



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

**PCN# 20211001000.1**  
**Qualify New Assembly Material set for Selected Device(s)**  
**Change Notification / Sample Request**

**Date:** October 11, 2021  
**To:** 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.

Texas Instruments requires acknowledgement of 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 samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date 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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team ([PCN\\_ww\\_admin\\_team@list.ti.com](mailto:PCN_ww_admin_team@list.ti.com)). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team  
SC Business Services

**20211001000.1**  
**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>
TLV70036DDCR	null
TLV70033DDCR	null
TPS62222DDCR	null
TPS62222DDCT	null
TLV70028DDCT	null
TPS62220DDCR	null
TLV70018DDCT	null
TLV70030DDCR	null
TLV70033DDCT	null
TLV70018DDCR	null
TLV70025DDCR	null
TPS62220DDCT	null

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

<b>PCN Number:</b>	20211001000.1		<b>PCN Date:</b>	October 11, 2021										
<b>Title:</b>	Qualify New Assembly Material set for Selected Device(s)													
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>		<b>Dept:</b>	Quality Services										
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Jan 11, 2022		<b>Estimated Sample Availability:</b>	Date provided at sample request										
<b>Change Type:</b>														
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site									
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material									
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process									
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site									
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials									
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process									
<b>PCN Details</b>														
<b>Description of Change:</b>														
<p>Texas Instruments is pleased to announce the qualification of new assembly material set for devices listed in "Product affected" section below. Devices will remain in current assembly facility and piece part changes as follows:</p> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>Material</th> <th>Current</th> <th>Proposed</th> </tr> </thead> <tbody> <tr> <td>Mount compound</td> <td>400181</td> <td>400180</td> </tr> <tr> <td>Mold compound</td> <td>450419</td> <td>450423</td> </tr> </tbody> </table>						Material	Current	Proposed	Mount compound	400181	400180	Mold compound	450419	450423
Material	Current	Proposed												
Mount compound	400181	400180												
Mold compound	450419	450423												
<b>Reason for Change:</b>														
Continuity of supply.														
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>														
None.														
<b>Impact on Environmental Ratings</b>														
<p>Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.</p> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>IEC 62474</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> </tr> </tbody> </table>						RoHS	REACH	Green Status	IEC 62474	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	
RoHS	REACH	Green Status	IEC 62474											
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change											
<b>Changes to product identification resulting from this PCN:</b>														
None.														
<b>Product Affected:</b>														
TLV70012DDCR	TLV70025DDCT	TLV70036DDCR	TPS62223DDCT											
TLV70012DDCT	TLV70028DDCR	TLV70036DDCT	TPS62224DDCR											
TLV70013DDCR	TLV70028DDCT	TPS62220DDCR	TPS62224DDCT											
TLV70013DDCT	TLV70030DDCR	TPS62220DDCT	TPS62225DDCR											
TLV70015DDCR	TLV70030DDCT	TPS62221DDCR	TPS62225DDCT											
TLV70015DDCT	TLV70032DDCR	TPS62221DDCT	TPS62227DDCR											
TLV70018DDCR	TLV70032DDCT	TPS62222DDCR	TPS62227DDCT											
TLV70018DDCT	TLV70033DDCR	TPS62222DDCT	TPS62228DDCR											
TLV70025DDCR	TLV70033DDCT	TPS62223DDCR	TPS62229DDCT											

# Qualification Report

Approve Date 30-Sept-2021

## Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TLV70036DDCR	Qual Device: TPS62221DDCR	QBS Device TPS25221DBVR	QBS Device TS5A3159DBVR	QBS Device TS5A3166DBVR
PC	Preconditioning	Level 1 - 260C	--	1/154/0	3/693/0	3/693/0	3/693/0
PC	Preconditioning	Level 2 - 260C	1/154/0	--	--	--	--
AC	Autoclave, 121C	96 Hours	--	--	3/231/0	3/231/0	3/231/0
BHAST	Biased HAST, 130C	96 Hours	--	--	3/231/0	--	--
UHAST	Unbiased HAST, 130C	96 Hours	1/77/0	1/77/0	--	--	--
HTOL	Life Test, 140C	480 Hours	--	--	1/77/0	--	--
HTSL	High Temp. Storage Bake, 150C	1000 Hours	--	--	--	3/231/0	3/231/0
TC	Temperature Cycle, -65C/150C	500 Cycles	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0
ED	Electrical Distributions	(per datasheet requirements)	--	--	3/Pass	--	--
MQ	Manufacturability (Assembly)	(per mfg. site specification)	1/Pass	1/Pass	3/Pass	3/Pass	3/Pass
PD	Physical Dimensions	(per drawing requirements)	1/30/0	1/30/0	3/15/0	3/15/0	3/15/0
LI	Lead Fatigue	Leads	--	--	--	3/66/0	--
LI	Lead Pull	Leads	--	--	--	3/66/0	--
SD	Solderability	Pb-Free	--	--	--	3/66/0	--
YLD	FTY and Bin Summary	-	1/Pass	1/Pass	--	--	3/Pass

- QBS: Qual By Similarity
- Qual Device TPS62221DDCR is qualified at LEVEL1-260C
- Qual Device TLV70036DDCR is qualified at LEVEL2-260C
- QBS Device TPS25221DBVR is qualified at LEVEL1-260C
- QBS Device TS5A3166DBVR is qualified at LEVEL1-260C
- QBS Device TS5A3159DBVR is qualified at LEVEL1-260C

- 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/1000 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/1000 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	<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>

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