PCN Number:	20160628002	PCN Date:	6/30/2016
Title:	Qualification of CFAB as an additional wafer fab site option for select devices in LBC5 process technology		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	9/30/2016	Estimated Sample Availability:	Date provided at sample request.

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:

This change notification is to announce the qualification of CFAB as an additional wafer fab site option for the LBC5 devices listed in the product affected section of this document.

Current Sites				Additional Sites			
Current Fab Site	Fab Process	Bump Site	Wafer Diameter	Additional Fab Site	Fab Process	Bump Site	Wafer Diameter
DP1DM5	LBC5	DBUMP	200 mm	CFAB	LBC5	Clark-BP	200 mm

The LBC5 process technology has been running successfully in production at CFAB since 2012.

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 Sites	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
DP1DM5	DM5	USA	Dallas

New

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
CFAB	**CU3**	**CHN**	Chengdu

Sample product shipping label (not actual product label)

Product Affected:			
SN0907035D	TPS54040DGQ	TPS54160DGQR	TPS54260DGQR
SN0907035DR	TPS54040DGQR	TPS54160DGQRG4	TPS54260DRCR
SN0907036D	TPS54060DGQ	TPS54231D	TPS54260DRCT
SN0907036DR	TPS54060DGQR	TPS54231DR	TPS54331D
SN1011013D	TPS54060DRCR	TPS54231DRG4	TPS54331DG4
SN1011013DR	TPS54060DRCT	TPS54240DGQ	TPS54331DR
SN1206020DR	TPS54140DGQ	TPS54240DGQR	TPS54331DRG4
TPS43060RTER	TPS54140DGQR	TPS54240DRCR	TPS54331GDR
TPS43060RTET	TPS54160DGQ	TPS54240DRCT	TPS54332DDA
TPS43061RTER	TPS54160DGQG4	TPS54260DGQ	TPS54332DDAR
TPS43061RTET			

Qualification Report

Qualification of LBC5 Process Technology at CFAB
Approved 03/02/2012

Die Attributes

Attributes	Process QBS : TAS5613APHD Approved: 3/2/2012	Process QBS: DRV8813A0PWP Approved: 3/2/2012	Process QBS: SN8C0183PWP Approved: 3/2/2012
Wafer Fab Site	CFAB	CFAB	CFAB
Wafer Fab Process	LBC5	LBC5	LBC5
Wafer Diameter	200mm	200mm	200mm

- QBS: Qual By Similarity
- Qual Device TAS5613APHD and SN8C0183PWP are qualified at LEVEL3-260C
- Qual Device DRV8813A0PWP 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: TAS5613APHD	Qual Device: DRV8813A0PWP	Qual Device: SN8C0183PWP
AC	Autoclave 121C	96 Hours	3/77/0	3/77/0	-
ED	Electrical Characterization	Per Datasheet Parameters	3/Pass	3/Pass	3/3/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/77/0	-	-
HBM	ESD - HBM	1500 V	3/21/0	1/3/0	-
CDM	ESD - CDM	250 V	3/15/0	1/3/0	-
HTOL	Life Test, 155C	240 Hours	3/77/0		3/77/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/77/0	-	-
LU	Latch-up	(per JESD78)	3/6/0	1/6/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/77/0	3/77/0	-

- 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 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 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 Report

LBC5 Offload (DM5 to CFAB)

Approve Date 02-Jun-2016

Product Attributes

Attributes	Qual Device: TPS54240DGQR
Assembly Site	ASE SHANGHAI
Package Family	VSSOP
Wafer Fab Supplier	CFAB
Wafer Process	LBC5

- Qual Device TPS54240DGQR is qualified at LEVEL1-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS54240DGQR
CDM	ESD - CDM	1500 V	1/3/0
HBM	ESD - HBM	2500 V	1/3/0
HTOL	Life Test, 125C	1000 Hours	1/76/0
LU	Latch-up	(per JESD78)	1/8/0

- 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
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 you can contact 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