RIR IN:- 78230

RIR OUT:- 78230

PARTS HISTORY LOG

Radiation Testing

PROGRAMME:- XMM

PART TYPE:- 54ACT74FM-RH

RADIATION REPORT:- RD 233

IGG TASK NUMBER:- 1500

SUMMARY OF TEST RESULTS

The only parameters to be significantly affected by irradiation were I_{CCH} and I_{CCL}. All samples except S/N 139 failed the specified limits for both measurements and bias conditions after 10kRad(Si). This sample failed similarly after 15kRad(Si) total dose. For the V_{in}=5V bias S/N 127 became detached from the bias and hence did not receive the full irradiation dose. Some functional test failures were also recorded after 10kRad(Si).

Radiation Report Number:- RD 233

Project:- XMM

Part Type:- 54ACT74FM-RH Date Code:- 9610A

Manufacturer:- AD/U IGG Task No:- 1500

Project Approval of Lot Traveller:-

Signed.......................... Date. 01-09-97

Position. PROJECT T.R. ....

Serial Number Range:-

105	Control	- Unbiased
108, 121, 127, 128 and 132		- Input Voltage 5V
138, 139, 140, 141 and 158		- Input Voltage 0V

I certify that the subject component has been tested in accordance with the following radiation specifications:-

Test Method - ESA/SCC22900 ISSUE- 4 DATE- Jan '95

Irradiation Test Plan - XM-PL-IGG-0035 ISSUE- 1 DATE- Jan '96

Amendment to Plan - N50858

Closed/Approved NCR No:- N N/A

Approved Waiver No:- WAR N/A

Signed. P.A. Russell .... Date. 1/9/97.

Upscreening Engineer

Signed.................. Date. 1/9/97.

Upscreening Manager

RADIATION REPORT NUMBER:- RD 233 DATE:- 27.8.97

PROJECT:- XMM RIR IN:- 78230

PART NUMBER:- 54ACT74FM-RH MANUFACTURER:- AD/U

PROCUREMENT LEVEL:- 5962R8752501SDA DATE CODE:- 9610A

TEST METHOD:- ESA/SCC22900 ISSUE- 4 DATE- Jan '95

TEST PLAN:- XM-PL-IGG-0035 ISSUE- 1 DATE- Jan '96

AMEMDMENT TO PLAN:- N50858

START QUANTITY:- 11

No.	Test (Sample Size)	XM-PL-IGG-0011 Test Method and Conditions		Date in	Qty in	Date out	Qty out	SIGNED Op/QA
1	Serialisation and Selection of Control Sample (100%)	Control Sample= SN 105		8/7/97	11	8/7/97	10 + CONTROL SAMPLE	IGG 16 CT
2	Initial Electrical Measurements (100% read and record)	Table A Testing at IGG		8/7/97	10	8/7/97	10	IGG 16 CT
3	Initial Electrical Measurements (100% read and record)	Table A Testing at RMC		16/7/97	10	16/7/97	10	IGG 16 CT
4	Set-up and apply both bias conditions per N50858	Verify Bias Circuit and conditions (in-situ) for all 10 test samples		16/7/97	10	16/7/97	10	IGG 16 CT
5	Irradiation 1 (10 samples)	Dose= 10kRAD(Si) Rate= 10RAD(Si)/s Time= 1000s	Vin =0V	16/7/97	5	16/7/97	5	IGG 16 CT
			Vin =5V	16/7/97	5	16/7/97	5	IGG 16 CT

Report No: RD 233	Part Type: 54ACT74FM-RH	Date: 27.8.97

No.	Test (Sample Size)	XM-PL-IGG-0035 Test Method and Conditions		Date in	Qty in	Date out	Qty out	SIGNED Op/QA
6	Interim 1 Electrical Measurements (100% read and record)	Table A. Bias to be maintained until testing is performed Tdwell=10min maximum	Vin =0V	16/7/97	5	16/7/97	1	IGG 16 CT
			Vin =5V	16/7/97	5	16/7/97	0	IGG 16 CT
7	Irradiation 2 (10 samples)	Dose= 5kRAD(Si) Rate= 10RAD(Si)/s Time= 500s	Vin =0V	16/7/97	5	16/7/97	5	IGG 16 CT
			Vin =5V	16/7/97	5	16/7/97	5	IGG 16 CT
8	Interim 2 Electrical Measurements (100% read and record)	As Test 6	Vin =0V	16/7/97	5	16/7/97	0	IGG OK CT
			Vin =5V	16/7/97	5	16/7/97	0	OK
9	Irradiation 3 (10 samples)	As Test 7	Vin =0V	16/7/97	5	16/7/97	5	OK
			Vin =5V	16/7/97	5	16/7/97	5	OK
10	Interim 3 Electrical Measurements (100% read and record)	As Test 6	Vin =0V	16/7/97	5	16/7/97	0	IGG 16 CT
			Vin =5V	16/7/97	5	16/7/97	0	IGG 16 OK CT
11	Irradiation 4 (10 samples)	As Test 7	Vin =0V	16/7/97	5	16/7/97	5	IGG OK
			Vin =5V	16/7/97	5	16/7/97	5	OK
12	Final Electrical Measurements (100% read and record)	As Test 6 At RMC	Vin =0V	16/7/97	5	16/7/97	0	OK
			Vin =5V	16/7/97	5	16/7/97	0	OK

Report No: RD 233	Part Type: 54ACT74FM-RH	Date: 27.8.97

No.	Test (Sample Size)	XM-PL-IGG-0035 Test Method and Conditions	Date in	Qty in	Date out	Qty out	SIGNED Op/QA
13	Annealing Test (10 samples)	Bias for 24hrs min at +25°C (record exact time)	16/7/97	10	17/7/97	10	IGG 16 CT
14	Post Annealing Electrical Measurements (100% read and record)	Table A	17/7/97	10	17/7/97	0	IGG 16 CT
15	Accelerated Aging under bias (10 samples)	168 hours bias at +100±5°C	17/7/97	10	31/7/97	10	IGG 16 CT
16	Post Aging Electrical Measurements (100% read and record)	Table A	31/7/97	10	31/7/97	3	IGG 16 CT
17	Test Report Collation	[redacted]	[redacted]	[redacted]	1/9/97	[redacted]	IGG 2 CT
18	Test Report Approval	[redacted]	[redacted]	[redacted]	1/9/97	[redacted]	IGG 2 CT
19	NOTES:-						

Report No: RD 233 Part Type: 54ACT74FM-RH Date: 27.8.97

FAILURE LIST AND APPLICABLE NCR

Test No.	Serial Number(s)	Failed Parameter and Failure Mode	Applicable NCR
6.	138, 140, 141, 158, 108, 121, 128, 129	FAILED I_{CCH} AND I_{CCL}.	—
	138, 140, 158, 108, 121, 127, 128, 129	FAILED FUNCTIONAL TEST.	
8.	139	FAILED I_{CCH} AND I_{CCL}.	—
10.	127	FAILED I_{CCH} AND I_{CCL}. NOTE: S/No 127 HAD BECOME DETACHED FROM SOCKET DURING 10KRAD EXPOSURE AND HENCE DID NOT RECEIVE FULL DOSE.	—
10	139	FAILED FUNCTIONAL TEST.	—

Report No: RD 233 Part Type: 54ACT74FM-RH Date: 27.8.97

TEST EQUIPMENT LIST

Item, Type Number and Serial Number	CT Inventory Number	Function	Calibration Due
Item: Radiation Source Type No: Cobalt 60 Serial No: N/A	RMC's Facility	Irradiation	14 / 2 /1998
Item: SZ Type No: M3000 Serial No: 884769	CT339	ATE	27 / 9 /1997
Item: THURLBY Type No: PL320 Serial No: 26P0621	CT287	PSU	24 / 10 /1997
Item: TEKTRONIX Type No: 370 Serial No: 300553	CT217	CURVE TRACER	12 / 2 /1998
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199
Item: Type No: Serial No:			/ /199

RADIATION TEST SUMMARY

PART TYPE : 54ACT74

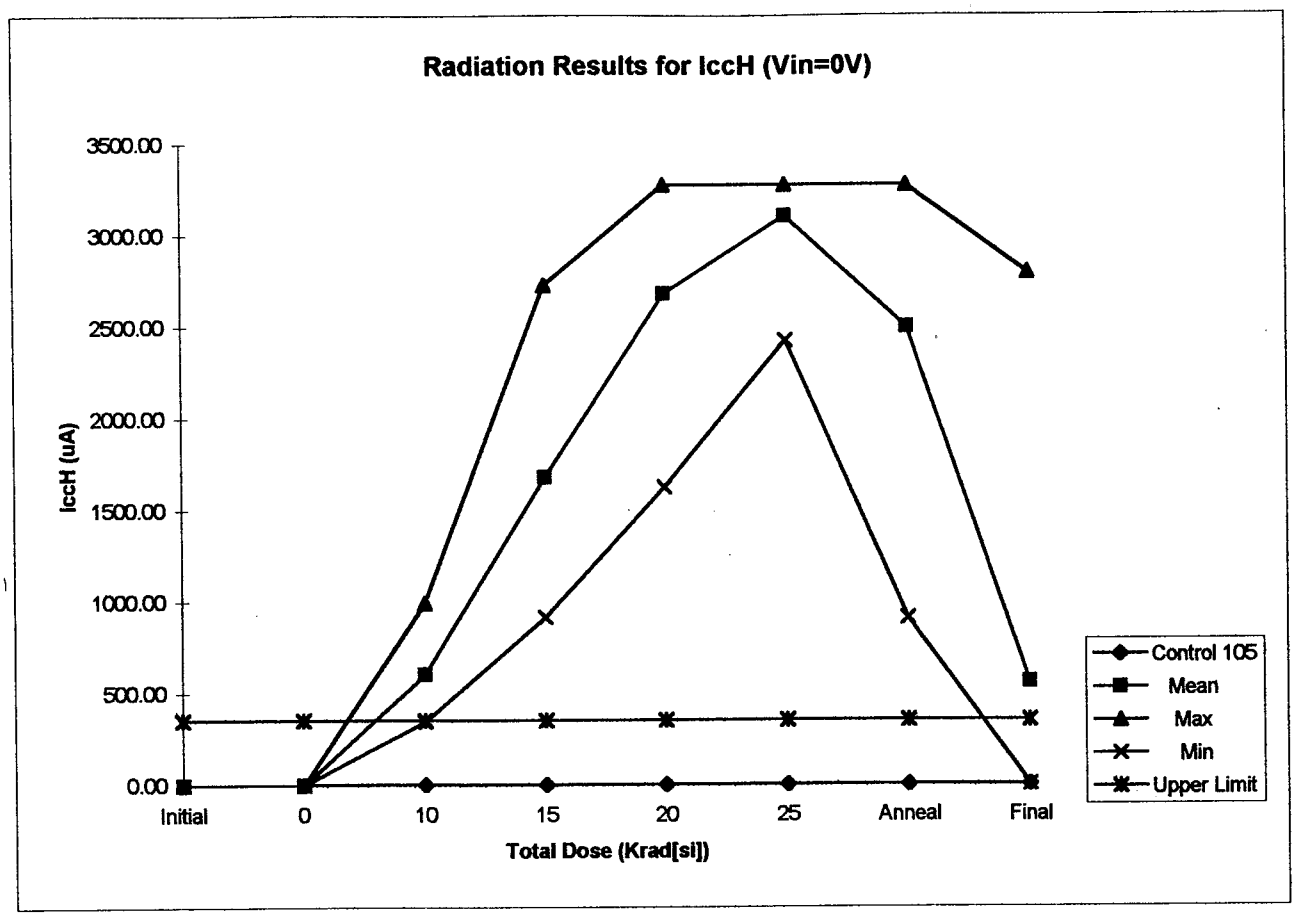
DESCRIPTION : DUAL D-TYPE FLIP FLOP

REPORT NO. : RD 233

PARAMETERS PLOTTED :

IccH
IccL

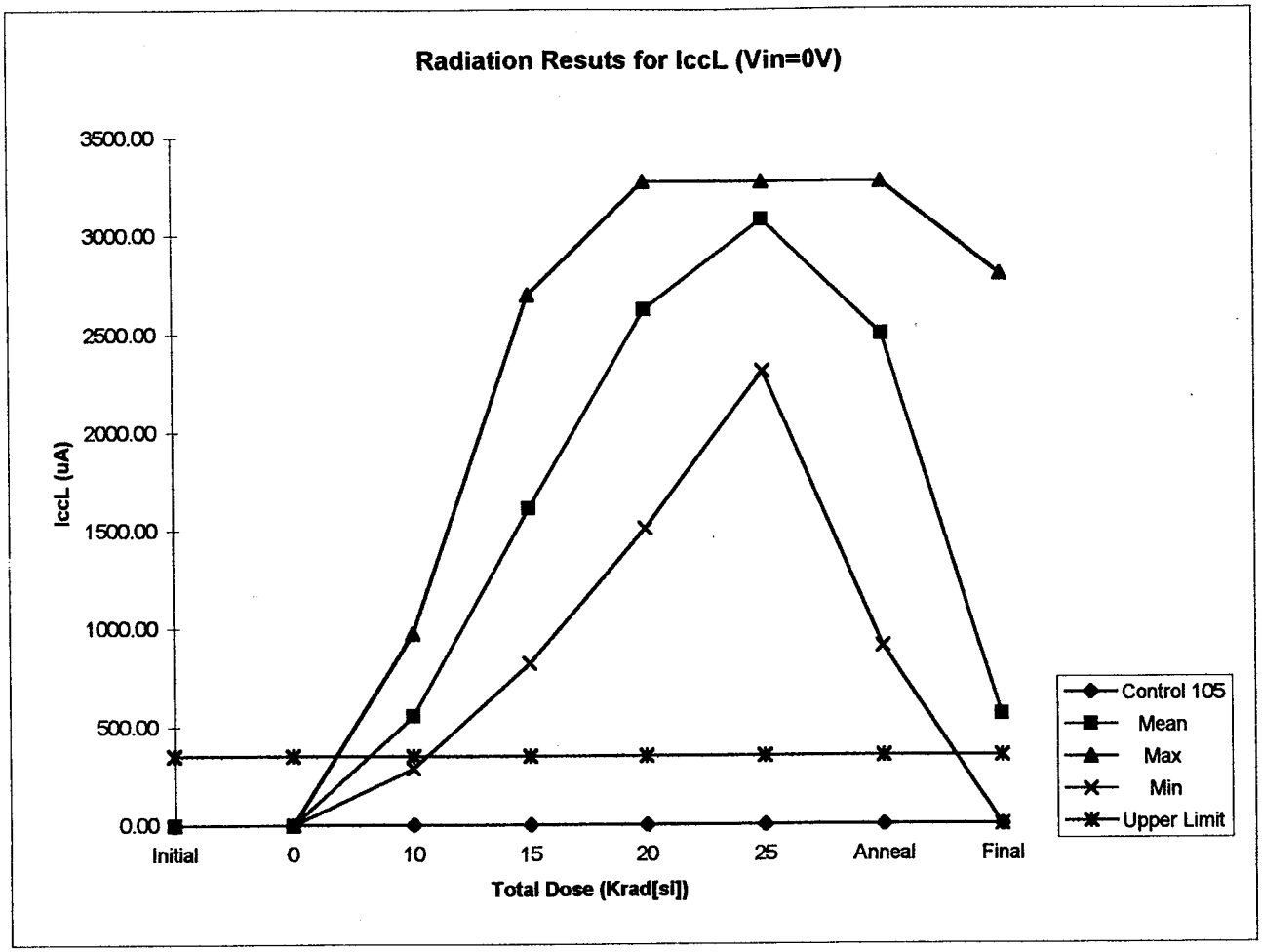
NOTE : The results for the remaining parameters showed no significant change and hence plots were not considered necessary.



Dose (kRad)	Control 105	Mean	Max	Min	Upper Limit	Lower Limit	Std.Dev.
	(uA)	(uA)	(uA)	(uA)	(uA)		
Initial	0.07	0.18	0.26	0.09	350	-	0.1
0	0.11	0.28	0.48	0.15	350	-	0.1
10	0.06	605.32	994.27	348.27	350	-	244.4
15	0.07	1680.31	2727.66	917.99	350	-	692.2
20	0.05	2681.31	3273.15	1625.52	350	-	713.8
25	0.11	3103.40	3272.97	2425.11	350	-	379.2
Anneal	0.31	2496.93	3273.45	910.39	350	-	1021.0
Final	0.27	559.48	2794.63	0.03	350	-	1249.5

Lot size for statistics : 5 devices

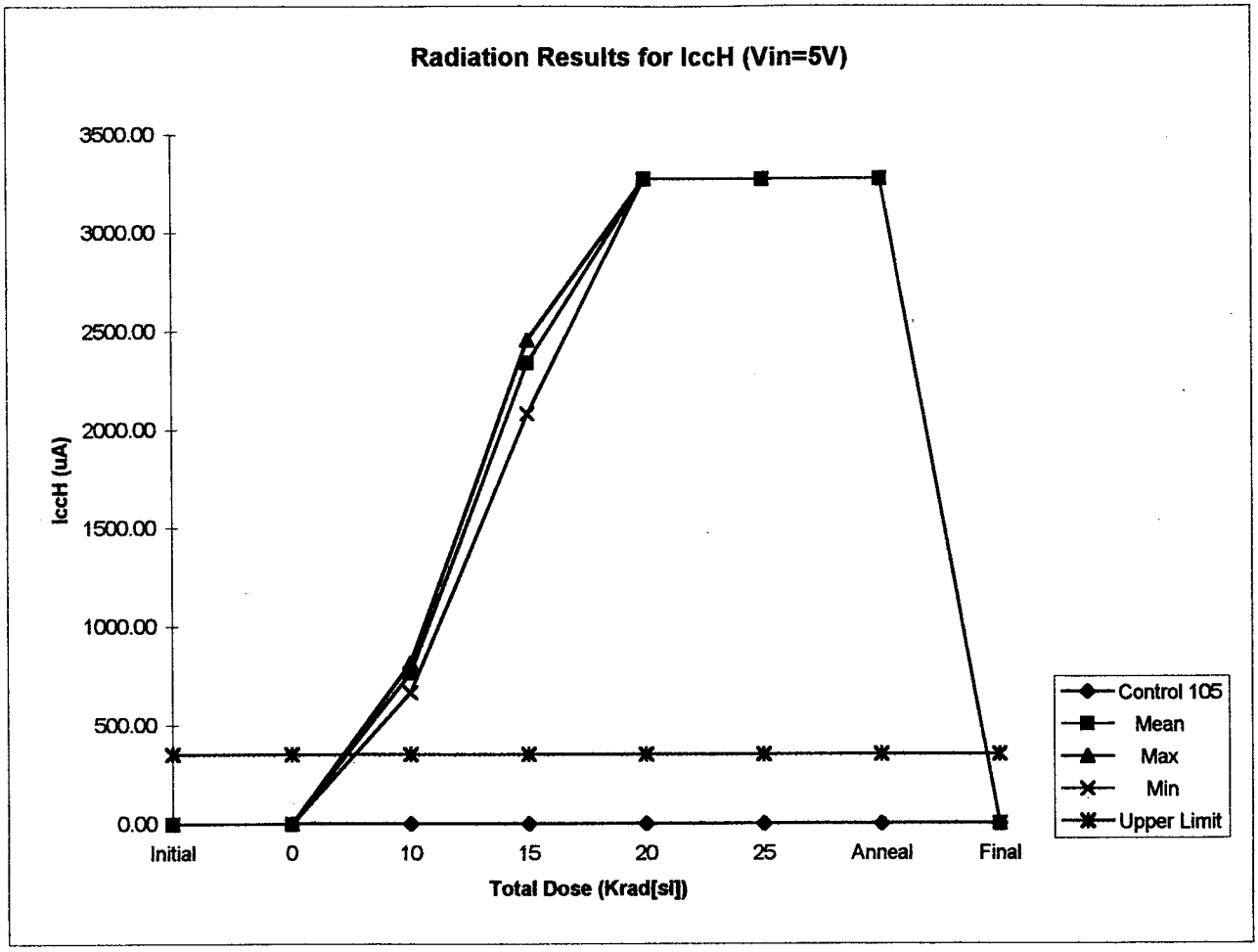
RD 233 Date code 9610A



Dose (kRad)	Control 105	Mean	Max	Min	Upper Limit	Lower Limit	Std.Dev.
	(uA)	(uA)	(uA)	(uA)	(uA)		
Initial	0.11	0.37	0.56	0.16	350	-	0.2
0	0.02	0.36	0.55	0.21	350	-	0.1
10	0.33	557.34	976.81	289.14	350	-	262.6
15	0.32	1613.60	2697.31	825.81	350	-	717.3
20	0.04	2622.03	3273.24	1510.74	350	-	762.5
25	0.23	3080.36	3273.17	2309.13	350	-	431.1
Anneal	0.26	2495.89	3273.24	910.74	350	-	1020.6
Final	0.18	560.59	2799.72	0.11	350	-	1251.7

