PCN Number:	20161115002	**PCN Date:**	11/16/2016
Title:	Qualification of UTAC as Additional Assembly Site for Select PVQFN Package Devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	02/16/2017	**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 announcing the qualification of UTAC as Additional Assembly 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
TI Clark	QAB	PHL	Angeles City, Pampanga
UTAC	**NSE**	**THA**	**Bangkok**

Material Differences:

	TI Clark	UTAC
Lead Finish	NiPdAu	NiPdAuAg
Mount Compound	4207123	PZ0035
Mold Compound	4208625	CZ0289

Reason for Change:

Continuity of supply.

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

None

Changes to product identification resulting from this PCN:

Assembly Site		
TI-CLARK	Assembly Site Origin (22L)	ASO: QAB
UTAC	Assembly Site Origin (22L)	ASO: NSE

Sample product shipping label (not actual product label)

ASSEMBLY SITE CODES: TI-CLARK = I , NSE = J

Product Affected:			
CC1310F128RGZR	CC1310F32RSMT	CC2640F128RSMR	CC2620F128RGZT
CC1310F128RGZT	CC2630F128RGZR	CC2640F128RSMT	CC2620F128RSMR
CC1310F128RHBR	CC2630F128RGZT	CC1310F64RGZR	CC2620F128RSMT
CC1310F128RHBT	CC2630F128RHBR	CC1310F64RGZT	CC2650F128RGZR
CC1310F128RSMR	CC2630F128RHBT	CC1310F64RHBR	CC2650F128RGZT
CC1310F128RSMT	CC2630F128RSMR	CC1310F64RHBT	CC2650F128RHBR
CC1310F32RGZR	CC2630F128RSMT	CC1310F64RSMR	CC2650F128RHBT
CC1310F32RGZT	CC2640F128RGZR	CC1310F64RSMT	CC2650F128RSMR
CC1310F32RHBR	CC2640F128RGZT	CC1350F128RGZR	CC2650F128RSMT
CC1310F32RHBT	CC2640F128RHBR	CC1350F128RGZT	
CC1310F32RSMR	CC2640F128RHBT	CC2620F128RGZR	

Qualification Report

CC26xx Qualification in UTAC with F021 TSMC

Product Attributes

Attributes	Qual Device: CC2640F128RGZ	Qual Device: CC2640F128RSMR	QBS Device: XCC3200Z11MRGK
Assembly Site	UTAC	UTAC	UTAC
Package Family	QFN	QFN	QFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	TSMC FAB14	TSMC FAB14	TSMC FAB14 UMC 12A
Wafer Fab Process	F021	F021	F021 C021

- QBS: Qual By Similarity
- Qual Device CC2640F128RGZR is qualified at LEVEL3-260C

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: CC2640F128RGZ	Qual Device: CC2640F128RSMR	QBS Device: XCC3200Z11MRGK
CDM	ESD - CDM	250V, 500, 750V	1/3/0	-	-
HTSL	High Temp Storage Bake 150C	1000hr	3/231/0	-	3/230/0
PC	PreCon MSL3	3 Cyc/260C +5 / -0C	3/904/0	3/270/0	6/721/0
TC	Temperature Cycle, -55/125C	700cy	3/231/0	3/231/0	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000hr	QBS	-	3/77/0
UHAST	Unbiased HAST 110C/85%RH	264hr	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/

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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