12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20250608002.2
Qualification of CDAT as an additional Assembly/Test site for the Select Devices
Change Notification / Sample Request

Date: June 09, 2025
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within **60** days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within **60 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

Change Management Team
SC Business Services

20250608002.2
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
SN74LVC1G08QDCKRQ1	SN74LVC1G08QDCKRQ1
LM66100QDCKRQ1	NULL
TLV1701AQDCKRQ1	NULL
CLVC1G374QDCKRQ1	NULL
SN74AUP1T34QDCKRQ1	SN74AUP1T34QDCKRQ1
SN74LVC1G08IDCKRQ1	NULL
SN74LVC1G86QDCKRQ1	NULL
TLV313QDCKRQ1	NULL
TPD2E2U06QDCKRQ1	NULL
SN74LVC1G86QDCKTQ1	SN74LVC1G86QDCKTQ1
TLV313QDCKTQ1	NULL
TLV6001QDCKRQ1	TLV6001QDCKRQ1
SN74LVC1G98QDCKRQ1	NULL
TPS22919QDCKRQ1	NULL
SN74LVC1G79QDCKRQ1	NULL

Technical details of this Product Change follow on the next page(s).

PCN Number:	PCN# 20250608002.2	**PCN Date:**	June 09, 2025
Title:	Qualification of CDAT as an additional Assembly/Test site for select devices		
Customer Contact:	Change Management Team	**Dept:**	Quality Services
Proposed 1st Ship Date:	December 06, 2025	**Sample requests accepted until:**	August 08, 2025*

***Sample requests received after** August 08, 2025 **will not be supported.**

Change Type:

☒	Assembly Site	☐	Design	☐	Wafer Bump Material
☒	Assembly Process	☐	Data Sheet	☐	Wafer Bump Process
☒	Assembly Materials	☐	Part number change	☐	Wafer Fab Site
☐	Mechanical Specification	☒	Test Site	☐	Wafer Fab Material
☒	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Process

PCN Details

Description of Change:

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

	TFME	UTL2	HNA	HFTF	CDAT
Mount Compound	SID# A-03	SID#PZ0001	SID#400180	SID# A-03 4207123	4207123
Bond wire diam/material	0.8mil Au	1.0mil Au	1.0mil Au	Au (0.8, 1.0 mil), Cu (1.0, 1.3 mil)	Cu (0.8, 1.0, 1.3 mil)
Mold Compound	SID# R-07	SID#450179	SID#450179	SID#R-27	4222198
Wafer thickness	7.5mil	7.5mil	7.5mil	7.5mil	6.0mil
Lead finish	NiPdAu, Matte Sn	NiPdAu	NiPdAu	NiPdAu, Matte Sn	Matte Sn
MSL level	1, 2	1	1	1,2	1
Final Test Site	TFME	UTL2	HNA	HFTF	CDAT

Upon expiry of this PCN, TI will combine lead finish solutions in a single standard part number. For example, a customer order for 7500 units of a specific TI part number with 2500 units SPQ (Standard Pack Quantity per reel) may be fulfilled in the following ways:

- 3 reels of NiPdAu finish
- 3 reels of Matte Sn finish
- 2 reels of Matte Sn and 1 reel of NiPdAu finish
- 2 reels of NiPdAu and 1 reel of Matte Sn finish

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ

Qual details are provided in the Qual Data Section.

Reason for Change:

Supply continuity

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Impact on Environmental Ratings

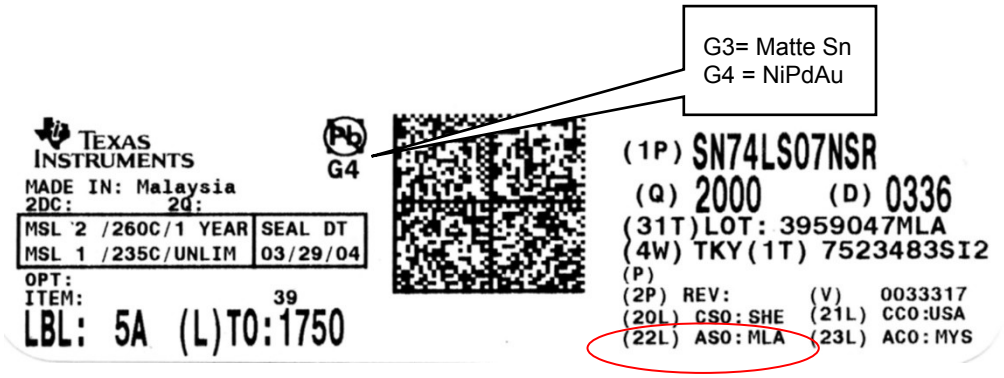
Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

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

Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
HFTF	HFT	CHN	Hefei
HNA	HNT	THA	Ayutthaya
TFME	NFM	CHN	Economic Development Zone
UTL2	NS2	THA	Bangpakong, Chachoengsao
CDAT	**CDA**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label)



Product Affected:

