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The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

Continuity of ordering part numbers
Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

Cypress Semiconductor
Package Qualification Report

QTP 092205 VERSION *C
August 2014

44 Lead TSOP II (2-Die Stack)
Pure Sn, MSL3, 260C Reflow
ASE-Taiwan (G)

FOR ANY QUESTIONS ON THIS REPORT, PLEAE CONTACT
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PACKAGE QUALIFICATION HISTORY

Qual Report	Description of Qualification Purpose	Date Comp
092205	Larger Die Qualification for 44L TSOPII Stack Die Packages assembled in ASE-Taiwan using FH-900 Tape Film Die Attach Material, HITACHI CEL9200 THF mold compound, Pure Sn lead finish, Moisture Sensitivity Level 3, 260C solder reflow temperature.	Sep 09

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	44-Lead TSOP II
Package Outline, Type, or Name:	4L-TSOP II in 2-Die Stack
Mold Compound Name/Manufacturer:	CEL-9200THF-U / Hitachi
Mold Compound Flammability Rating:	UL-94
Mold Compound Alpha Emission Rate :	N/A
Oxygen Rating Index:	N/A
Leadframe Material:	Alloy 42
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrinding
Die Separation Method:	Saw
Die Attach Supplier:	Hitachi
Die Attach Material:	FH-900-25
Die Attach Method:	Film Tape
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 1.0 mil
Thermal Resistance Theta JA °C/W:	N/A
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	001-17644
Name/Location of Assembly (prime) facility:	ASE-Taiwan (G)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R, KYEC

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test Condition (Temp/Bias)	Result P/F
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, 260C Reflow)	P
Pressure Cooker Test	JESD22-A102:121 C, 100%RH, 15 PSIG Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
Temperature Cycle	MIL-STD-883C, Method 1010, Condition C, -65 C to 150 C Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
High Temp Storage	JESD22-A103 :150 C, no bias	P
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
Ball Shear	JESD22-B116A, Cpk : 1.33, Ppk : 1.66	P
Bond Pull	MIL-STD-883 – Method 2011, Cpk : 1.33, Ppk : 1.66	P
Constructional Analysis	Criteria: Meet external and internal characteristics of Cypress package	P
Dye Penetrant Test	Test to determine the existence and extent of cracks, Criteria: No Package Crack	P
Internal Visual	MIL-STD-883-2014	P
Final Visual Inspection	JESD22-B101B	P
Thermal Shock	MIL-STD-883C, Method 1011, Condition B, -55 C to 125C and JESD22-A106B, Condition C, -55 C to 125C	P
X-Ray	MIL-STD-883 - 2012	P

Reliability Test Data

QTP #: 092205

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	COMP	15	0	
CY14B108L (7C1408B8BC)	4839870	610904599	TAIWAN-G	COMP	15	0	
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	COMP	15	0	
STRESS: BALL SHEAR							
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	COMP	10	0	
STRESS: BOND PULL							
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	COMP	20	0	
STRESS: CONSTRUCTIONAL ANALYIS							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	COMP	5	0	
STRESS: DYE PENETRATION TEST							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	COMP	15	0	
CY14B108L (7C1408B8BC)	4839870	610904599	TAIWAN-G	COMP	15	0	
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	COMP	15	0	
STRESS: HIGH TEMP STORAGE							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	500	80	0	
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	1000	80	0	
STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 3.3V), PRE COND 192 HR 30C/60%RH, MSL3							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	128	80	0	
STRESS: INTERNAL VISUAL							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	COMP	5	0	
STRESS: PRESSURE COOKER TEST, 121C, 100%RH, PRE COND 192 HR 30C/60%RH, MSL3							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	168	80	0	
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	288	80	0	
STRESS: TC COND. C -65C TO 150C, PRE COND192 HRS 30C/60%RH, MSL3							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	500	80	0	
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	1000	80	0	
CY14B108L (7C1408B8BC)	4839870	610904599	TAIWAN-G	500	77	0	
CY14B108L (7C1408B8BC)	4839870	610904599	TAIWAN-G	1000	77	0	
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	500	77	0	
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	1000	77	0	

Reliability Test Data

QTP #: 092205

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: THERMAL SHOCK							
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	200	80	0	
CY14B108L (7C1408B8BC)	4847673	610907084	TAIWAN-G	1000	80	0	
STRESS: X-RAY							
CY14B108L (7C1408B8BC)	4844914	610916942	TAIWAN-G	COMP	15	0	

Document History Page

Document Title: QTP 092205: 44 LEAD TSOP II (2-DIE STACK) PURE SN, MSL3, 260C REFLOW ASE-TAIWAN (G)
Document Number: 001-71490

Rev.	ECN No.	Orig. of Change	Description of Change
**	3318914	NSR	Initial spec release
*A	3682038	NSR	Added reference Industry standards in reliability tests performed and removed all the reference Cypress specs. Removed version 1.0 in the QTP 092205 in the title page.
*B	4079890	HSTO	Deleted obsolete cypress specifications 001-41579 Updated test location facility based on current qualified test site.
*C	4462875	HSTO	Align qualification report based on the new template in the front page

Distribution: WEB

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