ESD (HUMAN BODY MODE) TEST REPORT

Company ：南京凌鸥创芯电子有限公司

Address ：江苏省南京市栖霞区兴智路 6 号兴智科技园 B 座 15 楼

Model Name ：**LKS32MC037**

Date Received ：September 28, 2021

Date Tested ：October 8, 2021

TESTING LABORATORY IS APPROVEDED BY:

IECQ Certificate of Approval No.: IECQ-L DEKRA 17.0004-01 For Independent Test Laboratory According to ISO/IEC 17025

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
Testing Engineer	Glory_Lu	Glory_Lu	2021/10/14
Approving Manager	Peng_Zhao	Peng_Zhao	2021/10/14

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.
4. The tested specimen(s) will only be preserved for thirty days from the date issued, if not collected by the applicant.
5. The failure criteria of all ESD tests should be based on the result of parametric and functional testing conducted by the customer, which follows the statement of international standards. Thus, the judgment of the curve traces provided in this report is for reference ONLY.

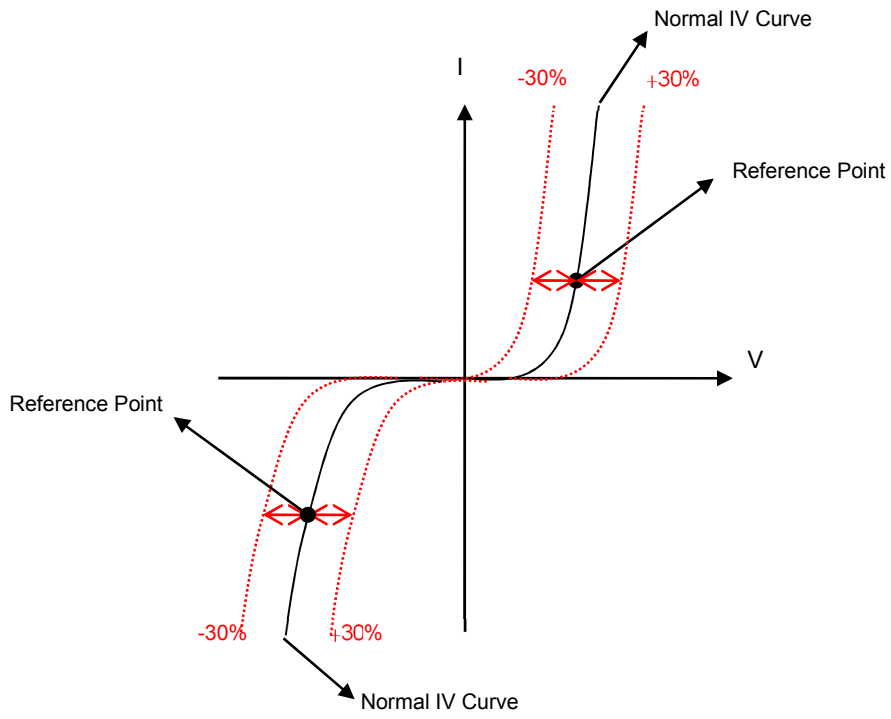
TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER	：南京凌鸥创芯电子有限公司
DEVICE NAME	：LKS32MC037
PACKAGED / PIN COUNT	：SSOP24
REFERENCE DOCUMENT	：MIL-STD-883J Method 3015.9 Zap **3** pulse(s), Interval:**1.0** Sec.
10K ohm Shunt	：Load (※ Add Load 10KΩ is to eliminate the machine Pre-Pulse event.)
TEST VOLTAGE	：6000V(±);
SAMPLE QUANTITY	：3 pcs
FAILURE CRITERIA (Reference Only)	：±30% voltage shift at reference point before/after zapping

※Failure Judgment: Voltage shift over ±30% at reference point.



2. ESD (HUMAN BODY MODE) TEST

2.1 TEST EQUIPMENT

Test Equipment	Equipment S/N	Calibration Date:	Recommended Due Date:
KEYTEK ZAPMASTER MK2 768	1603206	March 19, 2021	March 18, 2022

2.2 LABORATORY AMBIENCE CONDITION

Temperature：25°C$^{+3°C}_{-5°C}$

Relative humidity：55%±10% (RH)

2.3 REFERENCE DOCUMENT

The test is based on MIL-STD-883J Method 3015.9

2.4 TEST CONDITION

Group01 TO VSS (+/-) STEP: 6000V
Group02 TO VDD (+/-) STEP: 6000V
IO TO IO (+/-) STEP: 6000V

2.5 SUMMARY OF TEST

Test Model : HBM	ESD Sensitivity Passed : +/-6000V		MIL-STD-883J Method 3015.9 Class : 3A
Test condition	Sample Quantity	Passed Volts	Class 0Z : ＜ 50V Class 0A : ≧ 50V , ＜125V Class 0B : ≧ 125V , ＜250V Class 1A : ≧ 250V , ＜500V Class 1B : ≧ 500V , ＜1000V Class 1C : ≧1000V , ＜2000V Class 2 : ≧2000V , ＜4000V Class 3A : ≧4000V , ＜8000V Class 3B : ≧8000V
Group01 TO VSS (+/-) STEP: 6000V Group02 TO VDD (+/-) STEP: 6000V IO TO IO (+/-) STEP: 6000V	3	+/-6000V	

Group Set	Pin List
Group01	1-18,20-24
Group02	1-19,21-24
IO	1-18,21-24
VDD	20
VSS	19

2.6 CONTENTS OF TEST

No.	1		
Group01 TO VSS (+/-) STEP: 6000V Group02 TO VDD (+/-) STEP: 6000V IO TO IO (+/-) STEP: 6000V			
Tested Pins	Sample No. & Failed Volt		
	#01	#02	#03
1	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
2	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
3	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
4	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
5	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
6	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
7	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
8	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
9	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
10	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
11	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
12	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
13	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
14	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
15	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
16	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
17	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
18	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
19	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
20	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
21	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
22	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
23	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)
24	PASS(+/-6000V)	PASS(+/-6000V)	PASS(+/-6000V)