



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20120806001
Qualification of TI Clark for Assembly and Test Site Using LBC7 Process
For Select Devices on QFN/SON Package
Change Notification / Sample Request

Date: 8/14/2012
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services
Phone: +1(214) 480-6037
Fax: +1(214) 480-6659

20120806001
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
BQ24316DSJT	null
TLV70036DSET	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20120806001			PCN Date:	8/14/2012
Title:	Qualification of TI Clark for Assembly and Test Site Using LBC7 Process For Select Devices on QFN/SON Package				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
*Proposed 1st Ship Date:	11/14/2012		Estimated Sample Availability:	Date provided at sample request.	
Change Type:					
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
<p>Addition of TI Clark for assembly of select devices in the LBC7 process. TI Clark is qualified for the Product Families that are being added.</p> <p>Affected devices are located in the Product Affected section. Table 1 below shows affected products in their applicable groups, by package type. The material differences are referenced in Table 2.</p>					
Table 1: Device Groupings					
Package Group	Package	Current Qualified Assembly Site			
VSON	DSJ	MLA			
WSON	DSE	HNT			
VQFN	RGF	MLA			
Table 2: Material Differences					
Sites		Package	Mount Compound		
Current	MLA	DSJ	4205846		
New Site	CLARK		4207768		
Current	HNT	DSE	400173		
New Site	CLARK		4212088		
Current	MLA	RGF	4205846		
New Site	CLARK		4207768		
<p>Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.</p>					
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 Codes	
Assembly Sites	Assembly Site Origin (22L)
Hana Thailand	HNT
TI Malaysia	MLA
TI Clark	QAB

Sample product shipping label (not actual product label)

 MADE IN: Malaysia 2DC: 20 MSL 2 /260C/1 YEAR SEAL DT MSL 1 /235C/UNLIM 03/29/04 OPT: ITEM: 39 LBL: 5A (L)T0:1750		(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CSO: SRE (21L) CCO: USA (22L) ASO: MLA (23L) ACO: MYS
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Topside Device Marking (for devices with assembly site codes in their topside marking)

Assembly Site	Code
HNT	H
TI Malaysia	K
TI Clark	I

Product Affected:

BQ24314DSJR	BQ24314DSJTG4	BQ24316DSJT	TLV70036DSER
BQ24314DSJRG4	BQ24316DSJR	BQ24316DSJTG4	TLV70036DSET
BQ24314DSJT	BQ24316DSJRG4		

Qualification Data: Approved 07/24/2012

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 : TPS53315RGFR (MSL 2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	40-RGF, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96/2.0 Mil Dia., Au/Cu

Qualification: Plan Test Results

Reliability Test	Conditions	Sample Size / Fail
Electrical Characterization	-	Pass
**Autoclave 121C	121C, 2 atm (96Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	82/0
Manufacturability Qual (MQ)		Pass
Moisture Sensitivity	L2-260C	12/0

Notes: ** - Preconditioning sequence: Level 2-260C.

**Enterprise Qualification for TI-Clark as 3x3-9x9mm 0.9mm thick QFN
assembly site: Approved 09/09/2009**

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 1 : MSC1202Y3RHHR (MSL 3-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	36 RHH, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	82/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
X-ray	(top side only)	5/0
Moisture Sensitivity	L3-260C	12/0

Notes: ** - Preconditioning sequence: Level 3-260C.

Qual Vehicle 2 : ONET4291VARGPR (MSL 3-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	20 RGP, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil. Dia, Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp Operating Life	140C (480 hours)	116/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	82/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Background Characterization		Pass
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
X-ray	(top side only)	5/0
Moisture Sensitivity	L3-260C	12/0

Notes: ** - Preconditioning sequence: Level 3-260C.

Qual Vehicle 3 : SH6966ACC0RGCRG4_AU_WIRE (MSL 3-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	64 RGC, QFN	Mount Compound:	4207768	
Leadframe (Finish, Base) :	NiPdAu, Cu	Bond Wire:	1.15 Mil Dia., Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
**High Temp Operating Life	125C (1000 Hrs)	141/0		
**High Temp. Storage Bake	170C (420 Hrs)	77/0		
**Biased HAST	130C/85%RH (96 Hrs)	77/0		
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0		
**T/C -65C/150C	-65C/+150C (500 Cyc)	81/0		
Visual / Mechanical		Pass		
Solderability	Steam age, 8 hours	22/0		
Physical Dimensions		5/0		
Bond Pull	76 ball bonds, min. 3 units	76/0		
Bond Shear	76 ball bonds, min. 3 units	76/0		
Die Shear	-	10/0		
Manufacturability Qual (MQ)		Pass		
**Thermal Shock	-65C/+150C (500 Cyc)	77/0		
Salt Atmosphere	24 Hrs	22/0		
X-ray	(top side only)	5/0		
Moisture Sensitivity	L3-260C	16/0		
Notes: ** - Preconditioning sequence: Level 3-260C.				
Qual Vehicle 4 : SH6966ACC0RGCRG4_CU_WIRE (MSL 3-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	64RGC, QFN	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.15Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp Operating Life	125C (1000 Hrs)	140/0	140/0	140/0
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical		Pass	Pass	Pass
Solderability	Steam age, 8 hours	22/0	22/0	22/0
Physical Dimensions		5/0	5/0	5/0
Bond Pull	76 ball bonds, min. 3 units	76/0	76/0	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0	76/0	76/0
Die Shear	-	10/0	10/0	10/0
Manufacturability Qual (MQ)		Pass	Pass	Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
X-ray	(top side only)	5/0	5/0	5/0
Moisture Sensitivity	L3-260C			
Notes: ** - Preconditioning sequence: Level 3-260C.				

