12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN Number:	20260915000.2	PCN Issued	September 18, 2026
Qualification of RFAB as an additional Fab site option, Die Revision, Datasheet and TIEM/CDAT as an additional Assembly/Test site option for select devices		Sample request deadline:	November 17, 2026
		Estimated 1st ship date:	March 17, 2027
Sample requests received after November 17, 2026 will not be supported.			

Change Type(s)	Assembly Site Assembly Process Assembly Material Packing/Shipping/Labeling Design Data Sheet/Electrical Specification Test Site Wafer Fab Site Wafer Fab Material Wafer Fab Process
ZVEI ID	SEM-DS-01, SEM-DS-02, SEM-DE-03, SEM-PW-03, SEM-PW-13, SEM-PW-02, SEM-PW-09, SEM-PA-05, SEM-PA-07, SEM-PA-11, SEM-PA-18, SEM-PA-13, SEM-PA-19, SEM-TF-01

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of RFAB as an additional Fab site option & TIEM as additional Assembly/Test site options for the devices listed below.

Current Fab Site			Additional Fab site		
Current Fab Site	Process	Wafer Diameter	Additional Fab site	Process	Wafer Diameter
FFAB	ASL3C	200mm	RFAB	LBC9PLV	300mm

The die was also changed as a result of the process change.

Construction differences are as follows:

Group 1

	Current site	Additional site
Assembly/Test site	CDAT	TIEM

*-No material differences between sites

Group 2

	Current site		Additional site
Assembly/Test site	HFTF	HNA	CDAT/TIEM
Wire type	0.8mil Au	1.0mil Au	0.8mil Cu
Mount compound	SID# A-03	SID#400180	8001111

Mold compound	SID#R-27	SID#450179	4222198
Lead finish	Sn	NiPdAu	Sn
Final wafer thickness	7.5mils	7.5mils	6mils
Die scribe/separation	Mechanical saw	Mechanical saw	Plasma dicing
Pin 1 ID	Stripe	Stripe	Dot

Group 3

	Current site		**Additional site**
Assembly/Test site	HFTF	UTL2	CDAT/TIEM
Wire type	0.8mil Au	1.0mil Au	0.8mil Cu
Mount compound	SID# A-03	SID#PZ0001	8001111
Mold compound	SID#R-27	SID#CZ0096	4222198
Lead finish	Sn	NiPdAu	Sn
Final wafer thickness	7.5mils	7.5mils	6mils
Die scribe/separation	Mechanical saw	Mechanical saw	Plasma dicing
Pin 1 ID	Stripe	Stripe	Dot

Device Marking

	Current	**Additional**
SN74LVC1G08QDCKRQ1	CEO, CEJ	26Z
1P1G125QDCKRQ1	CMJ, CMR	27A
SN74LVC1G32QDCKRQ1	CGJ, CGO	12N
SN74LVC1G08IDCKRQ1	CEO	27B
SN74LVC1G79QDCKRQ1	16S	12M
SN74LVC1G80QDCKRQ1	17U	12O
SN74LVC1G86QDCKRQ1	16T	12P

Data sheet update

The datasheets will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history. The links to the revised datasheets are available in the table below.

TEXAS INSTRUMENTS

SN74LVC1G79-Q1
SCES874A – MARCH 2017 – REVISED AUGUST 2026

Changes from March 1, 2017 to August 14, 2026 (from Revision * (March 2017) to Revision A (August 2026)) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed Junction-to-ambient thermal resistance value for DCK package from: 277.6°C/W to: 371°C/W.....5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 179.5°C/W to: 297.5°C/W..5
- Changed Junction-to-board characterization value for DCK package from: 75.9°C/W to: 258.6°C/W.....5
- Changed Junction-to-top characterization value for DCK package from: 49.7°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 75.1°C/W to: 256.2°C/W.....5

TEXAS INSTRUMENTS

SN74LVC1G125-Q1
SGES002F – APRIL 2003 – REVISED AUGUST 2026

Changes from August 1, 2020 to August 14, 2026 (from Revision E (August 2020) to Revision F (August 2026)) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed Junction-to-ambient thermal resistance value for DBV package from: 229°C/W to: 357.1°C/W..... 5
- Changed Junction-to-case (top) thermal resistance value for DBV package from: 164°C/W to: 263.7°C/W..... 5
- Changed Junction-to-board characterization value for DBV package from: 62°C/W to: 264.4°C/W.....5
- Changed Junction-to-top characterization value for DBV package from: 44°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DBV package from: 62°C/W to: 262.2°C/W.....5
- Changed Junction-to-ambient thermal resistance value for DCK package from: 278°C/W to: 371°C/W.....5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 65°C/W to: 258.6°C/W.....5
- Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W.....5

