



Cypress Semiconductor Corporation, 198 Champion Court, San Jose, CA 95134. Tel: (408) 943-2600

PRODUCT CHANGE NOTIFICATION

PCN: PCN201102

Date: March 15, 2020

Subject: Qualification of Die Attach Material and Die Thickness Change for 44-Lead TSOP II 2-Die Stack Package Assembled at OSET

To: PCN Coordinator PCN Coordinator
FUTURE
PCN.System@Future.ca

Change Type: Major

Description of Change:

Cypress announces the qualification of existing die attach material (Hitachi HR5104) and 3 mils die thickness change for 44-Lead TSOP II 2-Die Stack Pb Free package assembled at OSE (OSET, 12-2 Nel Huan South Rd. N.E.P.Z. Kaohsiung, Taiwan 811, R.O.C.)

This existing die attach material and 3 mils die thickness is compatible with industry standard reflow conditions for applicable package volume, thickness and lead finish. There is no change in the moisture sensitivity level, product performance or ordering part numbers.

The 44-Lead TSOP II 2-Die Stack (die part 7C14104/NVSRAM), 400 Mils, Pb-Free package is assembled at OSET using the following Bill of Materials:

Material	New OSET BOM	Current OSET BOM
Mold Compound	Hitachi CEL 9200HF-U	Hitachi CEL 9200HF-U
Leadframe	Cu Lead Frame	Cu Lead Frame
Die Attach	Nitto EM760 or Hitachi HR5104	Nitto EM760
Bond Wire	1.0mil Au wire	1.0mil Au wire
Die thickness	3 mils	3 mils

The 44-Lead TSOP II 2-Die Stack (for die part 7C1041/Async), 400 Mils, Pb-Free package is assembled at OSET using the following Bill of Materials:

Material	New OSET BOM	Current OSET BOM
Mold Compound	Hitachi CEL 9200HF-U	Hitachi CEL 9200HF-U
Leadframe	Cu Lead Frame	Cu Lead Frame
Die Attach	Nitto EM760 or Hitachi HR5104	Hitachi HR5104
Bond Wire	1.0mil Au wire	1.0mil Au wire
Die thickness	3 mils	4 mils

Benefit of Change:

The qualification of the die attach material (Nitto EM760 / Hitachi HR5104) and die thickness allows for an improvement in product/material supply flexibility.

Part Numbers Affected: 26

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:

This change has been qualified through a series of tests documented in the Qualification Test Plans below. These qualification reports can be found as attachments to this PCN or by visiting www.cypress.com and typing the QTP number in the keyword search window.

QTP	Qualification	Process Coverage
194505	Qualification of Die Thickness Change for 44-Lead TSOP II 2-Die Stack Packages Assembled at OSE-Taiwan (T)	Hitachi HR5104 & 3 mils die thickness for die part 7C14104
194506	Qualification of Die Thickness Change for 44-Lead TSOP II 2-Die Stack Packages Assembled at OSE-Taiwan (T)	Hitachi HR5104 & 3 mils die thickness for die part 7C1041

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 OSE-Taiwan 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 the notification or upon customer approval, whichever comes first, all shipments of Commercial, Industrial and Automotive non-PPAP part numbers in the attached file will be assembled at OSE-Taiwan or other approved assembly sites.

Anticipated Impact:

Products assembled with the Nitto EM760 / Hitachi HR5104 die attach film and new die thickness are completely compatible with existing products from 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



Material Composition Declaration

Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.

This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.

Adobe Reader version 7.0.5 is required to complete this declaration.