Lot size for statistics : 5 devices

RD 233 Date code 9610A

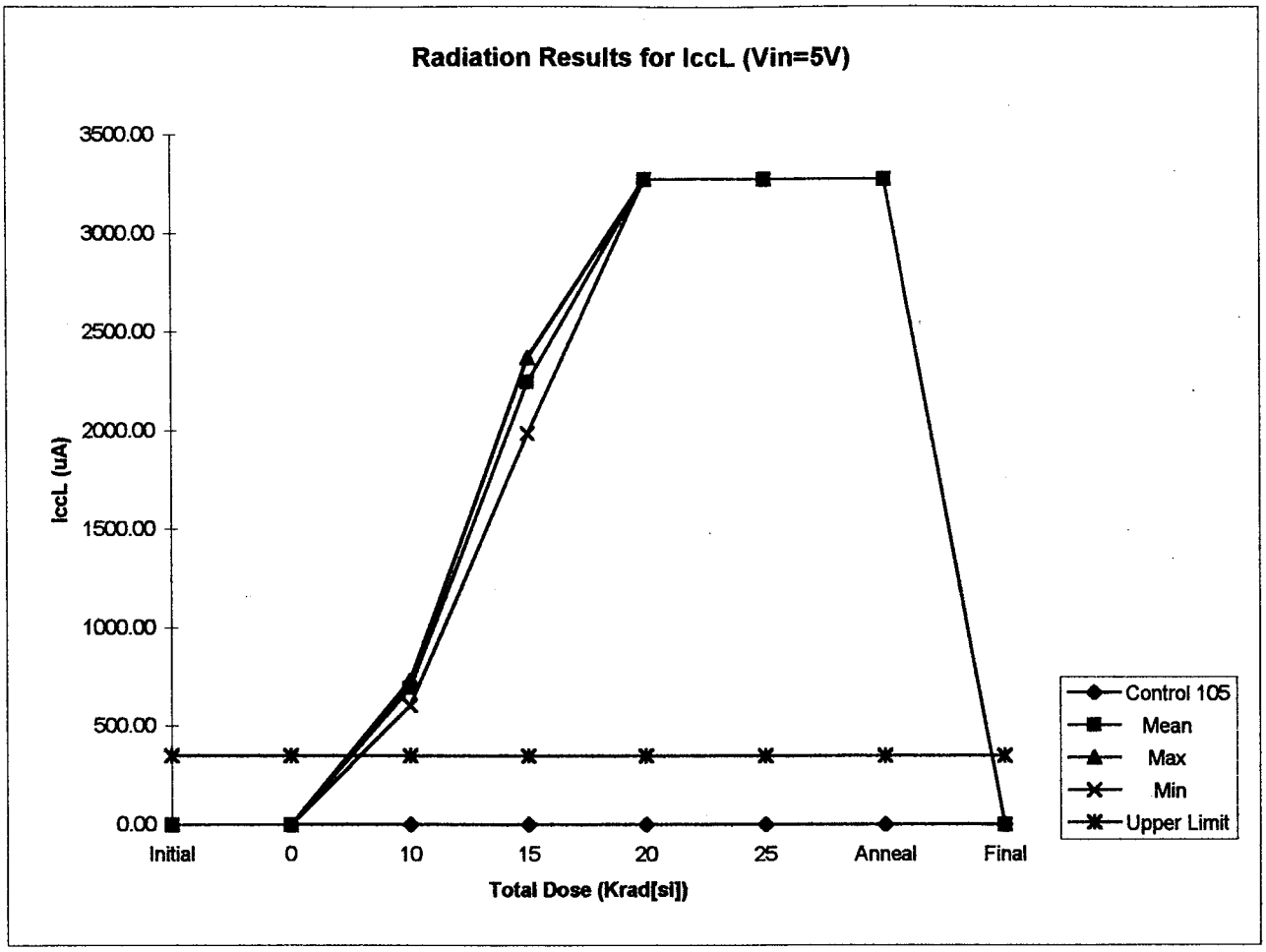


Dose (kRad)	Control 105	Mean	Max	Min	Upper Limit	Lower Limit	Std.Dev.
	(uA)	(uA)	(uA)	(uA)	(uA)		
Initial	0.07	0.13	0.27	0.03	350	-	0.1
0	0.11	0.11	0.18	0.02	350	-	0.1
10	0.35	763.81	815.11	668.05	350	-	66.3
15	0.16	2336.10	2455.69	2080.59	350	-	174.1
20	0.25	3273.45	3273.45	3273.45	350	-	0.0
25	0.22	3273.42	3273.42	3273.42	350	-	0.0
Anneal	0.31	3273.45	3273.45	3273.45	350	-	0.0
Final	0.22	0.29	0.45	0.02	350	-	0.2

Note: S/No 127 became detached from socket during 10Krad exposure and hence has not been included in the statistical analysis.

Lot size for statistics : 5 devices

RD 233 Date code 9610A



Dose (kRad)	Control 105	Mean	Max	Min	Upper Limit	Lower Limit	Std.Dev.
	(uA)	(uA)	(uA)	(uA)	(uA)		
Initial	0.11	0.07	0.09	0.06	350	-	0.0
0	0.02	0.19	0.35	0.01	350	-	0.1
10	0.25	695.60	733.88	604.78	350	-	61.4
15	0.18	2246.49	2368.82	1987.45	350	-	178.0
20	0.27	3273.63	3273.63	3273.63	350	-	0.0
25	0.06	3273.54	3273.54	3273.54	350	-	0.0
Anneal	0.26	3273.24	3273.24	3273.24	350	-	0.0
Final	0.11	0.07	0.12	0.01	350	-	0.1

Note: S/No 127 became detached from socket during 10Krad exposure and hence has not been included in the statistical analysis.

Lot size for statistics : 5 devices

RD 233 Date code 9610A

XM-NC-IGG-0358		NON-CONFORMANCE REPORT NO: N50858 AC		SHEET 1 OF	
		TASK NO: 1500		INITIATOR	M.WAKELIN
				DATE:	05-03-97
MANUFACTURER:		NATIONAL SEMICONDUCTOR		RIR:	-
PART TYPE		54 ACT 74 SDA		VALUE	-
DETAILED SPEC/OPTION		SMD 5962R8752501SDA		ISSUE:	A
P.O. NO:	CT 10562/2	SAR:	-	WAR:	-
LOT NO:	-	DATE CODE:	-	SERIAL NO: (or Range)	LOT.

N.C. DETECTED AT:	MANUFACTURER	MINOR	
DURING:	RADIATION TESTING.	MAJOR	

DETAILS OF NON-CONFORMANCE: (INCLUDING PRELIMINARY DISPOSITION)

NATIONAL SEMICONDUCTOR REPORT THE FOLLOWING ~~Fot~~ FAILURES AFTER EXPOSURE TO AN ACCUMULATED TOTAL DOSE OF 30 krad (si).

ICCH & ICCL (SEE ATTACHED NATIONAL RADIATION REPORT)

ALL DEVICES WERE WITHIN SPECIFICATION LIMITS AFTER EXPOSURE TO AN ACCUMULATED TOTAL DOSE OF 10 krad (SI). THE ICCH & ICCL FAILURES OCCURED BETWEEN THE 10 krad to 30 krad IRRADIATION STEP.

DATA SUPPLIED TO USERS (EPIC & LABEN) FOR REVIEW AND COMMENT OF THE ICC FAILURES. REF D74061

M. Wakelin 5-03-97

FINAL DISPOSITION

MRB BOARD	

SIGNED (CHAIRMAN MRB)		DATE:	
FINAL ACTION:			
REFERENCE:			

THE AGREED FINAL DISPOSITION HAS BEEN ACTIONED AND THE NCR CLOSED.

SIGNED (PROJECT MANAGER) DATE:

IGG RD233 RIR 78230 XMM	IRRADIATION TEST PLAN NO. XM-PL-IGG-0035 [1]	Issue No. 1 Rev. - Date: JANUARY 1996 Page 1/6 [2]
Component No. 5962R8752501SDA [3]	Component Designation: Dual D-Type Positive Edge Triggered Flip Flop Type 54ACT74FM-RH (Screened) [4]	Irradiation Spec. No. N/A Iss. Rev. [5]

Specifications	Acceptance	Electrical Measure.	Project/Programme
Generic MIL-PRF-38535 Iss. C Detail SMD-5962-87525 Iss. A [6]	Evaluation [ ] Element [ ] Diffusion [ ] Lot [X] [7]	In-situ [ ] Remote [X] [8]	XMM [9]

Manufacturer: Name: Analog Devices Address: 1500 Space Park Drive P.O. Box 58020 Santa Clara CA 95052-8020 [10]	Test Facility: Name: LSI Logic Corp. Address: 48660 Kato Road MS K-304 Freemont CA 94538 [11]	Originator: IGG CT Name: J. Guymer Telephone: 01329 829311 [12]

Radiation Source	Sample Size: 10	Exposure	Annealing Test	Radiation Level:
COBALT 60 [13]	Control Devices: 1 [14]	Single [ ] Multiple [X] [15]	Yes [X] No [ ] [16]	10KRad (Si) 75KRad(Si) 20KRad (Si) 100KRad(Si) 30KRad(Si) 50KRad(Si) [17]

Single Exposure
Dose [Krad(Si)]
Dose Rate [rad(Si)/s]
NOT APPLICABLE
Exposure Time [18]

Multiple Exposure + Irradiation Steps	1	2	3	4	5	6
Dose [Krad(Si)]	10	5	5	5	25	25
Dose Rate [rad(Si)/s]	10	10	10	10	10	10
Exposure Time (secs)	1000	500	500	500	2500	2500

[19]

Bias Requirements: During Exposure (for in-situ elec. measure.): N/A
During and after Exposure (for remote elec. measure.): Yes

Bias Conditions:
Test Circuit: The Electrical Bias circuit is given in Figure 1 herein
Voltages: See Figure 1
Tolerance: See Figure 1

Shielding: Shielding is required to minimize dose enhancement effects caused by low energy, scattered radiation. The test specimens shall be enclosed in a Pb/Al container of Pb 1.5mm minimum, surrounding an inner shield of 0.7 to 1.0mm Al.

Irradiation Test Sequence [21]

Test Step	Description	Requirements
1	Serialization Goods Receiving Inspection	If parts are not serialized, serialize them (permanently) sequentially from1 to 11 inclusive.
2	Initial Electrical Measurements at Room Temperature only	Table I of SMD-5962-87525 - 11 Parts.
3	Set-up of Test	Verify Figure 1 Bias Circuit and Voltages (In-situ) for all 10 test samples.
4	Irradiation Exposure	Verify radiation dose rate and position in the chamber to achieve required dose. Verify and witness duration of exposure to achieve required dose.

TABLE A - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE - T_{amb} = +25 ± 5°C BEFORE, AT INTERMEDIATE POINTS, AND ON COMPLETION OF IRRADIATION

NO.	CHARACTERISTICS	SYMBOL	TEST METHOD MIL-STD-883	TEST CONDITIONS (PINS UNDER TEST)	LIMITS		UNIT
					MIN	MAX	
1	Functional Test 1	-	-	Verify Truth Table with Load. V_{IL} = 0.8V, V_{IH} = 2.0V I_{OL} = 1.0mA, I_{OH} = -1.0mA V_{DD} = 4.5V, V_{SS} = 0V $t_r = t_f < 50ns$ f = 10kHz (min.) Note 1	-	-	-
2	Functional Test 2	-	-	Verify Truth Table with Load. V_{IL} = 0.8V, V_{IH} = 2.0V I_{OL} = 1.0mA, I_{OH} = -1.0mA V_{DD} = 5.5V, V_{SS} = 0V $t_r = t_f < 50ns$ f = 10kHz (min.) Note 1	-	-	-
3	Quiescent Supply Current Output High	I_{CCH}	3005	V_{IN} ($\overline{CD}$) = 5.5V V_{IN} ($\overline{SD}$) = 0V V_{IN} (Remaining Inputs) = 0V V_{DD} = 5.5V, V_{SS} = 0V All Outputs Open (Pin 14)	-	0.35	mA
4	Quiescent Supply Current Output Low	I_{CCL}	3005	V_{IN} ($\overline{CD}$) = 0V V_{IN} ($\overline{SD}$) = 5.5V V_{IN} (Remaining Inputs) = 0V V_{DD} = 5.5V, V_{SS} = 0V All Outputs Open (Pin 14)	-	0.35	mA
5 to 12	Input Current Low Level	I_{IL}	3009	V_{IN} (Under Test) = 0V V_{IN} (Remaining Inputs) = 5.5V V_{DD} = 5.5V, V_{SS} = 0V (Pins 1-2-3-4-10-11-12-13)	-	-100	nA
13 to 20	Input Current High Level	I_{IH}	3010	V_{IN} (Under Test) = 5.5V V_{IN} (Remaining Inputs) = 0V V_{DD} = 5.5V, V_{SS} = 0V (Pins 1-2-3-4-10-11-12-13)	-	100	nA

NOTES: See Page 5

TABLE A - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE - T_{amb} = +25 ± 5°C BEFORE, AT INTERMEDIATE POINTS, AND ON COMPLETION OF IRRADIATION

NO.	CHARACTERISTICS	SYMBOL	TEST METHOD MIL-STD-883	TEST CONDITIONS (PINS UNDER TEST)	LIMITS		UNIT
					MIN	MAX	
21 to 24	Output Voltage Low Level 1	V_{OL1}	3007	V_{IL} = 0.8V, V_{IH} = 2.0V I_{OL} = 50µA V_{DD} = 5.5V, V_{SS} = 0V (Pins 5-6-8-9)	-	0.1	V
25 to 28	Output Voltage Low Level 2	V_{OL2}	3007	V_{IL} = 0.8V, V_{IH} = 2.0V I_{OL} = 24mA V_{DD} = 4.5V, V_{SS} = 0V (Pins 5-6-8-9)	-	0.4	V
29 to 32	Output Voltage Low Level 3	V_{OL3}	3007	V_{IL} = 0.8V, V_{IH} = 2.0V I_{OL} = 50mA V_{DD} = 5.5V, V_{SS} = 0V Note 2 (Pins 5-6-8-9)	-	1.65	V
33 to 36	Output Voltage High Level 1	V_{OH1}	3006	V_{IL} = 0.8V, V_{IH} = 2.0V I_{OH} = -50µA V_{DD} = 5.5V, V_{SS} = 0V (Pins 5-6-8-9)	5.4	-	V
37 to 40	Output Voltage High Level 2	V_{OH2}	3006	V_{IL} = 0.8V, V_{IH} = 2.0V I_{OH} = -24mA V_{DD} = 4.5V, V_{SS} = 0V (Pins 5-6-8-9)	3.7	-	V
41 to 44	Output Voltage High Level 3	V_{OH3}	3006	V_{IL} = 0.8V, V_{IH} = 2.0V I_{OH} = -50mA V_{DD} = 5.5V, V_{SS} = 0V Note 2 (Pins 5-6-8-9)	3.85	-	V
45 to 52	Input Clamp Voltage (to V_{SS})	V_{IC1}	3022	I_{IN} (Under Test) = -1.0mA V_{DD} = Open, V_{SS} = 0V All Other Pins Open (Pins 1-2-3-4-10-11-12-13)	-0.4	-1.5	V

NOTES: See Page 5

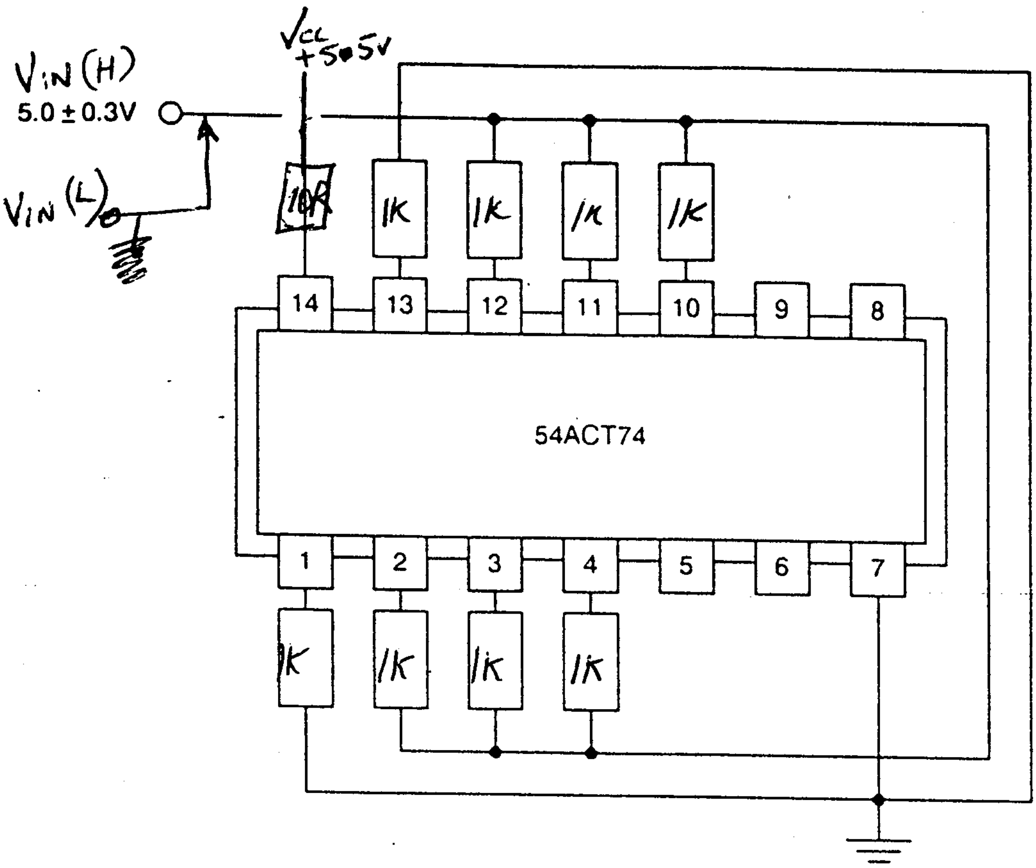
TABLE A - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE - T_{amb} = +25 ±5°C BEFORE, AT INTERMEDIATE POINTS, AND ON COMPLETION OF IRRADIATION

NO.	CHARACTERISTICS	SYMBOL	TEST METHOD MIL-STD-883	TEST CONDITIONS (PINS UNDER TEST)	LIMITS		UNIT
					MIN	MAX	
53 to 60	Input Clamp Voltage (to V_{DD})	V_{IC2}	3022	I_{IN} (Under Test) = 1.0mA V_{DD} = 0V, V_{SS} = Open All Other Pins Open (Pins 1-2-3-4-10-11-12-13)	0.4	1.5	V

NOTES

1. Maximum time to output comparator strobe 30µs.
2. No more than one output shall be measured at a time and the duration of the test shall not exceed 2.0ms.

FIGURE 1 - ELECTRICAL CIRCUIT FOR IRRADIATION



NOTES

par[illegible] [illegible]sis ar[illegible] for the [illegible] carrier package.

Input Protection Resistor = 1.0kΩ.