TEXAS INSTRUMENTS

SN74LVC1G80-Q1

SCES885A – APRIL 2017 – REVISED AUGUST 2026

Changes from April 1, 2017 to August 12, 2026 (from Revision * (April 2017) to Revision A (August 2026)) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed Junction-to-ambient thermal resistance value for DCK package from: 278.9°C/W to: 371°C/W..... 5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 121.3°C/W to: 297.5°C/W.. 5
- Changed Junction-to-board characterization value for DCK package from: 65.6°C/W to: 258.6°C/W.....5
- Changed Junction-to-top characterization value for DCK package from: 7.5°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 64.9°C/W to: 256.2°C/W.....5

TEXAS INSTRUMENTS

SN74LVC1G86-Q1

SCES873A – MARCH 2017 – REVISED AUGUST 2026

Changes from October 1, 2016 to August 14, 2026 (from Revision * (October 2016) to Revision A (August 2026)) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed Junction-to-ambient thermal resistance value for DCK package from: 277.6°C/W to: 371°C/W..... 5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 179.5°C/W to: 297.5°C/W.. 5
- Changed Junction-to-board characterization value for DCK package from: 75.9°C/W to: 258.6°C/W.....5
- Changed Junction-to-top characterization value for DCK package from: 49.7°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 75.1°C/W to: 256.2°C/W.....5

TEXAS INSTRUMENTS

SN74LVC1G32-Q1

SCES648B – FEBRUARY 2006 – REVISED AUGUST 2026

Changes from January 1, 2019 to August 14, 2026 (from Revision A (January 2019) to Revision B (August 2026)) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed Junction-to-ambient thermal resistance value for DBV package from: 229°C/W to: 357.1°C/W..... 5
- Changed Junction-to-case (top) thermal resistance value for DBV package from: 164°C/W to: 263.7°C/W..... 5
- Changed Junction-to-board characterization value for DBV package from: 62°C/W to: 264.4°C/W.....5
- Changed Junction-to-top characterization value for DBV package from: 44°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DBV package from: 62°C/W to: 262.2°C/W.....5
- Changed Junction-to-ambient thermal resistance value for DCK package from: 278°C/W to: 371°C/W.....5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 65°C/W to: 258.6°C/W.....5
- Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W.....5

TEXAS INSTRUMENTS

SN74LVC1G08-Q1

SCES556H – MARCH 2004 – REVISED AUGUST 2026

Changes from May 20, 2019 to August 14, 2026 (from Revision G (May 2019) to Revision H (August 2026)) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed Junction-to-ambient thermal resistance value for DBV package from: 209.4°C/W to: 357.1°C/W..... 5
- Changed Junction-to-case (top) thermal resistance value for DBV package from: 132.5°C/W to: 263.7°C/W.. 5
- Changed Junction-to-board characterization value for DBV package from: 118.1°C/W to: 264.4°C/W..... 5
- Changed Junction-to-top characterization value for DBV package from: 48.8°C/W to: 195.6°C/W..... 5
- Changed Junction-to-board characterization value for DBV package from: 117.4°C/W to: 262.2°C/W..... 5
- Changed Junction-to-ambient thermal resistance value for DCK package from: 244.2°C/W to: 371°C/W..... 5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 156.1°C/W to: 297.5°C/W.. 5
- Changed Junction-to-board characterization value for DCK package from: 130°C/W to: 258.6°C/W.....5
- Changed Junction-to-top characterization value for DCK package from: 47.2°C/W to: 195.6°C/W.....5
- Changed Junction-to-board characterization value for DCK package from: 130°C/W to: 256.2°C/W.....5

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
SN74LVC1G79-Q1	SCES874	SCES874A	http://www.ti.com/product/SN74LVC1G79-Q1
SN74LVC1G125-Q1	SGES002E	SGES002F	http://www.ti.com/product/SN74LVC1G125-Q1
SN74LVC1G80-Q1	SCES885	SCES885A	http://www.ti.com/product/SN74LVC1G80-Q1
SN74LVC1G86-Q1	SCES873	SCES873A	http://www.ti.com/product/SN74LVC1G86-Q1
SN74LVC1G32-Q1	SCES648A	SCES648B	http://www.ti.com/product/SN74LVC1G32-Q1
SN74LVC1G08-Q1	SCES556G	SCES556H	http://www.ti.com/product/SN74LVC1G08-Q1

Qual details are provided in the Qual Data Section.
Test coverage, insertions, conditions will remain consistent with current testing.

