

PCN Number:	20151029000		PCN Date:	11/9/2015	
Title:	Qualification of HNT as Additional Assembly and Test Site for Select SOT Package Devices				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	02/9/2016	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 HNT as Additional Assembly and Test Site for select devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.					
Group 1 Device:					
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City		
ASE Weihai	AWH	CN	Weihai		
Hana Semiconductor	HNT	TH	Ayutthaya		
	ASE Weihai	Hana Semiconductor			
Mount Compound	1120999A1	400180			
Group 2 Device:					
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City		
TI Melaka	CU6	MY	Melaka		
Hana Semiconductor	HNT	TH	Ayutthaya		
	TI Melaka	Hana Semiconductor			
Mount Compound	8097590	400194			
Mold Compound	8097131	450207			
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					
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		
ASE Weihai	Assembly Site Origin (22L)	ASO: AWH
TI Melaka	Assembly Site Origin (22L)	ASO: CU6
Hana Semiconductor	Assembly Site Origin (22L)	ASO: HNT

Sample product shipping label (not actual product label)



ASSEMBLY SITE CODES: ASEWH = I, TIEM = U, HNT = H

Product Affected: Group 1 Devices

ATL431AIDBZR	ATL431AQDBZR	ATL431BIDBZR	ATL431BQDBZR
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Product Affected: Group 2 Devices

LMR14006XDDCR	LMR14006YDDCT	LV2842YDDCR	LV2843DDCT
LMR14006XDDCT	LV2842XLVDDCR	LV2842YDDCT	
LMR14006YDDCR	LV2842XLVDDCT	LV2843DDCR	

Group 1: Qualification Report

HNT SOT-23 DBZ Qualification

Product Attributes

Attributes	Qual Device:	Qual Device:	Qual Device:	Qual Device:	QBS Product Reference:	QBS Product Reference:
	ATL431AIDBZR	ATL431AQDBZR	ATL431BIDBZR	ATL431BQDBZR	ATL431BQDBZR	ATL432BQDBZR
Assembly Site	HANA THAILAND	HANA THAILAND	HANA THAILAND	HANA THAILAND	ASEWH	ASEWH
Package Family	SOT	SOT	SOT	SOT	SOT	SOT
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SHE-SHERMAN	SHE-SHERMAN	SHE-SHERMAN	SHE-SHERMAN	SFAB	SFAB
Wafer Process	JI2	JI2	JI2	JI2	JI2	JI2

Attributes	QBS Product Reference:	QBS Process Reference:	QBS Process Reference:	QBS Package Reference:	QBS Package Reference:
	TL431BIP	TL1431CDR	TL4242TDRJRQ1	TLV431AIDBZ6	TLV431BCDBZR
Assembly Site	MEX	MLA	MLA	HANA	HANA
Package Family	PDIP	SOIC	QFN	SOT	SOT

Flammability Rating	UL 94 V0	UL 94 V-0	UL 94 V-0	UL 94 V 0	UL 94 V0
Wafer Fab Supplier	SFAB	SFAB	SFAB	HIJ	SFAB
Wafer Process	JI Bipolar	JI BIPOLAR	JI2	OI BIPOLAR	JI Bipolar

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260CG: ATL431AIDBZR, ATL431AQDBZR, ATL431BIDBZR, ATL431BQDBZR, ATL431BIDBZR, ATL431BQDBZR, ATL431AQDBZR, and ATL431AIDBZR

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device:	Qual Device:	Qual Device:	Qual Device:	QBS Product Reference:
			ATL431AIDBZR	ATL431AQDBZR	ATL431BIDBZR	ATL431BQDBZR	ATL431BQDBZR
AC	Autoclave 121C	96 Hours	-	-	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 150C	48 Hours	-	-	-	-	-
FLAM	Flammability (IEC 695-2-2)	--	-	-	-	-	-
FLAM	Flammability (UL 94V-0)	--	-	-	-	-	-
FLAM	Flammability (UL-1694)	--	-	-	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-
HBM	ESD - HBM	2000 V	-	-	-	-	1/3/2000
CDM	ESD - CDM	1500 V	-	-	-	-	1/3/2000
HTOL	Life Test, 150C	300 Hours	-	-	-	-	1/77/0
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	-	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	-	-	-
LI	Lead Integrity	Leads	-	-	-	-	-
LI	Lead Pull	Leads	-	-	-	-	-
LU	Latch-up	(per JESD78)	-	-	-	-	1/6/2000
PD	Physical Dimensions	--	-	-	-	-	-
SD	Surface Mount Solderability	8 Hours Steam Age	-	-	-	-	-
SD	Surface Mount Solderability	Pb Free	-	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	-	-
TS	Thermal Shock - 65/150C	500 Cycles	-	-	-	-	-

Type	Test Name / Condition	Duration	QBS Product Reference:	QBS Product Reference:	QBS Process Reference:	QBS Process Reference:	QBS Package Reference:	QBS Package Reference:
			ATL432BQDBZ R	TL431BIP	TL1431CDR	TL4242TDRJR Q1	TLV431AIDBZ 6	TLV431BCDBZ R
AC	Autoclave 121C	96 Hours	-	1/77/0	-	3/231/0	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	-	-	-	-	-
ELFR	Early Life Failure Rate, 150C	48 Hours	-	-	3/2400/0	-	-	-
FLAM	Flammability (IEC 695-2-2)	--	-	-	-	-	3/15/2000	-
FLAM	Flammability (UL 94V-0)	--	-	-	-	-	3/15/2000	-
FLAM	Flammability (UL-1694)	--	-	-	-	-	3/15/2000	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	1/77/0	-	3/231/0	3/231/0	3/78/0
HBM	ESD - HBM	2000 V	-	-	-	-	-	-
CDM	ESD - CDM	1500 V	1/3/2000	-	-	-	-	-
HTOL	Life Test, 150C	300 Hours	-	1/77/0	-	3/231/0	3/231/0	3/150/0
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	-	-	1/45/0	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	-	-	3/135/0	3/230/0
LI	Lead Integrity	Leads	-	-	-	-	3/66/0	-
LI	Lead Pull	Leads	-	-	-	-	3/66/0	-
LU	Latch-up	(per JESD78)	1/6/2000	-	-	1/6/2000	-	-
PD	Physical Dimensions	--	-	-	-	-	3/15/2000	-
SD	Surface Mount Solderability	8 Hours Steam Age	-	-	-	1/15/2000	3/66/0	-
SD	Surface Mount Solderability	Pb Free	-	-	-	1/15/2000	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	-	3/231/0	1/77/0	3/230/0
TS	Thermal Shock -65/150C	500 Cycles	-	-	-	-	3/230/0	-

- 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/>

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

Group 2: Qualification Report

LV2842XLVDDCR Hana – Thailand

Product Attributes

Attributes	Qual Device: LV2842XLVDDCR
Assembly Site	HNT
Package Family	TSOT COL
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	DMOS5
Wafer Fab Process	LBC5

- Qual Device LV2842XLVDDCR 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: LV2842XLVDDCR
HAST	Unbiased HAST,130C/85%RH	96 hours	3/231/0
ED	Electrical Characterization	-	Pass
BHAST	Biased HAST, 130C/85%RH	96 hours	3/231/0
PC	Preconditioning	Level 1 @ 260C	3/693/0
TC	T/C -65C/150C	500 cycles	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 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

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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