Report No.：HS1101120078A
RA No .：0000162-E
Version：A

LATCH UP TEST REPORT

Company ：RAIO TECHNOLOGY INC.

Model Name ：RA8875

Date Received ：JAN 12, 2011

Date Tested ：JAN 18, 2011

TESTING LABORATORY IS ACCREDITED BY:

IEC/IECQ 17025 certificate of independent test laboratory approval

Certificate No.：T1091

ISO 9001 certificate is approved by TUV CERT certification body of TUV NORD Cert GmbH

WE HEREBY CERTIFY THAT:

The test(s) shown in the attachment were conducted according to the indicating procedures. We assume full responsibility for the accuracy and completeness of these tests and vouch for the qualifications of all personnel performing them.

	Name	Signature	Date
Test Engineer	Hung Hsiang-Hsuan	Hung Hsiang-Hsuan	Jan 18, 2011
Manager	Even Lin		Jan 18, 2011

Note：

1. This report will be invalid if reproduced in whole or in part.
2. This report refers only to the specimen(s) submitted to test, and is invalid if used separately.
3. This report is ONLY valid with the examination seal and signature of this institute.
4. The tested specimen(s) will only be preserved for thirty days from the date issued, if not collected by the applicant.

宜特科技股份有限公司 報告專用章 INTEGRATED SERVICE TECHNOLOGY

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1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER	: RAIO TECHNOLOGY INC.S
DEVICE NAME	: RA8875
PACKAGED / PIN COUNT	: LQFP-100
REFERENCE DOCUMENT	: JEDEC STANDARD NO.78 MARCH 1997
TRIGGER CURRENT	: 50mA ~200mA (±), Step: 50mA (±)
V SUPPLY OVER VOLTAGE TEST	: VCC1.8V:1.5V~3V(+) , Step: 0.5V(+) VCC3.3V:3V~15.5V(+) , Step: 0.5V(+)
MAXIMA RATED TEMPERATURE	: ROOM TEMPERATURE
SAMPLE QUANTITY	: 9 ea
FAILURE CRITERIA	: < 25mA 10mA + I normal > 25mA 1.4 x I normal
I normal	: VCC1.8V:<1 mA VCC3.3V:9mA

2. LATCH UP TEST

2.1 TEST EQUIPMENT

Test Equipment	Equipment Number	Tester
KEYTEK ZAPMASTER	#MK2/3	09029

2.2 LABORATORY AMBIENCE CONDITION

Temperature：25°C±5°C

Relative humidity：55%±10% (RH)

2.3 REFERENCE DOCUMENT

The test is based on JEDEC STANDARD NO.78 MARCH 1997

2.4 TEST CONDITION

POSITIVE I

NEGATIVE I

Vsupply OVER VOLTAGE TEST

2.5 BAIS DESCRIPTION

VCC1.8V= 1.98 V(MAX)
VCC3.3V = 3.6V(MAX)
VSS = 0V

2.6 SUMMARY OF TEST

Trigger Mode	Test Pin	Sample Quantity	Tested Result	I Trigger : Class I
I Trigger (+)	I/P	3	PASS(+200mA)	Class I Latch-up testing performed at room temperature. Class II Latch-up testing performed at maximum rated temperature.
	I/O		PASS(+200mA)	
	O/P		PASS(+200mA)	
I Trigger (−)	I/P	3	FAIL(-200mA)	
	I/O		PASS(-200mA)	
	O/P		FAIL(-200mA)	
Over Volt Test V_{supply}	VCC1.8V	3	PASS(+3V)	
	VCC3.3V		PASS(+5.5V)	

