PCN Number:	20151211001	**PCN Date:**	12/14/2015
Title:	Quality TI Chengdu (CDAT) as an additional Assembly & Test site for the list of devices shown below		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	3/14/2016	**Estimated Sample Availability:**	Provided upon 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
		☐	Part number change		

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of TI Chengdu (CDAT) as an additional Assembly & Test site for the list of devices shown below. There are no device construction differences between the 2 sites.

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

Reason for Change:

Continuity of Supply

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

None

Anticipated impact on Material Declaration

☒	No Impact to the Material Declaration	☐	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI ECO website.

Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (21L)	Assembly City
TI Clark	QAB	PHL	Angeles City
JCET	JCE	CHN	Jiangyin
TI Chengdu	**CDA**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label)

Topside Device marking:
Assembly site code for QAB= I
Assembly site code for JCE= F
Assembly site code for CDA = 8

Product Affected

TS3A227ERVAR	TPD4E110DPWR	TPD4E6B06DPWR

TEXAS INSTRUMENTS

TI Information
Selective Disclosure

Qualification Report

TS3A227ERVAR - 2nd Source A-T site (CDAT)
Approve Date 19-Oct-2015

Product Attributes

Attributes	Qual Device: TS3A227ERVAR	QBS Product Reference: TS3A227ERVAR	QBS Product Reference: TS3A227ERVAR	QBS Process Reference: TPS2543QRTE	QBS Package Reference: TPS53641RSBR
Assembly Site	CHENGDU A/T	CLARK AT	CLARK AT (UV	CLARK-AT	CHENGDU A/T
Package Family	VQFN	QFN	QFN	TQFN	WQFN
Flammability Rating	-	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	RFAB
Wafer Process	LBC7	LBC7	LBC7	LBC7	LBC7

- QBS: Qual By Similarity
- Qual Device TS3A227ERVAR is qualified at 2

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: TS3A227ERVAR	QBS Product Reference: TS3A227ERVAR	QBS Product Reference: TS3A227ERVAR	QBS Process Reference: TPS2543QRTE	QBS Package Reference: TPS53641RSBR
AC	Autoclave 121C	96 Hours	1/77/0	1/77/0	-	3/231/0	3/230/0
ED	Electrical Distributions (Cpk>1.67)	Room, hot, and cold test	-	-	-	3/90/0	-
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass	Pass	-	-
ELFR	Early Life Failure Rate, 150C	24 Hours	-	-	-	3/2640/0	-
HAST	Biased HAST 130C/85%RH	96 Hours	1/77/0	-	-	3/231/0	-
HBM	ESD - HBM	4000 V	-	-	1/3/0	1/3/0	-
CDM	ESD - CDM	1500 V	-	-	1/3/0	1/3/0	-
HTOL	Life Test, 150C	408 Hours	-	-	-	3/231/0	-
HTSL	High Temp. StorageBake, 170C	420 Hours	1/77/0	-	-	-	-
HTSL	High Temp. StorageBake, 175C	500 Hours	-	-	-	3/149/0	-
LU	Latch-up	(per JESD78)	-	-	1/6/0	1/6/0	-
PD	Physical Dimensions	--	Pass	Pass	-	Pass	Pass
SD	Surface Mount Solderability	Pb Free	1/22/0	2/44/0	-	2/30/0	-
SD	Surface Mount Solderability	Pb	1/22/0	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	-	3/231/0	3/231/0
WBP	Bond Pull	Wires	1/76/0	1/76/0	-	-	-
WBS	Ball Bond Shear	Wires	1/76/0	1/76/0	-	-	-

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Qualification Report

TPD4E6B06DPWR (JCET to CDAT) (new package for CDAT)
Approve Date 09-Dec-2015

Product Attributes

Attributes	Qual Device: TPD4E6B06DPW	QBS Package Reference: TPD1E10B09DPYR
Assembly Site	CDAT	CHENGDU
Package Family	SON 0.8 X 0.8 MM	X2SON
Flammability Rating	-	UL 94 V-0
Wafer Fab Supplier	CFAB	CFAB
Wafer Process	VDIODE.BD	VDIODE

- QBS: Qual By Similarity
- Qual Device TPD4E6B06DPW is qualified at LEVEL1-260CG
- Device TPD4E6B06DPW contains multiple dies.

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: TPD4E6B06DPW	QBS Package Reference: TPD1E10B09DPYR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
HBM	ESD - HBM	2000 V	-	-
CDM	ESD - CDM	500 V	-	-
HTOL	Life Test, 150C	300 Hours	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	3/231/0
PD	Physical Dimensions	--	3/15/0	3/15/0
SD	Solderability (Post 8 Hour Steam)	Pb Free	3/66/0	-
SD	Surface Mount Solderability	Pb Free	-	3/66/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

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