TEXAS INSTRUMENTS 12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20121022000
Qualification of TI Clark as Additional Assembly/Test Site for Select Devices on the WSON Package
Change Notification / Sample Request

Date: 11/2/2012
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

20121022000
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
TPS3808G01DRVT	null
TPS3808G01DRVTG4	null
TPS715A33DRVR	null
TPS715A33DRVT	null
TPS72012DRVT	null
TPS728330185DRVT	null
TPS73533DRVT	null
TPS73701DRVT	null
TPS78230DRVT	null
TPS79901DRVR	null
TPS79901DRVT	null
TPS79901DRVTG4	null
TPS79918DRVT	null
TPS799195DRVR	null

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

PCN Number:	20121022000	**PCN Date:**	11/02/2012

Title:	Qualification of TI Clark as Additional Assembly/Test Site for Select Devices on the SON Package

Customer Contact:	PCN Manager	**Phone:**	+1(214)480-6037	**Dept:**	Quality Services

Proposed 1st Ship Date:	02/02/2013	**Estimated Sample Availability:**	Date Provided at Sample request

Change Type:

☒	Assembly Site	☐	Assembly Process	☒	Assembly Materials
☐	Design	☐	Electrical Specification	☐	Mechanical Specification
☒	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process

PCN Details

Description of Change:

Qualification of TI Clark as Additional Assembly/Test Site for Select Devices on the SON Package. Assembly differences are shown in the following table:

	NSE	TI Clark
Wire	1.0 , 1.30 Mil Au	0.96, 1.30 Mil Cu

The device in the product affected list is being qualified by similarity (see Qualification Data).

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.

Reason for Change:

Continuity of supply.

1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties
2) Maximize flexibility within our Assembly/Test production sites.
3) Cu is easier to obtain and stock

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

Assembly Site		
NSE Thailand	Assembly Site Origin (22L)	ASO: NSE
TI Clark Philippines	Assembly Site Origin (22L)	ASO: QAB

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 2Q:

MSL 2 /260C/1 YEAR	SEAL DT
MSL 1 /235C/UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L)T0:1750
G4

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T)LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO:SHE (21L) CCO:USA
(22L) ASO:MLA (23L) ACO:MYS

ASSEMBLY SITE CODES: NSE =J, TI-Clark = I

Product Affected:

HPA00489DRVR	TPS715A33DRVR	TPS73701DRVR	TPS79918DRVR
HPA01044DRVR	TPS715A33DRVRG4	TPS73701DRVT	TPS79918DRVRG4
TPS3808G01DRVR	TPS715A33DRVT	TPS78218DRVR	TPS79918DRVT
TPS3808G01DRVRG4	TPS715A33DRVTG4	TPS78218DRVT	TPS79918DRVTG4
TPS3808G01DRVT	TPS72012DRVR	TPS78230DRVR	TPS799195DRVR
TPS3808G01DRVTG4	TPS72012DRVT	TPS78230DRVT	TPS799195DRVRG4
TPS3808G25DRVR	TPS728330185DRVR	TPS79901DRVR	TPS799195DRVT
TPS3808G25DRVRG4	TPS728330185DRVT	TPS79901DRVRG4	TPS799195DRVTG4
TPS3808G25DRVT	TPS73533DRVR	TPS79901DRVT	
TPS3808G25DRVTG4	TPS73533DRVT	TPS79901DRVTG4	

Qualification Plan

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.

Qualification Schedule:	**Start:**	Nov 2012	**End:**	Dec 2012

Qual Vehicle 1: TPS3808G25DRV (MSL2-260C)

Package Construction Details

Assembly Site:	Clark-AT	Mold Compound:	4208625
# Pins-Designator, Family:	6-DRV, WSON	Mount Compound:	4207768
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia. Cu

Qualification: ☒ **Plan** ☐ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)	-	1/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0
ESD CDM	200V, 500V	3/0
ESD HBM	500V, 1000V	3/0
Latch-up, High Temp	100 mA and 1.5 x Vmax @ max Tj	6/0

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

Qual Vehicle 2: TPS79901DRV (MSL2-260C)

Package Construction Details

Assembly Site:	Clark-AT	Mold Compound:	4208625
# Pins-Designator, Family:	6-DRV, WSON	Mount Compound:	4207768
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	1.3 Mil Dia. Cu

Qualification: ☒ **Plan** ☐ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
Electrical Characterization	-	10/0
Manufacturability Qualification (MQ)	-	1/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0
**- Preconditioning sequence: Level 2-260C.		

