

PCN Number:	20231221002.1			PCN Date:	December 22, 2023								
Title:	Qualification of alternate mount compound material for select devices												
Customer Contact:	Change Management team		Dept:	Quality Services									
Proposed 1st Ship Date:	Mar 20, 2024		Sample Requests accepted until:	Jan 20, 2024*									
*Sample requests received after Jan 20, 2024 will not be supported.													
Change Type:													
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material								
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Process								
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Fab Site								
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Material								
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process								
PCN Details													
Description of Change:													
<p>This PCN is to inform of an alternate Mount Compound material set for the list of devices in the product affected sections below.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>What</th> <th>Current</th> <th>Additional</th> </tr> </thead> <tbody> <tr> <td>Mount Compound</td> <td>4073502, 039090034</td> <td>SID#039090026</td> </tr> </tbody> </table> <p>Qualification results are shown below</p>						What	Current	Additional	Mount Compound	4073502, 039090034	SID#039090026		
What	Current	Additional											
Mount Compound	4073502, 039090034	SID#039090026											
Reason for Change:													
Standardization													
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):													
None													
Impact on Environmental Ratings													
<p>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.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>IEC 62474</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> </tr> </tbody> </table>						RoHS	REACH	Green Status	IEC 62474	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change
RoHS	REACH	Green Status	IEC 62474										
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change										
Changes to product identification resulting from this PCN:													
None													
Group 1 Product Affected:													
ADS1278SHFQ		ADS1278SHKP	SMJ320C30HFGM50	LF444MD/883									
5962-0522101VXC													

Qualification Report

Product Attributes

Attributes	QBS Device: 5962-94B0509Q5A355	QBS Device: 5962R1822201VXC	QBS Device: 5962R1920601VXC	QBS Device: 5962R1820501VXC	QBS Device: SM28VL T32 SHKN	QBS Device: MPD23734HFG
Die Attributes						
Wafer Fab Supplier	DL-LIN	FR-BIP-1	MFAB	FR-BIP-1	DP1DM5	DP1DM5
Assembly Site	MTT	MTT	MTT	MTT	MTT	MTT
Package Group	CFP	CFP	CFP	CFP	CFP	CFP
Pin Count	196	22	14	34	14	84
Package Designator	HFG	HFT	HBH	HKY	HKN	HFG

- QBS Device 5962-94B0509Q5A355 is qualified at NOT CLASSIFIED
- QBS Device 5962R1822201VXC is qualified at NOT CLASSIFIED
- QBS Device 5962R1920601VXC is qualified at NOT CLASSIFIED
- QBS Device 5962R1820501VXC is qualified at NOT CLASSIFIED
- QBS Device SM28VL T32 SHKN is qualified at NOT CLASSIFIED
- QBS Device MPD23734HFG is qualified at NOT CLASSIFIED