Qual Vehicle 5 : SN65LVCP40RGZ (MSL 3-260C)**Package Construction Details**

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	48 RGZ, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp Operating Life	155C (240Hrs)	116/0
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
X-ray	(top side only)	5/0
Moisture Sensitivity	L3-260C	12/0

Notes: ** - Preconditioning sequence: Level 3-260C.

Qual Vehicle 6 : TPA5050RSA (MSL 2-260C)**Package Construction Details**

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	16 RSA, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp Operating Life	140C (480 hrs)	116/0
**Biased HAST	130C/85%RH (96 Hrs)	80/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	

Notes: ** - Preconditioning sequence: Level 2-260C.

Qual Vehicle 7 : TPS2231RGPR_AU_WIRE (MSL 2-260C)**Package Construction Details**

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	20 RGP, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	2.0 Mil Dia., Au

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size / Fail
**High Temp Operating Life	155C (240 Hrs)	77/0
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Solderability	Steam age, 8 hours	22/0
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0
Salt Atmosphere	24 Hrs	22/0
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	
Notes: ** - Preconditioning sequence: Level 2-260C.		
Qual Vehicle 8 : TPS2231RGPR_CU_WIRE (MSL 2-260C)		
Package Construction Details		
Assembly Site:	TI Clark	Mold Compound: 4208625
# Pins-Designator, Family:	20 RGP, QFN	Mount Compound: 4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire: 2.0 Mil Dia., Cu
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Pass / Fail
		Lot 1 Lot 2 Lot 3
**High Temp Operating Life	155C (240 Hrs)	77/0 77/0 77/0
**High Temp. Storage Bake	170C (420 Hrs)	77/0 77/0 77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0 77/0 77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0 77/0 77/0
Visual / Mechanical		Pass Pass Pass
Solderability	Steam age, 8 hours	22/0 22/0 22/0
Physical Dimensions		5/0 5/0 5/0
Bond Pull	76 ball bonds, min. 3 units	76/0 76/0 76/0
Bond Shear	76 ball bonds, min. 3 units	76/0 76/0 76/0
Die Shear	-	10/0 10/0 10/0
Manufacturability Qual (MQ)		Pass Pass Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0 77/0 77/0
Salt Atmosphere	24 Hrs	22/0 22/0 22/0
X-ray	(top side only)	5/0 5/0 5/0
Moisture Sensitivity	L2-260C	12/0 12/0 12/0
Notes: ** - Preconditioning sequence: Level 2-260C.		
Qual Vehicle 9 : TPS61020DRC_AU_WIRE (MSL 2-260C)		
Package Construction Details		
Assembly Site:	TI Clark	Mold Compound: 4208625
# Pins-Designator, Family:	10 DRC, QFN	Mount Compound: 4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire: 0.95 MIL Dia., Au

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	12/0

Notes: ** - Preconditioning sequence: Level 2-260C.

Qual Vehicle 10 : TPS61020DRC_CU_WIRE (MSL 2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	10 DRC, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.95 MIL Dia., Cu

Qualification: **Plan** **Test Results**

Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical		Pass	Pass	Pass
Physical Dimensions		5/0	5/0	5/0
Bond Pull	76 ball bonds, min. 3 units	76/0	76/0	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0	76/0	76/0
Die Shear	-	10/0	10/0	10/0
Manufacturability Qual (MQ)		Pass	Pass	Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0	77/0	77/0
X-ray	(top side only)	5/0	5/0	5/0
Moisture Sensitivity	L2-260C	12/0	12/0	12/0

Notes: ** - Preconditioning sequence: Level 2-260C.

Qual Vehicle 11 : TPS62402DRCR_AU_WIRE (MSL 2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	10DRC, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.3 MIL Dia., Au

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0
Salt Atmosphere	24 Hrs	22/0
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	12/0
Notes: **- Preconditioning sequence: Level 2-260C.		
Qual Vehicle 12 : TPS62402DRCR_CU_WIRE (MSL 2-260C)		
Package Construction Details		
Assembly Site:	TI Clark	Mold Compound: 4208625
# Pins-Designator, Family:	10DRC, QFN	Mount Compound: 4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire: 1.3 MIL Dia., Cu
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0
Salt Atmosphere	24 Hrs	22/0
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	12/0
Notes: **- Preconditioning sequence: Level 2-260C.		
Qual Vehicle 13 : TPS650240RHBR_AU_WIRE (MSL 2-260C)		
Package Construction Details		
Assembly Site:	TI Clark	Mold Compound: 4208625
# Pins-Designator, Family:	32 RHB, QFN	Mount Compound: 4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire: 1.3 MIL Dia., Au

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	12/0

Notes: **- Preconditioning sequence: Level 2-260C.