1752-2 1.1	IPC Web Site for Information on IPC-1752 Standard http://www.ipc.org/IPC-175x	Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Informat
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Supplier Information

Company Name *	Company Unique ID	Unique ID Authority	Response Date *	Response Document ID				
Cypress Semiconductor Corp	CYPRESS		2019-03-25					
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	Duplicate Contact - Authorized Representative				
QA Customer Support	QA Customer Support	6328497500	qacs_team@cypress.com					
Authorized Representative *	Title - Representative	Phone - Representative *	Email - Representative *	Supplier Comments or URL for Additional Information				
Jeff Gary Balesca	Sr EHS Engr	6328497500	jgtb@cypress.com					
Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight *	UOM	Unit Type
	TSOP44(ZW44A)-18.42x10.16	TSOP44(ZW44A)-18.42x10.16	2019-04-11		OSE	480.56	mg	Each
Alternate Recommendation				Alternate Item Comments	QTP No.Q190802			

Manufacturing Process Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	J-STD-020 MSL Rating	Peak Process Body Temperature	Max Time at Peak Temperature	Number of Reflow Cycles
Matte Tin (Sn)	CU Alloy	3	260 C	30 seconds	3
Comments					
001-79682 (Wire), 001-79657 (Compound), 001-80062 (Lead Frame), 001-79874 (Lead Finish), 002-27031 (Die Attach)					

* Required Field

CAS Registry Number(R) is a Registered Trademark of the American Chemical Society

Form enabled by Adobe

Save the fields in this form to a file	<input type="button" value="Export Data"/>	Import fields from a file into this form	<input type="button" value="Import Data"/>	Clear all of the fields on this form	<input type="button" value="Reset Form"/>	Lock the fields on this form to prevent changes	<input type="button" value="Lock Supplier Fields"/>
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RoHS Material Composition Declaration	Declaration Type *	<input type="button" value="Detailed"/>
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RoHS Directive 2002/95/EC	RoHS Definition: Quantity limit of 0.1 by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01 by mass (100 PPM) of homogeneous material for Cadmium
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Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2002/95/EC and implemented by the laws of the European Union member states) of the part identified on this form contains lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a "RoHS restricted substance") in excess of the applicable quantity limit identified above. If a homogeneous material within the part contains a RoHS restricted substance in excess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products with European Union member state laws that implement the RoHS Directive. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part, and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part, the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Supplier's Standard Terms and Conditions of Sale applicable to such part shall apply.

RoHS Declaration *	1 - Item(s) does not contain RoHS restricted substances per the definition above	Supplier Acceptance *	<input type="button" value="Accepted"/>
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Exemptions: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.

Declaration Signature

Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.

Supplier Digital Signature	Jeff Gary Balleca	<small>Digitally signed by Jeff Gary Balleca DN: cn = Jeff Gary Balleca, o. ou, email jgib@cyress.com, c. US Date: 2018.09.06 09:50:19 -0800</small>
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* Required Field

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Form enabled by Adobe

Homogeneous Material Composition Declaration for Electronic Products

Subitem Instructions: The presence of any JIG Level A or B substances must be declared. 1 indicate the subpart in which the substance is located, 2 provide a description of the homogeneous material 3 , enter the weight of the homogeneous material.

Substance Instructions: A select the Level (JIG A, JIG B, Requester or Supplier) B select the substance category (JIG or Requester) or enter a value (Supplier). C select the substance (JIG) or enter the substance and CAS (Other). D select a RoHS exemption, if applicable E enter the weight of the substance or the PPM concentration F Optionally enter the positive () and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

Line Functions: I Inserts a New Item /Subitem M Inserts a new Material C Inserts a new Substance Category S Inserts a new Substance - Deletes the element line

