

PCN Number:	PCN20130513000			PCN Date:	05/15/2013
Title:	Qualification of Aizu Facility as an additional FAB source for select devices in the CMOS9T devices in the 50HPA07 Process Nodes				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
Proposed 1st Ship Date:	08/15/2013	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 type="checkbox"/>	Wafer Fab Materials	<input checked="" type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
<p>This notification is to announce the qualification of AIZU facility as an additional wafer FAB source for the select devices in the CMOS9T and 50HPA07 process nodes. The affected devices are listed in "Product Affected" section.</p>					
Currently Qualified Sites, Process, Wafer Dia.			Additional Site, Process, Wafer Dia.		
MAINEFAB, CMOS9T Process, 200mm			AIZU, CMOS9T Process, 200mm		
DP1DM5, 50HPA07 Process, 200mm			AIZU, 50HPA07 Process, 200mm		
Device Groups:					
Group 1: CMOS9T Devices					
Group 2: 50HPA07 Devices					
<p>The CMOS9T process qualification for Aizu is in progress. The 50HPA07 process was previously qualified in June 2011. Qualification details are provided in the Qual Data Section.</p>					
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 code (20L)	Chip country code (21L)			
MAINEFAB	CUA	USA			
DP1DM5	DM5	USA			
New					
Chip Site	Chip site code (20L)	Chip country code (21L)			
AIZU	CU2	JPN			

Sample product shipping label (not actual product label)

 TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 20:	 G4		(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CSO: SFE (21L) CCO: USA (22L) A66: MLA (23L) A66: MYS
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 1: CMOS9T Process devices, adding Aizu Fab			
LM3565TLE/NOPB	LP5907SNX-1.2/NOPB	LP5907SNX-3.0/NOPB	LP8556TMX-E09/NOPB
LM3565TLX/NOPB	LP5907SNX-1.8/NOPB	LP5907SNX-3.1/NOPB	LP8556TMX-E09/S1
LP3925RME-E/NOPB	LP5907SNX-2.7/NOPB	LP5907SNX-3.2/NOPB	LP8556TMX-E09/S7003056
LP3925RMX-E/NOPB	LP5907SNX-2.8/NOPB	LP5907SNX-3.3/NOPB	
LP5562TME/NOPB	LP5907SNX-2.85/NO	LP5907SNX-4.5/NOPB	
LP5562TMX/NOPB	LP5907SNX-2.85/NOPB	LP8556TME-E09/NOPB	
Group 2: 50HPA07 Process devices, adding Aizu Fab			
OPA4188AID	OPA4188AIDR		

Qualification Plan: (CMOS9T Process)

This qualification has been developed for the validation of this change. The qualification data will validate that the proposed change meets the applicable released technical specifications.

Qualification Schedule:	Start:	03/2013	End:	07/2013
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Qual Vehicle 1: LP5907UVX-3.3

Wafer Fab Site:	AIZU	Metallization:	Al 0.5%Cu 0.505uM
Wafer Fab Process:	CMOS9T	Wafer diameter:	200mm

Qualification: **Plan** **Test Results**

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Life Test	125C (1000 Hrs)	77/0	77/0	77/0
EFR	125C (48 hrs)	305/0	305/0	305/0
**High Temp. Storage Bake	150C (1000 Hrs)	77/0	77/0	-
Biased HAST	85C/85%RH (1000 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cycles)	77/0	77/0	77/0
ESD HBM	Per JEDEC	3/0	3/0	3/0
ESD CDM	Per JEDEC	3/0	3/0	3/0
Latch-up	(per JESD78)	6/0	6/0	6/0

** Preconditioning sequence: level 1 @ 260C

Qualification Data: (50HPA07 Process) Approved 6/3/2011					
This qualification has been developed for the validation of this change. The qualification data will validate that the proposed change meets the applicable released technical specifications.					
Qual Vehicle 1: TMP431BDGK					
Wafer Fab Site:	AIZU	Metallization:	0.2kÅTi/0.425kÅTiN/5.4kÅAlCu0.5%/0.275kÅTiN		
Wafer Fab Process:	50HPA07	Wafer diameter:	200mm		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Sample Size/Fail			
		Lot#1	Lot#2	Lot#3	
Life Test	150C (300 Hrs)	77/0	77/0	-	
Electrical Characterization	Over temp	Pass	Pass	-	
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	-	
**Unbiased HAST	130C/85%RH/33.3 psia (96 Hrs)	77/0	77/0	-	
**T/C -65C/150C	-65C/+150C (500 Cycles)	77/0	77/0	-	
ESD HBM	Per JEDEC	3/0	-	-	
ESD CDM	Per JEDEC	3/0	-	-	
Wafer level Reliability	Per Site Specification	Pass	Pass	Pass	
Latch-up	(per JESD78)	6/0	-	-	
Manufacturability	(per mfg. Site specification)	Pass	Pass	-	
** Preconditioning sequence: level 2 @ 260C					
Qual Vehicle 2: OPA2333AIDGK					
Wafer Fab Site:	AIZU	Metallization:	Ti/TiN/AlCu .5		
Wafer Fab Process:	50HPA07	Wafer diameter:	200mm		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Sample Size/Fail			
		Lot#1	Lot#2	Lot#3	
Life Test	150C (300 Hrs)	77/0	-	-	
Electrical Characterization	Over temp	Pass	-	-	
**Biased HAST	130C/85%RH (96 Hrs)	80/0	-	-	
**Unbiased HAST	130C/85%RH/33.3 psia (96 Hrs)	80/0	-	-	
**T/C -65C/150C	-65C/+150C (500 Cycles)	80/0	-	-	
ESD HBM	Per JEDEC	3/0	-	-	
ESD CDM	Per JEDEC	3/0	-	-	
Manufacturability (Wafer Fab)	(per mfg. Site specification)	Pass	-	-	
Latch-up	(per JESD78)	6/0	-	-	
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	-	-	
Wafer Level Reliability	(per mfg. Site specification)	Pass	-	-	
** Preconditioning sequence: level 2 @ 260C					

For questions regarding this notice, e-mails can be sent to the regional 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
Japan	PCNJapanContact@list.ti.com