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Continuity of document content

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# 030301 VERSION*A
January, 2015

8-Lead SOIC Package
Pb-Free, MSL3
235C & 260C Reflow
PHIL-M

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

QUAL REPORT	DESCRIPTION OF QUALIFICATION PURPOSE	DATE COMP.
030301	8-Lead (150mil) SOIC package, Pb-Free, @ 260C Solder Reflow Peak, MSL1 @ ANAM-PHIL	May 03
030301	Cypress established policy requiring MSL and Reflow Peak Temperature alignment for Cypress and its Assembly Subcontractors. Downgrade from MSL1 to MSL3	Nov 06

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	S08
Package Outline, Type, or Name:	8-Lead Plastic Small Outline IC Package (SOIC)
Mold Compound Name/Manufacturer:	EME-6600H
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	>28%
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	N/A
Die Separation Method:	Wafer Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	8290
Die Attach Method:	Silver Epoxy
Bond Diagram Designation	Not Applicable
Wire Bond Method:	Thermosonic
Wire Material/Size:	Gold 1.0mil
Thermal Resistance Theta JA °C/W:	191.8° Theta JA C/W
Package Cross Section Yes/No:	N/A
Assembly Process Flow:	Not Applicable
Name/Location of Assembly (prime) facility:	ANAM Philippines (PHIL-M)
MSL Level	3
Reflow Profile	235C & 260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	Cypress Philippines (CML-R)

Note: Please contact a Cypress Representative for other packages availability

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Temperature Cycle	MIL-STD-883, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity MSL 1 (168 Hrs., 85°C, 85% RH, 260°C Reflow)	P
Pressure Cooker	JESD22-A102: 121°C, 100%RH, 15 Psig Precondition: JESD22 Moisture Sensitivity MSL 1 (168 Hrs., 85°C, 85% RH, 260°C Reflow)	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110: 130°C, 85%RH, 3.3V Precondition: JESD22 Moisture Sensitivity MSL 1 (168 Hrs., 85°C, 85% RH, 260°C Reflow)	P
External Visual	MIL-PRF-38535, MIL-STD-883, Method 2009	P
Adhesion of Lead Finish	MIL-STD-883, Method 2025 – Adhesion of Lead Finish	P
Solderability, Steam Aged	J-STD-002, JESD22-B102 95% solder coverage minimum	P
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level (168 Hrs., 85°C, 85% RH, 260°C Reflow)	P



Reliability Test Data

QTP #: 030301

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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STRESS: ACOUSTIC - MICROSCOPE, MSL1

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	COMP	15	0	
CY27022-SC (7C827022A)	9214305	610239607	PHIL-M	COMP	15	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	COMP	15	0	

STRESS: EXTERNAL VISUAL

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	COMP	15	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	COMP	15	0	

STRESS: SOLDERABILITY

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	COMP	5	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	COMP	5	0	

STRESS: ADHESION OF LEAD FINISH

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	COMP	5	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	COMP	5	0	

STRESS: HI-ACCEL SATURATION TEST. 130C, 3.3V, 85%RH, PRE COND 168 HR 85C/85%RH, MSL 1

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	128	50	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	128	50	0	

STRESS: PRESSURE COOKER TEST, 121C, 100%RH, 15 Psig, PRE COND 168 HR 85C/85%RH, MSL1

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	176	46	0	
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STRESS: TC COND. C -65C TO 150C, PRE COND 168 HRS 85C/85%RH, MSL1

CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	300	50	0	
CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	500	50	0	
CY27022-SC (7C827022A)	9214305	610239606	PHIL-M	1000	50	0	
CY27022-SC (7C827022A)	9214305	610239607	PHIL-M	300	42	0	
CY27022-SC (7C827022A)	9214305	610239607	PHIL-M	500	42	0	
CY27022-SC (7C827022A)	9214305	610239607	PHIL-M	1000	42	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	300	50	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	500	50	0	
CY27022-SC (7C827022A)	9214305	610239608	PHIL-M	1000	50	0	

Document History Page

Document Title: QTP NO. 030301 : 8-LEAD SOIC, MSL3, 235C, 260C, AMKOR PHILS.
Document Number: 001-85253

Rev.	ECN No.	Orig. of Change	Description of Change
**	3839090	HLR	Initial Spec Release.
*A	4612981	JYF	Updated QTP title page and Reliability Tests Performed table (TCT,PCT,HAST,EVI,Solderability,Acoustic) for template alignment.

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