



## SD2068 可靠性测试/版权证书

## 1.ESD 测试报告:&gt;5KV

	Integrated Service Technology Inc. Reliability Engineering Division 1F Zonghe Building, No.1618 Yishan Rd., Shanghai City, China. Tel: 86-21-64069881, Fax: 86-21-64069790 <a href="http://www.istgroup.com">http://www.istgroup.com</a>		 <b>No.:T1117</b> Report No.: SH0809260011HE-CN
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ESD RELIABILITY TEST REPORT			
Applicant/Department: SHENZHEN WAVE ELECTRONICS TECHNOLOGY LTD			
Product	: SD2068B	Sample Size	: 18 (units)
Testing Item	: ESD-HBM	Package/Pin Count:	SOP/8
Test Method	: MIL-STD-883G Method 3015.7		
Failure Criteria	: FOR V CHANGE AT 1μA ±30%		
Test Voltage	: 2000V~5000V, Step: 500V (±).		

ESD-HBM Testing Report			
<b>Test Equipment:</b>			
KEYTEK ZAPMASTER 7/4			
<b>Test Equipment S/N:</b>			
9608430			
<b>Calibration Date:</b>			
May 28, 2008			
<b>Recommended Due Date:</b>			
May 27, 2009			
<b>Environmental Condition of Laboratory:</b>			
Temperature: 25°C±5°C			
Humidity: 55%±10% RH			
<b>Test Condition:</b>			
IO VCC TO VSS (+)			
IO VCC TO VSS (-)			
IO VSS TO VCC (+)			
IO VSS TO VCC (-)			
IO TO IO (+)			
IOTO IO (-)			
<b>Test Result:</b>			
MODEL: HBM	ESD SENSITIVITY PASS : ±5000V		V CLASS: 3
PIN COMBINATION	SAMPLE SIZE	PASSED VOLTS	NOTE:
IO VCC TO VSS (+)	3	+5000	FOR EIAJ TEST NO
IO VCC TO VSS (-)	3	-5000	CLASSIFICATION
IO VSS TO VCC (+)	3	+5000	CLASS 0: < 250V
IO VSS TO VCC (-)	3	-5000	CLASS 1A: 250V TO 499V
IO TO IO (+)	3	+5000	CLASS 1B: 500V TO 999V
IOTO IO (-)	3	-5000	CLASS 1C: 1000V TO 1999V
			CLASS 2: 2000V TO 3999V
			CLASS 3A: 4000V TO 7999V
			CLASS 3B: ≥ 8000V

VCC: Pin8;  
 VSS: Pin4;  
 IO: Pin1-3 5-7;

## 2. Latch up 电流 (>190mA):

REPORT FOR DEVICE: **SD2068**, Package: sop8 Latch-up: From 50mA to 190mA, step:20mA(+/-)

### Sample No.

#L1, #L2, #L3: Positive Current Trigger: From +50mA to +190mA, step:20mA;  
#L1, #L2, #L3: Negative Current Trigger: From -50mA to -190mA, step:20mA;  
#L1, #L2, #L3: Vsupply Over voltage Test: From +5.0V to +8.0V, step:1V;

### Pin Failure Column Label Explanations

SKT -- Socket number of device for failed pin  
TESTPIN -- Most recently pulsed pin in socket prior to this curvetrace  
LEVEL -- Last Pulse Level applied to pin  
#PULSES -- Number of Pulses applied to pin during most recent Zap Method  
ZAPM.ZM -- Number of most recent Test Method applied to pin  
CVTM.CM -- Number of CurveTrace Method assigned to pin (if any)  
CRIT -- Failure Criteria Code (see below) that failed the pin (if any)  
P|V1|I1|V2|I2 -- Latch failure summary: five sections of data:  
Sec 1 (P): '\*' if power collapsed during pulse  
Sec 2-5: 'H' means failed high, 'L' means failed Low  
'-' means no failure, '.' means n/a  
Sec 2 (V1): for VS1 voltage, columns are mid- and post- pulse  
Sec 3 (I1): for VS1 current, columns are mid- and post- pulse  
Sec 4 (V2): for VS2 voltage, columns are mid- and post- pulse  
Sec 5 (I2): for VS2 current, columns are mid- and post- pulse  
Standard: JEDEC 78A


## 3. EFT 测试: (通过 4KV 的群脉冲 (EFT) 干扰)

- 。采用 IEC61000-4-4 标准
- 。实验设备: 公司自有的 SANKI NS61000-4K
- 。试品板: 兴威帆的 SD2068 评估板 (其电源采用变压器加三端稳压的方式, 没有进行电磁的处理)
- 。测试方法: 试品板 AC 端接群脉冲发生器的输出端, 分别在 AC 的 L、N 端加 +4KV、-4KV 脉冲干扰群, 检测时钟数据的变化。
- 。测试结果: 时钟数据没有复位、混乱的现象发生, 走时正常。





## 4. 高温、低温测试: (通过高温+85℃、低温-40℃测试)

- 。试验设备: 公司自有的高低温交变试验箱 GDJW-100(温度范围-40℃~+100℃)
- 。试品板: 兴威帆的 SD2068 老化板
- 。测试结果: 在-40℃通电 24 小时和+85℃通电 24 小时的情况下, 工作情况正常。

## 5.Rohs 报告:

	
<b>Test Report</b>	No. CANEC0803857101      Date: 21 Jul 2008      Page 1 of 4
SHENZHEN WAVE ELECTRONICS TECHNOLOGY LTD 3TH FLOOR,ANTONG BUILDING,MEIHUA ROAD,FUTIAN DISTRICT,SHENZHEN CHINA	
The following sample(s) was/were submitted and identified on behalf of the clients as : SD2068	
SGS Job No.	: 11169245 - SZ
Date of Sample Received	: 16 Jul 2008
Testing Period	: 16 Jul 2008 - 21 Jul 2008
Test Requested	: Selected test(s) as requested by client.
Test Method	: Please refer to next page(s).
Test Results	: Please refer to next page(s).
Conclusion	: Based on the performed tests on submitted sample(s), the results <b>comply</b> with the RoHS Directive 2002/95/EC and its subsequent amendments.

## 6.版权证书

 <b>集成电路布图设计登记证书</b>  布图设计登记号: BS. 07500394. 5 布图设计申请日: 2007 年 12 月 7 日 布图设计权利人姓名或名称: 深圳市兴威顺电子技术有限公 司 布图设计权利人地址: 深圳市福田区梅华路 207 号安通大厦 三樓东 布图设计名称: SD2068A 布图设计的创作完成日: 2007 年 7 月 3 日 布图设计首次投入商业利用日: 2007 年 11 月 1 日 布图设计颁证日: 2008 年 2 月 21 日  第 1 页 (共 1 页)	 登记证书号      第 1621 号  根据集成电路布图设计保护条例第十八条规定, 本布图 设计登记申请, 经初步审查, 未发现驳回理由, 予以登记, 发给此登记证书, 并予以公告。 根据集成电路布图设计保护条例实施细则第二十条规 定, 本布图设计专有权自申请日起生效。 根据集成电路布图设计保护条例第十二条规定, 布图设 计专有权的保护期为 10 年, 自布图设计登记申请之日或者 在世界任何地方首次投入商业利用之日起计算, 以较前日期 为准。但是, 无论是否登记或者投入商业利用, 布图设计自 创作完成之日起 15 年后, 不再受该条例保护。  局长   二〇〇八年二月二十一日
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