

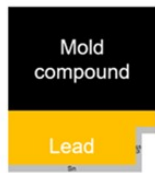
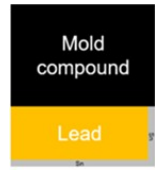
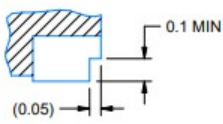
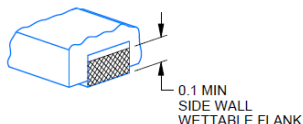
PCN Number:	20261006001.2	PCN Issued	October 09, 2026
Qualification of TI CDAT as an additional Assembly/Test site for select devices		Sample request deadline:	December 08, 2026
		Estimated 1st ship date:	April 07, 2027
Sample requests received after December 08, 2026 will not be supported.			

Change Type(s)	Assembly Site Assembly Material Packing/Shipping/Labeling Test Site
ZVEI ID	SEM-PA-14, SEM-PA-18, SEM-PA-07, SEM-PS-02, SEM-PS-04, SEM-TF-01

PCN Details

Description of Change:

Texas Instruments Incorporated is announcing the qualification of TI CDAT as an additional Assembly/Test site for the devices listed below. Material differences between sites are as follows.

	Current Site	Additional Site
Assembly/Test site	UTL1/UTL2	TI CDAT
Mount compound	SID# PZ0035	4207123
MSL level	3	2
Processing technology	 <p>Step-cut singulated wettable flank with Sn plating</p>	 <p>Through-cut singulated wettable flank with Sn plating</p>
Lead Sidewall Outline		

Qual details are provided in the Qual Data Section.

Test coverage, insertions, conditions will remain consistent with current testing.

Reason for Change:	Continuity of supply
---------------------------	----------------------

Anticipated impact on Form, Fit, Function, Quality or Reliability:	Physical aspects of the device have changed. Request the Supporting Data Packet (SDP) for more details on the changes.
---	--

Impact on Environmental Ratings	<p>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.</p> <table border="1"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>IEC 62474</th> </tr> </thead> <tbody> <tr> <td>☒ No Change</td> <td>☒ No Change</td> <td>☒ No Change</td> <td>☒ No Change</td> </tr> </tbody> </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:	<p>Assembly Site Information</p> <table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin (22L)</th> <th>Assembly Country Code (23L)</th> <th>Assembly City</th> </tr> </thead> <tbody> <tr> <td>UTL1</td> <td>NSE</td> <td>THA</td> <td>Bangkok</td> </tr> <tr> <td>CDAT</td> <td>CDA</td> <td>CHN</td> <td>Chengdu</td> </tr> </tbody> </table> <p>Sample product shipping label (not actual product label):</p> 	Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City	UTL1	NSE	THA	Bangkok	CDAT	CDA	CHN	Chengdu
Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City										
UTL1	NSE	THA	Bangkok										
CDAT	CDA	CHN	Chengdu										

Products Affected:			
TPS22968NQDMGRQ1	TPS22968NQDMGTQ1	TPS22968QDMGRQ1	TPS22968QDMGTQ1

Qualification Report
Automotive Qualification Summary
(As per AEC-Q100 Rev. J and JEDEC Guidelines)
 Approve Date 25-September-2026

Product Attributes

Attributes	Qual Device:	QBS Process Reference:	QBS Package Reference:
	<u>TPS22968QDMGRQ1</u>	<u>TPS2543QRTETQ1</u>	<u>TPS22965QWDSGRQ1</u>
Automotive Grade Level	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125
Product Function	Power Management	Power Management	Power Management
Wafer Fab Supplier	RFAB	RFAB	RFAB
Assembly Site	CDAT	CLARK-AT	CDAT
Package Group	QFN	QFN	QFN
Package Designator	DMG	RTE	DSG
Pin Count	10	16	8

QBS: Qual By Similarity, also known as Generic Data

Qual Device TPS22968QDMGRQ1 is qualified at MSL2 260C

Note 1: Affected devices in PCN have justification to use Package QBS references for Group A HAST, AC/UHAST and HTSL based on AEC-Q100 Rev-J Appendix 1 A1.3, assembly site and package attributes were qualified.

Note 2: PTC is Not Applicable (N/A), the affected devices do not have power dissipation ≥ 1 watt and power rise times < 0.1 s resulting in junction temperature changes $\geq 40^{\circ}\text{C}$ (e.g., smart power switches for inductive loads).

Note 3: Affected devices in PCN have justification to use Process QBS references for Group B HTOL, ELFR based on AEC-Q100 Rev-J Appendix 1 A1.2, silicon wafer fab and die attributes were qualified.

Note 4: HBM/CDM/LU is not needed for assembly changes per AEC-Q100 Table 3

Note 5: One lot ED is allowed per AEC-Q100J A1.5.1 Multiple Sites - When the specific product or process attribute to be qualified or requalified will affect more than one wafer fab site or assembly site, a minimum of one lot of testing per affected site is required.

