PCN Number:	20240621001.1	PCN Date:	June 21, 2024
Title:	Qualification of TIPI as an additional Assembly site for select devices		
Customer Contact:	Change Management team	Dept:	Quality Services
Proposed 1st Ship Date:	September 19, 2024	Sample requests accepted until:	July 21, 2024

***Sample requests received after** July 21, 2024 **will not be supported.**

Change Type:

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

PCN Details

Description of Change:

Texas Instruments Incorporated is announcing the qualification of TIPI as an additional Assembly site for devices listed below in the product affected section. Construction differences and current assembly site as follows:

	ASECL	TIPI
Mount Compound	SID# EPND2100A001B	4205412
Mold Compound	SID# 1800874111	4208515

Reason for Change:

Supply continuity

Anticipated impact on Form, Fit, 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:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
ASECL	UAJ	TWN	Chung-Li
TIPI	**PHI**	**PHL**	**Baguio City**

Sample product shipping label (not actual product label)

Product Affected:			
DLPC1438ZEZ	DLPC3426ZVB	DLPC3435CZEZ	DLPC3440CZEZ
DLPC1439ZEZ	DLPC3430CZVBR	DLPC3436CZVB	DLPC3470CZEZ
DLPC150ZEZ	DLPC3432CZVB	DLPC3437CZEZ	DLPC3478CZEZ
DLPC3420ZVB	DLPC3433CZVB	DLPC3438CZEZ	DLPC3479CZEZ
DLPC3421ZVB	DLPC3434CZVB	DLPC3439CZEZ	

Qualification Report

Approval Date 22 April 2024

Product Attributes

Qualification/QBS Devices	Qual: DLPC3436CZVB DLPC3437CZEZ	QBS Device: CD3215CXXXZBHR	QBS Device: LMK04616ZCRR	QBS Device: MSP430FR5994IZVW	QBS Device: OMAP5912ZVL	QBS Device: TMP5703137BZWTQQ1	QBS Device: TPS659038XZWSRQ1	QBS Device: TUSB1310ZAY	QBS Device: 781962BZCZ
Assembly Site	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
Package Family	NFBGA	NFBGA	NFBGA	NFBGA	NFBGA	NFBGA	NFBGA	NFBGA	NFBGA
Pin Count	176 / 201	96	144	87	289	337	169	175	324
Package Designator	ZVB / ZEZ	ZBH	ZCR	ZVW	ZVL	ZWT	ZWS	ZAY	ZCZ
Moisture Sensitivity Level	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C	LEVEL3-260C
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	TSMC-F12	RFAB	FFAB	DMOS6	DMOS6	TSMC-F14	RFAB	DMOS6	UMC-F12
Wafer Process	1018C014	LBC8LV	BICMOS13	HPE035	1533C035	12F021	LBC7	1118C021	1118C014

Qualification Results

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

Type	Test Name / Condition	Duration	QBS Device: CD3215CXXXZBHR	QBS Device: LMK04616ZCRR	QBS Device: MSP430FR5994IZVW	QBS Device: OMAP5912ZVL	QBS Device: TMP5703137BZWTQQ1	QBS Device: TPS659038XZWSRQ1	QBS Device: TUSB1310ZAY	QBS Device: 781962BZCZ
PC	Preconditioning	L3-260C	3/924/0	3/924/0	3/1155/0	3/924/0	3/924/0	3/693/0	3/1155/0	3/924/0
AC	Autoclave, 121C	96 Hours	---	---	3/231/0	---	---	---	---	---
UHAST	UHAST, 110C/85%RH	264 Hours	3/231/0	3/231/0	---	3/231/0	3/231/0	3/231/0	---	3/231/0
UHAST	UHAST, 130C/85%RH	96 Hours	---	---	---	---	---	---	3/231/0	
HAST	THB, 85C/85%RH	1000 Hours	---	---	---	---	3/231/0	3/231/0	---	3/231/0
HAST	BHAST, 110C/85%RH	264 Hours	3/231/0	3/231/0	3/231/0	3/231/0	---	---	---	---
HAST	BHAST, 130C/85%RH	96 Hours	---	---	---	---	---	---	3/231/0	---
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	3/231/0	3/231/0	3/231/0	3/231/0	---	3/231/0	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	---	---	3/231/0	---		3/231/0	---	---
HTOL	High Temp Operating Life, 105C	1000 Hours	---	1/77/0	---	---	---	3/231/0	---	---
HTOL	High Temp Operating Life, 115C	1000 Hours	---	1/77/0	---	---	---	---	---	---
HTOL	High Temp Operating Life, 125C	1000 Hours	3/231/0	---	3/231/0	---	3/231/0	---	3/231/0	3/231/0
ELFR	Early Life Failure Rate, 125C	48 Hours	---	---	---	---	3/2400/0	---	3/1833/0	3/2400/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	1/77/0	3/231/0	3/231/0	3/135/0	3/135/0	3/231/0	3/135/0
PTC	Power Temp Cycle, -40C/105C	1000 Cycles	---	---	---	---	---	3/135/0	---	---
ED	Electrical Characterization	Datasheet	3/90/0	1/30/0	3/90/0	1/30/0	3/90/0	3/90/0	3/90/0	3/90/0
TPI	Thermal Path Integrity	500 Cycles	---	---	---	3/36/0	---	---	---	---
FLAM	Flammability (UL94 V-0)	--	3/PASS	---	---	---	---	---	---	---
FLAM	Flammability (IEC 695-2-2)	--	3/PASS	---	---	---	---	---	---	---
FLAM	Flammability (UL-1694)	--	3/PASS	---	---	---	---	---	---	---
CDM	ESD, Charged Device	250V	3/PASS	1/PASS	1/PASS	1/PASS	1/PASS	1/PASS	3/PASS	3/PASS
HBM	ESD, Human Body	1000V	3/PASS	1/PASS	1/PASS	1/PASS	1/PASS	1/PASS	3/PASS	3/PASS
LU	Latch-up	Per JESD78	3/PASS	1/PASS	1/PASS	1/PASS	1/PASS	1/PASS	3/PASS	3/PASS
MQ	Assembly MQ	Lots	3/PASS	3/PASS	3/PASS	3/PASS	3/PASS	3/PASS	3/PASS	3/PASS
SBS	Solder Ball Shear	Balls	3/540/0	1/80/0	---	---	---	3/150/0	3/240/0	3/240/0
PD	Physical Dimensions	Devices	3/15/0	---	---	---	---	3/30/0	---	3/30/0
SD	Pb Free		3/66/0	---	---	3/66/0	---	---	---	---
MSL	Level 3-260C		3/36/0	3/36/0	3/36/0	3/36/0	---	3/36/0	3/36/0	3/36/0

- 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 Change Management team or your local Field Sales Representative.

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