

PCN Number:	20211214000.1		PCN Date:	December 15, 2021																			
Title:	Qualification of additional Fab site (UMC-F12) and additional Assembly site (CDAT) for select LBC9 devices																						
Customer Contact:	PCN Manager		Dept:	Quality Services																			
Proposed 1st Ship Date:	Mar 15, 2022		Estimated Sample Availability:	Date provided at sample request.																			
Change Type:																							
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" 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																				
PCN Details																							
Description of Change:																							
Texas Instruments is pleased to announce the qualification of an additional fab (UMC-F12) and assembly site (CDAT) for the selected devices listed in the "Product Affected" section.																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">New Fab Site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>New Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>RFAB</td> <td>LBC9</td> <td>300 mm</td> <td>UMC-F12</td> <td>LBC9</td> <td>300 mm</td> </tr> </tbody> </table>						Current Fab Site			New Fab Site			Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter	RFAB	LBC9	300 mm	UMC-F12	LBC9	300 mm
Current Fab Site			New Fab Site																				
Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter																		
RFAB	LBC9	300 mm	UMC-F12	LBC9	300 mm																		
For the devices in in the group 2 device list below, construction differences are as follows:																							
<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th></th> <th>TI CLARK</th> <th>CDAT</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td style="text-align: center;">4222790</td> <td style="text-align: center;">4223495</td> </tr> </tbody> </table>							TI CLARK	CDAT	Mold Compound	4222790	4223495												
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Mold Compound	4222790	4223495																					
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																							
Impact on Environmental Ratings:																							
Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>IEC 62474</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> No Change</td> </tr> </tbody> </table>						RoHS	REACH	Green Status	IEC 62474	<input checked="" type="checkbox"/> No Change													
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<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change																				
Changes to product identification resulting from this PCN:																							
Fab Site Information:																							
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Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City																				
CLARK	QAB	PHL	Angeles City, Pampanga																				
CDAT	CDA	CHN	Chengdu																				

Sample product shipping label (not actual product label)


TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 20:
 MSL '2 /260C/1 YEAR SEAL DT
 MSL 1 /235C/UNLIM 03/29/04
 OPT:
 ITEM: 39
LBL: 5A (L)T0:1750



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

Product Affected:

Group 1 - Adding UMC-F12 Fab Site only:

TPS51486ARJER	TPS51487XARJER
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Group 2 - Adding UMC-F12 Fab Site and CDAT Assembly Site and BOM updates:

TPS51487XRJER	TPS65295RJER	TPS65295RJET	TPS65296RJER
TPS51487XRJET			

Qualification Report
 Approve Date 07-SEPTEMBER-2021

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS51487XARJER	Qual Device: TPS51486ARJER	QBS Reference: TPS51486RJER	QBS Reference: TPS51486RJER	QBS Reference: TPS51486RJER
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	3/231/0	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0
UHA	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-
UHA	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/2400/0	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	3/9/0	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	3/9/0	1/3/0
ESD	E2	ESD HBM	-	2500 Volts	-	-	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/3/0	3/9/0	1/6/0
CHAR	E5	Electrical Characterization	Min, Typ, Max Temp	-	-	-	1/30/0	3/90/0	3/90/0
FTY	E6	Final Test Yield	-	-	1/1	1/1	1/1/0	-	-

- QBS: Qual By Similarity
- Qual Device TPS51487XARJER is qualified at MSL2 260C
- Qual Device TPS51486ARJER is qualified at MSL2 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
Approve Date 08-December-2021

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS51487XRJER	Qual Device: TPS65295RJET	Qual Device: TPS65296RJET	QBS Reference: TPS51486RJET	QBS Reference: TPS51486RJET	QBS Reference: TPS51486RJET
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	-	3/231/0	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	-	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	3/231/0	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	3/2400/0	-
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ESD	E2	ESD HBM	-	2500 Volts	-	-	-	1/3/0	-	-

LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/3/0	3/9/0	1/6/0
CHAR	E5	Electrical Characterization	Min, Typ, Max Temp	-	-	-	-	1/30/0	3/90/0	3/90/0
FTY	E6	Final Test Yield	-	-	Pass	Pass	Pass	Pass	-	-

- QBS: Qual By Similarity
- Qual Device TPS51487XRJER is qualified at MSL2 260C
- Qual Device TPS65295RJET is qualified at MSL2 260C
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Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

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