




PCN Number:	20230915001.1		PCN Date:	September 15, 2023																			
Title:	Qualification of RFAB using qualified Process Technology for select devices																						
Customer Contact:	Change Management team		Dept:	Quality Services																			
Proposed 1st Ship Date:	Dec 15, 2023		Sample requests accepted until:	Oct 15, 2023*																			
*Sample requests received after October 15, 2023 will not be supported.																							
Change Type:																							
<input type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material																		
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Process																		
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input checked="" type="checkbox"/>	Wafer Fab Site																		
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input checked="" type="checkbox"/>	Wafer Fab Material																		
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input checked="" type="checkbox"/>	Wafer Fab Process																		
PCN Details																							
Description of Change:																							
Texas Instruments is pleased to announce the qualification of RFAB as an additional fab site for selected devices as listed below in the product affected section.																							
<table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">Additional Fab Site</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>FFAB</td> <td>A3C10TPI</td> <td>200 mm</td> <td>RFAB</td> <td>LBC7</td> <td>300 mm</td> </tr> </tbody> </table>			Current Fab Site			Additional Fab Site			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	FFAB	A3C10TPI	200 mm	RFAB	LBC7	300 mm			
Current Fab Site			Additional Fab Site																				
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																		
FFAB	A3C10TPI	200 mm	RFAB	LBC7	300 mm																		
The die was also changed as a result of the process change.																							
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:																							
Fab Site Information:																							
Chip Site		Chip Site Origin Code (20L)	Chip Site Country Code (21L)		Chip Site City																		
FR-BIP-1		TID	DEU		Freising																		
RFAB		RFB	USA		Richardson																		
Die Rev:																							
Current		New																					
Die Rev [2P]		Die Rev [2P]																					
A		A																					
Sample product shipping label (not actual product label)																							
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;">  <p>TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q: MSL 2 / 260C/1 YEAR SEAL DT MSL 1 / 235C/UNLIM 03/29/04 OPT: ITEM: 39 LBL: 5A (L)T0:1750</p> </div> <div style="width: 15%; text-align: center;">  </div> <div style="width: 15%; text-align: center;">  </div> <div style="width: 35%;"> <p>(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483S12 (P) (2P) REV: (V) 0033317 (20L) CS0: SHE (21L) CC0:USA (22L) AS0: MLA (23L) AC0: MYS</p> </div> </div>																							

Product Affected:

PCA9306DQER

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: PCA9306DQER	Qual Device: PCA9306DQER	QBS Reference: TPS51217DSCR	QBS Reference: TPS51218DSCR	QBS Reference: TCA39306DTMR	QBS Reference: PCA9306DQER	QBS Reference: PCA9306DQER	QBS Reference: SN74AUP3G34DQER
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	-	1/77/0	3/231/0	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-	-	-	-	3/231/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	1/77/0	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	1000 Cycles	-	-	-	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	-	-	1/77/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	1/45/0	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/231/0	-	-	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	1/77/0	-	-
HTOL	B1	Life Test	135C	635 Hours	-	-	3/231/0	-	-	-	-	-
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	-	-	3/228/0
SD	C3	Pb-Free Solderability	Steam age, 8 hours; Pb- Free solder	-	-	-	-	-	-	1/22/0	3/66/0	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	-	-	-	1/20/0	3/60/0	3/15/0
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	-	1/3/0	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	3/9/0	-	1/3/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	-	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	3/9/0	-	-	-	-	-
ESD	E2	ESD HBM	-	2500 Volts	-	-	-	-	-	1/3/0	-	-
ESD	E2	ESD HBM	-	6000 Volts	-	-	-	-	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	3/18/0	-	1/6/0	1/6/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/15/0	1/15/0	3/60/0	1/30/0	1/30/0	-	3/90/0	-

- QBS: Qual By Similarity
- Qual Device PCA9306DQER is qualified at MSL1 260C
- Qual Device PCA9306DQER 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

TI Qualification ID: R-NPD-2205-113

For questions regarding this notice, e-mails can be sent to Change Management team or your local Field Sales Representative.

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, 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 disdains 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.