



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**PCN#20150901006**  
**Qualification of Additional Assembly and Test Sites for Selected Devices plus BOM**  
**Changes**  
**Change Notification / Sample Request**

**Date:** 9/2/2015  
**To:** MOUSER 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 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](mailto:PCN_ww_admin_team@list.ti.com)).

Sincerely,

PCN Team  
SC Business Services

**20150901006**  
**Attachment: 1**

**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
TPD6E05U06RVZR	null
TPS22959DNYT	null
TPS22962DNYR	null
TPS22969DNYR	null
TPS22969DNYT	null

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

<b>PCN Number:</b>	20150901006		<b>PCN Date:</b>	9/02/2015																					
<b>Title:</b>	Qualification of Additional Assembly and Test Sites for Selected Devices plus BOM Changes																								
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services																						
<b>Proposed 1<sup>st</sup> Ship Date:</b>	12/02/2015	<b>Estimated Sample Availability:</b>	Provided upon Request																						
<b>Change Type:</b>																									
<input checked="" type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>																					
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>																					
<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>																					
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>																					
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>																					
		<input type="checkbox"/>	Part number change																						
<b>PCN Details</b>																									
<b>Description of Change:</b>																									
<p>Texas Instruments is pleased to announce the qualification of TI Clark and ASEN as alternate Assembly and Test sites for the devices listed below plus selected BOM changes.</p> <p><b>Group 1 Devices (Die #1):</b> TI Clark as additional Assy/Test site plus Cu Bond wire &amp; New Mount Compound</p> <table border="1"> <tr> <td></td> <td><b>UTAC</b></td> <td><b>TI Clark</b></td> </tr> <tr> <td><b>Bond Wire Composition</b></td> <td>Au</td> <td><b>Cu</b></td> </tr> <tr> <td><b>Bond Wire Diameter</b></td> <td>1.0 mils</td> <td><b>0.8 mils</b></td> </tr> </table> <p><b>Group 1 Devices (Die #2):</b></p> <table border="1"> <tr> <td></td> <td><b>UTAC</b></td> <td><b>TI Clark</b></td> </tr> <tr> <td><b>Mount Compound</b></td> <td>SID#PZ0035</td> <td><b>4207768</b></td> </tr> </table> <p><b>Group 2 Devices:</b> ASEN as additional Assy/Test site plus new mount compound</p> <table border="1"> <tr> <td></td> <td><b>JCET</b></td> <td><b>ASEN</b></td> </tr> <tr> <td><b>Mount Compound</b></td> <td>SID#120402007300</td> <td><b>SID#1400329111</b></td> </tr> </table> <p>Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.</p>						<b>UTAC</b>	<b>TI Clark</b>	<b>Bond Wire Composition</b>	Au	<b>Cu</b>	<b>Bond Wire Diameter</b>	1.0 mils	<b>0.8 mils</b>		<b>UTAC</b>	<b>TI Clark</b>	<b>Mount Compound</b>	SID#PZ0035	<b>4207768</b>		<b>JCET</b>	<b>ASEN</b>	<b>Mount Compound</b>	SID#120402007300	<b>SID#1400329111</b>
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<b>Mount Compound</b>	SID#120402007300	<b>SID#1400329111</b>																							
<b>Reason for Change:</b>																									
Continuity of Supply																									
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>																									
None																									
<b>Anticipated impact on Material Declaration</b>																									
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	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 <a href="#">TI ECO website</a> .																						

## Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (21L)	Assembly City
UTAC	NSE	THA	Bangkok
JCET	JCE	CHN	Jiangyin
<b>TI Clark</b>	<b>QAB</b>	<b>PHL</b>	<b>Angeles City, Pampanga</b>
<b>ASEN</b>	<b>ASN</b>	<b>CHN</b>	<b>Suzhou</b>

Sample product shipping label (not actual product label)



### Topside Device marking:

Assembly site code for NSE= J

Assembly site code for JCE= F

**Assembly site code for QAB = I**

**Assembly site code for ASN = J**

## Product Affected

### Group 1 Devices:

TPS22959DNYR	TPS22961DNYR	TPS22962DNYR	TPS22969DNYR
TPS22959DNYT	TPS22961DNYT	TPS22962DNYT	TPS22969DNYT

### Group 2 Devices:

TPD6E05U06RVZR

## Group 1 Qualification Data:



TI Information  
Selective Disclosure

### Qualification Report

TPS22959DNY Clark qual with NextFet (Catalog/Mass Market), all Cu bond wire.

Approve Date 26-Aug-2015

#### Product Attributes

Attributes	Qual Device: TPS22959DNYR	Qual Device: TPS22969DNYR	QBS Package Reference: TPS22961DNYR
Assembly Site	CLARK-AT	CLARK AT	CLARK AT
Package Family	VSON	VSON	VSON
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	CFAB, MIHO8	CFAB, MIHO8	CFAB, MIHO8
Wafer Process	LBC7, NU35LN	LBC7, NU35LN	LBC7, NU35LN

- QBS: Qual by Similarity

- Qual Devices qualified at LEVEL2-260C: TPS22959DNYR

- Device TPS22959DNYR contains multiple dies.

#### Qualification Results

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



Type	Test Name / Condition	Duration	Qual Device: TPS22959DNYR	QBS Product Reference: TPS22969DNYR	QBS Package Reference: TPS22961DNYR
AC	Autoclave 121C	96 Hours	-	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-
HAST	Biased HAST, 110C/85%RH	294 Hours	-	-	3/231/0
HBM	ESD - HBM	4000 V	-	-	-
CDM	ESD - CDM	1500 V	-	-	-
HTOL	Life Test, 155C	240 Hours	-	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0
LU	Latch-up	(per JESD78)	-	-	-
PD	Physical Dimensions	--	-	-	3/15/0
SD	Surface Mount Solderability	Pb Free	-	-	3/66/0
TC	Temperature Cycle -65C/150C	1000 Cycles	-	-	3/231/0
WBP	Bond Pull	Wires	-	1/76/0	3/228/0

- 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

## Group 2 Qualification Data:



TI Information  
Selective Disclosure

### Qualification Report

**New Package: ASEN RVZ Package Qual using TPD6E05U06RVZR  
(Mount compound SID#1400329111) screen print, conductive)**

**Approve Date 21-Aug-2015**

Product Attributes	QBS Package Reference: TPD4E05U06DQAR
Assembly Site	ASE
Package Family	WSON
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	CFAB
Wafer Process	VDIODE

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260C: TPD4E05U06DQAR

### Qualification Results

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



Type	Test Name / Condition	Duration	QBS Package Reference: TPD4E05U06DQAR
ED	Electrical Characterization	Per Datasheet Parameters	Pass
FLAM	Flammability (IEC 695-2-2)	--	3/15/0
FLAM	Flammability (UL 94V-0)	--	3/15/0
FLAM	Flammability (UL-1694)	--	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
HBM	ESD - HBM	4000 V	-
CDM	ESD - CDM	1500 V	-
HTOL	Life Test, 150C	300 Hours	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0
PD	Physical Dimensions	--	3/15/0
SD	Solderability	8 Hours Steam Age	-
SD	Surface Mount Solderability	Pb Free	3/66/0
TC	Temperature Cycle -65/150C	500 Cycles	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	3/231/0
WBP	Bond Pull	Wires	-
WBP	Bond Strength	Wires	3/228/0

- 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

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	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>