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PRODUCT CHANGE NOTIFICATION

PCN: PCN181104 **Date:** March 18, 2018

Subject: Qualification of Fab 25 as an Additional Wafer Fab Site and Test 25 as an Additional Wafer Sort Site for 1.8V 4Mb Parallel nvSRAM Products

To: FUTURE ELECTRONICS
FUTURE ELE
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Change Type: Major

Description of Change:
Cypress announces the qualification of Fab 25 as an additional wafer fab site and Test 25 as an additional wafer sort site in Austin, Texas for 1.8V 4Mb Parallel nvSRAM products. No design or test program changes were made during this fab transfer. There is no change to product datasheets.

Benefit of Change:
Qualification of alternate manufacturing sites is part of the ongoing flexible manufacturing initiative announced by Cypress. The goal of the flexible manufacturing initiative is to provide the means for Cypress to continue to meet delivery commitments through dynamic, changing market conditions.

Affected Part Numbers: 12
See the attached 'Affected Parts List' file for a list of all part numbers affected by this change. Note that any new parts that are introduced after the publication of this PCN will include all changes outlined in this PCN.

Qualification Status:
The new wafer fabrication site and wafer sort site have been qualified through a series of tests identified in the Qualification Test Plans QTP#172609 and QTP#171610. The QTP reports can be found as attachments to this notification or by visiting www.cypress.com, typing the QTP number in the keyword search window.

Sample Status:
Qualification samples may not be built ahead of time for all part numbers affected by this change. Please review the attached 'Affected Parts List' file for a list of affected part numbers with their associated Fab 25 sample ordering part numbers. Samples are available now unless there is an indication that the sample ordering part numbers are subject to lead times. If you require qualification samples, please contact your local Cypress sales representative as soon as possible, preferably within 30 days of the date of this PCN, to place any sample orders.

Approximate Implementation Date:
Effective 90 days from the date of this notification, all shipments of the affected part numbers will be fabricated at either SkyWater or Fab 25 and sorted at either SkyWater or Test 25.

Anticipated Impact:
Products fabricated at Fab 25 and sorted at Test 25 are completely compatible with existing product from a form, fit, functional, parametric and quality performance perspectives.

Cypress also recommends that customers take this opportunity to review these changes against current application notes, system design considerations and customer environment conditions to assess impact (if any) to their application.

Method of Identification:
Cypress maintains traceability of product to wafer level, including wafer fabrication location, through the lot number marked on the package.

Response Required:
No response is required.

For additional information regarding this change, contact your local sales representative or contact the PCN Administrator at pcn_adm@cypress.com.

Sincerely,

Cypress PCN Administration

Item	Marketing Part Number	Sample Order Part Number
1	CY14V104LA-BA25XI	CY14V104LA2-BA25XI Subject to lead time
2	CY14V104LA-BA25XIT	CY14V104LA2-BA25XI Subject to lead time
3	CY14V104LA-BA45XI	CY14V104LA2-BA45XI Subject to lead time
4	CY14V104LA-BA45XIT	CY14V104LA2-BA45XI Subject to lead time
5	CY14V104NA-BA25XI	CY14V104NA2-BA25XI
6	CY14V104NA-BA25XIT	CY14V104NA2-BA25XI
7	CY14V104NA-BA45XI	CY14V104NA2-BA45XI Subject to lead time
8	CY14V104NA-BA45XIT	CY14V104NA2-BA45XI Subject to lead time
9	CG8084AA	CG8084BA
10	CG8084AAT	CG8084BA
11	CG8411AA	CG8411BA Subject to lead time
12	CG8411AAT	CG8411BA Subject to lead time

Cypress Semiconductor Corporation
CY14V104X nvSRAM Characterization Report

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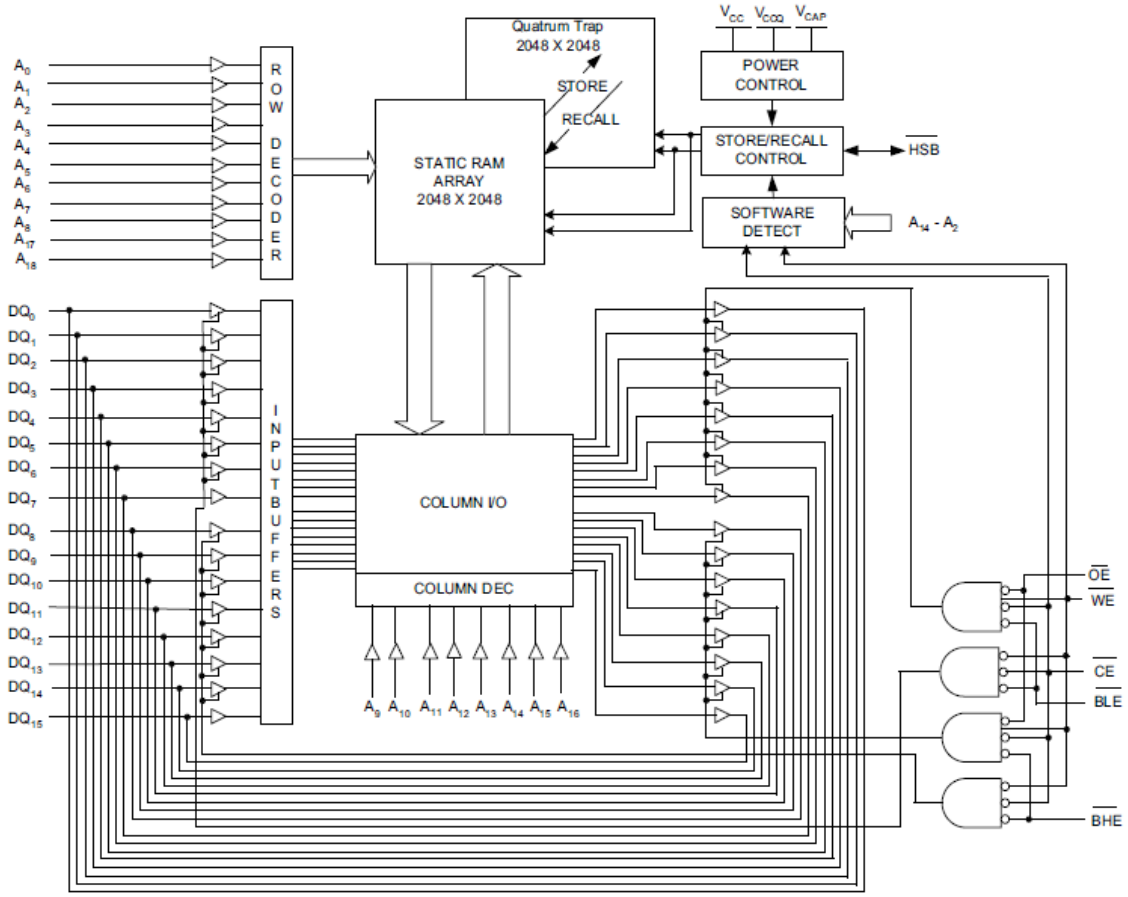
2.0 Introduction

