



PCN# 20250412000.2
Adding TIEM-PR as additional wafer probe site and
TI Mexico (FMX) as an additional Assembly and Test site
for select package devices
Change Notification / Sample Request

Date: April 14, 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

20250412000.2
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
TCAN1044AVDRQ1	NULL
TCAN1057ADRQ1	NULL
TCAN1044ADRQ1	NULL
TCAN1044DRQ1	NULL
TCAN1044VDRQ1	NULL
TCAN1057AVDRQ1	NULL

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

PCN Number:	20250412000.2			PCN Date:	April 14, 2025
Title:	Adding TIEM-PR as additional wafer probe site and TI Mexico (FMX) as an additional Assembly and Test site for select package devices				
Customer Contact:	Change Management team		Dept:	Quality Services	
Proposed 1st Ship Date:	October 11, 2025		Estimated Sample Availability:	June 13, 2025	
*Sample requests received after June 13, 2025 will not be supported.					
Change Type:					
<input checked="" 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 type="checkbox"/> Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Fab Site	
<input type="checkbox"/> Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Material	
<input checked="" 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 TIEM-PR as additional wafer probe site and TI Mexico (FMX) as an additional Assembly and Test site for select devices in the SOIC package. No Assembly material differences between sites.

	Current	New
Probe Site	TI CDAT (CD-PR)	TI Melaka (TIEM-PR)
Assembly/Test Site	TI Malaysia	TI Mexico

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 (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:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (21L)	Assembly City
TI Malaysia	MLA	MYS	Kuala Lumpur
TI Mexico	MEX	MEX	Aguascalientes

Sample product shipping label (not actual product label)

 TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 20 MSL '2 / 260C / 1 YEAR SEAL DT MSL 1 / 235C / UNLIM 03/29/04				(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CS0: SHE (21L) CCO:USA (22L) AS0: MLA (23L) AC0: MYS						
OPT: ITEM: 39 LBL: 5A (L)T0:1750										
Product Affected: <table border="1"> <tr> <td>TCAN1044ADRQ1</td> <td>TCAN1044DRQ1</td> <td>TCAN1057ADRQ1</td> </tr> <tr> <td>TCAN1044AVDRQ1</td> <td>TCAN1044VDRQ1</td> <td>TCAN1057AVDRQ1</td> </tr> </table>					TCAN1044ADRQ1	TCAN1044DRQ1	TCAN1057ADRQ1	TCAN1044AVDRQ1	TCAN1044VDRQ1	TCAN1057AVDRQ1
TCAN1044ADRQ1	TCAN1044DRQ1	TCAN1057ADRQ1								
TCAN1044AVDRQ1	TCAN1044VDRQ1	TCAN1057AVDRQ1								

Qualification Data

Automotive Qualification Summary
 (As per AEC-Q100 Rev. J and JEDEC Guidelines)
 Approve Date 25-March-2025

Product Attributes

Attributes	Qual Device: <u>TCAN1043ADRQ1</u>
Automotive Grade Level	Grade 1
Operating Temp Range (C)	-40 to 125
Product Function	Interface
Wafer Fab Supplier	RFAB
Assembly Site	MLA
Package Group	SOIC
Package Designator	D
Pin Count	14

QBS: Qual By Similarity, also known as Generic Data
 Qual Device TCAN1043ADRQ1 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>TCAN1043ADRQ1</u>
Test Group A - Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	1/0/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	1/77/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Autoclave	121C/15psig	96 Hours	1/77/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	1/77/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	1/5/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	175C	500 Hours	1/45/0

Test Group B - Accelerated Lifetime Simulation Tests								
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
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	1/10/0
Test Group D - Die Fabrication Reliability Tests								
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements
TDDB	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	-	Completed Per Process Technology Requirements
Test Group E - Electrical Verification Tests								
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	4000 Volts	1/3/0
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	1500 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 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-BKF-2212-002

ZVEI ID: SEM-PA-18, 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 the Change Management team or your local Field Sales Representative.

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