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Cypress Semiconductor Product Qualification Report

QTP # 095107 VERSION*B
February 2015

1.5GHz High Performance Buffer	
S8TMA-5P, Fab 4 CMI	
CY2DP1510	1:10 LVPECL Fanout Buffer with Selectable Clock Input
CY2DL1510	1:10 Differential LVDS Fanout Buffer
CY2DP1504	1:4 LVPECL Fanout Buffer with Selectable Clock Input
CY2DL1504	1:4 Differential LVDS Fanout Buffer with Selectable Clock Input
CY2DP1502	1:2 LVPECL Fanout Buffer
CY2DM1502	1:2 CML / LVPECL Input to CML Output Fanout Buffer
CY2CP1504	1:4 LVCMOS to LVPECL Fanout Buffer with Selectable Clock Input

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

QTP Number	Description of Qualification Purpose	Date
083401	Qualify SONOS S8DI-5R Technology in Fab 4	Jan 09
095107	Qualify 1.5GHz High Performance Buffer (7C85500/10/30/40) device on S8TMA-5P Technology in Fab 4 CMI	Jan 11

PRODUCT DESCRIPTION (for qualification)

Qualification Purpose: Qualification of 1.5GHz High Performance Buffer (7C85500/10/30/40) device on S8TMA-5P Technology in Fab 4 CMI

Marketing Part #:	CY2DP1510, CY2DL1510, CY2DP1504, CY2DL1504, CY2DP1502, CY2DM1502, CY2CP1504
Device Description:	2.5V & 3.3V Industrial in 32-TQFP, 20-TSSOP, 8-TSSOP and 8-SOIC Packages
Cypress Division:	Cypress Semiconductor Corporation – Memory and Product Division (MPD)

TECHNOLOGY/FAB PROCESS DESCRIPTION

Number of Metal Layers:	3	Metal Composition:	Metal 1: 100A Ti/3200Al-0.5%Cu/300A TiW Metal 2: 100A Ti/ 3200Al-0.5%Cu/350ATiW Metal 3: 500A TiW/ 21,250A Al- 0.5%Cu/300A TiW
Passivation Type and Thickness:	7000A +/-2000A Nitride		
Generic Process Technology/Design Rule (μ -drawn):	S8 / 0.13u		
Gate Oxide Material/Thickness (MOS):	SiO ₂ / 32A & SiO ₂ / 110A		
Name/Location of Die Fab (prime) Facility:	Fab 4, CMI-Minnesota		
Die Fab Line ID/Wafer Process ID:	S8TMA-5P		

PACKAGE AVAILABILITY

PACKAGE	ASSEMBLY FACILITY SITE
32-Lead Exposed Pad TQFP	Amkor Korea – L (K1)
32-L TQFP	Amkor Korea – Q (K3)
20L-TSSOP	CML-RA, OSE-Taiwan (T)
8L-TSSOP	Amkor-Phil (M)
8L-SOIC	CML-RA

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	AE32
Package Outline, Type, or Name:	32-Lead Exposed Pad Thin Quad Flatpack (TQFP)
Mold Compound Name/Manufacturer:	G700L / Sumitomo
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	None
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	100% Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	3230
Die Attach Method:	Epoxy
Bond Diagram Designation:	001-58702
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 1.0 mil
Thermal Resistance Theta JA °C/W:	24°C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	001-45814
Name/Location of Assembly (prime) facility:	L – Amkor K1 (Korea)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

Note: Please contact a Cypress Representative for other package availability.

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	AZ32
Package Outline, Type, or Name:	32-Lead Thin Quad Flatpack (TQFP)
Mold Compound Name/Manufacturer:	G700L / Sumitomo
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	None
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	100% Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	3230
Die Attach Method:	Epoxy
Bond Diagram Designation:	001-61671
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 1.0 mil
Thermal Resistance Theta JA °C/W:	69 C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	001-04159
Name/Location of Assembly (prime) facility:	Q – Amkor K3 (Korea)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	ZZ20
Package Outline, Type, or Name:	20-Lead Thin Shrink Small Outline Package (TSSOP)
Mold Compound Name/Manufacturer:	CEL9200HF / Hitachi
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	None
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	100% Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	8340
Die Attach Method:	Epoxy
Bond Diagram Designation:	001-59502
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 1.0 mil
Thermal Resistance Theta JA °C/W:	85 C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	49-35028
Name/Location of Assembly (prime) facility:	OSE– Taiwan (T)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	ZZ08
Package Outline, Type, or Name:	8-Lead Thin Shrink Small Outline Package (TSSOP)
Mold Compound Name/Manufacturer:	G700K / Sumitomo
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	None
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	100% Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	8290
Die Attach Method:	Epoxy
Bond Diagram Designation:	001-58730
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 1.0 mil
Thermal Resistance Theta JA °C/W:	164 C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	49-14010
Name/Location of Assembly (prime) facility:	Amkor– Phil (M)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

