

PCN Number: 20160823000 **PCN Date:** 08/30/2016

Title: Qualification of RFAB for Select LBC8 Devices

Customer Contact: [PCN Manager](#) **Dept:** Quality Services

Proposed 1st Ship Date: 11/30/2016 **Estimated Sample Availability:** Date provided at sample request.

Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
<input type="checkbox"/>		<input type="checkbox"/>	Part number change		

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional wafer Fab source for the devices listed in the "Product Affected" section.

Current Site			Additional Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
DP1DM5	LBC8	200 mm	RFAB	LBC8	300 mm

Qual details are provided in the Qual Data Section.

Reason for Change:

Capacity increase


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
RFAB	RFB	USA	Richardson



Sample product shipping label (not actual product label)



MADE IN: Malaysia
2DC: 20:

MSL 2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT: 39
ITEM: 39
LBL: 5A (L)T0:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483S12
(P)
(2P) REV. (V) 0033317
(20L) CS0: SHE (21L) CCO: USA
(22L) AS0: MLA (23L) ACO: MYS

Product Affected:

AFE4404YZPR	AFE4404YZPT
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Qualification Report

AFE4404YZP (WCSP) at TI-CLARK and RFAB
Approve Date 04-Aug-2016

Product Attributes

Attributes	Qual Device: AFE4404YZP	QBS Product Reference: AFE4404YZP	QBS Process Reference: SH8350BCA0PAPG4_TIPI	QBS Package Reference: TPA2010D1YZF	QBS Package Reference: TPA4411YZH
Assembly Site	CLARK-AT	CLARK-AT	PHI	CLARK-AT	TI-Clark
Package Family	WCSP	WCSP	HTQFP	WCSP	WCSP
Wafer Fab Supplier	RFAB	DMOS5	RFAB	MIHO8	DLN
Wafer Process	LBC8LV	LBC8LV	LBC8LV	A12	LBC3S

- QBS: Qual By Similarity
- Qual Device AFE4404YZP 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: AFE4404YZP	QBS Product Reference: AFE4404YZP	QBS Process Reference: SH8350BCA0PAPG4_TIPI	QBS Package Reference: TPA2010D1YZF	QBS Package Reference: TPA4411YZH
AC	Autoclave 121C	96 Hours	-	-	3/231/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	1/77/0
HBM	ESD - HBM	1500 V	1/3/0	-	-	-	-
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	1/5/0	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	3/224/0	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	3/231/0	1/77/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0	3/231/0	1/77/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	3/48/0	-	-
PD	Physical Dimensions	--	-	-	-	3/15/0	1/5/0
SBS	Bump Shear	Unstressed	-	-	-	3/150/0	1/50/0
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	3/231/0	1/77/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	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

Qualification Report

SN1502019YZP (WCSP) at TI-CLARK and RFAB
Approve Date 04-Aug-2016

Product Attributes

Attributes	Qual Device: SN1502019YZPR	QBS Product Reference: AFE4404YZP	QBS Process Reference: SH8350BCA0PAPG4_TIPI	QBS Package Reference: TPA2010D1YZF	QBS Package Reference: TPA4411YZH
Assembly Site	CLARK AT	CLARK-AT	PHI	TI-Clark	TI-Clark
Package Family	WCSP	WCSP	HTQFP	WCSP	WCSP
Wafer Fab Supplier	RFAB	DMOS5	RFAB	MIHO8	DLN
Wafer Process	LBC8LV	LBC8LV	LBC8LV	3370A12	LBC3S

- QBS: Qual by Similarity
- Qual Device SN1502019YZPR 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: SN1502019YZPR	QBS Product Reference: AFE4404YZP	QBS Process Reference: SH8350BCA0PAPG4_TIPI	QBS Package Reference: TPA2010D1YZF	QBS Package Reference: TPA4411YZH
AC	Autoclave 121C	96 Hours	-	-	3/231/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass	Pass	Pass	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	1/76/0
HBM	ESD - HBM	1500 V	-	1/3/0	-	-	-
CDM	ESD - CDM	1500 V	-	1/3/0	1/5/0	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	3/224/0	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	3/231/0	1/77/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0	3/231/0	1/77/0
LU	Latch-up	(per JESD78)	-	1/6/0	3/48/0	-	-
PD	Physical Dimensions	--	-	-	-	3/15/0	1/5/0
SBS	Bump-Shear	Unstressed	-	-	-	3/150/0	1/50/0
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	3/231/0	1/77/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	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
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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