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# Cypress Semiconductor Product Qualification Report

**QTP# 064203**  
**June 2013**

<b>CSM 0.35um LOGIC SALICIDE CHARTER SEMICONDUCTOR</b>	
<b>CY2CC810 CY2CC910</b>	<b>1:10 CLOCK FANOUT BUFFER</b>

## **CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:**

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## PRODUCT QUALIFICATION HISTORY

Qual Report	Description of Qualification Purpose	Date Comp
I000006	Qualification Summary for Cypress Acquisition of IMI Devices and Packages (Feb. 23, 2001)	Feb 03
I000006	Added new device data gathered, B35C qualified base die (CY2LL843*, CY2SSTV16859*, CY2AVC16835*)	May 04
064203	Metal mask change to B35C09A bond option	Dec 06

## DIE QUALIFICATION TEST RESULTS

B35C base die platform (0.35  $\mu$ M, 3 layers metal, CMOS, CSM-Singapore)

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot C1035-B35C
Life Test	MIL-STD-883 Method 1005	125°C/5V	500 1000	0/116 0/116	Lot C1035-B35C
ESD	MIL-STD-883 Method 3015	HBM	2000V 3000V 4000V 5000V	0/3 0/3 0/3 3/3	Lot C1035-B35C
Latch-up	JESD78		200 mA	0/5	Lot C1035-B35C

## PACKAGE QUALIFICATION TEST RESULTS

SSOP ,0.295 wide

Test	Military or Industry Standard	Conditions	Test Points	Test Results	Comments
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, lot C1138
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, lot C1138
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, lot C1035
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, lot C1035
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, OSE, lot C1009
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, OSE, lot C1009
Temperature Cycle	MIL-STD-883 Method 1010	50 hours /5V, 130°C, 85%RH	50	0/76	Preconditioned Units, OSE, lot C1009
Pressure Pot	JEDEC Std. 22 Test Method 102	1000 Hours, 85% RH, 85°C,	1000	0/76	Preconditioned Units, OSE, lot C1009
Temperature Cycle	MIL-STD-883 Method 1010	500 cycles, -65/+ 150°C	500	0/76	Preconditioned Units, CWT, lot T2706
Pressure Pot	JEDEC Std. 22 Test Method 102	168 Hours, 100% RH, 121°C, 2 atm	168	0/76	Preconditioned Units, CWT, lot T2706
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by OSE
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by OSE
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by OSE
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by OSE
Physical Dimension	JEDEC Spec.	Applicable drawing	N/A	0/12	Performed by CWT
Resistance to Solvent	MIL-STD-883 Method 2015		N/A	0/12	Performed by CWT
Solderability	MIL-STD-883 Method 2003	260 Deg, 5 sec 95% Min Coverage	N/A	0/5	Performed by CWT
Coplanarity	JEDEC Spec.	Max = 4 Mil	N/A	0/20	Performed by CWT

## Reliability Test Data

### B35C BASE DIE

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: ESD-CHARGE DEVICE MODEL, 500V</b>							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	2	0	
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
<b>STRESS: ESD-CHARGE DEVICE MODEL, 750V</b>							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	1	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 1100V</b>							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	1	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2000V</b>							
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2200V</b>							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	2	0	
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2400V</b>							
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	3	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	
<b>STRESS: STATIC LATCH-UP TESTING, 125C, 8.0V, ±300mA</b>							
CY2SSTV16859 (7C826859A)	9210123	610334679	KOREA-L	COMP	3	0	
<b>STRESS: STATIC LATCH-UP TESTING, 125C, 10V, ±300mA</b>							
CY2AVC16835 (7C81635ER)	9202732	610303336	TAIWAN-T	COMP	2	0	
CY2SSTV16859 (7C826859A)	9210123	610249055	KOREA-GQ	COMP	2	0	
CY2LL843 (7C82LL843CR)	9213233	610218031	TAIWAN-CH	COMP	3	0	



## **Reliability Test Data**

### **QTP# 064203**

<b>Device</b>	<b>Fab Lot #</b>	<b>Assy Lot #</b>	<b>Assy Loc</b>	<b>Duration</b>	<b>Samp</b>	<b>Rej</b>	<b>Failure Mechanism</b>
<b>STRESS: ESD-CHARGE DEVICE MODEL, 500V</b>							
CY2CC810OI-1 (7C8C810A)	8635004	610663117	TAIWAN-T	COMP	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2,200V</b>							
CY2CC810OI-1 (7C8C810A)	8635004	610663117	TAIWAN-T	COMP	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V</b>							
CY2CC810OI-1 (7C8C810A)	8635004	610663117	TAIWAN-T	COMP	3	0	
<b>STRESS: STATIC LATCH-UP TESTING, 125C, 6.5V, <math>\pm 200</math>mA</b>							
CY2CC810OI-1 (7C8C810A)	8635004	610663117	TAIWAN-T	COMP	3	0	



## Document History Page

Document Title: QTP # 064203 : CSM 0.35um LOGIC SALICIDE (CY2CC810/CY2CC910), CHARTER  
SEMICONDUCTOR  
Document Number: 001-87923

Rev.	ECN No.	Orig. of Change	Description of Change
**	4026939	ILZ	Initial Spec Release Qualification report published on Cypress.com is documented on memo LGQ-636 and not in spec format. Initiated spec for QTP 064203 and data from LGQ-636 was transferred to qualification report spec template.

Distribution: WEB

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