

PCN Number: 20160202002 **PCN Date:** 02/05/2016

Title: Qualification of RFAB for Select LBC8 Devices

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

Proposed 1st Ship Date: 05/05/2016 **Estimated Sample Availability:** Date provided at sample request.

Change Type:		
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>
<input type="checkbox"/>	Design	<input type="checkbox"/>
<input type="checkbox"/>	Test Site	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>
<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Fab Materials	<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 selected devices listed in "Product Affected" section.

Current Sites			Additional Sites		
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:

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	Richardson
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)

 <p>TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 20</p> <table border="1"> <tr> <td>MSL 2 / 260C / 1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 / 235C / UNLIM</td> <td>03/29/04</td> </tr> </table> <p>OPT: ITEM: 39 LBL: 5A (L)T0:1750</p>	MSL 2 / 260C / 1 YEAR	SEAL DT	MSL 1 / 235C / UNLIM	03/29/04		<p>(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483S12 (P) (1P) REV: (1) 003317 (20L) CSO: SHE (21L) CCO: USA (22) ASD: NLA (23L) ACO: MYS</p>
MSL 2 / 260C / 1 YEAR	SEAL DT					
MSL 1 / 235C / UNLIM	03/29/04					

Product Affected:			
DRV83053PHP	DRV83055PHPR	SN1505019PHPR	
DRV83053PHPR	DRV8305NPHP	SNC2025PHPR	
DRV83055PHP	DRV8305NPHPR		

QUALIFICATION DATA

**Hayate (SNC2025PHPR) RFAB Offload
Approve Date 29-Jan-2016**

Attributes	Qual Device: SNC2025PHPR	QBS Product Reference: SNC2024PHP	QBS Process Reference: SN96019PFP
Assembly Site	TIPI	PHI (TIPI)	PHI (TIPI)
Package Family	TQFP	TQFP	HTQFP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	DM5	RFAB
Wafer Process	LBC8	LBC8	LBC8

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: SNC2025PHPR	QBS Product Reference: SNC2024PHP	QBS Process Reference: SN96019PFP
AC	Autoclave 121C	96 Hours	-	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	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	-	-	3/9/0
HTOL	Life Test, 125C	1000 Hours	-	1/77/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0
LI	Lead Fatigue	Leads	-	-	-
LI	Lead Pull to Destruction	Leads	-	-	-
LU	Latch-up	(per JESD78)	-	2/12/0	1/6/0
PD	Physical Dimensions	--	-	-	-
SD	Surface Mount Solderability	Pb Free	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	3/231/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-
WBP	Bond Pull	Wires	-	-	-
WBS	Ball Bond Shear	Wires	-	-	-

- 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
DRV8305 RFAB Offload
Approve Date 25-Jan-2016**

Attributes	Qual Device: DRV83053PHPR	Qual Device: DRV83055PHPR	Qual Device: DRV8305NPHPR	QBS Product Reference: DRV8305PHP	QBS Process Reference: SN96019PFP
Assembly Site	TITL	TITL	TITL	TAI / TITL	PHI (TIPI)
Package Family	HTQFP	HTQFP	HTQFP	HTQFP	HTQFP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	RFAB	RFAB	DM5	RFAB
Wafer Process	LBC8	LBC8	LBC8	LBC8	LBC8

QBS: Qual By Similarity

- Qual Devices qualified at LEVEL3-260CG: DRV83053PHPR, DRV8305NPHPR, DRV83055PHPR

Type	Test Name / Condition	Duration	Qual Device: DRV83053PHPR	Qual Device: DRV83055PHPR	Qual Device: DRV8305NPHPR	QBS Product Reference: DRV8305PHP	QBS Process Reference: SN96019PFP
AC	Autoclave 121C	96 Hours	-	-	-	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	-	-	Pass	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	3/231/0
HBM	ESD - HBM	4000 V	-	-	-	1/3/0	-
CDM	ESD - CDM	1500 V	-	-	-	-	3/9/0
HTOL	Life Test, 125C	1000 Hours	-	-	-	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	-	3/231/0
LU	Latch-up	(per JESD78)	-	-	-	2/12/0	1/6/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	1/77/0	3/231/0
WBP	Bond Pull	Wires	-	-	-	-	-
WBS	Ball Bond Shear	Wires	-	-	-	-	-
YLD	FTY and Bin Summary	--	-	1/Pass	1/Pass	-	-

- 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 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