

Cypress Semiconductor Package Qualification Report

QTP# 175002 VERSION *A
MAR 2018

100L TQFP (14x14x1.4mm)

Pure Sn, Au Wire

MSL3, 260°C Reflow

ASE (G) - Taiwan

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
reliability@cypress.com or via a CYLINK CRM CASE**

Prepared By:
Eng Keat Ng
Reliability Engineer

Reviewed By:
Francis Classe
Reliability Manager

Approved By:
David Hoffman
Reliability Director

PACKAGE QUALIFICATION HISTORY

QTP Number	Description of Qualification Purpose	Date
034101	ALL TQFP 1.4mm Thick, 100% Sn, MSL3, 260C Reflow, using CEL 9200THF Mold Compound and 8340 Epoxy and Matte Tin Plating assembled @ ASE Kaohsiung Taiwan	Mar 2004
120201	Qualification of TQFP packages built at ASE(G)-Taiwan using 0.8mil Copper Wire, G631 mold compound, CRM1076 epoxy and Pure Sn Lead finish.	June 2012
133306	Qualification of TQFP 100L 14x14x1.4mm assembled in ASEK using 0.8mil CuPd wire, G631H / G631SH mold comp, HITACHI FH-900 die attach FILM with Ag plated Cu Leadframe and Pure Sn leadfinish.	Aug 2013
174303	Qualification of ASEK for 64L-TQFP (14x 14 x 1.4mm) package at MSL3, 260C Reflow Temperature	Jan 2018
175002	Qualification of ASEK for 100L-TQFP (14x 14 x 1.4mm) package at MSL3, 260C Reflow Temperature	Feb 2018

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION

Package Designation:	AZ0AB
Package Outline, Type, or Name:	100-Lead Thin Quad Flat Pack (TQFP), 1.4mm
Mold Compound Name/Manufacturer:	G631SH / Sumitomo
Mold Compound Flammability Rating:	V-0 / UL94
Mold Compound Alpha Emission Rate:	N/A
Oxygen Rating Index: >28%	50%
Lead Frame Designation:	FMP
Lead Frame Material:	Copper
Substrate Material:	N/A
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	SAW Process
Die Attach Supplier:	Sumitomo
Die Attach Material:	CRM-1076WA
Bond Diagram Designation	002-21604
Wire Bond Method:	Thermal Sonic Bonding
Wire Material/Size:	Au / 0.8mil (20um)
Thermal Resistance Theta JA °C/W:	41°C/W
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	49-41001
Name/Location of Assembly (prime) facility:	ASE(G)-Taiwan
MSL LEVEL	3
REFLOW PROFILE	260C

ELECTRICAL TEST / FINISH DESCRIPTION

Test Location:	CML-R
----------------	-------

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

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS	Test Condition (Temp/Bias)	Result P/F
High Temperature Operating Life Early Failure Rate	Dynamic Operating Condition, Vcc = 2.8, 150 C JESD22-A108	P
High Temperature Operating Life Early Failure Rate	Dynamic Operating Condition, Vcc = 2.8, 150 C JESD22-A108	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110, 130 C, 85%RH, 3.63V/3.3V Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
Pressure Cooker Test	JESD22-A102, 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
High Temp Storage	JESD22-A103, 150 C, no bias Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 C°, 60% RH, 260C Reflow)	P
Ball Shear	JESD22-B116A, Cpk : 1.33, Ppk : 1.66	P
Bond Pull	MIL-STD-883 – Method 2011, Cpk : 1.33, Ppk : 1.66	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
Internal Visual	MIL-STD-883-2014	P
Final Visual Inspection	JESD22-B101B	P
Physical Dimension	MIL-STD-1835, JESD22-B100	P
Solderability	J-STD-002, JESD22-B102	P
Thermal Shock	MIL-STD-883C, Method 1011, Condition B, -55 C to 125C and JESD22-A106B, Condition C, -55 C to 125C	P
X-Ray	MIL-STD-883 - 2012	P
Post Stress Ball Shear	JESD22-A116	P
Post Stress Bond Shear	MIL-STD-883 - 2011	P
Electrical Characterization	AEC-Q100-009	P

