



RELIABILITY TEST REPORT TEST REPORT

Company : RAIO TECHNOLOGY INC.

Model Name : PM8808

Date Received : <u>2010.12.23</u>

Date Tested : <u>2010.01.20</u>

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	Jay Fang	Reliability Test Engineer 9a4 Pana	2010/12/23
Section Manager	Even Lin	Reliability Test Engineer Euen Lin	2010/01/20

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.
- The tested specimen(s) will only be preserved for thirty days from the date issued, if not collected by the applicant.



Integrated Service Technology Inc.

Reliability & Failure Analysis Engineering Group 1F, No.19, Pu-ding Rd., Hsin - chu City, Taiwan, R.O.C. Tel: 886-3-578-2266, Fax: 886-3-5770988

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Report No. : <u>HS0912230062A</u> Report No. : <u>RAC9804608-E</u>

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RELIABILITY TEST REPORT

Applicant/Department: RAIO TECHNOLOGY INC.

Product
: PM8808

Testing Item
: ESD-HBM

Package/Pin Count: COB-256

Test Method
: MIL-STD-883G Method 3015.7

Failure Criteria
: FOR V CHANGE AT 1μA ±30%

Test Voltage
: 1000V ~ 5000V (±), Step: 1000V (±)



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ESD-HBM Testing Report

Test Equipment:

KEYTEK ZAPMASTER #1-6094

Environmental Condition of Laboratory:

Temperature: 25°C±5°C Humidity: 55%±10% RH

Test Condition:

ALL - VSS(+)

ALL - VSS(-)

ALL - VCC (+)

ALL - VCC(-)

VCC - VSS(+)

VCC - VSS(-)

Test Result:

MODEL: HBM	ESD SENSIT	TIVITY PASS: ±5000V	V CLASS: <u>3A</u>
PIN COMBINATION	SAMPLE SIZE	PASSED VOLTS	NOTE: FOR EIAJ TEST NO
ALL – VSS (+)	3	+5000V	CLASSIFICATION CLASS 0: < 250V
ALL – VSS (-)	3	-5000V	CLASS 1A: 250V TO 499V
ALL – VCC (+)	3	+5000V	CLASS 1B: 500V TO 999V CLASS 1C: 1000V TO 1999V
ALL – VCC (-)	3	-5000V	CLASS 2: 2000V TO 3999V -CLASS 3A: 4000V TO 7999V
VCC – VSS (+)	3	+5000V	CLASS 3B: $\geq 8000V$
VCC – VSS (-)	3	-5000V	46 56 67-68 80 124 201 206 207 211 244

ALL: 26,29-30,38,40,46,56,67-68,80,123-124,127-128,131-132, 135-144,147-148,151-152,155-156,159-160,164,191-192,

195-196,199-200,203-204,206,208,211-212,216,219-220, 223-224,228,232,236, 240,244
I/O-H:191-192,195-196,200
I/O-L:123,127-128,148,151-152,155-156,159-160,164,232,236,240
I/P:131,135-144,147,199,202-204,208,212,216,219-220,223-224

