PCN Number:	20151214003A	**PCN Date:**	2/10/2016
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:	05/10/2016	**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:

The purpose of revision A is to add devices to the previously announced change. The devices being added are shown in the Product Affected Section, Group 1. The devices previously notified are in Group 2.

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			Additional		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
DP1DM5	LBC5	200 mm	CFAB	LBC5	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:			
Group 1: Devices Being Added in Revision A (Proposed Ship Date: 5/5/2016)			
DRV8860PW	DRV8881EPWPR	TAS5707APHPR	TAS5709APHPR
DRV8860PWPR	DRV8881ERHRR	TAS5707LPHP	TAS5709GPHP
DRV8860PWR	DRV8881ERHRT	TAS5707LPHPR	TAS5709GPHPR
DRV8880PWP	DRV8881PPWP	TAS5707PHP	TAS5709PHP
DRV8880PWPR	DRV8881PPWPR	TAS5707PHPR	TAS5709PHPR
DRV8880RHRR	DRV8881PRHRR	TAS5709AGPHP	TAS5711PHP
DRV8880RHRT	DRV8881PRHRT	TAS5709AGPHPR	TAS5711PHPR
DRV8881EPWP	TAS5707APHP	TAS5709APHP	-
Group 2: Devices previously announced (Proposed Ship Date: 3/17/2016)			
DRV8800PWP	DRV8801PWP	DRV8818PWP	DRV8818PWPR
DRV8800PWPR	DRV8801PWPR		

Qualification Report

CFAB OFFLOAD from DMOS5 (DRV8860PWPR)
Approve Date 12-Nov-2015

Product Attributes

Die Attributes	Qual Device: DRV8860PWPR	QBS Product Reference: DRV8860PW	QBS Product Reference: DRV8860PWP	QBS Process Reference: TAS5613APHD
Wafer Fab Supplier	CFAB	DMO5	DM5-DALLAS	CFAB
Wafer Process	LBC5	LBC5X	LBC5X	LBC5

- QBS: Qual By Similarity
- Qual Device DRV8860PWPR 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: DRV8860PWPR	QBS Product Reference: DRV8860PW	QBS Product Reference: DRV8860PWP	QBS Process Reference: TAS5613APHD
AC	Autoclave 121C	96 Hours	-	-	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0	1/30/0	1/30/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0
HBM	ESD - HBM	4000 V	-	1/3/0	-	-
CDM	ESD - CDM	1500 V	-	1/3/0	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-
HTOL	Life Test, 155C	240 Hours	-	-	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	3/230/0
LU	Latch-up	(per JESD78)	-	1/24/0	-	3/18/0
SBS	Ball Shear	Wires	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	2/154/0	1/77/0	3/231/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-	-

- 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 Report

DRV8880PWP CFAB Qual
Approve Date 29-Jan-2016

Product Attributes

Attributes	Qual Device: DRV8880PWP	QBS Product Reference: DRV8880PWP	QBS Process Reference: TAS5613APHD
Wafer Fab Supplier	CFAB	DM5	CFAB
Wafer Process	LBC5	LBC5X2	LBC5

- QBS: Qual By Similarity
- Qual Device DRV8880PWP 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: DRV8880PWP	QBS Product Reference: DRV8880PWP	QBS Process Reference: TAS5613APHD
AC	Autoclave 121C	96 Hours	-	1/77/0	3/231/0
ED	Auto Electrical Distributions	Cpk>1.67 Room, hot, and cold test	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
HBM	ESD - HBM	4000 V	1/3/0	1/3/0	-
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	-
HTOL	Life Test, 125C	1000 Hours	-	-	-
HTOL	Life Test, 155C	240 Hours	-	-	3/231/0
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/230/0
LU	Latch-up	(per JESD78)	2/12/0	1/6/0	3/18/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	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

Qualification Report

Qualification of LBC5 Process Technology at CFAB
Approved: 3/02/2012

Die Attributes

Attributes	Process QBS : TAS5613APHD Approved: 3/2/2012	Qual Device DRV8800PWP Approved: 12/03/2015	Qual Device DRV8801PWP Approved: 12/03/2015	Qual Device DRV8818PWPR Approved 11/12/2015
Wafer Fab Site	CFAB	CFAB	CFAB	CFAB
Wafer Fab Process	LBC5	LBC5	LBC5	LBC5
Wafer Diameter	200mm	200mm	200mm	200mm

- QBS: Qual By Similarity
- Qual Device TAS5613APHD and SN8C0183PWP are qualified at LEVEL3-260C
- Qual Device DRV8800PWP/DRV8801PWP is qualified at LEVEL2-260CG
- Qual Device DRV8860PWPR is qualified at LEVEL1-260CG

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

Type	Test Name / Condition	Duration	Process QBS Device: TAS5613APHD	Qual Device DRV8800PWP	Qual Device DRV8801PWP	Qual Device DRV8818PWPR
AC	Autoclave 121C	96 Hours	3/77/0	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	3/Pass	1/Pass	3/Pass	1/Pass
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	-	-	-
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	1/77/0	-	-

- 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 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

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