Reason for Change:	Supply Continuity

Anticipated impact on Form, Fit, Function, Quality or Reliability:	These devices include new die based on existing schematics in a larger diameter wafer fab with a die shrink. There are changes in the electrical tables. Physical aspects of the device have changed. Request the Supporting Data Packet (SDP) for more details on the changes. Evaluating samples is encouraged.
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.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

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
FFAB	TID	DEU	Freising
RFAB	RFB	USA	Richardson

Die Rev:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
D, E	A

Assembly Site Information

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
HFTF	HFT	CHN	Hefei
HNA	HNT	THA	Ayutthaya
UTL2	NS2	THA	Bangpakong
CDAT	CDA	CHN	Chengdu
TIEM	CU6	MYS	Melaka

Sample product shipping label (not actual product label):

Group 1 Products Affected: (Fab, Design, Assembly/Test, Marking)		
SN74LVC1G08IDCKRQ1	SN74LVC1G79QDCKRQ1	SN74LVC1G86QDCKRQ1
SN74LVC1G08QDCKRQ1	SN74LVC1G80QDCKRQ1	

Group 2 Products Affected: (Fab, Design, Assembly/Test, Marking)

1P1G125QDCKRQ1

Group 3 Products Affected: (Fab, Design, Assembly/Test, Marking)

SN74LVC1G32QDCKRQ1

Qualification Report

Automotive Qualification Summary
(As per AEC-Q100 Rev. J and JEDEC Guidelines)
Approve Date 14-July-2025

Product Attributes

Attributes	Qual Device: SN74LVC1G08QDCKRQ1	Qual Device: 1P1G125QDCKRQ1	Qual Device: CLVC1G135BDCKRQ1	QBS Process Reference: SN74HCS74QPWRQ1	QBS Package Reference: SN74LVC1G07QDCKRQ1	QBS Package Reference: SN74LVC1GU04DCKRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Logic	Logic	Logic	Logic	Logic,Signal Chain	Logic
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	FR-BIP-1	FR-BIP-1
Assembly Site	TIEMA	TIEMA	TIEMA	MLA	TIEMA	TIEMA
Package Group	SOT	SOT	SOT	TSSOP	SOT	SOT
Package Designator	DCK	DCK	DCK	PW	DCK	DCK
Pin Count	5	5	5	14	5	5

QBS: Qual By Similarity, also known as Generic Data
Qual Device SN74LVC1G08QDCKRQ1 is qualified at MSL1 260C
Qual Device 1P1G125QDCKRQ1 is qualified at MSL1 260C
Qual Device CLVC1G135BDCKRQ1 is qualified at MSL1 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: SN74LVC1G08QDCKRQ1	Qual Device: 1P1G125QDCKRQ1	Qual Device: CLVC1G135BDCKRQ1	QBS Process Reference: SN74HCS74QPWRQ1	QBS Package Reference: SN74LVC1G07QDCKRQ1	QBS Package Reference: SN74LVC1GU04DCKRQ1
Test Group A - Accelerated Environment Stress Tests													
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	-	-	-	-	3All/0	1/All/-
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	Autoclave	121C/15psig	96 Hours	-	-	-	-	-	-
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	1/77/-
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	3/231/0	1/77/-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	-
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	125C	1000 Hours	-	-	-	3/231/0	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	-	-	-	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	1/30/-	-	-	3/90/0	1/30/0	1/30/-
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/-	-	-	3/90/0	1/30/0	1/30/-
SD	C3	JEDEC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	1/15/-	-	-	1/15/0	-	-
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	1/10/-	-	-	3/30/0	1/10/0	1/10/-
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	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	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	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	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	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	-	-	-	1/3/0	-	-
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	500 Volts	-	-	-	1/3/0	-	-
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	-	-	-	1/6/0	-	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	-	3/90/0	-	-

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 Cyc
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-2510-020

Qualification Report

Automotive Qualification Summary
(As per AEC-Q100 Rev. J and JEDEC Guidelines)

