12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20140930003A
Qualification of Amkor Philippines as an Additional Assembly and Test location for Select Devices in the SOIC package
Change Notification / Sample Request

Dear Customer:

Revision A is to announce the addition of devices that were not included on the original PCN notification and the retraction of other devices that were included.

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services
Phone: +1(214) 480-6037
Fax: +1(214) 480-6659

PCN# 20140930003A
Attachment: 1

Products Affected:

According to our records, there are the affected device(s) that you have purchased within the past twenty-four (24) months. Technical details of this Product Change follow on the next page(s).

PCN Number:	20140930003A	PCN Date:	12/04/2014
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:	03/04/2015	Estimated Sample Availability:	Date 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:

Revision A is to announce the addition of devices that were not included on the original PCN notification. The additional device are highlighted and **bolded** in the device list below. The expected first shipment date for these new devices will be 90 days from this notice for these newly added devices only. The retracted devices are highlighted ~~**bolded,**~~ and struck through in the device list below.

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:

	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:

Assembly Site		
ASE Shanghai	Assembly Site Origin (22L)	ASO: ASH
AMKOR (AP1)	**Assembly Site Origin (22L)**	**ASO: AKR**

Sample product shipping label (not actual product label)

Topside Device marking:
Assembly site code for ASH= A
Assembly site code for AKR= 4

Product Affected

905X5433200	TPS54228DDA	TPS54332DDA	TPS54527DDAR
HPA01123DDAR	TPS54228DDAR	TPS54332DDAR	TPS54528DDA
SN1101004DDAR	TPS54229DDA	TPS54335DDA	TPS54528DDAR
SN1101005DDAR	TPS54229DDAR	TPS54335DDAR	TPS54627DDA
SN1106041DDAR	TPS54229EDDA	**TPS54427DDA**	TPS54627DDAR
SN1110024DDAR	TPS54229EDDAR	**TPS54427DDAR**	TPS54628DDA
SN1208017DDAR	TPS5432DDA	TPS54428DDA	TPS54628DDAR
SN54229EDDAR	TPS5432DDAR	TPS54428DDAR	TPS56628DDA
~~**TPS54227DDA**~~	TPS54332CDDA	TPS54527DDA	TPS56628DDAR
~~**TPS54227DDAR**~~	TPS54332CDDAR		

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