

<b>PCN Number:</b>	20210804000.1	<b>PCN Date:</b>	August 04, 2021												
<b>Title:</b>	Qualification of new BOM options 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>	Nov 4, 2021	<b>Estimated Sample Availability:</b>	Date provided at sample request												
<b>Change Type:</b>															
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design												
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet												
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change												
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site												
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process												
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Site												
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material												
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process												
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Site												
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Materials												
<input type="checkbox"/>		<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 listed below:															
<table border="1"> <thead> <tr> <th>What</th> <th>Current</th> <th>Additional</th> </tr> </thead> <tbody> <tr> <td>Mount Compound</td> <td>4221460</td> <td>4223872</td> </tr> <tr> <td>Bond Wire, diameter</td> <td>Au, 0.8 mils</td> <td>Cu, 0.8 mils</td> </tr> <tr> <td>Mold Compound</td> <td>4210087</td> <td>4222198</td> </tr> </tbody> </table>				What	Current	Additional	Mount Compound	4221460	4223872	Bond Wire, diameter	Au, 0.8 mils	Cu, 0.8 mils	Mold Compound	4210087	4222198
What	Current	Additional													
Mount Compound	4221460	4223872													
Bond Wire, diameter	Au, 0.8 mils	Cu, 0.8 mils													
Mold Compound	4210087	4222198													
<b>Reason for Change:</b>															
Supply Continuity															
<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>	<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>															
None															
<b>Product Affected:</b>															
ADS7142IRUGR	ADS7142IRUGT	TMP451AIDQFR	TMP451AIDQFT												

## Qualification Report

Approve Date 05-Jul-2021

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: ADS7142IRUGR	Qual Device: TMP451AIDQFR	QBS Package Reference: TLV9024RTER	QBS Package Reference: TLV9034RTER
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	-	1/77/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	-	-
MSL	Moisture Sensitivity, L1	Level1-260C	-	3/36/0	-	1/12/0
MSL	Moisture Sensitivity, L2	Level 2-260C	3/36/0	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	1/77/0	2/154/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	3/231/0	3/231/0	1/77/0	2/154/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	1/77/0	2/154/0
HBM	ESD - HBM	4000 V	-	-	1/3/0	2/6/0
LU	Latch-up	(Per JESD78)	-	-	1/6/0	2/12/0
HTOL	Life Test, 150C	300 Hours	-	-	-	1/77/0

- QBS: Qual By Similarity

- Qual Device ADS7142IRUGR is qualified at LEVEL2-260C

- Qual Device TMP451AIDQFR 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

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