+I	-I	Item/Subitem Name	+M	-M	Homogeneous Material	Weight	Unit of Measure	+C	-C	Level	Substance Category	+S	-S	Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM
																			-	+	
		Base Material			Leadframe	113.7	mg			Supplier	Cu			Cu	7440-50-8		105.741	mg			220,000
										B	Nickel (external applic			Nickel	7440-02-0		3.6384	mg			7,571
										Supplier	Silicon			Silicon	7440-66-6		0.8243	mg			1,715
										Supplier	Magnesium			Magnesium	7723-14-0		0.199	mg			414
										Supplier	Silver(Ag)			Silver(Ag)	7440-22-4		3.2973	mg			6,861
		External Plating			Leadfinish	5.05	mg			Supplier	Tin(Sn)			Tin(Sn)	7440-31-5		5.05	mg			10,500
		Adhesive			Die Attach (EM)	0.61	mg			Supplier	Acrylic resin			Acrylic resin	Trade Secret		0.2989	mg			622
										Supplier	Silicon, amorphous			Silicon, amorphous	7631-86-9		0.2745	mg			571
										Supplier	Phenol resin			Phenol resin	Trade Secret		0.0366	mg			76
					Die Attach2 (EM)	0.2	mg			Supplier	Acrylic resin			Acrylic resin	Trade Secret		0.098	mg			204
										Supplier	Silicon, amorphous			Silicon, amorphous	7631-86-9		0.09	mg			187
										Supplier	Phenol resin			Phenol resin	Trade Secret		0.012	mg			25
					Die Attach3 (EM)	0.61	mg			Supplier	Acrylic resin			Acrylic resin	Trade Secret		0.2989	mg			622
										Supplier	Silicon, amorphous			Silicon, amorphous	7631-86-9		0.2745	mg			571
										Supplier	Phenol resin			Phenol resin	Trade Secret		0.0366	mg			76
		Circuit			Die1	7.82	mg			Supplier	Silicon			Silicon	7440-21-3		7.82	mg			16,272
					Die2	3.29	mg			Supplier	Silicon			Silicon	7440-21-3		3.29	mg			6,846
					Die3	7.82	mg			Supplier	Silicon			Silicon	7440-21-3		7.82	mg			16,272
		Interconnect			Wire	2.26	mg			Supplier	Gold(Au)			Gold(Au)	7440-57-5		2.2598	mg			4,702
										Supplier	Others			Others	Trade Secret		0.0002	mg			1
		Encapsulation			Mold Compound	339.2	mg			Supplier	Epoxy resin			Epoxy resin	Trade Secret		13.568	mg			28,224
										Supplier	Hardener			Hardener	Trade Secret		11.872	mg			24,705
										Supplier	Carbon black			Carbon black	1333-86-4		0.6784	mg			1,412

* Required Field

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+C	-C	Supplier	Amorphous silica	+S	-S	Amorphous silica	60676-86-0		296.4625 mg		616.99
+C	-C	Supplier	Crystal silica	+S	-S	Crystal silica	4808-60-7		16.6208 mg		34.586

* Required Field

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Cypress Semiconductor Package Qualification Report

QTP# 194506 VERSION
March 2020**

**44L TSOP II (400 mils)
Pure Sn Leadfinish
MSL3, 260°C Reflow
OSE-Taiwan (T)**

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
reliability@cypress.com**

Prepared By:
Josephine Pineda (JYF)
Reliability Engineer

Reviewed By:
Lorena Zapanta (ILZ)
Reliability Manager

Approved By:
David Hoffman (DHH)
Reliability Director



PACKAGE QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date
194506	Qualification of Die Thickness Change for 44-Lead TSOP II 2-Die Stack Packages Assembled at OSE-Taiwan (T)	February 2020

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	ZW44A
Package Outline, Type, or Name:	44L TSOP II (400 mils)
Mold Compound Name/Manufacturer:	CEL 9200HF-U/Hitachi
Mold Compound Flammability Rating:	V-0
Oxygen Rating Index: >28%	55%
Lead Frame Designation:	Reduced Metal Paddle
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Saw Process
Die Attach Supplier:	Hitachi
Die Attach Material:	HR5104
Bond Diagram Designation	002-23336
Wire Bond Method:	Thermosonic
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	002-20229
Name/Location of Assembly (prime) facility:	OSE-Taiwan (T)
MSL Level	3
Reflow Profile	260

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

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
Bond Pull	MIL-STD-883 – Method 2011	P
Dye Penetrant Test	Test to determine the existence and extent of cracks, Criteria: No Package Crack	P
Final Visual	JESD22-B101	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110: 130°C, 85%RH, 3.77V Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30°C, 60% RH, 260°C Reflow)	P
High Accelerated Saturation Test (HAST) - Unbiased	JEDEC STD 22-A110: 130°C, 85%RH Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30°C, 60% RH, 260°C Reflow)	P
Internal Visual Inspection	MIL-STD-883-2014	P
Pressure Cooker Test	JESD22-A102, 121°C, 100%RH, 15 PSIG Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30°C, 60% RH, 260°C Reflow)	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
X-Ray	MIL-STD-883 - 2012	P

