PCN Number:	20220720000.1	PCN Date:	July 20, 2022
Title:	Qualification of TSMC-WF3 (Fab 3) as an additional Wafer Fab Site option for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Oct 20, 2022	Sample requests accepted until:	August 20, 2022*

***Sample requests received after August 20, 2022 will not be supported.**

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 TSMC-WF3 (Fab 3) fabrication facility as an additional Wafer Fab source for the selected devices listed in the "Product Affected" section.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**New Fab Site**	**Process**	**Wafer Diameter**
TSMC-WFT (Fab 11)	0.18UM-TSMC	200 mm	TSMC-WF3 (Fab 3)	0.18UM-TSMC	200 mm

Qual details are provided in the Qual Data Section.

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:

Current

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-WFT (Fab 11)	T13	USA	Camas

New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-WF3 (Fab 3)	TS5	TWN	Hsinchu

Sample product shipping label (not actual product label)

Product Affected:			
SN3138RGCR	UCD3138RHAR	UCD3138RJAR	
UCD3138RGCR	UCD3138RHAT	UCD3138RJAT	

Qualification Report

Approve Date 08-Jun-2022

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: UCD3138RGC	Qual Device: UCD3138RJAR	QBS Product Reference: UCD3138RGC	QBS Product Reference: UCD3138RHA	QBS Product Reference: UCD3138RMH	QBS Product Reference: UCD3138RJA	QBS Package Reference: UCD3138ARGC	QBS Package Reference: UCD3138RMH
AC	Autoclave 121C	96 Hours	-	-	-	-	-	3/231/0	3/230/0	2/154/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	-	-	-	-	1/30/0	-	1/30/0
HBM	ESD - HBM	4000 V	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	-	-	-
CDM	ESD - CDM	1000 V	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	-	-
HTOL	Life Test, 140C	480 Hours	1/77/0		1/77/0	-	-	-	-	-
LU	Latch-up	(per JESD78)	1/6/0	-	1/6/0	-	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	-	-	-	3/231/0	3/230/0	2/154/0

- QBS: Qual By Similarity
- Qual Device UCD3138RJAR is qualified at LEVEL2-260C
- Qual Device SN3138RGCR is qualified at LEVEL3-260C
- Qual Device UCD3138RGC is qualified at LEVEL2-260C
- Qual Device UCD3138RHAR is qualified at LEVEL3-260C

- 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 contact shown below, or you can contact your local Field Sales Representative.

Location	E-Mail
WW Change Management Team	PCN_ww_admin_team@list.ti.com

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