Qualification Results

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

Type	Test Name	Condition/Duration	QBS Device: 5962- 94B0509Q5A355	QBS Device: 5962R1822201VXC	QBS Device: 5962R1920601VXC	QBS Device: 5962R1820501VXC	QBS Device: SM28VL T32 SHKN	QBS Device: MPD23734HFG
CHAR	Characterization	Across Operating Temperature Range	1/30/0	3/30/0	3/60/0	---	---	1/10/0
B2b	Die Shear QML	TM 2019	---	1/3/0	1/3/0	1/3/0	---	1/3/0
DSS	Die Shear Strength	QSS 009-009	---	---	---	---	1/3/0	---
C1	C1 Life Test	125°C, 1000 Hours	---	1/45/0	1/45/0	---	---	1/45/0
D3	Thermal Shock	a. TM 1011 Test condition B, 15 cycles min	1/15/0	1/15/0	1/15/0	1/15/0	---	1/15/0
	Temperature Cycle	b. TM 1010 Test condition C, 100 cycles min						
	Moisture Resistance	c. TM 1004						
	Visual Examination	d. In accordance with visual criteria of TM 1004 or TM 1010						
	Seal	e. TM 1014 test condition as applicable						
	End Point Electrical Parameters	f. As specified in the applicable device specification						
D4	Mechanical Shock	a. TM 2002 condition B min	1/15/0	1/15/0	1/15/0	1/15/0	---	1/15/0
	Vibration	b. TM 2007 condition A min						
	Constant Acceleration	c. TM 2001 condition E, Y1 orientation only						
	Seal	d. TM 1014 condition as applicable						
	Visual Examination	e. In accordance with visual criteria of TM 2007						
	End Point Electrical Parameters	f. As specified in the applicable device specification						
D6	D6 - Internal Gas Analysis	TM 1018 5,000 ppm maximum water content at 100°C	1/3/0	1/3/0	1/3/0	1/3/0	---	1/3/0
MQ	Assembly MQ	Per Site Specification	3/Pass	1/Pass	1/Pass	1/Pass	1/Pass	1/Pass
S1	Mechanical Shock	1500g, 0.5 msec, Y1, 6 pulses	---	---	---	---	1/15/0	---
	Variable Vibration Frequency	20g, 20-2000Hz, All planes						
	Constant Acceleration	30kg, Y1						
	Seal (Leak) Test	Fine and Gross						
	Electrical Test	Per datasheet						
S2	Solder Heat	260°C 10 sec	---	---	---	---	1/15/0	---
	Thermal Shock	-65°C/150°C						
	Temperature Cycle	-65°C/150°C						
	Moisture Resistance	Per QRAS 65588						
	Seal (Leak) Test	Fine and Gross						
	Electrical Test	Per datasheet						
HTSL	High Temp Storage Life	150°C, 1000/2000/3000 Hours	---	3/231/0	---	---	---	---
YLD	FTY and Bin Summary		---	---	---	1/Pass	1/Pass	---

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

Approve Date 18-April-2023

Product Attributes

Attributes	Qual Device: 5962-9460206Q2A (TLE2074AMFKB)
Assembly Site	MTT
Package Family	LCCC
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	DL-LIN
Wafer Process	EXCAL2

Qualification Results

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

Test Name / Condition	Condition	Results
Die Shear QML	TM 2019	1/3/0
Characterization	Per datasheet parameters across temperature range	1/30/0
QML D3 Package Subgroup Sequence	a. TM 1011 Test condition B, 15 cycles minimum b. TM 1010 Test condition C, 100 cycles minimum c. TM 1004 d. In accordance with visual criteria of TM 1004 or TM 1010 e. TM 1014 test condition as applicable f. As specified in the applicable device	1/15/0
QML D4 Package Subgroup Sequence	a. TM 2002 condition B minimum b. TM 2007 condition A minimum c. TM 2001 Test condition E, Y1 orientation only d. TM 1014 condition as applicable e. In accordance with visual criteria of TM 2007 f. As specified in the applicable device specification Mech Shock + Vibration + Const Acceleration	1/15/0
QML D6 Package Subgroup Sequence	TM 1018 5,000 ppm maximum water content at 100°C	1/3/0
Assembly MQ	Per site specification	Pass

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Qualification Report

5962-94B0509Q5A-13303355 / 1673355-ASY die attach change

Approve Date 17-August-2022

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: 5962- 94B0509Q5A355
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0
QML	D3	D3 Package Subgroup	a. TM 1011 Test condition B, 15 cycles minimum b. TM 1010 Test condition C, 100 cycles minimum c. TM 1004 8/ d. In accordance with visual criteria of TM 1004 or TM 1010 e. TM 1014 test condition as applicable f. As specified in the applicable device	-	1/15/0
QML	D4	D4 Package Subgroup	a. TM 2002 condition B minimum b. TM 2007 condition A minimum c. TM 2001 Test condition E, Y1 orientation only d. TM 1014 condition as applicable e. In accordance with visual criteria of TM 2007 f. As specified in the applicable device specification	-	1/15/0
QML	D6	D6 Package Subgroup	TM 1018 3(0) 5,000 ppm maximum water content at 100°C	-	1/3/0

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