<u>MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION</u>	
<u>Package Designation:</u>	<u>SZ815</u>
<u>Package Outline, Type, or Name:</u>	<u>8-Lead SOIC 150mils</u>
<u>Mold Compound Name/Manufacturer:</u>	<u>MP8500 / Nitto</u>
<u>Mold Compound Flammability Rating:</u>	<u>V-0 per UL94</u>
<u>Oxygen Rating Index:</u>	<u>None</u>
<u>Lead Frame Material:</u>	<u>Copper</u>
<u>Lead Finish, Composition / Thickness:</u>	<u>NiPdAu</u>
<u>Die Backside Preparation Method/Metallization:</u>	<u>Backgrind</u>
<u>Die Separation Method:</u>	<u>100% Saw</u>
<u>Die Attach Supplier:</u>	<u>QMI</u>
<u>Die Attach Material:</u>	<u>509</u>
<u>Die Attach Method:</u>	<u>Epoxy</u>
<u>Bond Diagram Designation:</u>	<u>001-58711</u>
<u>Wire Bond Method:</u>	<u>Thermosonic</u>
<u>Wire Material/Size:</u>	<u>Au / 0.9 mil</u>
<u>Thermal Resistance Theta JA °C/W:</u>	<u>144 C/W</u>
<u>Package Cross Section Yes/No:</u>	<u>N/A</u>
<u>Assembly Process Flow:</u>	<u>001-49354</u>
<u>Name/Location of Assembly (prime) facility:</u>	<u>CML – RA</u>
<u>MSL Level</u>	<u>3</u>
<u>Reflow Profile</u>	<u>260C</u>

<u>ELECTRICAL TEST / FINISH DESCRIPTION</u>	
<u>Test Location:</u>	<u>CML-RA</u>

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test Condition (Temp/Bias)	Result P/F
High Temperature Operating Life Early Failure Rate	Dynamic Operating Condition, Vcc Max=2.1V, 150°C Dynamic Operating Condition, Vcc Max=2.53V, 150°C	P
High Temperature Operating Life Early Failure Rate (Regulator On)	Dynamic Operating Condition, Vcc Max=5.75V, 150°C Dynamic Operating Condition, Vcc Max=3.96V, 125°C	P
High Temperature Operating Life Latent Failure Rate	Dynamic Operating Condition, Vcc Max=2.1V, 150°C Dynamic Operating Condition, Vcc Max=2.53V, 150°C	P
High Temperature Steady State life	150°C, 2.1V, Vcc Max / 125°C, 3.63V, Vcc Max	P
Low Temperature Operating Life	-30°C, 2.1V	P
High Accelerated Saturation Test (HAST)	130°C, 5.25V, 85%RH Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+3IR-Reflow, 260°C +0, -5°C	P
Temperature Cycle	MIL-STD-883C, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+3IR-Reflow, 260°C +0, -5°C	P
Pressure Cooker	121°C, 100%RH, 15 Psig Precondition: JESD22 Moisture Sensitivity Level 3 192 Hrs, 30C/60%RH+3IR-Reflow, 260°C +0, -5°C	P
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C□, 60% RH, 260C Reflow)	P
Age Bond Strength	200C, 4hrs MIL-STD-883, Method 883-2011	P
Constructional Analysis	Criteria: Meet external & internal characteristics of Cypress package	P
Current Density	Meets the Technology Device Level Reliability Specifications	P
Data Retention	150°C ± 5°C No Bias	P
Dynamic Latch-up	150C, 8.5V	P
Electrostatic Discharge Human Body Model (ESD-HBM)	2,200V , JESD22, Method A114-E	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	500V JESD22-C101	P
Endurance Test	JESD22-A117	P
Static Latch-up	85C, ± 200mA / 125C, ±140mA JESD 78A	P
SEM Cross Section	MIL-STD-883, Method 2018	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	1,532 Devices	0	N/A	N/A	0 PPM
High Temperature Operating Life ^{1,2} Long Term Failure Rate	646, 000 DHRs	0	0.7	170	8 FIT

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 = 8.62x10⁻⁵ eV/Kelvin.

