ESD TEST REPORT

Human Body Model
AEC-Q101-001-A

AEC Standard, Method AEC-Q101-001-A is an ESD test using Human Body Model where "R = 1500 ohm", "C = 100pf", one positive and one negative pulse applied to the devices per customer's specification with a minimum of 0.5 second cool down between pulses.

Customer: **Alpha & Omega Semiconductor (Shanghai), Ltd.**

Address: Building 8 & 9, No. 91, Lane 109, Rong Kang Road, Songjiang Export Processing Zone, Zone B, # 888 Song Zheng Highroad, Shanghai

Device Information			
Part No. :	AONR36321	Sample Size :	32pcs
Package Type :	DFN3.3x3.3_8L_EP1_S	Pin Count :	8
Lot No. :	NA005	Date Code :	-
VDD Domains :	D	VSS Domains :	S
Test Equipment			
Tester :	ZAPMASTER MK.2 SE	Serial No. :	0508317
Calibration Date :	Jan 12th 2023	Expiration Date :	Jan 11th 2024
Environmental Condition			
Temperature :	22.1ºC	Humidity :	49% RH
Submit date :	Dec 12th 2023	Complete date :	Dec 12th 2023

Curve Trace Criteria

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

Curve Trace Results Within 10% range.

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Stress Summary

G TO S			
Sample No.	Stress Type	Voltage Level	Spot Test Results* (Within 10μA @ 20V between G and D/S)
1#	HBM	-3kV	FAILED
2#	HBM	±2.9kV	PASS
3#	HBM	±2.9kV	PASS
4#	HBM	±2.9kV	PASS
5#	HBM	±2.9kV	PASS
6#	HBM	±2.9kV	PASS
7#	HBM	±2.9kV	PASS
8#	HBM	±2.9kV	PASS
9#	HBM	±2.9kV	PASS
10#	HBM	±2.9kV	PASS
11#	HBM	±2.9kV	PASS

G TO D			
Sample No.	Stress Type	Voltage Level	Spot Test Results* (Within 10μA @ 20V between G and D/S)
12#	HBM	-2.8kV	FAILED
13#	HBM	±2.7kV	PASS
14#	HBM	±2.7kV	PASS
15#	HBM	±2.7kV	PASS
16#	HBM	±2.7kV	PASS
17#	HBM	±2.7kV	PASS
18#	HBM	±2.7kV	PASS
19#	HBM	±2.7kV	PASS
20#	HBM	±2.7kV	PASS
21#	HBM	±2.7kV	PASS
22#	HBM	±2.7kV	PASS

D TO S			
Sample No.	Stress Type	Voltage Level	Spot Test Results* (Within 10μA @ 20V between G and D/S)
23#	HBM	±8kV	PASS
24#	HBM	±8kV	PASS
25#	HBM	±8kV	PASS
26#	HBM	±8kV	PASS
27#	HBM	±8kV	PASS
28#	HBM	±8kV	PASS
29#	HBM	±8kV	PASS
30#	HBM	±8kV	PASS
31#	HBM	±8kV	PASS
32#	HBM	±8kV	PASS

Test Result*

Model	Pin Combinations	ESD Sensitivity: **2.7kV**	V Class	
HBM	G vs. S	±2.9kV	H2	AEC - Q101-001-A Class H0: ≤250V Class H1A: 251V~500V Class H1B: 501V~1000V Class H1C: 1001V~2000V Class H2: 2001V~4000V Class H3A: 4001V~8000V Class H3B: >8000V
	G vs. D	±2.7kV		
	D vs. S	±8kV		

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

Test Engineer: Wenping Yan	Date: Dec 12th 2023
Approved by FA Manager: 李春	Date: Dec 12th 2023

Recommendations

Eurofins 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.

Eurofins 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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