



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20190807004.1

**Qualification of a new Green Mold Compound material for selected Devices
Change Notification / Sample Request**

PCN re-issue to replace the previous PCN letter.

Date: August 19, 2019

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.

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 proposed first ship date is indicated 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, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services

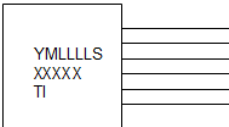
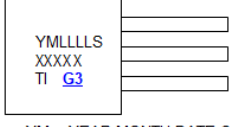
20190807004
Attachment: 1

Products Affected:

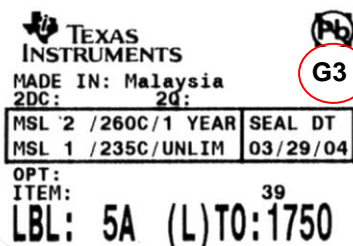
The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TL431CLP	null
TL431CLPR	null
TL431ACLPM	null

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

PCN Number:	20190807004.1		PCN Date:	Aug 19, 2019	
Title:	Qualification of a new Green Mold compound material for selected Devices				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	Nov19, 2019		Estimated Sample Availability:	Provided upon Request	
Change Type:					
<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
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the qualification of a new green Mold compound material for the devices list below as follows:					
Group 1:					
		Current	New		
	Mold compound material	4010025A1 (non-Green)		402042101 (Green)	
	Marking Difference	 <p>YM = YEAR MONTH DATE CODE LLLL = ASSEMBLY LOT CODE X = DEVICE NAME S = ASSEMBLY SITE CODE</p>		 <p>YM = YEAR MONTH DATE CODE LLLL = ASSEMBLY LOT CODE X = DEVICE NAME S = ASSEMBLY SITE CODE G3 = ECAT VALUE</p>	
Group 2:					
		Current	New		
	Mold compound material	4020024A1 (Green)		402042101 (Green)	
Reason for Change:					
Current mold compound material is being discontinued by supplier. ROHS compliance.					
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):					
None					
Anticipated impact on Material Declaration					
<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 TI Eco-Info website . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.		
Changes to product identification resulting from this PCN:					

Group 1 Device: Sample product shipping label (not actual product label)
The "G3" designator indicates Pb-Free/Green product with a terminal finish of Matte Sn



(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

Product Affected: Group 1

LP2950-50LPRE3	TL1431CLPR	TL431ACLPR	TL431CLPR
TL1431CLP	TL431ACLP	TL431CLP	
TL1431CLPME3	TL431ACLPM	TL431CLPM	

Product Affected: Group 2

BQ2022ALPR

Qualification Report

Approve Date 10-Jul-2019

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: BQ2022ALPR	Qual Device: LP2950-50LPRE3	Qual Device: TL1431CLP
ED	Electrical Characterization	Per Datasheet Parameters	-	-	1/30/0
FLAM	Flammability	Method A - UL94 V-0	-	-	3/15/0
HAST	Biased HAST 130C/85%RH	96 Hours	-	-	3/231/0
HTSL	High Temp. Storage Bake, 170 C	420 Hours	-	-	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	3/Pass	3/Pass	3/Pass
PD	Physical Dimensions	(per mechanical drawing)	-	-	3/15/0
PKG	Solder Heat, 260C	10 seconds	-	-	3/66/0
TC	Temperature Cycle -65C/150C	500 Cycles	3/231/0	3/231/0	3/231/0
UHA	Unbiased HAST 130C/85%RH	96 Hours	3/231/0	-	3/231/0
VM	Visual / Mechanical	(per mfg. Site specification)	Pass	-	Pass
XRAY	X-ray	(top side only)	-	3/15/0	3/15/0
YLD	FTY and Bin Summary	-	1/Pass	-	-

- QBS: Qual By Similarity

- 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	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com

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