1.1

E Statistics 03 Vers. 2.15 for TA10
_INIT_EMS_@_IGG/1 / 1.0 IR 21JUN97 14PIN TTL

: RD233_54ACT74_INIT_EMS_@_IGG/1 from: 08.07.97 / 13:30:06
: PAUL RUSSELL
: 54ACT74
: RD233
er : D/C 9610A
: NSC
: CONTROL 105;108,121,127,128,132(Vin=5V);138-141,158(Vin=0V)
: INITIAL EMS @ IGG PROG1
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 1 1.0 IR 21JUN97 14PIN TTL

eps

ontinuity test	-2.00	...	0.01	V
IccH	0.01	...	350.00	uA
Functional Test 1	0	...	0	
. Iil PIN 1	-100.0	...	100.0	nA
Iil PIN 2	-100.0	...	100.0	nA
. Iil PIN 3	-100.0	...	100.0	nA
. Iil PIN 4	-100.0	...	100.0	nA
8. Iil PIN 10	-100.0	...	100.0	nA
9. Iil PIN 11	-100.0	...	100.0	nA
10. Iil PIN 12	-100.0	...	100.0	nA
11. Iil PIN 13	-100.0	...	100.0	nA
12. Iih PIN 1	-100.0	...	100.0	nA
13. Iih PIN 2	-100.0	...	100.0	nA
14. Iih PIN 3	-100.0	...	100.0	nA
15. Iih PIN 4	-100.00	...	100.00	uA
16. Iih PIN 10	-100.0	...	100.0	nA
17. Iih PIN 11	-100.0	...	100.0	nA
18. Iih PIN 12	-100.0	...	100.0	nA
19. Iih PIN 13	-100.0	...	100.0	nA
20. Vol1 PIN 5	0.1	...	100.0	mV
21. Vol1 PIN 6	0.1	...	100.0	mV
22. Vol1 PIN 8	0.1	...	100.0	mV
23. Vol1 PIN 9	0.1	...	100.0	mV
24. Vol2 PIN 5	0.1	...	400.0	mV
25. Vol2 PIN 6	0.1	...	400.0	mV
26. Vol2 PIN 8	0.1	...	400.0	mV
27. Vol2 PIN 9	0.1	...	400.0	mV

	105	108	121	127	128	132
1.1 [V]	-0.65	-0.65	-0.65	-0.65	-0.65	-0.64
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.07	0.03	0.07	0.04	0.27	0.13
2.2 [uA]	0.07	0.03	0.07	0.04	0.27	0.13
3.1 [ ]	0	0	0	0	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.0
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.0
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.1	-0.1	-0.0	-0.0	-0.0	0.0
8.2 [nA]	-0.1	-0.1	-0.0	-0.0	-0.0	0.0
9.1 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.1	0.1	0.1	0.0	0.0	0.0
12.2 [nA]	0.1	0.1	0.1	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	0.00	0.00	0.00	0.01	-0.00
15.2 [uA]	0.00	0.00	0.00	0.00	0.01	-0.00
16.1 [nA]	0.1	0.1	0.1	0.1	0.1	0.0
16.2 [nA]	0.1	0.1	0.1	0.1	0.1	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.3	1.1	1.1	1.1	1.2	1.1
20.2 [mV]	1.3	1.1	1.1	1.1	1.2	1.1
21.1 [mV]	1.2	1.0	1.0	1.0	1.1	1.0
21.2 [mV]	1.2	1.0	1.0	1.0	1.1	1.0
22.1 [mV]	1.2	1.0	1.0	1.0	1.1	1.0
22.2 [mV]	1.2	1.0	1.0	1.0	1.1	1.0
23.1 [mV]	1.9	1.5	1.5	1.5	1.6	1.4
23.2 [mV]	1.9	1.5	1.5	1.5	1.6	1.4
24.1 [mV]	215.7	204.9	211.7	209.9	211.6	218.2
24.2 [mV]	215.7	204.9	211.7	209.9	211.6	218.2
25.1 [mV]	209.7	199.2	205.7	203.7	204.1	214.4
25.2 [mV]	209.7	199.2	205.7	203.7	204.1	214.4
26.1 [mV]	212.1	200.7	205.3	205.4	204.6	214.1
26.2 [mV]	212.1	200.7	205.3	205.4	204.6	214.1
27.1 [mV]	216.5	206.4	211.6	209.9	210.1	220.8
27.2 [mV]	216.5	206.4	211.6	209.9	210.1	220.8

	138	139	140	141	158

1.1 [V]	-0.64	-0.65	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.26	0.23	0.09	0.19	0.11
2.2 [uA]	0.26	0.23	0.09	0.19	0.11
3.1 [ ]	0	0	0	0	0
3.2 [ ]	0	0	0	0	0
4.1 [nA]	-0.0	-0.0	-0.1	-0.0	-0.1
4.2 [nA]	-0.0	-0.0	-0.1	-0.0	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1
8.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1
9.1 [nA]	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.1	0.1
12.2 [nA]	0.0	0.0	0.0	0.1	0.1
13.1 [nA]	0.0	0.0	0.0	0.0	0.1
13.2 [nA]	0.0	0.0	0.0	0.0	0.1
14.1 [nA]	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	-0.00	-0.00	0.00	0.00
15.2 [uA]	0.00	-0.00	-0.00	0.00	0.00
16.1 [nA]	0.1	0.1	0.1	0.1	0.1
16.2 [nA]	0.1	0.1	0.1	0.1	0.1
17.1 [nA]	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	1.1	1.1	1.2	1.1
20.2 [mV]	1.1	1.1	1.1	1.2	1.1
21.1 [mV]	1.0	1.0	1.0	1.1	1.0
21.2 [mV]	1.0	1.0	1.0	1.1	1.0
22.1 [mV]	1.0	1.0	1.0	1.1	1.0
22.2 [mV]	1.0	1.0	1.0	1.1	1.0
23.1 [mV]	1.5	1.4	1.5	1.5	1.4
23.2 [mV]	1.5	1.4	1.5	1.5	1.4
24.1 [mV]	210.0	210.5	213.7	215.5	210.5
24.2 [mV]	210.0	210.5	213.7	215.5	210.5
25.1 [mV]	206.5	207.5	206.9	209.7	205.4
25.2 [mV]	206.5	207.5	206.9	209.7	205.4
26.1 [mV]	205.4	205.1	207.5	210.2	206.2
26.2 [mV]	205.4	205.1	207.5	210.2	206.2
27.1 [mV]	211.3	209.9	211.9	215.6	210.8
27.2 [mV]	211.3	209.9	211.9	215.6	210.8

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_INIT_EMS_@_IGG/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_INIT_EMS_@_IGG/2 from: 08.07.97 / 13:44:08
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105;108,121,127,128,132(Vin=5V);138-141,158(Vin=0V)
: INIT EMS @ IGG PROG2
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 2 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccL	0.01	...	350.00 uA
3.	Functional Test 2	0	...	0
4.	Voh1 PIN 5	5.40	...	5.50 V
5.	Voh1 PIN 6	5.40	...	5.50 V
6.	Voh1 PIN 8	5.40	...	5.50 V
7.	Voh1 PIN 9	5.40	...	5.50 V
8.	Voh2 PIN 5	3.70	...	4.50 V
9.	Voh2 PIN 6	3.70	...	4.50 V
10.	Voh2 PIN 8	3.70	...	4.50 V
11.	Voh2 PIN 9	3.70	...	4.50 V
12.	Voh3 PIN 5	3.85	...	5.50 V
13.	Voh3 PIN 6	3.85	...	5.50 V
14.	Voh3 PIN 8	3.85	...	5.50 V
15.	Voh3 PIN 9	3.85	...	5.50 V
16.	Vol3 PIN 5	0.01	...	1.65 V
17.	Vol3 PIN 6	0.01	...	1.65 V
18.	Vol3 PIN 8	0.01	...	1.65 V
19.	Vol3 PIN 9	0.01	...	1.65 V

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.65	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.11	0.06	0.07	0.03	0.06	0.09
2.2 [uA]	0.11	0.06	0.07	0.03	0.06	0.09
3.1 [ ]	0	0	0	0	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.44
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.44
6.1 [V]	5.46	5.46	5.46	5.46	5.45	5.46
6.2 [V]	5.46	5.46	5.46	5.46	5.45	5.46
7.1 [V]	5.49	5.50	5.49	5.48	5.49	5.49
7.2 [V]	5.49	5.50	5.49	5.48	5.49	5.49
8.1 [V]	4.14	4.16	4.14	4.15	4.15	4.14
8.2 [V]	4.14	4.16	4.14	4.15	4.15	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.16	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.16	4.15
10.1 [V]	4.15	4.16	4.15	4.16	4.15	4.15
10.2 [V]	4.15	4.16	4.15	4.16	4.15	4.15
11.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
12.1 [V]	4.84	4.86	4.84	4.85	4.85	4.84
12.2 [V]	4.84	4.86	4.84	4.85	4.85	4.84
13.1 [V]	4.77	4.82	4.78	4.80	4.79	4.77
13.2 [V]	4.77	4.82	4.78	4.80	4.79	4.77
14.1 [V]	4.78	4.81	4.80	4.80	4.80	4.79
14.2 [V]	4.78	4.81	4.80	4.80	4.80	4.79
15.1 [V]	4.80	4.84	4.80	4.80	4.80	4.80
15.2 [V]	4.80	4.84	4.80	4.80	4.80	4.80
16.1 [V]	0.40	0.39	0.40	0.40	0.40	0.41
16.2 [V]	0.40	0.39	0.40	0.40	0.40	0.41
17.1 [V]	0.39	0.38	0.39	0.38	0.38	0.40
17.2 [V]	0.39	0.38	0.39	0.38	0.38	0.40
18.1 [V]	0.39	0.38	0.38	0.38	0.38	0.40
18.2 [V]	0.39	0.38	0.38	0.38	0.38	0.40
19.1 [V]	0.40	0.39	0.40	0.39	0.39	0.41
19.2 [V]	0.40	0.39	0.40	0.39	0.39	0.41

	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.16	0.19	0.43	0.49	0.56
2.2 [uA]	0.16	0.19	0.43	0.49	0.56
3.1 [ ]	0	0	0	0	0
3.2 [ ]	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.45	5.46	5.46	5.46	5.46
6.2 [V]	5.45	5.46	5.46	5.46	5.46
7.1 [V]	5.49	5.48	5.50	5.49	5.49
7.2 [V]	5.49	5.48	5.50	5.49	5.49
8.1 [V]	4.15	4.14	4.15	4.13	4.15
8.2 [V]	4.15	4.14	4.15	4.13	4.15

9.1 [V]	4.15	4.15	4.15	4.14	4.15
9.2 [V]	4.15	4.15	4.15	4.14	4.15
10.1 [V]	4.15	4.15	4.15	4.14	4.15
10.2 [V]	4.15	4.15	4.15	4.14	4.15
11.1 [V]	4.15	4.15	4.15	4.14	4.15
11.2 [V]	4.15	4.15	4.15	4.14	4.15
12.1 [V]	4.85	4.83	4.84	4.83	4.85
12.2 [V]	4.85	4.83	4.84	4.83	4.85
13.1 [V]	4.78	4.77	4.78	4.74	4.80
13.2 [V]	4.78	4.77	4.78	4.74	4.80
14.1 [V]	4.79	4.79	4.79	4.81	4.80
14.2 [V]	4.79	4.79	4.79	4.81	4.80
15.1 [V]	4.79	4.80	4.80	4.78	4.80
15.2 [V]	4.79	4.80	4.80	4.78	4.80
16.1 [V]	0.39	0.40	0.41	0.41	0.39
16.2 [V]	0.39	0.40	0.41	0.41	0.39
17.1 [V]	0.38	0.39	0.39	0.40	0.38
17.2 [V]	0.38	0.39	0.39	0.40	0.38
18.1 [V]	0.38	0.39	0.39	0.40	0.38
18.2 [V]	0.38	0.39	0.39	0.40	0.38
19.1 [V]	0.39	0.40	0.40	0.41	0.39
19.2 [V]	0.39	0.40	0.40	0.41	0.39

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_INIT_EMS_@_RMC/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_INIT_EMS_@_RMC/1 from: 16.07.97 / 09:17:16
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105;108,121,127,128,132(Vin=5V);138-141,158(Vin=0V)
: INIT EMS @ RMC PROG1
: 54ACT74 XM-PL-IG6-0035 ISS1 RD 2 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccH	0.01	...	350.00 uA
3.	Functional Test 1	0	...	0
4.	Iil PIN 1	-100.0	...	100.0 nA
5.	Iil PIN 2	-100.0	...	100.0 nA
6.	Iil PIN 3	-100.0	...	100.0 nA
7.	Iil PIN 4	-100.0	...	100.0 nA
8.	Iil PIN 10	-100.0	...	100.0 nA
9.	Iil PIN 11	-100.0	...	100.0 nA
10.	Iil PIN 12	-100.0	...	100.0 nA
11.	Iil PIN 13	-100.0	...	100.0 nA
12.	Iih PIN 1	-100.0	...	100.0 nA
13.	Iih PIN 2	-100.0	...	100.0 nA
14.	Iih PIN 3	-100.0	...	100.0 nA
15.	Iih PIN 4	-100.00	...	100.00 uA
16.	Iih PIN 10	-100.0	...	100.0 nA
17.	Iih PIN 11	-100.0	...	100.0 nA
18.	Iih PIN 12	-100.0	...	100.0 nA
19.	Iih PIN 13	-100.0	...	100.0 nA
20.	Vol1 PIN 5	0.1	...	100.0 mV
21.	Vol1 PIN 6	0.1	...	100.0 mV
22.	Vol1 PIN 8	0.1	...	100.0 mV
23.	Vol1 PIN 9	0.1	...	100.0 mV
24.	Vol2 PIN 5	0.1	...	400.0 mV
25.	Vol2 PIN 6	0.1	...	400.0 mV
26.	Vol2 PIN 8	0.1	...	400.0 mV
27.	Vol2 PIN 9	0.1	...	400.0 mV

	105	108	121	127	128	132
1.1 [V]	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.11	0.18	0.18	0.05	0.05	0.02
2.2 [uA]	0.11	0.18	0.18	0.05	0.05	0.02
3.1 [ ]	0	0	0	0	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.3	-0.2	-0.2	-0.2
4.2 [nA]	-0.1	-0.1	-0.3	-0.2	-0.2	-0.2
5.1 [nA]	-0.1	-0.2	-0.4	-0.3	-0.4	-0.3
5.2 [nA]	-0.1	-0.2	-0.4	-0.3	-0.4	-0.3
6.1 [nA]	-0.0	-0.1	-0.1	0.0	-0.1	-0.1
6.2 [nA]	-0.0	-0.1	-0.1	0.0	-0.1	-0.1
7.1 [nA]	-0.4	-0.3	-0.5	-0.4	-0.8	-0.5
7.2 [nA]	-0.4	-0.3	-0.5	-0.4	-0.8	-0.5
8.1 [nA]	-0.5	-0.7	-1.0	-0.5	-0.8	-0.6
8.2 [nA]	-0.5	-0.7	-1.0	-0.5	-0.8	-0.6
9.1 [nA]	-0.0	-0.1	-0.1	0.0	-0.1	-0.1
9.2 [nA]	-0.0	-0.1	-0.1	0.0	-0.1	-0.1
10.1 [nA]	-0.0	-0.1	-0.1	0.0	-0.1	-0.1
10.2 [nA]	-0.0	-0.1	-0.1	0.0	-0.1	-0.1
11.1 [nA]	-0.2	-0.2	-0.2	-0.1	-0.2	-0.1
11.2 [nA]	-0.2	-0.2	-0.2	-0.1	-0.2	-0.1
12.1 [nA]	0.2	-0.0	0.2	0.2	0.2	0.1
12.2 [nA]	0.2	-0.0	0.2	0.2	0.2	0.1
13.1 [nA]	0.0	0.0	0.1	0.1	0.2	0.1
13.2 [nA]	0.0	0.0	0.1	0.1	0.2	0.1
14.1 [nA]	0.1	-0.0	0.0	0.0	0.1	0.0
14.2 [nA]	0.1	-0.0	0.0	0.0	0.1	0.0
15.1 [uA]	0.01	0.00	0.00	0.00	0.00	-0.00
15.2 [uA]	0.01	0.00	0.00	0.00	0.00	-0.00
16.1 [nA]	0.5	0.5	0.8	0.4	0.7	0.4
16.2 [nA]	0.5	0.5	0.8	0.4	0.7	0.4
17.1 [nA]	0.0	-0.0	0.0	-0.0	0.1	-0.0
17.2 [nA]	0.0	-0.0	0.0	-0.0	0.1	-0.0
18.1 [nA]	0.1	0.1	0.0	0.0	0.2	-0.1
18.2 [nA]	0.1	0.1	0.0	0.0	0.2	-0.1
19.1 [nA]	0.1	0.0	0.0	0.0	0.1	-0.1
19.2 [nA]	0.1	0.0	0.0	0.0	0.1	-0.1
20.1 [mV]	1.1	1.2	1.1	1.1	1.1	1.2
20.2 [mV]	1.1	1.2	1.1	1.1	1.1	1.2
21.1 [mV]	1.0	1.1	1.0	1.0	1.0	1.1
21.2 [mV]	1.0	1.1	1.0	1.0	1.0	1.1
22.1 [mV]	1.0	1.1	1.0	1.0	1.0	1.1
22.2 [mV]	1.0	1.1	1.0	1.0	1.0	1.1
23.1 [mV]	1.5	1.6	1.4	1.4	1.4	1.7
23.2 [mV]	1.5	1.6	1.4	1.4	1.4	1.7
24.1 [mV]	211.4	204.6	210.6	207.9	208.0	218.3
24.2 [mV]	211.4	204.6	210.6	207.9	208.0	218.3
25.1 [mV]	206.0	200.3	204.7	202.2	201.1	214.2
25.2 [mV]	206.0	200.3	204.7	202.2	201.1	214.2
26.1 [mV]	212.4	201.6	204.7	204.3	201.7	214.4
26.2 [mV]	212.4	201.6	204.7	204.3	201.7	214.4
27.1 [mV]	212.5	205.7	210.3	208.0	206.3	220.6
27.2 [mV]	212.5	205.7	210.3	208.0	206.3	220.6

	138	139	140	141	158

1.1 [V]	-0.65	-0.65	-0.65	-0.65	-0.65
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.48	0.15	0.35	0.18	0.25
2.2 [uA]	0.48	0.15	0.35	0.18	0.25
3.1 [ ]	0	0	0	0	0
3.2 [ ]	0	0	0	0	0
4.1 [nA]	-0.2	-0.2	-0.3	-0.4	-0.2
4.2 [nA]	-0.2	-0.2	-0.3	-0.4	-0.2
5.1 [nA]	-0.3	-0.7	-0.8	-1.3	-0.8
5.2 [nA]	-0.3	-0.7	-0.8	-1.3	-0.8
6.1 [nA]	-0.1	-0.1	-0.2	-0.2	-0.2
6.2 [nA]	-0.1	-0.1	-0.2	-0.2	-0.2
7.1 [nA]	-0.4	-1.0	-1.0	-1.3	-1.3
7.2 [nA]	-0.4	-1.0	-1.0	-1.3	-1.3
8.1 [nA]	-0.4	-0.8	-0.5	-0.5	-0.4
8.2 [nA]	-0.4	-0.8	-0.5	-0.5	-0.4
9.1 [nA]	-0.0	0.1	-0.1	-0.1	-0.1
9.2 [nA]	-0.0	0.1	-0.1	-0.1	-0.1
10.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1
10.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1
11.1 [nA]	-0.1	-0.2	-0.2	-0.2	-0.2
11.2 [nA]	-0.1	-0.2	-0.2	-0.2	-0.2
12.1 [nA]	0.1	0.5	0.5	0.5	0.3
12.2 [nA]	0.1	0.5	0.5	0.5	0.3
13.1 [nA]	0.1	0.2	0.1	0.1	0.1
13.2 [nA]	0.1	0.2	0.1	0.1	0.1
14.1 [nA]	0.1	0.2	0.1	0.1	0.0
14.2 [nA]	0.1	0.2	0.1	0.1	0.0
15.1 [uA]	-0.00	-0.00	0.00	0.00	0.00
15.2 [uA]	-0.00	-0.00	0.00	0.00	0.00
16.1 [nA]	0.4	0.6	0.3	0.4	0.4
16.2 [nA]	0.4	0.6	0.3	0.4	0.4
17.1 [nA]	0.1	0.1	-0.0	-0.1	-0.0
17.2 [nA]	0.1	0.1	-0.0	-0.1	-0.0
18.1 [nA]	0.1	0.2	0.1	0.1	0.1
18.2 [nA]	0.1	0.2	0.1	0.1	0.1
19.1 [nA]	0.1	0.0	0.0	-0.0	-0.0
19.2 [nA]	0.1	0.0	0.0	-0.0	-0.0
20.1 [mV]	1.1	1.1	1.2	1.2	1.2
20.2 [mV]	1.1	1.1	1.2	1.2	1.2
21.1 [mV]	1.0	1.0	1.1	1.1	1.1
21.2 [mV]	1.0	1.0	1.1	1.1	1.1
22.1 [mV]	1.0	1.0	1.1	1.1	1.1
22.2 [mV]	1.0	1.0	1.1	1.1	1.1
23.1 [mV]	1.5	1.5	1.6	1.6	1.6
23.2 [mV]	1.5	1.5	1.6	1.6	1.6
24.1 [mV]	207.5	209.9	212.1	213.7	209.8
24.2 [mV]	207.5	209.9	212.1	213.7	209.8
25.1 [mV]	204.5	206.3	205.8	208.6	205.2
25.2 [mV]	204.5	206.3	205.8	208.6	205.2
26.1 [mV]	206.6	204.8	206.8	209.1	207.3
26.2 [mV]	206.6	204.8	206.8	209.1	207.3
27.1 [mV]	209.1	208.9	210.8	214.5	210.7
27.2 [mV]	209.1	208.9	210.8	214.5	210.7

