12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20190206001.1A
Qualification of RFAB as an additional Fab site option for select devices
Change Notification / Sample Request

Date: April 22, 2019
To: Newark/Farnell PCN

Dear Customer:

Revision A is to announce the addition of new devices that were not included on the original PCN notification.

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Team (PCN_ww_admin_team@list.ti.com).

PCN Team
SC Business Services

20190206001.1A
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
DRV8848PWP	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20190206001.1**A**	PCN Date:	Apr 22, 2019
Title:	Qualification of RFAB as an additional Fab site option for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	May 2, 2019	**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:

Revision A is to announce the addition of new devices that were not included on the original PCN notification. These new devices are highlighted in **bold** in the device list below. The expected first shipment date for these new devices specifically, will be 90 days from this notice **(July 22, 2019)**. The proposed 1st ship date of May 2, 2019 still applies for the original set of devices.

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 the "Product Affected" section.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
MIHO8	LBC7	200 mm	RFAB	LBC7	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:

Current Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
MIHO8	MH8	JPN	Ibaraki

New Fab Site:

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)

Product Affected:			
DRV8846RGER	DRV8846RGET	**DRV8848PWP**	**DRV8848PWPR**
DRV8848LPWPR			

Qualification Report

Approve Date 05-Apr-2019

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

	Type	Test Name / Condition	Duration	Qual Device: DRV8848PWPR	QBS Product Reference: DRV8846RGER	QBS Product Reference: DRV8848PWP	QBS Process Reference: TPS62110RSA	QBS Package Reference: SN0508073PW	QBS Package Reference: TPA6011A4PWP	QBS Package Reference: TPS51117PW
	-	Yield Evaluation	(per mfg. Site specification)	1/Pass	-	-	-	-	-	-
	AC	Autoclave 121C	240 Hours	-	-	-	3/231/0	-	-	-
	AC	Autoclave 121C	96 Hours	-	-	-	3/231/0	3/231/0	3/231/0	3/231/0
	CDM	ESD - CDM	1500 V	-	1/3/0	1/3/0	-	-	-	-
	DPA	Destructive Physical Analysis	Post 500 Temp Cycle	-	-	-	-	-	3/9/0	-
	ED	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	-	-	-
	ELFR	Early Life Failure Rate, 140C	48 Hours	-	-	-	3/1881/0	-	-	-
	HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	-	-	-
	HBM	ESD - HBM	4000 V	-	1/3/0	-	-	-	-	-
	HTOL	Life Test, 140C	480 Hours	-	-	-	3/231/0	-	-	-
	HTOL	Life Test, 155C	240 Hours	-	-	-	-	-	3/231/0	-
	HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	3/231/0	3/231/0	3/231/0	3/231/0
	LU	Latch-up	(per JESD78)	-	1/6/0	-	-	-	-	-
	TC	Temperature Cycle, -65/150C	1000 Cycles	-	1/77/0	-	3/231/0	-	-	-
	TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device DRV8848PWPR is qualified at LEVEL3-260CG

- 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

Approve Date 29-Jan-2019

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

Type	Test Name / Condition	Duration	Qual Device: DRV8846RGER	QBS Product Reference: DRV8846RGER	QBS Product Reference: DRV8848PWP	QBS Process Reference: TPS51217DSC	QBS Package Reference: TPS2231RGPR_CU_WIRE	QBS Package Reference: TPS62402DRCR_CU_WIRE
AC	Autoclave 121C	240 Hours	-	-	-	6/462/0	3/231/0	1/77/0
AC	Autoclave 121C	96 Hours	-	-	-	6/462/0	3/231/0	1/77/0
CDM	ESD - CDM	1000 V	-	-	-	3/9/0	-	-
CDM	ESD - CDM	1500 V	-	1/3/0	1/3/0	3/9/0	-	-
CDM	ESD - CDM	250 V	-	1/3/0	-	3/9/0	-	-
DS	Die Shear	--	-	-	-	-	3/30/0	1/10/0
ED	Electrical Characterization	Per Datasheet Parameters	1/Pass	1/30/0	1/30/0	3/60/0	-	-
HAST	Biased HAST 130C/85%RH	96 Hours	-	-	-	3/231/0	-	-
HBM	ESD - HBM	1000 V	-	1/3/0	-	3/9/0	-	-
HBM	ESD - HBM	1500 V	-	1/3/0	-	2/6/0	-	-
HBM	ESD - HBM	2000 V	-	1/3/0	-	3/9/0	-	-
HBM	ESD - HBM	4000 V	-	1/3/0	-	-	-	-
HBM	ESD - HBM	500 V	-	1/3/0	-	3/9/0	-	-
HTOL	Life Test, 135C	635 Hours	-	-	-	3/231/0	-	-
HTOL	Life Test, 155C	240 Hours	-	-	-	-	3/231/0	-
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	-	3/18/0	-	-
MISC	Salt Atmosphere	24 Hours	-	-	-	-	3/66/0	1/22/0
PD	Physical Dimensions	--	-	-	-	-	3/15/0	1/5/0
SD	Solderability	8 Hours Steam Age	-	-	-	-	3/66/0	-
TC	Temperature Cycle -65/150C	1000 Cycles	-	1/77/0	-	3/231/0	3/231/0	1/77/0
TC	Temperature Cycle -65/150C	500 Cycles	-	1/77/0	1/77/0	3/231/0	3/261/0	1/87/0
TC-SAM	Post Temp Cycle SAM	CSAM and TSAM analysis after 1000 cycles Temp cycle	-	-	-	3/36/0	-	-
WBP	Bond Pull	Wires	-	-	-	-	3/228/0	1/76/0
WBS	Bond Shear	Wires	-	-	-	-	3/228/0	1/76/0
XRAY	X-ray	(top side only)	-	-	-	3/15/0	3/15/0	1/5/0

- QBS: Qual By Similarity
- Qual Device DRV8846RGER is qualified at LEVEL3-260C

- 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
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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
WW PCN Team	PCN_ww_admin_team@list.ti.com