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Version：A

LATCH UP TEST REPORT

Company ：深圳国芯人工智能有限公司

Model Name ：STC8G1K08A

Date Received ：MAR 24, 2020

Date Tested ：MAR 26, 2020

TESTING LABORATORY IS ACCREDITED BY:

IECQ Certificate of Approval No.: IECQ-L DEKRA 16.0002 For Independent Test Laboratory According to ISO/IEC 17025

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	Changwan Xing		MAR 27, 2020
Manager	Suku Tsai		MAR 27, 2020

NOTE：

1. This report will be invalid if reproduced in part or altered in any way.
2. This report refers only to the specimen(s) submitted to test, and is invalid if used otherwise.
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.

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1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER	：深圳国芯人工智能有限公司
DEVICE NAME	：STC8G1K08A
PACKAGED / PIN COUNT	：DIP-8
REFERENCE DOCUMENT	：JEDEC EIA/JESD78E
TRIGGER CURRENT	：200mA~1000mA(±); Step:50mA
V SUPPLY OVER VOLTAGE TEST	：5.5V-8.25V(+), Step: 0.25V(+)
MAXIMA RATED TEMPERATURE	：ROOM TEMPERATURE
SAMPLE QUANTITY	：9 EA
FAILURE CRITERIA	：< 25mA 10mA + I normal > 25mA 1.4 x I normal
I normal	：VCC≦1mA

2. LATCH UP TEST

2.1 TEST EQUIPMENT

Test Equipment	Equipment Number	Calibration Date
KEYTEK ZAPMASTER	ESD#01	Jul, 15, 2019

2.2 LABORATORY AMBIENCE CONDITION

Temperature：23°C±5°C
Relative humidity：55%±10% (RH)

2.3 REFERENCE DOCUMENT

The test is based on JEDEC EIA/JESD78E

2.4 TEST CONDITION

POSITIVE I
NEGATIVE I
Vsupply OVER VOLTAGE TEST

2.5 BAIS DESCRIPTION

VCC=5.5V(MAX)
GND=0V

2.6 SUMMARY OF TEST

Trigger Mode	Test Pin	Sample Quantity	Tested Result	I Trigger : Class ___I___
I Trigger (＋)	I/O5.5V	3	FAIL +350mA	Class I Latch-up testing performed at room temperature. Class II Latch-up testing performed at maximum rated temperature.
I Trigger (－)	I/O5.5V	3	FAIL -400mA	
Over Volt Test V_{supply}	VCC	3	PASS +8.25V	

I/O :1,3,5,6,7,8
GND:4
VCC :2

2.7 CONTENTS OF TEST

POSITIVE I (UNIT:mA)				
Test Pin	TRIGGER CURRENT	#25	#26	#27
1	I/O5.5V	FAIL(750mA)	FAIL(650mA)	FAIL(700mA)
3	I/O5.5V	FAIL(650mA)	FAIL(650mA)	FAIL(650mA)
5	I/O5.5V	FAIL(350mA)	FAIL(350mA)	FAIL(350mA)
6	I/O5.5V	PASS(1000mA)	PASS(1000mA)	PASS(1000mA)
7	I/O5.5V	FAIL(350mA)	FAIL(400mA)	FAIL(400mA)
8	I/O5.5V	FAIL(350mA)	FAIL(350mA)	FAIL(350mA)

NEGATIVE I (UNIT:mA)				
Test Pin	TRIGGER CURRENT	#28	#29	#30
1	I/O5.5V	FAIL(-750mA)	FAIL(-900mA)	FAIL(-700mA)
3	I/O5.5V	FAIL(-900mA)	FAIL(-700mA)	FAIL(-900mA
5	I/O5.5V	FAIL(-450mA)	FAIL(-450mA)	FAIL(-550mA)
6	I/O5.5V	FAIL(-950mA)	FAIL(-950mA)	FAIL(-950mA)
7	I/O5.5V	FAIL(-600mA)	FAIL(-650mA)	FAIL(-650mA)
8	I/O5.5V	FAIL(-400mA)	FAIL(-500mA)	FAIL(-750mA)

V_{supply} OVERVOLTAGE TEST (UNIT: V)				
Test Pin	TRIGGER VOLTAGE	#31	#32	#33
2	VCC	PASS(+8.25V)	PASS(+8.25V)	PASS(+8.25V)

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