2.1 General Description

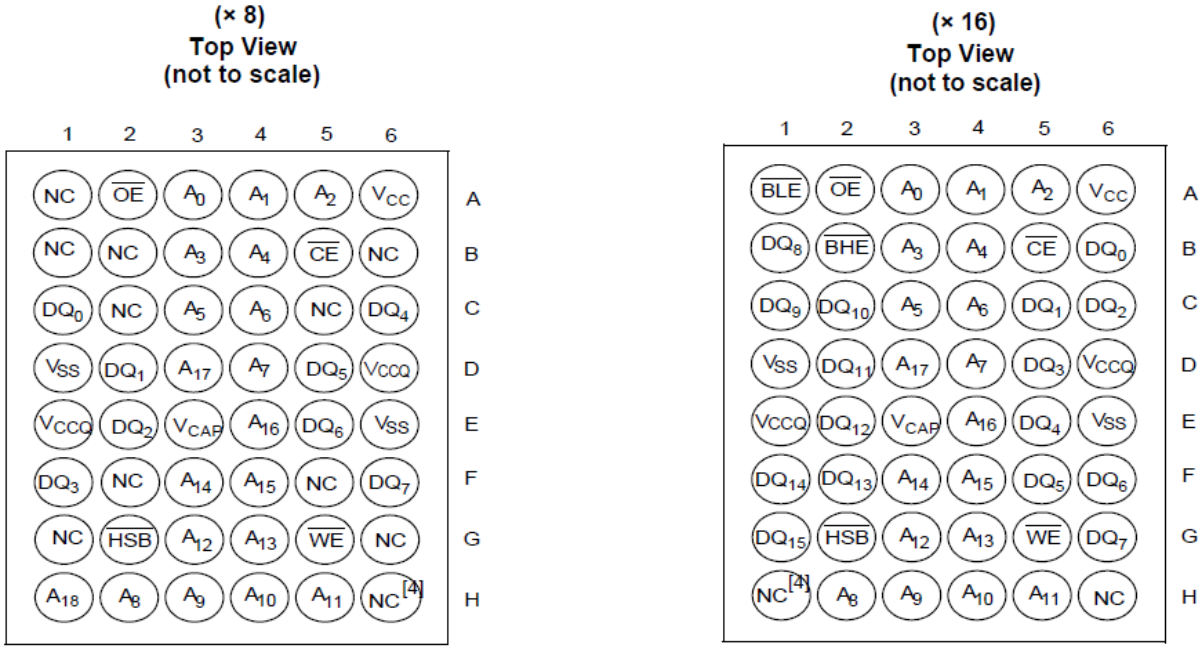
The Cypress CY14V104x is a 4-Mbit nonvolatile static RAM (nvSRAM). The embedded nonvolatile elements incorporate Quantum Trap technology producing the world's most reliable nonvolatile memory. The SRAM is read and written infinite number of times, while independent nonvolatile data resides in the nonvolatile elements.

Figure 1: Logic Block Diagram



2.2 Pin Definitions

Figure 2: CY14V104L/N – 48-ball FBGA



2.3 Datasheets

The 4M-bit nvSRAM devices meet all datasheet specifications.

Density	Device	Datasheet
4M-bit	CY14V104L/N	001-53954

2.4 Application Notes

Following are some of the application notes associated with the 4M-bit/2M-bit/8M-bit nvSRAM products:

- AN43380 - HSB Operation in nvSRAMs
- AN43593 - Storage Capacitor (VCAP) options for Cypress NVSRAM

2.5 White Papers

Following are the white papers associated with the 4M-bit/2M-bit/8M-bit nvSRAM products:

- Nonvolatile SRAM (NVSRAM) basics
- NVSRAM as write journal in RAID storage systems
- Using Cypress NVSRAM as Program Memory
- Probability of Occurrence of a Soft Sequence in Asynchronous nvSRAMs
- Data Retention Performance of 130-nm nvSRAM

2.6 Qualification Reports

The CY14V104x device is qualified under QTP 172609. The qualification reports are available from the Cypress website at http://www.cypress.com (Specific website URL is TBD).

