



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

**PCN#20220624001.1**  
**Qualification of a new BOM materials for select devices**  
**Change Notification / Sample Request**

**Date:** June 28, 2022  
**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 additional data is 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

**20220624001.1**  
**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>
TPS56637RPAR	null
TPS62135RGXR	null
TPSM84824MOLR	null
TPSM84A21MOJR	null
TPS54J061RPGR	null
TPS566235RJNR	null
TPS566235RJNT	null
TPSM84424MOLR	null
TPS22992SRXNR	null
TPS62147RGXR	null
TPS62827DMQT	null
TPSM82480MOPT	null
TPSM84A21MOJT	null
TPS61178RNWT	null
TPS62135RGXT	null
TPSM82480MOPR	null
TPS61230ARNST	null
TPS62827DMQR	null
TPS611781RNWR	null
TPS62097RWKR	null
TPS62825ADMQR	null
TPS621351RGXT	null
TPS62826ADMQR	null
TPSM84624MOLR	null
TPS62097RWKT	null
TPS62824ADMQR	null
TPS61230ARNSR	null
TPS61178RNWR	null
TPS6209733RWKT	null
TPS62086RLTR	null
TPS51372RJNR	null

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

<b>PCN Number:</b>	20220624001.1			<b>PCN Date:</b>	June 28, 2022												
<b>Title:</b>	Qualification of new BOM materials for select devices																
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services														
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Sept 28, 2022	<b>Sample requests accepted until:</b>	July 28, 2022*														
*Sample requests received after (July 28, 2022) will not be supported.																	
<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"/>	Wafer Fab Process												
<b>PCN Details</b>																	
<b>Description of Change:</b>																	
This PCN is to inform of the qualification of new BOM options for the devices in the product affected section as follows:																	
<table border="1"> <thead> <tr> <th>What</th> <th>Current</th> <th>New</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>4222790</td> <td>4223495</td> </tr> <tr> <td>Leadframe Finish</td> <td>NiPdAu</td> <td>Matte Sn</td> </tr> <tr> <td>ECAT</td> <td>G4</td> <td>G3</td> </tr> </tbody> </table>						What	Current	New	Mold Compound	4222790	4223495	Leadframe Finish	NiPdAu	Matte Sn	ECAT	G4	G3
What	Current	New															
Mold Compound	4222790	4223495															
Leadframe Finish	NiPdAu	Matte Sn															
ECAT	G4	G3															
Upon expiration of this PCN, TI will combine lead free solutions in a single <b><u>standard part number</u></b> , for example; <b><u>SN2001042RWUR</u></b> – can ship with both Matte Sn and NiPdAu.																	
<b>Reason for Change:</b>																	
Continuity of supply																	
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																	
None																	
<b>Impact on Environmental Ratings</b>																	
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.																	
<b>RoHS</b>		<b>REACH</b>		<b>Green Status</b>													
<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change													
				<b>IEC 62474</b>													
				<input checked="" type="checkbox"/> No Change													
<b>Changes to product identification resulting from this PCN:</b>																	
Sample product shipping label (not actual product label)																	

G3 = Matte Sn  
G4 = NiPdAu

<div>  <b>TEXAS INSTRUMENTS</b>  MADE IN: Malaysia  2DC: 20:  MSL 2 / 260C / 1 YEAR SEAL DT  MSL 1 / 235C / UNLIM 03/29/04  OPT: 39  ITEM: LBL: 5A (L)T0:1750 </div> <div>  </div> <div> (1P) SN74LS07NSR  (Q) 2000 (D) 0336  (31T) LOT: 3959047MLA  (4W) TKY(1T) 7523483SI2  (P)  (2P) REV: (V) 0033317  (20L) CSO: SHE (21L) CCO:USA  (22L) ASO: MLA (23L) ACO: MYS </div>			
<b>Product Affected:</b>			
BQ25620RYKR	TPS22998RYZR	TPS61178RNWR	TPS62147RGXT
SN2001042RWUR	TPS51371RJNR	TPS61178RNWT	TPS62824ADMQR
SN51371RJNR	TPS51371RJNT	TPS61230ARNSR	TPS6282533DMQR
SN611781ARNWR	TPS51372RJNR	TPS61230ARNST	TPS62825ADMQR
SN611781RNWR	TPS548B27RYLR	TPS62086RLTR	TPS6282618DMQR
SN61230ARNSR	TPS54A20RNJR	TPS62086RLTT	TPS62826ADMQR
SN621371RGXR	TPS54A20RNJT	TPS62087RLTR	TPS62827ADMQR
SN62825CDMQR	TPS54J060RPGR	TPS62087RLTT	TPS62827DMQR
SN62826CDMQR	TPS54J061RPGR	TPS6209718RWKR	TPS62827DMQT
SN62827CDMQR	TPS566231RQFR	TPS6209718RWKT	TPS628691ARQYR
SN62827DMQR	TPS566235RJNR	TPS6209733RWKR	TPSM82480MOPR
TAS2563RPPR	TPS566235RJNT	TPS6209733RWKT	TPSM82480MOPT
TAS2772AB0RJQR	TPS566335RJNR	TPS62097RWKR	TPSM84424MOLR
TAS2772B0RJQR	TPS566335RJNT	TPS62097RWKT	TPSM84624MOLR
TAS2772B0RJQT	TPS56637RPAR	TPS621351RGXR	TPSM84824MOLR
TAS2772BB0RJQR	TPS568215OARNNR	TPS621351RGXT	TPSM84A21MOJR
TAS2780RYAR	TPS568215OARNNT	TPS62135RGXR	TPSM84A21MOJT
TPS22992RXPR	TPS611781RNWR	TPS62135RGXT	TPSM84A22MOJR
TPS22992SRXNR	TPS611781RNWT	TPS62147RGXR	TPSM84A22MOJT

