

PCN Number:	20130708002	PCN Date:	07/11/2013
Title:	Qualification of TI Clark as an Additional Assembly, Bump, and Test site for Select Devices on WCSP and QFN Package		
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037
Dept:	Quality Services		
Proposed 1st Ship Date:	10/11/2013	Estimated Sample Availability:	Date Provided at Sample request
Change Type:			
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process
<input type="checkbox"/>	Design	<input type="checkbox"/>	Assembly Materials
<input type="checkbox"/>		<input type="checkbox"/>	Electrical Specification
<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Mechanical Specification
<input checked="" type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Packing/Shipping/Labeling
<input type="checkbox"/>		<input type="checkbox"/>	Test Process
<input checked="" type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process
PCN Details			
Description of Change:			
Qualification of JCAP as an Additional Assembly, Bump, and Test site for Select Devices on WCSP Package. Assembly differences are shown in the following table:			
Group 1: WCSP current assembly – JCAP-AT			
	JCAP-AT	Clark-AT	
Bump Site	JCAP-FAB	Clark-BP	
Solder Ball	MA22008110	4207848	
Group 2: QFN current assembly – TIM. No Assembly material differences			
	TIM	TI Clark	
Mold compound	4208625	4208625	
Wire	0.96mil Au	0.96 mil Au	
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.			
Reason for Change:			
Continuity of supply.			
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):			
None			

Changes to product identification resulting from this PCN:

Assembly Site		
JCAP-AT	Assembly Site Origin (22L)	ASO: JCP
TIM	Assembly Site Origin (22L)	ASO: MLA
Clark-AT	Assembly Site Origin (22L)	ASO: QAB

Sample product shipping label to show code location only - not actual product label



Assembly Site Code: Clark-AT=I, JCAP-AT=P

Product Affected:

Group 1 Device: WCSP package

TPS22913BYZVR	TPS22913BYZVT
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Group 2 : QFN package

BQ27410DRZR-G1	BQ27510DRZR-G3
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Qualification Data – Group 1 Device

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle : TPS22913BYZV (MSL1-260C)

Package Construction Details

Assembly & Bump Site:	CLARK	Bump Composition:	SnAgCu
# Pins-Designator, Family:	4-YZV, WCSP/DSBGA	Bump Diameter:	0.25mm
Qualification:	<input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size/Fail	
Electrical Characterization	-	30/0	
Manufacturability (Assembly)	(per mfg site specifications)	Pass	

Reference Qualification

Qual Vehicle : TXS0104EYZTR (MSL1-260C)				
Package Construction Details				
Assembly & Bump Site:	CLARK	Bump Composition:	SnAgCu	
# Pins-Designator, Family:	12-YZT, WCSP/DSBGA	Bump Diameter:	0.25mm	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot 1	Lot 2	Lot 3
**Steady-state Life Test	150C (300 Hrs)	77/0	77/0	77/0
**High Temp. Storage Bake	150C (1000hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Temperature Cycle	-55C/+125C (1000 Cyc)	77/0	77/0	77/0
Manufacturability (Assembly)	(per mfg site specifications)	Pass	Pass	Pass
** Note: Moisture Preconditioning (MSL1-260C)				

Qualification Data – Group 2 Device

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle : SN8034DRZ (MSL2-260C)				
Package Construction Details				
Assembly Site:	CLARK	Mold Compound:	4208625	
# Pins-Designator, Family:	12-DRZ, QFN	Mount Compound:	4207768	
Lead Finish, Base :	NiPdAu, Cu	Bond Wire:	0.96mil Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot 1	Lot 2	Lot 3
**Autoclave	121C (96 Hrs)	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**Temperature Cycle	-65C/+150C (500 Cyc)	82/0	82/0	82/0
X-Ray	(top side only)	5/0	5/0	5/0
Manufacturability (Assembly)	(per mfg site specifications)	Pass	Pass	Pass
Moisture Sensitivity	MSL2-260C	12/0	12/0	12/0
** Moisture Preconditioning (MSL2-260C)				

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
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