PCN Number:	20211001000.1	PCN Date:	October 11, 2021
Title:	Qualify New Assembly Material set for Selected Device(s)		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Jan 11, 2022	Estimated Sample Availability:	Date provided at sample request

Change Type:

☐	Assembly Site	☐	Design	☐	Wafer Bump Site
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☒	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Site
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of new assembly material set for devices listed in "Product affected" section below. Devices will remain in current assembly facility and piece part changes as follows:

Material	Current	Proposed
Mount compound	400181	400180
Mold compound	450419	450423

Reason for Change:

Continuity of supply.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

None.

Impact on Environmental Ratings

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.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

None.

Product Affected:

TLV70012DDCR	TLV70025DDCT	TLV70036DDCR	TPS62223DDCT
TLV70012DDCT	TLV70028DDCR	TLV70036DDCT	TPS62224DDCR
TLV70013DDCR	TLV70028DDCT	TPS62220DDCR	TPS62224DDCT
TLV70013DDCT	TLV70030DDCR	TPS62220DDCT	TPS62225DDCR
TLV70015DDCR	TLV70030DDCT	TPS62221DDCR	TPS62225DDCT
TLV70015DDCT	TLV70032DDCR	TPS62221DDCT	TPS62227DDCR
TLV70018DDCR	TLV70032DDCT	TPS62222DDCR	TPS62227DDCT
TLV70018DDCT	TLV70033DDCR	TPS62222DDCT	TPS62228DDCR
TLV70025DDCR	TLV70033DDCT	TPS62223DDCR	TPS62229DDCT

Qualification Report

Approve Date 30-Sept-2021

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TLV70036DDCR	Qual Device: TPS62221DDCR	QBS Device TPS25221DBVR	QBS Device TS5A3159DBVR	QBS Device TS5A3166DBVR
PC	Preconditioning	Level 1 - 260C	--	1/154/0	3/693/0	3/693/0	3/693/0
PC	Preconditioning	Level 2 - 260C	1/154/0	--	--	--	
AC	Autoclave, 121C	96 Hours	--	--	3/231/0	3/231/0	3/231/0
BHAST	Biased HAST, 130C	96 Hours	--	--	3/231/0	--	
UHAST	Unbiased HAST, 130C	96 Hours	1/77/0	1/77/0	--	--	
HTOL	Life Test, 140C	480 Hours	--	--	1/77/0	--	
HTSL	High Temp. Storage Bake, 150C	1000 Hours	--		--	3/231/0	3/231/0
TC	Temperature Cycle, -65C/150C	500 Cycles	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0
ED	Electrical Distributions	(per datasheet requirements)	--	--	3/Pass	--	
MQ	Manufacturability (Assembly)	(per mfg. site specification)	1/Pass	1/Pass	3/Pass	3/Pass	3/Pass
PD	Physical Dimensions	(per drawing requirements)	1/30/0	1/30/0	3/15/0	3/15/0	3/15/0
LI	Lead Fatigue	Leads	--	--	--	3/66/0	
LI	Lead Pull	Leads	--	--	--	3/66/0	
SD	Solderability	Pb-Free	--	--	--	3/66/0	
YLD	FTY and Bin Summary	-	1/Pass	1/Pass	--	--	3/Pass

- QBS: Qual By Similarity
- Qual Device TPS62221DDCR is qualified at LEVEL1-260C
- Qual Device TLV70036DDCR is qualified at LEVEL2-260C
- QBS Device TPS25221DBVR is qualified at LEVEL1-260C
- QBS Device TS5A3166DBVR is qualified at LEVEL1-260C
- QBS Device TS5A3159DBVR is qualified at LEVEL1-260C

- 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/1000 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/1000 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	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
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