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Cypress Semiconductor Finish Qualification Report

**QTP# 160802 VERSION **
March 2016**

**32L SOIC Package (300 mils)
FINISH SITE
UTAC, Thailand Limited (UTL)**

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
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FINISH QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date
142301	16L/24L QFN Package Qualification at UTAC-Thailand Limited (UTL) Finish Site	August 2014
142302	16L SOIC (150 mils) Package Qualification at UTAC-Thailand Limited (UTL) Finish Site	December 2014
160804	14L DFN (2.5X3.5X0.6mm) Package Qualification at UTAC-Thailand Limited (UTL) Finish Site	March 2016
160802	32L SOIC (300 mils) Package Qualification at UTAC-Thailand Limited (UTL) Finish Site	March 2016

PROCESS ENGINEERING QUALIFICATION PERFORMED PER SPECIFICATION REQUIREMENTS

Test	Test Condition (Reference Specifications)	Result P/F
CADFIT Analysis	Pass POD & End flash Criteria	P
Dimensional Measurement	POD Drawing-JESD22-B100	P
Surface Resistivity Measurement	Conductive Packing/shipping material: $10^5 \Omega/\text{sq}$ Static dissipative Packing/shipping material: $10^5\text{-}10^{12} \Omega/\text{sq}$	P
Functionality Test	Pass Manufacturability	P
Drop Test	Non-Dry Packed Material: No tears & punctures Boxes: No Complete structural damage, No progressive crumpling/deformed, no tears & punctures.	P
PBFT	Min \geq 30gr Average=50 \pm gr Max \leq 70gr	P
Bend Test	No separation along pocket and ridge area	P
Substance Check	European Union RoHS 2002/95/E REACH XVII	P
Split PBFT Test	Delta of Sprocket side and its opposite side: 5 gr Range: 20 gr	P
Detaping	No cover tape tearing	P
Quick Hand Pull Test	No cover tape tearing	P
External Visual	MIL-PRF-38535, MIL-STD-883, METHOD 2009	P

Reliability Test Data

QTP #:142301

<i>Device</i>	<i>Assy Lot #</i>	<i>Package</i>	<i>Finish Site</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: BEND TEST							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	1 STRIP	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	1 STRIP	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	1 STRIP	0	
STRESS: CADFIT ANALYSIS							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	1	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	1	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	1	0	
STRESS: DETAPING							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	10	0	
STRESS: DIMENSIONAL MESAUREMENT							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	10	0	
STRESS: DROP TEST							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	30	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	30	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	30	0	
STRESS: EXTERNAL VISUAL							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	461	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	461	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	461	0	
STRESS: FUNCTIONALITY TEST							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	10	0	



Reliability Test Data QTP #:142301

Device	Assy Lot #	Package	Finish Site	Duration	Samp	Rej	Failure Mechanism
STRESS: PEEL BACK FORCE TEST							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	30	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	30	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	30	0	
STRESS: QUICK HAND PULL TEST							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	30	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	30	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	30	0	
STRESS: SOLDERABILITY							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	3	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	3	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	3	0	
STRESS: SPLIT PEEL BACK FORCE TEST							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	10	0	
STRESS: SUBSTANCE CHECK (CARRIER TAPE)							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	1	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	1	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	1	0	
STRESS: SURFACE RESISTIVITY MEASUREMENT							
CY8C20236A (8C202662AC)	611417549	LG16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44303AC)	611418221	LQ16A QFN	UTAC, THAILAND	COMP	10	0	
CY8CMBR31 (8CP44304AC)	611418218	LG24A QFN	UTAC, THAILAND	COMP	10	0	



Reliability Test Data QTP #:142302

<i>Device</i>	<i>Assy Lot #</i>	<i>Package</i>	<i>Finish Site</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: EXTERNAL VISUAL							
CY8CMBR3110 (8CP44302AC)	611416411	SZ161 SOIC	UTAC, THAILAND	COMP	461	0	
STRESS: LEAD SCAN							
CY8CMBR3110 (8CP44302AC)	611416411	SZ161 SOIC	UTAC, THAILAND	COMP	461	0	
STRESS: TAPE PEEL BACK FORCE TEST							
CY8CMBR3110 (8CP44302AC)	611416411	SZ161 SOIC	UTAC, THAILAND	COMP	30	0	



Reliability Test Data

QTP #:160804

<i>Device</i>	<i>Assy Lot #</i>	<i>Package</i>	<i>Finish Site</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
STRESS: EXTERNAL VISUAL							
CYPD2103 (7CP64100AC)	611531363	LH14A,DFN	UTAC,THAILAND	COMP	2991	0	
STRESS: LEAD SCAN							
CYPD2103 (7CP64100AC)	611531363	LH14A,DFN	UTAC,THAILAND	COMP	2991	0	
STRESS: TAPE PEEL BACK FORCE TEST							
CYPD2103 (7CP64100AC)	611531363	LH14A,DFN	UTAC,THAILAND	COMP	30	0	



Reliability Test Data QTP #:160802

<i>Device</i>	<i>Assy Lot #</i>	<i>Package</i>	<i>Finish Site</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
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STRESS: EXTERNAL VISUAL

CY14B256LA (7C1418B8CC)	611535359P1	SZ323, SOIC	UTAC,THAILAND	COMP	1000	0	
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STRESS: LEAD SCAN

CY14B256LA (7C1418B8CC)	611535359P1	SZ323, SOIC	UTAC,THAILAND	COMP	926	0	
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STRESS: TAPE PEEL BACK FORCE TEST

CY14B256LA (7C1418B8CC)	611535359P1	SZ323, SOIC	UTAC,THAILAND	COMP	30	0	
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Document History Page

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Rev.	ECN No.	Orig. of Change	Description of Change
**	5186879	JYF	Initial spec release.