SN74AUP1T34QDCKRQ1	SN74LVC1G80QDCKRQ1	TPS22919QDCKRQ1.A
SN74AUP1T34QDCKRQ1.B	SN74LVC1G80QDCKRQ1.A	TPD2E2U06QDCKRQ1
SN74LVC1G08IDCKRQ1	SN74LVC1G80QDCKRQ1.B	TPD2E2U06QDCKRQ1.B
SN74LVC1G08IDCKRQ1.A	SN74LVC1G80QDCKTQ1	SN74AXC1T45QDCKRQ1
SN74LVC1G08IDCKRQ1.B	SN74LVC1G80QDCKTQ1.B	SN74AXC1T45QDCKRQ1.B
SN74LVC1G08QDCKRQ1*	SN74LVC1G86QDCKRQ1	LM66100QDCKRQ1
SN74LVC1G08QDCKRQ1.A	SN74LVC1G86QDCKRQ1.A	LM66100QDCKRQ1.A
SN74LVC1G08QDCKRQ1.B	SN74LVC1G86QDCKRQ1.B	TLV1701AQDCKRQ1
CLVC1G374QDCKRQ1	SN74LVC1G86QDCKTQ1	TLV1701AQDCKRQ1.B
CLVC1G374QDCKRQ1.B	SN74LVC1G86QDCKTQ1.B	TLV313QDCKRQ1
SN74LVC1G79QDCKRQ1	SN74LVC1G98QDCKRQ1	TLV313QDCKRQ1.B
SN74LVC1G79QDCKRQ1.A	SN74LVC1G98QDCKRQ1.B	TLV313QDCKTQ1
SN74LVC1G79QDCKRQ1.B	SN74LVC2G06QDCKRQ1	TLV313QDCKTQ1.B
SN74LVC1G79QDCKTQ1	SN74LVC2G06QDCKRQ1.B	TLV6001QDCKRQ1
SN74LVC1G79QDCKTQ1.B	TPS22919QDCKRQ1	TLV6001QDCKRQ1.B

* G4 part numbers are available and will remain on NiPdAu flows. This PCN does not apply to existing G4 materials. Please visit TI's labeling and symbolization page for more information on material designators

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

Approve Date 31-January-2025

Product Attributes

Attributes	Qual Device: SN74LVC1G08QDCKRQ1	QBS Process Reference: SN3257QDYYRQ1	QBS Process Reference: SN74LVC04AQDRQ1 SN74LVC125AQDRQ1	QBS Process Reference: PCM6260QRTVRQ1	QBS Package Reference: TPS3840PH30DBVRQ1	QBS Package Reference: TXS0101QDCKRQ1
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,Signal Chain	Logic	Signal Chain	Power Management	Logic
Wafer Fab Supplier	FR-BIP-1	RFAB	FR-BIP-1	RFAB	RFAB	RFAB
Assembly Site	CDAT	PHI	FMX	CDAT	CDAT	CDAT
Package Group	SOT	SOT	SOIC	QFN	SOT	SOT
Package Designator	DCK	DYY	D	RTV	DBV	DCK
Pin Count	5	16	14	32	5	6

QBS: Qual By Similarity, also known as Generic Data
Qual Device SN74LVC1G08QDCKRQ1 is qualified at MSL1 260C
Per AEC-Q100J A1.3: The PCN devices are categorized as a qualification family and use generic data that has been qualified for the critical attributes in Die sizes, Package Type, Assembly Process and Site.
Note 1: Affected devices in PCN have justification to use Package QBS references for Group A tests based on AEC-100J Appendix 1 A1.3 assembly site and package attributes were qualified.
Note 2: Affected devices in PCN have justification to use Process QBS references for Group B tests based on AEC-100J Appendix 1 A1.2 silicon wafer fab and die attributes were qualified.
Note 3: Affected devices in PCN have justification to use Package QBS for Group C tests based on AEC-100J Appendix 1 A1.3 package wire, leadframe and package group attributes were qualified.
Note 4: Other devices have passed HBM/CDM/LU with the final wafer/backgrind thickness. TI will not re-run HBM/CDM/LU for this change since backgrind removes bulk silicon and does not affect the active area of die. HBM/CDM/LU purpose is to
test the active area of die, die circuit design and/or wafer fab defects that would result damage to dielectrics, junctions, metal.
Note 5: ED cannot use Generic data per AEC-Q100J but there is representation of passing Electrical Distributions with the same assembly site and package attributes.

