



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20250701000.2
Qualify New Assembly Material set for Selected Device(s)
Change Notification / Sample Request**

Date: July 02, 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.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Sincerely,

Change Management Team
SC Business Services

20250701000.2
Change Notification / Sample Request
Attachments

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
SN65HVDA1040AQDRQ1	SN65HVDA1040AQDRQ1

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

PCN Number:	20250701000.2	PCN Date:	July 02, 2025
Title:	Qualify New Assembly Material set for Selected Device(s)		
Customer Contact:	Change Management team	Dept:	Quality Services
Proposed 1st Ship Date:	December 29, 2025	Sample requests accepted until:	August 31, 2025
*Sample requests received after August 31, 2025 will not be supported.			
Change Type:			
<input type="checkbox"/> Assembly Site	<input type="checkbox"/> Design	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Data Sheet	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input type="checkbox"/>	Wafer Fab Material
<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input type="checkbox"/>	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of new assembly material for devices listed in "Product affected" section below. Devices will remain in current assembly facility and piece part changes as follows:

Group 1

	Current	Proposed
Mount compound	4042500	4211470
Mold compound	4205694	4221499

Group 2

	Current	Proposed
Mount compound	4042500	4147858

Group 3

	Current	Proposed
Mount compound	4042500	4147858
Mold compound	4209640	4211880

Reason for Change:

Continuity of supply.

Current mount compound will stop production September 2025 by the supplier.

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
<input checked="" type="checkbox"/> No Change			

Changes to product identification resulting from this PCN:

None

Group 1 Product Affected:

ISO7421AQDRQ1	ISO7421AQDRQ1.B	ISO7421QDRQ1.A	
ISO7421AQDRQ1.A	ISO7421QDRQ1	ISO7421QDRQ1.B	
Group 2 Product Affected:			
SN65HVDA1040AQDRQ1	SN65HVDA1050AQDRQ1		
SN65HVDA1040AQDRQ1.A	SN65HVDA1050AQDRQ1.A		
Group 3 Product Affected:			
SN65HVD1040AQDRQ1	SN65HVD1040AQDRQ1.A		

Group 1
Qualification Data
Automotive Qualification Summary
(As per AEC-Q100 Rev. H and JEDEC Guidelines)
Approved 18-Apr-2017

Product Attributes

Attributes	Qual Device: AMC1301QDWVRQ1
Operating Temp Range	-40 to +125 C
Automotive Grade Level	Grade 1
Product Function	Signal Chain
Wafer Fab Supplier	DM5-DALLAS
Die Revision	C, F
Assembly Site	TITL (TAI)
Package Type	SOIC
Package Designator	DWV
Ball/Lead Count	8

- QBS: Qual By Similarity
- Qual Device AMC1301QDWVRQ1 is qualified at LEVEL3-260C
- Device AMC1301QDWVRQ1 contains multiple dies

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: AMC1301QDWVRQ1
Test Group A – Accelerated Environment Stress Tests							
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	PreConditioning	Level 3-260C	3/900/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	3/231/0
TC-BP	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Post Temp. Cycle Bond Pull	Wires	1/50/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	N/A
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Bake, 175C	500 Hours	3/135/0
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	480 Hours	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	3/2400/0
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	--	N/A
Test Group C – Package Assembly Integrity Tests							
WBS	C1	AEC Q100-001	1	30	Bond Shear (Cpk>1.67)	Wires	3/231/0
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull (Cpk>1.67)	Wires	3/231/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free/	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions (Cpk>1.67)	--	3/90/0
SBS	C5	AEC Q100-010	3	50	Solder Ball Shear (Cpk>1.67)	Post HTSL/Bump	N/A
LI	C6	JEDEC JESD22-B105	1	50	Lead Integrity	Leads	--
Test Group D – Die Fabrication Reliability Tests							
EM	D1	JESD61	-	-	Electromigration	--	Completed Per Process Technology Requirements
TDDB	D2	JESD35	-	-	Time Dependant Dielectric Breakdown	--	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	--	Completed Per Process Technology Requirements
NBTI	D4	-	-	-	Negative Bias Temperature Instability	--	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	--	Completed Per Process Technology Requirements
Test Group E – Electrical Verification Tests							
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	4000V/*	1/3/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500V/*	1/3/0
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC Q100-004)	1/6/0
ED	E5	AEC Q100-009	3	30	Auto Electrical Distributions	Cpk>1.67 Room, hot, and cold test	3/90/0

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST & TC samples, as applicable.

