



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20230524000.1

**Qualification of Cu as an alternate bond wire & other BOM elements for Select Devices
Change Notification / Sample Request**

Date: May 24, 2023

To: TOKYO ELECTRON DEVICE (DSTR) 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 of the change. If additional data is 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 PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team
SC Business Services

20230524000.1
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, these are the devices that you have purchased within the past twenty-four(24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
LMP7711MKE/NOPB	null
LMP7721MA/NOPB	null
TLV8811DBVT	null
LM25061PMM-1/NOPB	null
LMP7715MF/NOPB	null
LMP7732MAX/NOPB	null
LMP7702MM/NOPB	null
LMP7712MM/NOPB	null
LM5117PMH/NOPB	null
LM5117PMHX/NOPB	null
TLV521DCKT	null
LMP8603MME/NOPB	null
LMP7715MFE/NOPB	null
LMP7731MFX/NOPB	null
LMP2022MMX/NOPB	null
LMP2022MM/NOPB	null
LMP8350MA/NOPB	null
SM73302MFX/NOPB	null
TDC1000PWR	null
LMP2231AMF/NOPB	null
LMP2234BMAE/NOPB	null
LM25069PMME-2/NOPB	null
LMP7711MK/NOPB	null
TLV8811DBVR	null
LM25117PMHX/NOPB	null
LMP7702MA/NOPB	null
LMP7731MAX/NOPB	null
LMP7732MMX/NOPB	null
LMP8672MA/NOPB	null
LMP8350MAX/NOPB	null
LMP8601MAX/NOPB	null

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

PCN Number:	20230524000.1		PCN Date:	May 24, 2023									
Title:	Qualification of Cu as an alternate bond wire & other BOM elements for Select Devices												
Customer Contact:	PCN Manager	Dept:	Quality Services										
Proposed 1st Ship Date:	Aug 22, 2023	Sample Requests accepted until:	June 24, 2023										
*Sample requests received after Jun 24, 2023 will not be supported.													
Change Type:													
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site								
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material								
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process								
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site								
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials								
				<input type="checkbox"/>	Wafer Fab Process								
PCN Details													
Description of Change:													
This PCN is to inform of an alternative bond wire & new die coat qualification for the devices in the product affected section as follows:													
<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 33%;">What</th> <th style="width: 33%;">Current</th> <th style="width: 33%;">Additional</th> </tr> </thead> <tbody> <tr> <td>Current Bond wire, Diameter</td> <td>Au, 1.0 or 0.9 mil</td> <td>Cu, 0.96 mil</td> </tr> <tr> <td>Die Coat Material</td> <td>BCB</td> <td>PI</td> </tr> </tbody> </table>					What	Current	Additional	Current Bond wire, Diameter	Au, 1.0 or 0.9 mil	Cu, 0.96 mil	Die Coat Material	BCB	PI
What	Current	Additional											
Current Bond wire, Diameter	Au, 1.0 or 0.9 mil	Cu, 0.96 mil											
Die Coat Material	BCB	PI											
Reason for Change:													
Continuity of supply. 1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties 2) Maximize flexibility within our Assembly/Test production sites. 3) Cu is easier to obtain and stock													
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.													
<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 25%;">RoHS</th> <th style="width: 25%;">REACH</th> <th style="width: 25%;">Green Status</th> <th style="width: 25%;">IEC 62474</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> </tr> </tbody> </table>					RoHS	REACH	Green Status	IEC 62474	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	
RoHS	REACH	Green Status	IEC 62474										
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change										
Changes to product identification resulting from this PCN:													
None													
Product Affected:													
LM25061PMM-1/NOPB	LMP2232AMMX/NOPB	LMP7718MM/NOPB	LMP90077MHX/NOPB										
LM25061PMM-2/NOPB	LMP2232BMA/NOPB	LMP7718MME/NOPB	LMP90078MH/NOPB										

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LM25061PMMX-1/NOPB	LMP2232BMM/NOPB	LMP7731MA/NOPB	LMP90079MH/NOPB
LM25061PMMX-2/NOPB	LMP2232BMME/NOPB	LMP7731MAX/NOPB	LMP90079MHE/NOPB
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LM5117PMHE/NOPB	LMP7702MM/NOPB	LMP8481MM-S/NOPB	LMP90099MHE/NOPB
LM5117PMHX/NOPB	LMP7702MMX/NOPB	LMP8481MM-T/NOPB	LMP90099MHX/NOPB
LMP2021MA/NOPB	LMP7704MA/NOPB	LMP8481MME-H/NOPB	LMP90100MH/NOPB
LMP2021MAX/NOPB	LMP7704MAX/NOPB	LMP8481MME-S/NOPB	LMP90100MHE/NOPB
LMP2021MF/NOPB	LMP7708MA/NOPB	LMP8481MME-T/NOPB	LMP90100MHX/NOPB
LMP2021MFE/NOPB	LMP7708MAX/NOPB	LMP8481MMX-H/NOPB	LMP91050MM/NOPB
LMP2021MFX/NOPB	LMP7708MM/NOPB	LMP8481MMX-S/NOPB	LMP91050MM/S7002917
LMP2022MA/NOPB	LMP7708MME/NOPB	LMP8481MMX-T/NOPB	LMP91050MME/NOPB
LMP2022MAX/NOPB	LMP7708MMX/NOPB	LMP8601MA/NOPB	LMP91050MMX/NOPB
LMP2022MM/NOPB	LMP7709MA/NOPB	LMP8601MAX/NOPB	LMP91050MMX/S7002917
LMP2022MME/NOPB	LMP7709MAX/NOPB	LMP8602MA/NOPB	LMP91051MT/NOPB
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LMP2231AMA/NOPB	LMP7711MKE/NOPB	LMP8602MM/NOPB	LMP91200MT/NOPB
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LMP2231BMFX/NOPB	LMP7717MF/NOPB	LMP8650MMX-T/NOPB	TDC1011PWR
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LMP2232AMME/NOPB	LMP7718MAX/NOPB		

TI Information
Selective Disclosure

Qualification Report

Au wire change to Cu wire and BCB Spincoat change to PI Spincoat
Approve Date 27-APRIL -2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMP7711MK/NOPB	Qual Device: LMP8481MME-S/NOPB	Qual Device: TDC1000PW	QBS Reference: LMP91300NHZJ	QBS Reference: LMP92066PWPR	QBS Reference: LPV811DBVR
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	3/231/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	3/231/0	3/231/0	3/231/0	-	3/231/0	1/77/0
UHAST	A3	Unbiased HAST	110C/85%RH	264 Hours	-	-	-	3/231/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/231/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/2400/0	3/2400/0	-

Type	#	Test Name	Condition	Duration	Qual Device: LMP7711MK/NOPB	Qual Device: LMP8481MME-S/NOPB	Qual Device: TDC1000PW	QBS Reference: LMP91300NHZJ	QBS Reference: LMP92066PWPR	QBS Reference: LPV811DBVR
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	-	1/22/0	1/22/0	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	1000 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	1/30/0	1/30/0	1/30/0	-

- QBS: Qual By Similarity
- Qual Device LMP7711MK/NOPB is qualified at MSL1 260C
- Qual Device LMP8481MME-S/NOPB is qualified at MSL1 260C
- Qual Device TDC1000PW 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 0.7eV : 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

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

TI Qualification ID: R-CHG-2205-085

For questions regarding this notice, e-mails can be sent to the contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN_ww_admin_team@list.ti.com

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