12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20251104003.1
Qualification of RFAB using qualified Process Technology, Die Change, new assembly sites (MLA & MEX) and BOM updates
Change Notification / Sample Request

Date: November 04, 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

20251104003.1
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
TMP411BDGKR	NULL
TMP411CDR	NULL
TMP411ADR	NULL
TMP411CDGKR	NULL
TMP411ADGKR	NULL
TMP411EDGKR	595-TMP411EDGKR

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

PCN Number:	20251104003.1	PCN Date:	November 04, 2025
Title:	Qualification of RFAB using qualified Process Technology, Die Change, new assembly sites (MLA & MEX) and BOM updates		
Customer Contact:	Change Management team	Dept:	Quality Services
Proposed 1st Ship Date:	February 02, 2026	Sample requests accepted until:	January 03, 2026*

***Sample requests received after January 03, 2026 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 Materials
☒	Packing/Shipping/ Labeling	☐	Test Process	☒	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the addition of RFAB using the qualified LBC9 process technology, die change, MLA & TI Mexico as additional assembly sites, and BOM updates.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
AIZU DP1DM5	50HPA07	200 mm	RFAB	LBC9	300 mm

The die was also changed as a result of the process change.

BOM Comparisons are as follow:

Group 1 BOM Table (FAB/Process migration, die change, MLA as additional Assembly site plus BOM update):

	UTL2	ASESH	MLA
Bond wire diam/type	1.0mil Au	1.0mil Au, 1.0mil Cu	0.8mil Cu
Mold Compound	SID#CZ0094	SID#EN2000763	4211880
Mount Compound	SID#PZ0013	SID#EY1000063	4147858
Device marking	TI logo, backside marking	TI logo, backside marking	TI letter, no backside marking, with cavity ID
Lead finish	NiPdAu	NiPdAuAg	NiPdAu
MSL	2	2	**1**

Group 2 BOM Table (FAB/Process migration, die change, MEX as additional Assembly site plus BOM update):

	MLA	TI Mexico
Bond wire composition, diameter	Cu, 0.96 mil	Cu, 0.8 mil
Device logo	TI Logo	TI Letters
MSL	2	1

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

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
AIZU	CU2	JPN	Aizuwakamatsu-shi
DP1DM5	DM5	USA	Dallas
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
B	**A**

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TI Mexico	MEX	MEX	Aguascalientes
UTL2	NS2	THA	Bangpakong, Chachoengsao
ASESH	ASH	CHN	Shanghai
MLA	**MLA**	**MYS**	**Kuala Lumpur**

Sample product shipping label (not actual product label)

Product Affected:

