



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20230714001.1A
Qualification of Cu as an alternate bond wire for Select Devices
Change Notification / Sample Request

Date: July 17, 2023
To: Newark/Farnell PCN

Revision A is to remove the reference to die coat change.

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

20230714001.1A
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
LM5064PMH/NOPB	null

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

PCN Number:	20230714001.1A			PCN Date:	July 17, 2023
Title:	Qualification of Cu as an alternate bond wire for Select Devices				
Customer Contact:	Change Management Team		Dept:	Quality Services	
Proposed 1st Ship Date:	Oct 12, 2023		Sample Requests accepted until:	Aug 14, 2023	
*Sample requests received after Aug 14, 2023 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:					
Revision A is to remove the reference to die coat 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:					
What		Current		Additional	
Current Bond wire, Diameter (die to die)		Au, 1.0 or 0.9 mil		Cu, 0.8 or 0.96 mil	
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.					
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:					
LM25056APSQE/NOPB	LM25066IPSQ/NOPB	LM5056PMH/NOPB	LM5066IPMHE/NOPB		
LM25056PSQ/NOPB	LM25066IPSQE/NOPB	LM5056PMHE/NOPB	LM5066IPMHX/NOPB		
LM25056PSQE/NOPB	LM25066IPSQX/NOPB	LM5056PMHX/NOPB	LM5066PMH/NOPB		
LM25066APSQ/NOPB	LM25066PSQ/NOPB	LM5064PMH/NOPB	LM5066PMHE/NOPB		

LM25066APSQE/NOPB	LM25066PSQE/NOPB	LM5064PMHE/NOPB	LM5066PMHX/NOPB
LM25066APSQX/NOPB	LM25066PSQX/NOPB	LM5064PMHX/NOPB	LM5066UPMH/NOPB
LM25066IAPSQ/NOPB	LM5056APMH/NOPB	LM5064UPMH/NOPB	LM5066UPMHE/NOPB
LM25066IAPSQE/NOPB	LM5056APMHE/NOPB	LM5064UPMHE/NOPB	LM5066UPMHX/NOPB
LM25066IAPSQX/NOPB	LM5056APMHX/NOPB	LM5064UPMHX/NOPB	

TI Information
Selective Disclosure

Qualification Report

Die-to-die bonding for 0.8mil PCC and 0.96mil Cu wire Qualification
Approve Date 04-July-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LM5064PMH/NOPB	Qual Device: LM25056PSQ/NOPB	QBS Reference: DS90UB925QSOX/NOPB	QBS Reference: DS90UB940TNKDRQ1	QBS Reference: DS99R124AQSQE/NOPB
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	1/77/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	3/231/0	3/231/0	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-55C/125C	1000 Cycles	-	-	1/77/0	3/231/0	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	-	-	-
HTSL	A6	High Temperature Storage Life	150C	500 Hours	-	-	1/45/0	3/135/0	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	1/10/0	3/30/0	3/30/0

- QBS: Qual By Similarity
- Qual Device LM5064PMH/NOPB is qualified at MSL3 260C
- Qual Device LM25056PSQ/NOPB is qualified at MSL3 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-2206-071

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

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