

<b>PCN Number:</b>	20180731001	<b>PCN Date:</b>	Aug 7 2018
<b>Title:</b>	Qualification of a new material set for select devices in the SOP package		
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Nov 7 2018	<b>Estimated Sample Availability:</b>	Provided upon Request
<b>Change Type:</b>			
<input type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials
	<input type="checkbox"/>		Part number change
<b>PCN Details</b>			
<b>Description of Change:</b>			
Texas Instruments is pleased to announce the qualification of a new material set for the devices listed in the product affected section below as follows:			
		<b>Current</b>	<b>Additional</b>
<b>Mount Compound</b>		4042500	<b>4147858</b>
<b>Mold Compound</b>		4042503/non green	<b>4211880/green</b>
<b>Bond wire composition/diameter</b>		Au/0.96 mils	<b>Au/0.96 mils or Cu/0.96 mils</b>
<b>Moist Level/ECAT</b>		Level1-220C	<b>Level1-260CG</b>
<b>Reason for Change:</b>			
Continuity of Supply			
<b>Anticipated impact on Fit, Form, 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>			
Not Applicable			

<b>Product Affected</b>			
SN65ALS541NS	SN65ALS541NSRG4	SN65ALS544NS	SN65ALS544NSRG4
SN65ALS541NSR	SN65ALS543NSR	SN65ALS544NSR	

## Qualification Report

### Mold compound and Die attach change and Cu for SN65ALS541/543/544NS Approve Date 25-Jul-2018

#### Product Attributes

Attributes	Qual Device: SN65ALS543NSR	QBS Package Reference: 1P8T245NSR	QBS Package Reference: 2E1177NS	QBS Package Reference: SN75ALS192PW
Assembly Site	MLA	MLA	MLA	MLA
Package Family	SOP	SOP	SOP	TSSOP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SFAB	FFAB	SFAB	SFAB
Wafer Fab Process	HYB_OI	ASL3C	OI2	OI2

- QBS: Qual By Similarity
- Qual Device SN65ALS543NSR is qualified at LEVEL1-260C

#### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: SN65ALS543NSR	QBS Package Reference: 1P8T245NSR	QBS Package Reference: 2E1177NS	QBS Package Reference: SN75ALS192PW
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	3/231/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0
WBP	Bond Pull	Wires	3/228/0	3/228/0	3/228/0	3/228/0
WBS	Ball Bond Shear	Wires	3/228/0	3/228/0	3/228/0	3/228/0

- 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 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 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>
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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>