02	4.47E-03	1.34E-02	

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

ADJUST RANGE HIGH

(MA)

FLUENCE	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670	2.18E+02	****	2.16E+02	2.21E+02	2.20E+02	2.19E+02	2.20E+02
	686	2.16E+02	****	2.17E+02	2.21E+02	2.21E+02	2.18E+02	2.18E+02
	687	2.19E+02	****	2.20E+02	2.19E+02	2.21E+02	2.18E+02	2.20E+02
	688	2.15E+02	****	2.16E+02	2.20E+02	2.15E+02	2.16E+02	2.18E+02
	689	2.16E+02	****	2.20E+02	2.20E+02	2.21E+02	2.19E+02	2.19E+02
	691	2.19E+02	****	2.19E+02	2.21E+02	2.21E+02	2.21E+02	2.20E+02
MINIMUM	2.15E+02	****	2.16E+02	2.19E+02	2.15E+02	2.16E+02	2.18E+02	2.18E+02
MEAN	2.17E+02	****	2.18E+02	2.20E+02	2.20E+02	2.18E+02	2.19E+02	2.19E+02
MAXIMUM	2.19E+02	****	2.20E+02	2.21E+02	2.21E+02	2.21E+02	2.20E+02	2.20E+02
+P 99/90	2.27E+02	****	2.27E+02	2.22E+02	2.32E+02	2.27E+02	2.24E+02	2.24E+02
-P 99/90	2.07E+02	****	2.10E+02	2.18E+02	2.07E+02	2.10E+02	2.15E+02	2.15E+02
SIGMA	2.06E+00	****	1.82E+00	4.55E-01	2.64E+00	1.79E+00	9.52E-01	

ADJUST RANGE HIGH

(MV)

[DELTA]

FLUENCE	krad(Si) rad(Si)/sec	INITIAL	7.00E+00 8.20E-03	1.50E+01 8.20E-03	3.00E+01 8.20E-03	5.00E+01 8.20E-03	24 HOUR BIASED ANNEAL 25C	168 HOUR BIASED ANNEAL 100C
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S/N								
CONTROL	670	****	-2.20E+00	2.60E+00	1.30E+00	1.00E+00	2.10E+00	
	686	****	1.20E+00	4.50E+00	4.70E+00	2.20E+00	2.30E+00	
	687	****	1.20E+00	2.00E-01	1.60E+00	-9.00E-01	4.00E-01	
	688	****	1.20E+00	5.40E+00	0.00E+00	9.00E-01	3.10E+00	
	689	****	3.60E+00	4.30E+00	4.50E+00	3.20E+00	3.40E+00	
	691	****	-1.00E-01	1.20E+00	1.50E+00	1.30E+00	9.00E-01	
MINIMUM	****	-1.00E-01	2.00E-01	0.00E+00	-9.00E-01	4.00E-01		
MEAN	****	1.42E+00	3.12E+00	2.46E+00	1.34E+00	2.02E+00		
MAXIMUM	****	3.60E+00	5.40E+00	4.70E+00	3.20E+00	3.40E+00		
+P 99/90	7.68E+00	1.37E+01	1.20E+01	8.50E+00	8.20E+00			
-P 99/90	-4.84E+00	-7.50E+00	-7.13E+00	-5.82E+00	-4.16E+00			
SIGMA	****	1.34E+00	2.28E+00	2.05E+00	1.53E+00	1.33E+00		

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693

P.O.# 64026L

I C S RADIATION TECHNOLOGIES, INC.

I C S Radiation Test Results
RH1009MW 2.5 REFERENCE (LTC) UNBIASED

ADJUST RANGE LOW

(MV)

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670	-1.52E+02	****	-1.52E+02	-1.53E+02	-1.52E+02	-1.52E+02	-1.52E+02
	686	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02
	687	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.53E+02	-1.52E+02
	688	-1.52E+02	****	-1.52E+02	-1.53E+02	-1.52E+02	-1.52E+02	-1.52E+02
	689	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02
	691	-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.53E+02
MINIMUM		-1.52E+02	****	-1.52E+02	-1.53E+02	-1.52E+02	-1.53E+02	-1.53E+02
MEAN		-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02
MAXIMUM		-1.52E+02	****	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02	-1.52E+02
+P 99/90		-1.51E+02	****	-1.51E+02	-1.52E+02	-1.51E+02	-1.51E+02	-1.51E+02
-P 99/90		-1.53E+02	****	-1.53E+02	-1.53E+02	-1.53E+02	-1.53E+02	-1.53E+02
SIGMA		2.49E-01	****	2.70E-01	1.64E-01	2.17E-01	2.19E-01	2.59E-01

ADJUST RANGE LOW

(MV)

[DELTA]

FLUENCE	krad(Si)	INITIAL	7.00E+00	1.50E+01	3.00E+01	5.00E+01	24 HOUR	168 HOUR
FLUX	rad(Si)/sec		8.20E-03	8.20E-03	8.20E-03	8.20E-03	BIASED ANNEAL 25C	BIASED ANNEAL 100C
<hr/>								
S/N								
CONTROL	670	****	-4.00E-01	-6.00E-01	0.00E+00	-3.00E-01	-4.00E-01	
	686	****	5.00E-01	2.00E-01	4.00E-01	3.00E-01	4.00E-01	
	687	****	0.00E+00	2.00E-01	4.00E-01	-3.00E-01	4.00E-01	
	688	****	0.00E+00	-7.00E-01	-6.00E-01	-3.00E-01	-6.00E-01	
	689	****	5.00E-01	0.00E+00	2.00E-01	1.00E-01	3.00E-01	
	691	****	-2.00E-01	0.00E+00	3.00E-01	1.00E-01	-3.00E-01	
MINIMUM		****	-2.00E-01	-7.00E-01	-6.00E-01	-3.00E-01	-6.00E-01	
MEAN		****	1.60E-01	-6.00E-02	1.40E-01	-2.00E-02	4.00E-02	
MAXIMUM		****	5.00E-01	2.00E-01	4.00E-01	3.00E-01	4.00E-01	
+P 99/90		****	1.66E+00	1.67E+00	2.11E+00	1.23E+00	2.19E+00	
-P 99/90		****	-1.34E+00	-1.79E+00	-1.83E+00	-1.27E+00	-2.11E+00	
SIGMA		****	3.21E-01	3.71E-01	4.22E-01	2.68E-01	4.62E-01	

DEVICE TYPE: RH1009 2.5 REFERENCE (LTC)

RADIATION SOURCE: SHEPHERD LOW DOSE (Co60), 1.25MeV

D/C 0649A || PACKAGE 10 PIN FLAT PACK || LOT# 415009.1
LOG# 1578 || TEST DATE 5/17/07 || RTP# 693
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I C S RADIATION TECHNOLOGIES, INC.