

<b>PCN Number:</b>	20161122000		<b>PCN Date:</b>	Nov 30, 2016	
<b>Title:</b>	TPS3813K33MDBVREP Design Change				
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>		<b>Dept:</b>	Quality Services	
<b>Proposed 1<sup>st</sup> Ship Date:</b>	May 30, 2017	<b>Estimated Sample Availability:</b>	Date provided at sample request.		
<b>Change Type:</b>					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input checked="" type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input 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"/>		<input type="checkbox"/>	Part number change		

**PCN Details**

**Description of Change:**

This notification is to inform of a die revision change to select devices. A design change was performed to improve the device performance by addressing limitations in the test mode (TM) design. Changes in via1 and metal2 were made to disable the test mode. The logic inputs for TM decision circuitry were connected to ground and the TM decision circuitry was disconnected. This design change does not affect the form, fit or function nor the electrical specifications of the device.

**Reason for Change:**

Improved product performance

**Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):**

None

**Changes to product identification resulting from this PCN:**

Die Rev designator will change as shown in the table and sample label below:

<b>Current</b>	<b>New</b>
Die Rev [2P]	<b>Die Rev [2P]</b>
A	<b>B</b>

Sample product shipping label to indicate die rev location (not actual product label)

 MADE IN: Malaysia 2DC: 2Q: MSL 2 / 260C / 1 YEAR SEAL DT MSL 1 / 235C / UNLIM 03/29/04 OPT: ITEM: 39 <b>LBL: 5A (L)T0:1750</b>	 	(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) <b>REV:</b> (V) 0033317 (20L) CS0: SHE (21L) CCO:USA (22L) AS0: MLA (23L) ACO: MYS
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**Product Affected:**

2T13K33MDBVREPG4	TPS3813K33MDBVREP	V62/06627-01XE
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## Qualification Report

### TPS3813K33MDBVREP Die-Rev B in Lingsen 6-pin SOT-23

Approve Date 04-Nov-2016

#### Product Attributes

Attributes	Qual Device: TPS3813K33MDBVREP	QBS Process Reference: TLV3701IDBV
Assembly Site	LINGSEN	LINGSEN
Package Family	SOT23	SOT23
Wafer Fab Supplier	DFAB	DFAB
Wafer Process	LBC3S	LBC3S

- QBS: Qual By Similarity

- Qual Device TPS3813K33MDBVREP is qualified at LEVEL1-260CG

#### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS3813K33MDBVREP	QBS Process Reference: TLV3701IDBV
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	-
CDM	ESD - CDM	1000 V	-	3/9/0
HBM	ESD - HBM	900 V	-	3/12/0
LU	Latch-up	(per JESD78)	-	3/18/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	1/77/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	3/231/0
SD	Solderability	Pb Free	-	3/91/0

- 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 you can contact your local Field Sales Representative.

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USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
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Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
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