T₁ is the junction temperature of the device under stress and T₂ is the junction temperature of the device at use conditions.

Reliability Test Data

QTP #: 083401

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: ACOUSTIC, MSL3							
CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	COMP	15	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	COMP	15	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	COMP	15	0	
STRESS: AGE BOND STRENGTH							
CY8C20566 (8C20566AC)	4827949	610844164	CML-R	COMP	3	0	
CY8C20466 (8C20466AC)	4804681	610822808	Malaysia-CA	COMP	3	0	
CY8C20666 (8C20666AC)	4836589	610852813	Malaysia-CA	COMP	3	0	
STRESS: DATA RETENTION, PLASTIC, 150C							
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	500	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	1000	77	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	500	78	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	1000	78	0	
CY8C20566 (8C20566AC)	4836589	610851914	CML-R	500	78	0	
CY8C20566 (8C20566AC)	4836589	610851914	CML-R	1000	78	0	
STRESS: ENDURANCE							
CY8C20566 (8C20566AC)	4810486	610830786	CML-R	168	77	0	
CY8C20566 (8C20566AC)	4815537	610835437	CML-R	168	77	0	
CY8C20566 (8C20566AC)	4827949	610844164	CML-R	168	79	0	
CY8C20566 (8C20566AC)	4835945	610848270	CML-R	168	78	0	
CY8C20566 (8C20566AC)	4836589	610851914	CML-R	168	76	0	
STRESS: ESD-CHARGE DEVICE MODEL, (500V)							
CY8C20566 (8C20566AC)	4810486	610830371	CML-R	500	9	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	500	9	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	500	9	0	
STRESS: SEM CROSS SECTION							
CY8C20066 (8C20066AC)	4810486	N/A	N/A	COMP	1	0	

Reliability Test Data

QTP #: 083401

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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STRESS: STATIC LATCH-UP (85C, 8.25V)

CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	COMP	6	0	
CY8C20666 (8C20666AC)	4836589	610852813	Malaysia-CA	COMP	6	0	
CY8C20666 (8C20666AC)	4837410	410.23.02	Promex	COMP	6	0	

STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, (2,200V)

CY8C20566 (8C20566AC)	4810486	610830371	CML-R	2200	8	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	2200	8	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	2200	8	0	

STRESS: DYNAMIC LATCH-UP (125C, 8.5V)

CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	COMP	5	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	COMP	5	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	COMP	5	0	

STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150, 2.1V, Vcc Max)

CY8C20566 (8C20566AC)	4827949	610844164	CML-R	48	1002	0	
CY8C20566 (8C20566AC)	4815537	610835437	CML-R	48	1008	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	48	1004	1	Read NV Latch (1)
CY8C20466 (8C20466AC)	4836589	610851747	Malaysia-CA	48	1004	0	

STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE REGULATOR ON (150, 5V, Vcc Max)

CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	48	45	0	
CY8C20566 (8C20566AC)	4835945	610848270	CML-R	48	45	0	

STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE REGULATOR ON (125C, 5V, Vcc Max)

CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	96	45	0	
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STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.1V, Vcc Max)

CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	80	390	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	500	390	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	80	390	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	500	390	0	
CY8C20466 (8C20466AC)	4836589	610851747	Malaysia-CA	80	390	0	
CY8C20466 (8C20466AC)	4836589	610851747	Malaysia-CA	500	390	0	

(1) Destroyed during failure analysis

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Reliability Test Data

QTP #: 083401

Device	Fab Lot #	Assy Lot #	Assy Lot	Duration	Samp	Rej	Failure Mechanism
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STRESS: HIGH TEMP STEADY STATE LIFE TEST (150C, 2.1V)

CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	80	77	0	
CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	168	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	80	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	168	77	0	
CY8C20566 (8C20566AC)	4835945	610848270	CML-R	80	77	0	
CY8C20566 (8C20566AC)	4835945	610848270	CML-R	168	77	0	

