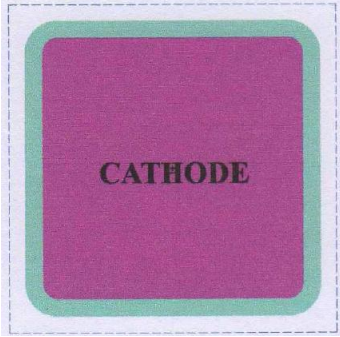
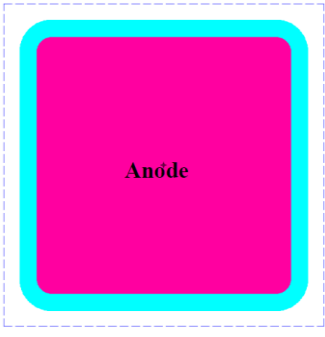


To : Dear Valued Customers

Product/Process Change Notice

We hereby submit PCN for your review and approval.

Application or type : 4 inch wafer change											
Detail of the change : Changes in the size of the wafer, 4 inch wafer was changed to 6 inches. The 6 inch wafer the top is "Anode".											
Current : 4 inch wafer The top is "cathode". 	After the change : 6 inch wafer The top is "Anode". 										
Reason for the change : Due to low demand, fab stop production 4 inch wafer.											
Evaluation items : Reliability Test Report. 201506A01-023-MD1PIP613080 (5V) Reliability											
Part No. affected :											
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">ACPDQC5V0U-HF</td> <td style="padding: 2px;">CPDQR5V0U-HF</td> </tr> <tr> <td style="padding: 2px;">ACPDUC5V0U-HF</td> <td style="padding: 2px;">CPDU5V0U-HF</td> </tr> <tr> <td style="padding: 2px;">CPDER5V0U-HF</td> <td style="padding: 2px;">CPDU5V0UT-HF</td> </tr> <tr> <td style="padding: 2px;">CPDF5V0U-HF</td> <td style="padding: 2px;">CPDUC5V0U-HF</td> </tr> <tr> <td style="padding: 2px;">CPDQC5V0U-HF</td> <td style="padding: 2px;">CPDUR5V0U-HF</td> </tr> </table>		ACPDQC5V0U-HF	CPDQR5V0U-HF	ACPDUC5V0U-HF	CPDU5V0U-HF	CPDER5V0U-HF	CPDU5V0UT-HF	CPDF5V0U-HF	CPDUC5V0U-HF	CPDQC5V0U-HF	CPDUR5V0U-HF
ACPDQC5V0U-HF	CPDQR5V0U-HF										
ACPDUC5V0U-HF	CPDU5V0U-HF										
CPDER5V0U-HF	CPDU5V0UT-HF										
CPDF5V0U-HF	CPDUC5V0U-HF										
CPDQC5V0U-HF	CPDUR5V0U-HF										

<p>Implemented from :</p> <p>Comchip is making running change 4 inch wafer, when all 4 inch wafer is depleted, we will replace it with 6 inch wafer.</p>	
<p>R&D Dept. Signature :</p> <p><i>Zeus.lai</i></p>	<p>QA Dept. Signature :</p> <p><i>Kevin Tseng</i></p>

Answer To PCN

Please complete the form below duly signed and fax back to Comchip Technology Co.

<p>Please select your answer</p> <p>1. <input type="checkbox"/> Approved this PCN</p> <p>2. <input type="checkbox"/> Approved this PCN with conditions</p> <p>3. <input type="checkbox"/> Disapproved this PCN</p>	<p>Date</p> <hr/> <p>Responsibility By</p>
<p>Please specify the condition or explain the reason if you select 2 or 3.</p> <p><input type="checkbox"/> We disagree with this proposed change and the schedule.</p> <p style="padding-left: 20px;">Reason:</p> <p><input type="checkbox"/> We need samples.</p>	

Unless a Comchip Technology Co., Ltd. Sales representative is contacted in writing within 30 days of the posting of this notice, all changes described in this announcement are considered approved.



Technology Co., Ltd.

Reliability Test Report

Part NO.: MD1PIP613080(5V)
Diodes

Date: 2015.08.17

ComChip Technology Co., Ltd.

Add. : No. 586, Jianguo Rd., Yingge Dist.,
New Taipei City 23943, Taiwan

Tel. : 886-2-8677-6675
FAX : 886-2-8677-6672

Reliability Test Summary

P / N : MD1PIP613080 L / N : N/A
 Criteria : VF ≤ 1000 mV @IF= 10 mA IR ≤ 2 uA @VR= 5 V VZ ≥ 6.1 V @IZ= 1 mA

