

PCN# 20170609001 Qualification of TIPI as additional Assembly and Test Site for Select Devices Change Notification / Sample Request

Date:June 13, 2017To:TOKYO ELECTRON DEVICE (DSTR) PCN

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 proposed first ship date is indicated on page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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

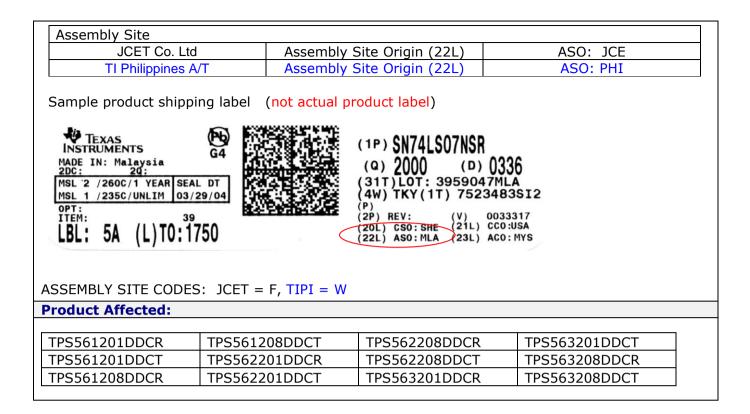
## **Products Affected:**

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TPS562201DDCR	null
TPS563201DDCR	null
TPS562201DDCT	null
TPS562208DDCR	null
TPS563208DDCR	null
TPS563201DDCT	null

Technical details of this Product Change follow on the next page(s).

PCN Num	ber:	2	01706090	001			F	<b>PC</b>	N Da	te:	June 13, 2017
Title:	Qualificatio	n of <sup>·</sup>	of TIPI as additional Assembly and Test Site for Select Devices					ices			
Custome	ustomer Contact: PCN Manager Dept: Quality Services										
Proposed	1 <sup>st</sup> Ship Da	ate:	Sept 13	, 2017	-	Estimated Avai					
Change T	ype:										
	mbly Site				Design	Wafer Bump Site					
	mbly Process				Data She					ump Material	
	nbly Materia					mber change U Wafer Bump Proces					
	anical Specif				-	Test Site Wafer Fab Site					
	ng/Shipping	/Labe	anng		Test Proce	Test Process			Wafer Fab Materials Wafer Fab Process		
				D	CN Detai	le			vvai	ente	ID FIOCESS
Description	on of Chang	le:		-		13					
•	•					,					Devices listed are as follows.
	mbly Site	Asse	embly Site	ite Origin Assembly Country Code		•	Assembly Site City		y Site City		
	T Co. Ltd		JCE	CHN							ngyin
TI Phili	ppines A/T		PHI			PHL				Bagu	io City
Material I	Differences	:									
			JC	ET	٦	TIPI					
Μ	Mold compound1208000Lead finishMatter		120800			22198					
L			e Sn	NiPdAu							
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.											
Reason fo	or Change:										
Continuity	of Supply										
Anticipat	ed impact o	on Fo	orm, Fit,	Functio	on, Quality	or Reliabilit	y	(p	ositi	ve /	negative):
None							_	_			
	ed impact o										
Mate	npact to the rial Declarat	ion	N 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 <u>TI Eco-Info website</u> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.								
Changes	to product	iden	tificatior	result	ing from t	his PCN:					



## Qualification Data TIPI SOT: Phase 3 (DDC\_FC0L\_JCAP Bump) Approve Date 07-Jun-2017

## **Product Attributes**

Attributes	Qual Device: TPS562201DDCR
Assembly Site	PHI (TIPI)
Package Family	SOT
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	MIHO8
Wafer Fab Process	LBC7.3

- QBS: Qual By Similarity

- Qual Device TPS562201DDCR is qualified at LEVEL1-260C

## **Qualification Results**

Data Displayed as: Number of lots / Total sample size / Total failed					
Туре	Test Name / Condition	Duration	Qual Device: TPS562201DDCR		
ED	Electrical Characterization	Per Datasheet Parameters	Pass		
FLAM	Flammability (UL 94V-0)		3/15/0		
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0		
HTOL	Life Test, 125C	1000 Hours	3/231/0		
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0		
LI	Lead Fatigue	Leads	3/66/0		
LI	Lead Pull	Leads	3/66/0		

MISC	Salt Atmosphere		3/66/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass
MQ	Manufacturability (Bump)	(per mfg. Site specification)	Pass
PD	Physical Dimensions		3/15/0
SD	Solderability	8 Hours Steam Age	3/36/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	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 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

## Qualification Data TIPI SOT: Phase3 (DDC\_FCOL\_JCAP\_Bump\_TPS563201DDCR) Approve Date 08-Jun-2017

# Product Attributes

Attributes Qual Device: TPS563201DDCR				
Assembly Site	PHI (TIPI)			
Package Family	SOT			
Flammability Rating	UL 94 V-0			
Wafer Fab Supplier	MIHO 8			
Wafer Fab Process	LBC7.3			

### **Qualification Results**

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

Туре	Test Name / Condition	Duration	TPS563201DDCR
LI	Lead Fatigue	Leads	3/66/0
LI	Lead Pull	Leads	3/66/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass
MQ	Manufacturability (Bump)	(per mfg. Site specification)	Pass
PD	Physical Dimensions		3/15/0
TC	Temperature Cycle, -65/150C	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 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