PCN Number:	20170609001A	PCN Date:	July 18, 2018
Title:	Qualification of TIPI as additional Assembly and Test Site for Select Devices		
Customer Contact:	PCN Manager	Dept:	Quality Services

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:

Revision A is to update the description of change to provide correction on the pin 1 marking differences between sites. We apologize for any inconvenience this may have caused.

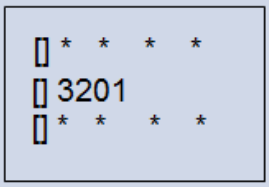
Qualification of TIPI (TI Philippines) as additional Assembly and Test Site for Select Devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.

Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City
JCET Co. Ltd	JCE	CHN	Jiangyin
TI Philippines A/T	**PHI**	**PHL**	**Baguio City**

Material Differences:

	JCET	TIPI
Mold compound	120800005407	4222198
Lead finish	Matte Sn	NiPdAu

Pin 1 Marking Differences:

	JCET	TIPI
Pin 1 Marking	 o = Pin 1 (Marked) **** = Binary Date Code per TI drawing	 [] = Pin 1 (Marked) **** = Binary Date Code per TI drawing

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.

Reason for Change:

Continuity of Supply

Anticipated impact on Form, Fit, 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-Info website. There is no impact to the material meeting current regulatory compliance requirements with this PCN change.

Changes to product identification resulting from this PCN:

Assembly Site		
JCET Co. Ltd	Assembly Site Origin (22L)	ASO: JCE
TI Philippines A/T	Assembly Site Origin (22L)	ASO: PHI

Sample product shipping label (not actual product label)

ASSEMBLY SITE CODES: JCET = F, TIPI = W

Product Affected:

TPS561201DDCR	TPS561208DDCT	TPS562208DDCR	TPS563201DDCT
TPS561201DDCT	TPS562201DDCR	TPS562208DDCT	TPS563208DDCR
TPS561208DDCR	TPS562201DDCT	TPS563201DDCR	TPS563208DDCT

Qualification Data
TIPI SOT: Phase 3 (DDC_FC0L_JCAP Bump)

Approve Date 07-Jun-2017

Product Attributes

Attributes	Qual Device: TPS562201DDCR
Assembly Site	PHI (TIPI)
Package Family	SOT
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	MIHO8
Wafer Fab Process	LBC7.3

- QBS: Qual By Similarity
- Qual Device TPS562201DDCR is qualified at LEVEL1-260C

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS562201DDCR
ED	Electrical Characterization	Per Datasheet Parameters	Pass

FLAM	Flammability (UL 94V-0)	--	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
HTOL	Life Test, 125C	1000 Hours	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0
LI	Lead Fatigue	Leads	3/66/0
LI	Lead Pull	Leads	3/66/0
MISC	Salt Atmosphere	--	3/66/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass
MQ	Manufacturability (Bump)	(per mfg. Site specification)	Pass
PD	Physical Dimensions	--	3/15/0
SD	Solderability	8 Hours Steam Age	3/36/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	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

Qualification Data
TIPI SOT: Phase3 (DDC_FCOL_JCAP_Bump_TPS563201DDCR)

Approve Date 08-Jun-2017

Product Attributes

Attributes	Qual Device: TPS563201DDCR
Assembly Site	PHI (TIPI)
Package Family	SOT
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	MIHO 8
Wafer Fab Process	LBC7.3

Qualification Results

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

Type	Test Name / Condition	Duration	TPS563201DDCR
LI	Lead Fatigue	Leads	3/66/0
LI	Lead Pull	Leads	3/66/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass
MQ	Manufacturability (Bump)	(per mfg. Site specification)	Pass
PD	Physical Dimensions	--	3/15/0
TC	Temperature Cycle, -65/150C	500 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.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com