PCN Number:	20140709002	**PCN Date:**	07/16/2014

Title:	Qualification of TI Chengdu (CDAT) as Additional Assembly and Test Site for Select X2QFN/X2SON Package Devices

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

Proposed 1st Ship Date:	10/16/2014	**Estimated Sample Availability:**	Date Provided at Sample request

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:

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.

	From	To
Assembly/Test Sites	JCETCZ, HNT, 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):

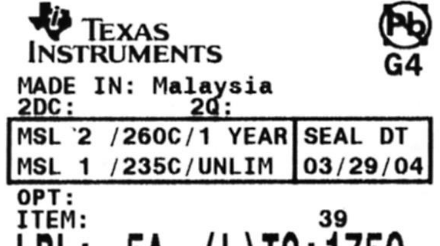
None

Changes to product identification resulting from this PCN:

Assembly Site		
JCETCZ	Assembly Site Origin (22L)	ASO: GP6
HNT	Assembly Site Origin (22L)	ASO: HNT
NSE	Assembly Site Origin (22L)	ASO: NSE
TI Chengdu (CDAT)	Assembly Site Origin (22L)	ASO: CDA

ASSEMBLY SITE CODES: JCETCZ = F, HNT = H, NSE = J, CDAT = 8

Sample product shipping label (not actual product label)



(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

Product Affected:			
SN1205066PDQNR	SN74LVC1G08DSFR	TLV707285PDQNR	TPL0102-100RUCR
SN1206013PDQNR	SN74LVC1G11DSFR	TLV70732DQNR	TPS3839G18DQNR
SN74AUP1G02DSFR	SN74LVC1G66DSFR	TLV70736PDQNR	TPS3839G33DQNR
SN74AUP1G126DSFR	SN74LVC2G07DSFR	TLV71320DQNR	TPS3839K33DQNR
SN74AUP1G14DSFR	TLV70712PDQNR	TLV717185PDQNR	TPS3839K50DQNR
SN74AUP1G32DSFR	TLV70718PDQNR	TLV71718PDQNR	TPS3839L30DQNR
SN74AUP2G07DSFR	TLV70719PDQNR	TLV71727PDQNR	
SN74LVC1G02DSFR	TLV70725PDQNR	TLV71729PDQNR	
SN74LVC1G07DSFR	TLV707285DQNR	TLV71733PDQNR	

Qualification Status Report

Chengdu A/T startup X2QFN/X2SON

Product Attributes

	Qual Device: SN74LVC1G04DSFR	Qual Device: TLV70728PDQNR	Qual Device: TPL0102-100RUCR
Die Attributes			
Die Revision	G	B	A
Wafer Fab Supplier	CFAB	FFAB	MH8
Wafer Fab Process	ASLC10	LBC7	LBC7T
Package Attributes			
Assembly Site	CHENGDU	CHENGDU	CHENGDU
Package Family	X2SON	X2SON	X2QFN
Package Designator	DSF	DQN	RUC
Package Size (mils)	39.37 X 39.37	39.37 X 39.37	78.74 X 78.74
Body Thickness (mils)	15.75	15.75	15.75
Pin Count	6	4	14
Lead Frame Type	Cu	Cu	Cu
Lead Finish	NiPdAu	NiPdAu	NiPdAu
Lead Pitch (mils)	13.78	25.59	15.75
Mount Compound	4221460	4221460	4221460
Mold Compound	4210087	4210087	4210087
Bond Wire Composition	Au	Au	Au
Bond Wire Diameter (mils)	0.8	0.8	0.8
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0

- QBS: Qual By Similarity
- Qual Devices qualified at LEVEL1-260C: SN74LVC1G04DSFR, TLV70728PDQNR, TPL0102-100RUCR

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

Type	Test Name / Condition	Duration	Qual Device: SN74LVC1G04DSFR	Qual Device: TLV70728PDQNR	Qual Device: TPL0102-100RUCR
HAST	Biased Hast	130C/85% RH	July 30, 2014	Aug 2, 2014	July 30, 2014
HTOL	High Temperature Operating Life Test 150C	300 Hours	3/231/0	N/A	July 30, 2014
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	July 28, 2014
TC	Temperature Cycle, -65/+150C	500 Cycles	3/231/0	3/255/0	July 30, 2014
HTSL	High Temp Storage Bake 170C	420 Hours	July 19, 2014	July 21, 2014	Aug 10, 2014
ED	Electrical Characterization	Per Datasheet Parameters	Aug 29, 2014	July 18, 2014	July 31, 2014
PD	Physical Dimensions	Per specification	3/15/0	3/15/0	3/15/0
WBS	Ball Bond Shear	76 wires	3/228/0	3/228/0	3/228/0
WBP	Wire Pull	76 wires	3/228/0	3/228/0	3/228/0
XRAY	X Ray	(top side only)	3/15/0	3/15/0	3/15/0
DS	Die Shear	30 Die	3/90/0	3/90/0	3/90/0
SD	Solderability	8 Hours Steam Age	3/22/0	3/22/0	July 22, 2014
SA	Salt Atmosphere	24 Hours	N/A	3/22/0	July 22, 2014
FLAMM	Flammability	UL 94 V-0	N/A	N/A	July 22, 2014
HBM	ESD-HBM	1000V	N/A	3/12/0	N/A
CDM	ESD-CDM	250V	N/A	3/9/0	N/A
TIS	Thermal Integrity Sequence	Level 1 @260C	N/A	July 24, 2014	N/A
MSL	Moisture Sensitivity Level	Level 1 @260C	N/A	N/A	July 31, 2014

- 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/

Green/Pb-free Status:
Qualified Pb-Free (SMT) and Green

TI Qualification ID: 20131112-97501
N/A = Not Applicable

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

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