3.0 Characterization Hardware and Setup

3.1 ATE Characterization Hardware

Temperature Forcing System
The Temptronic XStream 4300 was used to force all the required temperatures.

ATE Testers
Advantest T5581 tester was used to characterize the DC, AC and Store/Recall parameters.

3.2 Characterization Conditions

All units were tested across 3.0V to 3.6V VCC and 1.65V to 1.95V on IO VCCQ in addition to a +/- 100mV guardband. The temperature range for the characterization was from -45C to 90C. A guardband of +/-5C was used.

4.0 Characterization Data

This characterization report compares devices from the FAB4 (SkyWater) which is the old Cypress fab at Bloomington, MN, U.S.A. to the new FAB25 (Cypress) at Austin, TX, U.S.A.

4.1 DC Parameters (CY14V104 Devices)

Parameter	Name	Test Conditions	Datasheet			Fab4		Fab25		Unit
			Min	Typ	Max	Min	Max	Min	Max	
ICC1	Average VCC current	tRC = 25 ns, Values obtained without output loads (IOUT = 0 mA)			70	33.40	34.00	32.80	40.40	mA
		tRC = 45 ns, Values obtained without output loads (IOUT = 0 mA)			52	25.40	26.00	25.20	31.60	mA
ICCQ1	Average VCCQ current	tRC = 25 ns, Values obtained without output loads (IOUT = 0 mA)			70	6.20	7.80	6.10	7.70	mA
		tRC = 45 ns, Values obtained without output loads (IOUT = 0 mA)			52	3.80	6.20	3.70	6.30	mA
ICC2	Average VCC current during STORE	All inputs don't care, VCC = Max. Average current for duration tSTORE	-	-	10	2.00	2.20	3.20	4.00	mA
ICC3	Average VCC current at tRC=200ns, VCC (Typ), 25 °C	All inputs cycling at CMOS Levels. Values obtained without output loads (IOUT = 0 mA).	-	35	-	17.40	17.80	20.40	22.80	mA
ICCQ3	Average VCCQ current at tRC=200ns, VCC (Typ), 25 °C	All inputs cycling at CMOS Levels. Values obtained without output loads (IOUT = 0 mA).	-	5	-	0.80	1.20	0.90	1.40	mA
ICC4[1]	Average VCAP current during AutoStore cycle	All inputs don't care. Average current for duration tSTORE	-	-	8	2.20	3.20	0.80	1.20	mA
ISB	VCC standby current	CE# > (VCC – 0.2 V). VIN < 0.2 V or > (VCC – 0.2 V). 'W' bit set to '0'. Standby current level after nonvolatile cycle is complete. Inputs are static. f = 0 MHz.	-	-	8	2.20	3.20	0.80	1.20	mA
IIX[2]	Input leakage current (except HSB#)	VCC = Max, VSS < VIN < VCC	-1	-	1	-0.01	0.39	-0.20	0.20	uA
	Input leakage current (for HSB#)	VCC = Max, VSS < VIN < VCC	-100	-	1	-5.20	-4.70	-7.62	-3.98	uA
IOZ	Off state output leakage current	VCC = VCC(Max), VSS < VOUT < VCC, CE# or OE# > VIH or BLE#, BHE# > VIH or WE# < VIL	-1	-	1	-0.02	0.14	-0.60	0.14	uA
VIH	Input HIGH voltage		0.7X Vccq	-	Vccq+0.3	0.94	0.96	0.93	1.39	V
VIL	Input LOW voltage		Vss-0.3	-	0.3XVccq	0.60	0.60	0.14	0.70	V
VOH	Output HIGH voltage	IOUT=-1mA	Vccq -0.45	-	-	1.40	1.40	1.42	1.46	V
VOL	Output LOW voltage	IOUT=2mA	-	-	0.45	0.11	0.12	0.09	0.17	V

Notes:
1. These parameters are guaranteed by design but not tested.
2. The HSB pin has IOUT = –4 µA for VOH of 1.07 V when both active HIGH and LOW drivers are disabled. When they are enabled standard VOH and VOL are valid. This parameter is characterized but not tested.

4.2 AC Parameters

Parameter[1]	Name	Datasheet			Fab4		Fab25		Unit
		Min	Typ	Max	Min	Max	Min	Max	
tACE	Chip enable access time	-	-	25	17.80	18.20	18.13	18.94	ns
tAA[2]	Address access time	-	-	25	19.00	19.40	19.50	20.37	ns
tDOE	Output enable to data valid	-	-	12	7.20	7.40	7.50	8.00	ns
tOHA[2]	Output hold after address change	3	-	-	7.20	7.60	6.94	8.19	ns
tDBE	Byte enable to data valid	-	-	12	8.80	8.80	7.19	9.19	ns
tPWE	Write pulse width	20	-	-	10.60	10.80	11.25	12.62	ns
tSCE	Chip enable to end of write	20	-	-	11.00	11.00	10.00	11.50	ns
tSD	Data setup to end of write	10	-	-	6.00	7.00	5.69	7.56	ns
tHD	Data hold after end of write	0	-	-	-4.20	-3.00	-4.56	-2.75	ns
tAW	Address setup to end of write	20	-	-	10.80	11.80	12.62	14.25	ns
tSA	Address setup to start of write	0	-	-	-6.80	-6.60	-8.19	-7.00	ns
tHA	Address hold after end of write	0	-	-	-8.90	-8.70	-11.12	-9.69	ns
tBW	Byte enable to end of write	20	-	-	10.00	10.20	10.19	11.75	ns

Notes:
1. Test conditions assume signal transition time of 1.8 ns or less, timing reference levels of VCCQ/2, input pulse levels of 0 to VCCQ (typ) and output loading of the specified IOL/IOH and load capacitance
2. Device is continuously selected with CE#, OE# and BLE# / BHE# LOW.

