12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20240628016.2
Die Thickness Reduction for the TLV2471QDBVRQ1
Change Notification / Sample Request

Date: June 29, 2024
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 **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within **30 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

20240628016.2
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
TLV2471QDBVRQ1	NULL

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

PCN Number:	PCN#20240628016.2	PCN Date:	June 29, 2024
Title:	Die Thickness reduction for the TLV2471QDBVRQ1		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	December 26, 2024	Sample Requests accepted until:	July 29, 2024*

***Sample requests received after July 29, 2024 will not be supported.**

☐	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:

This PCN is to inform of die thickness reduction qualification for the TLV2471QDBVRQ1 as follows:

What	Current	Additional
Die Thickness	**10.5 mils**	**6 mils**

Reason for Change:

Standardization

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:

TLV2471QDBVRQ1

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: TLV2401QDBVRQ1	QBS Process Reference: MAX3243IPWG4DL
Test Group A – Accelerated Environment Stress Tests									
	PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 1	Level 1-260C	3/1199/0	-
	HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0
	AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	3/231/0	3/231/0
	TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0
	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 150C	1000 Hours	-	3/231/0
	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	408 Hours	3/231/0	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									
	WBP	C1	AEC Q100-001	1	30	Bond Pull, over ball	Minimum of 5 devices, 30 wires Cpk>1.67	3/90/0	1/30/0
	WBP	C1	AEC Q100-001	1	30	Bond Pull, over stitch	Minimum of 5 devices, 30 wires Cpk>1.67	3/90/0	1/30/0
	WBS	C1	AEC Q100-001	1	30	Auto Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	3/90/0	-
	SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb	1/15/0	-
	SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free	1/15/0	1/15/0
	PD	C4	JEDEC JESD22-B100 and B108	3	10	Auto Physical Dimensions	Cpk>1.67	3/30/0	3/30/0

	Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: TLV2401QDBVRQ1	QBS Process Reference: MAX3243IPWG4DL
	LI	C6	JEDEC JESD22-B105	1	22	Lead Pull to Destruction	Leads	1/22/0	-
	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	500 V (1)	1/3/0	-
	CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500 V	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	3/90/0	-

- QBS: Qual By Similarity
- Qual Device TLV2401QDBVRQ1 is qualified at LEVEL1-260C

A1 (PC): Preconditioning:
Performed for THB, Biased HAST, AC, uHAST, TC & PTC 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
Note (1): See ESD waiver attached to eQDB.
Change Number: NA
TI Qualification ID: 20190124-128331

ZVEI ID: SEM-PW-03

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

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