STRESS: LOW TEMPERATURE DYNAMIC OPERATING LIFE, -30C, 2.1V

CY8C20566 (8C20566AC)	4815537	610835437	CML-R	500	77	0	
CY8C20566 (8C20566AC)	4835945	610848270	CML-R	500	77	0	

STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 5.25V), PRE COND 192 HR 30C/60%RH (MSL3)

CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	128	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	128	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	256	77	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	128	77	0	

STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)

CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	168	77	0	
CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	333	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	168	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	288	77	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	168	77	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	288	77	0	

STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS 30C/60%RH (MSL3)

CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	500	77	0	
CY8C20466 (8C20466AC)	4810486	610828990	Malaysia-CA	1000	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	500	77	0	
CY8C20466 (8C20466AC)	4815537	610834184	Malaysia-CA	1000	77	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	500	77	0	
CY8C20466 (8C20466AC)	4835945	610847274	Malaysia-CA	1000	77	0	



Reliability Test Data

QTP #: 095107

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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STRESS: ESD-CHARGE DEVICE MODEL, (500V)

CY2DP1510AX	4035631	611049586/88/90	L-KOREA	COMP	9	0	
CY2DL1510AZ	4035631	611051554	L-KOREA	COMP	9	0	
CY2CP1504ZX	4035631	611052307	T-TAIWAN	COMP	9	0	

STRESS: STATIC LATCH-UP (125C, 5.19V, +/-140mA)

CY2DP1510AX	4035631	611049586/88/90	L-KOREA	COMP	6	0	
CY2DL1510AZ	4035631	611051554	L-KOREA	COMP	6	0	
CY2CP1504ZX	4035631	611052307	T-TAIWAN	COMP	6	0	
CY2DL1504ZX	4035631	611052935	T-TAIWAN	COMP	6	0	
CY2DM1502ZX	4035631	611052755	M-PHIL	COMP	6	0	

STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, (2,200V)

CY2DP1510AX	4035631	611049586/88/90	L-KOREA	COMP	8	0	
CY2DL1510AZ	4035631	611051554	L-KOREA	COMP	8	0	
CY2CP1504ZX	4035631	611052307	T-TAIWAN	COMP	8	0	
CY2DL1504ZX	4035631	611052935	T-TAIWAN	COMP	8	0	
CY2DM1502ZX	4035631	611052755	M-PHIL	COMP	8	0	

STRESS: ELECTRICAL PARAMETER ASSESSMENT

CY2DP1510AX	4035601	611049587/89/91	L-KOREA	COMP	30	0	
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STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150, 2.53V, Vcc Max)

CY2DP1510AX	4035601	611049587/89/91	L-KOREA	48	1532	0	
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STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE REGULATOR ON (125, 3.96V, Vcc Max)

CY2DP1510AX	4035631	611049586/88/90	L-KOREA	96	51	0	
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STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.53V, Vcc Max)

CY2DP1510AX	4035601	611049587/89/91	L-KOREA	80	122	0	
CY2DP1510AX	4035601	611049587/89/91	L-KOREA	500	122	0	

STRESS: HIGH TEMP STEADY STATE LIFE TEST (125C, 3.63V)

CY2DP1510AX	4035601	611049587/89/91	L-KOREA	168	80	0	
CY2DP1510AX	4035601	611049587/89/91	L-KOREA	336	80	0	

STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)

CY2DP1510AX	4035631	611049586/88/90	L-KOREA	168	80	0	
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Reliability Test Data

QTP #: 095107

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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STRESS: TC COND. C -65C TO 150C, PRE COND 192 HRS 30C/60%RH (MSL3)

CY2DP1510AX	4035631	611049586/88/90	L-KOREA	500	80	0	
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CY2DP1510AX	4035631	611049586/88/90	L-KOREA	1000	80	0	
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Document History Page

Document Title: QTP#095107: 1.5GHZ HIGH PERFORMANCE BUFFER, S8TMA-5P, FAB 4 CMI
QUALIFICATION REPORT
Document Number: 001-66850

Rev.	ECN No.	Orig. of Change	Description of Change
**	3153323	NSR	Initial Spec Release
*A	4276321	HSTO	No Change
*B	4659391	HSTO	Align qualification report based on the new template in the front page Update Cypress division to Memory and Product Division (MPD) Removed reference Cypress spec in the reliability test performed table and retained industry standard reference

Distribution: WEB

Posting: None