




PCN Number:	20230329003.1A		PCN Date:	June 22, 2023																			
Title:	Qualification of AIZU as an additional Fab Site option for select CMOS7 devices																						
Customer Contact:	PCN Manager		Dept:	Quality Services																			
Proposed 1st Ship Date:	June 29, 2023		Sample requests accepted until:	July 22, 2023*																			
*Sample requests for added devices received after July 22, 2023 will not be supported.																							
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 type="checkbox"/>	Wafer Fab Process																		
		<input type="checkbox"/>	Part number change																				
Notification Details																							
Description of Change:																							
<p>Revision A is to announce the <u>addition</u> of new devices that were not included on the original PCN notification. The new devices are highlighted in yellow and bolded in the product affected section below. The expected first shipment date for the new devices will be 90 days from this notice for these newly added devices only. The proposed 1st ship date of June 29, 2023 still applies for the original set of devices.</p> <p>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.</p>																							
<table border="1"> <thead> <tr> <th colspan="3">Current Sites</th> <th colspan="3">Additional Sites</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>MAINEFAB</td> <td>CMOS7</td> <td>200mm</td> <td>AIZU</td> <td>CMOS7</td> <td>200mm</td> </tr> </tbody> </table>						Current Sites			Additional Sites			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	MAINEFAB	CMOS7	200mm	AIZU	CMOS7	200mm
Current Sites			Additional Sites																				
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																		
MAINEFAB	CMOS7	200mm	AIZU	CMOS7	200mm																		
Qual details are provided in the Qual Data Section.																							
Reason for Change:																							
Continuity of supply.																							
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):																							
None.																							
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																				
MAINEFAB	CUA	USA	South Portland																				
AIZU	CU2	JPN	Aizuwakamatsu-shi																				
Sample product shipping label (not actual product label)																							
<div>  TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 29 <div> MSL '2 / 260C / 1 YEAR MSL 1 / 235C / UNLIM </div> <div> SEAL DT 03/29/04 </div> </div> <div>  </div> <div>  </div> <div> (1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 6833317 (20L) CS0: SHE (21L) CC0: USA (22L) AS0: MLA (23L) AC0: MYS </div> <div> OPT: 39 ITEM: LBL: 5A (L)T0:1750 </div>																							

Product Affected:			
LM94022BIMG/NOPB	LMT84DCKT	LMT86DCKR	LMT87DCKT
LM94022BIMGX/NOPB	LMT85DCKR	LMT86DCKT	
LMT84DCKR	LMT85DCKT	LMT87DCKR	

Qualification Report

Approve Date 01-MARCH -2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LM94022BIMGX/NOPB
HAST	A2	Temperature Humidity Bias	85C/85%RH	1000 Hours	1/77/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	1/77/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	1/77/0
HTOL	B1	Life Test	125C	1000 Hours	1/77/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0

- QBS: Qual By Similarity
- Qual Device LM94022BIMGX/NOPB is qualified at MSL1 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

Qualification Report (PCN Rev A)

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMT86DCKR	Qual Device: LMT84DCKR	Qual Device: LMT85DCKR	Qual Device: LMT87DCKR	QBS Reference: LM94022BIMGX/NOPB
HAST	A2	Temperature Humidity Bias	85C/85%RH	1000 Hours	-	-	-	-	1/77/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	1/77/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	1/77/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	1/77/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	-	-	1/76/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	-	1/76/0
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device LMT86DCKR is qualified at MSL1 260C
- Qual Device LMT84DCKR is qualified at MSL1 260C
- Qual Device LMT85DCKR is qualified at MSL1 260C
- Qual Device LMT87DCKR is qualified at MSL1 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
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