PCN Number:	20180425000.1	**PCN Date:**	July 20 2018
Title:	Qualification of a new Bump Site plus addition of Polyimide for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Oct 20 2018	**Estimated Sample Availability:**	Provided upon Request

Change Type:

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

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of a new bump site as well as the introduction of Polyimide:

	Current	New
Wafer Bump Site	HBUMP	**DBUMP**
Die Coating	None	**Polyimide**

Reason for Change:

HBUMP facility has closed

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

None

Anticipated impact on Material Declaration

☐	No Impact to the Material Declaration	☒	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:

Not Applicable

Product Affected

TPS650001RTER	TPS650003RTET	TPS650007RTER	TPS65000RTER
TPS650001RTET	TPS650006RTER	TPS650007RTET	TPS65000RTET
TPS650003RTER	TPS650006RTET		

Qualification Report

TPS65000RTER Bump site offload from HBUMP to DBUMP for Commercial Devices

Approve Date 12-Jul-2018

Product Attributes

Attributes	Qual Device: TPS65000RTER	QBS Product Reference: TPS57114QRTERDN	QBS Process Reference: TPS55340QPWPRQ1	QBS Package Reference: SN0701013DRC	QBS Package Reference: TPA6040A4RHB
Assembly Site	MLA (TIM)	TIM	TAI	MLA	MLA
Package Family	QFN, 3 X 3 (MM)	WQFN	HTSSOP	SON	QFN
Flammability Rating	-	UL 94 V-0	UL 94 V-0	UL94-V0	UL94-V0
Wafer Fab Supplier	MIHO	MIHO	MIHO	MIHO	MIHO
Wafer Process	LBC7	LBC7	LBC7	LBC7	LBC7

- QBS: Qual By Similarity
- Qual Device TPS65000RTER is qualified at LEVEL2-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS65000RTER	QBS Product Reference: TPS57114QRTERDN	QBS Process Reference: TPS55340QPWPRQ1	QBS Package Reference: SN0701013DRC	QBS Package Reference: TPA6040A4RHB
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0	3/231/0	3/231/0
ED	Electrical Distributions	Cpk>1.67 Room, Hot, & Cold	-	1/90/0	1/30/0	-	-
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	3/2400/0	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0	-	-
HBM	ESD - HBM	4000 V	-	1/12/0	-	-	-
CDM	ESD - CDM	1500 V	-	1/3/0	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	3/231/0	3/231/0	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	1/50/0	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	1/50/0	-	-
LU	Latch-up	(per JESD78)	-	1/6/0	1/6/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	3/231/0	3/231/0	3/231/0	3/231/0
TS	Thermal Shock, -65/150C	1000 cycles	-	-	-	-	3/231/0

- 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/

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.

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USA	PCNAmericasContact@list.ti.com
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