

# **Cypress Semiconductor Package Qualification Report**

**QTP# 070308 VERSION 1.1  
June 2008**

**≤84-Lead CLCC Package  
(15.24 x 15.24mm)  
MMT-Thailand (X)**

## **CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:**

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**PACKAGE QUALIFICATION HISTORY**

<b>QUAL REPORT</b>	<b>DESCRIPTION OF QUALIFICATION PURPOSE</b>	<b>DATE COMP.</b>
070308	Qualify MMT-Thailand for ≤ 84-Lead CLCC Package (15.24 x 15.24mm) assembly site for Image Sensor	Jun 08

<b>MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION</b>	
<b>Package Designation:</b>	QB84A
<b>Package Outline, Type, or Name:</b>	84-Lead CLCC Package
<b>Lead Seal Method:</b>	Glass Lid Seal
<b>Glass Lid Material:</b>	Kyocera Schott D263 B Stage NCO150SB
<b>Lead Frame Substrate material:</b>	IRK84F0-6959A
<b>Die Separation Method:</b>	Saw Singulation
<b>Die Attach Supplier:</b>	Dexter
<b>Die Attach Material:</b>	QMI 505MT Conductive
<b>Bond Diagram Designation</b>	001-12155
<b>Wire Bond Method:</b>	Thermosonic
<b>Wire Material/Size:</b>	Al, 1.25mil
<b>Assembly Process Flow:</b>	49-15999
<b>Name/Location of Assembly (prime) facility:</b>	MMT-Thailand (X)

<b>ELECTRICAL TEST / FINISH DESCRIPTION</b>	
<b>Test Location:</b>	CML-R

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

**RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT**

<b>Stress/Test</b>	<b>Test Condition (Temp/Bias)</b>	<b>Result P/F</b>
Bond Pull	Cypress Spec 12-00292	P
Die Shear	Cypress Spec 12-00215	P
Electrostatic Discharge Human Body Model (ESD-HBM)	2,200V JEDEC22, Method A114-B	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	500V Cypress Spec. 25-00020	P
External Visual	Cypress Spec 12-00292/12-00103	P
Lead Integrity	Cypress Spec. 25-00004	P
High Temperature Storage	150°C, no bias	P
Internal Visual	Cypress Spec 25-00017	P
Mechanical Series	MIL-STD-883 – 5005	P
Physical Dimension	Cypress Spec. 25-00031	P
Temperature Cycle	JEDEC22, Condition G, -40°C to 125°C	P
Thermal Humidity	Unbiased 85C/85%RH	P

## Reliability Test Data

QTP #: 070308

<i>Device</i>	<i>Fab Lot#</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
<b>STRESS: BOND PULL</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	100	0	
<b>STRESS: DIE SHEAR</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	150	0	
<b>STRESS: ESD-CHARGE DEVICE MODEL, 500V</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	9	0	
<b>STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2,200V</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	8	0	
<b>STRESS: EXTERNAL VISUAL</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	150	0	
<b>STRESS: HIGH TEMPERATURE STORAGE, 150C, no bias</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	500	150	0	
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	1000	150	0	
<b>STRESS: INTERNAL VISUAL</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	5	0	
<b>STRESS: LEAD INTEGRITY</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	3	0	
<b>STRESS: MECHANICAL SERIES</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	150	0	
<b>STRESS: PHYSICAL DIMENSION</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	COMP	5	0	
<b>STRESS: TC CONDITION G, -40C TO 125C</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	500	150	0	
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	1000	150	0	
<b>STRESS: TEMPERATURE HUMIDITY, unbiased 85C/85%RH</b>							
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	500	150	0	
CYII5SM1300AB (I5SMD1300BX)	8628011		MMT-X	1000	150	0	