

PCN Number:	20140707000			PCN Date:	07/14/2014
Title:	Qualification of CARZ, HNT and ASESH as Additional Assembly and Test Site for Select Devices				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
Proposed 1st Ship Date:	10/14/2014	Estimated Sample Availability:	Date Provided at Sample request		
Change Type:					
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
Texas Instruments Incorporated is announcing the qualification of CARZ and HNT as Additional Assembly and Test Site for select devices listed in the "Product Affected" Section. Current assembly sites and material differences as follows.					
Group 1 & Group 2 Devices: No Material Differences between sites					
	From			To	
Group 1 Devices	Carsem S (CRS)			Carsem Suzhou (CARZ)	
Group 2 Devices	NSE			HNT	
Group 3 Devices: TIEM to ASESH					
	TIEM			ASESH	
Lead Finish	Matte Sn			NiPdAuAg	
Mold Compound	4209002-0008			SID#EN2000515	
Mount Compound	8080598-0001			SID#EY1000063	
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:

Group 1 Device: CRS to CARZ

Assembly Site		
Carsem S	Assembly Site Origin (22L)	ASO: CRS
Carsem Suzhou	Assembly Site Origin (22L)	ASO: CSZ

ASSEMBLY SITE CODES: CRS = W , CARZ = F

Group 2 Device: NSE to HNT

Assembly Site		
NSE Thailand	Assembly Site Origin (22L)	ASO: NSE
Hana Thailand	Assembly Site Origin (22L)	ASO: HNT

ASSEMBLY SITE CODES: NSE = J , HNT = H

Group 3 Device: TIEM to ASESH

Assembly Site		
TI Melaka	Assembly Site Origin (22L)	ASO: CU6
ASE Shanghai	Assembly Site Origin (22L)	ASO: ASH

ASSEMBLY SITE CODES: TIEM = U , ASESH = A

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)T0:1750

(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: Group 1 Device (CRS to CARZ)

TPA6130A2RTJR	TPA6130A2RTJT
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Product Affected: Group 2 Device (NSE to HNT)

TPS78001DDCR	TPS78225DDCT	TPS79913DDCT	TPS799285DDCT
TPS78001DDCRG4	TPS78225DDCTG4	TPS79913DDCTG4	TPS799285DDCTG4
TPS78001DDCT	TPS78228DDCR	TPS79915DDCR	TPS79928DDCR
TPS78001DDCTG4	TPS78228DDCRG4	TPS79915DDCRG4	TPS79928DDCRG4
TPS780270200DDCR	TPS78228DDCT	TPS79915DDCT	TPS79928DDCT
TPS780270200DDCT	TPS78228DDCTG4	TPS79915DDCTG4	TPS79928DDCTG4
TPS780330220DDCR	TPS78230DDCR	TPS799185DDCR	TPS79930DDCR
TPS780330220DDCT	TPS78230DDCT	TPS799185DDCRG4	TPS79930DDCRG4
TPS780330220DDCTG4	TPS78233DDCR	TPS799185DDCT	TPS79930DDCT
TPS781250200DDCR	TPS78233DDCT	TPS79918DDCR	TPS79930DDCTG4
TPS781250200DDCT	TPS78236DDCR	TPS79918DDCRG4	TPS799315DDCR
TPS781330220DDCR	TPS78236DDCT	TPS79918DDCT	TPS799315DDCRG4
TPS781330220DDCRG4	TPS79901DDCR	TPS79918DDCTG4	TPS799315DDCT
TPS781330220DDCT	TPS79901DDCRG4	TPS79925DDCR	TPS79933DDCR
TPS781330220DDCTG4	TPS79901DDCT	TPS79925DDCRG4	TPS79933DDCRG4
TPS78218DDCR	TPS79901DDCTG4	TPS79925DDCT	TPS79933DDCT
TPS78218DDCT	TPS79912DDCR	TPS79925DDCTG4	TPS79933DDCTG4
TPS78223DDCR	TPS79912DDCRG4	TPS79927DDCR	TPS79942DDCR
TPS78223DDCT	TPS79912DDCT	TPS79927DDCT	TPS79942DDCRG4

TPS78225DDCR	TPS79912DDCTG4	TPS799285DDCR	TPS79942DDCT
TPS78225DDCRG4	TPS79913DDCR	TPS799285DDCRG4	
Product Affected: Group 3 Device (TIEM to ASESH)			
LM3444MM/NOPB	LM3444MM/S7002725	LM3444MMX/NOPB	LM3444MMX/S7002724

Qualification Data : Group 1

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle : TPA6130A2RTJR (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	441086
# Pins-Designator, Family:	20-RTJ, WQFN	Mount Compound:	435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Au

Qualification: Plan Test Results

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
** Autoclave	121C (96 Hrs)	77/0	77/0	77/0
**High-Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Temp Cycle	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Salt Atmosphere	24 Hrs	22/0	22/0	22/0
Solderability	Steam age, 8 hrs (Pb Free)	22/0	22/0	22/0
Moisture Sensitivity	Level 2-260C	12/0	12/0	12/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass

Notes ** - Preconditioning sequence: Level 2-260C.

Qualification Data : Group 2

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle : TPS62220DDC (MSL1-260C)

Package Construction Details

Assembly Site:	HNT	Mold Compound:	450207
# Pins-Designator, Family:	5-DDC, SOT	Mount Compound:	400151
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Au

Qualification: Plan Test Results

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**Autoclave	121C, 15 PSIG, 29.7 PSIA (240 Hrs)	77/0	77/0	77/0
**Thermal Shock	-65C/+150C (1000 Cyc)	77/0	77/0	77/0
**Temp Cycle	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Flammability	Method A - UL94-0	5/0	5/0	5/0
Flammability	Method B - IEC 695-2-2	5/0	5/0	5/0
Flammability	Method C - UL 1694	5/0	5/0	5/0
X-ray	(top side only)	5/0	5/0	5/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	Level 1-260C	12/0	12/0	12/0

Notes ** - Preconditioning sequence: Level 1-260C.

Qualification Data : Group 3

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.				
Qualification Vehicle : LM3445MM/NOPB (MSL1-260C)				
Package Construction Details				
Assembly Site:	ASESH	Mount Compound:	SID#EY1000063	
# Pins-Designator, Family:	10-DGS, MSOP	Mold Compound:	SID#EN2000515	
Lead frame (Finish, Base):	NiPdAuAg, Cu	Bond Wire:	1.3 Mil Dia., Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size /Fail		
		Lot#1	Lot#2	Lot#3
**Biased HAST	130C/85%RH (96 Hours)	77/0	75/0	75/0
**Autoclave	121C/100%RH (96 Hours)	77/0	76/0	75/0
**Temp Cycle	-65/+150C (500 Cycles)	77/0	76/0	75/0
**High-Temp Storage	150C (1000 Hours)	77/0	-	-
ESD HBM	1000V	3/0	-	-
Latch-up @ 25C	(per JESD78)	6/0	-	-
Latch-up @ 125C	(per JESD78)	6/0	-	-
High-Temp Operating Life	125C (1000 Hours)	77/0	-	-
**Preconditioning: MSL 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