Ambient Operating Temperature by Automotive Grade Level:

Grade 0 (or E): -40°C to +150°C

Grade 1 (or Q): -40°C to +125°C

Grade 2 (or T): -40°C to +105°C

Grade 3 (or I) : -40°C to +85°C

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

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

TI Qualification ID: 20160211-116771/ R-BKF-2204-038

Group 2 & 3 Qualification Data Automotive Qualification Summary (As per AEC-Q100 Rev. H and JEDEC Guidelines)

Approve Date 28-MAY -2025

Product Attributes

Attributes	Qual Device: SN65HVD1040AQDRQ1	QBS Package Reference: SN65HVD1040AQDRQ1	QBS Package Reference: SN65HVD1040AQDRQ1	QBS Package Reference: AMC1301QDWVRQ1	QBS Package Reference: TPIC6A596DWG4
Automotive Grade Level	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
Product Function	Power Management	Interface	Interface	-	Power Management
Wafer Fab Supplier	DL-LIN	DL-LIN	DL-LIN	DP1DM5, DP1DM5, DP1DM5	DMOS6
Assembly Site	MLA	TAI	MLA	TAI	TAI
Package Group	SOIC	SOIC	SOIC	SOIC	SOIC
Package Designator	D	D	D	DWV	DW
Pin Count	8	8	8	8	24

QBS: Qual By Similarity, also known as Generic Data

Qual Device SN65HVD1040AQDRQ1 is qualified at MSL1 260C
 Qual Device SN65HVD1792TDEP is qualified at MSL1 260C
 Qual Device SN74LVT8980AIDWREP 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: SN65HVD1040AQDRQ1	QBS Package Reference: SN65HVD1040AQDRQ1	QBS Package Reference: SN65HVD1040AQDRQ1	QBS Package Reference: AMC1301QDWVRQ1	QBS Package Reference: TPIC6A596DWRG4
Test Group A - Accelerated Environment Stress Tests												
PC	A1	JEDEC J-STD-020 JEDEC22-A113	3	77	Preconditioning	MSL1 260C	-	3/633/0	3/628/0	3/828/0	-	3/1104/0
PC	A1	JEDEC J-STD-020 JEDEC22-A113	3	77	Preconditioning	MSL3 260C	-	-	-	-	3/900/0	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	3/231/0	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	3/231/0	-
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	3/231/0	-	-	-	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-55C/150C	1500 Cycles	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	3/231/0	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	1000 Cycles	-	3/210/0	3/210/0	-	3/231/0
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	-	3/36/0	-	-	-	-
PTC	A5	JEDEC JESD22-A105	1	45	PTC	-40/125C	1000 Cycles	-	-	-	-	1/45/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	-	3/135/0	3/135/0	-	3/135/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	2000 Hours	3/135/0	-	-	-	-
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	125C	1000 Hours	-	3/231/0	3/231/0	-	3/231/0
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	150C	480 Hours	-	-	-	3/231/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	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	3/90/0	3/90/0	3/90/0	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	3/90/0	3/90/0	3/90/0
SD	C3	JEDEC J-STD-002	1	15	PB Solderability	>95% Lead Coverage	-	1/15/0	1/15/0	-	-	-
SD	C3	JEDEC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	1/15/0	1/15/0	1/15/0	1/15/0	-
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0	3/30/0	3/30/0	3/30/0	3/30/0

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-2407-016

ZVEI ID: SEM-PA-07, SEM-PA-11

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).

ZVEI ID: SEM-PA-07, SEM-PA-11

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

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