Reliability Test Data

QTP #: 194506

<i>Device</i>	<i>Package</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								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	COMP	22	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	COMP	22	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929778	T-Taiwan	COMP	22	0	
STRESS: BOND PULL								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	COMP	30	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	COMP	30	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929778	T-Taiwan	COMP	30	0	
STRESS: DYE PENETRANT TEST								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	COMP	15	0	
STRESS: FINAL VISUAL								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	COMP	494	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	COMP	496	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929778	T-Taiwan	COMP	495	0	
STRESS: HI-ACCEL SATURATION TEST, 130C, 3.77V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	96	25	0	
STRESS: HI-ACCEL SATURATION TEST - UNBIASED, 130C, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	96	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	96	25	0	
STRESS: INTERNAL VISUAL								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	COMP	5	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	96	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	168	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	288	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	96	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	168	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	288	25	0	

Reliability Test Data

QTP #: 194506

<i>Device</i>	<i>Package</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: TC COND. C -65C TO 150C, PRE COND 192 HR 30C/60%RH, MSL3								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	500	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	1000	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	500	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	1000	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929778	T-Taiwan	500	25	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929778	T-Taiwan	1000	25	0	
STRESS: X-RAY								
CG7480AT (7C13511NC)	ZW44	4910573	611929774	T-Taiwan	COMP	45	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929777	T-Taiwan	COMP	45	0	
CG7480AT (7C13511NC)	ZW44	4910573	611929778	T-Taiwan	COMP	45	0	



Document History Page

Document Title: QTP# 194506: 44L TSOP II (400 MILS) PURE SN LEADFINISH, MSL3 260C REFLOW, OSE-TAIWAN (T)
Document Number: 002-29891

Rev.	ECN No.	Orig. of Change	Description of Change
**	6824517	JYF	Initial release.

Cypress Semiconductor Package Qualification Report

QTP# 194505 VERSION
March 2020**

**44L TSOP II (400 mils)
Pure Sn Leadfinish
MSL3, 260°C Reflow
OSE-Taiwan (T)**

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
reliability@cypress.com**

Prepared By:
Josephine Pineda (JYF)
Reliability Engineer

Reviewed By:
Lorena Zapanta (ILZ)
Reliability Manager

Approved By:
David Hoffman (DHH)
Reliability Director



PACKAGE QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date
194505	Qualification of Die Thickness Change for 44-Lead TSOP II 2-Die Stack Packages Assembled at OSE-Taiwan (T)	March 2020

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	ZW44A
Package Outline, Type, or Name:	44L TSOP II (400 mils)
Mold Compound Name/Manufacturer:	CEL 9200HF-U/Hitachi
Mold Compound Flammability Rating:	V-0
Oxygen Rating Index: >28%	55%
Lead Frame Designation:	Reduced Metal Paddle
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Saw Process
Die Attach Supplier:	Hitachi
Die Attach Material:	HR5104
Bond Diagram Designation	002-11056
Wire Bond Method:	Thermosonic
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	002-20229
Name/Location of Assembly (prime) facility:	OSE-Taiwan (T)
MSL Level	3
Reflow Profile	260

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

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
Bond Pull	MIL-STD-883 – Method 2011	P
Dye Penetrant Test	Test to determine the existence and extent of cracks, Criteria: No Package Crack	P
Final Visual	JESD22-B101	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110: 130°C, 85%RH, 3.3V Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30°C, 60% RH, 260°C Reflow)	P
High Accelerated Saturation Test (HAST) - Unbiased	JEDEC STD 22-A110: 130°C, 85%RH Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30°C, 60% RH, 260°C Reflow)	P
Internal Visual Inspection	MIL-STD-883-2014	P
Pressure Cooker Test	JESD22-A102, 121°C, 100%RH, 15 PSIG Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30°C, 60% RH, 260°C Reflow)	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
X-Ray	MIL-STD-883 - 2012	P



