

PCN Number:	20201112000.1A		PCN Date:	Dec 03, 2020																					
Title:	Qualification of an additional Substrate Manufacturing Subcontractor for select devices																								
Customer Contact:	PCN Manager	Dept:	Quality Services																						
Proposed 1st Ship Date:	Feb 19, 2021	Estimated Sample Availability:	Date provided at sample request																						
Change Type:																									
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site																				
<input checked="" 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:																									
<p>Revision A is to announce the addition of new devices that were not included on the original PCN notification. These new devices are highlighted and bolded in the device list below. The expected first shipment date for these new devices will be 90 days from this notice (Mar 04, 2021) for these newly added devices only. The proposed 1st ship date of Feb 19, 2021 still applies for the original set of devices.</p> <p>TI is qualifying an additional substrate manufacturing subcontractor (ACCESS) for the devices in the product affected section shown below. Assembly site origin (ASO) will remain unchanged. Construction differences are as follows:</p>																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 33%; text-align: center;">Current (ATNS)</th> <th style="width: 33%; text-align: center;">New (ACCESS)</th> </tr> </thead> <tbody> <tr> <td>Substrate Material</td> <td style="text-align: center;">R1551W</td> <td style="text-align: center;">6785GTK</td> </tr> <tr> <td>Solder mask</td> <td style="text-align: center;">XV501T</td> <td style="text-align: center;">SR7300G</td> </tr> <tr> <td>Adhesive</td> <td style="text-align: center;">AD222</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Cavity Filler</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">ABF GX-T31</td> </tr> <tr> <td>L1/L2 metal</td> <td style="text-align: center;">23um Cu</td> <td style="text-align: center;">15um Cu</td> </tr> <tr> <td>Surface Finish</td> <td style="text-align: center;">OSP</td> <td style="text-align: center;">OSP</td> </tr> </tbody> </table>						Current (ATNS)	New (ACCESS)	Substrate Material	R1551W	6785GTK	Solder mask	XV501T	SR7300G	Adhesive	AD222	N/A	Cavity Filler	N/A	ABF GX-T31	L1/L2 metal	23um Cu	15um Cu	Surface Finish	OSP	OSP
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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 at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp																						
Changes to product identification resulting from this PCN:																									
N/A																									
Product Affected:																									
TPS82692SIPR	TPS826951SIPT	TPS82740ASIPR																							
TPS82692SIPT	TPS82697SIPR	TPS82740ASIPT																							

TPS82693SIPR	TPS82697SIPT	TPS82740BSIPR	
TPS82693SIPT	TPS82698SIPR	TPS82740BSIPT	
TPS826951SIPR	TPS82698SIPT		

Qualification Report

Approve Date 16-Oct-2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS82740ASIPR</u>	QBS Process Reference: <u>TPS82130PSIL</u>
HAST	Biased HAST, 110C/85%RH	264 Hours	1/77/0	2/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	QBS	3/231/0
SD	Pb Free Surface Mount Solderability	4 hour @ 155C aging	1/22/0	-
TC	Temperature Cycle, -55/125C	700 Cycles	1/77/0	3/239/0
UHAST	Unbiased HAST 110C/85%RH	264 Hours	-	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 hours	1/77/0	-

- QBS: Qual By Similarity

- Qual Device TPS82740xSIPR devices are qualified at LEVEL2-260CG

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

- 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

Qualification Report

Approve Date 15-Nov-2019

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS8269xSIPR</u>
HAST	Biased HAST, 110C/85%RH	264 hours	1/77/0
PC	Preconditioning	MSL2/260C	3/280/0
SD	Pb Free Surface Mount Solderability	155C Heat aging	1/5/0
TC	Temperature Cycle, -55/125C	700 cycles	1/77/0
UHAST	Unbiased HAST 130C/85%RH	96 hours	1/77/0

- QBS: Qual By Similarity

- TPS8269xSIPR is qualified at LEVEL2-260CG

- 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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