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_INIT_EMS_@_RMC/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_INIT_EMS_@_RMC/2 from: 16.07.97 / 09:22:31
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105;108,121,127,128,132(Vin=5V);138-141,158(Vin=0V)
: INIT EMS @ RMC PROG2
: 54ACT74 XM-PL-I66-0035 ISS1 RD 2 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccL	0.01	...	350.00 uA
3.	Functional Test 2	0	...	0
4.	Voh1 PIN 5	5.40	...	5.50 V
5.	Voh1 PIN 6	5.40	...	5.50 V
6.	Voh1 PIN 8	5.40	...	5.50 V
7.	Voh1 PIN 9	5.40	...	5.50 V
8.	Voh2 PIN 5	3.70	...	4.50 V
9.	Voh2 PIN 6	3.70	...	4.50 V
10.	Voh2 PIN 8	3.70	...	4.50 V
11.	Voh2 PIN 9	3.70	...	4.50 V
12.	Voh3 PIN 5	3.85	...	5.50 V
13.	Voh3 PIN 6	3.85	...	5.50 V
14.	Voh3 PIN 8	3.85	...	5.50 V
15.	Voh3 PIN 9	3.85	...	5.50 V
16.	Vol3 PIN 5	0.01	...	1.65 V
17.	Vol3 PIN 6	0.01	...	1.65 V
18.	Vol3 PIN 8	0.01	...	1.65 V
19.	Vol3 PIN 9	0.01	...	1.65 V

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.65	-0.65	-0.65	-0.65	-0.64
1.2 [V]	-0.58	-0.59	-0.59	-0.59	-0.59	-0.58
2.1 [uA]	0.02	0.25	0.15	0.18	0.35	0.01
2.2 [uA]	0.02	0.25	0.15	0.18	0.35	0.01
3.1 [ ]	0	0	0	0	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.44	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.44	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.46	5.46	5.45	5.46
6.2 [V]	5.46	5.46	5.46	5.46	5.45	5.46
7.1 [V]	5.48	5.49	5.49	5.50	5.48	5.49
7.2 [V]	5.48	5.49	5.49	5.50	5.48	5.49
8.1 [V]	4.14	4.16	4.15	4.15	4.15	4.14
8.2 [V]	4.14	4.16	4.15	4.15	4.15	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.16	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.16	4.15
10.1 [V]	4.14	4.16	4.15	4.16	4.16	4.15
10.2 [V]	4.14	4.16	4.15	4.16	4.16	4.15
11.1 [V]	4.15	4.16	4.15	4.15	4.16	4.15
11.2 [V]	4.15	4.16	4.15	4.15	4.16	4.15
12.1 [V]	4.84	4.87	4.84	4.85	4.85	4.84
12.2 [V]	4.84	4.87	4.84	4.85	4.85	4.84
13.1 [V]	4.76	4.82	4.79	4.80	4.80	4.77
13.2 [V]	4.76	4.82	4.79	4.80	4.80	4.77
14.1 [V]	4.77	4.81	4.83	4.80	4.80	4.79
14.2 [V]	4.77	4.81	4.83	4.80	4.80	4.79
15.1 [V]	4.78	4.82	4.81	4.80	4.80	4.79
15.2 [V]	4.78	4.82	4.81	4.80	4.80	4.79
16.1 [V]	0.41	0.39	0.39	0.39	0.39	0.41
16.2 [V]	0.41	0.39	0.39	0.39	0.39	0.41
17.1 [V]	0.39	0.38	0.38	0.38	0.38	0.40
17.2 [V]	0.39	0.38	0.38	0.38	0.38	0.40
18.1 [V]	0.40	0.38	0.38	0.38	0.38	0.40
18.2 [V]	0.40	0.38	0.38	0.38	0.38	0.40
19.1 [V]	0.40	0.39	0.39	0.39	0.39	0.41
19.2 [V]	0.40	0.39	0.39	0.39	0.39	0.41

	138	139	140	141	158
1.1 [V]	-0.65	-0.65	-0.64	-0.65	-0.65
1.2 [V]	-0.59	-0.59	-0.59	-0.59	-0.59
2.1 [uA]	0.31	0.38	0.21	0.35	0.55
2.2 [uA]	0.31	0.38	0.21	0.35	0.55
3.1 [ ]	0	0	0	0	0
3.2 [ ]	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.44	5.45	5.45	5.45	5.44
5.2 [V]	5.44	5.45	5.45	5.45	5.44
6.1 [V]	5.45	5.46	5.46	5.49	5.45
6.2 [V]	5.45	5.46	5.46	5.49	5.45
7.1 [V]	5.48	5.48	5.49	5.49	5.48
7.2 [V]	5.48	5.48	5.49	5.49	5.48
8.1 [V]	4.15	4.14	4.14	4.14	4.15
8.2 [V]	4.15	4.14	4.14	4.14	4.15

9.1 [V]	4.15	4.15	4.15	4.14	4.15
9.2 [V]	4.15	4.15	4.15	4.14	4.15
10.1 [V]	4.15	4.15	4.15	4.15	4.15
10.2 [V]	4.15	4.15	4.15	4.15	4.15
11.1 [V]	4.15	4.15	4.14	4.14	4.15
11.2 [V]	4.15	4.15	4.14	4.14	4.15
12.1 [V]	4.85	4.83	4.84	4.83	4.84
12.2 [V]	4.85	4.83	4.84	4.83	4.84
13.1 [V]	4.77	4.78	4.77	4.75	4.77
13.2 [V]	4.77	4.78	4.77	4.75	4.77
14.1 [V]	4.78	4.79	4.78	4.78	4.78
14.2 [V]	4.78	4.79	4.78	4.78	4.78
15.1 [V]	4.79	4.80	4.81	4.78	4.79
15.2 [V]	4.79	4.80	4.81	4.78	4.79
16.1 [V]	0.39	0.40	0.40	0.41	0.40
16.2 [V]	0.39	0.40	0.40	0.41	0.40
17.1 [V]	0.38	0.38	0.39	0.39	0.39
17.2 [V]	0.38	0.38	0.39	0.39	0.39
18.1 [V]	0.38	0.38	0.39	0.39	0.39
18.2 [V]	0.38	0.38	0.39	0.39	0.39
19.1 [V]	0.39	0.39	0.40	0.40	0.40
19.2 [V]	0.39	0.39	0.40	0.40	0.40

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_10_KRAD_0V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_10_KRAD_0V/1 from: 16.07.97 / 11:06:49
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 10 KRAD (Vin=0V) PROG1
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccH	0.01	...	350.00	uA
3.	Functional Test 1	0	...	0	
4.	Iil PIN 1	-100.0	...	100.0	nA
5.	Iil PIN 2	-100.0	...	100.0	nA
6.	Iil PIN 3	-100.0	...	100.0	nA
7.	Iil PIN 4	-100.0	...	100.0	nA
8.	Iil PIN 10	-100.0	...	100.0	nA
9.	Iil PIN 11	-100.0	...	100.0	nA
10.	Iil PIN 12	-100.0	...	100.0	nA
11.	Iil PIN 13	-100.0	...	100.0	nA
12.	Iih PIN 1	-100.0	...	100.0	nA
13.	Iih PIN 2	-100.0	...	100.0	nA
14.	Iih PIN 3	-100.0	...	100.0	nA
15.	Iih PIN 4	-100.00	...	100.00	uA
16.	Iih PIN 10	-100.0	...	100.0	nA
17.	Iih PIN 11	-100.0	...	100.0	nA
18.	Iih PIN 12	-100.0	...	100.0	nA
19.	Iih PIN 13	-100.0	...	100.0	nA
20.	Vol1 PIN 5	0.1	...	100.0	mV
21.	Vol1 PIN 6	0.1	...	100.0	mV
22.	Vol1 PIN 8	0.1	...	100.0	mV
23.	Vol1 PIN 9	0.1	...	100.0	mV
24.	Vol2 PIN 5	0.1	...	400.0	mV
25.	Vol2 PIN 6	0.1	...	400.0	mV
26.	Vol2 PIN 8	0.1	...	400.0	mV
27.	Vol2 PIN 9	0.1	...	400.0	mV

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.46	-0.46	-0.44	-0.45	-0.46
2.1 [uA]	0.06	465.47 F	348.27	994.27 F	577.11 F	641.47 F
2.2 [uA]	0.06	465.47 F	348.27	994.27 F	577.11 F	641.47 F
3.1 [ ]	0	0	0	17 F	0	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.1	-0.1	-0.0	-0.1
5.2 [nA]	-0.0	-0.0	-0.1	-0.1	-0.0	-0.1
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	0.0	0.0	-0.0	0.0	-0.0	0.0
9.2 [nA]	0.0	0.0	-0.0	0.0	-0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	-0.00	0.00	-0.00	0.00	0.00	0.00
15.2 [uA]	-0.00	0.00	-0.00	0.00	0.00	0.00
16.1 [nA]	0.0	0.0	0.1	0.1	0.0	0.1
16.2 [nA]	0.0	0.0	0.1	0.1	0.0	0.1
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	1.2	1.1	1.4	1.2	1.2
20.2 [mV]	1.1	1.2	1.1	1.4	1.2	1.2
21.1 [mV]	1.0	1.0	1.0	1.3	1.0	1.1
21.2 [mV]	1.0	1.0	1.0	1.3	1.0	1.1
22.1 [mV]	1.0	1.0	1.0	1.2	1.0	1.1
22.2 [mV]	1.0	1.0	1.0	1.2	1.0	1.1
23.1 [mV]	1.4	1.5	1.4	1.8	1.5	1.5
23.2 [mV]	1.4	1.5	1.4	1.8	1.5	1.5
24.1 [mV]	214.3	208.8	210.3	214.3	213.8	209.9
24.2 [mV]	214.3	208.8	210.3	214.3	213.8	209.9
25.1 [mV]	209.2	205.3	206.9	208.2	208.6	205.8
25.2 [mV]	209.2	205.3	206.9	208.2	208.6	205.8
26.1 [mV]	210.2	204.9	205.0	208.6	208.7	205.6
26.2 [mV]	210.2	204.9	205.0	208.6	208.7	205.6
27.1 [mV]	214.8	210.0	209.1	212.2	213.5	209.6
27.2 [mV]	214.8	210.0	209.1	212.2	213.5	209.6

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_10_KRAD_0V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_10_KRAD_0V/2 from: 16.07.97 / 11:25:19
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 10 KRAD (Vin=0V) PROG2
:

Test steps

1.	Continuity test	-2.00	... 0.01	V
2.	IccL	0.01	... 350.00	uA
3.	Functional Test 2	0	... 0	
4.	Voh1 PIN 5	5.40	... 5.50	V
5.	Voh1 PIN 6	5.40	... 5.50	V
6.	Voh1 PIN 8	5.40	... 5.50	V
7.	Voh1 PIN 9	5.40	... 5.50	V
8.	Voh2 PIN 5	3.70	... 4.50	V
9.	Voh2 PIN 6	3.70	... 4.50	V
10.	Voh2 PIN 8	3.70	... 4.50	V
11.	Voh2 PIN 9	3.70	... 4.50	V
12.	Voh3 PIN 5	3.85	... 5.50	V
13.	Voh3 PIN 6	3.85	... 5.50	V
14.	Voh3 PIN 8	3.85	... 5.50	V
15.	Voh3 PIN 9	3.85	... 5.50	V
16.	Vol3 PIN 5	0.01	... 1.65	V
17.	Vol3 PIN 6	0.01	... 1.65	V
18.	Vol3 PIN 8	0.01	... 1.65	V
19.	Vol3 PIN 9	0.01	... 1.65	V

	105	138	139	140	141	158
1.1 [V]	-0.63	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.47	-0.46	-0.44	-0.45	-0.46
2.1 [uA]	0.33	402.17 F	289.14	976.81 F	515.87 F	602.71 F
2.2 [uA]	0.33	402.17 F	289.14	976.81 F	515.87 F	602.71 F
3.1 [ ]	0	17 F	0	17 F	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.46	5.46	5.46	5.46
6.2 [V]	5.46	5.46	5.46	5.46	5.46	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.14	4.13	4.14	4.13	4.14
8.2 [V]	4.14	4.14	4.13	4.14	4.13	4.14
9.1 [V]	4.14	4.15	4.14	4.14	4.14	4.15
9.2 [V]	4.14	4.15	4.14	4.14	4.14	4.15
10.1 [V]	4.14	4.15	4.15	4.14	4.14	4.15
10.2 [V]	4.14	4.15	4.15	4.14	4.14	4.15
11.1 [V]	4.14	4.14	4.15	4.14	4.14	4.15
11.2 [V]	4.14	4.14	4.15	4.14	4.14	4.15
12.1 [V]	4.83	4.84	4.83	4.83	4.82	4.84
12.2 [V]	4.83	4.84	4.83	4.83	4.82	4.84
13.1 [V]	4.75	4.77	4.76	4.77	4.77	4.77
13.2 [V]	4.75	4.77	4.76	4.77	4.77	4.77
14.1 [V]	4.77	4.78	4.78	4.78	4.81	4.79
14.2 [V]	4.77	4.78	4.78	4.78	4.81	4.79
15.1 [V]	4.80	4.78	4.79	4.82	4.78	4.79
15.2 [V]	4.80	4.78	4.79	4.82	4.78	4.79
16.1 [V]	0.41	0.40	0.40	0.40	0.40	0.40
16.2 [V]	0.41	0.40	0.40	0.40	0.40	0.40
17.1 [V]	0.40	0.39	0.39	0.39	0.39	0.39
17.2 [V]	0.40	0.39	0.39	0.39	0.39	0.39
18.1 [V]	0.40	0.38	0.38	0.39	0.39	0.38
18.2 [V]	0.40	0.38	0.38	0.39	0.39	0.38
19.1 [V]	0.41	0.40	0.39	0.40	0.40	0.39
19.2 [V]	0.41	0.40	0.39	0.40	0.40	0.39

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_15_KRAD_0V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_15_KRAD_0V/1 from: 16.07.97 / 11:32:55
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 15 KRAD (Vin=0V) PROG1
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccH	0.01	...	350.00	uA
3.	Functional Test 1	0	...	0	
4.	Iil PIN 1	-100.0	...	100.0	nA
5.	Iil PIN 2	-100.0	...	100.0	nA
6.	Iil PIN 3	-100.0	...	100.0	nA
7.	Iil PIN 4	-100.0	...	100.0	nA
8.	Iil PIN 10	-100.0	...	100.0	nA
9.	Iil PIN 11	-100.0	...	100.0	nA
10.	Iil PIN 12	-100.0	...	100.0	nA
11.	Iil PIN 13	-100.0	...	100.0	nA
12.	Iih PIN 1	-100.0	...	100.0	nA
13.	Iih PIN 2	-100.0	...	100.0	nA
14.	Iih PIN 3	-100.0	...	100.0	nA
15.	Iih PIN 4	-100.00	...	100.00	uA
16.	Iih PIN 10	-100.0	...	100.0	nA
17.	Iih PIN 11	-100.0	...	100.0	nA
18.	Iih PIN 12	-100.0	...	100.0	nA
19.	Iih PIN 13	-100.0	...	100.0	nA
20.	Vol1 PIN 5	0.1	...	100.0	mV
21.	Vol1 PIN 6	0.1	...	100.0	mV
22.	Vol1 PIN 8	0.1	...	100.0	mV
23.	Vol1 PIN 9	0.1	...	100.0	mV
24.	Vol2 PIN 5	0.1	...	400.0	mV
25.	Vol2 PIN 6	0.1	...	400.0	mV
26.	Vol2 PIN 8	0.1	...	400.0	mV
27.	Vol2 PIN 9	0.1	...	400.0	mV

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.43	-0.43	-0.43	-0.43	-0.43
2.1 [uA]	0.07	1247.23 F	917.99 F	2727.66 F	1612.76 F	1895.93 F
2.2 [uA]	0.07	1247.23 F	917.99 F	2727.66 F	1612.76 F	1895.93 F
3.1 [ ]	0	17 F	0	17 F	0	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.1	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.1	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	0.00	0.00	-0.00	0.00	0.00
15.2 [uA]	0.00	0.00	0.00	-0.00	0.00	0.00
16.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
16.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.2	1.4	1.4	1.7	1.6	1.5
20.2 [mV]	1.2	1.4	1.4	1.7	1.6	1.5
21.1 [mV]	1.1	1.2	1.3	1.5	1.5	1.3
21.2 [mV]	1.1	1.2	1.3	1.5	1.5	1.3
22.1 [mV]	1.1	1.2	1.2	1.5	1.5	1.3
22.2 [mV]	1.1	1.2	1.2	1.5	1.5	1.3
23.1 [mV]	1.7	1.7	1.8	2.1	2.1	1.8
23.2 [mV]	1.7	1.7	1.8	2.1	2.1	1.8
24.1 [mV]	216.8	209.2	211.7	213.4	215.7	210.3
24.2 [mV]	216.8	209.2	211.7	213.4	215.7	210.3
25.1 [mV]	211.7	205.6	208.5	207.3	210.8	206.1
25.2 [mV]	211.7	205.6	208.5	207.3	210.8	206.1
26.1 [mV]	213.3	207.4	206.4	208.4	211.0	206.1
26.2 [mV]	213.3	207.4	206.4	208.4	211.0	206.1
27.1 [mV]	217.1	210.5	210.4	211.5	215.6	209.9
27.2 [mV]	217.1	210.5	210.4	211.5	215.6	209.9