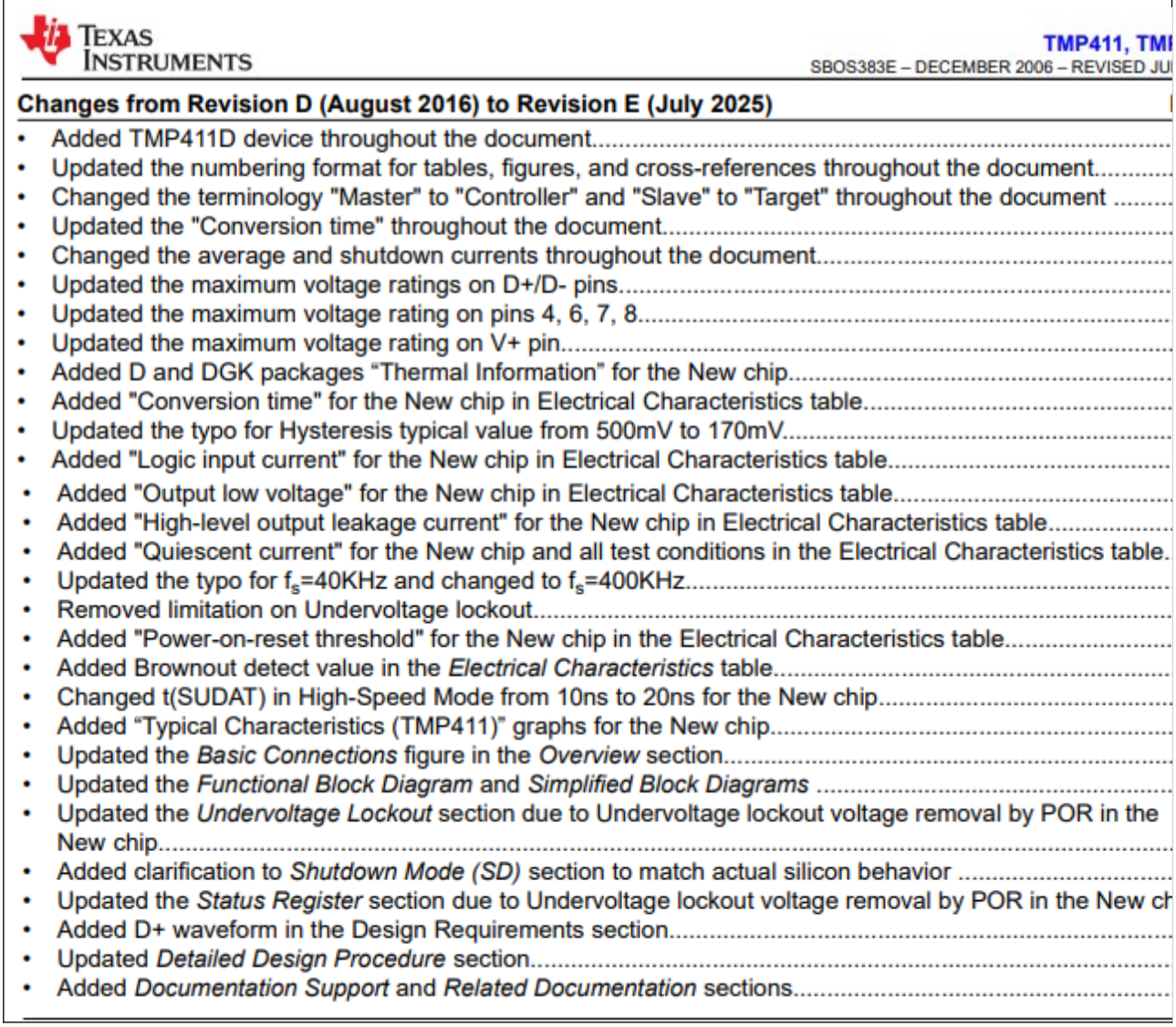
Group 1 Device list (FAB/Process migration, die change, MLA as additional Assembly site plus BOM update):

TMP411ADGKR	TMP411BDGKR	TMP411CDGKR	TMP411EDGKR

Group 2 Device list (FAB/Process migration, die change, MEX as additional Assembly site plus BOM update):

TMP411CDR	TMP411ADR	TMP411BDR

Texas Instruments Incorporated is announcing an information only notification.
The product datasheet(s) is being updated as summarized below.
The following change history provides further details.



TEXAS INSTRUMENTS

TMP411, TMI

SBOS383E – DECEMBER 2006 – REVISED JU

Changes from Revision D (August 2016) to Revision E (July 2025)

- Added TMP411D device throughout the document
- Updated the numbering format for tables, figures, and cross-references throughout the document
- Changed the terminology "Master" to "Controller" and "Slave" to "Target" throughout the document
- Updated the "Conversion time" throughout the document
- Changed the average and shutdown currents throughout the document
- Updated the maximum voltage ratings on D+/D- pins
- Updated the maximum voltage rating on pins 4, 6, 7, 8
- Updated the maximum voltage rating on V+ pin
- Added D and DGK packages "Thermal Information" for the New chip
- Added "Conversion time" for the New chip in Electrical Characteristics table
- Updated the typo for Hysteresis typical value from 500mV to 170mV
- Added "Logic input current" for the New chip in Electrical Characteristics table
- Added "Output low voltage" for the New chip in Electrical Characteristics table
- Added "High-level output leakage current" for the New chip in Electrical Characteristics table
- Added "Quiescent current" for the New chip and all test conditions in the Electrical Characteristics table.
- Updated the typo for f_s=40KHz and changed to f_s=400KHz
- Removed limitation on Undervoltage lockout
- Added "Power-on-reset threshold" for the New chip in the Electrical Characteristics table
- Added Brownout detect value in the *Electrical Characteristics* table
- Changed t(SUDAT) in High-Speed Mode from 10ns to 20ns for the New chip
- Added "Typical Characteristics (TMP411)" graphs for the New chip
- Updated the *Basic Connections* figure in the *Overview* section
- Updated the *Functional Block Diagram* and *Simplified Block Diagrams*
- Updated the *Undervoltage Lockout* section due to Undervoltage lockout voltage removal by POR in the New chip
- Added clarification to *Shutdown Mode (SD)* section to match actual silicon behavior
- Updated the *Status Register* section due to Undervoltage lockout voltage removal by POR in the New ch
- Added D+ waveform in the Design Requirements section
- Updated *Detailed Design Procedure* section
- Added *Documentation Support* and *Related Documentation* sections

The datasheet number will be changing.

