



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN Number:	20260717001.2	PCN Issued	July 21, 2026
Qualification of SMFAB using qualified LBC9 Process Technology for select devices		Sample request deadline:	September 19, 2026
		Estimated 1st ship date:	January 17, 2027
Sample requests received after September 19, 2026 will not be supported.			

Change Type(s)	Wafer Fab Site Packing/Shipping/Labeling
ZVEI ID	SEM-PW-13

PCN Details

Description of Change:					
Texas Instruments is pleased to announce the addition of SMFAB using the LBC9 qualified process technology for the devices listed below.					
Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
RFAB	LBC9	300mm	SMFAB	LBC9	300mm
Qual details are provided in the Qual Data Section.					
Reason for Change:		Supply continuity.			

Anticipated impact on Form, Fit, Function, Quality or Reliability:	None. Review the SDP for additional information																
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><tr><td>RoHS</td><td>REACH</td><td>Green Status</td><td>IEC 62474</td></tr><tr><td>☒ No Change</td><td>☒ No Change</td><td>☒ No Change</td><td>☒ No Change</td></tr></table>	RoHS	REACH	Green Status	IEC 62474	☒ No Change	☒ No Change	☒ No Change	☒ No Change								
RoHS	REACH	Green Status	IEC 62474														
☒ No Change	☒ No Change	☒ No Change	☒ No Change														
Changes to product identification resulting from this PCN:	<table><tr><th colspan="4">Fab Site Information</th></tr><tr><td>Chip Site</td><td>Chip Site Origin Code (20L)</td><td>Chip Site Country Code (21L)</td><td>Chip Site City</td></tr><tr><td>RFAB</td><td>RFB</td><td>USA</td><td>Richardson</td></tr><tr><td>SMFAB</td><td>SM1</td><td>USA</td><td>Sherman</td></tr></table>	Fab Site Information				Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City	RFAB	RFB	USA	Richardson	SMFAB	SM1	USA	Sherman
Fab Site Information																	
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City														
RFAB	RFB	USA	Richardson														
SMFAB	SM1	USA	Sherman														

Sample product shipping label (not actual product label):

Products Affected:			
SN2105016DADRQ1	TPS92520QDADRQ1		

Q006 SOIC at MLA
Approve Date 05-June-2026

Attributes	Qual Device:
	<u>TPS92520QDADRQ1</u>
Automotive Grade Level	Grade 1
Operating Temp Range (C)	-40 to 125
Product Function	Power Management
Wafer Fab Supplier	SMFAB
Assembly Site	MLA
Package Group	TSSOP
Package Designator	DAD
Pin Count	32

Qualification Results

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

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: <u>TPS92520QDADRQ1</u>
Test Group A - Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL3 260C	-	3/597/0
PC	A1.1	-	3	22	SAM Precon Pre	Review for delamination	-	3/66/0
PC	A1.2	-	3	22	SAM Precon Post	Review for delamination	-	3/66/0
HAST	A2.1	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	3/231/0
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85%RH	192 Hours	3/231/0
TC	A4.1	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle	-65C/150C	1000 Cycles	3/231/0
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	175C	500 Hours	3/135/0
HTSL	A6.2	JEDEC JESD22-A103	3	44	High Temperature Storage Life	175C	1000 Hours	3/135/0
Test Group C - Package Assembly Integrity Tests								
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device TPS92520QDADRQ1 is qualified at MSL3 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

Ambient Operating Temperature by Automotive Grade Level:

- Grade 0 (or E): -40C to +150C
- Grade 1 (or Q): -40C to +125C
- Grade 2 (or T): -40C to +105C
- Grade 3 (or I): -40C to +85C

E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):

- Room/Hot/Cold : HTOL, ED
- Room/Hot : THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU
- Room : AC/uHAST

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

TI Qualification ID: R-CHG-2309-096

SM1: Sherman 300 mm LBC9 start-up Driver Product 1 TPS92520Q
Approve Date 05-June-2026

Product Attributes

Attributes	Qual Device: TPS92520QDADRQ1
Automotive Grade Level	Grade 1
Operating Temp Range (C)	-40 to 125
Product Function	Power Management
Wafer Fab Supplier	SMFAB
Assembly Site	MLA
Package Group	TSSOP
Package Designator	DAD
Pin Count	32

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device TPS92520QDADRQ1 is qualified at MSL3 260C

Qualification Results

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

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: TPS92520QDADRQ1
Test Group A - Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL3 260C	-	3/828/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	1/5/0
TC-SAM	A4	-	3	3	Post TC SAM	<50% delamination	-	3/36/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	175C	500 Hours	3/135/0
Test Group B - Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	150C	300 Hours	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	150C	24 Hours	3/2400/0 ¹
Test Group C - Package Assembly Integrity Tests								
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0
Test Group D - Die Fabrication Reliability Tests								

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: TPS92520QDADRQ1
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements
Tddb	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	-	Completed Per Process Technology Requirements
Test Group E - Electrical Verification Tests								
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	2000 Volts	1/3/0
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	750 Volts	1/3/0
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	1/3/0
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	3/90/0
Additional Tests								

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TI Qualification ID: R-CHG-2309-096

In performing change qualifications, Texas Instruments follows integrated circuit industry standards in performing defect mechanism analysis and failure mechanism-based accelerated environmental testing to ensure wafer fab process, assembly process and product quality and reliability. As encouraged by these standards, TI uses both product-specific and generic (family) data in qualifying its changes. For devices to be categorized as a 'product qualification family' for generic data purposes, they must share similar product, wafer fab process and assembly process elements. The applicability of generic data (also known at TI as Qualification by Similarity (QBS)) is determined by the Reliability Engineering function following these industry standards. Generic data is shown in the qualification report in columns titled "QBS Process" (for wafer fab process), "QBS Package" (for assembly process) and "QBS Product" (for product family).

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

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