










PCN Number:	20140930003		PCN Date:	10/01/2014										
Title:	Qualification of Amkor Philippines as an Additional Assembly and Test location for Select Devices in the SOIC package													
Customer Contact:	PCN Manager		Phone:	+1(214)480-6037										
			Dept:	Quality Services										
Proposed 1st Ship Date:	01/01/2015		Estimated Sample Availability:	Date provided upon request										
Change Type:														
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials									
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification									
<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process									
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process									
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process									
	<input type="checkbox"/>		Part number change											
PCN Details														
Description of Change:														
Texas Instruments is pleased to announce the qualification of Amkor Philippines as an additional Assembly and Test location for the devices listed below. Assembly material differences are noted below:														
<table border="1" style="width: 100%;"> <tr> <td></td> <td style="text-align: center;">ASEH</td> <td style="text-align: center;">Amkor Philippines</td> </tr> <tr> <td>Mount Compound</td> <td style="text-align: center;">SID#EY1000063</td> <td style="text-align: center;">SID#101374994</td> </tr> <tr> <td>Mold Compound</td> <td style="text-align: center;">SID#EN2000509</td> <td style="text-align: center;">SID#101379294</td> </tr> </table>							ASEH	Amkor Philippines	Mount Compound	SID#EY1000063	SID#101374994	Mold Compound	SID#EN2000509	SID#101379294
	ASEH	Amkor Philippines												
Mount Compound	SID#EY1000063	SID#101374994												
Mold Compound	SID#EN2000509	SID#101379294												
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														
Changes to product identification resulting from this PCN:														
<table border="1" style="width: 100%;"> <tr> <td colspan="3"><i>Assembly Site</i></td> </tr> <tr> <td>ASE Shanghai</td> <td style="text-align: center;">Assembly Site Origin (22L)</td> <td style="text-align: center;">ASO: ASH</td> </tr> <tr> <td>AMKOR (AP1)</td> <td style="text-align: center;">Assembly Site Origin (22L)</td> <td style="text-align: center;">ASO: AKR</td> </tr> </table>						<i>Assembly Site</i>			ASE Shanghai	Assembly Site Origin (22L)	ASO: ASH	AMKOR (AP1)	Assembly Site Origin (22L)	ASO: AKR
<i>Assembly Site</i>														
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AMKOR (AP1)	Assembly Site Origin (22L)	ASO: AKR												
Sample product shipping label (not actual product label)														
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MSL 2 /260C/1 YEAR	SEAL DT													
MSL 1 /235C/UNLIM	03/29/04													

Topside Device marking:

Assembly site code for ASH= A

Assembly site code for AKR= 4

Product Affected

905X5433200	TPS54227DDAR	TPS54332CDDA	TPS54527DDAR
HPA01123DDAR	TPS54228DDA	TPS54332CDDAR	TPS54528DDA
SN1101004DDAR	TPS54228DDAR	TPS54332DDA	TPS54528DDAR
SN1101005DDAR	TPS54229DDA	TPS54332DDAR	TPS54627DDA
SN1106041DDAR	TPS54229DDAR	TPS54335DDA	TPS54627DDAR
SN1110024DDAR	TPS54229EDDA	TPS54335DDAR	TPS54628DDA
SN1208017DDAR	TPS54229EDDAR	TPS54428DDA	TPS54628DDAR
SN54229EDDAR	TPS5432DDA	TPS54428DDAR	TPS56628DDA
TPS54227DDA	TPS5432DDAR	TPS54527DDA	TPS56628DDAR



TI Information
Selective Disclosure

Qualification Report

Amkor: Qualify Amkor Assembly (AP1) with 101379294 mold compound, 101374994 mount compound + Cu wire (2.0 MIL) on PWR DCS SOIC devices with BOAC

Approval 09/18/2014

Product Attributes

Attributes	Qual Device: TPS54327DDA	Qual Device: TPS54627DDA
Assembly Site	AMKOR AP1	AMKOR AP1
Package Family	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Site	RFAB	RFAB
Wafer Fab Process	LBC7	LBC7

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL2-260C: TPS54327DDA, TPS54627DDA

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS54327DDA	Qual Device: TPS54627DDA
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	3/231/0	-
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
TC-BP	Auto Post Temp. Cycle Bond Pull	per MIL-STD 883 Method 2011	3/15/0	3/15/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/229/0	-
ED	Electrical Characterization.	Per Datasheet Parameters	1/30/0	-
FLAM	Flammability (UL 94V-0)	--	3/15/0	-

- 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

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