Device Family	Change From:	Change To:
TMP411	SBOS383D	**SBOS383E**

These changes may be reviewed at the datasheet links provided.

http://www.ti.com/product/TMP411

For alternate parts with similar or improved performance, please visit the product page on TI.com

Group 1 Qualification Report

Approve Date 02-FEBRUARY -2024

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	#	Test Name	Condition	Duration	Qual Device: TMP411ADGKR (rev 1.0)	Qual Device: TMP411BDGKR (rev 1.0) TMP411CDGKR (rev 1.0) TMP411EDGKR (rev 1.0)	Qual Device: TMP411DDGKR (rev 1.1)	Qual Device: TMP411EDGKR (rev 1.1) TMP411CDGKR (rev 1.1) TMP411EDGKR (rev 1.1)	QBS Reference: TMP398AQDRLRQ1	QBS Reference: OPA2286ADGKR	QBS Reference: SN74LVC244AQDGSRQ1	QBS Reference: SN74LVC273AQDGSRQ1	QBS Reference: SN74LV541AQDGSRQ1	QBS Reference: OPA2991QDRQ1	QBS Reference: OPA2328DGKR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	2/154/0	1/77/0	1/77/0	1/77/0	3/231/0	1/77/0
UHAST	A3	Unbiased HAST	130C	96 Hours	-	-	-	-	-	2/154/0	1/77/0	1/77/0	1/77/0	-	-
TC	A4	Temperature Cycle	-65/150C	500 Cycles	-	-	-	-	-	2/154/0	-	-	-	-	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	-	2/154/0	1/77/0	1/77/0	1/77/0	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	2/154/0	1/45/0	1/45/0	1/45/0	3/135/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	-	-	-	-	-	-	1/77/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	3/231/0	-	1/77/0	-	-	-	-
HTOL	B1	Life Test	150C	408 Hours	-	-	-	-	-	-	-	-	-	1/77/0	-
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	1/3/0	-	-	-	-	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	1/3/0	-	-	-	-	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	1/3/0	-	-	-	-	-	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	1/30/0	-	-	-	-	-	-	-	-

- QBS: Qual By Similarity
- Qual Device TMP411ADGKR is qualified at MSL1260C
- Qual Device TMP411BDGKR is qualified at MSL1260C
- Qual Device TMP411CDGKR is qualified at MSL1260C

- Qual Device TMP411EDGKR is qualified at MSL1260C
- Qual Device TMP411ADGKR is qualified at MSL1260C
- Qual Device TMP411BDGKR is qualified at MSL1260C
- Qual Device TMP411CDGKR is qualified at MSL1260C
- Qual Device TMP411EDGKR is qualified at MSL1260C

- 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 0.7 eV : 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 0.7 eV : 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

Quality and Environmental data is available at TIs external Web site: http://www.ti.com/

TI Qualification ID : R-NPD-2301-063

[1]-HTOL failed due to rejects mixed back in with tested good units. See attached 4C.

Group 2 Qualification Report

Approve Date 31-JANUARY -2024

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	#	Test Name	Condition	Duration	Qual Device: TMP411ADR(Rev 1.0)	Qual Device: TMP411BDR(Rev 1.0)	Qual Device: TMP411CDR(Rev 1.0)	Qual Device: TMP411ADR(Rev1.1)	Qual Device: TMP411BDR(Rev1.1)	Qual Device: TMP411CDR(Rev1.1)	QBS Reference: MC33063ADR	QBS Reference: TPS48111LQDGSRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	-	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	-	1/77/0	3/231/0
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	1/3/0	-	-	-	-
ESD	E2	ESD HBM	-	3000 Volts	-	-	-	1/3/0	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/6/0	-	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	1/30/0	-	-	1/30/0	-

- QBS: Qual By Similarity
- Qual Device TMP411ADR is qualified at MSL1 260C
- Qual Device TMP411BDR is qualified at MSL1 260C
- Qual Device TMP411CDR is qualified at MSL1 260C
- Qual Device TMP411ADR is qualified at MSL1 260C
- Qual Device TMP411BDR is qualified at MSL1 260C
- Qual Device TMP411CDR is qualified at MSL1 260C

- 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 0.7 eV : 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 0.7 eV : 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

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

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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