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_15_KRAD_0V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_15_KRAD_0V/2 from: 16.07.97 / 11:43:47
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 15 KRAD (Vin=0V) PROG2
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.43	-0.43	-0.43	-0.43	-0.43
2.1 [uA]	0.32	1161.55 F	825.81 F	2697.31 F	1538.78 F	1844.55 F
2.2 [uA]	0.32	1161.55 F	825.81 F	2697.31 F	1538.78 F	1844.55 F
3.1 [ ]	0	51 F	0	17 F	51 F	51 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.46	5.46	5.49	5.46
6.2 [V]	5.46	5.46	5.46	5.46	5.49	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.14	4.13	4.14	4.13	4.14
8.2 [V]	4.14	4.14	4.13	4.14	4.13	4.14
9.1 [V]	4.15	4.15	4.14	4.14	4.14	4.15
9.2 [V]	4.15	4.15	4.14	4.14	4.14	4.15
10.1 [V]	4.15	4.14	4.14	4.14	4.14	4.15
10.2 [V]	4.15	4.14	4.14	4.14	4.14	4.15
11.1 [V]	4.15	4.14	4.15	4.14	4.14	4.14
11.2 [V]	4.15	4.14	4.15	4.14	4.14	4.14
12.1 [V]	4.83	4.84	4.82	4.83	4.82	4.84
12.2 [V]	4.83	4.84	4.82	4.83	4.82	4.84
13.1 [V]	4.76	4.77	4.76	4.77	4.74	4.76
13.2 [V]	4.76	4.77	4.76	4.77	4.74	4.76
14.1 [V]	4.78	4.78	4.78	4.78	4.81	4.78
14.2 [V]	4.78	4.78	4.78	4.78	4.81	4.78
15.1 [V]	4.79	4.78	4.81	4.79	4.77	4.79
15.2 [V]	4.79	4.78	4.81	4.79	4.77	4.79
16.1 [V]	0.40	0.40	0.39	0.40	0.40	0.40
16.2 [V]	0.40	0.40	0.39	0.40	0.40	0.40
17.1 [V]	0.39	0.39	0.39	0.39	0.39	0.39
17.2 [V]	0.39	0.39	0.39	0.39	0.39	0.39
18.1 [V]	0.39	0.39	0.38	0.39	0.39	0.39
18.2 [V]	0.39	0.39	0.38	0.39	0.39	0.39
19.1 [V]	0.40	0.39	0.39	0.40	0.40	0.40
19.2 [V]	0.40	0.39	0.39	0.40	0.40	0.40

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_20_KRAD_0V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_20_KRAD_0V/1 from: 16.07.97 / 11:50:18
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 20 KRAD (VIN=0V) PROG1
:

Test steps

1.	Continuity test	-2.00	0.01	V
2.	IccH	0.01	350.00	uA
3.	Functional Test 1	0	0	
4.	Iil PIN 1	-100.0	100.0	nA
5.	Iil PIN 2	-100.0	100.0	nA
6.	Iil PIN 3	-100.0	100.0	nA
7.	Iil PIN 4	-100.0	100.0	nA
8.	Iil PIN 10	-100.0	100.0	nA
9.	Iil PIN 11	-100.0	100.0	nA
10.	Iil PIN 12	-100.0	100.0	nA
11.	Iil PIN 13	-100.0	100.0	nA
12.	Iih PIN 1	-100.0	100.0	nA
13.	Iih PIN 2	-100.0	100.0	nA
14.	Iih PIN 3	-100.0	100.0	nA
15.	Iih PIN 4	-100.00	100.00	uA
16.	Iih PIN 10	-100.0	100.0	nA
17.	Iih PIN 11	-100.0	100.0	nA
18.	Iih PIN 12	-100.0	100.0	nA
19.	Iih PIN 13	-100.0	100.0	nA
20.	Vol1 PIN 5	0.1	100.0	mV
21.	Vol1 PIN 6	0.1	100.0	mV
22.	Vol1 PIN 8	0.1	100.0	mV
23.	Vol1 PIN 9	0.1	100.0	mV
24.	Vol2 PIN 5	0.1	400.0	mV
25.	Vol2 PIN 6	0.1	400.0	mV
26.	Vol2 PIN 8	0.1	400.0	mV
27.	Vol2 PIN 9	0.1	400.0	mV

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.42	-0.42	-0.42	-0.42	-0.42
2.1 [uA]	0.05	2289.95 F	1625.52 F	3273.15 F	2944.79 F	3273.15 F
2.2 [uA]	0.05	2289.95 F	1625.52 F	3273.15 F	2944.79 F	3273.15 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	-0.00	0.00	0.00	-0.00	0.00
15.2 [uA]	0.00	-0.00	0.00	0.00	-0.00	0.00
16.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
16.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	1.6	1.4	2.4	1.7	2.0
20.2 [mV]	1.1	1.6	1.4	2.4	1.7	2.0
21.1 [mV]	1.0	1.4	1.3	2.1	1.5	1.7
21.2 [mV]	1.0	1.4	1.3	2.1	1.5	1.7
22.1 [mV]	1.0	1.4	1.3	2.1	1.5	1.7
22.2 [mV]	1.0	1.4	1.3	2.1	1.5	1.7
23.1 [mV]	1.4	2.0	1.8	2.8	2.1	2.3
23.2 [mV]	1.4	2.0	1.8	2.8	2.1	2.3
24.1 [mV]	214.2	209.2	210.3	214.6	214.1	211.2
24.2 [mV]	214.2	209.2	210.3	214.6	214.1	211.2
25.1 [mV]	209.4	205.5	207.0	208.7	209.1	207.0
25.2 [mV]	209.4	205.5	207.0	208.7	209.1	207.0
26.1 [mV]	210.3	207.8	205.3	209.0	209.0	206.9
26.2 [mV]	210.3	207.8	205.3	209.0	209.0	206.9
27.1 [mV]	215.1	210.4	209.2	212.8	214.5	211.8
27.2 [mV]	215.1	210.4	209.2	212.8	214.5	211.8

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_20_KRAD_0V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_20_KRAD_0V/2 from: 16.07.97 / 12:01:01
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 20 KRAD (Vin=0V) PROG2
:

Test steps

1.	Continuity test	-2.00	... 0.01	V
2.	IccL	0.01	... 350.00	uA
3.	Functional Test 2	0	... 0	
4.	Voh1 PIN 5	5.40	... 5.50	V
5.	Voh1 PIN 6	5.40	... 5.50	V
6.	Voh1 PIN 8	5.40	... 5.50	V
7.	Voh1 PIN 9	5.40	... 5.50	V
8.	Voh2 PIN 5	3.70	... 4.50	V
9.	Voh2 PIN 6	3.70	... 4.50	V
10.	Voh2 PIN 8	3.70	... 4.50	V
11.	Voh2 PIN 9	3.70	... 4.50	V
12.	Voh3 PIN 5	3.85	... 5.50	V
13.	Voh3 PIN 6	3.85	... 5.50	V
14.	Voh3 PIN 8	3.85	... 5.50	V
15.	Voh3 PIN 9	3.85	... 5.50	V
16.	Vol3 PIN 5	0.01	... 1.65	V
17.	Vol3 PIN 6	0.01	... 1.65	V
18.	Vol3 PIN 8	0.01	... 1.65	V
19.	Vol3 PIN 9	0.01	... 1.65	V

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.42	-0.42	-0.42	-0.42	-0.42
2.1 [uA]	0.04	2191.61 F	1510.74 F	3273.24 F	2861.31 F	3273.24 F
2.2 [uA]	0.04	2191.61 F	1510.74 F	3273.24 F	2861.31 F	3273.24 F
3.1 [ ]	0	17 F	0	51 F	0	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.48	5.46	5.46	5.48	5.46
6.2 [V]	5.46	5.48	5.46	5.46	5.48	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.14	4.13	4.14	4.13	4.14
8.2 [V]	4.14	4.14	4.13	4.14	4.13	4.14
9.1 [V]	4.15	4.15	4.14	4.14	4.13	4.15
9.2 [V]	4.15	4.15	4.14	4.14	4.13	4.15
10.1 [V]	4.15	4.14	4.14	4.14	4.14	4.14
10.2 [V]	4.15	4.14	4.14	4.14	4.14	4.14
11.1 [V]	4.15	4.14	4.14	4.14	4.14	4.14
11.2 [V]	4.15	4.14	4.14	4.14	4.14	4.14
12.1 [V]	4.84	4.84	4.82	4.83	4.82	4.84
12.2 [V]	4.84	4.84	4.82	4.83	4.82	4.84
13.1 [V]	4.76	4.77	4.76	4.76	4.77	4.76
13.2 [V]	4.76	4.77	4.76	4.76	4.77	4.76
14.1 [V]	4.78	4.77	4.78	4.77	4.81	4.78
14.2 [V]	4.78	4.77	4.78	4.77	4.81	4.78
15.1 [V]	4.79	4.78	4.79	4.80	4.77	4.79
15.2 [V]	4.79	4.78	4.79	4.80	4.77	4.79
16.1 [V]	0.40	0.40	0.40	0.40	0.40	0.40
16.2 [V]	0.40	0.40	0.40	0.40	0.40	0.40
17.1 [V]	0.39	0.39	0.39	0.39	0.39	0.39
17.2 [V]	0.39	0.39	0.39	0.39	0.39	0.39
18.1 [V]	0.39	0.39	0.38	0.39	0.39	0.38
18.2 [V]	0.39	0.39	0.38	0.39	0.39	0.38
19.1 [V]	0.40	0.39	0.39	0.40	0.40	0.39
19.2 [V]	0.40	0.39	0.39	0.40	0.40	0.39

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_25_KRAD_0V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_25_KRAD_0V/1 from: 16.07.97 / 12:07:25
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 25 KRAD (Vin=0V) PROG1
:

Test steps

1.	Continuity test	-2.00	... 0.01	V
2.	IccH	0.01	... 350.00	uA
3.	Functional Test 1	0	... 0	
4.	Iil PIN 1	-100.0	... 100.0	nA
5.	Iil PIN 2	-100.0	... 100.0	nA
6.	Iil PIN 3	-100.0	... 100.0	nA
7.	Iil PIN 4	-100.0	... 100.0	nA
8.	Iil PIN 10	-100.0	... 100.0	nA
9.	Iil PIN 11	-100.0	... 100.0	nA
10.	Iil PIN 12	-100.0	... 100.0	nA
11.	Iil PIN 13	-100.0	... 100.0	nA
12.	Iih PIN 1	-100.0	... 100.0	nA
13.	Iih PIN 2	-100.0	... 100.0	nA
14.	Iih PIN 3	-100.0	... 100.0	nA
15.	Iih PIN 4	-100.00	... 100.00	uA
16.	Iih PIN 10	-100.0	... 100.0	nA
17.	Iih PIN 11	-100.0	... 100.0	nA
18.	Iih PIN 12	-100.0	... 100.0	nA
19.	Iih PIN 13	-100.0	... 100.0	nA
20.	Vol1 PIN 5	0.1	... 100.0	mV
21.	Vol1 PIN 6	0.1	... 100.0	mV
22.	Vol1 PIN 8	0.1	... 100.0	mV
23.	Vol1 PIN 9	0.1	... 100.0	mV
24.	Vol2 PIN 5	0.1	... 400.0	mV
25.	Vol2 PIN 6	0.1	... 400.0	mV
26.	Vol2 PIN 8	0.1	... 400.0	mV
27.	Vol2 PIN 9	0.1	... 400.0	mV

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.41	-0.42	-0.41	-0.41	-0.42
2.1 [uA]	0.11	3272.97 F	2425.11 F	3272.97 F	3272.97 F	3272.97 F
2.2 [uA]	0.11	3272.97 F	2425.11 F	3272.97 F	3272.97 F	3272.97 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	0.0	0.0	0.0	-0.0	0.0	0.0
9.2 [nA]	0.0	0.0	0.0	-0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	0.00	-0.01	0.00	0.00	-0.00
15.2 [uA]	0.00	0.00	-0.01	0.00	0.00	-0.00
16.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
16.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	2.3	1.7	3.0	2.1	2.2
20.2 [mV]	1.1	2.3	1.7	3.0	2.1	2.2
21.1 [mV]	1.0	2.0	1.4	2.6	1.8	1.9
21.2 [mV]	1.0	2.0	1.4	2.6	1.8	1.9
22.1 [mV]	1.0	2.0	1.4	2.6	1.8	1.9
22.2 [mV]	1.0	2.0	1.4	2.6	1.8	1.9
23.1 [mV]	1.5	2.7	2.0	3.4	2.4	2.6
23.2 [mV]	1.5	2.7	2.0	3.4	2.4	2.6
24.1 [mV]	215.4	211.1	210.5	215.4	213.8	210.6
24.2 [mV]	215.4	211.1	210.5	215.4	213.8	210.6
25.1 [mV]	210.8	207.4	207.2	209.2	208.9	206.4
25.2 [mV]	210.8	207.4	207.2	209.2	208.9	206.4
26.1 [mV]	210.9	206.7	205.3	209.5	209.3	206.3
26.2 [mV]	210.9	206.7	205.3	209.5	209.3	206.3
27.1 [mV]	218.5	212.2	209.2	214.2	214.5	212.1
27.2 [mV]	218.5	212.2	209.2	214.2	214.5	212.1

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_25_KRAD_0V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_25_KRAD_0V/2 from: 16.07.97 / 12:19:23
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 138-141,158
: EMS @ 25 KRAD (Vin=0V) PROG2
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.41	-0.41	-0.41	-0.41	-0.42
2.1 [uA]	0.23	3273.17 F	2309.13 F	3273.17 F	3273.17 F	3273.17 F
2.2 [uA]	0.23	3273.17 F	2309.13 F	3273.17 F	3273.17 F	3273.17 F
3.1 [ ]	0	51 F	51 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.44	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.44	5.45	5.45
6.1 [V]	5.46	5.46	5.46	5.45	5.48	5.46
6.2 [V]	5.46	5.46	5.46	5.45	5.48	5.46
7.1 [V]	5.49	5.49	5.49	5.48	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.48	5.49	5.49
8.1 [V]	4.14	4.14	4.13	4.13	4.13	4.14
8.2 [V]	4.14	4.14	4.13	4.13	4.13	4.14
9.1 [V]	4.15	4.15	4.14	4.14	4.13	4.14
9.2 [V]	4.15	4.15	4.14	4.14	4.13	4.14
10.1 [V]	4.14	4.14	4.14	4.14	4.14	4.14
10.2 [V]	4.14	4.14	4.14	4.14	4.14	4.14
11.1 [V]	4.15	4.14	4.14	4.13	4.13	4.14
11.2 [V]	4.15	4.14	4.14	4.13	4.13	4.14
12.1 [V]	4.84	4.84	4.82	4.82	4.82	4.83
12.2 [V]	4.84	4.84	4.82	4.82	4.82	4.83
13.1 [V]	4.77	4.76	4.76	4.74	4.76	4.76
13.2 [V]	4.77	4.76	4.76	4.74	4.76	4.76
14.1 [V]	4.78	4.78	4.78	4.76	4.80	4.78
14.2 [V]	4.78	4.78	4.78	4.76	4.80	4.78
15.1 [V]	4.79	4.78	4.78	4.77	4.77	4.80
15.2 [V]	4.79	4.78	4.78	4.77	4.77	4.80
16.1 [V]	0.40	0.40	0.40	0.41	0.41	0.40
16.2 [V]	0.40	0.40	0.40	0.41	0.41	0.40
17.1 [V]	0.39	0.39	0.39	0.39	0.39	0.39
17.2 [V]	0.39	0.39	0.39	0.39	0.39	0.39
18.1 [V]	0.39	0.39	0.38	0.39	0.39	0.39
18.2 [V]	0.39	0.39	0.38	0.39	0.39	0.39
19.1 [V]	0.40	0.40	0.40	0.40	0.41	0.40
19.2 [V]	0.40	0.40	0.40	0.40	0.41	0.40

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_10_KRAD_5V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_10_KRAD_5V/1 from: 16.07.97 / 09:47:37
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 10 KRAD (Vin=5V) PROG1
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccH	0.01	...	350.00	uA
3.	Functional Test 1	0	...	0	
4.	Iil PIN 1	-100.0	...	100.0	nA
5.	Iil PIN 2	-100.0	...	100.0	nA
6.	Iil PIN 3	-100.0	...	100.0	nA
7.	Iil PIN 4	-100.0	...	100.0	nA
8.	Iil PIN 10	-100.0	...	100.0	nA
9.	Iil PIN 11	-100.0	...	100.0	nA
10.	Iil PIN 12	-100.0	...	100.0	nA
11.	Iil PIN 13	-100.0	...	100.0	nA
12.	Iih PIN 1	-100.0	...	100.0	nA
13.	Iih PIN 2	-100.0	...	100.0	nA
14.	Iih PIN 3	-100.0	...	100.0	nA
15.	Iih PIN 4	-100.00	...	100.00	uA
16.	Iih PIN 10	-100.0	...	100.0	nA
17.	Iih PIN 11	-100.0	...	100.0	nA
18.	Iih PIN 12	-100.0	...	100.0	nA
19.	Iih PIN 13	-100.0	...	100.0	nA
20.	Vol1 PIN 5	0.1	...	100.0	mV
21.	Vol1 PIN 6	0.1	...	100.0	mV
22.	Vol1 PIN 8	0.1	...	100.0	mV
23.	Vol1 PIN 9	0.1	...	100.0	mV
24.	Vol2 PIN 5	0.1	...	400.0	mV
25.	Vol2 PIN 6	0.1	...	400.0	mV
26.	Vol2 PIN 8	0.1	...	400.0	mV
27.	Vol2 PIN 9	0.1	...	400.0	mV

	105	108	121	127 *	128	129
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.45	-0.45	-0.59	-0.46	-0.44
2.1 [uA]	0.35	815.11 F	799.85 F	0.18	668.05 F	772.21 F
2.2 [uA]	0.35	815.11 F	799.85 F	0.18	668.05 F	772.21 F
3.1 [ ]	0	17 F	51 F	17 F	51 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.1	-0.1	-0.1	-0.0	-0.1	-0.1
8.2 [nA]	-0.1	-0.1	-0.1	-0.0	-0.1	-0.1
9.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.1	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.1	0.0
13.1 [nA]	0.1	0.1	0.1	0.1	0.1	0.1
13.2 [nA]	0.1	0.1	0.1	0.1	0.1	0.1
14.1 [nA]	0.1	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.1	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	-0.00	0.00	-0.00	0.00	0.00	-0.01
15.2 [uA]	-0.00	0.00	-0.00	0.00	0.00	-0.01
16.1 [nA]	0.1	0.1	0.1	0.1	0.1	0.1
16.2 [nA]	0.1	0.1	0.1	0.1	0.1	0.1
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	1.6	1.7	1.1	1.5	1.7
20.2 [mV]	1.1	1.6	1.7	1.1	1.5	1.7
21.1 [mV]	1.0	1.1	1.2	1.0	1.1	1.3
21.2 [mV]	1.0	1.1	1.2	1.0	1.1	1.3
22.1 [mV]	1.0	1.1	1.2	1.0	1.1	1.3
22.2 [mV]	1.0	1.1	1.2	1.0	1.1	1.3
23.1 [mV]	1.4	1.9	2.0	1.5	1.8	2.1
23.2 [mV]	1.4	1.9	2.0	1.5	1.8	2.1
24.1 [mV]	212.5	204.8	213.4	210.2	210.4	220.7
24.2 [mV]	212.5	204.8	213.4	210.2	210.4	220.7
25.1 [mV]	207.4	199.3	207.5	204.3	203.1	216.1
25.2 [mV]	207.4	199.3	207.5	204.3	203.1	216.1
26.1 [mV]	209.1	201.0	206.3	205.3	202.8	216.4
26.2 [mV]	209.1	201.0	206.3	205.3	202.8	216.4
27.1 [mV]	213.1	205.8	212.8	209.7	208.1	222.6
27.2 [mV]	213.1	205.8	212.8	209.7	208.1	222.6

* S/N° 127 BECAME DETACHED FROM SOCKET DURING 10KRAD EXPOSURE AND HENCE DID NOT RECEIVE FULL DOSE.

