

<b>PCN Number:</b>	20191105000.1		<b>PCN Date:</b>	Dec. 16, 2019	
<b>Title:</b>	Qualification of new mount compound 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>	Mar. 16, 2020	<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"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
This PCN is to inform of a new mount compound qualification as follows:					
	<b>Current mount compound</b>	<b>New mount compound</b>			
	SID#1120999A1	<b>SID#1120999A2</b>			
<b>Reason for Change:</b>					
Standardization					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>					
None					
<b>Anticipated impact on Material Declaration</b>					
<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 <a href="#">TI ECO website</a> .		
<b>Changes to product identification resulting from this PCN:</b>					
None					
<b>Product Affected:</b>					
74AHCT1G14DBVRE4	SN74AHC1G00DBVR	SN74LV1T86DBVR	SN74LVC1G66DBVT		
74LVC1G125DBVRE4	SN74AHC1G00DBVT	SN74LV1T86DBVRG4	SN74LVC1G66DBVTG4		
74LVC1G125DBVRG4	SN74AHC1G02DBVR	SN74LVC1G00DBVR	SN74LVC1G79DBVR		
74LVC1G125DBVTE4	SN74AHC1G02DBVT	SN74LVC1G00DBVT	SN74LVC1G79DBVT		
74LVC1G125DBVTG4	SN74AHC1G04DBVR	SN74LVC1G02DBVR	SN74LVC1G80DBVR		
74LVC1G175DBVRE4	SN74AHC1G04DBVT	SN74LVC1G02DBVT	SN74LVC1G80DBVT		
74LVC1G175DBVRG4	SN74AHC1G08DBVR	SN74LVC1G04DBVR	SN74LVC1G86DBVR		
74LVC1G3208DBVRE4	SN74AHC1G08DBVT	SN74LVC1G04DBVR-NG	SN74LVC1G86DBVT		
74LVC1G3208DBVRG4	SN74AHC1G09DBVR	SN74LVC1G04DBVT	SN74LVC1G97DBVR		
74LVC1G3208DBVTG4	SN74AHC1G125DBVR	SN74LVC1G06DBVR	SN74LVC1G97DBVRE4		