Approve Date 17-March -2026

Product Attributes

Attributes	Qual Device: SN74LVC1G08QDCKRQ1	Qual Device: 1P1G125QDCKRQ1	QBS Process Reference: SN74HCS74QPWRQ1	QBS Package Reference: TXS0101QDCKRQ1	QBS Package Reference: SN74LVC1G16DCKRQ1	QBS Product Reference: SN74LVC1G09DCKRQ1	QBS Package Reference: SN74LVC1GU04DCKRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Logic	Logic	Logic	Logic	Logic	Logic	Logic
Wafer Fab Supplier	PFAB	PFAB	PFAB	PFAB	PFAB	PFAB	FP-BIP-1
Assembly Site	CDAT	CDAT	MLA	CDAT	CDAT	CDAT	CDAT
Package Group	SOT	SOT	TSSOP	SOT	SOT	SOT	SOT
Package Designator	DCK	DCK	PW	DCK	DCK	DCK	DCK
Pin Count	5	5	14	6	5	5	5

QBS: Qual By Similarity, also known as Generic Data
Qual Device SN74LVC1G08QDCKRQ1 is qualified at MSL1 260C
Qual Device 1P1G125QDCKRQ1 is qualified at MSL1 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: SN74LVC1G08QDCKRQ1	Qual Device: 1P1G125QDCKRQ1	QBS Process Reference: SN74HCS74QPWRQ1	QBS Package Reference: TXS0101QDCKRQ1	QBS Package Reference: SN74LVC1G16DCKRQ1	QBS Product Reference: SN74LVC1G09DCKRQ1	QBS Package Reference: SN74LVC1GU04DCKRQ1
Test Group A - Accelerated Environment Stress Tests														
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	-	-	-	3/All/0	1/All/0	-	1/All/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	1/77/0	-	-
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	1/77/0	-	1/77/0

TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	1/77/0	-	1/77/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	-	-	-	1/5/0	1/5/0	-	1/5/0
TC-SAM	A4	-	3	3	Post TC SAM	<50% delamination	-	-	-	-	-	1/12/0	-	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/135/0	1/45/0	-	-
Test Group B - Accelerated Lifetime Simulation Tests														
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	-	-	3/231/0	-	-	-	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	150C	300 Hours	-	-	-	-	-	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	-	-	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	1/30/0	1/30/0	-	3/90/0	1/30/0	-	1/30/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/0	1/30/0	-	3/90/0	1/30/0	-	1/30/0
SD	C3	JEDEC J-STD-002	1	15	PB Solderability	>95% Lead Coverage	-	-	-	-	-	-	-	-
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	-	1/10/0	1/10/0	-	3/30/0	1/10/0	-	1/10/0
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	Completed Per Process Technology Requirements	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	Completed Per Process Technology Requirements	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	Completed Per Process Technology Requirements	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	Completed Per Process Technology Requirements	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	Completed Per Process Technology Requirements	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	-	-	-	-	-	1/3/0	-
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	500 Volts	1/3/0	1/3/0	-	-	-	1/3/0	-
ESD	E3	AEC Q100-011	1	3	ESD CDM	Corner pins	750 Volts	1/3/0	1/3/0	-	-	-	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	-	-	-	-	-	-	1/3/0	-

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-2510-047

Q006 Qualification Report

Automotive Qualification Summary
(As per AEC and JEDEC Guidelines)

Q006 SOT at CDAT
Approve Date 27-JUNE -2024

Product Attributes

Attributes	Qual Device: TXS0101QDCKRQ1
Automotive Grade Level	Grade 1
Operating Temp Range (C)	-40 to 125
Product Function	Interface
Wafer Fab Supplier	RFAB
Assembly Site	CDAT
Package Group	SOT
Package Designator	DCK
Pin Count	6

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: TXS0101QDCKRQ1
Test Group A - Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/Pass
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	A2.1.2	-	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	70	Biased HAST	130C/85%RH	192 Hours	3/231/0
HAST	A2.2.1	-	3	22	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
TC	A4.1.1	-	3	22	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	70	Temperature Cycle	-65C/150C	1000 Cycles	3/231/0
TC	A4.2.1	-	3	22	SAM Analysis, post TC, 2X	Review for delamination	Completed	3/66/0
TC	A4.2.2	-	3	1	Cross Section, post TC, 2X	Post stress cross section	Completed	3/3/0
TC	A4.2.3	-	3	3	Wire Bond Shear, post TC, 2X	Post stress	-	3/9/0
TC	A4.2.4	-	3	3	Bond Pull over Stitch, post TC, 2X	Post stress	-	3/9/0
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Post stress	-	3/9/0
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	150C	1000 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	44	High Temperature Storage Life	150C	2000 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
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 TXS0101QDCKRQ1 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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Quality and Environmental data is available at TI's external Web site: http://www.ti.com/
TI Qualification ID: R-NPD-2306-113

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