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_10_KRAD_5V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_10_KRAD_5V/2 from: 16.07.97 / 09:58:51
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 10 KRAD (Vin=5V) PROG2
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	108	121	127 *	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.45	-0.46	-0.58	-0.46	-0.44
2.1 [uA]	0.25	733.88 F	732.05 F	0.15	604.78 F	711.68 F
2.2 [uA]	0.25	733.88 F	732.05 F	0.15	604.78 F	711.68 F
3.1 [ ]	0	17 F	0	0	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.49	5.46	5.45	5.46
6.2 [V]	5.46	5.46	5.49	5.46	5.45	5.46
7.1 [V]	5.49	5.49	5.49	5.50	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.50	5.49	5.49
8.1 [V]	4.14	4.15	4.14	4.15	4.15	4.14
8.2 [V]	4.14	4.15	4.14	4.15	4.15	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.1 [V]	4.14	4.16	4.15	4.15	4.15	4.15
10.2 [V]	4.14	4.16	4.15	4.15	4.15	4.15
11.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
12.1 [V]	4.83	4.86	4.84	4.84	4.85	4.84
12.2 [V]	4.83	4.86	4.84	4.84	4.85	4.84
13.1 [V]	4.79	4.82	4.81	4.79	4.79	4.77
13.2 [V]	4.79	4.82	4.81	4.79	4.79	4.77
14.1 [V]	4.78	4.80	4.83	4.80	4.80	4.78
14.2 [V]	4.78	4.80	4.83	4.80	4.80	4.78
15.1 [V]	4.79	4.83	4.80	4.80	4.80	4.81
15.2 [V]	4.79	4.83	4.80	4.80	4.80	4.81
16.1 [V]	0.41	0.39	0.40	0.40	0.40	0.41
16.2 [V]	0.41	0.39	0.40	0.40	0.40	0.41
17.1 [V]	0.40	0.37	0.39	0.38	0.39	0.40
17.2 [V]	0.40	0.37	0.39	0.38	0.39	0.40
18.1 [V]	0.40	0.37	0.38	0.38	0.38	0.40
18.2 [V]	0.40	0.37	0.38	0.38	0.38	0.40
19.1 [V]	0.41	0.38	0.40	0.39	0.40	0.42
19.2 [V]	0.41	0.38	0.40	0.39	0.40	0.42

* S/N° 127 BECAME DETACHED FROM SOCKET DURING 10KRAD EXPOSURE AND HENCE DID NOT RECEIVE FULL DOSE.

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_15_KRAD_5V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_15_KRAD_5V/1 from: 16.07.97 / 10:06:28
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 15 KRAD (Vin=5V) PROG1
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccH	0.01	...	350.00	uA
3.	Functional Test 1	0	...	0	
4.	Iil PIN 1	-100.0	...	100.0	nA
5.	Iil PIN 2	-100.0	...	100.0	nA
6.	Iil PIN 3	-100.0	...	100.0	nA
7.	Iil PIN 4	-100.0	...	100.0	nA
8.	Iil PIN 10	-100.0	...	100.0	nA
9.	Iil PIN 11	-100.0	...	100.0	nA
10.	Iil PIN 12	-100.0	...	100.0	nA
11.	Iil PIN 13	-100.0	...	100.0	nA
12.	Iih PIN 1	-100.0	...	100.0	nA
13.	Iih PIN 2	-100.0	...	100.0	nA
14.	Iih PIN 3	-100.0	...	100.0	nA
15.	Iih PIN 4	-100.00	...	100.00	uA
16.	Iih PIN 10	-100.0	...	100.0	nA
17.	Iih PIN 11	-100.0	...	100.0	nA
18.	Iih PIN 12	-100.0	...	100.0	nA
19.	Iih PIN 13	-100.0	...	100.0	nA
20.	Vol1 PIN 5	0.1	...	100.0	mV
21.	Vol1 PIN 6	0.1	...	100.0	mV
22.	Vol1 PIN 8	0.1	...	100.0	mV
23.	Vol1 PIN 9	0.1	...	100.0	mV
24.	Vol2 PIN 5	0.1	...	400.0	mV
25.	Vol2 PIN 6	0.1	...	400.0	mV
26.	Vol2 PIN 8	0.1	...	400.0	mV
27.	Vol2 PIN 9	0.1	...	400.0	mV

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.36	-0.37	-0.58	-0.38	-0.37
2.1 [uA]	0.16	2371.89 F	2455.69 F	137.93	2080.59 F	2436.23 F
2.2 [uA]	0.16	2371.89 F	2455.69 F	137.93	2080.59 F	2436.23 F
3.1 [ ]	0	17 F	17 F	17 F	0	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	0.0	0.0	0.0	-0.0	-0.0	0.0
9.2 [nA]	0.0	0.0	0.0	-0.0	-0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	-0.00	0.00	-0.00	-0.00	-0.00	-0.00
15.2 [uA]	-0.00	0.00	-0.00	-0.00	-0.00	-0.00
16.1 [nA]	0.0	0.1	0.0	0.0	0.0	0.0
16.2 [nA]	0.0	0.1	0.0	0.0	0.0	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	2.4	2.6	1.2	2.5	2.5
20.2 [mV]	1.1	2.4	2.6	1.2	2.5	2.5
21.1 [mV]	1.0	1.3	1.5	1.0	1.5	1.3
21.2 [mV]	1.0	1.3	1.5	1.0	1.5	1.3
22.1 [mV]	1.0	1.3	1.5	1.0	1.5	1.3
22.2 [mV]	1.0	1.3	1.5	1.0	1.5	1.3
23.1 [mV]	1.5	2.7	3.0	1.5	2.9	2.7
23.2 [mV]	1.5	2.7	3.0	1.5	2.9	2.7
24.1 [mV]	213.7	205.4	214.2	209.9	212.9	219.8
24.2 [mV]	213.7	205.4	214.2	209.9	212.9	219.8
25.1 [mV]	208.6	199.4	207.8	203.8	205.5	214.5
25.2 [mV]	208.6	199.4	207.8	203.8	205.5	214.5
26.1 [mV]	212.1	201.1	206.3	204.5	204.8	215.6
26.2 [mV]	212.1	201.1	206.3	204.5	204.8	215.6
27.1 [mV]	214.2	206.3	213.4	209.1	210.5	221.4
27.2 [mV]	214.2	206.3	213.4	209.1	210.5	221.4

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_15_KRAD_5V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_15_KRAD_5V/2 from: 16.07.97 / 10:17:50
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 15 KRAD (Vin=5V) PROG2
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.36	-0.38	-0.57	-0.38	-0.37
2.1 [uA]	0.18	2272.45 F	2368.82 F	136.25	1987.45 F	2357.25 F
2.2 [uA]	0.18	2272.45 F	2368.82 F	136.25	1987.45 F	2357.25 F
3.1 [ ]	0	17 F	51 F	17 F	0	0
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.49	5.46	5.46	5.46
6.2 [V]	5.46	5.46	5.49	5.46	5.46	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.15	4.15	4.14	4.14	4.14	4.14
8.2 [V]	4.15	4.15	4.14	4.14	4.14	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
12.1 [V]	4.84	4.86	4.83	4.84	4.84	4.84
12.2 [V]	4.84	4.86	4.83	4.84	4.84	4.84
13.1 [V]	4.77	4.82	4.80	4.78	4.80	4.80
13.2 [V]	4.77	4.82	4.80	4.78	4.80	4.80
14.1 [V]	4.79	4.81	4.80	4.79	4.80	4.79
14.2 [V]	4.79	4.81	4.80	4.79	4.80	4.79
15.1 [V]	4.79	4.82	4.81	4.80	4.80	4.80
15.2 [V]	4.79	4.82	4.81	4.80	4.80	4.80
16.1 [V]	0.41	0.39	0.40	0.40	0.40	0.41
16.2 [V]	0.41	0.39	0.40	0.40	0.40	0.41
17.1 [V]	0.39	0.38	0.38	0.38	0.38	0.40
17.2 [V]	0.39	0.38	0.38	0.38	0.38	0.40
18.1 [V]	0.39	0.38	0.38	0.38	0.38	0.40
18.2 [V]	0.39	0.38	0.38	0.38	0.38	0.40
19.1 [V]	0.40	0.39	0.40	0.39	0.39	0.41
19.2 [V]	0.40	0.39	0.40	0.39	0.39	0.41

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_20_KRAD_5V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_20_KRAD_5V/1 from: 16.07.97 / 10:23:51
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 20 KRAD (Vin=5V) PROG1
:

Test steps

1.	Continuity test	-2.00	... 0.01	V
2.	IccH	0.01	... 350.00	uA
3.	Functional Test 1	0	... 0	
4.	Iil PIN 1	-100.0	... 100.0	nA
5.	Iil PIN 2	-100.0	... 100.0	nA
6.	Iil PIN 3	-100.0	... 100.0	nA
7.	Iil PIN 4	-100.0	... 100.0	nA
8.	Iil PIN 10	-100.0	... 100.0	nA
9.	Iil PIN 11	-100.0	... 100.0	nA
10.	Iil PIN 12	-100.0	... 100.0	nA
11.	Iil PIN 13	-100.0	... 100.0	nA
12.	Iih PIN 1	-100.0	... 100.0	nA
13.	Iih PIN 2	-100.0	... 100.0	nA
14.	Iih PIN 3	-100.0	... 100.0	nA
15.	Iih PIN 4	-100.00	... 100.00	uA
16.	Iih PIN 10	-100.0	... 100.0	nA
17.	Iih PIN 11	-100.0	... 100.0	nA
18.	Iih PIN 12	-100.0	... 100.0	nA
19.	Iih PIN 13	-100.0	... 100.0	nA
20.	Vol1 PIN 5	0.1	... 100.0	mV
21.	Vol1 PIN 6	0.1	... 100.0	mV
22.	Vol1 PIN 8	0.1	... 100.0	mV
23.	Vol1 PIN 9	0.1	... 100.0	mV
24.	Vol2 PIN 5	0.1	... 400.0	mV
25.	Vol2 PIN 6	0.1	... 400.0	mV
26.	Vol2 PIN 8	0.1	... 400.0	mV
27.	Vol2 PIN 9	0.1	... 400.0	mV

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.21	-0.21	-0.43	-0.23	-0.21
2.1 [uA]	0.25	3273.45 F	3273.45 F	1534.85 F	3273.45 F	3273.45 F
2.2 [uA]	0.25	3273.45 F	3273.45 F	1534.85 F	3273.45 F	3273.45 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.1	-0.0	-0.0	-0.1	-0.1	-0.1
5.2 [nA]	-0.1	-0.0	-0.0	-0.1	-0.1	-0.1
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	-0.0	0.0	-0.0	0.0	-0.0	0.0
9.2 [nA]	-0.0	0.0	-0.0	0.0	-0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.1	0.0	0.1	0.1	0.1
12.2 [nA]	0.0	0.1	0.0	0.1	0.1	0.1
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	-0.00	-0.00	0.00	-0.00	-0.01	0.00
15.2 [uA]	-0.00	-0.00	0.00	-0.00	-0.01	0.00
16.1 [nA]	0.0	0.0	0.1	0.1	0.1	0.1
16.2 [nA]	0.0	0.0	0.1	0.1	0.1	0.1
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.3	3.9	3.7	1.9	3.3	3.6
20.2 [mV]	1.3	3.9	3.7	1.9	3.3	3.6
21.1 [mV]	1.2	1.9	1.6	1.1	1.5	1.5
21.2 [mV]	1.2	1.9	1.6	1.1	1.5	1.5
22.1 [mV]	1.2	1.9	1.6	1.1	1.5	1.5
22.2 [mV]	1.2	1.9	1.6	1.1	1.5	1.5
23.1 [mV]	1.7	4.2	4.0	2.1	3.5	3.7
23.2 [mV]	1.7	4.2	4.0	2.1	3.5	3.7
24.1 [mV]	216.5	208.6	214.0	209.9	211.8	220.0
24.2 [mV]	216.5	208.6	214.0	209.9	211.8	220.0
25.1 [mV]	211.3	201.7	207.0	203.7	203.2	213.9
25.2 [mV]	211.3	201.7	207.0	203.7	203.2	213.9
26.1 [mV]	211.7	202.6	205.4	204.1	202.4	213.6
26.2 [mV]	211.7	202.6	205.4	204.1	202.4	213.6
27.1 [mV]	216.8	209.1	213.2	208.9	208.9	221.8
27.2 [mV]	216.8	209.1	213.2	208.9	208.9	221.8

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_20_KRAD_5V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_20_KRAD_5V/2 from: 16.07.97 / 10:35:49
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 20 KRAD (Vin=5V) PROG2
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.21	-0.21	-0.43	-0.23	-0.21
2.1 [uA]	0.27	3273.63 F	3273.63 F	1504.36 F	3273.63 F	3273.63 F
2.2 [uA]	0.27	3273.63 F	3273.63 F	1504.36 F	3273.63 F	3273.63 F
3.1 [ ]	0	17 F	51 F	17 F	51 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.49	5.46	5.46	5.46
6.2 [V]	5.46	5.46	5.49	5.46	5.46	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.15	4.14	4.14	4.14	4.14
8.2 [V]	4.14	4.15	4.14	4.14	4.14	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.1 [V]	4.15	4.15	4.14	4.15	4.15	4.14
11.2 [V]	4.15	4.15	4.14	4.15	4.15	4.14
12.1 [V]	4.84	4.86	4.83	4.84	4.84	4.84
12.2 [V]	4.84	4.86	4.83	4.84	4.84	4.84
13.1 [V]	4.77	4.82	4.80	4.79	4.80	4.77
13.2 [V]	4.77	4.82	4.80	4.79	4.80	4.77
14.1 [V]	4.78	4.80	4.83	4.79	4.80	4.79
14.2 [V]	4.78	4.80	4.83	4.79	4.80	4.79
15.1 [V]	4.81	4.83	4.80	4.80	4.80	4.81
15.2 [V]	4.81	4.83	4.80	4.80	4.80	4.81
16.1 [V]	0.40	0.39	0.40	0.40	0.40	0.41
16.2 [V]	0.40	0.39	0.40	0.40	0.40	0.41
17.1 [V]	0.39	0.38	0.39	0.38	0.38	0.40
17.2 [V]	0.39	0.38	0.39	0.38	0.38	0.40
18.1 [V]	0.39	0.38	0.38	0.38	0.38	0.40
18.2 [V]	0.39	0.38	0.38	0.38	0.38	0.40
19.1 [V]	0.40	0.39	0.40	0.39	0.39	0.41
19.2 [V]	0.40	0.39	0.40	0.39	0.39	0.41

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_25_KRAD_5V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_25_KRAD_5V/1 from: 16.07.97 / 10:41:33
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 25 KRAD (Vin=5V) PROG1
:

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccH	0.01	...	350.00 uA
3.	Functional Test 1	0	...	0
4.	Iil PIN 1	-100.0	...	100.0 nA
5.	Iil PIN 2	-100.0	...	100.0 nA
6.	Iil PIN 3	-100.0	...	100.0 nA
7.	Iil PIN 4	-100.0	...	100.0 nA
8.	Iil PIN 10	-100.0	...	100.0 nA
9.	Iil PIN 11	-100.0	...	100.0 nA
10.	Iil PIN 12	-100.0	...	100.0 nA
11.	Iil PIN 13	-100.0	...	100.0 nA
12.	Iih PIN 1	-100.0	...	100.0 nA
13.	Iih PIN 2	-100.0	...	100.0 nA
14.	Iih PIN 3	-100.0	...	100.0 nA
15.	Iih PIN 4	-100.00	...	100.00 uA
16.	Iih PIN 10	-100.0	...	100.0 nA
17.	Iih PIN 11	-100.0	...	100.0 nA
18.	Iih PIN 12	-100.0	...	100.0 nA
19.	Iih PIN 13	-100.0	...	100.0 nA
20.	Vol1 PIN 5	0.1	...	100.0 mV
21.	Vol1 PIN 6	0.1	...	100.0 mV
22.	Vol1 PIN 8	0.1	...	100.0 mV
23.	Vol1 PIN 9	0.1	...	100.0 mV
24.	Vol2 PIN 5	0.1	...	400.0 mV
25.	Vol2 PIN 6	0.1	...	400.0 mV
26.	Vol2 PIN 8	0.1	...	400.0 mV
27.	Vol2 PIN 9	0.1	...	400.0 mV

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.13	-0.14	-0.25	-0.15	-0.13
2.1 [uA]	0.22	3273.42 F	3273.42 F	3273.42 F	3273.42 F	3273.42 F
2.2 [uA]	0.22	3273.42 F	3273.42 F	3273.42 F	3273.42 F	3273.42 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.1	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.1	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	0.0	0.0	0.0	0.0	-0.0	0.0
9.2 [nA]	0.0	0.0	0.0	0.0	-0.0	0.0
10.1 [nA]	-0.0	0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.1	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.1	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	0.00	-0.00	-0.00	-0.00	-0.00
15.2 [uA]	0.00	0.00	-0.00	-0.00	-0.00	-0.00
16.1 [nA]	0.0	0.0	0.0	0.1	0.1	0.0
16.2 [nA]	0.0	0.0	0.0	0.1	0.1	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.2	5.1	4.9	3.2	4.4	5.0
20.2 [mV]	1.2	5.1	4.9	3.2	4.4	5.0
21.1 [mV]	1.1	2.3	1.9	1.4	1.7	1.9
21.2 [mV]	1.1	2.3	1.9	1.4	1.7	1.9
22.1 [mV]	1.1	2.2	1.9	1.4	1.7	1.9
22.2 [mV]	1.1	2.2	1.9	1.4	1.7	1.9
23.1 [mV]	1.6	5.5	5.1	3.2	4.5	5.1
23.2 [mV]	1.6	5.5	5.1	3.2	4.5	5.1
24.1 [mV]	215.0	209.7	215.0	210.9	212.3	222.3
24.2 [mV]	215.0	209.7	215.0	210.9	212.3	222.3
25.1 [mV]	210.0	201.9	206.6	203.9	203.1	215.1
25.2 [mV]	210.0	201.9	206.6	203.9	203.1	215.1
26.1 [mV]	210.5	203.0	205.5	204.4	202.2	215.7
26.2 [mV]	210.5	203.0	205.5	204.4	202.2	215.7
27.1 [mV]	215.5	210.3	214.2	210.0	209.7	223.8
27.2 [mV]	215.5	210.3	214.2	210.0	209.7	223.8

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_EMS_@_25_KRAD_5V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_EMS_@_25_KRAD_5V/2 from: 16.07.97 / 10:58:01
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number :
Vendor :
: CONTROL 105 ; RAD 108,121,127,128,132
: EMS @ 25 KRAD (Vin=5V) PROG2
:

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.13	-0.14	-0.25	-0.15	-0.14
2.1 [uA]	0.06	3273.54 F	3273.54 F	3273.54 F	3273.54 F	3273.54 F
2.2 [uA]	0.06	3273.54 F	3273.54 F	3273.54 F	3273.54 F	3273.54 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.48	5.46	5.46	5.46
6.2 [V]	5.46	5.46	5.48	5.46	5.46	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.15	4.14	4.14	4.14	4.14
8.2 [V]	4.14	4.15	4.14	4.14	4.14	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.1 [V]	4.15	4.16	4.15	4.15	4.15	4.14
10.2 [V]	4.15	4.16	4.15	4.15	4.15	4.14
11.1 [V]	4.15	4.15	4.14	4.15	4.15	4.14
11.2 [V]	4.15	4.15	4.14	4.15	4.15	4.14
12.1 [V]	4.84	4.85	4.83	4.84	4.84	4.83
12.2 [V]	4.84	4.85	4.83	4.84	4.84	4.83
13.1 [V]	4.77	4.81	4.79	4.78	4.79	4.76
13.2 [V]	4.77	4.81	4.79	4.78	4.79	4.76
14.1 [V]	4.78	4.80	4.79	4.79	4.80	4.78
14.2 [V]	4.78	4.80	4.79	4.79	4.80	4.78
15.1 [V]	4.80	4.82	4.81	4.80	4.79	4.79
15.2 [V]	4.80	4.82	4.81	4.80	4.79	4.79
16.1 [V]	0.40	0.39	0.40	0.40	0.41	0.42
16.2 [V]	0.40	0.39	0.40	0.40	0.41	0.42
17.1 [V]	0.39	0.38	0.38	0.38	0.39	0.40
17.2 [V]	0.39	0.38	0.38	0.38	0.39	0.40
18.1 [V]	0.39	0.38	0.38	0.38	0.38	0.41
18.2 [V]	0.39	0.38	0.38	0.38	0.38	0.41
19.1 [V]	0.40	0.39	0.40	0.39	0.40	0.42
19.2 [V]	0.40	0.39	0.40	0.39	0.40	0.42

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_POST_ANNEAL_EMS/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_POST_ANNEAL_EMS/1 from: 17.07.97 / 15:50:15
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105;108,121,127,128,132(Vin=5V);138-141,158(Vin=0V)
: POST ANNEAL EMS PROG1
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 1 1.0 IR 21JUN97 14PINTTL

