

PCN Number:	20210122000.1		PCN Date:	Jan 22 2021						
Title:	Qualification of an additional die attach material for select devices									
Customer Contact:	PCN Manager	Dept:	Quality Services							
Proposed 1st Ship Date:	Apr 22 2021	Estimated Sample Availability:	Date provided at sample 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:										
This PCN is to inform of an additional die attach material qualification for the die 2 stack for the devices in the product affected section as follows:										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">What</th> <th style="width: 30%;">Current</th> <th style="width: 40%;">Additional</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Die attach (die 2 stack)</td> <td style="text-align: center;">4221460</td> <td style="text-align: center;">4223872</td> </tr> </tbody> </table>					What	Current	Additional	Die attach (die 2 stack)	4221460	4223872
What	Current	Additional								
Die attach (die 2 stack)	4221460	4223872								
Reason for Change:										
Continuity of supply										
Anticipated impact on Form, Fit, 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 website .							
Changes to product identification resulting from this PCN:										
None										
Product Affected:										
BQ40320RSMR	BQ40Z50RSMR-R2	BQ40Z695ARSMT	BQ9000RSMT							
BQ40320RSMR-R1	BQ40Z50RSMT	BQ40Z696ARSMR	BQ9000RSMT-D1							
BQ40320RSMT	BQ40Z50RSMT-R1	BQ40Z696ARSMT	BQ9000RSMT-D2							
BQ40320RSMT-R1	BQ40Z50RSMT-R2	BQ40Z70RSMR	BQ9000RSMT-L1							
BQ40370RSMR	BQ40Z551RSMR	BQ40Z70RSMT	BQ9003RSMR							
BQ40370RSMT	BQ40Z551RSMT	BQ40Z795ARSMR	BQ9003RSMR-L1							
BQ4050RSMR	BQ40Z552RSMR	BQ40Z795ARSMT	BQ9003RSMT							
BQ4050RSMT	BQ40Z552RSMT	BQ40Z80RSMR	BQ9006RSMR							
BQ40696ARSMR	BQ40Z555RSMR	BQ40Z80RSMT	BQ9006RSMT							
BQ40696ARSMT	BQ40Z555RSMT	BQ9000RSMR	SN9000RSMR							
BQ40Z453RSMR	BQ40Z557RSMR	BQ9000RSMR-D1	SN9000RSMT							
BQ40Z453RSMT	BQ40Z557RSMT	BQ9000RSMR-D2	SN9003RSMR							

BQ40Z50RSMR	BQ40Z695ARSMR	BQ9000RSMR-L1	SN9003RSMT
BQ40Z50RSMR-R1			



TI Information
Selective Disclosure

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

Type	Test Name / Condition	Duration	Qual Device: BQ9000RSMRMC	QBS Package Reference: BQ9000RSM	QBS Package Reference: BQ9003RSM	QBS Package Reference: BQ9003RSM
AC	Autoclave 121C	96 hours	3/231/0	3/231/0	3/231/0	-
CDM	ESD - CDM	1500 V	-	1/3/0	-	1/3/0
DS	Die Shear	QSS 009-009	3/30/0	3/30/0	3/30/0	1/10/0
ED	Electrical Characterization	Per Datasheet Parameters	1/Pass	1/Pass	-	1/Pass
HAST	Biased HAST, 130C/85%RH	96 hours	1/77/0	1/77/0	-	-
HBM	ESD - HBM	4000 V	-	1/3/0	-	1/3/0
HTOL	Life Test, 125C	1000 hours	1/77/0	1/77/0	-	-
HTSL	High Temp Storage Bake 170C	420 hours	3/231/0	3/231/0	3/231/0	-
LU	Latch-up	(Per JESD78, Class I)	-	1/6/0	-	1/6/0
LU	Latch-up	(Per JESD78, Class II)	-	1/6/0	-	1/6/0
MQ	Manufacturability (Assembly)	(Approved by A-T site)	3/Pass	3/Pass	3/Pass	1/Pass
MQ	Manufacturability (TQ - Testability)	(per mfg. Site specification)	1/Pass	-	-	-
MSL	L2 Powerpad Moisture Sensitivity	(MSL 2 / 260C)	3/36/0	3/35/0	3/36/0	-
TC	Temperature Cycle, -65/150C	500 cycles	3/231/0	3/231/0	3/231/0	-
WBP	Bond Pull	76 Wires, 3 units min	3/228/0	3/228/0	-	1/76/0
WBS	Ball Bond Shear	76 balls, 3 units min	3/228/0	3/228/0	-	1/76/0
XRAY	X-ray	(top side only)	3/15/0	3/15/0	3/15/0	1/5/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
 - QBS: Qual By Similarity
 - Qual Device BQ9000RSMRMC is qualified at LEVEL2-260CG
 - Device BQ9000RSMRMC contains multiple dies.
 - 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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