



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20230217003.1A**

**Qualify TI Mexico as an additional Assembly site for select devices  
Change Notification / Sample Request**

**Date:** March 16, 2023

**To:** TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

**Revision A** is to announce the addition of a new device that was not included on the original PCN notification.

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_admin_team@list.ti.com)). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team  
SC Business Services

**20230217003.1A**  
**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>
TPS54227DDA	null
TPS54228DDAR	null
TPS56628DDAR	null
TPS54527DDAR	null
TPS56528DDAR	null
TPS54228DDA	null
TPS54427DDA	null
TPS54427DDAR	null
TPS54428DDA	null
SN1101004DDAR	null
TPS54227DDAR	null
TPS56428DDA	null
TPS56428DDAR	null
TPS54527DDA	null
TPS54627DDAR	null
TPS54628DDAR	null
TPS56628DDA	null
TPS54428DDAR	null
TPS54528DDAR	null
TPS56527DDAR	null
TPS54628DDA	null

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

<b>PCN Number:</b>	20230217003.1A		<b>PCN Date:</b>	March 16, 2023													
<b>Title:</b>	Qualify TI Mexico as an additional Assembly site 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>	May 17, 2023		<b>Sample requests accepted until:</b>	Apr 17, 2023*													
*Sample requests received after Apr 17, 2023 will not be supported.																	
<b>Change Type:</b>																	
<input checked="" 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 checked="" 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>																	
<p><b>Revision A</b> is to announce the <u>addition</u> of new devices that was not included on the original PCN notification. The new devices are highlighted and <b>bolded</b> in the device list below. The expected first shipment date for the new device will be 90 days from this notice (June 17, 2023) for the newly added device only. The proposed 1<sup>st</sup> ship date of May 17, 2023 still applies for the original set of devices.</p>																	
<p>Texas Instruments is pleased to announce the qualification of TI Mexico as an additional Assembly site for the list of devices shown below. Material differences between sites as follows.</p>																	
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin</th> <th>Assembly Country Code</th> <th>Assembly City</th> </tr> </thead> <tbody> <tr> <td>ASESH</td> <td>ASH</td> <td>CHN</td> <td>Shanghai</td> </tr> <tr> <td><a href="#">TI Mexico</a></td> <td><a href="#">MEX</a></td> <td><a href="#">MEX</a></td> <td><a href="#">Aguascalientes</a></td> </tr> </tbody> </table>						Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	ASESH	ASH	CHN	Shanghai	<a href="#">TI Mexico</a>	<a href="#">MEX</a>	<a href="#">MEX</a>	<a href="#">Aguascalientes</a>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City														
ASESH	ASH	CHN	Shanghai														
<a href="#">TI Mexico</a>	<a href="#">MEX</a>	<a href="#">MEX</a>	<a href="#">Aguascalientes</a>														
<b>Material Differences:</b>																	
	<b>ASESH</b>		<b>TI Mexico</b>														
Mount compound	EY1000063		<a href="#">4147858</a>														
Mold Compound	EN2000509, EN20000519		<a href="#">4211880</a>														
<b>Package Marking differences:</b>																	
	<b>ASESH</b>		<b>TI Mexico</b>														
Pin One ID	Stripe		<a href="#">Dimple</a>														
ECAT value	With		<a href="#">Without</a>														

Example	<div data-bbox="619 203 794 369"> 33610A TI YMS PLLLG4 </div> <p> TI = TI LETTERS  YM = YEAR MONTH DATE CODE  LLL = ASSEMBLY LOT CODE  S = ASSEMBLY SITE CODE  P = SECONDARY SITE CODE  G4 = ECAT  ■ = PIN 1 STRIPE </p>	<div data-bbox="1042 203 1217 383"> 33610A TI YMS LLLL  O </div> <p> TI = TI LETTERS  YM = YEAR MONTH DATE CODE  LLLL = ASSEMBLY LOT CODE  S = ASSEMBLY SITE CODE  O = PIN 1 INDICATOR </p>
---------	--	---

#### Reason for Change:

Continuity of Supply

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

None

#### Impact on Environmental Ratings:

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.

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

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

Assembly Site		
ASESH	Assembly Site Origin (22L)	ASO: ASH
TI Mexico	Assembly Site Origin (22L)	ASO: MEX

Sample product shipping label (not actual product label)



#### Product Affected

LMR33610ADDAR	SN1101003DDAR	TPS54329DDAR	TPS54531DDAR
LMR33610BDDAR	SN1101004DDAR	TPS54329EDDA	TPS54627DDA
LMR33620ADDA	SN1101005DDAR	TPS54329EDDAR	TPS54627DDAR
LMR33620ADDAR	SN1706004DDA	TPS54335ADDA	TPS54628DDA
LMR33620BDDA	SN1706004DDAR	TPS54335ADDAR	TPS54628DDAR
LMR33620BDDAR	SN1708001DDAR	TPS54336ADDA	TPS56428DDA
LMR33620CDDA	SN54528DDAR	TPS54336ADDAR	TPS56428DDAR
LMR33620CDDAR	TPS54227DDA	TPS54427DDA	TPS56527DDAR
LMR33630ADDA	TPS54227DDAR	TPS54427DDAR	TPS56528DDA
LMR33630ADDAR	TPS54228DDA	TPS54428DDA	TPS56528DDAR
LMR33630BDDA	TPS54228DDAR	TPS54428DDAR	TPS56628DDA

LMR33630BDDAR	TPS54327DDA	TPS54527DDA	TPS56628DDAR
LMR33630CDDA	TPS54327DDAR	TPS54527DDAR	
LMR33630CDDAR	TPS54328DDA	TPS54528DDA	
LMR33640ADDAR	TPS54328DDAR	TPS54528DDAR	
LMR33640DDDAR	TPS54329DDA	TPS54531DDA	

## Qualification Report

Approve Date 19-Jan-2023

### Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMR33610ADDAR	Qual Device: TPS54335ADDAR	Qual Device: TPS54531DDAR	QBS Reference: LMR16020PDDAR	QBS Reference: DRV8251DDAR	QBS Reference: LM5169FQDDARQ1
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	-	-	3/231/0
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	-
UHA	A3	Autoclave	121C/15psig	96 Hours	3/231/0	-	-	3/231/0	3/231/0	-
UHA	A3	Unbiased HAST	110C/85%RH	264 Hours	-	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	1/77/0	-	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/231/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	-	3/135/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	1/77/0	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	-	1/77/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	1/76/0	1/76/0	3/228/0	3/228/0	3/90/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	1/76/0	1/76/0	3/228/0	3/228/0	3/90/0

SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB Solder;	-	-	-	-	-	3/66/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	3/66/0	1/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	3/30/0	1/10/0	1/10/0	3/30/0	3/30/0	3/30/0
ESD	E2	ESD CDM	-	1500 Volts	-	-	-	-	1/3/0	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	-	-	1/6/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	1/30/0	1/30/0	1/30/0	3/90/0	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	-	-	-	3/90/0

QBS: Qual By Similarity

Qual Device LMR33610ADDAR is qualified at MSL2 260C

Qual Device TPS54335ADDAR is qualified at MSL2 260C

Qual Device TPS54531DDAR is qualified at MSL2 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

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
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 disdains 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 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.