

PCN Number:	20200131002.1		PCN Date:	Feb 5, 2020									
Title:	Bond wire & Mount compound qualification for select devices in the SOIC package												
Customer Contact:	PCN Manager		Dept:	Quality Services									
Proposed 1st Ship Date:	May 5, 2020	Estimated Sample Availability:	Date provided at sample request.										
Change Type:													
<input type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials								
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification								
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process								
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process								
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process								
		<input type="checkbox"/>	Part number change										
PCN Details													
Description of Change:													
This notification is to announce the qualification of a new mount compound and alternate bond wire option for the list of devices shown below as follows:													
<table border="1"> <thead> <tr> <th>What</th> <th>Current</th> <th>Change To</th> </tr> </thead> <tbody> <tr> <td>Bond Wire</td> <td>Au, 0.96 mils</td> <td>Au, 0.96 mils or Cu, 0.96 mils</td> </tr> <tr> <td>Mount Compound</td> <td>4042500</td> <td>4147858</td> </tr> </tbody> </table>					What	Current	Change To	Bond Wire	Au, 0.96 mils	Au, 0.96 mils or Cu, 0.96 mils	Mount Compound	4042500	4147858
What	Current	Change To											
Bond Wire	Au, 0.96 mils	Au, 0.96 mils or Cu, 0.96 mils											
Mount Compound	4042500	4147858											
Reason for Change:													
Mount Compound: Continuity of supply													
Bond wire:													
1. To align with world technology trends and use wiring with enhanced mechanical and electrical properties.													
2. Maximize flexibility within our assembly/test production sites.													
3. Cu wire easier to obtain and stock.													
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):													
None													
Changes to product identification resulting from this PCN:													
Not applicable													
Product Affected:													
UCC27524AD	UCC27528D	UCC27531D	UCC27531DR										
UCC27524ADR	UCC27528DR												

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

Type	Test Name / Condition	Duration	Qual Device: 1P8T245NSR	Qual Device: ADS900E	Qual Device: PCM1801U	Qual Device: SN65HVD1781DR	Qual Device: TCA9546ADR	Qual Device: TCA9546ADR_RLF	Qual Device: TL494IDR
AC	Autoclave 121C	96 Hours	3/231/0	-	3/231/0	-	3/231/0	3/231/0	-
FLAM	Flammability (UL 94V-0)	-	-	-	-	-	3/15/0	3/15/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	-	3/231/0	-	3/231/0	3/231/0	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass	Pass	-
TC	Temperature Cycle, - 65/150C	500 Cycles	3/231/0	3/222/0	3/231/0	3/231/0	3/231/0	3/231/0	-
TC- BP	Post TC Bond Pull	Wires	-	-	-	3/90/0	3/162/0	3/90/0	-

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

Type	Test Name / Condition	Duration	Qual Device: TLC320AD77CDBR	Qual Device: TPS2074DB	Qual Device: TPS2101D	Qual Device: TPS2214ADB	Qual Device: TSS721AD	Qual Device: UC27131D	QBS Package Reference: ULQ2003AQDRQ1_STDLF
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	-	3/231/0	-	-	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-	-	3/231/0
HTOL	Life Test, 150C	408 Hours	-	-	-	-	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	-	-	-	1/45/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	-	3/231/0	-	-	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass	Pass	-
MQ	Manufacturability (Auto Assembly)	(per automotive requirements)	-	-	-	-	-	-	Pass
TC	Temperature Cycle, - 65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0	3/231/0	-	3/231/0
TC- BP	Post TC Bond Pull	Wires	-	-	-	-	-	-	1/30/0

- 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 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/>

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