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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# 161301 VERSION**
June, 2016

28Ld TSOP I (8mm x 13.4mm x 1.2mm)
NiPdAu, MSL3, 260°C Reflow
JCET-China (JT)

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

QTP Number	Description of Qualification Purpose	Date
161301	Qualify JCET Assembly Site for assembly of the 28Ld TSOP (8X13.4x1.2), Pb-Free (KEG6000, QMI509, 0.8 mil, NiPdAu)	Jun 2016

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	ZT28F
Package Outline, Type, or Name:	28L TSOP I
Mold Compound Name/Manufacturer:	KEG6000 / Kyocera
Mold Compound Flammability Rating:	V-O at 0.8 - 3.2mm
Mold Compound Alpha Emission Rate:	N/A
Oxygen Rating Index: >28%	N/A
Lead Frame Designation:	FMP
Lead Frame Material:	Copper
Substrate Material:	N/A
Lead Finish, Composition / Thickness:	NiPdAu
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Laser Groove + Saw Through
Die Attach Supplier:	Henkel
Die Attach Material:	QMI509
Bond Diagram Designation	001-90712
Wire Bond Method:	Thermosonic
Wire Material/Size:	0.8mil / Au
Thermal Resistance Theta JA °C/W:	108 C/W
Package Cross Section Yes/No:	No
Assembly Process Flow:	001-64159M
Name/Location of Assembly (prime) facility:	JT-JCET China
MSL LEVEL	3
REFLOW PROFILE	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	KYEC, Taiwan

Note: Please contact a Cypress Representative for other package 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 3 192 Hrs, 30°C /60%RH+Reflow, 260°C +0, -5°C	P
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs, 30°C /60%RH+Reflow, 260°C +0, -5°C	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

Reliability Test Data

QTP #: 161301

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC, MSL3							
FM28V020-T28G	4541571	611610941	JT-CHINA	COMP	15	0	
FM28V020-T28G	4541572	611610942	JT-CHINA	COMP	15	0	
FM28V020-T28G	4541572	611610944	JT-CHINA	COMP	15	0	
STRESS: CONSTRUCTIONAL ANALYIS							
FM28V020-T28G	4541571	611610941	JT-CHINA	COMP	5	0	
FM28V020-T28G	4541572	611610942	JT-CHINA	COMP	5	0	
FM28V020-T28G	4541572	611610944	JT-CHINA	COMP	5	0	
STRESS: DYE PENETRATION TEST							
FM28V020-T28G	4541571	611610941	JT-CHINA	COMP	15	0	
FM28V020-T28G	4541572	611610942	JT-CHINA	COMP	15	0	
FM28V020-T28G	4541572	611610944	JT-CHINA	COMP	15	0	
STRESS: TC COND. C –65C TO 150C, PRE COND 192 HR 30C/60%RH, MSL3							
FM28V020-T28G	4541571	611610941	JT-CHINA	500	80	0	
FM28V020-T28G	4541572	611610942	JT-CHINA	500	80	0	
FM28V020-T28G	4541572	611610944	JT-CHINA	500	80	0	

Document History Page

Document Title: QTP 161301: 28L TSOP, NiPdAu, Au Wire, MSL3, 260C Reflow JCET- China (JT)
Document Number: 002-13957

Rev.	ECN No.	Orig. of Change	Description of Change
**	5311743	BECK	Initial spec release