O/P-H:26,29-30,38,40,46,56,67-68,80,124,201,206-207,211,244 O/P-L:132,228

VCC:168,172,176,180,187,205,215 VCC16V:187,205 VCC5V:168,172,176,180,215 VCSV:168,172,176,180,215 VSS:179,183-184,188

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ALL – VSS (+)						(ДВИТ V)	
Toot FAII						<u> </u>	(UNIT:V)
Test FAIL Pin VOLTAGE	#1	#2	#3	Test FAIL Pin VOLTAGE	#1	#2	#3
26	PASS	PASS	PASS	152	PASS	PASS	PASS
29	PASS	PASS	PASS	155	PASS	PASS	PASS
30	PASS	PASS	PASS	156	PASS	PASS	PASS
38	PASS	PASS	PASS	159	PASS	PASS	PASS
40	PASS	PASS	PASS	160	PASS	PASS	PASS
46	PASS	PASS	PASS	164	PASS	PASS	PASS
56	PASS	PASS	PASS	191	PASS	PASS	PASS
67	PASS	PASS	PASS	192	PASS	PASS	PASS
68	PASS	PASS	PASS	195	PASS	PASS	PASS
80	PASS	PASS	PASS	196	PASS	PASS	PASS
123	PASS	PASS	PASS	199	PASS	PASS	PASS
124	PASS	PASS	PASS	200	PASS	PASS	PASS
127	PASS	PASS	PASS	203	PASS	PASS	PASS
128	PASS	PASS	PASS	204	PASS	PASS	PASS
131	PASS	PASS	PASS	206	PASS	PASS	PASS
132	PASS	PASS	PASS	208	PASS	PASS	PASS
135	PASS	PASS	PASS	211	PASS	PASS	PASS
136	PASS	PASS	PASS	212	PASS	PASS	PASS
137	PASS	PASS	PASS	216	PASS	PASS	PASS
138	PASS	PASS	PASS	219	PASS	PASS	PASS
139	PASS	PASS	PASS	220	PASS	PASS	PASS
140	PASS	PASS	PASS	223	PASS	PASS	PASS
141	PASS	PASS	PASS	224	PASS	PASS	PASS
142	PASS	PASS	PASS	228	PASS	PASS	PASS
143	PASS	PASS	PASS	232	PASS	PASS	PASS
144	PASS	PASS	PASS	236	PASS	PASS	PASS
147	PASS	PASS	PASS	240	PASS	PASS	PASS
148	PASS	PASS	PASS	244	PASS	PASS	PASS
151	PASS	PASS	PASS				

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ALL – VSS (-)						(UNIT:V)	
Test FAIL Pin VOLTAGE	#1	#2	#3	Test FAIL Pin VOLTAGE	#1	#2	#3
26	PASS	PASS	PASS	152	PASS	PASS	PASS
29	PASS	PASS	PASS	155	PASS	PASS	PASS
30	PASS	PASS	PASS	156	PASS	PASS	PASS
38	PASS	PASS	PASS	159	PASS	PASS	PASS
40	PASS	PASS	PASS	160	PASS	PASS	PASS
46	PASS	PASS	PASS	164	PASS	PASS	PASS
56	PASS	PASS	PASS	191	PASS	PASS	PASS
67	PASS	PASS	PASS	192	PASS	PASS	PASS
68	PASS	PASS	PASS	195	PASS	PASS	PASS
80	PASS	PASS	PASS	196	PASS	PASS	PASS
123	PASS	PASS	PASS	199	PASS	PASS	PASS
124	PASS	PASS	PASS	200	PASS	PASS	PASS
127	PASS	PASS	PASS	203	PASS	PASS	PASS
128	PASS	PASS	PASS	204	PASS	PASS	PASS
131	PASS	PASS	PASS	206	PASS	PASS	PASS
132	PASS	PASS	PASS	208	PASS	PASS	PASS
135	PASS	PASS	PASS	211	PASS	PASS	PASS
136	PASS	PASS	PASS	212	PASS	PASS	PASS
137	PASS	PASS	PASS	216	PASS	PASS	PASS
138	PASS	PASS	PASS	219	PASS	PASS	PASS
139	PASS	PASS	PASS	220	PASS	PASS	PASS
140	PASS	PASS	PASS	223	PASS	PASS	PASS
141	PASS	PASS	PASS	224	PASS	PASS	PASS
142	PASS	PASS	PASS	228	PASS	PASS	PASS
143	PASS	PASS	PASS	232	PASS	PASS	PASS
144	PASS	PASS	PASS	236	PASS	PASS	PASS
147	PASS	PASS	PASS	240	PASS	PASS	PASS
148	PASS	PASS	PASS	244	PASS	PASS	PASS
151	PASS	PASS	PASS				

