

PCN Number:	20140219003	PCN Date:	03/03/2014
Title:	Qualification of TI Clark, Carsem Suzhou and HNT as Additional Assembly/Test Site for Select Devices		
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037
Dept:	Quality Services		
Proposed 1st Ship Date:	06/03/2014	Estimated Sample Availability:	Date Provided at Sample request
Change Type:			
<input checked="" type="checkbox"/>	Assembly Site		
<input checked="" type="checkbox"/>	Test Site		
PCN Details			
Description of Change:			
Qualification of TI Clark, Carsem Suzhou and HNT as Additional Assembly/Test Site for Select Devices. No material differences between Assembly/Test sites.			
	From	To	
Group 1 Device	NSE	TI - Clark	
Group 2 Device	TI - Clark	Carsem Suzhou	
Group 3 Device	NSE	HNT	
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:			
Group 1 device : NSE to TI Clark			
Assembly Site			
NSE Thailand	Assembly Site Origin (22L)	ASO: NSE	
TI Clark Philippines	Assembly Site Origin (22L)	ASO: QAB	
ASSEMBLY SITE CODES: NSE =J, TI-Clark =I			
Group 2 device : TI Clark to Carsem Suzhou			
Assembly Site			
TI Clark Philippines	Assembly Site Origin (22L)	ASO: QAB	
Carsem Suzhou	Assembly Site Origin (22L)	ASO: CSZ	
ASSEMBLY SITE CODES: TI-Clark =I, Carsem Suzhou = F			
Group 3 device : NS2 to HNT			
Assembly Site			
UTAC Thailand	Assembly Site Origin (22L)	ASO: NS2	
Hana Thailand	Assembly Site Origin (22L)	ASO: HNT	
ASSEMBLY SITE CODES: UTAC =B, HANA =H			

Sample product shipping label (not actual product label)


TEXAS INSTRUMENTS
 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: SHE (21L) CCO:USA
 (22L) ASO: MLA (23L) ACO: MYS

Group 1 Product Affected:

TLV62080DSGR	TPS62080DSGR	TPS62081DSGR	TPS62082DSGR
TLV62080DSGT	TPS62080DSGT	TPS62081DSGT	TPS62082DSGT

Group 2 Product Affected:

TPS22967DSGR	TPS22967DSGT
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Group 3 Product Affected:

BQ2022ADBZR	HPA01220DBZR	SN239089ADBZRG4
BQ2022ADBZRG4	HPAPS004ADBZR	SN239089DBZR
HPA00649DBZR	SN239089ADBZR	SN239089DBZRG4

Group 1 Qualification Data

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: TPS62750DSK (MSL1-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	10-DSK, 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		
		Lot# 1	Lot# 2	Lot# 3
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temperature Cycle	-65/150 (500 cycles)	77/0	77/0	76/0
**High Temp. Storage Bake	170C (420 Hrs)	129/0	128/0	129/0
Surface Mount Solderability	8 Hrs Steam Age-Pb Free	22/0	22/0	22/0
Salt Atmosphere	-	22/0	22/0	22/0
Manufacturability (MQ)		Pass	Pass	Pass
Moisture Sensitivity	L1-260C	12/0	12/0	12/0

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

Qual Vehicle 2: TLV70028DSE (MSL1-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	6-DSE, WSON	Mount Compound:	4207768
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	0.8 Mil Dia. Cu

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, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temperature Cycle	-65/150 (500 cycles)	77/0	77/0	76/0
**High Temp. Storage Bake	170C (420 Hrs)	110/0	110/0	110/0
Surface Mount Solderability	8 Hrs Steam Age-Pb Free	22/0	22/0	22/0
Salt Atmosphere	-	22/0	22/0	22/0
Manufacturability (MQ)		Pass	Pass	Pass
Moisture Sensitivity	L1-260C	12/0	12/0	12/0

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

Qual Vehicle 3: TPS51980ARTV (MSL2-260C)

Package Construction Details

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	32-RTV, WQFN	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		
		Lot# 1	Lot# 2	Lot# 3
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	76/0
**Unbiased HAST	130C/85%RH/33.3 psia (96 Hrs)	77/0	77/0	-

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

Group 2 Qualification Data

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: TPS22965DSGR (MSL2-260C)

Package Construction Details

Assembly Site:	Carsem Suzhou	Mold Compound:	441086
# Pins-Designator, Family:	8-DSG, SON	Mount Compound:	435143
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	2.0 Mil Dia. Cu

Qualification: Plan Test Results

Reliability Test	Conditions	Sample Size / Fail
Electrical Characterization	-	Pass
X-RAY	(top side only)	5/0
Manufacturability (MQ)	(Assembly)	Pass
Moisture Sensitivity	L2-260C	13/0

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

Qual Vehicle 2: TPS51123RGER (MSL2-260C)

Package Construction Details

Assembly Site:	Carsem Suzhou	Mold Compound:	441086
# Pins-Designator, Family:	24-RGE, VQFN	Mount Compound:	435143
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia. Cu

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	125C (1000 Hrs)	37/0	39/0	39/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temperature Cycle	-65/150 (500 cycles)	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420 Hrs)	110/0	110/0	110/0
Surface Mount Solderability	Pb Free/Solder	22/0	22/0	22/0
Salt Atmosphere	-	22/0	22/0	22/0
Manufacturability (MQ)		Pass	Pass	Pass
Moisture Sensitivity	L2-260C	12/0	12/0	12/0
**- Preconditioning sequence: Level 2-260C.				

Group 3 Qualification Data

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: TLV431AIDBZ6 (MSL1-260C)

Package Construction Details

Assembly Site:	HNT	Mold Compound:	450179
# Pins-Designator, Family:	3-DBZ, SOT-23	Mount Compound:	400154
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia. Au

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	150C (300 Hrs)	116/0	116/0	116/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Temperature Cycle	-65/150 (1000 cycles)	77/0	77/0	76/0
**Thermal Shock	-65/150 (1000 cycles)	76/0	77/0	76/0
**High Temp. Storage Bake	150C (1000 Hrs)	45/0	45/0	45/0
Solderability	8 Hrs Steam Age	22/0	22/0	22/0
Flammability	(UL 94V-0)	5/0	5/0	5/0
Flammability	(UL-1694)	5/0	5/0	5/0
Flammability	(IEC 695-2-2)	5/0	5/0	5/0
X-RAY	(top side only)	5/0	5/0	5/0
Salt Atmosphere	-	22/0	22/0	22/0
Manufacturability (MQ)		Pass	Pass	Pass
Moisture Sensitivity	L1-260C	4/0	4/0	4/0
**- 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