PCN Number:	20140915000A	**PCN Date:**	05/08/2015
Title:	Qualification of TI Chengdu as Additional Assembly and Test Site for Select Devices on X2SON and WQFN Package		
Customer Contact:	PCN Manager	**Dept:**	Quality Services

Change Type:

☒	Assembly Site	☐	Design	☐	Wafer Bump Site
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☐	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☒	Test Site	☐	Wafer Fab Site
☒	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

Revision A is to announce the retraction of select devices in Group 1 of the Product Affected section. These devices will continue to be manufactured as prior and will not be subjected to the change described in this notification. Affected devices are identified with a **~~strikethrough~~** and are highlighted in yellow in the Product Affected Section.

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.

	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:

Assembly Site		
TI-CLARK	Assembly Site Origin (22L)	ASO: QAB
CARZ	Assembly Site Origin (22L)	ASO: CSZ
NSE	Assembly Site Origin (22L)	ASO: NSE
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)

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: ☒ **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
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: ☒ **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
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: ☒ **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
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