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ALL – VCC (+)						(INITA)	
T4 FAH						<u> </u>	(UNIT:V)
Test FAIL Pin VOLTAGE	#1	#2	#3	Test FAIL Pin VOLTAGE	#1	#2	#3
26	PASS	PASS	PASS	152	PASS	PASS	PASS
29	PASS	PASS	PASS	155	PASS	PASS	PASS
30	PASS	PASS	PASS	156	PASS	PASS	PASS
38	PASS	PASS	PASS	159	PASS	PASS	PASS
40	PASS	PASS	PASS	160	PASS	PASS	PASS
46	PASS	PASS	PASS	164	PASS	PASS	PASS
56	PASS	PASS	PASS	191	PASS	PASS	PASS
67	PASS	PASS	PASS	192	PASS	PASS	PASS
68	PASS	PASS	PASS	195	PASS	PASS	PASS
80	PASS	PASS	PASS	196	PASS	PASS	PASS
123	PASS	PASS	PASS	199	PASS	PASS	PASS
124	PASS	PASS	PASS	200	PASS	PASS	PASS
127	PASS	PASS	PASS	203	PASS	PASS	PASS
128	PASS	PASS	PASS	204	PASS	PASS	PASS
131	PASS	PASS	PASS	206	PASS	PASS	PASS
132	PASS	PASS	PASS	208	PASS	PASS	PASS
135	PASS	PASS	PASS	211	PASS	PASS	PASS
136	PASS	PASS	PASS	212	PASS	PASS	PASS
137	PASS	PASS	PASS	216	PASS	PASS	PASS
138	PASS	PASS	PASS	219	PASS	PASS	PASS
139	PASS	PASS	PASS	220	PASS	PASS	PASS
140	PASS	PASS	PASS	223	PASS	PASS	PASS
141	PASS	PASS	PASS	224	PASS	PASS	PASS
142	PASS	PASS	PASS	228	PASS	PASS	PASS
143	PASS	PASS	PASS	232	PASS	PASS	PASS
144	PASS	PASS	PASS	236	PASS	PASS	PASS
147	PASS	PASS	PASS	240	PASS	PASS	PASS
148	PASS	PASS	PASS	244	PASS	PASS	PASS
151	PASS	PASS	PASS				

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	ALL – VCC (-) (UNIT:V						
Test FAIL Pin VOLTAGE	#1	#2	#3	Test FAIL Pin VOLTAGE	#1	#2	#3
26	PASS	PASS	PASS	152	PASS	PASS	PASS
29	PASS	PASS	PASS	155	PASS	PASS	PASS
30	PASS	PASS	PASS	156	PASS	PASS	PASS
38	PASS	PASS	PASS	159	PASS	PASS	PASS
40	PASS	PASS	PASS	160	PASS	PASS	PASS
46	PASS	PASS	PASS	164	PASS	PASS	PASS
56	PASS	PASS	PASS	191	PASS	PASS	PASS
67	PASS	PASS	PASS	192	PASS	PASS	PASS
68	PASS	PASS	PASS	195	PASS	PASS	PASS
80	PASS	PASS	PASS	196	PASS	PASS	PASS
123	PASS	PASS	PASS	199	PASS	PASS	PASS
124	PASS	PASS	PASS	200	PASS	PASS	PASS
127	PASS	PASS	PASS	203	PASS	PASS	PASS
128	PASS	PASS	PASS	204	PASS	PASS	PASS
131	PASS	PASS	PASS	206	PASS	PASS	PASS
132	PASS	PASS	PASS	208	PASS	PASS	PASS
135	PASS	PASS	PASS	211	PASS	PASS	PASS
136	PASS	PASS	PASS	212	PASS	PASS	PASS
137	PASS	PASS	PASS	216	PASS	PASS	PASS
138	PASS	PASS	PASS	219	PASS	PASS	PASS
139	PASS	PASS	PASS	220	PASS	PASS	PASS
140	PASS	PASS	PASS	223	PASS	PASS	PASS
141	PASS	PASS	PASS	224	PASS	PASS	PASS
142	PASS	PASS	PASS	228	PASS	PASS	PASS
143	PASS	PASS	PASS	232	PASS	PASS	PASS
144	PASS	PASS	PASS	236	PASS	PASS	PASS
147	PASS	PASS	PASS	240	PASS	PASS	PASS
148	PASS	PASS	PASS	244	PASS	PASS	PASS
151	PASS	PASS	PASS				

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	VCC – VSS (+)						
Test FAIL Pin VOLTAGE	#1	#2	#3				
168	PASS	PASS	PASS				
172	PASS	PASS	PASS				
176	PASS	PASS	PASS				
180	PASS	PASS	PASS				
187	PASS	PASS	PASS				
205	PASS	PASS	PASS				
215	PASS	PASS	PASS				

VCC – VSS (-) (UNIT: V						
Test FAIL Pin VOLTAGE	#1	#2	#3			
168	PASS	PASS	PASS			
172	PASS	PASS	PASS			
176	PASS	PASS	PASS			
180	PASS	PASS	PASS			
187	PASS	PASS	PASS			
205	PASS	PASS	PASS			
215	PASS	PASS	PASS			