4.3 Store/Recall Parameters

AutoStore/Power-UP RECALL Characteristics

Parameter	Name	Datasheet			Fab4		Fab25		Unit
		Min	Typ	Max	Min	Max	Min	Max	
tHRECALL[1]	Power-Up RECALL duration	-	-	20	13.30	17.90	12.70	17.20	ms
tSTORE[2]	STORE cycle duration	-	-	8	5.70	6.50	4.80	6.60	ms
tDELAY[3]	Time allowed to complete SRAM write cycle	-	-	25	19.00	19.00	19.00	19.00	ns
VSWITCH	Low voltage trigger level	-	-	2.90	2.48	2.60	2.40	2.49	V

Software Controlled STORE and RECALL Characteristics

Parameter [4,5]	Name	Datasheet			Fab4		Fab25		Unit
		Min	Typ	Max	Min	Max	Min	Max	
tSA	Address setup time	0	-	-	-3.30	-3.10	-5.25	-4.06	ns
tCW	Clock pulse width	20	-	-	7.20	7.40	8.88	9.44	ns
tHA	Address hold time	0	-	-	-5.19	-4.38	-4.40	-3.06	ns
tRECALL	RECALL duration	-	-	200	80.00	91.00	60.00	90.00	us

Hardware STORE Characteristics

Parameter	Name	Datasheet			Fab4		Fab25		Unit
		Min	Typ	Max	Min	Max	Min	Max	
tDHSB	HSB# to output active time when write latch not set	-	-	25	17.00	18.00	19.00	20.00	ns
tPHSB	Hardware STORE pulse width	15	-	-	3.50	4.50	4.60	4.80	ns
tSS[6,7]	Soft sequence processing time	-	-	100	60.00	87.50	55.00	70.00	us

Notes:
1. tHRECALL starts from the time VCC rises above VSWITCH.
2. If an SRAM write has not taken place since the last NV cycle, no AutoStore or Hardware STORE takes place.
3. On a Hardware STORE and AutoStore initiation, SRAM write operation continues to be enabled for time tDELAY.
4. The software sequence is clocked with CE# controlled or OE# controlled reads.
5. The six consecutive addresses must be read in the order listed. WE# must be HIGH during all six cycles.
6. This is the amount of time it takes to take action on a soft sequence command. VCC power must remain HIGH to effectively register command.
7. Commands such as STORE and RECALL lock out I/O until complete which further increases this time.

Document History Page

Rev.	ECN No.	Orig. of Change	Description of Change
**	6084450	ARAV	New Characterization Report.

Sales, Solutions, and Legal Information

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Cypress Semiconductor
Product Qualification Report

QTP# 172609 VERSION**
March 2018

4M Parallel 1.8V IO nvSRAM Device Family S8TNV1-5 Technology, Fab 25	
CY14V104NA*	4M-bit (256K X 16) nvSRAM
CY14V104LA*	4M-bit (512K X 8) nvSRAM

FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
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PRODUCT QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date
151008	Qualification of S8* Technology in Fab25 using TSG6M Device	December 2015
163004	S8TNV Fab Transfer Qualification at Fab 25 using 4M Parallel nvSRAM Device	September 2017
172609	Qualification of 4M 1.8V IO nvSRAM Device, S8TNV1-5 Technology in Fab 25	March 2018

PRODUCT DESCRIPTION (for qualification)	
Qualification Purpose: To qualify 4M 1.8V IO nvSRAM device at Fab 25 using S8TNV1-5 technology	
Marketing Part #:	CY14V104NA*/ CY14V104LA*
Device Description:	4M Parallel 1.8V IO nvSRAM Device
Cypress Division:	Cypress Semiconductor – Memory Products Division (MPD)

TECHNOLOGY/FAB PROCESS DESCRIPTION			
Number of Metal Layers:	Proprietary	Metal Composition:	Proprietary
Passivation Type and Thickness:		Proprietary	
Generic Process Technology/Design Rule (µ-drawn):		Proprietary	
Gate Oxide Material/Thickness (MOS):		Proprietary	
Name/Location of Die Fab (prime) Facility:		Fab 25	
Die Fab Line ID/Wafer Process ID:		SRT3NNDD	

