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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# 052701 VERSION*A
September 2014

4-Lead LCC Package with Crystal Oscillator
(5 x 3.2mm)
Ecera-Taiwan

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

QUAL REPORT		DESCRIPTION OF QUALIFICATION PURPOSE		DATE COMP.
052701		4-Lead LCC Package (5x3.2mm) with Crystal Oscillator assembled @ Ecera-Taiwan		Jan 06

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	LZ04
Package Outline, Type, or Name:	4-Lead LCC Package
Mold Compound Name/Manufacturer:	NA
Mold Compound Flammability Rating:	NA
Oxygen Rating Index:	NA
Lead Frame Material:	Ceramic
Lead Finish, Composition / Thickness:	NiAu
Die Backside Preparation Method/Metallization:	Backgrinded (11mil)
Die Separation Method:	100% Saw
Die Attach Supplier:	ThreeBond
Die Attach Material:	3301F
Bond Diagram Designation	001-04422
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 1.25mil
Thermal Resistance Theta JA °C/W:	No Data
Package Cross Section Yes/No:	NA
Assembly Process Flow:	001-03723
Name/Location of Assembly (prime) facility:	Ecera-Taiwan (ER-Taiwan)

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	Ecera-Taiwan (ER-Taiwan)
Fault Coverage:	100%

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

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Acoustics	J-STD-020	P
Age Bond	MIL-STD-883, Method 2011	P
Bond Pull	MIL-STD-883 – Method 2011, 90 bonds on 10 devices	P
Die Shear	MIL-STD-883, Method 2019	P
Drop Test	MIL-STD-883 - 5005, D4 75cm Height 3 times on 2mm thick stainless steel plate	P
Electrostatic Discharge Human Body Model (ESD-HBM)	2,200V JESD22, Method A114-B	P
Electrostatic Discharge Human Body Model (ESD-HBM)	2,200V MIL-STD-883, Method 3015.7	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	500V JESD22-C101	P
External Visual	MIL-PRF-38535, MILSTD-883, METHOD 2009	P
Fine & Gross Leak	MIL-STD-883, Method1014	
High Temperature Operating LifeLatent Failure Rate	Dynamic Operating Condition, Vcc Max = 3.8V, 125 C	P
High Temperature Storage	125°C, no bias	P
Internal Visual	MIL-STD-883-2014	P
Internal Water Vapor	MIL-STD-883 - 1018	P
Low Temperature Storage	-30°C /-55°C, no bias	P
Mechanical Series	MIL-STD-883 - 5005, D4	P
Mechanical Shock	JESD22-B104-C	P
Physical Dimension	MIL-STD-1835, JESD22-B100	P
Salt Atmosphere	Mil. Std. 883, Method 1009	P
Solderability	J-STD-002, JESD22-B102	P
Temperature Cycle	JEDEC22, Condition B, -55°C to 125°C	P
Thermal Series	MIL-STD-883 - 5005, D3	P
Thermal Shock	MIL-STD-883C, Method 1011	P
Resistance to Solvents	MIL-STD-883 -2015	P

Reliability Test Data

QTP #: 052701

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	40	0	
STRESS: AGE BOND							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	6	0	
STRESS: BOND PULL							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	10	0	
STRESS: DIE SHEAR							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	20	0	
STRESS: DROP TEST							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	10	0	
STRESS: ESD-CHARGE DEVICE MODEL, 500V							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	9	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2,200V							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	9	0	
STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	3	0	
STRESS: EXTERNAL VISUAL							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	40	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	15	0	
STRESS: FINE & GROSS LEAK							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	30	0	
STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE (125C, 3.8V, Vcc Max)							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	80	645	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	500	600	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	1000	600	0	
CY25701FLXC (7C825701A)	2504720	610532160	TAIWN-ER	80	646	0	
CY25701FLXC (7C825701A)	2504720	610532160	TAIWN-ER	500	600	0	
CY25701FLXC (7C825701A)	2504720	610532160	TAIWN-ER	1000	598	1	
STRESS: HIGH TEMPERATURE STORAGE, 125C							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	500	50	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	1000	50	0	
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	1000	15	0	

Reliability Test Data

QTP #:052701

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: INTERNAL VISUAL							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	5	0	
STRESS: INTERNAL WATER VAPOR							
CY25701FLXC (7C825701A)	2504720	610553273	TAIWN-ER	COMP	3	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	3	0	
STRESS: LOW TEMPERATURE STORAGE, -30C							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	500	50	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	1000	50	0	
STRESS: LOW TEMPERATURE STORAGE, -55C							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	1000	15	0	
STRESS: MECHANICAL SERIES							
CY25701FLXC (7C825701A)	2504720	610553273	TAIWN-ER	COMP	16	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	15	0	
STRESS: MECHANICAL SHOCK							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	10	0	
STRESS: PHYSICAL DIMENSION							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	40	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	5	0	
STRESS: RESISTANCE TO SOLVENTS							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	15	0	
STRESS: SALT ATMOSPHERE							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	15	0	
STRESS: SOLDERABILITY							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	15	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	3	0	
STRESS: THERMAL SERIES							
CY25701FLXC (7C825701A)	2504720	610553273	TAIWN-ER	COMP	16	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	COMP	15	0	
STRESS: THERMAL SHOCK							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	100	15	0	

Reliability Test Data

QTP #: 052701

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: TC CONDITION B, -55C TO 125C							
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	100	50	0	
CY25701FLXC (7C825701A)	2504720		TAIWN-ER	1000	50	0	
CY25701FLXC (7C825701A)	2504720	610532160	TAIWN-ER	500	50	0	
CY25701FLXC (7C825701A)	2504720	610532160	TAIWN-ER	1000	50	0	
STRESS: VIBRATION							
CY25701FLXC (7C825701A)	2504720	610532157	TAIWN-ER	COMP	10	0	

Document History Page

Document Title: QTP# 052701: 4-Lead LCC Package with Crystal Oscillator (5 x 3.2mm) Ecera-Taiwan
Document Number: 001-89477

Rev.	ECN No.	Orig. of Change	Description of Change
**	4142691	HSTO	Initial Spec Release Initiate report as per memo LGQ-445.
*A	4516853	HSTO	Align qualification report based on the new template in the front page

Distribution: WEB

Posting: None