



宜特科技股份有限公司



Integrated Service Technology Inc.

No.:T1091

TEL : (02) 2656-2289

RA No : 9401547-E

FAX : (02) 2656-2285

Date : 06/20/2005

Email: esd@isti.com.tw

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

可靠度測試報告

RELIABILITY TEST REPORT

Applicant/Department: Anant Electronics Corporation	
Address : 6F , No.56 , Ln.258 Jui Kuang Rd. , Nei Hu District , Taipei , Taiwan	
Product : SDN8000G	
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: 25°C±5°C

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: <u>3</u>
+IT	I/O	3	PASS	NOTE: CLASS1: +IT:0mA~39mA -IT:0mA~ -39mA CLASS2: +IT: 40mA~+99mA -IT: -40mA~-99mA CLASS3: +IT:>100mA -IT:<-100mA
	I/P		PASS	
	O/P		PASS	
-IT	I/O	3	PASS	
	I/P		PASS	
	O/P		PASS	
V _{supply} OVER VOLTAGE TEST	VCC	3	PASS	

ALL: 1-80,82,85-87,89,91,94-98
GND: 84,92VDD: 90
VEE:84
VSS:92

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	NC	NC	NC
57	PASS	PASS	PASS	82	PASS	PASS	PASS
58	PASS	PASS	PASS	83	NC	NC	NC
59	PASS	PASS	PASS	84	VEE	VEE	VEE
60	PASS	PASS	PASS	85	PASS	PASS	PASS
61	PASS	PASS	PASS	86	PASS	PASS	PASS
62	PASS	PASS	PASS	87	PASS	PASS	PASS
63	PASS	PASS	PASS	88	NC	NC	NC
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	VSS	VSS	VSS
68	PASS	PASS	PASS	93	NC	NC	NC
69	PASS	PASS	PASS	94	PASS	PASS	PASS
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	NC	NC	NC
75	PASS	PASS	PASS	100	NC	NC	NC

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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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

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	NC	NC	NC
57	PASS	PASS	PASS	82	PASS	PASS	PASS
58	PASS	PASS	PASS	83	NC	NC	NC
59	PASS	PASS	PASS	84	VEE	VEE	VEE
60	PASS	PASS	PASS	85	PASS	PASS	PASS
61	PASS	PASS	PASS	86	PASS	PASS	PASS
62	PASS	PASS	PASS	87	PASS	PASS	PASS
63	PASS	PASS	PASS	88	NC	NC	NC
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	VSS	VSS	VSS
68	PASS	PASS	PASS	93	NC	NC	NC
69	PASS	PASS	PASS	94	PASS	PASS	PASS
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	NC	NC	NC
75	PASS	PASS	PASS	100	NC	NC	NC

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