










PCN Number:	20140915000		PCN Date:	09/23/2014																
Title:	Qualification of TI Chengdu as Additional Assembly and Test Site for Select Devices on X2SON and WQFN Package																			
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services															
Proposed 1st Ship Date:	12/23/2014		Estimated Sample Availability:	Date provided at sample request																
Change Type:																				
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site															
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material															
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process															
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site															
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials															
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process															
PCN Details																				
Description of Change:																				
Texas Instruments Incorporated is announcing the qualification of TI Chengdu (CDAT) as Additional Assembly and Test Site for select devices listed in the "Product Affected" Section. Current assembly sites are as follows and material differences as follows.																				
<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Existing Sites</th> <th style="width: 35%;">Additional Site</th> </tr> </thead> <tbody> <tr> <td>Assembly/Test Sites</td> <td>TI-CLARK, CARZ, NSE</td> <td>CDAT</td> </tr> </tbody> </table>							Existing Sites	Additional Site	Assembly/Test Sites	TI-CLARK, CARZ, NSE	CDAT									
	Existing Sites	Additional Site																		
Assembly/Test Sites	TI-CLARK, CARZ, NSE	CDAT																		
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:																				
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TI Chengdu (CDAT)	Assembly Site Origin (22L)	ASO: CDA																		
ASSEMBLY SITE CODES: TI-CLARK = I , CARZ = F , NSE = J, CDAT = 8																				
Sample product shipping label (not actual product label)																				
<table style="width: 100%;"> <tr> <td style="width: 30%; vertical-align: top;">  TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q: <table border="1" style="width: 100%;"> <tr> <td>MSL '2 /260C/1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 /235C/UNLIM</td> <td>03/29/04</td> </tr> </table> OPT: ITEM: LBL: 5A (L)T0:1750 </td> <td style="width: 20%; text-align: center; vertical-align: middle;">  </td> <td style="width: 20%; text-align: center; vertical-align: middle;">  </td> <td style="width: 30%; vertical-align: top;"> (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 </td> </tr> </table>						 TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q: <table border="1" style="width: 100%;"> <tr> <td>MSL '2 /260C/1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 /235C/UNLIM</td> <td>03/29/04</td> </tr> </table> OPT: ITEM: LBL: 5A (L)T0:1750	MSL '2 /260C/1 YEAR	SEAL DT	MSL 1 /235C/UNLIM	03/29/04			(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							
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MSL '2 /260C/1 YEAR	SEAL DT																			
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Product Affected: Group 1 Devices

BQ294502DRVR	BQ294592DRVT	TPS51225RUKR	TPS61158DRVR
BQ294502DRVT	BQ294602DRVR	TPS51225RUKT	TPS62061DSGR
BQ294504DRVR	BQ294602DRVT	TPS51275BRUKR	TPS62061DSGT
BQ294504DRVT	BQ294604DRVR	TPS51275BRUKT	TPS62063DSGR
BQ294515DRVT	BQ294604DRVT	TPS51275CRUKR	TPS62063DSGT
BQ294524DRVR	SN51285ARUKR	TPS51275CRUKT	TPS62065DSGR
BQ294524DRVT	TPS22967DSGR	TPS51275RUKR	TPS62065DSGT
BQ294532DRVR	TPS22967DSGT	TPS51275RUKT	TPS62080DSGR
BQ294532DRVT	TPS51225BRUKR	TPS51285ARUKR	TPS62080DSGT
BQ294582DRVR	TPS51225BRUKT	TPS51285ARUKT	TPS62082DSGR
BQ294582DRVT	TPS51225CRUKR	TPS51285BRUKR	TPS62082DSGT
BQ294592DRVR	TPS51225CRUKT	TPS51285BRUKT	

Product Affected: Group 2 Devices

TLV70712PDQNT	TLV707285PDQNT	TLV71718PDQNT	TPS3839G33DQNT
TLV70718PDQNT	TLV70732DQNT	TLV71727PDQNT	TPS3839K33DQNT
TLV70719PDQNT	TLV70736PDQNT	TLV71729PDQNT	TPS3839K50DQNT
TLV70725PDQNT	TLV71320DQNT	TLV71733PDQNT	TPS3839L30DQNT
TLV707285DQNT	TLV717185PDQNT	TPS3839G18DQNT	

Qualification Plan – Group 1 Device

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

Qualification Schedule: **Start:** Sept 2014 **End:** Dec 2014

Qual Vehicle # 1: BQ294504DRVR (MSL2-260C)**Package Construction Details**

Assembly Site:	TI CHENGDU	Mold Compound:	4208625
# Pins-Designator, Family:	6-DRV, WQFN	Mount Compound:	4207768
Lead frame (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
Electrical Characterization	-	30/0	30/0	30/0
**High Temp. Storage Bake	170C (420hrs)	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
Manufacturability	(per mfg. Site specification)	1/0	1/0	1/0
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	12/0	12/0

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

Qual Vehicle # 2: TPS51285BRUKR (MSL2-260C)				
Package Construction Details				
Assembly Site:	TI CHENGDU	Mold Compound:	4208625	
# Pins-Designator, Family:	20-RUK, WQFN	Mount Compound:	4207768	
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input checked="" type="checkbox"/> Plan <input type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Characterization	-	30/0	30/0	30/0
**High Temp. Storage Bake	170C (420hrs)	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
Solderability	Pb-free	22/0	22/0	22/0
Manufacturability	(per mfg. Site specification)	1/0	1/0	1/0
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	12/0	12/0
Notes **- Preconditioning sequence: Level 2-260C.				
Qual Vehicle # 3: TPS61158DRVR (MSL2-260C)				
Package Construction Details				
Assembly Site:	TI CHENGDU	Mold Compound:	4208625	
# Pins-Designator, Family:	6-DRV, WQFN	Mount Compound:	4207768	
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au	
Qualification: <input checked="" type="checkbox"/> Plan <input type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Characterization	-	30/0	30/0	30/0
**High Temp. Storage Bake	170C (420hrs)	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
Manufacturability	(per mfg. Site specification)	1/0	1/0	1/0
Notes **- Preconditioning sequence: Level 2-260C.				
Qual Vehicle # 4: TPS62065DSGR (MSL2-260C)				
Package Construction Details				
Assembly Site:	TI CHENGDU	Mold Compound:	4208625	
# Pins-Designator, Family:	8-DSG, WQFN	Mount Compound:	4207768	
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.30 Mil Dia., Cu	
Qualification: <input checked="" type="checkbox"/> Plan <input type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Characterization	-	30/0	30/0	30/0
**High Temp. Storage Bake	170C (420hrs)	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
Manufacturability	(per mfg. Site specification)	1/0	1/0	1/0
Notes **- Preconditioning sequence: Level 2-260C.				

Qualification Data – Group 2 Device

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

Qual Vehicle : TLV70728PDQNR (MSL1-260C)

Package Construction Details

Assembly Site:	TI CHENGDU	Mold Compound:	4210087
# Pins-Designator, Family:	4-DQN, X2SON	Mount Compound:	4221460
Lead frame (Finish, Base):	NiPdAu/NiPdAuAg, Cu	Bond Wire:	0.80 Mil Dia., Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Characterization	-	Pass	Pass	Pass
**Biased HAST	130C/85%RH (96Hrs)	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	75/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
ESD-HBM	1000V	3/0	3/0	3/0
ESD-CDM	250V	3/0	3/0	3/0
Solderability	Pb-free	22/0	22/0	22/0
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 1 @ 260C peak +5/-0C)	11/0	12/0	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