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	BK48
Package Outline, Type, or Name:	48-Ball FBGA (Fine Ball Grid Array)
Mold Compound Name/Manufacturer:	KE-G2270 / Kyocera
Mold Compound Flammability Rating:	V-0 / UL94
Oxygen Rating Index: >28%	N/A
Substrate Material:	BT Resin
Solder Ball Finish:	Sn/Ag/Cu (SAC) -105
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Saw Process
Die Attach Supplier:	Henkel
Die Attach Material:	2025D
Bond Diagram Designation	001-62319
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au/0.9 mil (23um)
Thermal Resistance Theta JA °C/W:	39.9 °C/W
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	49-41040
Name/Location of Assembly (prime) facility:	ASE-Taiwan (G)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	BK48
Package Outline, Type, or Name:	48-Ball FBGA (Fine Ball Grid Array)
Mold Compound Name/Manufacturer:	KMC3580LVA /ShinEtsu
Mold Compound Flammability Rating:	V-0 / UL94
Oxygen Rating Index: >28%	N/A
Substrate Material:	BT Resin
Solder Ball Finish:	Sn/Ag/Cu (SAC) -105
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Saw Process
Die Attach Supplier:	Sumitomo
Die Attach Material:	CRM-1577DB
Bond Diagram Designation	001-98462
Wire Bond Method:	Thermosonic
Wire Material/Size:	CuPd/0.8 mil (20um)
Thermal Resistance Theta JA °C/W:	39.9 °C/W
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	001-97055
Name/Location of Assembly (prime) facility:	Bangkok-Thailand (SB)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

PACKAGE AVAILABILITY

PACKAGE	ASSEMBLY FACILITY SITE	WIRE MATERIAL
48-Ball FBGA	ASE-Taiwan (G)	CuPd
	Bangkok-Thailand (SB)	CuPd

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
Age Bond Strength	200°C, 4HRS MIL-STD-883, Method 883-2011	P
Data Retention	150°C/175°C, No Bias JESD22-A117 and JESD22-A103	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	500V/750V/1,000V/1,250V/1,500V/1,750V/2,000V JESD22-C101	P
Electrostatic Discharge Human Body Model (ESD-HBM)	1,100V/2,200V /3,300V/4,000V/5,000V/6,000V/7,000V JESD22, Method A114	P
Endurance Test	Per Datasheet (100K Cycles), JESD22-A117 Per Datasheet (1M Cycles), JESD22-A117	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110: 130°C, 85% RH, 3.3V/5.5V Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
High Temperature Operating Life Early Failure Rate – Regulator On	Dynamic Operating Condition, Vcc Max=3.3V,150°C JESD22-A-108	P
High Temperature Operating Life Early Failure Rate – Regulator Off	Dynamic Operating Condition, Vcc Max=2.07V/3.3V/5.0V,150°C JESD22-A-108	P
High Temperature Operating Life Latent Failure Rate	Dynamic Operating Condition, Vcc Max=2.0V/3.3V,150°C JESD22-A-108	P
Low Temperature Operating Life	Dynamic Operating Condition, -40°C JESD22-A108	P
Pressure Cooker	JESD22-A102:121°C /100%RH, 15 PSIG Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
Pre/Post LFR AC/DC Char	AC/DC Critical Parameter Char at 0 hour/500hrs	P
Soft Error (Alpha Particle)	JESD89	P
Soft Error (Neutron)	JESD89	P
Static Latch-up	85°C, +/- 140mA, +/- 200mA, +/-300mA 125°C, +/-100mA, +/-140mA JESD 78	P
Temperature Cycle	MIL-STD-883, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P

RELIABILITY FAILURE RATE SUMMARY

Stress/Test	Device Tested/ Device Hours	# Fails	Activation Energy	Thermal AF[3]	Failure Rate
High Temperature Operating Life Early Failure Rate	2,130 Devices	0	N/A	N/A	0 PPM (1)
High Temperature Operating Life Long Term Failure Rate	298,000 DHRs	0	0.7	170	18 FIT (2)

1. Early Failure Rate was computed from QTP# 172609.
2. Long Term Failure Rate was computed from QTP#151008 and QTP# 163004 LFR data.

[1] Assuming an ambient temperature of 55°C and a junction temperature rise of 15°C.
[2] Chi-squared 60% estimations used to calculate the failure rate.
[3] Thermal Acceleration Factor is calculated from the Arrhenius equation

$$AF = \exp\left[\frac{E_A}{k}\left[\frac{1}{T_2} - \frac{1}{T_1}\right]\right]$$

where:

E_A =The Activation Energy of the defect mechanism.
K = Boltzmann's constant = 8.62×10^{-5} eV/Kelvin.
T_1 is the junction temperature of the device under stress and T_2 is the junction temperature of the device at use conditions.

Reliability Test Data

QTP #: 151008

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	15	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	COMP	15	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	COMP	15	0	
STRESS: DATA RETENTION, PLASTIC, 150C							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	500	80	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1000	80	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	500	80	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	1000	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	500	80	0	
STRESS: DATA RETENTION, PLASTIC, 175C							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	76	80	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	152	79	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	76	80	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	152	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	76	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	152	80	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150C, 2.07V, Vcc Max)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	48	1490	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	48	1510	0	
CYTT214032 (8CP206101)	4545249	611537364	CML-RA	48	1547	0	
STRESS: ENDURANCE							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	CYCLING	78	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	168	78	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	500	78	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	CYCLING	80	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	168	80	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	500	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	CYCLING	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	168	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	500	80	0	
STRESS: ESD-CHARGE DEVICE MODEL							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	500	9	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	750	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1000	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1250	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1500	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1750	3	0	