Reliability Test Data

QTP #: 034101

<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>
STRESS: ACOUSTIC, MSL3							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		COMP	15	0
CY7B993V (7B993A)	4323867	610351300	ASE TAIWAN (G)		COMP	15	0
CY37128P (7C37637B)	8334828	610347535	ASE TAIWAN (G)		COMP	15	0
STRESS: EXTERNAL VISUAL							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		COMP	3	0
CY7C0852V (7C08523A)	4328799	610346772	ASE TAIWAN (G)		COMP	3	0
STRESS: HI-ACCEL SATURATION TEST, 130C, 3.63V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		128	43	0
CY7B993V (7B993A)	4323867	610351300	ASE TAIWAN (G)		128	44	0
STRESS: INTERNAL VISUAL							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		COMP	5	0
CY7C0852V (7C08523A)	4328799	610346772	ASE TAIWAN (G)		COMP	5	0
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		168	47	0
CY37128P (7C37637B)	8334828	610347535	ASE TAIWAN (G)		168	49	0
SOLDERABILITY TEST							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		COMP	3	0
CY7C0852V (7C08523A)	4328799	610346772	ASE TAIWAN (G)		COMP	3	0
STRESS: TC COND. C -65C TO 150C, PRECONDITION 192 HRS 30C/60%RH (MSL3)							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		300	48	0
CY7B993V (7B993A)	4323867	610351300	ASE TAIWAN (G)		300	43	0
CY37128P (7C37637B)	8334828	610347535	ASE TAIWAN (G)		300	50	0
CY37128P (7C37637B)	8334828	610347535	ASE TAIWAN (G)		500	50	0
CY37128P (7C37637B)	8334828	610347535	ASE TAIWAN (G)		1000	47	0
STRESS: XRAY							
CY7C1372B (7C1372B)	9244935	SWR#19136	ASE TAIWAN (G)		COMP	15	0
CY7B993V (7B993A)	4323867	610351300	ASE TAIWAN (G)		COMP	15	0

Reliability Test Data

QTP #: 120201

<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>
STRESS: ACOUSTIC, MSL3							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	15	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	15	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	15	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	15	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	15	0	
STRESS: BALL SHEAR							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	10	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	10	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	10	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	10	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	10	0	
STRESS: BOND PULL							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	10	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	10	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	10	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	10	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	10	0	
STRESS: CONSTRUCTIONAL ANALYSIS							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	5	0	
STRESS: CROSS SECTION							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	5	0	

Reliability Test Data

QTP #: 120201

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp Rej</i>	<i>Failure Mechanism</i>
STRESS: DYE PENETRATION TEST						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	15	0
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	15	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	15	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	15	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	15	0
STRESS: FINAL VISUAL						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	2466	0
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	618	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	605	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	2412	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	989	0
STRESS: ELECTRICAL CHARACTERIZATION						
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	10	0
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE (150, 2.8V, Vcc Max)						
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	48	1000	0
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (150C, 2.8V, Vcc Max)						
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	80	116	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	116	0
STRESS: HI-ACCEL SATURATION TEST, 130C, 3.63V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	128	80	0
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	192	25	0
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	128	80	0
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	192	25	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	128	80	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	192	25	0
STRESS: HI-ACCEL SATURATION TEST, 130C, 3.3V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3						
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	128	80	0

Reliability Test Data

QTP #: 120201

<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>
STRESS: INTERNAL VISUAL							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	5	0	
STRESS: HIGH TEMP STORAGE, 150C							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	500	95	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	1000	85	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	1500	75	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	2000	75	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	500	95	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	1000	85	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	1500	75	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	500	95	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	1000	85	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	1500	75	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	2000	75	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	500	95	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1000	85	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1500	75	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	95	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	1000	85	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	1500	75	0	
CY7C64713(7CC681030BC)	4249029	611316756	G-TAIWAN	500	45	0	
CY7C64713(7CC681030BC)	4249029	611316756	G-TAIWAN	1000	45	0	
CY7C64713(7CC681030BC)	4249029	611316756	G-TAIWAN	3000	45	0	



Reliability Test Data

QTP #: 120201

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp Rej</i>	<i>Failure Mechanism</i>
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	168	94	0
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	288	84	0
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	168	95	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	168	92	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	288	82	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	168	95	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	168	95	0
CY7C64713(7CC681030BC)	4249029	611316756	G-TAIWAN	168	45	0
CY7C64713(7CC681030BC)	4249029	611316756	G-TAIWAN	500	39	0
STRESS: PHYSICAL DIMENSION						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	30	0
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	30	0
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	30	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	30	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	30	0
STRESS: POST MSL3 BALL SHEAR						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	4	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	4	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	4	0
STRESS: POST MSL3 BOND PULL						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	4	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	4	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	4	0
STRESS: POST MSL3 CONSTRUCTIONAL ANALYSIS						
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	3	0
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	3	0
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	3	0

Reliability Test Data

QTP #: 120201

<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>
STRESS: POST HI-ACCEL SATURATION TEST BALL SHEAR							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	128	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	128	5	0	
STRESS: POST HIGH TEMP STORAGE BALL SHEAR							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	500	5	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	1000	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	500	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1000	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	1000	5	0	
STRESS: POST PRESSURE COOKER TEST BALL SHEAR TEST							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	168	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	168	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	168	5	0	
CY7C64713(7CC681030BC)	4249029	611316756	G-TAIWAN	500	5	0	
STRESS: POST TC BALL SHEAR							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	500	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	500	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	5	0	
STRESS: POST HIGH TEMP STORAGE BOND PULL							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	500	5	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	1000	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	500	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1000	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	1000	5	0	
STRESS: POST HI-ACCEL SATURATION TEST BOND PULL							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	128	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	128	5	0	

