



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN#20220121002.1**

**Qualify TI Chengdu (CDAT) as an additional Assembly site for select devices  
Change Notification / Sample Request**

**Date:** March 02, 2022

**To:** Digi-Key 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



**20220121002.1**  
**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>
LDC1312DNTR	null
LDC1312DNTR	null
LDC1612DNTR	null
LDC1612DNTR	null
LP55231SQE/NOPB	null
LP55231SQX/NOPB	null

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

<b>PCN Number:</b>	20220121002.1		<b>PCN Date:</b>	March 02, 2022	
<b>Title:</b>	Qualify TI Chengdu (CDAT) 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>	Jun 2, 2022	<b>Estimated Sample Availability:</b>	Provided upon Request		
<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"/>		<input type="checkbox"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
Texas Instruments is pleased to announce the qualification of TI Chengdu (CDAT) as an additional Assembly site for the list of devices shown below. Material differences between sites as follows.					
<b>Assembly Site</b>	<b>Assembly Site Origin</b>	<b>Assembly Country Code</b>	<b>Assembly City</b>		
TI Melaka	CU6	MYS	Melaka		
<b>TI Chengdu</b>	<b>CDA</b>	<b>CHN</b>	<b>Chengdu</b>		
<b>Material Differences (Group 1 &amp; 2):</b>					
	<b>TI Melaka</b>	<b>TI Chengdu</b>			
Lead finish	Matte Sn	NiPdAu			
Mold Compound	4208625	4222198			
Upon expiry of this PCN TI will combine lead free solutions in a single <b><u>standard part number</u></b> , for the devices in groups 1 & 2. For example; <b><u>LDC1312DNTR</u></b> – can ship with both Matte Sn and NiPdAu.					
Example:					
<ul style="list-style-type: none"> <li>– Customer order for 13,500 units of <b>LDC1312DNTR</b> with 4500 units SPQ (Standard Pack Quantity per Reel).</li> <li>– TI can satisfy the above order in one of the following ways. <ul style="list-style-type: none"> <li>I. 3 Reels of NiPdAu finish.</li> <li>II. 3 Reels of Matte Sn finish</li> <li>III. 2 Reels of Matte Sn and 1 reel of NiPdAu finish.</li> <li>IV. 2 Reels of NiPdAu and 1 reel of Matte Sn finish.</li> </ul> </li> </ul>					
<b>Group 2 Package Marking differences:</b>					
	<b>TI Melaka</b>	<b>TI Chengdu</b>			
TI Bug	Include	Replace with "TI" text			
Sample marking					

<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>			
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>	<b>IEC 62474</b>
<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>			
Assembly Site			
TI Melaka	Assembly Site Origin (22L)	ASO: CU6	
TI Chengdu	Assembly Site Origin (22L)	ASO: CDA	
Sample product shipping label (not actual product label)			
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>G3 = Matte Sn</b>  <b>G4 = NiPdAu</b> </div>			
<b>Group 1 Product Affected</b>			
LP55231SQE/NOPB	LP55231SQX/NOPB		
<b>Group 2 Product Affected</b>			
LDC1312DNTR	LDC1312DNNT	LDC1612DNTR	LDC1612DNNT

## Qualification Report

Approve Date 20-Dec-2021

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>LDC1612DNTR</u>	Qual Device: <u>LP55231SQXNOPB</u>	QBS Package Reference: <u>BQ25890HRTWR</u>	QBS Package Reference: <u>CAXC8T245QRHLRQ1</u>
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	-	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0

Type	Test Name / Condition	Duration	Qual Device: <u>LDC1612DNTR</u>	Qual Device: <u>LP55231SQXNOPB</u>	QBS Package Reference: <u>BQ25890HRTWR</u>	QBS Package Reference: <u>CAXC8T245QRHLRQ1</u>
HTOL	Life Test, 125C	1000 Hours	-	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	3/135/0
HTSL	High Temp. Storage Bake 170C	420 Hours	3/231/0	-	-	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass
PD	Physical Dimensions	Cpk>1.67	-	-	-	3/90/0
SD	Solderability	Pb Free	3/66/0	3/66/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0
WBS	Bond Pull	Wires	3/228/0	3/228/0	3/228/0	3/90/0
WBP	Ball Bond Shear	Wires	3/228/0	3/228/0	3/228/0	3/9/0

- QBS: Qual By Similarity
- Qual Devices LDC1612DNTR and LP55231SQXNOPB are 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

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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