Reliability Test Data

QTP #: 151008

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ESD-CHARGE DEVICE MODEL							
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	500	9	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	750	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	1000	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	1250	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	1500	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	1750	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	500	9	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	750	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	1000	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	1250	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	1500	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	1750	3	0	
STRESS: ESD-HUMAN BODY MODEL PER JESD22, METHOD A114							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1100	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	2200	8	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	3300	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	4000	3	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	5000	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	1100	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	2200	8	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	3300	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	4000	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	1100	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	2200	8	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	3300	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	4000	3	0	
STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 5.5V), PRE COND 192 HR 30C/60%RH (MSL3)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	96	30	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	96	30	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.07V, Vcc Max)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	80	116	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	500	116	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	80	120	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	500	120	0	

Reliability Test Data

QTP #: 151008

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: LOW TEMPERATURE OPERATING LIFE, -40C							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	160	40	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	380	40	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	168	75	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	168	78	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	168	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	288	80	0	
STRESS: PRE/POST LFR PARAMETER ASSESSMENT							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	10+2	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	COMP	10+2	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	COMP	10+2	0	
STRESS: STATIC LATCH-UP (85C, 140mA)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	6	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	COMP	6	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	COMP	6	0	
STRESS: STATIC LATCH-UP (85C, 200mA)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	COMP	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	COMP	3	0	
STRESS: STATIC LATCH-UP (85C, 300mA)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	3	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	COMP	3	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	COMP	3	0	
STRESS: SEM CROSS SECTION							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	1	0	
STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS 30C/60%RH (MSL3)							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	500	80	0	
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	1000	80	0	
CYTT214032 (8CP206101)	4540145	611534709	CML-RA	500	80	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	500	79	0	
CY8C42452 (8CP44200)	4537464	611531543	CML-RA	1000	79	0	
STRESS: THERMAL JUNCTION MEASUREMENT							
CYTT214032 (8CP206101)	4539372	611534008	CML-RA	COMP	1	0	

Reliability Test Data

QTP #: 163004

Device	Fab Lot	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
CY14B104NA2 (7CC1404B6D)	4647620	611645509	CML-RA	COMP	22	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	COMP	22	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	COMP	22	0	
CY14B104NA2 (7CC1404B6D)	3721074	611723439	CML-RA	COMP	22	0	
CY14B104NA2 (7C1404B6D)	4715938	611723536	CML-RA	COMP	22	0	
STRESS: AGED BOND STRENGHT							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
STRESS: DATA RETENTION, PLASTIC, 150C							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	1000	80	0	
STRESS: ENDURANCE							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	CYCLING	80	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	168	80	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	500	80	0	
STRESS: ESD-CHARGE DEVICE MODEL							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	500	9	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	750	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	1000	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	1250	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	1500	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	1750	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	2000	3	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	500	9	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	750	3	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	1000	3	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	1250	3	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	1500	3	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	1750	3	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	2000	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	500	9	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	750	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	1000	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	1250	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	1500	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	1750	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	2000	3	0	

Reliability Test Data

QTP #: 163004

Device	Fab Lot	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ESD-CHARGE DEVICE MODEL							
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	500	9	0	
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	750	3	0	
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	1000	3	0	
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	1250	3	0	
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	1500	3	0	
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	1750	3	0	
CY14B104M2 (7C1404B2D)	4652108	611705462	GM-TAIWAN	2000	3	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	500	9	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	750	3	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	1000	3	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	1250	3	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	1500	3	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	1750	3	0	
CY14B104M2 (7C1404B2D)	3720073	611726034	GM-TAIWAN	2000	3	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	500	9	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	750	3	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	1000	3	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	1250	3	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	1500	3	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	1750	3	0	
CY14B104NA2 (7CP1404B6D)	3720073	611728313	GM-TAIWAN	2000	3	0	
STRESS: ESD-HUMAN BODY MODEL PER JESD22, METHOD A114							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	1100	3	0	
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	2200	8	0	
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	3300	3	0	
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	4000	3	0	
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	5000	3	0	
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	6000	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	1100	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	2200	8	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	3300	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	4000	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	5000	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	6000	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	7000	3	0	

Reliability Test Data

QTP #: 163004

Device	Fab Lot	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ESD-HUMAN BODY MODEL PER JESD22, METHOD A114							
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	1100	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	2200	8	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	3300	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	4000	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	5000	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	6000	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	1100	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	2200	8	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	3300	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	4000	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	5000	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	6000	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	7000	3	0	
STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 3.3V), PRE COND 192 HR 30C/60%RH (MSL3)							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	96	30	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	96	30	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	96	30	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, REG-ON (150C, 3.3V, Vcc Max)							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	48	50	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, REG-OFF (150C, 3.3V, Vcc Max)							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	48	3400	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	48	3399	0	
CY14B104NA2 (7A1404B6D)	3721074	611722753	JT-CHINA	48	1489	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 3.3V, Vcc Max)							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	80	120	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	500	120	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	80	120	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	500	120	0	
CY14B104NA2 (7A1404B6D)	4703546	611706560	JT-CHINA	80	120	0	
CY14B104NA2 (7A1404B6D)	4703546	611706560	JT-CHINA	500	120	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)							
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	96	80	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	168	79	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	288	79	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	168	80	0	
CY14B104NA2 (7CC1404B6D)	3721074	611723439	CML-RA	168	80	0	
CY14B104NA2 (7C1404B6D)	4715938	611723536	CML-RA	168	80	0	