Reliability Test Data

QTP #: 120201

<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>
STRESS: POST PRESSURE COOKER TEST BOND PULL TEST							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	168	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	168	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	168	5	0	
STRESS: POST TC BOND PULL							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	500	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	500	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	5	0	
SOLDERABILITY TEST							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	5	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	5	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	5	0	
STRESS: TC COND. C -65C TO 150C, PRE COND 192 HR 30C/60%RH, MSL3							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	500	94	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	1000	84	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	1500	74	0	
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	2000	74	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	500	94	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	1000	84	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	500	95	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	1000	84	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	1500	74	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	2000	74	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	500	95	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1000	85	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1500	75	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	500	95	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	1000	85	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	1500	75	0	

Reliability Test Data

QTP #: 120201

<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>
STRESS: THERMAL SHOCK							
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	200	100	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	1000	90	0	
STRESS: X-RAY							
CY7C68013A (7C681000B)	4131065	611157091	G-TAIWAN	COMP	15	0	
CY7C68013A (7C681000B)	4131065	611157737	G-TAIWAN	COMP	15	0	
CY7C68013A (7C681000B)	4131065	611157739	G-TAIWAN	COMP	15	0	
CY29940AXC (7C829940BR)	8052001	611157742	G-TAIWAN	COMP	15	0	
CY7C136 (7C136G)	2831581	611158148	G-TAIWAN	COMP	15	0	

Reliability Test Data

QTP #: 133306

<i>Device</i>	<i>Package</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>
STRESS: ACOUSTIC, MSL3								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	15	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	15	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	15	0	
STRESS: BALL SHEAR								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	50	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	50	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	50	0	
STRESS: BOND PULL								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	50	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	50	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	50	0	
STRESS: CONSTRUCTIONAL ANALYSIS								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	5	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	5	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	5	0	
STRESS: DYE PENETRANT TEST								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	15	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	15	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	15	0	
STRESS: HI-ACCEL SATURATION TEST, 130C, 5.5V, 85%RH, PRE COND 192 HR 30C/60%RH, MSL3								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	128	79	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	128	77	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	128	80	0	

Reliability Test Data

QTP #: 133306

<i>Device</i>	<i>Package</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>
STRESS: HIGH TEMPERATURE STORAGE								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	500	80	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	500	60	0	
CY8CTMA1036BUI (8C20407BC)BU84A		4223445	611226792	ASE TAIWAN (G)	500	83	0	
CY8CTMA1036BUI (8C20407BC)BU84A		4223445	611226792	ASE TAIWAN (G)	1000	78	0	
CY8CTMA1036BUI (8C20407BC)BU84A		4223445	611226790	ASE TAIWAN (G)	500	79	0	
CY8CTMA1036BUI (8C20407BC)BU84A		4223445	611226790	ASE TAIWAN (G)	1000	74	0	
CY8CTMA1036BUI (8C20407BC)BU84A		4223445	611226791	ASE TAIWAN (G)	500	79	0	
CY8CTMA1036BUI (8C20407BC)BU84A		4223445	611226791	ASE TAIWAN (G)	1000	74	0	
STRESS: INTERNAL VISUAL								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	5	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	5	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	5	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH), 15 Psig, PRE COND 192 HR 30C/60%RH (MSL3)								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	168	80	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	288	80	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	168	77	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	288	77	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	168	80	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	288	78	0	
STRESS: TC COND. C -65C TO 150C, PRECONDITION 192 HRS 30C/60%RH								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	500	80	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	500	76	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	1000	76	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	500	79	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	1000	79	0	
STRESS: XRAY								
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314007	ASE TAIWAN (G)	COMP	15	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314008	ASE TAIWAN (G)	COMP	15	0	
CY8C5468AXI (8C561001AC)	AZ100	4304019	611314009	ASE TAIWAN (G)	COMP	15	0	

Reliability Test Data

QTP #: 174303

<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>
STRESS: ACOUSTIC, MSL3							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	77	0	
STRESS: BALL SHEAR							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	5	0	
STRESS: BOND PULL							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	5	0	
STRESS: CONSTRUCTIONAL ANALYSIS							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	5	0	
STRESS: FINAL VISUAL							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	1705	0	
STRESS: PHYSICAL DIMENSION							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	30	0	
STRESS: X-RAY							
CY8C4125AXI2 (8CP46003B)	3710134	611740357	G-TAIWAN	COMP	160	0	

Reliability Test Data

QTP #: 175002

<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>
STRESS: ACOUSTIC, MSL3							
CY7C09289V (7C02893NB)	4728334	611741969	ASE(G)-TAIWAN	COMP	77	0	

Document History Page

Document Title: QTP 175002: 100L-TQFP PACKAGES, PURE SN, AU WIRE MSL3, 260C REFLOW ASE(G) - TAIWAN
Document Number: 002-22977

Rev.	ECN No.	Orig. of Change	Description of Change
**	6055820	EKNG	Initial spec release.
*A	6093432	EKNG	Updated Reliability Summary Table and Test data.