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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 104406 VERSION *B
May 2015

48-Ball Fine Pitch Ball Grid Array (FBGA)
(8 x 9.5 x 1.0mm)
SnAgCu, MSL3, 260ºC Reflow
CML-RA

FOR ANY QUESTIONS ON THIS REPORT PLEASE CONTACT reliability@cypress.com :
OR VIA LINK A CYLINK CRM CASE

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PACKAGE QUALIFICATION HISTORY

QUAL REPORT	DESCRIPTION OF QUALIFICATION PURPOSE	DATE COMP.
104406	Qualification for FBGA48 (8x9.5x1.0 mm) Packages assembled at CML Autoline 8 (RA) using 7C62162D / 7G62162D Device , QMI 506 Die Attach Epoxy, 0.8 mil Au wire, Kyocera KE-G2270 Molding Compound, 0.3mm SnAgCu Solder Ball at MSL3 / 260C Reflow	Apr 2011

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	BZ48
Package Outline, Type, or Name:	48-Ball FBGA (8 x 9.5 x 1.0mm) Fine Pitch Ball Grid Array
Mold Compound Name/Manufacturer:	KEG2270 / Kyocera
Mold Compound Flammability Rating:	V-O per UL94
Mold Compound Alpha Emission Rate:	N/A
Oxygen Rating Index:	N/A
Lead Frame Material:	BT Resin
Lead Finish, Composition / Thickness:	SnAgCu
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Sawing
Die Attach Supplier:	Henkel
Die Attach Material:	QMI506
Die Attach Method:	Epoxy
Bond Diagram Designation	10-07075
Wire Bond Method:	Thermosonic
Wire Material/Size:	0.8mil / Au
Thermal Resistance Theta JA °C/W:	35.85
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	11-21101
Name/Location of Assembly (prime) facility:	CML-RA
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-RA

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

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Acoustic Microscopy	J-STD-020	P
High Accelerated Saturation Test (HAST)	110 C, 85%RH, 3.65V Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
Pressure Cooker Test	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
Solderability	J-STD-002, JESD22-B102 95% solder coverage minimum	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

Reliability Test Data

QTP #: 104406

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	15	0	
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	15	0	
CY62167DV30LL (7G62162DK)	4014470	611050668	CML-RA	COMP	15	0	
STRESS: DYE PENETRATION							
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	315	0	
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	315	0	
CY62167DV30LL (7G62162DK)	4014470	611050668	CML-RA	COMP	315	0	
STRESS: CONSTRUCTIONAL ANALYSIS							
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	5	0	
STRESS: HI-ACCEL SATURATION TEST, 110C, 3.65V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3							
CY7C1061DV33 (7C1061NC)	4033003	611100669	CML-RA	264	80	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)							
CY62167DV30LL (7G62162DK)	4014470	611050668	CML-RA	168	77	0	
STRESS: SOLDERABILITY							
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	3	0	
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	COMP	3	0	
CY62167DV30LL (7G62162DK)	4014470	611050668	CML-RA	COMP	3	0	
STRESS: TC COND. C –65C TO 150C, PRE COND 192 HR 30C/60%RH, MSL3							
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	500	79	0	
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	1000	79	0	
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	500	80	0	
CY62167DV30LL (7G62162DK)	4025207	611050669	CML-RA	1000	80	0	
CY62167DV30LL (7G62162DK)	4014470	611050668	CML-RA	500	80	0	
CY62167DV30LL (7G62162DK)	4014470	611050668	CML-RA	1000	80	0	

Document History Page

Document Title: QTP 104406:48-Ball Fine Pitch Ball Grid Array (FBGA) (8 x 9.5 x 1.0mm) SnAgCu, MSL3, 260ºC Reflow CML-RA Qualification Report
Document Number: 001-68937

	ECN No.	Orig. of Change	Description of Change
**	3221377	NRG	Initial spec release
*A	4362805	HSTO	Align qualification report based on the new template in the front page Deleted Cypress reference specs 25-00104, 25-00018, 25-20035, and 25-20027 and replaced it with industry standard.
*B	4751537	HSTO	Update reference for Reliability Director

Distribution: WEB

Posting: None