

PCN Number:	20190822002.1	PCN Date:	Aug 23, 2019
Title:	Qualification of RFAB as an additional Wafer Fab Site option for select HPA07 devices in HPA07 Technology		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Nov 23, 2019	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 checked="" type="checkbox"/> Wafer Fab Materials	<input type="checkbox"/> Wafer Fab Process	
	<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	HPA07	200mm	RFAB	HPA07	300mm

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
DP1DM5	DM5	USA	Dallas

New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
RFAB	RFB	USA	Richardson

Sample product shipping label (not actual product label)




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

MADE IN: Malaysia
 2DC: 20:
 MSL 2 / 260C / 1 YEAR SEAL DT
 MSL 1 / 235C / UNLIM 03/29/04
 OPT:
 ITEM: 39
 LBL: 5A (L) TO: 1750

Product Affected Group:

TPS78001DDCR	TPS780330220DDCR	TPS78218DDCT	TPS78228DDCR
TPS78001DDCRG4	TPS780330220DDCT	TPS78218DRVR	TPS78228DDCT
TPS78001DDCT	TPS780330220DRVR	TPS78218DRVT	TPS78228DRVR
TPS78001DRVR	TPS780330220DRVT	TPS78222DRVR	TPS78228DRVRG4

TPS78001DRVRG4	TPS78101DDCR	TPS78222DRVT	TPS78228DRVT
TPS78001DRVT	TPS78101DDCT	TPS78223DDCR	TPS78230DDCR
TPS780180300DRVR	TPS78101DRVR	TPS78223DDCT	TPS78230DDCT
TPS780180300DRVT	TPS78101DRVT	TPS78225DDCR	TPS78230DRVR
TPS780230300DRVR	TPS781250200DDCR	TPS78225DDCT	TPS78230DRVT
TPS780230300DRVT	TPS781250200DDCT	TPS78225DRVR	TPS78233DDCR
TPS780270200DDCR	TPS781330220DDCR	TPS78225DRVT	TPS78233DDCT
TPS780270200DDCT	TPS781330220DDCRG4	TPS78227DDCR	TPS78236DDCR
TPS780300250DRVR	TPS781330220DDCT	TPS78227DDCT	TPS78236DDCT
TPS780300250DRVT	TPS781330220DRVR	TPS78227DRVR	TPS78236DRVR
TPS780330200DDCR	TPS781330220DRVT	TPS78227DRVT	TPS78236DRVT
TPS780330200DDCT	TPS78218DDCR		

Qualification Report

Approve Date 14-August-2019

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS78218DRVR	Qual Device: TPS78233DDCR	QBS Process Reference: CD3232A1YFFR
ED	Electrical Characterization	Per Datasheet Parameters	Pass	-	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	3/3000/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
HBM	ESD - HBM	2000 V	1/3/0	-	3/9/0
CDM	ESD - CDM	500 V	1/3/0	-	3/9/0
HTOL	Life Test, 125C	1000 Hours	1/77/0	-	-
HTOL	Life Test, 140C	480 Hours	-	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	-	3/18/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
MQ	Manufacturability (Wafer Fab)	(per mfg. Site specification)	Pass	-	Pass
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0

- QBS: Qual By Similarity

- Qual Devices TPS78218DRVR and TPS78233DDCR are qualified at LEVEL1-260C

- 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 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
WW PCN Team	PCN_ww_admin_team@list.ti.com

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI’s products are provided subject to TI’s Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI’s provision of these resources does not expand or otherwise alter TI’s applicable warranties or warranty disclaimers for TI products.