Reliability Test Data

QTP #: 194505

<i>Device</i>	<i>Package</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								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	COMP	22	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	COMP	22	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929740	T-Taiwan	COMP	22	0	
STRESS: BOND PULL								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	COMP	30	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	COMP	30	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929740	T-Taiwan	COMP	30	0	
STRESS: DYE PENETRANT TEST								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	COMP	15	0	
STRESS: FINAL VISUAL								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	COMP	278	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	COMP	528	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929740	T-Taiwan	COMP	581	0	
STRESS: HI-ACCEL SATURATION TEST, 130C, 3.3V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	96	25	0	
STRESS: HI-ACCEL SATURATION TEST - UNBIASED, 130C, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	96	25	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	96	25	0	
STRESS: INTERNAL VISUAL								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	COMP	5	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	96	25	0	
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	168	25	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	96	25	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	168	25	0	



Reliability Test Data

QTP #: 194505

<i>Device</i>	<i>Package</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: TC COND. C -65C TO 150C, PRE COND 192 HR 30C/60%RH, MSL3								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	500	25	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	500	25	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929740	T-Taiwan	500	25	0	
STRESS: X-RAY								
CY14B108L (7C1408B8DB)	ZW44	3827101	611929737	T-Taiwan	COMP	5	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929738	T-Taiwan	COMP	5	0	
CY14B108L (7C1408B8DB)	ZW44	3833001	611929740	T-Taiwan	COMP	5	0	



Document History Page

Document Title: QTP# 194505: 44L TSOP II (400 MILS) PURE SN LEADFINISH, MSL3 260C REFLOW, OSE-TAIWAN (T)
Document Number: 002-29890

Rev.	ECN No.	Orig. of Change	Description of Change
**	6824517	JYF	Initial release.

Item	Marketing Part Number	Sample Ordering Part Number	Samples Availability
1	CY14B108K-ZS25XI	CY14B108K-ZS25XIKOO	Subject to lead time
2	CY14B108K-ZS25XIT	CY14B108K-ZS25XIKOO	Subject to lead time
3	CY14B108K-ZS45XI	CY14B108K-ZS45XIKOO	Available
4	CY14B108K-ZS45XIT	CY14B108K-ZS45XIKOO	Available
5	CY14B108L-ZS20XI	CY14B108L-ZS20XIKOO	Subject to lead time
6	CY14B108L-ZS20XIT	CY14B108L-ZS20XIKOO	Subject to lead time
7	CY14B108L-ZS25XI	CY14B108L-ZS25XIKOO	Subject to lead time
8	CY14B108L-ZS25XIT	CY14B108L-ZS25XIKOO	Subject to lead time
9	CY14B108L-ZS45XI	CY14B108L-ZS45XIKOO	Subject to lead time
10	CY14B108L-ZS45XIT	CY14B108L-ZS45XIKOO	Subject to lead time
11	CY7C1051DV33-10ZSXI	CY7C1051DV33-10ZSXIKO	Subject to lead time
12	CY7C1051DV33-10ZSXIT	CY7C1051DV33-10ZSXIKO	Subject to lead time
13	CY7C1051DV33-12ZSXI	CY7C1051DV33-12ZSXIKO	Subject to lead time
14	CY7C1051DV33-12ZSXIT	CY7C1051DV33-12ZSXIKO	Subject to lead time
15	CY7C1059DV33-10ZSXI	CY7C1059DV33-10ZSXIKO	Subject to lead time
16	CY7C1059DV33-10ZSXIT	CY7C1059DV33-10ZSXIKO	Subject to lead time
17	CY7C1059DV33-12ZSXQ	CY7C1059DV33-12ZSXQKO	Subject to lead time
18	CY7C1059DV33-12ZSXQT	CY7C1059DV33-12ZSXQKO	Subject to lead time
19	CG7480AT	CG7480ZT	Subject to lead time
20	CG7480ATT	CG7480ZT	Subject to lead time
21	CG8254AA	CG8254ZA	Subject to lead time
22	CG8254AAT	CG8254XX	Subject to lead time
23	CG8836AM	CG8836XM	Subject to lead time
24	CG8836AMT	CG8836ZMT	Subject to lead time
25	CG8975AM	CG8975ZM	Subject to lead time
26	CG8975AMT	CG8975ZM	Subject to lead time