Reference Qualification: SON Package at TI-Clark

Qualification Data: Approved 09/19/2012

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 1 : TPS61165DRV (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	Bond Wire:	0.96 Mil Dia., Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)	-	Pass
Moisture Sensitivity	L2-260C +5/-0C	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	Bond Wire:	1.3 Mil Dia., Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)		Pass
Moisture Sensitivity	L2-260C +5/-0C	15/0

Qual Vehicle 3 : 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	Bond Wire:	0.96 Mil Dia., Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)		Pass
Moisture Sensitivity	L2-260C +5/-0C	15/0

Qual Vehicle 4 : 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	Bond Wire:	0.96 Mil Dia., Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)		Pass
Moisture Sensitivity	L2-260C +5/-0C	15/0

Qual Vehicle 5 : TLV70028DSE (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	Bond Wire:	0.80 Mil Dia., Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
Surface Mount Solderability	Pb Free	22/0	22/0	22/0
Surface Mount Solderability	Non-Pb Free	22/0	22/0	22/0
Manufacturability Qualification (MQ)	-	Pass	Pass	Pass
Moisture Sensitivity	L1-260C +5/-0C	12/0	12/0	12/0

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

Qual Vehicle 6 : 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	Bond Wire:	0.80 Mil Dia., Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
Surface Mount Solderability	Pb Free	22/0	22/0	22/0
Surface Mount Solderability	Non-Pb Free	22/0	22/0	22/0
Manufacturability Qualification (MQ)	-	Pass	Pass	Pass
Moisture Sensitivity	L1-260C +5/-0C	12/0	12/0	12/0

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

Qual Vehicle 7 : 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	Bond Wire:	1.31 Mil Dia., Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
Surface Mount Solderability	Pb Free	22/0	22/0	22/0
Surface Mount Solderability	Non-Pb Free	22/0	22/0	22/0
Manufacturability Qualification (MQ)	-	Pass	Pass	Pass
Moisture Sensitivity	L2-260C +5/-0C	12/0	12/0	12/0

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

Qual Vehicle 8 : TPS62750DSK (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	Bond Wire:	1.31 Mil Dia., Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
Surface Mount Solderability	Pb Free	22/0	22/0	22/0
Surface Mount Solderability	Non-Pb Free	22/0	22/0	22/0
Manufacturability Qualification (MQ)	-	Pass	Pass	Pass
Moisture Sensitivity	L1-260C +5/-0C	12/0	12/0	12/0

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

Qual Vehicle 9 : TPS62750DSK (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	Bond Wire:	1.31 Mil Dia., Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail
**High Temp Storage Bake	170C (420 Hrs)	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0
Manufacturability Qualification (MQ)	-	Pass
Moisture Sensitivity	L1-260C +5/-0C	12/0

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

Qual Vehicle 10: TPS799L57YZY (MSL1-260C)

Package Construction Details

Assembly Site:	Clark-AT	Bump composition:	SnAgCu
# Pins-Designator, Family:	5-YZY, WCSP	Bump diam:	0.23mm

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail	
		Lot 1	Lot 2
Manufacturability Qualification (MQ)	-	1/0	-
Electrical Characterization	Over Temp	30/0	-
**High Temp Storage Bake	170C (420 Hrs)	80/0	80/0
**Biased HAST	130C/85%RH (96 Hrs)	80/0	-
**Unbiased HAST	130C/85%RH (96 Hrs)	80/0	80/0
ESD CDM	200V, 500V	3/0	
ESD HBM	500V, 1000V, 1500V, 2000V	3/0	
High Temp Op Life Test	150C/300 Hrs	80/0	79/0
**Temp Cycle, -55C/125C	1000 Cycles	80/0	80/0
Latch-up, High Temp	100 mA and 1.5 x Vmax @ max Tj	6/0	

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

Qual Vehicle 11 : TPS62750DSK (MSL 2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	6-DRV, WSON	Mount Compound:	4205821
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	1.31 Mil Dia., Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
Surface Mount Solderability	Pb Free	22/0	22/0	22/0
Surface Mount Solderability	Non-Pb Free	22/0	22/0	22/0
Manufacturability Qualification (MQ)	-	Pass	Pass	Pass
Moisture Sensitivity	L2-260C +5/-0C	12/0	12/0	12/0

**- 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