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	QBS Process Reference: SN3257QDYYRQ1	QBS Process Reference: SN74LVC04AQDRQ1 SN74LVC125AQDRQ1	QBS Process Reference: PCM6260QRTVRQ1	QBS Package Reference: TPS3840PH30DBVRQ1	QBS Package Reference: TXS0101QDCKRQ1
Test Group A - Accelerated Environment Stress Tests													

PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	Note 1	-	-	-	3/Pass	3/Pass
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	Note 1	-	-	-	3/231/0	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Autoclave	121C/15psig	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	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	Note 1	-	-	-	3/231/0	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	Note 1	-	-	-	3/15/0	3/15/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	Note 1	-	-	-	3/135/0	3/135/0
Test Group B - Accelerated Lifetime Simulation Tests													
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	Note 2	-	-	3/231/0	3/231/0	3/231/0
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	150C	408 Hours	Note 2	3/231/0	3/231/0	-	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	Note 2	-	-	3/2400/0	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	150C	24 Hours	Note 2	3/2400/0	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	-	-	-	-	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/0	-	-	-	-	3/90/0
SD	C3	JEDEC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	Note 3	-	-	-	-	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	1/10/0	-	-	-	-	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	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	Note 4	1/3/0	-	-	1/3/0	-
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	1500 Volts	Note 4	1/3/0	-	-	1/3/0	-
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	500 Volts	Note 4	-	-	-	1/3/0	-
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	Note 4	1/6/0	-	-	1/6/0	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	Note 5	3/90/0	-	-	3/90/0	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 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-2412-009

Automotive Qualification Summary
(As per AEC and JEDEC Guidelines)

Q006 SOT at CDAT

Approve Date 31-January-2025

Product Attributes

Attributes	QBS Package Reference: TPS3840PH30DBVRQ1	QBS Package Reference: TXS0101QDCKRQ1
Automotive Grade Level	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125
Product Function	Power Management	Logic
Wafer Fab Supplier	RFAB	RFAB
Assembly Site	CDAT	CDAT
Package Group	SOT	SOT
Package Designator	DBV	DCK
Pin Count	5	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	QBS Reference: TPS3840PH30DBVRQ1	QBS Reference: TXS0101QDCKRQ1
Test Group A - Accelerated Environment Stress Tests									
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/Pass	3/Pass
PC	A1.1	-	3	22	SAM Precon Pre	Review for delamination	-	3/66/0	3/66/0
PC	A1.2	-	3	22	SAM Precon Post	Review for delamination	-	3/66/0	3/66/0
HAST	A2.1.2	-	3	1	Cross Section, post bHAST, 1X	Post stress cross section	Completed	3/3/0	3/3/0
HAST	A2.1.3	-	3	3	Wire Bond Shear, post bHAST, 1X	Post stress	-	3/9/0	3/9/0
HAST	A2.1.4	-	3	3	Bond Pull over Stitch, post bHAST, 1X	Post stress	-	3/9/0	3/9/0
HAST	A2.1.5	-	3	3	Bond Pull over Ball, post bHAST, 1X	Post stress	-	3/9/0	3/9/0
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85%RH	192 Hours	3/231/0	3/231/0
HAST	A2.2.1	-	3	22	SAM Analysis, post bHAST 2X	Review for delamination	Completed	3/66/0	3/66/0
HAST	A2.2.2	-	3	1	Cross Section, post bHAST, 2X	Post stress cross section	Completed	3/3/0	3/3/0
HAST	A2.2.3	-	3	3	Wire Bond Shear, post bHAST, 2X	Post stress	-	3/9/0	3/9/0
HAST	A2.2.4	-	3	3	Bond Pull over Stitch, post bHAST, 2X	Post stress	-	3/9/0	3/9/0
HAST	A2.2.5	-	3	3	Bond Pull over Ball, post bHAST, 2X	Post stress	-	3/9/0	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	22	SAM Analysis, post TC 1X	Review for delamination	Completed	3/66/0	3/66/0
TC	A4.1.2	-	3	1	Cross Section, post TC, 1X	Post stress cross section	Completed	3/3/0	3/3/0

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	QBS Reference: TPS3840PH30DBVRQ1	QBS Reference: TXS0101QDCKRQ1
TC	A4.1.3	-	3	3	Wire Bond Shear, post TC, 1X	Post stress	-	3/9/0	3/9/0
TC	A4.1.4	-	3	3	Bond Pull over Stitch, post TC, 1X	Post stress	-	3/9/0	3/9/0
TC	A4.1.5	-	3	3	Bond Pull over Ball, post TC, 1X	Post stress	-	3/9/0	3/9/0
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle	-65C/150C	1000 Cycles	3/231/0	3/231/0
TC	A4.2.1	-	3	22	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	3/3/0
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	3/9/0
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Post stress	-	3/9/0	3/9/0
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	150C	1000 Hours	3/135/0	3/135/0
HTSL	A6.1.1	-	3	1	Cross Section, post HTSL, 1X	Post stress cross section	Completed	3/3/0	3/3/0
HTSL	A6.2	JEDEC JESD22-A103	3	44	High Temperature Storage Life	150C	2000 Hours	3/135/0	3/135/0
HTSL	A6.2.1	-	3	1	Cross Section, post HTSL, 2X	Post stress cross section	Completed	3/3/0	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

QBS: Qual By Similarity, also known as Generic Data
This report represents AEC-Q006 7.1 Family Data Usage using technology driver and lead products that are most representative of the technology family.
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-2412-009

ZVEI IDs: SEM-PA-05, SEM-PA-07, SEM-PA-08, SEM-PA-11, SEM-PA-18, SEM-PW-03, SEM-PS-02, SEM-TF-01

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 Change Management team or your local Field Sales Representative.