

PCN# 20210611000.1
Qualification of new Fab site (CFAB) using qualified Process Technology, Die
Revision and updated BOM options for select devices
Change Notification / Sample Request

Date: June 14, 2021
To: Newark/Farnell PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments (TI). The details of this change are on the following pages, and are in alignment with our standard product change notification (PCN) [process](#).

TI requires acknowledgement of 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 samples or additional data are required, requests must be received within 30 days of this notification, given that samples are not built ahead of the change.

The Proposed First Ship date in this PCN letter is the earliest possible date that customers could receive the changed material. It is our commitment that the changed device will not ship before that date. If samples are requested within the 30 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

This particular PCN is related to TI's previous announcement to close our two remaining factories with 150-millimeter production (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). As referenced in the "reason for change" below, these changes are part of our multiyear plan to transition these products to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative. As always, we thank you for your continued business.

PCN Team
SC Business Services

20210611000.1
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
LM293P

CUSTOMER PART NUMBER
null

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

PCN Number:	20210611000.1		PCN Date:	June 14, 2021	
Title:	Qualification of new Fab site (CFAB) using qualified Process Technology, Die Revision and updated BOM options for select devices				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	Sep 14, 2021		Estimated Sample Availability:	Date provided at sample request.	
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials
<input checked="" 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 checked="" 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 a new fab using a qualified process technology (CFAB, JI3) and updated BOM options for select devices as listed below in the product affected section.					
Current Fab Site			New Fab Site		
Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter
SFAB	J11	150 mm	CFAB	J13	200 mm
The die was also changed as a result of the process change.					
Construction differences are noted below:					
Current Bond wire, Diameter			Additional Bond wire, diameter		
Cu, 0.96 mil			Cu, 0.8 mil		
Reason for Change:					
These changes are part of our multiyear plan to transition products from our 150-millimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.					
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					
None					
Anticipated impact on Material Declaration					
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI ECO website .		
Changes to product identification resulting from this PCN:					
Fab Site Information:					
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City		
SH-BIP-1	SHE	USA	Sherman		
CFAB	CU3	CHN	Chengdu		
Die Rev:	Current	New			
Product Family	Die Rev [2P]	Die Rev [2P]			
LM2903, LM293, LM393P	B	A			
LM393AP	A	A			

Sample product shipping label (not actual product label)


TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2Q:

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

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

Pb
G4



G3 = Matte Sn
G4 = NiPdAu
 (1P) SN74LS07NSR
 (Q) 2000 (D) 0336
 (31T) LOT: 3959047MLA
 (4W) TKY (1T) 7523483SI2
 (P)
 (2P) REV: (V) 0033317
 (20L) SSO: SHE (21L) CCO: USA
 (22L) ASO: MLA (23L) ACO: MYS

Product Affected:

LM2903P	LM293PE4	LM393APE4	LM393PE4
LM293P	LM393AP	LM393P	

Qualification Report

Approve Date 29-Apr-2021

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LM393AP	QBS Product Reference: LM2903AVQDRQ1	QBS Package Reference: NE5532P	QBS Package Reference: UCC37322P
AC	Autoclave 121C	96 Hours	1/77/0	-	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0	3/231/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	-	3/90/0	-	-
FLAM	Flammability (UL 94V-0)	-	-	-	-	3/15/0
LI	Lead Fatigue	Leads	-	-	3/66/0	3/45/0
LI	Lead Pull to Destruction	Leads	-	-	3/72/0	3/70/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	-	Pass	Pass
PKG	Lead Finish Adhesion	Leads	-	-	3/45/0	3/45/0
SD	Solderability	8 Hours Steam Age	-	-	3/66/0	3/66/0

- QBS: Qual By Similarity
- Qual Device LM393AP is qualified at Not Classified Moisture Sensitivity Level
- 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 contacts shown below or 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, Texas Instruments Incorporated

PCN# 20210611000.1

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.