Qual Vehicle 14 : TPS650240RHBR_CU_WIRE (MSL 2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	32 RHB, QFN	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.3 MIL Dia., Cu

Qualification: **Plan** **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Visual / Mechanical		Pass
Physical Dimensions		5/0
Bond Pull	76 ball bonds, min. 3 units	76/0
Bond Shear	76 ball bonds, min. 3 units	76/0
Die Shear	-	10/0
Manufacturability Qual (MQ)		Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0
X-ray	(top side only)	5/0
Moisture Sensitivity	L2-260C	12/0

Notes: **- Preconditioning sequence: Level 2-260C.

Enterprise qualification of smaller than 3mm x 3mm, 0.8mm and 0.9 mm thick QFNs at TI Clark: Approved 09/12/2011

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 1 : BQ27500DRZ (MSL 2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	12-DRZ, VSON	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
Manufacturability		Pass		
Moisture Sensitivity	L2-260C	12/0		
Qual Vehicle 2 : BQ25046DQC (MSL 2-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	10-DQC, WSON	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.3 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
Assembly MQ		Pass		
Moisture Sensitivity	L2-260C	15/0		
Qual Vehicle 3 : THS9000DRW (MSL 2-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	6-DRW, VSON	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
Assembly MQ		Pass		
Moisture Sensitivity	L2-260C	15/0		
Qual Vehicle 4 : TLV70028DSE_AU_WIRE (MSL 1-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	6-DSE, WSON	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical		Pass	Pass	Pass
Solderability (Non Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Solderability (Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Physical Dimensions		5/0	5/0	5/0
Die Shear	-	10/0	10/0	10/0
Manufacturability Qual (MQ)		Pass	Pass	Pass
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
X-ray	(top side only)	5/0	5/0	5/0
Moisture Sensitivity	L1-260C	12/0	12/0	12/0
Notes: ** - Preconditioning sequence: Level 1-260C.				

Qual Vehicle 5 : TLV70028DSE_CU_WIRE (MSL 1-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	6-DSE, WSON	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical		Pass	Pass	Pass
Solderability (Non Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Solderability (Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Physical Dimensions		5/0	5/0	5/0
Die Shear	-	10/0	10/0	10/0
Manufacturability Qual (MQ)		Pass	Pass	Pass
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
X-ray	(top side only)	5/0	5/0	5/0
Moisture Sensitivity	L1-260C	12/0	12/0	12/0
Notes: ** - Preconditioning sequence: Level 1-260C.				
Qual Vehicle 6 : TPS61161DRV (MSL 2-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	6-DRV, WSON	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.30 Mil Dia., Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical		Pass	Pass	Pass
Solderability (Non Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Solderability (Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Physical Dimensions		5/0	5/0	5/0
Die Shear	-	10/0	10/0	10/0
Manufacturability Qual (MQ)		Pass	Pass	Pass
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
X-ray	(top side only)	5/0	5/0	5/0
Moisture Sensitivity	L2-260C	12/0	12/0	12/0
Notes: ** - Preconditioning sequence: Level 2-260C.				
Qual Vehicle 7 : TPS62750DSK_CU_WIRE (MSL 1-260C)				
Package Construction Details				
Assembly Site:	TI Clark	Mold Compound:	4208625	
# Pins-Designator, Family:	10-DSK, WSON	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.30 Mil Dia., Cu	

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical		Pass	Pass	Pass
Solderability (Non Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Solderability (Pb Free)	Steam age, 8 hours	22/0	22/0	22/0
Physical Dimensions		5/0	5/0	5/0
Bond Strength	76 ball bonds, min. 3 units	76/0	76/0	76/0
Die Shear	-	10/0	10/0	10/0
Manufacturability Qual (MQ)		Pass	Pass	Pass
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
X-ray	(top side only)	5/0	5/0	5/0
Moisture Sensitivity	L1-260C	12/0	12/0	12/0

Notes: ** - Preconditioning sequence: Level 1-260C.

Qual Vehicle 8 : TPS62750DSK_AU_WIRE (MSL 1-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	10-DSK, WSON	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.30 Mil Dia., Au

Qualification: **Plan** **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp. Storage Bake	170C (420 Hrs)	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Manufacturability Qual (MQ)		Pass
Moisture Sensitivity	L1-260C	12/0

Notes: ** - Preconditioning sequence: Level 1-260C.

Qual Vehicle 9 : TPS75105DSK(SUM) (MSL 1-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	10-DSK, WSON	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.30 Mil Dia., Au

Qualification: **Plan** **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0
Manufacturability Qual (MQ)		Pass
Moisture Sensitivity	L1-260C	12/0

Notes: ** - Preconditioning sequence: Level 1-260C.

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
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com