Integrated Service Technology Inc.

No.:T1091

TEL : (02) 2656-2289

FAX : (02) 2656-2285

Email: esd@isti.com.tw

RA No : 9401546-E

Date : 06/20/2005

Test Site Address: 1F,No. 9, Alley 2, Lane 35, Jihu Rd., Neihu District, Taipei City, Taiwan,R.O.C..

RELIABILITY TEST REPORT

Applicant/Department: Anant Electronics Corporation	
Address : 6F , No.56 , Ln.258 Jui Kuang Rd. , Nei Hu District , Taipei , Taiwan	
Product : **SDN0080G**	
Testing Item : LATCH-UP	**Package/Pin Count**: QFP / 100
Application Date : 06/17/2005	**Date Finished** : 06/20/2005
Test Condition : JEDEC STANDARD NO.78 MARCH 1997	
Failure Criteria < 25mA 10mA + I normal	
> 25mA 1.4 x I normal	
Trigger Current : 200mA~250mA(±) , Step : 25mA(±)	
V_{supply} **OVERVOLTAGE TEST :**5V~7.5V(+) , Step : 0.5V(+)	

Testing Item
Random LATCH-UP Test…………………………………………………………………………P2

Remark:

Ground pins are not latch-up tested.

The positive or negative current pulse (I-Test) or voltage pulse (V_{supply} overvoltage test)

applied to any pin under test in an attempt to induce latch-up.

This report refers only to the specimen submitted to testing, and be invalid as separately used.

Testing Engineer:	**Nelly Hsueh**	
Report Review: **Kosa Liu**	**Laboratory Head:**	**Frank Wu**

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LATCH-UP Testing Report

Test Equipment:

KEYTEK ZAPMASTER

Environmental Condition of Laboratory:

Temperature: 25ºC±5ºC

Humidity: 55%±10% RH

Test Condition:

POSITIVE I

NEGATIVE I

Vsupply OVERVOLTAGE TEST

Test Result:

TRIGGER MODEL	TEST PIN	SAMPLE SIZE	TRIGGER SOURCE INDUCE LATCH-UP	IT CLASS: __3__
+IT	I/O	3	PASS	**NOTE:**
+IT	I/P	3	PASS	CLASS1:
+IT	O/P	3	PASS	+IT:0mA~39mA -IT:0mA~ -39mA
-IT	I/O	3	PASS	CLASS2: +IT: 40mA~+99mA
-IT	I/P	3	PASS	-IT: -40mA~-99mA CLASS3:
-IT	O/P	3	PASS	+IT:>100mA
V_{supply} OVER VOLTAGE TEST	VCC	3	PASS	-IT:<-100mA

ALL: 1-80,82,85-87,89,91,94-98   VDD: 90
GND: 85,88   VEE:85
NC:92,93,94   VSS:88

POSITIVE I								(UNIT: mA)
Test TRIGGER Pin CURRENT	#1	#2	#3	Test TRIGGER Pin CURRENT	#1	#2	#3
1	PASS	PASS	PASS	26	PASS	PASS	PASS
2	PASS	PASS	PASS	27	PASS	PASS	PASS
3	PASS	PASS	PASS	28	PASS	PASS	PASS
4	PASS	PASS	PASS	29	PASS	PASS	PASS
5	PASS	PASS	PASS	30	PASS	PASS	PASS
6	PASS	PASS	PASS	31	PASS	PASS	PASS
7	PASS	PASS	PASS	32	PASS	PASS	PASS
8	PASS	PASS	PASS	33	PASS	PASS	PASS
9	PASS	PASS	PASS	34	PASS	PASS	PASS
10	PASS	PASS	PASS	35	PASS	PASS	PASS
11	PASS	PASS	PASS	36	PASS	PASS	PASS
12	PASS	PASS	PASS	37	PASS	PASS	PASS
13	PASS	PASS	PASS	38	PASS	PASS	PASS
14	PASS	PASS	PASS	39	PASS	PASS	PASS
15	PASS	PASS	PASS	40	PASS	PASS	PASS
16	PASS	PASS	PASS	41	PASS	PASS	PASS
17	PASS	PASS	PASS	42	PASS	PASS	PASS
18	PASS	PASS	PASS	43	PASS	PASS	PASS
19	PASS	PASS	PASS	44	PASS	PASS	PASS
20	PASS	PASS	PASS	45	PASS	PASS	PASS
21	PASS	PASS	PASS	46	PASS	PASS	PASS
22	PASS	PASS	PASS	47	PASS	PASS	PASS
23	PASS	PASS	PASS	48	PASS	PASS	PASS
24	PASS	PASS	PASS	49	PASS	PASS	PASS
25	PASS	PASS	PASS	50	PASS	PASS	PASS

