

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20191003003.1 Qualification of AIZU as an additional Fab Site option for select CMOS9T devices Change Notification / Sample Request

Date: October 10, 2019 **To:** Newark/Farnell PCN

Dear Customer:

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.

Texas Instruments 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.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN www admin team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team SC Business Services

20191003003.1 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	CUSTOMER PART NUMBER
LP5907MFX-3.3/NOPB	null
LP5907MFX-1.2/NOPB	null
LP5907MFX-1.8/NOPB	null
LP5907MFX-2.5/NOPB	null
LP5907MFX-2.8/NOPB	null
LP5907MFX-2.9/NOPB	null
LP5907MFX-3.0/NOPB	null
LP5907MFX-4.5/NOPB	null

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

PCN Num	ber:	20	20191003003.1 PCN Date: Oct 10, 2019			Oct 10, 2019			
Title: Qualification of AIZU as an additional			al Fab Site o	ption fo	or sele	ct CMOS	9T devices		
Customer Contact:			PCN	l Manager		Dept:		Qual	ity Services
Proposed 1 st Ship Date:			Jan	Estimated Sample Availability:		le	Date provided at sample request.		
Change Type:									
Assem	Assembly Site			Assembly Process		Assembly Materials			
Design	า		Electrical Specification				Mechanical Specification		
Test S	ite		Packing/Shipping/Labeling		g	Test Process		ocess	
Wafer	Bump Site		Wafer Bump Material				Wafer Bump Process		
	Fab Site		Wafer Fab Materials				Wafer F	ab Process	
	·		Part number change						`
DCN Details									

PCN Details

Description of Change:

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

	Current Sites			Additional Site	S
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
MAINEFAB	CMOS9T	200mm	AIZU	CMOS9T	200mm

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
MAINEFAB	CUA	USA	South Portland

New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
AIZU	CU2	JPN	Aizuwakamatsu-shi

Sample product shipping label (not actual product label)



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

ያየቷሉ: LBL: 5A (L)T0:1750



(1P) \$N74L\$07N\$R

(Q) 2000 (D) 0336

(31T)LOT: 3959047MLA

(4W) TKY(1T) 7523483812

(P)

(2P) REV: (21L) CCO:USA

(22L) ASO: MLA (23L) ACO: MYS

Product Affected Group:

LP5907MFX-1.2/NOPB	LP5907MFX-2.5/NOPB	LP5907MFX-2.9/NOPB	LP5907MFX-3.2/NOPB
LP5907MFX-1.5/NOPB	LP5907MFX-2.8/NOPB	LP5907MFX-3.0/NOPB	LP5907MFX-3.3/NOPB
LP5907MFX-1.8/NOPB	LP5907MFX-2.85/NOPB	LP5907MFX-3.1/NOPB	LP5907MFX-4.5/NOPB

Qualification Report

Approve Date 11-Sep-2019

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: <u>LP5907MFX-</u> <u>1.2/NOPB</u>	Qual Device: LP5907MFX-2.85/NO	Qual Device: LP5907MFX-4.5/NOPB	QB S Product/Process Reference: LP5907UVX-3.3-TL	QBS Package Reference: <u>LP2985AIM5-</u> 5.0/NOPB-TL	QB \$ Package Reference: <u>LP5907MFX-</u> <u>2.9/NOPB</u>	QBS Package Reference: <u>LP5907QMFX-</u> <u>4.5Q1</u>
AC	Autoclave 121C	96 Hours	-	-	-	-	3/231/0	-	1/77/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	1/90/0	-	-
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-	3/2400/0	3/2400/0	-	2/800/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	3/231/0	-	1/77/0
HBM	ESD - HBM	2000 V	-	-	2/6/0	3/9/0	3/9/0	-	1/3/0
CDM	ESD - CDM	750 V	-	-	2/6/0	3/9/0	3/9/0	-	1/3/0
HTOL	Life Test, 125C	1000 Hours	-	-	-	3/231/0	3/231/0	-	1/77/0
HTSL	High Temp. StorageBake, 150C	1000 Hours	-	-	-	3/231/0	3/231/0	-	-
HTSL	High Temp. StorageBake, 175C	500 Hours	-	-	-	-	-	-	1/77/0
LU	Latch-up	(per JESD78)	-	-	2/12/0	3/18/0	-	-	1/6/0
SD	Solderability	8 Hours Steam Age; Pb- Free	-	-	-	-	-	1/15/0	-
SD	Solderability	Pb	-	-	-	-	-	1/15/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	3/231/0	3/231/0	-	1/77/0
WP	Bond Pull/Post 500 Temperature Cycle, -	Wires	-	-	-	-	-	-	1/30/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	-	3/231/0	-	-	-
THB	Biased Temperature and Humidity, 85C/85%RH	500 Hours	-	-	-	3/231/0	-	-	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	-	-	3/231/0	-	-	-
WBP	Bond Pull	Wires	-	-	-	-	-	1/76/0	-
WBS	Ball Bond Shear	Wires	-	-	-	-	-	1/76/0	-
MQ	Manufacturability	Assembly			Pass				
YLD	Yield (Test)	Yield	Pass	Pass	Pass				

- QBS: Qual By Similarity
- Qual Devices qualified at LEVEL1-260C: LP5907MFX-2.85/NO, LP5907MFX-1.2/NOPB, LP5907MFX-4.5/NOPB
- 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 www admin_team@list.ti.com

MPORTANT 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.