Reliability Test Data

QTP #: 163004

Device	Fab Lot	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: PRE/POST LFR PARAMETER ASSESSMENT							
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	0	10+2	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	500	10+2	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	0	10+2	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	500	10+2	0	
CY14B104NA2 (7A1404B6D)	4703546	611706560	JT-CHINA	0	10+2	0	
CY14B104NA2 (7A1404B6D)	4703546	611706560	JT-CHINA	500	10+2	0	
STRESS: STATIC LATCH-UP (125C, 100mA)							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	COMP	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	COMP	3	0	
STRESS: STATIC LATCH-UP (125C, 140mA)							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	COMP	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	COMP	3	0	
STRESS: STATIC LATCH-UP (85C, 140mA)							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	COMP	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	COMP	3	0	
STRESS: STATIC LATCH-UP (85C, 200mA)							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	COMP	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	COMP	3	0	
STRESS: STATIC LATCH-UP (85C, 300mA)							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4647620	611646995	JT-CHINA	COMP	3	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	COMP	3	0	
CY14B104NA2 (7A1404B6D)	4652108	611705917	JT-CHINA	COMP	3	0	
STRESS: SER – ALPHA PARTICLE SEL							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	
STRESS: SER – NEUTRON SEL							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	3	0	

Reliability Test Data

QTP #: 163004

Device	Fab Lot	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS 30C/60%RH (MSL3)							
CY14B104NA2 (7CC1404B6D)	4647620	611645509	CML-RA	500	80	0	
CY14B104NA2 (7CC1404B6D)	4647620	611645509	CML-RA	1000	80	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	500	80	0	
CY14B104K2 (7C1404B1D)	4652108	611703935	CML-RA	1000	80	0	
CY14B104NA2 (7CC1404B6D)	4652108	611703705	G-TAIWAN	500	79	0	
CY14B104NA2 (7CC1404B6D)	3721074	611723439	CML-RA	500	79	0	
STRESS: THERMAL JUNCTION MEASUREMENT							
CY14B104K2 (7CC1404B1D)	4647620	611645506	CML-RA	COMP	1	0	

Reliability Test Data

QTP #: 172609

Device	Fab Lot	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
CY14V104NA2 (7CP1424B6D)	3743153	611745754	SB-THAILAND	COMP	22	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, REG-OFF (150C, 5V, Vcc Max)							
CY14V104NA2 (7CP1424B6D)	3743153	611745754	SB-THAILAND	COMP	2130	0	
STRESS: ESD-CHARGE DEVICE MODEL							
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	500	9	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	1000	3	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	1250	3	0	
STRESS: ESD-HUMAN BODY MODEL PER JESD22, METHOD A114							
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	1100	3	0	
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	2200	8	0	
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	3300	3	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	1100	3	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	2200	8	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	3300	3	0	
STRESS: STATIC LATCH-UP (125C, 100mA)							
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	COMP	3	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	COMP	3	0	
STRESS: STATIC LATCH-UP (125C, 140mA)							
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	COMP	2	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	COMP	2	0	
STRESS: STATIC LATCH-UP (85C, 140mA)							
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	COMP	2	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	COMP	2	0	
STRESS: STATIC LATCH-UP (85C, 200mA)							
CY14V104KA2 (7C1424B8D)	3743153	611746122	G-TAIWAN	COMP	2	0	
CY14V104NA2 (7C1424B6D)	3743153	611746121	G-TAIWAN	COMP	2	0	
STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS 30C/60%RH (MSL3)							
CY14V104NA2 (7CP1424B6D)	3743153	611745754	SB-THAILAND	500	80	0	

Document History Page

Document Title: QTP# 172609: 4M 1.8V IO nvSRAM Device, S8TNV1-5 Technology in Fab 25
Document Number: 002-23246

Rev.	ECN No.	Orig. of Change	Description of Change
**	6089625	JYF	Initial spec release.

Cypress Semiconductor
Sort Site Qualification Report

QTP# 171610 VERSION *A
September 2017

Cypress Test 25, Austin, Texas **Sort Site for S8 Technology**
MPD / MCD Devices

FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
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PACKAGE/PRODUCT QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date
151907	Cypress Test 25, Austin, Texas Sort Site Qualification for S4 Technology	June 2015
171610	Cypress Test 25, Austin, Texas Sort Site Qualification for S8 Technology	April 2017

