

## ESD TEST REPORT

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|---|
| <b>Field-Induced Charged-Device<br/>Model</b> |
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|                    |
|--------------------|
| <b>JS-002-2014</b> |
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ANSI/ESDA/JEDEC Standard, Method JS-002-2014 is an ESD test using Field-Induced Charged-Device Model, three positive and three negative pulses applied to the devices per customer's specification with 0.5 second cool down between pulses.

**Customer :** Chongqing Alpha and Omega Semiconductor Limited

**Address:** No. 288 Yuefu Road, Beibei District, Chongqing, P.R. China

### Device Information

|                |                    |               |      |
|----------------|--------------------|---------------|------|
| Part No. :     | AONR21311C         | Sample Size : | 3pcs |
| Package Type : | DFN3x3-8L-EP       | Pin Count :   | 8    |
| Lot No. :      | AZS0925.01(NL0S11) | Date Code :   | -    |
| VDD Domains :  | D                  | VSS Domains : | S    |

### Test Equipment

|                    |                               |                   |                           |
|--------------------|-------------------------------|-------------------|---------------------------|
| Tester1 :          | ZAPMASTER MK.2 SE             | Serial No. :      | 0508317                   |
| Calibration Date : | Jan 15 <sup>th</sup> 2020     | Expiration Date : | Jan 14 <sup>th</sup> 2021 |
| Tester2 :          | Orion Robotic CDM Test System | Serial No. :      | 0806294                   |
| Calibration Date : | Oct 11 <sup>th</sup> 2019     | Expiration Date : | Oct 10 <sup>th</sup> 2020 |

### Environmental Condition

|               |                           |                 |                           |
|---------------|---------------------------|-----------------|---------------------------|
| Temperature : | 23°C                      | Humidity :      | 30% RH                    |
| Submit date : | Jul 24 <sup>th</sup> 2020 | Complete date : | Jul 24 <sup>th</sup> 2020 |

### Curve Trace Criteria

|   | Pin Combinations | Force Voltage | Limit current |
|---|------------------|---------------|---------------|
| D | Vs.              | S & G         | -30V ~ +30V   |
|   |                  |               | 50μA          |

Curve Trace Results Within 10% range.


### Stress Summary

| CDM        |               |               |   |
|------------|---------------|---------------|---|
| Sample No. | Voltage Level | Process       | Spot Test Results*<br>(Within -10 $\mu$ A @ -20V between G and D/S) |
| 12#        | $\pm 2kV$     | All Pins Done | PASS  |
| 13#        |               | All Pins Done | PASS  |
| 14#        |               | All Pins Done | PASS  |

### Test Result\*

| Model | Pin Combinations | ESD Sensitivity Pass*: <u>2kV</u> | V Class: <u>C3</u>  |
|-------|------------------|-----------------------------------|---|
| CDM   | ALL PINS DONE    | $\pm 2kV$                         | JS-002-2014<br>Class C0a: <125V<br>Class C0b: 125V to <250V<br>Class C1: 250 to <500 V<br>Class C2a: 500 to <750 V<br>Class C2b: 750 to <1000 V<br>Class C3: $\geq 1000V$ |

\*Note: Results will be updated based on customer final electrical test results.

|   |                                 |
|---|---------------------------------|
| Test Engineer: Fei Teng   | Date: Jul 24 <sup>th</sup> 2020 |
| Approved by FA Manager:  | Date: Jul 24 <sup>th</sup> 2020 |



### Recommendations

**EAG Shanghai** certifies that above tests have been performed in accordance to the requirements stated above and per the customer purchase order and applicable documents.

**EAG Shanghai** recommends electrical testing as a validation of reported results. Curve Trace criteria was utilized to specify a pass or fail. Industry standards require the device to be tested functionally at post stress and should continue to meet all electrical parameters as per the data sheet.

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