74LVC1G373DBVRE4	SN74AHC1G125DBVT	SN74LVC1G06DBVT	SN74LVC1G97DBVRG4
74LVC2GU04DBVRG4	SN74AHC1G126DBVR	SN74LVC1G07DBVR	SN74LVC1G97DBVT
ATL431AIDBZR	SN74AHC1G126DBVT	SN74LVC1G07DBVT	SN74LVC1G97DBVTG4
ATL431AIDBZRG4	SN74AHC1G14DBVR	SN74LVC1G08DBVR	SN74LVC1G98DBVR
ATL431AQDBZR	SN74AHC1G14DBVT	SN74LVC1G08DBVT	SN74LVC1G98DBVT
ATL431AQDBZRG4	SN74AHC1G32DBVR	SN74LVC1G10DBVR	SN74LVC1GU04DBVR
ATL431BIDBZR	SN74AHC1G32DBVT	SN74LVC1G10DBVT	SN74LVC1GU04DBVT
ATL431BIDBZRG4	SN74AHC1G86DBVR	SN74LVC1G11DBVR	SN74LVC1GX04DBVR
ATL431BQDBZR	SN74AHC1G86DBVT	SN74LVC1G11DBVT	SN74LVC1GX04DBVT
ATL431BQDBZRG4	SN74AHC1GU04DBVR	SN74LVC1G125DBVR	SN74LVC1T45DBVR
ATL431EAIDBZR	SN74AHC1GU04DBVT	SN74LVC1G125DBVT	SN74LVC1T45DBVRE4
ATL432AIDBZR	SN74AHCT1G00DBVR	SN74LVC1G126DBVR	SN74LVC1T45DBVRG4
ATL432AIDBZRG4	SN74AHCT1G00DBVT	SN74LVC1G126DBVT	SN74LVC1T45DBVT
ATL432AQDBZR	SN74AHCT1G02DBVR	SN74LVC1G14DBVR	SN74LVC1T45DBVTG4
ATL432AQDBZRG4	SN74AHCT1G02DBVT	SN74LVC1G14DBVT	SN74LVC2G04DBVR
ATL432BIDBZR	SN74AHCT1G04DBVR	SN74LVC1G175DBVR	SN74LVC2G04DBVT
ATL432BIDBZR-S	SN74AHCT1G04DBVT	SN74LVC1G175DBVT	SN74LVC2G06DBVR
ATL432BIDBZRG4	SN74AHCT1G08DBVR	SN74LVC1G17DBVR	SN74LVC2G06DBVRE4
ATL432BQDBZR	SN74AHCT1G08DBVT	SN74LVC1G17DBVT	SN74LVC2G07DBVR
ATL432BQDBZRG4	SN74AHCT1G125DBVR	SN74LVC1G18DBVR	SN74LVC2G07DBVT
ATL432EAQDBZR	SN74AHCT1G125DBVT	SN74LVC1G18DBVRG4	SN74LVC2G14DBVR
ATL432EBQDBZR	SN74AHCT1G126DBVR	SN74LVC1G19DBVR	SN74LVC2G14DBVT
LM4040A10IDBZTG4	SN74AHCT1G126DBVT	SN74LVC1G19DBVRE4	SN74LVC2G17DBVR
LM4040A25IDBZRG4	SN74AHCT1G14DBVR	SN74LVC1G19DBVT	SN74LVC2G17DBVT
LM4040A50IDBZRG4	SN74AHCT1G14DBVT	SN74LVC1G240DBVR	SN74LVC2G34DBVR
LM4040A82IDBZRG4	SN74AHCT1G32DBVR	SN74LVC1G240DBVT	SN74LVC2G34DBVT
LM4040B10IDBZRG4	SN74AHCT1G32DBVT	SN74LVC1G3157DBVR	SN74LVC2GU04DBVR
LM4040B30IDBZTG4	SN74AHCT1G86DBVR	SN74LVC1G3157DBVT	SN74LVC2GU04DBVT
LM4040B41IDBZRG4	SN74AHCT1G86DBVT	SN74LVC1G3208DBVR	TL4050A41IDBZRG4
LM4040B50IDBZTG4	SN74AUC1G17DBVR	SN74LVC1G3208DBVT	TL4050A41IDBZTG4
LM4040B82IDBZRG4	SN74AUC2G07DBVR	SN74LVC1G32DBVR	TL4050A41QDBZRG4
LM4040C10IDBZRG4	SN74AUP1G17DBVR	SN74LVC1G32DBVT	TL4050A41QDBZTG4
LM4040C20IDBZRG4	SN74AUP1G17DBVT	SN74LVC1G34DBVR	TL4050A50IDBZRG4
LM4040C30QDBZRG4	SN74LV1T00DBVR	SN74LVC1G34DBVRE4	TL4050A50IDBZTG4
LM4040C30QDBZTG4	SN74LV1T00DBVRG4	SN74LVC1G34DBVRG4	TL4050A50QDBZRG4
LM4040C50QDBZRG4	SN74LV1T02DBVR	SN74LVC1G34DBVT	TL4050A50QDBZTG4
LM4040C82IDBZRG4	SN74LV1T02DBVRG4	SN74LVC1G34DBVTE4	TL4050B41QDBZRG4
LM4040D10IDBZRG4	SN74LV1T04DBVR	SN74LVC1G34DBVTG4	TL4050B50IDBZRG4
LM4040D10IDBZTG4	SN74LV1T04DBVRG4	SN74LVC1G373DBVR	TL4050B50QDBZRG4
LM4040D20QDBZRG4	SN74LV1T08DBVR	SN74LVC1G374DBVR	TL4050C10IDBZRG4
LM4040D50QDBZRG4	SN74LV1T08DBVRG4	SN74LVC1G38DBVR	TL4050C10IDBZTG4
LM4040D50QDBZTG4	SN74LV1T125DBVR	SN74LVC1G38DBVRE4	TL4050C10QDBZRG4
LM4040D82IDBZRG4	SN74LV1T125DBVRG4	SN74LVC1G38DBVRG4	TL4050C50IDBZRG4
LM4040D82IDBZTG4	SN74LV1T126DBVR	SN74LVC1G38DBVT	TL4050C50IDBZTG4