Note 6: BLR was QBS'd to 10/DRC package that was qualified as a technology driver

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>TPS22968QDMGRQ1</u>	QBS Process Reference: <u>TPS2543QRTETQ1</u>	QBS Package Reference: <u>TPS22965QWDSGRQ1</u>
Test Group A - Accelerated Environment Stress Tests										
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	-	-	3/231/0
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	-	3/231/0	-	-
PC-SAM	A4	-	3	3	Post PC SAM	<50% delamination	-	3/9/0	-	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	Note 1	-	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	Note 1	-	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	-	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	3/15/0	-	-

TC-SAM	A4	-	3	3	Post TC SAM	<50% delamination	-	3/9/0	-	-
PTC	A5	JEDEC JESD22-A105	1	45	PTC	-40/125C	1000 Cycles	Note 2	-	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	175C	500 Hours	Note 1	-	3/135/0
Test Group B - Accelerated Lifetime Simulation Tests										
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	Note 3	3/231/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	Note 3	3/2400/0	-
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	-	-
SD	C3	JEDEC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	1/15/0	-	-
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0	-	-
Test Group D - Die Fabrication Reliability Tests										
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
TDDb	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Test Group E - Electrical Verification Tests										
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	2000 Volts	Note 4	-	-
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	500 Volts	Note 4	-	-
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	Note 4	-	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	1/30/0 Note 5	-	-
Additional Tests										
BLR	T1	AEC-Q007	1	48	Board Level Reliability - Temp Cycle	-40/125C	1000 Cycles	1/48/0 Note 6	-	-

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-2304-052

Qualification Report Automotive Qualification Summary (As per AEC and JEDEC Guidelines)

Q006 QFN at CDAT
Approve Date 27-September-2026

Product Attributes

Attributes	Qual Device: <u>TPS22968QDMGRQ1</u>	QBS Package Reference: <u>TPS22965QWDSGRQ1</u>
Automotive Grade Level	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125
Product Function	Power Management	Power Management
Wafer Fab Supplier	RFAB	RFAB
Assembly Site	CDAT	CDAT
Package Group	QFN	QFN
Package Designator	DMG	DSG
Pin Count	10	8

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>TPS22968QDMGRQ1</u>	QBS Reference: <u>TPS22965QWDSGRQ1</u>
Test Group A - Accelerated Environment Stress Tests									
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	-	3/231/0
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	-	3/231/0	-
PC	A1.1	-	3	12	SAM Precon Pre	Review for delamination	-	3/66/0	3/66/0
PC	A1.2	-	3	12	SAM Precon Post	Review for delamination	-	3/66/0	3/66/0
HAST	A2.1	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	-	3/231/0
HAST	A2.1.2	-	3	1	Cross Section, post bHAST, 1X	Post stress cross section	Completed	-	3/3/0
HAST	A2.1.3	-	3	3	Wire Bond Shear, post bHAST, 1X	Post stress	-	-	3/9/0
HAST	A2.1.4	-	3	3	Bond Pull over Stitch, post bHAST, 1X	Post stress	-	-	3/9/0
HAST	A2.1.5	-	3	3	Bond Pull over Ball, post bHAST, 1X	Post stress	-	-	3/9/0
HAST	A2.2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	192 Hours	-	3/231/0
HAST	A2.2.1	-	3	12	SAM Analysis, post bHAST 2X	Review for delamination	Completed	-	3/66/0
HAST	A2.2.2	-	3	1	Cross Section, post bHAST, 2X	Post stress cross section	Completed	-	3/3/0

HAST	A2.2.3	-	3	3	Wire Bond Shear, post bHAST, 2X	Post stress	-	-	3/9/0
HAST	A2.2.4	-	3	3	Bond Pull over Stitch, post bHAST, 2X	Post stress	-	-	3/9/0
HAST	A2.2.5	-	3	3	Bond Pull over Ball, post bHAST, 2X	Post stress	-	-	3/9/0
TC	A4.1	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0
TC	A4.1.1	-	3	12	SAM Analysis, post TC 1X	Review for delamination	Completed	-	3/66/0
TC	A4.1.2	-	3	1	Cross Section, post TC, 1X	Post stress cross section	Completed	-	3/3/0
TC	A4.1.3	-	3	3	Wire Bond Shear, post TC, 1X	Post stress	-	-	3/9/0
TC	A4.1.4	-	3	3	Bond Pull over Stitch, post TC, 1X	Post stress	-	-	3/9/0
TC	A4.1.5	-	3	3	Bond Pull over Ball, post TC, 1X	Post stress	-	-	3/9/0
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	1000 Cycles	3/231/0	3/231/0
TC	A4.2.1	-	3	12	SAM Analysis, post TC, 2X	Review for delamination	Completed	3/66/0	3/66/0
TC	A4.2.2	-	3	1	Cross Section, post TC, 2X	Post stress cross section	Completed	3/3/0	3/3
TC	A4.2.3	-	3	3	Wire Bond Shear, post TC, 2X	Post stress	-	3/9/0	3/9/0
TC	A4.2.4	-	3	3	Bond Pull over Stitch, post TC, 2X	Post stress	-	3/9/0	3/9
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Post stress	-	3/9/0	3/9/0
PTC	A5	JEDEC JESD22-A105	1	45	PTC	-40/125C	1000 Cycles	-	-
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	175C	500 Hours	-	3/135/0
HTSL	A6.1.1	-	3	1	Cross Section, post HTSL, 1X	Post stress cross section	Completed	-	3/3/0
HTSL	A6.2	JEDEC JESD22-A103	3	45	High Temperature Storage Life	175C	1000 Hours	-	3/135/0
HTSL	A6.2.1	-	3	1	Cross Section, post HTSL, 2X	Post stress cross section	Completed	-	3/3/0
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	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	3/90/0

This report represents AEC-Q006 7.1 Family Data Usage using technology driver and lead products that are most representative of the technology family.

Qual Device TPS22968QDMGRQ1 is qualified at MSL2 260C. TC was tested for 2 pass bonding and QBS HAST and HTSL is based on same package and die attributes.

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-2304-052

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.

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 disclaims 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.