

PCN Number:	20230801001.1			PCN Date:	August 02, 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 31, 2023		Sample Requests accepted until:	Sept 2, 2023									
*Sample requests received after Sept 2, 2023 will not be supported.													
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material								
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Process								
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Fab Site								
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Material								
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process								
PCN Details													
Description of Change:													
<p>This PCN is to inform of an alternative bond qualification for the devices in the product affected section as follows:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>What</th> <th>Current</th> <th>Additional</th> </tr> </thead> <tbody> <tr> <td>Current Bond wire, Diameter</td> <td>Au, 1.3 mils</td> <td>Cu, 1.3 mil</td> </tr> </tbody> </table>						What	Current	Additional	Current Bond wire, Diameter	Au, 1.3 mils	Cu, 1.3 mil		
What	Current	Additional											
Current Bond wire, Diameter	Au, 1.3 mils	Cu, 1.3 mil											
Reason for Change:													
<p>Continuity of supply.</p> <ol style="list-style-type: none"> 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													
<p>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.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>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:													
LMG3410R050RWHR	LMG3410R070RWHT	LMG3411R050RWHR	LMG3411R070RWHT										
LMG3410R050RWHT	LMG3410R150RWHR	LMG3411R050RWHT	LMG3411R150RWHR										
LMG3410R070RWHR	LMG3410R150RWHT	LMG3411R070RWHR	LMG3411R150RWHT										

Qualification Report

Polaris LMG3410R050RWHR

Approve Date 10-July-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMG3410R050RWHR	QBS Reference: LMG3422R030RQZT	QBS Reference: LMG3422R030RQZT
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	1/75/0	2/157/0
HAST	A2	Biased HAST	130C/85%RH	96 Hours	1/77/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	1/77/0	1/80/0	3/240/0
TC	A4	Temperature Cycle	-40C/125C	850 Cycles	-	1/80/0	2/160/0
TC	A4	Temperature Cycle	-55C/150C	560 Cycles	1/77/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	1/80/0	2/157/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	1/800/0	2/1610/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-
FTY	E6	Final Test Yield	-	-	1/PASS	-	-

- QBS: Qual By Similarity
- Qual Device LMG3410R050RWHR is qualified at NOT CLASSIFIED 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-2306-018

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

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property

right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.