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Continuity of document content
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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# 031403 VERSION*A
October 2014

48-ball Very Thin Fine Pitch Ball Grid Array (VFBGA)
(6 x 8 x 1.0 mm)
MSL3, 260C Solder Reflow
ASE Taiwan (TAIWN-G)

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

Qual Report		Description of Qualification Purpose		Date Comp
031403		260C Solder Reflow Temperature for all VFBGA Packages assembled in ASE-Taiwan using Sn 63/Pb37 Solder balls with Shinetsu KMC211VAA-EC Low Alpha Mold Compound		Nov 03

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	BV48
Package Outline, Type, or Name:	48-ball VFBGA (6 x 8 x 1.0mm)Very thin and Fine Pitch Ball Grid
Mold Compound Name/Manufacturer:	Shinetsu KMC211VAA-EC
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	>28%
Substrate Material:	BT Resin
Lead Finish, Composition / Thickness:	Solder ball, 63%Sn, 37%Pb
Die Backside Preparation Method/Metallization:	Grinding
Die Separation Method:	Wafer Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	Ablestik 8355F
Die Attach Method:	Epoxy
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au, 1.0um
Thermal Resistance Theta JA °C/W:	90 °C/W
Package Cross Section Yes/No:	N/A
Name/Location of Assembly (prime) facility:	ASE Taiwan

ELECTRICAL TEST	
Test Location:	Cypress Philippines (CML-R)
Fault Coverage:	100%

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Temperature Cycle	JEDEC22, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity MSL3 192 Hrs., 30°C/60%RH+3IR-Reflow, 260°C+0, -5°C	P
High Accelerated Saturation	130°C/1.98V, 85%RH Precondition: JESD22 Moisture Sensitivity MSL3 192 Hrs., 30°C/60%RH+3IR-Reflow, 260°C+0, -5°C	P
Pressure Cooker	121C, 100%RH Precondition: JESD22 Moisture Sensitivity MSL3 192 Hrs., 30°C/60%RH+3IR-Reflow, 260°C+0, -5°C	P
Acoustic Microscopy Test MSL3	J-STD-020	P

Reliability Test Data

QTP #: 031403

Device	Fab Lot #	Assy Lot #	Ass Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
CY62157DV18L (7C62357D)	4235206	610248114	TAIWN -G	COMP	15	0	
CY62157DV18L (7C62357D)	4235206	610248215	TAIWN -G	COMP	15	0	
CY62157DV18L (7C62357D)	4235206	610248112	TAIWN -G	COMP	15	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), PRE COND 192 HR 30C/60%RH, MSL3							
CY62157DV18L (7C62357D)	4231200	610246206	TAIWN -G	168	35	0	
STRESS: HI-ACCEL SATURATION TEST (130C, 85%RH, 1.98V), PRE COND 192 HR 30C/60%RH, MSL3							
CY62157DV18L (7C62357D)	4231200	610246206	TAIWN -G	128	44	0	
STRESS: TC COND. C -65C TO 150C, PRECONDITION 192 HRS 30C/60%RH, MSL3							
CY62157DV18L (7C62357D)	4235206	610248114	TAIWN -G	300	43	0	
CY62157DV18L (7C62357D)	4235206	610248114	TAIWN -G	500	43	0	
CY62157DV18L (7C62357D)	4235206	610248114	TAIWN -G	1000	43	0	
CY62157DV18L (7C62357D)	4235206	610248215	TAIWN -G	300	48	0	
CY62157DV18L (7C62357D)	4235206	610248215	TAIWN -G	500	48	0	
CY62157DV18L (7C62357D)	4235206	610248215	TAIWN -G	1000	48	0	
CY62157DV18L (7C62357D)	4235206	610248112	TAIWN -G	300	50	0	
CY62157DV18L (7C62357D)	4235206	610248112	TAIWN -G	500	50	0	
CY62157DV18L (7C62357D)	4235206	610248112	TAIWN -G	1000	50	0	

Document History Page

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Document Number: 001-90052

Rev.	ECN No.	Orig. of Change	Description of Change
**	4190435	HSTO	Initial Spec Release Initiate report as per memo LGQ-240.
*A	4557088	HSTO	Align qualification report based on the new template in the front page

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