QUALIFICATION COVERAGE RANGE

MARKETING PART NUMBER	DEVICE DESCRIPTION
CY8C4013 / CY8C4014 / CY8CMBR3002 / CY8CMBR3102 / CY8CMBR3110	CapSense® MBR3
CY8CMBR31 / CY8C4013 / CY8C4014	PSoC® 4000
CY8C4014	Automotive PSoC® 4000
CY8C4124 / CY8C4125 / CY8C4244 / CY8C4245	PSoC® 4100 & PSoC® 4200
CY8C4124 / CY8C4125 / CY8C4244 / CY8C4245	Automotive PSoC® 4100 & PSoC® 4200
CY8CEBIKE	PSoC® 4100 & PSoC® 4200
CY8C4125 /CY8C4126 / CY8C4127	PSoC® 4100M & PSoC® 4200M M Series
CY8C4245 / CY8C4246 / CY8C4247	PSoC® 4100M & PSoC® 4200M M Series
CY8C4246 / CY8C4247 / CY8C4248	PSoC® 4200L L-Series
CY8C4127 / CY8C4247	PSoC® 4 BLE 128K
CYBL1016 / CYBL10162 / CYBL10163	PRoCTM-BLE 128K
CYBL10461 / CYBL10462 / CYBL10463	PRoCTM-BLE 128K
CYBL10561 / CYBL10562 / CYBL10563	PRoCTM-BLE 128K
CYBL10999	PRoCTM-BLE 128K
CY8C4128 / CY8C4248	PSoC® 4 BLE 256K
CYBL10573	PRoCTM-BLE 256K
CY8C3244 / CY8C3245 / CY8C3246 / CY8C3444	Automotive PSoC® 3
CY8C3445 / CY8C3446 / CY8C3645 / CY8C3646 CY8C3665 / CY8C3666 / CY8C3846 / CY8C3866 /	Automotive PSoC® 3
CY8C3244 / CY8C3245 / CY8C3246 / CY8C3444	PSoC® 3
CY8C3445 / CY8C3446 / CY8C3665 / CY8C3666 / CY8C3846 / CY8C3865 / CY8C3866 / CY8C3MFIDOCK / CY8C3USBAUDIO	PSoC® 3
CY8C5267 / CY8C5268 / CY8C5287 / CY8C5288/ CY8C5467 / CY8C5468 / CY8C5488 / CY8C5666 CY8C5667 / CY8C5668 / CY8C5688 / CY8C5866 / CY8C5867 / CY8C5868 / CY8C5888	PSoC® 5LP
CY8CTMA1036 / CY8CTMA460 / CY8CTMA461/ CY8CTMA768	Automotive True Touch® Gen4 Touchscreen Controller

QUALIFICATION COVERAGE RANGE

MARKETING PART NUMBER	DEVICE DESCRIPTION
CYTMA445A / CYTMA525A / CYTT21100 CYTT21401 / CYTT21402 /CYTT21403	True Touch® Gen6M Touchscreen Controller
CYTT21100 / CYTT21401/ CYTT21402 CYTT21403 / CYTT31401/ CYTT31702 CYTT31802 / CYTT32302	True Touch® Gen6L Touchscreen Controller
CYAT81682 / CYAT81685 / CYAT81688	Automotive True Touch® Gen6XL Touchscreen Controller
CYFPA1I	True Touch® Fingerprint
CYPD1103 / CYPD1104 / CYPD1105 CYPD1120 / CYPD1121 / CYPD1122 CYPD1134	EZ-PDTM CCG1 USB Type-C PD Controller
CYPD2103 / CYPD2104 / CYPD2105 CYPD2119 / CYPD2120 / CYPD2134	EZ-PDTM CCG2 USB Type-C PD Controller
CY7C65210 / CY7C65211 / CY7C65213 CY7C65215 / CY7C65217 / CY7C65221	USB-Serial Bridge Controller
CY14B064 / CY14E064 / CY14MB064 / CY14ME064	64Kb Serial nvSRAM
CY14B256 / CY14E256	256Kb Serial nvSRAM
CY14B512	512Kb Serial nvSRAM
CY14B101 / CY14E101	1Mb Serial nvSRAM
CY14V101	1Mb Quad SPI nvSRAM
CY14B256 / CY14E256 / CY14U256 / CY14V256	256Kb Parallel nvSRAM
CY14101V / CY14B101 / CY14V101	1Mb Parallel nvSRAM
CY14B102NS	2Mb Parallel nvSRAM
CY14104V / CY14B104 / CY14V104	4Mb Parallel nvSRAM
CY14B108 / CYATB108	8Mb Parallel nvSRAM
CY14B116 / CY14V116 / CY14E116	16Mb Parallel nvSRAM
CY27410F / CY27410L	4-PLL Spread-Spectrum Clock Generator

Reliability Test Data

QTP #: 151907

Device	Fab Lot #	Assembly Lot#	Test Loc	Yield
SORT TEST: CORRELATION				
Sort Yield:				
8C24094AC	4446219 w2, w4, w5	N/A	CMI-FAB25	Correlated
8A24094AC	4510997 w5, w6, w7	N/A	CMI-FAB25	Correlated
8A24094AC	4506339 w6, w7, w8	N/A	CMI-FAB25	Correlated
Bin Movement:				
8C24094AC	4446219 w2	N/A	CMI-FAB25	Correlated
8A24094AC	4510997 w5	N/A	CMI-FAB25	Correlated
8A24094AC	4506339 w6	N/A	CMI-FAB25	Correlated
Fishers Exact:				
8C24094AC	4446219 w2, w4, w5	N/A	CMI-FAB25	>0.05
8A24094AC	4510997 w5, w6, w7	N/A	CMI-FAB25	>0.05
8A24094AC	4506339 w6, w7, w8	N/A	CMI-FAB25	>0.05

Reliability Test Data

QTP #: 171610

Device	*Fab Lot #*	*Assembly Lot#*	*Test Loc*	*Yield*
SORT TEST: CORRELATION				
Sort Yield:				
8A20680BB	3639013 w21	N/A	FAB25	Correlated
Bin Movement:				
8A20680BB	3639013 w21	N/A	FAB25	<2%

Document History Page

Document Title: QTP#171610: Cypress Test 25, Austin, Texas Sort Site for S8 Technology
Document Number: 002-19700

Rev.	ECN No.	Orig. of Change	Description of Change
**	5747717	HSTO	Initial Spec Release
*A	5874099	GKUS	1. Rearranged the nvSRAM parts as per the density & interface. 2. Included CY14B101 in the 1Mb Serial nvSRAM row which was missed in the last revision.