VSS:1,6,16,26,39,85,61,70
VCC3.3V:2,13,40,62,87,76
VCC1.8V:5,17,38,86

I/P:9-12,23-25,27,28,33-37,45,71,77-81
I/O:19,20,42,43,82-84,88-100
O/P:7,8,14,15,18,21,22,29-32,41,44,46-59,63-69

2.7 CONTENTS OF TEST

POSITIVE I (UNIT::mA)							
Test Pin TRIGGER CURRENT	#1	#2	#3	Test Pin TRIGGER CURRENT	#1	#2	#3
7	PASS	PASS	PASS	52	PASS	PASS	PASS
8	PASS	PASS	PASS	53	PASS	PASS	PASS
9	PASS	PASS	PASS	54	PASS	PASS	PASS
10	PASS	PASS	PASS	55	PASS	PASS	PASS
11	PASS	PASS	PASS	56	PASS	PASS	PASS
12	PASS	PASS	PASS	57	PASS	PASS	PASS
14	PASS	PASS	PASS	58	PASS	PASS	PASS
15	PASS	PASS	PASS	59	PASS	PASS	PASS
18	PASS	PASS	PASS	63	PASS	PASS	PASS
19	PASS	PASS	PASS	64	PASS	PASS	PASS
20	PASS	PASS	PASS	65	PASS	PASS	PASS
21	PASS	PASS	PASS	66	PASS	PASS	PASS
22	PASS	PASS	PASS	67	PASS	PASS	PASS
23	PASS	PASS	PASS	68	PASS	PASS	PASS
24	PASS	PASS	PASS	69	PASS	PASS	PASS
25	PASS	PASS	PASS	71	PASS	PASS	PASS
27	PASS	PASS	PASS	77	PASS	PASS	PASS
28	PASS	PASS	PASS	78	PASS	PASS	PASS
29	PASS	PASS	PASS	79	PASS	PASS	PASS
30	PASS	PASS	PASS	80	PASS	PASS	PASS
31	PASS	PASS	PASS	81	PASS	PASS	PASS
32	PASS	PASS	PASS	82	PASS	PASS	PASS
33	PASS	PASS	PASS	83	PASS	PASS	PASS
34	PASS	PASS	PASS	84	PASS	PASS	PASS
35	PASS	PASS	PASS	88	PASS	PASS	PASS
36	PASS	PASS	PASS	89	PASS	PASS	PASS
37	PASS	PASS	PASS	90	PASS	PASS	PASS
41	PASS	PASS	PASS	91	PASS	PASS	PASS
42	PASS	PASS	PASS	92	PASS	PASS	PASS
43	PASS	PASS	PASS	93	PASS	PASS	PASS
44	PASS	PASS	PASS	94	PASS	PASS	PASS
45	PASS	PASS	PASS	95	PASS	PASS	PASS
46	PASS	PASS	PASS	96	PASS	PASS	PASS
47	PASS	PASS	PASS	97	PASS	PASS	PASS
48	PASS	PASS	PASS	98	PASS	PASS	PASS
49	PASS	PASS	PASS	99	PASS	PASS	PASS
50	PASS	PASS	PASS	100	PASS	PASS	PASS
51	PASS	PASS	PASS				

NEGATIVE I (UNIT::mA)							
Test Pin TRIGGER CURRENT	#1	#2	#3	Test Pin TRIGGER CURRENT	#1	#2	#3
7	PASS	PASS	PASS	52	-200	-200	-200
8	PASS	PASS	PASS	53	-200	-200	-200
9	PASS	PASS	PASS	54	-200	-200	-200
10	PASS	PASS	PASS	55	PASS	PASS	PASS
11	PASS	PASS	PASS	56	PASS	PASS	PASS
12	PASS	PASS	PASS	57	-200	-200	-200
14	PASS	PASS	PASS	58	-200	-200	-200
15	PASS	PASS	PASS	59	-200	-200	-200
18	PASS	PASS	PASS	63	-200	-200	-200
19	PASS	PASS	PASS	64	-200	-200	-200
20	PASS	PASS	PASS	65	-200	-200	-200
21	PASS	PASS	PASS	66	-200	-200	-200
22	PASS	PASS	PASS	67	-200	-200	-200
23	PASS	PASS	PASS	68	-200	-200	-200
24	PASS	PASS	PASS	69	-200	-200	-200
25	-200	-200	-200	71	PASS	PASS	PASS
27	PASS	PASS	PASS	77	PASS	PASS	PASS
28	PASS	PASS	PASS	78	PASS	PASS	PASS
29	PASS	PASS	PASS	79	PASS	PASS	PASS
30	PASS	PASS	PASS	80	PASS	PASS	PASS
31	PASS	PASS	PASS	81	PASS	PASS	PASS
32	PASS	PASS	PASS	82	PASS	PASS	PASS
33	PASS	PASS	PASS	83	PASS	PASS	PASS
34	PASS	PASS	PASS	84	PASS	PASS	PASS
35	PASS	PASS	PASS	88	PASS	PASS	PASS
36	PASS	PASS	PASS	89	PASS	PASS	PASS
37	PASS	PASS	PASS	90	PASS	PASS	PASS
41	PASS	PASS	PASS	91	PASS	PASS	PASS
42	PASS	PASS	PASS	92	PASS	PASS	PASS
43	PASS	PASS	PASS	93	PASS	PASS	PASS
44	PASS	PASS	PASS	94	PASS	PASS	PASS
45	PASS	PASS	PASS	95	PASS	PASS	PASS
46	PASS	PASS	PASS	96	PASS	PASS	PASS
47	PASS	PASS	PASS	97	PASS	PASS	PASS
48	PASS	PASS	PASS	98	PASS	PASS	PASS
49	PASS	PASS	PASS	99	PASS	PASS	PASS
50	PASS	PASS	PASS	100	PASS	PASS	PASS
51	-200	-200	-200				

V_{supply} OVERVOLTAGE TEST (UNIT: V)							
Test Pin TRIGGER VOLTAGE	#1	#2	#3	Test Pin TRIGGER CURRENT	#1	#2	#3
2	PASS	PASS	PASS	40	PASS	PASS	PASS
5	PASS	PASS	PASS	62	PASS	PASS	PASS
13	PASS	PASS	PASS	76	PASS	PASS	PASS
17	PASS	PASS	PASS	86	PASS	PASS	PASS
38	PASS	PASS	PASS	87	PASS	PASS	PASS