No	Test Item	Test Condition	Test Foundation	Failure qty'	S.S	Parameter	X Bar	S Dev	Max	Min	Cpk	
1	Pre-conditioning	Initial Electrical Test Visual Inspection -40°C to 60°C dwelled for 30 min and transfer time not exceed 1 min; 5 cycles Ta= 125°C Time= 24 hrs Ta= 85 °C RH= 85% Time = 168 hrs 3 reflow cycles using profiles per IPC/JEDEC J-STD-020 Dip 10s flux DI water rinse Room ambient drying Final Electrical Test	JESD22 A-113	0	231	Before	VF (mV)	770.2597	1.9001	784.0000	768.0000	40.30
							IR (µA)	0.0586	0.0026	0.0681	0.0549	2.80
							VZ (V)	6.9842	0.0125	7.0073	6.9631	23.61
				0	231	After	VF (mV)	772.1381	6.2881	838.0000	768.0000	12.08
							IR (µA)	0.0578	0.0098	0.0690	0.0034	0.76
							VZ (V)	6.9819	0.0122	7.0058	6.9616	24.08
2	High Temperature Reverse Bias	VR= 4 V Ta= 125 ± 5 °C.. (depend on product) Test Time 1000 hrs.	MIL-STD-750-1 M1038	0	77	Before	VF (mV)	771.0260	4.7295	777.0000	733.0000	16.14
							IR (µA)	0.0637	0.0059	0.0733	0.0525	0.91
							VZ (V)	6.9836	0.0134	7.0531	6.9631	22.06
				0	77	After	VF (mV)	773.6753	1.5342	786.0000	773.0000	49.17
							IR (µA)	0.0586	0.0047	0.0683	0.0521	1.52
							VZ (V)	6.9821	0.0291	7.2179	6.9616	10.09
3	Temperature Cycle	-40°C to 150°C dwelled for 30 min and transfer time not exceed 1 min; 400 cycles	JESD22 A-104	0	77	Before	VF (mV)	772.1169	1.8565	776.0000	770.0000	40.92
							IR (µA)	0.0592	0.0023	0.0662	0.0554	2.95
							VZ (V)	6.9801	0.0119	7.0028	6.9616	24.58
				0	77	After	VF (mV)	773.5455	1.2932	777.0000	772.0000	58.37
							IR (µA)	0.0682	0.0075	0.0830	0.0505	0.53
							VZ (V)	6.9767	0.0120	6.9982	6.9555	24.29
4	Unbiased Highly Accelerated Stress Test	Ta= 130°C RH= 85% Test Time=96 hrs	JESD22 A-118	0	77	Before	VF (mV)	771.3377	7.8650	838.0000	768.0000	9.69
							IR (µA)	0.0586	0.0022	0.0645	0.0549	3.25
							VZ (V)	6.9843	0.0123	7.0058	6.9631	23.87
				0	77	After	VF (mV)	770.0941	2.2605	781.0000	768.0000	33.90
							IR (µA)	0.0537	0.0155	0.0625	0.0033	0.57
							VZ (V)	6.9873	0.0122	7.0043	6.9646	24.24
5	Highly Accelerated Stress Test	VR= 4 V Ta= 130°C RH= 85% Test Time=96 hrs	JESD22 A-110	0	77	Before	VF (mV)	772.8824	7.1969	837.0000	770.0000	10.52
							IR (µA)	0.0637	0.0185	0.0769	0.0034	0.29
							VZ (V)	6.9813	0.0121	6.9997	6.9631	24.26
				0	77	After	VF (mV)	772.4353	1.2387	777.0000	770.0000	61.24
							IR (µA)	0.0581	0.0188	0.0796	0.0034	0.39
							VZ (V)	6.9809	0.0119	6.9997	6.9600	24.65
6	Resistance to Solder Heat	Ta= 125°C Time=24hrs Ta= 85 °C RH= 85% Time=168 hrs one inch above the hot solder for 15 s Temp of solder pot=260±5°C Time= 4-6 sec.	JESD22 A-111	0	30	Before	VF (mV)	769.9333	0.9803	772.0000	768.0000	78.23
							IR (µA)	0.0584	0.0042	0.0716	0.0530	1.71
							VZ (V)	6.9883	0.0111	7.0028	6.9707	26.69
				0	30	After	VF (mV)	770.2000	0.6103	772.0000	769.0000	125.52
							IR (µA)	0.0596	0.0047	0.0789	0.0550	1.46
							VZ (V)	6.9875	0.0115	7.0028	6.9661	25.70

Reliability Test Summary

P / N : MD1PIP613080 L / N : N/A
 Criteria : VF ≤ 1000 mV @IF= 10 mA IR ≤ 2 uA @VR= 5 V VZ ≥ 6.1 V @IZ= 1 mA

No	Test Item	Test Condition	Test Foundation	Failure qty'	S.S	Parameter	X Bar	S Dev	Max	Min	Cpk	
7	Solderability	Ta= 85 °C RH= 85% Time=1 hrs Ta= 100°C Time=15min~1 hrs DI water rinse Room ambient drying Temp.of solder Pot=245±5°C , Time= 5~10 sec.	JESD22-B102E	0	10	Before	VF (mV)			N/A		
							IR (µA)					
							VZ (V)					
				0	10	After	VF (mV)					
							IR (µA)					
							VZ (V)					
8	ESD Characterization	per AEC-Q101	AEC Q101-001 and 005	0	60	Before	VF (mV)			N/A		
							IR (µA)					
							VZ (V)					
				0	60	After	VF (mV)					
							IR (µA)					
							VZ (V)					
9	Physical Dimension	per AEC-Q101	JESD22 B-100	0	30	Before	VF (mV)			N/A		
							IR (µA)					
							VZ (V)					
				0	30	After	VF (mV)					
							IR (µA)					
							VZ (V)					
10	Bond Shear	per AEC-Q101	AEC-Q101-003	0	5	Before	VF (mV)			N/A		
							IR (µA)					
							VZ (V)					
				0	5	After	VF (mV)					
							IR (µA)					
							VZ (V)					
11	Die Shear	per MIL-STD-750 Method 2017	MIL-STD-750 Method 2017	0	5	Before	VF (mV)			N/A		
							IR (µA)					
							VZ (V)					
				0	5	After	VF (mV)					
							IR (µA)					
							VZ (V)					

Conclusion:

- 原物料：CCT001C-5UAA晶片轉換MD1PIP613080可行性評估
- 此次共有11項實驗
- 測試結果：PASS

Approval: Kevin Tseng

Prepare: Judy Lin