PCN Number:	20160216000	**PCN Date:**	2/17/2016
Title:	Qualify Hana Thailand (HNT) as an additional Assembly & Test site for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	5/17/2016	**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 Hana Thailand (HNT) as an additional Assembly & Test site for the list of devices shown below. Construction differences between the 2 sites are as follows:

What	NFME	HNT
Mount Compound	SID# A-03	**SID#400154**

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
NFME	NFM	CHN	Economic Development Zone
Hana Thailand	**HNT**	**THA**	**Ayutthaya**

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 2Q:
MSL 2 /260C/1 YEAR | SEAL DT
MSL 1 /235C/UNLIM | 03/29/04
OPT:
ITEM: 39
LBL: 5A (L)TO:1750

G4

(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

Topside Device marking:
Assembly site code for NFM= E
Assembly site code for HNT = H

Product Affected

HPA01091DBVR	TLV70230DBVT	TLV70235DBVR	TLV70245DBVT
TLV70215DBVR	TLV70231DBVR	TLV70235DBVT	TLV702475DBVR
TLV70215DBVT	TLV70231DBVT	TLV70237DBVR	TLV702475DBVT
TLV70218DBVR	TLV70233DBVR	TLV70237DBVT	TLV71209DBVR
TLV70218DBVT	TLV70233DBVT	TLV70245DBVR	TLV71209DBVT
TLV70230DBVR			

TEXAS INSTRUMENTS

TI Information
Selective Disclosure

Qualification Report

HNT AT Qualification (Qual Vehicle TLV70233DBV / RFAB/LBC7)

Product Attributes

Attributes	Qual Device: TLV70233DBV	QBS Product Reference: TLV70212DBV	QBS Product Reference: TLV70228PDBV	QBS Product Reference: TLV70248DBV	QBS Product Reference: TLV70248PDBV	QBS Product Reference: TLV71207DBV	QBS Product Reference: TLV71207PDBV
Die Attributes	-	-	-	-	-	-	-
Die Revision	A	A	A	A	A	A	A
Wafer Fab Supplier	RFAB	FFAB	FFAB	FFAB	FFAB	FFAB	FFAB
Wafer Process	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7
Assembly Site	HNT	HNT	HNT	HNT	HNT	HNT	HNT
Package Family	SOT-23	SOT23	SOT23	SOT23	SOT23	SOT23	SOT23
Package Designator	DBV	DBV	DBV	DBV	DBV	DBV	DBV
Package Size (mils)	62.99 X 114.17	62.99 X 114.17	62.99 X 114.17	62.99 X 114.17	62.99 X 114.17	62.99 X 114.17	62.99 X 114.17
Body Thickness (mils)	57.09	57.09	57.09	57.09	57.09	57.09	57.09
Pin Count	5	5	5	5	5	5	5
Lead Frame Type	Cu	Cu	Cu	Cu	Cu	Cu	Cu
Lead Finish	NiPdAu	NiPdAu	NiPdAu	NiPdAu	NiPdAu	NiPdAu	NiPdAu
Lead Pitch(mils)	37.4	37.4	37.4	37.4	37.4	37.4	37.4

- QBS: Qual By Similarity
- Qual Device TLV70233DBV is qualified at LEVEL1-260C

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TLV70233DBV	QBS Product Reference: TLV70212DBV	QBS Product Reference: TLV70228PDBV	QBS Product Reference: TLV70248DBV	QBS Product Reference: TLV70248PDBV	QBS Product Reference: TLV71207DBV	QBS Product Reference: TLV71207PDBV
AC	Autoclave 121C	96 Hours	-	-	-	-	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/10/0	1/10/0	1/10/0	1/30/0	1/10/0	1/10/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-	-	-	-	-	-
HBM	ESD - HBM	3000 V	-	-	-	1/3/0	1/3/0	1/3/0	1/3/0
CDM	ESD - CDM	1500 V	-	-	-	1/3/0	1/3/0	1/3/0	1/3/0
HTOL	Life Test, 140C	324 Hours	-	-	-	-	-	-	-
HTOL	Life Test, 150C	300 Hours	3/231/0	-	-	-	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	-	-	-	-	-	-
LU	Latch-up	(per JESD78)	-	-	-	1/6/0	1/6/0	1/6/0	1/6/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-	-	-	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	3/231/0	-	-	-	-	-	-
WBP	Bond Strength	Wires	3/228/0	-	-	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

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.

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