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccH	0.01	...	350.00 uA
3.	Functional Test 1	0	...	0
4.	Iil PIN 1	-100.0	...	100.0 nA
5.	Iil PIN 2	-100.0	...	100.0 nA
6.	Iil PIN 3	-100.0	...	100.0 nA
7.	Iil PIN 4	-100.0	...	100.0 nA
8.	Iil PIN 10	-100.0	...	100.0 nA
9.	Iil PIN 11	-100.0	...	100.0 nA
10.	Iil PIN 12	-100.0	...	100.0 nA
11.	Iil PIN 13	-100.0	...	100.0 nA
12.	Iih PIN 1	-100.0	...	100.0 nA
13.	Iih PIN 2	-100.0	...	100.0 nA
14.	Iih PIN 3	-100.0	...	100.0 nA
15.	Iih PIN 4	-100.00	...	100.00 uA
16.	Iih PIN 10	-100.0	...	100.0 nA
17.	Iih PIN 11	-100.0	...	100.0 nA
18.	Iih PIN 12	-100.0	...	100.0 nA
19.	Iih PIN 13	-100.0	...	100.0 nA
20.	Vol1 PIN 5	0.1	...	100.0 mV
21.	Vol1 PIN 6	0.1	...	100.0 mV
22.	Vol1 PIN 8	0.1	...	100.0 mV
23.	Vol1 PIN 9	0.1	...	100.0 mV
24.	Vol2 PIN 5	0.1	...	400.0 mV
25.	Vol2 PIN 6	0.1	...	400.0 mV
26.	Vol2 PIN 8	0.1	...	400.0 mV
27.	Vol2 PIN 9	0.1	...	400.0 mV

	105	108	121	127	128	132
1.1 [V]	-0.65	-0.65	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.16	-0.17	-0.28	-0.19	-0.16
2.1 [uA]	0.31	3273.45 F	3273.45 F	2992.62 F	3273.45 F	3273.45 F
2.2 [uA]	0.31	3273.45 F	3273.45 F	2992.62 F	3273.45 F	3273.45 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.1	-0.0	-0.1	-0.1
5.2 [nA]	-0.0	-0.0	-0.1	-0.0	-0.1	-0.1
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.1	-0.1	-0.1	-0.1	-0.1
8.2 [nA]	-0.0	-0.1	-0.1	-0.1	-0.1	-0.1
9.1 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.1	0.1	0.1	0.1	0.1
12.2 [nA]	0.0	0.1	0.1	0.1	0.1	0.1
13.1 [nA]	0.0	0.0	0.1	0.1	0.1	0.1
13.2 [nA]	0.0	0.0	0.1	0.1	0.1	0.1
14.1 [nA]	0.0	0.0	0.1	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.1	0.0	0.0	0.0
15.1 [uA]	-0.01	-0.00	0.00	-0.00	-0.00	-0.00
15.2 [uA]	-0.01	-0.00	0.00	-0.00	-0.00	-0.00
16.1 [nA]	0.0	0.1	0.1	0.1	0.1	0.1
16.2 [nA]	0.0	0.1	0.1	0.1	0.1	0.1
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	3.8	4.1	2.8	3.8	4.0
20.2 [mV]	1.1	3.8	4.1	2.8	3.8	4.0
21.1 [mV]	1.0	1.6	1.8	1.3	1.8	1.6
21.2 [mV]	1.0	1.6	1.8	1.3	1.8	1.6
22.1 [mV]	1.0	1.6	1.8	1.4	1.8	1.6
22.2 [mV]	1.0	1.6	1.8	1.4	1.8	1.6
23.1 [mV]	1.4	4.1	4.4	2.9	4.0	4.1
23.2 [mV]	1.4	4.1	4.4	2.9	4.0	4.1
24.1 [mV]	211.7	204.8	213.0	209.6	211.7	219.2
24.2 [mV]	211.7	204.8	213.0	209.6	211.7	219.2
25.1 [mV]	207.0	198.0	205.5	203.1	203.7	213.0
25.2 [mV]	207.0	198.0	205.5	203.1	203.7	213.0
26.1 [mV]	207.2	199.2	204.4	203.6	202.8	212.9
26.2 [mV]	207.2	199.2	204.4	203.6	202.8	212.9
27.1 [mV]	219.5	205.6	212.3	208.8	209.2	222.7
27.2 [mV]	219.5	205.6	212.3	208.8	209.2	222.7

	138	139	140	141	158	

1.1	[V]	-0.65		-0.65		-0.65		-0.64		-0.65	
1.2	[V]	-0.42		-0.42		-0.42		-0.42		-0.42	
2.1	[uA]	2041.49	F	910.39	F	3273.45	F	2985.89	F	3273.45	F
2.2	[uA]	2041.49	F	910.39	F	3273.45	F	2985.89	F	3273.45	F
3.1	[ ]	17	F	17	F	17	F	17	F	17	F
3.2	[ ]	0		0		0		0		0	
4.1	[nA]	-0.1		-0.1		-0.1		-0.1		-0.1	
4.2	[nA]	-0.1		-0.1		-0.1		-0.1		-0.1	
5.1	[nA]	-0.1		-0.0		-0.0		-0.0		-0.0	
5.2	[nA]	-0.1		-0.0		-0.0		-0.0		-0.0	
6.1	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
6.2	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
7.1	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
7.2	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
8.1	[nA]	-0.1		-0.1		-0.0		-0.1		-0.1	
8.2	[nA]	-0.1		-0.1		-0.0		-0.1		-0.1	
9.1	[nA]	0.0		-0.0		0.0		0.0		0.0	
9.2	[nA]	0.0		-0.0		0.0		0.0		0.0	
10.1	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
10.2	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
11.1	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
11.2	[nA]	-0.0		-0.0		-0.0		-0.0		-0.0	
12.1	[nA]	0.1		0.1		0.1		0.1		0.1	
12.2	[nA]	0.1		0.1		0.1		0.1		0.1	
13.1	[nA]	0.1		0.0		0.1		0.1		0.1	
13.2	[nA]	0.1		0.0		0.1		0.1		0.1	
14.1	[nA]	0.0		0.0		0.1		0.1		0.1	
14.2	[nA]	0.0		0.0		0.1		0.1		0.1	
15.1	[uA]	-0.00		-0.00		0.00		0.00		0.00	
15.2	[uA]	-0.00		-0.00		0.00		0.00		0.00	
16.1	[nA]	0.1		0.1		0.1		0.1		0.1	
16.2	[nA]	0.1		0.1		0.1		0.1		0.1	
17.1	[nA]	0.0		0.0		0.0		0.0		0.0	
17.2	[nA]	0.0		0.0		0.0		0.0		0.0	
18.1	[nA]	0.0		0.0		0.0		0.0		0.0	
18.2	[nA]	0.0		0.0		0.0		0.0		0.0	
19.1	[nA]	0.0		0.0		0.0		0.0		0.0	
19.2	[nA]	0.0		0.0		0.0		0.0		0.0	
20.1	[mV]	1.6		1.5		2.5		1.8		2.1	
20.2	[mV]	1.6		1.5		2.5		1.8		2.1	
21.1	[mV]	1.4		1.3		2.1		1.6		1.8	
21.2	[mV]	1.4		1.3		2.1		1.6		1.8	
22.1	[mV]	1.4		1.3		2.1		1.5		1.8	
22.2	[mV]	1.4		1.3		2.1		1.5		1.8	
23.1	[mV]	2.0		1.9		2.8		2.1		2.4	
23.2	[mV]	2.0		1.9		2.8		2.1		2.4	
24.1	[mV]	207.7		210.5		212.7		212.3		209.1	
24.2	[mV]	207.7		210.5		212.7		212.3		209.1	
25.1	[mV]	205.2		207.3		206.4		207.4		205.0	
25.2	[mV]	205.2		207.3		206.4		207.4		205.0	
26.1	[mV]	213.4		205.5		207.1		208.0		205.0	
26.2	[mV]	213.4		205.5		207.1		208.0		205.0	
27.1	[mV]	209.5		209.5		211.3		214.5		210.2	
27.2	[mV]	209.5		209.5		211.3		214.5		210.2	

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_POST_ANNEAL_EMS/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_POST_ANNEAL_EMS/2 from: 17.07.97 / 16:01:09
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105;108,121,127,128,132(Vin=5V);138-141,158(Vin=0V)
: POST ANNEAL EMS PROG2
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 2 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	108	121	127	128	132
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.58	-0.16	-0.17	-0.28	-0.19	-0.16
2.1 [uA]	0.26	3273.24 F	3273.24 F	2987.77 F	3273.24 F	3273.24 F
2.2 [uA]	0.26	3273.24 F	3273.24 F	2987.77 F	3273.24 F	3273.24 F
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.48	5.46	5.46	5.46
6.2 [V]	5.46	5.46	5.48	5.46	5.46	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.15	4.14	4.14	4.14	4.14
8.2 [V]	4.14	4.15	4.14	4.14	4.14	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.1 [V]	4.14	4.16	4.15	4.15	4.15	4.15
10.2 [V]	4.14	4.16	4.15	4.15	4.15	4.15
11.1 [V]	4.14	4.15	4.14	4.15	4.15	4.14
11.2 [V]	4.14	4.15	4.14	4.15	4.15	4.14
12.1 [V]	4.83	4.85	4.83	4.84	4.84	4.84
12.2 [V]	4.83	4.85	4.83	4.84	4.84	4.84
13.1 [V]	4.75	4.81	4.79	4.78	4.79	4.77
13.2 [V]	4.75	4.81	4.79	4.78	4.79	4.77
14.1 [V]	4.78	4.80	4.83	4.79	4.80	4.79
14.2 [V]	4.78	4.80	4.83	4.79	4.80	4.79
15.1 [V]	4.79	4.81	4.79	4.80	4.80	4.79
15.2 [V]	4.79	4.81	4.79	4.80	4.80	4.79
16.1 [V]	0.41	0.39	0.40	0.39	0.40	0.41
16.2 [V]	0.41	0.39	0.40	0.39	0.40	0.41
17.1 [V]	0.39	0.37	0.38	0.38	0.38	0.40
17.2 [V]	0.39	0.37	0.38	0.38	0.38	0.40
18.1 [V]	0.39	0.38	0.38	0.38	0.38	0.39
18.2 [V]	0.39	0.38	0.38	0.38	0.38	0.39
19.1 [V]	0.41	0.39	0.39	0.39	0.39	0.41
19.2 [V]	0.41	0.39	0.39	0.39	0.39	0.41

	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.42	-0.42	-0.42	-0.42	-0.42
2.1 [uA]	2039.67 F	910.74 F	3273.24 F	2982.57 F	3273.24 F
2.2 [uA]	2039.67 F	910.74 F	3273.24 F	2982.57 F	3273.24 F
3.1 [ ]	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.44	5.45	5.44	5.45	5.45
5.2 [V]	5.44	5.45	5.44	5.45	5.45
6.1 [V]	5.45	5.46	5.46	5.48	5.46
6.2 [V]	5.45	5.46	5.46	5.48	5.46
7.1 [V]	5.48	5.49	5.49	5.49	5.49
7.2 [V]	5.48	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.13	4.13	4.13	4.14
8.2 [V]	4.14	4.13	4.13	4.13	4.14

9.1 [V]	4.14	4.14	4.14	4.14	4.15
9.2 [V]	4.14	4.14	4.14	4.14	4.15
10.1 [V]	4.14	4.14	4.14	4.14	4.14
10.2 [V]	4.14	4.14	4.14	4.14	4.14
11.1 [V]	4.14	4.14	4.14	4.14	4.14
11.2 [V]	4.14	4.14	4.14	4.14	4.14
12.1 [V]	4.84	4.82	4.83	4.82	4.84
12.2 [V]	4.84	4.82	4.83	4.82	4.84
13.1 [V]	4.75	4.75	4.75	4.74	4.76
13.2 [V]	4.75	4.75	4.75	4.74	4.76
14.1 [V]	4.77	4.78	4.77	4.80	4.78
14.2 [V]	4.77	4.78	4.77	4.80	4.78
15.1 [V]	4.78	4.81	4.78	4.77	4.79
15.2 [V]	4.78	4.81	4.78	4.77	4.79
16.1 [V]	0.39	0.40	0.40	0.40	0.40
16.2 [V]	0.39	0.40	0.40	0.40	0.40
17.1 [V]	0.40	0.39	0.39	0.39	0.38
17.2 [V]	0.40	0.39	0.39	0.39	0.38
18.1 [V]	0.39	0.38	0.39	0.39	0.38
18.2 [V]	0.39	0.38	0.39	0.39	0.38
19.1 [V]	0.39	0.39	0.40	0.40	0.39
19.2 [V]	0.39	0.39	0.40	0.40	0.39

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_FINAL_EMS_5V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_FINAL_EMS_5V/1 from: 25.07.97 / 16:02:34
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105 : RAD 108,121,127,128,132
: FINAL EMS @ IGG (Vin=5V) PROG1
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 1 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	... 0.01	V
2.	IccH	0.01	... 350.00	uA
3.	Functional Test 1	0	... 0	
4.	Iil PIN 1	-100.0	... 100.0	nA
5.	Iil PIN 2	-100.0	... 100.0	nA
6.	Iil PIN 3	-100.0	... 100.0	nA
7.	Iil PIN 4	-100.0	... 100.0	nA
8.	Iil PIN 10	-100.0	... 100.0	nA
9.	Iil PIN 11	-100.0	... 100.0	nA
10.	Iil PIN 12	-100.0	... 100.0	nA
11.	Iil PIN 13	-100.0	... 100.0	nA
12.	Iih PIN 1	-100.0	... 100.0	nA
13.	Iih PIN 2	-100.0	... 100.0	nA
14.	Iih PIN 3	-100.0	... 100.0	nA
15.	Iih PIN 4	-100.00	... 100.00	uA
16.	Iih PIN 10	-100.0	... 100.0	nA
17.	Iih PIN 11	-100.0	... 100.0	nA
18.	Iih PIN 12	-100.0	... 100.0	nA
19.	Iih PIN 13	-100.0	... 100.0	nA
20.	Vol1 PIN 5	0.1	... 100.0	mV
21.	Vol1 PIN 6	0.1	... 100.0	mV
22.	Vol1 PIN 8	0.1	... 100.0	mV
23.	Vol1 PIN 9	0.1	... 100.0	mV
24.	Vol2 PIN 5	0.1	... 400.0	mV
25.	Vol2 PIN 6	0.1	... 400.0	mV
26.	Vol2 PIN 8	0.1	... 400.0	mV
27.	Vol2 PIN 9	0.1	... 400.0	mV

	105	108	121	127	128	132
1.1 [V]	-0.65	-0.65	-0.64	-0.65	-0.65	-0.65
1.2 [V]	-0.59	-0.58	-0.58	-0.59	-0.59	-0.58
2.1 [uA]	0.22	0.02	0.25	0.32	0.45	0.42
2.2 [uA]	0.22	0.02	0.25	0.32	0.45	0.42
3.1 [ ]	0	0	0	17 F	0	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
5.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.1	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.1	-0.0
9.1 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.1	0.0	0.0	0.1	0.0
12.2 [nA]	0.0	0.1	0.0	0.0	0.1	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	0.00	0.01	-0.00	0.00	-0.00
15.2 [uA]	0.00	0.00	0.01	-0.00	0.00	-0.00
16.1 [nA]	0.0	0.1	0.1	0.0	0.1	0.0
16.2 [nA]	0.0	0.1	0.1	0.0	0.1	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.2	1.4	1.3	1.1	1.2	1.1
20.2 [mV]	1.2	1.4	1.3	1.1	1.2	1.1
21.1 [mV]	1.1	1.3	1.2	1.0	1.0	1.0
21.2 [mV]	1.1	1.3	1.2	1.0	1.0	1.0
22.1 [mV]	1.1	1.3	1.2	1.0	1.0	1.0
22.2 [mV]	1.1	1.3	1.2	1.0	1.0	1.0
23.1 [mV]	1.6	2.0	1.9	1.5	1.5	1.5
23.2 [mV]	1.6	2.0	1.9	1.5	1.5	1.5
24.1 [mV]	213.2	209.2	215.6	210.5	210.6	220.0
24.2 [mV]	213.2	209.2	215.6	210.5	210.6	220.0
25.1 [mV]	208.7	201.8	207.6	202.5	201.5	203.2
25.2 [mV]	208.7	201.8	207.6	202.5	201.5	203.2
26.1 [mV]	209.9	204.0	206.7	203.1	200.8	202.9
26.2 [mV]	209.9	204.0	206.7	203.1	200.8	202.9
27.1 [mV]	215.1	210.2	215.1	210.3	208.2	230.2
27.2 [mV]	215.1	210.2	215.1	210.3	208.2	230.2

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233_54ACT74_FINAL_EMS_5V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233_54ACT74_FINAL_EMS_5V/2 from: 25.07.97 / 16:11:23
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105 ; RAD 108,121,127,128,132
: FINAL EMS @ IGG (Vin=5V) PROG2
: 54ACT74 XM-PL-IGG-0035 ISS1 RD.2 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01	V
2.	IccL	0.01	...	350.00	uA
3.	Functional Test 2	0	...	0	
4.	Voh1 PIN 5	5.40	...	5.50	V
5.	Voh1 PIN 6	5.40	...	5.50	V
6.	Voh1 PIN 8	5.40	...	5.50	V
7.	Voh1 PIN 9	5.40	...	5.50	V
8.	Voh2 PIN 5	3.70	...	4.50	V
9.	Voh2 PIN 6	3.70	...	4.50	V
10.	Voh2 PIN 8	3.70	...	4.50	V
11.	Voh2 PIN 9	3.70	...	4.50	V
12.	Voh3 PIN 5	3.85	...	5.50	V
13.	Voh3 PIN 6	3.85	...	5.50	V
14.	Voh3 PIN 8	3.85	...	5.50	V
15.	Voh3 PIN 9	3.85	...	5.50	V
16.	Vol3 PIN 5	0.01	...	1.65	V
17.	Vol3 PIN 6	0.01	...	1.65	V
18.	Vol3 PIN 8	0.01	...	1.65	V
19.	Vol3 PIN 9	0.01	...	1.65	V

	105	108	121	127	128	132
1.1 [V]	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65
1.2 [V]	-0.59	-0.58	-0.58	-0.59	-0.59	-0.58
2.1 [uA]	0.11	0.01	0.11	0.09	0.05	0.12
2.2 [uA]	0.11	0.01	0.11	0.09	0.05	0.12
3.1 [ ]	0	0	0	17 F	0	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.49	5.46	5.46	5.46
6.2 [V]	5.46	5.46	5.49	5.46	5.46	5.46
7.1 [V]	5.49	5.49	5.49	5.49	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.49	5.49	5.49
8.1 [V]	4.14	4.15	4.14	4.14	4.14	4.14
8.2 [V]	4.14	4.15	4.14	4.14	4.14	4.14
9.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
9.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
10.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.1 [V]	4.15	4.16	4.15	4.15	4.15	4.15
11.2 [V]	4.15	4.16	4.15	4.15	4.15	4.15
12.1 [V]	4.84	4.86	4.84	4.84	4.85	4.84
12.2 [V]	4.84	4.86	4.84	4.84	4.85	4.84
13.1 [V]	4.77	4.82	4.78	4.79	4.79	4.78
13.2 [V]	4.77	4.82	4.78	4.79	4.79	4.78
14.1 [V]	4.79	4.81	4.83	4.80	4.80	4.79
14.2 [V]	4.79	4.81	4.83	4.80	4.80	4.79
15.1 [V]	4.79	4.83	4.82	4.80	4.80	4.80
15.2 [V]	4.79	4.83	4.82	4.80	4.80	4.80
16.1 [V]	0.40	0.38	0.40	0.39	0.40	0.41
16.2 [V]	0.40	0.38	0.40	0.39	0.40	0.41
17.1 [V]	0.39	0.37	0.38	0.38	0.38	0.38
17.2 [V]	0.39	0.37	0.38	0.38	0.38	0.38
18.1 [V]	0.38	0.37	0.38	0.38	0.37	0.38
18.2 [V]	0.38	0.37	0.38	0.38	0.37	0.38
19.1 [V]	0.40	0.38	0.40	0.39	0.39	0.41
19.2 [V]	0.40	0.38	0.40	0.39	0.39	0.41