POSITIVE I			(UNIT: mA)				
Test TRIGGER Pin CURRENT	#1	#2	#3	Test TRIGGER Pin CURRENT	#1	#2	#3
51	PASS	PASS	PASS	76	PASS	PASS	PASS
52	PASS	PASS	PASS	77	PASS	PASS	PASS
53	PASS	PASS	PASS	78	PASS	PASS	PASS
54	PASS	PASS	PASS	79	PASS	PASS	PASS
55	PASS	PASS	PASS	80	PASS	PASS	PASS
56	PASS	PASS	PASS	81	PASS	PASS	PASS
57	PASS	PASS	PASS	82	PASS	PASS	PASS
58	PASS	PASS	PASS	83	PASS	PASS	PASS
59	PASS	PASS	PASS	84	PASS	PASS	PASS
60	PASS	PASS	PASS	85	VEE	VEE	VEE
61	PASS	PASS	PASS	86	PASS	PASS	PASS
62	PASS	PASS	PASS	87	PASS	PASS	PASS
63	PASS	PASS	PASS	88	VSS	VSS	VSS
64	PASS	PASS	PASS	89	PASS	PASS	PASS
65	PASS	PASS	PASS	90	VDD	VDD	VDD
66	PASS	PASS	PASS	91	PASS	PASS	PASS
67	PASS	PASS	PASS	92	NC	NC	NC
68	PASS	PASS	PASS	93	NC	NC	NC
69	PASS	PASS	PASS	94	NC	NC	NC
70	PASS	PASS	PASS	95	PASS	PASS	PASS
71	PASS	PASS	PASS	96	PASS	PASS	PASS
72	PASS	PASS	PASS	97	PASS	PASS	PASS
73	PASS	PASS	PASS	98	PASS	PASS	PASS
74	PASS	PASS	PASS	99	PASS	PASS	PASS
75	PASS	PASS	PASS	100	PASS	PASS	PASS

NEGATIVE I								(UNIT: mA)
Test TRIGGER Pin CURRENT	#1	#2	#3	Test TRIGGER Pin CURRENT	#1	#2	#3
1	PASS	PASS	PASS	26	PASS	PASS	PASS
2	PASS	PASS	PASS	27	PASS	PASS	PASS
3	PASS	PASS	PASS	28	PASS	PASS	PASS
4	PASS	PASS	PASS	29	PASS	PASS	PASS
5	PASS	PASS	PASS	30	PASS	PASS	PASS
6	PASS	PASS	PASS	31	PASS	PASS	PASS
7	PASS	PASS	PASS	32	PASS	PASS	PASS
8	PASS	PASS	PASS	33	PASS	PASS	PASS
9	PASS	PASS	PASS	34	PASS	PASS	PASS
10	PASS	PASS	PASS	35	PASS	PASS	PASS
11	PASS	PASS	PASS	36	PASS	PASS	PASS
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15	PASS	PASS	PASS	40	PASS	PASS	PASS
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17	PASS	PASS	PASS	42	PASS	PASS	PASS
18	PASS	PASS	PASS	43	PASS	PASS	PASS
19	PASS	PASS	PASS	44	PASS	PASS	PASS
20	PASS	PASS	PASS	45	PASS	PASS	PASS
21	PASS	PASS	PASS	46	PASS	PASS	PASS
22	PASS	PASS	PASS	47	PASS	PASS	PASS
23	PASS	PASS	PASS	48	PASS	PASS	PASS
24	PASS	PASS	PASS	49	PASS	PASS	PASS
25	PASS	PASS	PASS	50	PASS	PASS	PASS

NEGATIVE I							
						(UNIT: mA)	
Test TRIGGER Pin CURRENT	#1	#2	#3	Test TRIGGER Pin CURRENT	#1	#2	#3
51	PASS	PASS	PASS	76	PASS	PASS	PASS
52	PASS	PASS	PASS	77	PASS	PASS	PASS
53	PASS	PASS	PASS	78	PASS	PASS	PASS
54	PASS	PASS	PASS	79	PASS	PASS	PASS
55	PASS	PASS	PASS	80	PASS	PASS	PASS
56	PASS	PASS	PASS	81	PASS	PASS	PASS
57	PASS	PASS	PASS	82	PASS	PASS	PASS
58	PASS	PASS	PASS	83	PASS	PASS	PASS
59	PASS	PASS	PASS	84	PASS	PASS	PASS
60	PASS	PASS	PASS	85	VEE	VEE	VEE
61	PASS	PASS	PASS	86	PASS	PASS	PASS
62	PASS	PASS	PASS	87	PASS	PASS	PASS
63	PASS	PASS	PASS	88	VSS	VSS	VSS
64	PASS	PASS	PASS	89	PASS	PASS	PASS
65	PASS	PASS	PASS	90	VDD	VDD	VDD
66	PASS	PASS	PASS	91	PASS	PASS	PASS
67	PASS	PASS	PASS	92	NC	NC	NC
68	PASS	PASS	PASS	93	NC	NC	NC
69	PASS	PASS	PASS	94	NC	NC	NC
70	PASS	PASS	PASS	95	PASS	PASS	PASS
71	PASS	PASS	PASS	96	PASS	PASS	PASS
72	PASS	PASS	PASS	97	PASS	PASS	PASS
73	PASS	PASS	PASS	98	PASS	PASS	PASS
74	PASS	PASS	PASS	99	PASS	PASS	PASS
75	PASS	PASS	PASS	100	PASS	PASS	PASS

V_{supply} OVERVOLTAGE TEST				(UNIT: V)
Test pin	TRIGGER VOLTAGE	#1	#2	#3
	90	PASS	PASS	PASS