

<b>PCN Number:</b>	20140127000			<b>PCN Date:</b>	01/29/2014						
<b>Title:</b>	Qualification of copper wire as alternate bonding material for selected products in QFN Package										
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Phone:</b>	+1(214)480-6037	<b>Dept:</b>	Quality Services						
<b>Proposed 1<sup>st</sup> Ship Date:</b>	02/28/2014	<b>Estimated Sample Availability:</b>	01/29/2014								
<b>Change Type:</b>											
<input type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials						
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification						
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process						
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process						
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process						
<input type="checkbox"/>		<input type="checkbox"/>	Part Number Change								
<b>PCN Details</b>											
<b>Description of Change:</b>											
<p>To qualify Cu wire as alternative bond material for selected products in QFN package. Most of the devices in this notification were included in Forecast PCN20123101B published on March 20, 2012 which was issued from the National Semiconductor PCN system.</p>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 25%; text-align: center;">From</th> <th style="width: 50%; text-align: center;">To</th> </tr> </thead> <tbody> <tr> <td><b>Wire</b></td> <td style="text-align: center;">Au, 0.9mil &amp; 1.0mil</td> <td style="text-align: center;">Cu, 1 mil or Au, 0.9mil &amp; 1.0mil</td> </tr> </tbody> </table>							From	To	<b>Wire</b>	Au, 0.9mil & 1.0mil	Cu, 1 mil or Au, 0.9mil & 1.0mil
	From	To									
<b>Wire</b>	Au, 0.9mil & 1.0mil	Cu, 1 mil or Au, 0.9mil & 1.0mil									
<b>Reason for Change:</b>											
<p>Continuity of supply.</p> <ol style="list-style-type: none"> <li>1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties</li> <li>2) Maximize flexibility within our Assembly/Test production sites.</li> <li>3) Cu is easier to obtain and stock</li> </ol>											
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>											
None											
<b>Changes to product identification resulting from this PCN:</b>											
None											

<b>Product Affected:</b>			
LMK03806BISQ/NOPB	LMK04803BISQE/NOPB	LMK04808BISQX/NOPB	LMK04826BISQ/NOPB
LMK03806BISQE/NOPB	LMK04803BISQX/NOPB	LMK04808CISQ/NOPB	LMK04826BISQE/NOPB
LMK03806BISQX/NOPB	LMK04805BISQ/NOPB	LMK04808CISQE/NOPB	LMK04826BISQX/NOPB
LMK03806CISQ/NOPB	LMK04805BISQE/NOPB	LMK04808CISQX/NOPB	LMK04828BISQ/NOPB
LMK03806CISQE/NOPB	LMK04805BISQX/NOPB	LMK04808DISQ/NOPB	LMK04828BISQE/NOPB
LMK03806CISQX/NOPB	LMK04806BISQ/NOPB	LMK04808DISQE/NOPB	LMK04828BISQX/NOPB
LMK04101SQ/NOPB	LMK04806BISQE/NOPB	LMK04808DISQX/NOPB	LMK04906BISQ/NOPB
LMK04101SQE/NOPB	LMK04806BISQX/NOPB	LMK04816BISQ/NOPB	LMK04906BISQE/NOPB
LMK04101SQX/NOPB	LMK04808BISQ/NOPB	LMK04816BISQE/NOPB	LMK04906BISQX/NOPB
LMK04803BISQ/NOPB	LMK04808BISQE/NOPB	LMK04816BISQX/NOPB	

### Qualification Data: Approved November, 2013

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

#### Qualification Device: LMK04808BISQ/NOPB (MSL 3-260c)

##### Package Construction Details

Assembly Site:	TIEM	Mold Compound:	8095387
# Pins-Designator, Family:	64-NKD, WQFN	Mount Compound:	8001111
Leadframe (Finish, Base):	Matte Sn, Cu	Bond Wire:	1 Mil Dia., Cu

**Qualification:**     Plan     **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
Electrical Characterization	Datasheet	Pass	--	--
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	--
**Autoclave 121C	121C, 2 ATM (96 hrs)	78/0	78/0	78/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Visual / Mechanical	(per mfg. Site specification)	Pass	Pass	Pass
Ball Bond Shear	76 balls, 3 units min	Pass	Pass	Pass
Bond Pull	76 Wire, 3 units min	Pass	Pass	Pass
X-ray	(top side only)	Pass	Pass	Pass

Notes: \*\*Tests received preconditioning sequence: MSL3-260C

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

<b>Location</b>	<b>E-Mail</b>
USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>