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233 54ACT74 FINAL EMS 0V/1 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233 54ACT74 FINAL EMS 0V/1 from: 31.07.97 / 15:15:32
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105 ; RAD 138-141,158
: FINAL EMS @ IGG (Vin=0V) PROG1
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 1 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccH	0.01	...	350.00 uA
3.	Functional Test 1	0	...	0
4.	Iil PIN 1	-100.0	...	100.0 nA
5.	Iil PIN 2	-100.0	...	100.0 nA
6.	Iil PIN 3	-100.0	...	100.0 nA
7.	Iil PIN 4	-100.0	...	100.0 nA
8.	Iil PIN 10	-100.0	...	100.0 nA
9.	Iil PIN 11	-100.0	...	100.0 nA
10.	Iil PIN 12	-100.0	...	100.0 nA
11.	Iil PIN 13	-100.0	...	100.0 nA
12.	Iih PIN 1	-100.0	...	100.0 nA
13.	Iih PIN 2	-100.0	...	100.0 nA
14.	Iih PIN 3	-100.0	...	100.0 nA
15.	Iih PIN 4	-100.00	...	100.00 uA
16.	Iih PIN 10	-100.0	...	100.0 nA
17.	Iih PIN 11	-100.0	...	100.0 nA
18.	Iih PIN 12	-100.0	...	100.0 nA
19.	Iih PIN 13	-100.0	...	100.0 nA
20.	Vol1 PIN 5	0.1	...	100.0 mV
21.	Vol1 PIN 6	0.1	...	100.0 mV
22.	Vol1 PIN 8	0.1	...	100.0 mV
23.	Vol1 PIN 9	0.1	...	100.0 mV
24.	Vol2 PIN 5	0.1	...	400.0 mV
25.	Vol2 PIN 6	0.1	...	400.0 mV
26.	Vol2 PIN 8	0.1	...	400.0 mV
27.	Vol2 PIN 9	0.1	...	400.0 mV

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.58	-0.58	-0.42	-0.58	-0.58
2.1 [uA]	0.27	0.03	0.09	2794.63 F	0.13	2.53
2.2 [uA]	0.27	0.03	0.09	2794.63 F	0.13	2.53
3.1 [ ]	0	17 F	17 F	17 F	17 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4.2 [nA]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5.1 [nA]	-0.1	-0.0	-0.0	-0.1	-0.0	-0.0
5.2 [nA]	-0.1	-0.0	-0.0	-0.1	-0.0	-0.0
6.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
6.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
7.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
8.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
9.1 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
9.2 [nA]	-0.0	0.0	0.0	0.0	0.0	0.0
10.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
10.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.1 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
11.2 [nA]	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
12.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
12.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
13.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
14.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
15.1 [uA]	0.00	-0.00	-0.01	-0.00	0.00	0.00
15.2 [uA]	0.00	-0.00	-0.01	-0.00	0.00	0.00
16.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
16.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
17.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
18.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.1 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
19.2 [nA]	0.0	0.0	0.0	0.0	0.0	0.0
20.1 [mV]	1.1	1.1	1.5	2.2	1.1	1.1
20.2 [mV]	1.1	1.1	1.5	2.2	1.1	1.1
21.1 [mV]	1.0	1.0	1.4	2.1	1.0	1.0
21.2 [mV]	1.0	1.0	1.4	2.1	1.0	1.0
22.1 [mV]	1.0	1.0	1.4	2.0	1.0	1.0
22.2 [mV]	1.0	1.0	1.4	2.0	1.0	1.0
23.1 [mV]	1.5	1.5	2.1	2.8	1.4	1.4
23.2 [mV]	1.5	1.5	2.1	2.8	1.4	1.4
24.1 [mV]	214.0	207.3	215.7	216.2	212.1	208.3
24.2 [mV]	214.0	207.3	215.7	216.2	212.1	208.3
25.1 [mV]	209.5	205.2	213.4	210.6	207.3	204.3
25.2 [mV]	209.5	205.2	213.4	210.6	207.3	204.3
26.1 [mV]	209.4	204.8	210.6	210.4	207.2	204.3
26.2 [mV]	209.4	204.8	210.6	210.4	207.2	204.3
27.1 [mV]	215.5	208.1	214.5	214.4	212.6	208.7
27.2 [mV]	215.5	208.1	214.5	214.4	212.6	208.7

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA10
RD233 54ACT74 FINAL EMS 0V/2 / 1.0 IR 21JUN97 14PIN TTL

Results file : RD233 54ACT74 FINAL EMS 0V/2 from: 31.07.97 / 15:21:31
Operator : PAUL RUSSELL
Part number : 54ACT74
Lot number : RD233
Order number : D/C 9610A
Vendor : NSC
: CONTROL 105 ; RAD 138-141,158
: FINAL EMS @ IGG (Vin=0V) PROG2
: 54ACT74 XM-PL-IGG-0035 ISS1 RD 2 1.0 IR 21JUN97 14PIN TTL

Test steps

1.	Continuity test	-2.00	...	0.01 V
2.	IccL	0.01	...	350.00 uA
3.	Functional Test 2	0	...	0
4.	Voh1 PIN 5	5.40	...	5.50 V
5.	Voh1 PIN 6	5.40	...	5.50 V
6.	Voh1 PIN 8	5.40	...	5.50 V
7.	Voh1 PIN 9	5.40	...	5.50 V
8.	Voh2 PIN 5	3.70	...	4.50 V
9.	Voh2 PIN 6	3.70	...	4.50 V
10.	Voh2 PIN 8	3.70	...	4.50 V
11.	Voh2 PIN 9	3.70	...	4.50 V
12.	Voh3 PIN 5	3.85	...	5.50 V
13.	Voh3 PIN 6	3.85	...	5.50 V
14.	Voh3 PIN 8	3.85	...	5.50 V
15.	Voh3 PIN 9	3.85	...	5.50 V
16.	Vol3 PIN 5	0.01	...	1.65 V
17.	Vol3 PIN 6	0.01	...	1.65 V
18.	Vol3 PIN 8	0.01	...	1.65 V
19.	Vol3 PIN 9	0.01	...	1.65 V

	105	138	139	140	141	158
1.1 [V]	-0.64	-0.64	-0.64	-0.64	-0.64	-0.64
1.2 [V]	-0.59	-0.58	-0.58	-0.42	-0.58	-0.58
2.1 [uA]	0.18	0.11	0.11	2799.72 F	0.35	2.65
2.2 [uA]	0.18	0.11	0.11	2799.72 F	0.35	2.65
3.1 [ ]	0	17 F	51 F	17 F	51 F	17 F
3.2 [ ]	0	0	0	0	0	0
4.1 [V]	5.50	5.50	5.50	5.50	5.50	5.50
4.2 [V]	5.50	5.50	5.50	5.50	5.50	5.50
5.1 [V]	5.45	5.45	5.45	5.45	5.45	5.45
5.2 [V]	5.45	5.45	5.45	5.45	5.45	5.45
6.1 [V]	5.46	5.46	5.46	5.46	5.49	5.46
6.2 [V]	5.46	5.46	5.46	5.46	5.49	5.46
7.1 [V]	5.49	5.49	5.49	5.50	5.49	5.49
7.2 [V]	5.49	5.49	5.49	5.50	5.49	5.49
8.1 [V]	4.14	4.14	4.14	4.14	4.14	4.14
8.2 [V]	4.14	4.14	4.14	4.14	4.14	4.14
9.1 [V]	4.15	4.15	4.14	4.14	4.14	4.15
9.2 [V]	4.15	4.15	4.14	4.14	4.14	4.15
10.1 [V]	4.15	4.14	4.15	4.14	4.14	4.15
10.2 [V]	4.15	4.14	4.15	4.14	4.14	4.15
11.1 [V]	4.15	4.14	4.14	4.14	4.14	4.15
11.2 [V]	4.15	4.14	4.14	4.14	4.14	4.15
12.1 [V]	4.84	4.84	4.82	4.83	4.82	4.84
12.2 [V]	4.84	4.84	4.82	4.83	4.82	4.84
13.1 [V]	4.76	4.77	4.75	4.76	4.74	4.77
13.2 [V]	4.76	4.77	4.75	4.76	4.74	4.77
14.1 [V]	4.79	4.78	4.78	4.78	4.81	4.79
14.2 [V]	4.79	4.78	4.78	4.78	4.81	4.79
15.1 [V]	4.80	4.80	4.79	4.79	4.78	4.79
15.2 [V]	4.80	4.80	4.79	4.79	4.78	4.79
16.1 [V]	0.40	0.39	0.39	0.41	0.40	0.39
16.2 [V]	0.40	0.39	0.39	0.41	0.40	0.39
17.1 [V]	0.39	0.38	0.39	0.39	0.39	0.38
17.2 [V]	0.39	0.38	0.39	0.39	0.39	0.38
18.1 [V]	0.39	0.38	0.38	0.39	0.38	0.38
18.2 [V]	0.39	0.38	0.38	0.39	0.38	0.38
19.1 [V]	0.40	0.39	0.39	0.40	0.40	0.39
19.2 [V]	0.40	0.39	0.39	0.40	0.40	0.39

INITIAL EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54ACT74 OPTION – SHEET 1 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{ICI} (V) PIN 1	V_{ICI} (V) PIN 2	V_{ICI} (V) PIN 3	V_{ICI} (V) PIN 4	V_{ICI} (V) PIN 10	V_{ICI} (V) PIN 11	V_{ICI} (V) PIN 12
CONTROL 105	-0.744	-0.744	-0.746	-0.744	-0.746	-0.746	-0.744
108	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.746
121	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
127	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
128	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
132	-0.744	-0.744	-0.744	-0.744	-0.744	-0.746	-0.744
138	-0.748	-0.746	-0.746	-0.746	-0.748	-0.748	-0.746
139	-0.744	-0.744	-0.746	-0.744	-0.746	-0.746	-0.744
140	-0.746	-0.746	-0.746	-0.746	-0.746	-0.748	-0.746
141	-0.744	-0.746	-0.746	-0.746	-0.744	-0.746	-0.744
158	-0.744	-0.744	-0.744	-0.744	-0.746	-0.746	-0.744
Limit	$\geq -1.5V$ $\leq -0.4V$						
Condition	$I_{IN} = -1mA$ $V_{SS} = 0V$						

Measured by P.B. Mansell Date 10TH JULY 1997

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

INITIAL EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54 ACT 74 OPTION - SHEET 2 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{IC1} (V) PIN 13		V_{IC2} (V) PIN 1	V_{IC2} (V) PIN 2	V_{IC2} (V) PIN 3	V_{IC2} (V) PIN 4	V_{IC2} (V) PIN 10
CONTROL 105	-0.746		0.784	0.784	0.784	0.784	0.784
108	-0.744		0.784	0.782	0.784	0.782	0.782
121	-0.744		0.784	0.782	0.784	0.782	0.784
127	-0.744		0.784	0.784	0.784	0.784	0.784
128	-0.744		0.784	0.784	0.784	0.784	0.784
132	-0.744		0.784	0.784	0.784	0.786	0.784
138	-0.748		0.784	0.784	0.784	0.784	0.784
139	-0.746		0.784	0.784	0.784	0.784	0.784
140	-0.748		0.786	0.784	0.784	0.784	0.784
141	-0.746		0.784	0.784	0.784	0.784	0.784
158	-0.746		0.784	0.784	0.784	0.784	0.784
Limit	$\geq -1.5V$ $\leq -0.4V$		$\geq 0.4V$ $\leq 1.5V$	→	→	→	→
Condition	$I_{IN} = -1mA$ $V_{SS} = 0V$		$I_{IN} = 1mA$ $V_{DD} = 0V$	→	→	→	→

Measured by P.A. Mussell Date 10TH JULY 1997

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

INITIALS EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54ACT74 OPTION - SHEET 3 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{ICL} (V) PIN 11	V_{ICL} (V) PIN 12	V_{ICL} (V) PIN 13				
CONTROL 105	0.784	0.782	0.784				
108	0.784	0.784	0.784				
121	0.784	0.782	0.784				
127	0.784	0.784	0.784				
128	0.784	0.782	0.784				
132	0.784	0.784	0.784				
138	0.784	0.784	0.784				
139	0.784	0.784	0.784				
140	0.786	0.784	0.786				
141	0.784	0.784	0.784				
158	0.784	0.784	0.784				
Limit	≥ 0.4 V ≤ 1.5 V	→					
Condition	$I_{IN} = 1$mA $V_{DD} = 0$V	→					

Measured by P.A. Russell Date 10TH JULY 1997

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

POST ANNEAL EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54ACT74 OPTION - SHEET 1 OF 3

ELECTRICAL MEASUREMENTS w.r.t. xM-PL-166-0035 Table A

Parameter Serial No's	V_{ICI} (V) PIN 1	V_{ICI} (V) PIN 2	V_{ICI} (V) PIN 3	V_{ICI} (V) PIN 4	V_{ICI} (V) PIN 10	V_{ICI} (V) PIN 11	V_{ICI} (V) PIN 12
CONTROL 105	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
108	-0.744	-0.744	-0.744	-0.742	-0.744	-0.744	-0.744
121	-0.742	-0.742	-0.742	-0.744	-0.742	-0.742	-0.744
127	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
128	-0.742	-0.742	-0.742	-0.742	-0.742	-0.744	-0.744
132	-0.744	-0.742	-0.742	-0.742	-0.742	-0.744	-0.742
138	-0.744	-0.742	-0.744	-0.744	-0.744	-0.744	-0.744
139	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
140	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
141	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
158	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744
Limit	$\geq -1.5V$ $\leq -0.4V$						
Condition	$I_{IN} = -1mA$ $V_{SS} = 0V$						

Measured by P.A. Russell Date 17TH JULY 1997

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

POST ANNEAL EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54ACT74 OPTION - SHEET 2 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{IC1} (V) PIN 13		V_{IC2} (V) PIN 1	V_{IC2} (V) PIN 2	V_{IC2} (V) PIN 3	V_{IC2} (V) PIN 4	V_{IC2} (V) PIN 10
CONTROL 105	-0.744		0.784	0.784	0.784	0.784	0.784
108	-0.744		0.780	0.780	0.780	0.780	0.780
121	-0.744		0.780	0.780	0.780	0.780	0.780
127	-0.744		0.780	0.780	0.780	0.780	0.780
128	-0.744		0.780	0.780	0.782	0.782	0.780
132	-0.744		0.780	0.782	0.782	0.780	0.780
138	-0.744		0.782	0.782	0.782	0.782	0.782
139	-0.744		0.782	0.782	0.782	0.782	0.782
140	-0.744		0.782	0.782	0.782	0.780	0.780
141	-0.744		0.782	0.780	0.780	0.780	0.782
158	-0.744		0.780	0.782	0.782	0.782	0.782
Limit	≥ -1.5 V ≤ -0.4 V		≥ 0.4V ≤ 1.5V				
Condition	$I_N = -1$mA $V_{SS} = 0$V		$I_{IN} = 1$mA $V_{DD} = 0$V				

Measured by P A Russell Date 17TH JULY 1997

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

POST ANNEAL EMS @ IGC

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54ACT 74 OPTION SHEET 3 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{ICC} (V) PIN 11	V_{ICC} (V) PIN 12	V_{ICC} (V) PIN 13				
CONTROL 105	0.784	0.784	0.784				
108	0.780	0.782	0.782				
121	0.780	0.780	0.780				
127	0.780	0.780	0.780				
128	0.782	0.780	0.782				
132	0.780	0.780	0.782				
138	0.782	0.782	0.782				
139	0.782	0.782	0.782				
140	0.782	0.780	0.782				
141	0.782	0.780	0.780				
158	0.782	0.782	0.782				
Limit	≥ 0.4 V ≤ 1.5 V	→					
Condition	$I_{IN} = 1$mA $V_{DD} = 0$V	→					

Measured by P. A. Mussell Date 17TH JULY 1997

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

FINAL EMS @ 166.

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54 ACT 74 OPTION – SHEET 1 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{ICI} (V) PIN 1	V_{ICI} (V) PIN 2	V_{ICI} (V) PIN 3	V_{ICI} (V) PIN 4	V_{ICI} (V) PIN 10	V_{ICI} (V) PIN 11	V_{ICI} (V) PIN 12
CONTROL 105	-0.744	-0.744	-0.744	-0.744	-0.745	-0.745	-0.745
108	-0.744	-0.744	-0.744	-0.744	-0.744	-0.744	-0.745
121	-0.743	-0.744	-0.743	-0.743	-0.744	-0.744	-0.744
127	-0.745	-0.745	-0.745	-0.745	-0.745	-0.745	-0.745
128	-0.744	-0.744	-0.744	-0.744	-0.745	-0.745	-0.745
132	-0.745	-0.745	-0.745	-0.744	-0.744	-0.745	-0.745
138	-0.745	-0.745	-0.745	-0.744	-0.745	-0.745	-0.744
139	-0.745	-0.745	-0.745	-0.744	-0.745	-0.745	-0.745
140	-0.744	-0.744	-0.745	-0.745	-0.745	-0.745	-0.745
141	-0.745	-0.744	-0.745	-0.745	-0.744	-0.744	-0.744
158	-0.744	-0.745	-0.745	-0.745	-0.745	-0.745	-0.745
Limit	≥ -1.5 V ≤ -0.4 V						
Condition	I_{IN} = -1mA V_{SS} = 0V						

Measured by P.A. Russell Date 25/7/97

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

FINAL EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54ACT74 OPTION - SHEET 2 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{IC1} (V) PIN 13		V_{IC2} (V) PIN 1	V_{IC2} (V) PIN 2	V_{IC2} (V) PIN 3	V_{IC2} (V) PIN 4	V_{IC2} (V) PIN 10
CONTROL 105	-0.745		0.783	0.783	0.783	0.783	0.784
108	-0.745		0.782	0.782	0.782	0.782	0.782
121	-0.744		0.782	0.782	0.782	0.782	0.782
127	-0.745		0.783	0.783	0.783	0.783	0.783
128	-0.745		0.783	0.783	0.783	0.783	0.783
132	-0.745		0.783	0.783	0.783	0.783	0.783
138	-0.744		0.783	0.783	0.782	0.782	0.783
139	-0.745		0.783	0.783	0.782	0.783	0.782
140	-0.745		0.783	0.783	0.783	0.782	0.783
141	-0.745		0.782	0.783	0.782	0.783	0.783
158	-0.745		0.783	0.782	0.783	0.783	0.783
Limit	≥ -1.5 V ≤ -0.4 V		≥ 0.4 V ≤ 1.5 V	→	→	→	→
Condition	$I_{IN} = -1$mA $V_{SS} = 0$V		$I_{IN} = 1$mA $V_{DD} = 0$V	→	→	→	→

Measured by P.B. Mussell Date 25/7/97

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217

FINAL EMS @ 166

I.G.G. COMPONENT TECHNOLOGY LTD.

REPORT NO. RD233

PART TYPE 54 ACT 74 OPTION - SHEET 3 OF 3

ELECTRICAL MEASUREMENTS w.r.t. XM-PL-166-0035 Table A

Parameter Serial No's	V_{IC2} (V) PIN 11	V_{IC2} (V) PIN 12	V_{IC2} (V) PIN 13				
CONTROL 105	0·783	0·783	0·784				
108	0·782	0·782	0·782				
121	0·782	0·782	0·782				
127	0·783	0·783	0·783				
128	0·783	0·783	0·784				
132	0·783	0·783	0·783				
138	0·783	0·783	0·783				
139	0·782	0·783	0·782				
140	0·783	0·782	0·783				
141	0·782	0·783	0·783				
158	0·783	0·783	0·783				
Limit	≥ 0.4 V ≤ 1.5 V	→					
Condition	$I_{IN} = 1$mA $V_{DD} = 0$V	→					

Measured by I.A. Russell Date 25/7/97

Test Equipment used:-

EQUIPMENT	CT NUMBER
TEKTRONIX 370 CURVE TRACER	CT217