PCN Number:	20180828000.1	**PCN Date:**	Aug. 28, 2018
Title:	Qualification of TI Clark as an additional Assembly & Test site for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Nov 28, 2018	**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 TI Clark as an additional Assembly & Test site for select devices. Assembly differences are as follows:

Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City
UTAC Thai Limited	NSE	THA	Bangkok
TI Clark	**QAB**	**PHL**	**Angeles City**

Material differences:

	UTAC Thai Limited	TI Clark
Controller mount compound	PZ0138	4206201
Mold Compound	CZ0351	4222198
Lead frame finish	Matte Sn (Roughened)	NiPdAu (Roughened)

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:

Sample Product Shipping Label (not actual product label)

Assembly Site		
UTAC Thai Limited	Assembly Site Origin (22L)	ASO: NSE
TI Clark	Assembly Site Origin (22L)	ASO: QAB

Product Affected:

CSD59945RWJ	CSD59956RWJ	CSD95480RWJT	SN1703022RWJ
CSD59950RWJ	CSD59985RWJ	CSD95481RWJ	SN1803048RWJ
CSD59951RWJ	CSD59986RWJ	CSD95481RWJT	
CSD59952RWJ	CSD59995ARWJ	CSD95482RWJ	
CSD59955RWJ	CSD95480RWJ	CSD95482RWJT	

Qualification Report

CSD95480RWJ Power Stage Product Qualification

Approve Date 28-August-2018

Product Attributes

Attributes	Qual Device: CSD95480RWJ	Qual Device: CSD95480RWJ	Qual Device: CSD95480RWJ	Qual Device: CSD95480RWJ
Assembly Site	CLARK	UTAC	UTAC	PSI
Package Family	QFN/SON	QFN/SON	QFN/SON	QFN/SON
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MIHO CFAB CFAB	MIHO CFAB CFAB	FFAB AIZU AIZU	MIHO CFAB CFAB
Wafer Process	LBC7 NEXFET GEN2.2 LV2010 NEXFET GEN2.2 LV2010	LBC7 NEXFET GEN2.2 LV2010 NEXFET GEN2.2 LV2010	LBC7 NEXFET GEN2.2 LV2010 NEXFET GEN2.2 LV2010	LBC7 NEXFET GEN2.2 LV2010 NEXFET GEN2.2 LV2010

- QBS: Qual By Similarity
- Qual Device CSD95480RWJ is qualified at LEVEL2-260C
- Device CSD95480RWJ contains multiple dies

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: CSD95480RWJ	Qual Device: CSD95480RWJ	Qual Device: CSD95480RWJ	Qual Device: CSD95480RWJ
AC	Autoclave 121C	96 Hours	-	3/231/0	-	3/231/0
DIOL	Dynamic Intermittent Operating Life (4 min cycles)	10000 Cycles	3/231/0	3/231/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	-	-	-
HAST	Biased HAST, 110C/85%RH	264 Hours	3/231/0	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0	3/231/0
HBM	ESD - HBM	2500 V	-	-	1/3/0	1/3/0
CDM	ESD - CDM	1500 V	-	-	1/3/0	1/3/0
HTOL	Life Test, 125C	1000 Hr	-	3/231/0	3/231/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	3/231/0	3/231/0	3/231/0	3/231/0
LU	Latch-up	Per JESD74	-	-	1/6/0	1/6/0
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	3/231/0	3/231/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	3/231/0	-	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/

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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