



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250818000.2

**Qualification of new BOM & Hybrid wafer saw for select package devices
Change Notification / Sample Request**

Date: August 19, 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

20250818000.2
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
INA186A1QDDFRQ1	NULL
LM74502QDDFRQ1	NULL
TPS37043A4OFDDFRQ1	NULL
LM74502HQDDFRQ1	NULL
TLV9354QDYRRQ1	NULL
LMV324AQDYRRQ1	NULL
OPA4991QDYRRQ1	NULL
TLV9004QDYRRQ1	NULL
TPS37044BJOFDDFRQ1	NULL
TCAN1144DYRRQ1	NULL
TPS37043BJOFDDFRQ1	NULL
LM74700QDDFRQ1	NULL
LM74701QDDFRQ1	NULL
SN3257QDYRRQ1	NULL
INA190A1QDDFRQ1	NULL
LM74500QDDFRQ1	NULL
TPS37042A3OFDDFRQ1	NULL

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

PCN Number:	20250818000.2			PCN Date:	August 19, 2025
Title:	Qualification of new BOM & Hybrid wafer saw for select package devices				
Customer Contact:	Change Management team		Dept:	Quality Services	
Proposed 1st Ship Date:	February 15, 2026		Sample requests accepted until:	October 18, 2025	
*Sample requests received after October 18, 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 a new BOM material & Hybrid wafer saw process for the devices in the product affected section.					
		Current	Proposed		
Mount compound		4223872	4226215		
Die scribe or separation		Laser saw	Hybrid saw		
Reason for Change:					
Continuity of supply					
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:					
None					
Product Affected:					
INA186A1QDDFRQ1	LM74502QDDFRQ1	TLV9154QDYRQ1			
INA186A3QDDFRQ1	LM74700QDDFRQ1	TLV9354QDYRQ1			
INA190A1QDDFRQ1	LM74701QDDFRQ1	TPS37042A3OFDDFRQ1			
INA190A3QDDFRQ1	LMV324AQDYRQ1	TPS37043A4OFDDFRQ1			
LM2902LVQDYRQ1	OPA4991QDYRQ1	TPS37043A8OFDDFRQ1			
LM74500QDDFRQ1	SN3257QDYRQ1	TPS37043BJOFDDFRQ1			
LM74501QDDFRQ1	TCAN1144DYRQ1	TPS37044A4OGDDFRQ1			
LM74502HQDDFRQ1	TLV9004QDYRQ1	TPS37044BJOFDDFRQ1			

Qualification Report

Automotive Qualification Summary

(As per AEC-Q100 Rev. H and JEDEC Guidelines)
Approve Date 21-July-2025

Product Attributes

Attributes	Qual Device: <u>LM74500QDDFRQ1</u>	QBS Process Reference: <u>SN74HCS595QDYRQ1</u>	QBS Package Reference: <u>TCAN1463DYRQ1</u>	QBS Package Reference: <u>5962R2321401PXE</u>
Automotive Grade Level	Grade 1	Grade 1	Grade 1	-
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-55 to 125
Product Function	Signal Chain	Logic	Interface	-
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB
Assembly Site	PHI	PHI	PHI	PHI
Package Group	SOT	SOT	SOT	SOT
Package Designator	DDF	DYY	DYY	DYY
Pin Count	8	16	14	14

QBS: Qual By Similarity, also known as Generic Data
Qual Device LM74500QDDFRQ1 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: <u>LM74500QDDFRQ1</u>	QBS Process Reference: <u>SN74HCS595QDYRQ1</u>	QBS Package Reference: <u>TCAN1463DYRQ1</u>
Test Group A - Accelerated Environment Stress Tests										
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/77/0	3/0/0	1/0/0
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	Autoclave	121C/15psig	96 Hours	-	-	1/77/0
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	1/77/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	-	1/5/0	1/5/0
Test Group B - Accelerated Lifetime Simulation Tests										
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	-	3/231/0	-
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	1/30/0
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	1/30/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0	3/30/0	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
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										
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	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-2410-097

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-19

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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