LM4041A12IDBZTG4	SN74LV1T126DBVRG4	SN74LVC1G38DBVTG4	TL4050C50QDBZRG4
LM4041B12IDBZRG4	SN74LV1T32DBVR	SN74LVC1G58DBVR	TL4051B12IDBZRG4
LM4041B12IDBZTG4	SN74LV1T32DBVRG4	SN74LVC1G66DBVR	TL4051B12IDBZTG4
LM4041C12QDBZTG4	SN74LV1T34DBVR	SN74LVC1G66DBVRE4	TL431LACDBZR-ND
LM4041CQDBZRG4	SN74LV1T34DBVRG4	SN74LVC1G66DBVRG4	TPD4E001DBVR
LM4041D12QDBZRG4			



**TI Information  
Selective Disclosure**

### Qualification Results

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

Type	Test Name / Condition	Duration	QBS Package: TL431LIBQ DBZR	QBS Product /Process Reference: TL431LIQBDBZR
AC	Autoclave 121C	96 Hours	-	3/231/0
DPA	Destructive Physical Analysis	1000 Hours	-	3/90/0
ED	Electrical Characterization	Per Datasheet Parameters	-	3/90/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0
HBM	ESD - HBM	2500 V	-	3/9/0
CDM	ESD - CDM	1500 V	-	3/9/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	3/231/0
LU	Latch-up	(per JESD78) 25C	-	3/18/0
LU	Latch-up	(per JESD78) 125C	-	3/18/0
PC	PreConditioning	Level 1-260C	3/924/0	3/924/0
TC	Temperature Cycle, -65/150C	1000 Cycles	3/231/0	3/231/0
PD	Physical Dimension	Per Datasheet	-	3/15/0
SD	Solderability	Pb-Free	-	3/66/0
UHAST	UnBiased HAST, 130C/85%RH	96 Hours	3/231/0	-
WBP	Bond Pull	Wires	3/228/0	3/228/0
WBS	Bond Shear	Wires	3/228/0	3/228/0
MQ	Manufacturing (Assembly)	Per Mfg Site Specification	3/Pass	3/Pass
MQ	Manufacturing (Fab)	Per Mfg Site Specification	-	3/Pass
MQ	Manufacturing (Testability)	Per Mfg Site Specification	3/Pass	3/Pass
MSL	Moisture Sensitivity	MSL 1 @ 260C	3/36/0	3/36/0
VQR	Visual Quality Reliability Inspection	Post Autoclave	-	3/6/0
VQR	Visual Quality Reliability Inspection	Post High Temp Storage Bake	-	3/6/0
VQR	Visual Quality Reliability Inspection	Post Temp Cycle	-	3/6/0

- QBS: Qual By Similarity

- Qual Device TL432LIBQDBZR is qualified at LEVEL1-260C; and other options as follows:

- o TL432LIBIDBZR – 0.5% -40C to 85C
- o TL432LIBCDBZR – 0.5% -40C to 70C
- o TL432LIAQDBZR – 1% -40C to 125C
- o TL432LIAQDBZR – 1% -40C to 85C
- o TL432LIAACDBZR – 1% -40C to 70C

- 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.

<b>Location</b>	<b>E-Mail</b>
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>
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.