## Qualification Report

Approve Date 06-Aug-2020

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS62085RLTR</u>
AC	Autoclave	121C, 96 Hours	3/231/0
HAST	Biased HAST	130C/85% RH, 96 Hours	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	3/231/0
MQ	Manufacturability	Per Mfg Site	3/Pass
MSL	Moisture Sensitivity	Level 1-260C	3/36/0
PD	Physical Dimensions	(per mechanical drawing)	3/15/0
SD	Solderability	Pb Free	3/66/0
TC	Temperature Cycle	-55C/+125C, 700 Cycles	3/231/0
VM	Visual Quality Reliability Inspection	Post Temp Cycle	3/6/0

- QBS: Qual By Similarity

- Qual Device TPS62085RLTR 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/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 Report

Approve Date 06-Aug-2020

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS62085RLTR</u>
AC	Autoclave	121C, 96 Hours	3/231/0
HAST	Biased HAST	130C/85% RH, 96 Hours	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	3/231/0
MQ	Manufacturability	Per Mfg Site	3/Pass
MSL	Moisture Sensitivity	Level 1-260C	3/36/0
PD	Physical Dimensions	(per mechanical drawing)	3/15/0
SD	Solderability	Pb Free	3/66/0
TC	Temperature Cycle	-55C/+125C, 700 Cycles	3/231/0
VM	Visual Quality Reliability Inspection	Post Temp Cycle	3/6/0

- QBS: Qual By Similarity

- Qual Device TPS62085RLTR 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/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 Report

Approve Date 22-Apr-2021

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TLV62585RWTR</u>
------	-----------------------	----------	-------------------------------------

Type	Test Name / Condition	Duration	Qual Device: <u>TLV62585RWTR</u>
TC	Temperature Cycle, 55C/+125C	700 Cycles	3/231/0
AC	Autoclave 121C	96 Hours	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	3/Pass
SD	Solderability	Pb Free	3/66/0

- QBS: Qual By Similarity

- Qual Device TLV62585RWTR is qualified at LEVEL1-260CG

- 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 Report

Approve Date 21-Oct-2021

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>SN62825DMQR</u>	Qual Device: <u>TPS62821DLCR</u>	Qual Device: <u>TPS62841DLCR</u>
TC	Temperature Cycle, 55C/+125C	700 Cycles	3/231/0	3/231/0	3/231/0
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
SD	Solderability	Pb Free	3/66/0	3/66/0	-

- QBS: Qual By Similarity

- Qual Device SN62825DMQR is qualified at LEVEL1-260CG

- Qual Device TPS62841DLCR is qualified at LEVEL1-260CG

- Qual Device TPS62821DLCR is qualified at LEVEL1-260CG

- 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 Report

Approve Date 28-Sept-2021

## Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS548A28RWWR</u>	Qual Device: <u>TPS568230RJER</u>
TC	Temperature Cycle, 55C/+125C	700 Cycles	3/231/0	3/231/0
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass
SD	Solderability	Pb Free	3/66/0	3/66/0

- QBS: Qual By Similarity
- Qual Device TPS568230RJER is qualified at LEVEL2-260CG
- Qual Device TPS548A28RWWR is qualified at LEVEL2-260CG

- 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 Report

Approve Date 04-Oct-2021

## Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS56C215RNNR</u>	QBS Package Reference: <u>TPS62085RLTR</u>
AC	Autoclave	121C, 96 Hours	3/231/0	3/231/0
HAST	Biased HAST	130C/85% RH, 96 Hours	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	3/231/0	3/231/0
PD	Physical Dimensions	(per mechanical drawing)	3/15/0	3/15/0
SD	Solderability	Pb Free	3/66/0	3/66/0
TC	Temperature Cycle, -55C/+125C	700 Cycles	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device TPS56C215RNNR is qualified at LEVEL2-260CG
- 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 contacts shown below or your local Field Sales Representative.

Location	E-Mail
WW PCN Team	<a href="mailto:PCN_ww_admin_team@list.ti.com">PCN_ww_admin_team@list.ti.com</a>

## IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale ([www.ti.com/legal/termsofsale.html](http://www.ti.com/legal/termsofsale.html)) or other applicable terms available either on [ti.com](http://ti.com) or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.