

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

Dear Customer:

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 (<u>PCN ww admin team@list.ti.com</u>).

Sincerely,

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

PCN# 20140930003 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: 201			0140930003					PCN Date: 10/01/20		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		PCN A	N Manager		Phone:	+1(214)48	+1(214)480-6037		Dept: Quality Services			
Proposed 1 st Ship Date:			01/01/2015 Estimated Sample			ole A	Availability: Date provided upon request					
Change Ty												
🛛 Assem				ssembly I			\square	Asse	Assembly Materials			
Design			_	lectrical S				Mechanical Specification				
Test S				acking/Sh					Process			
	Bump Site			/afer Bum					er Bump			
Wafer	Fab Site		-	/afer Fab				Wafe	er Fab P	roce	SS	
			Pa	art numb								
					PCN De	etails						
Descriptio	on of Chang	e:										
Assembly a											an additional es are noted	
				ne devices	s listed b			mater	rial diffe	renc	es are noted	
Assembly a below:	and Test loca	ation f		ne devices	ASEH	elow. Assen		mater Am	rial diffe	renc ilipp	es are noted	
Assembly a below:		ation f		ne devices	s listed b	elow. Assen		mater Am SI	rial diffe	renc ilipp 374	es are noted ines 994	
Assembly a below: Moun Mold Test covera test MQ.	and Test loca It Compound Compound age, insertion	d	for th	ne devices	ASEH EY10000 EN20005	elow. Asser 63 09	nbly	mater Am SI SI	ial diffe kor Phi D#101 D#101	ilipp 374 379	es are noted ines 994	
Assembly a below: Moun Mold Test covera test MQ.	and Test loca At Compound Compound age, insertion or Change:	d	for th	ne devices	ASEH EY10000 EN20005	elow. Asser 63 09	nbly	mater Am SI SI	ial diffe kor Phi D#101 D#101	ilipp 374 379	es are noted ines 994 294	
Assembly a below: Moun Mold Test covera test MQ. Reason fo Continuity	and Test loca At Compound Compound age, insertion or Change:	ns, co	for th	ne devices	ASEH EY100000 EN20005 emain co	elow. Assen	nbly	Mater Am SI Irrent	kor Phi D#101 D#101 testing	renc 374 379 and	es are noted ines 994 294 verified with	
Assembly a below: Moun Mold Test covera test MQ. Reason fo Continuity	and Test loca t Compound Compound age, insertion or Change: of Supply	ns, co	for th	ne devices	ASEH EY100000 EN20005 emain co	elow. Assen	nbly	Mater Am SI Irrent	kor Phi D#101 D#101 testing	renc 374 379 and	es are noted ines 994 294 verified with	
Assembly a below: Moun Mold Test covera test MQ. Reason fo Continuity Anticipate None	and Test loca t Compound Compound age, insertion or Change: of Supply	ns, cc	onditio	ne devices	ASEH EY10000 EN20005 emain co	elow. Assen	th cu	Mater Am SI Irrent	kor Phi D#101 D#101 testing	renc 374 379 and	es are noted ines 994 294 verified with	
Assembly a below: Moun Mold Test covera test MQ. Reason fo Continuity Anticipate None Changes t	and Test loca at Compound Compound age, insertion or Change: of Supply ed impact o to product i	ns, cc	onditio	ne devices	ASEH EY10000 EN20005 emain co	elow. Assen	th cu	Mater Am SI Irrent	kor Phi D#101 D#101 testing	renc 374 379 and	es are noted ines 994 294 verified with	
Assembly a below: Moun Mold Test covera test MQ. Reason fo Continuity Anticipate None	and Test loca at Compound Compound age, insertion or Change: of Supply ed impact o to product i <i>Site</i>	ns, cc	onditio	ne devices	ASEH EY10000 EN20005 emain co tion, Qua	elow. Assen	nbly th cu liabi	Mater Am SI Irrent	ial diffe	renc ilip 374 379 and and	es are noted ines 994 294 verified with	

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS ADDE IN: Malaysia 2DC: 2Q: MSL'2 /260C/1 YEAR SEAL DT 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 (2L) ASO: MLA (23L) ACO: MYS

Topside Device ma Assembly site code f Assembly site code f	or ASH= A		
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

Туре	Test Name / Condition	Duration	Qual Device: TPS54327DDA	Qual Device: TPS54627DDA
ТНВ	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	-

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

- 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