

<b>PCN Number:</b>	20131220000			<b>PCN Date:</b>	01/06/2014						
<b>Title:</b>	Design Change for device CAB4AZNRR (DDR4 Register/PLL Buffer)										
<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>	04/06/2014	<b>Estimated Sample Availability:</b>		Date provided at sample request							
<b>Change Type:</b>											
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials						
<input checked="" 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"/>	Part number change									
<b>PCN Details</b>											
<b>Description of Change:</b>											
<p>This notification is to inform of a design revision for device CAB4AZNRR (DDR4 Register/PLL Buffer). This design change does not affect the device's guaranteed datasheet specifications or electrical performance.</p> <p>The table below describes changes that were made:</p> <table border="1"> <thead> <tr> <th>Description of Change</th> <th>Benefit of Change</th> </tr> </thead> <tbody> <tr> <td>Disable Output Drive resistance (Ron) offset.</td> <td>Calibrate to center of spec range.</td> </tr> <tr> <td>Modify Input Bus Termination structure.</td> <td>Reduce leakage.</td> </tr> </tbody> </table>						Description of Change	Benefit of Change	Disable Output Drive resistance (Ron) offset.	Calibrate to center of spec range.	Modify Input Bus Termination structure.	Reduce leakage.
Description of Change	Benefit of Change										
Disable Output Drive resistance (Ron) offset.	Calibrate to center of spec range.										
Modify Input Bus Termination structure.	Reduce leakage.										
<b>Reason for Change:</b>											
Output resistance (Ron) and input leakage partially too high											
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>											
None											
<b>Changes to product identification resulting from this PCN:</b>											
None											
<b>Product Affected:</b>											
<table border="1"> <tr> <td>CAB4AZNRR</td> </tr> </table>						CAB4AZNRR					
CAB4AZNRR											
<b>Changes to product identification resulting from this PCN:</b>											
<ol style="list-style-type: none"> <li>Date code will be used to identify new material.</li> <li>All products assembled from Nov 2013 and later will be new material.</li> </ol>											

### Qualification Data: Approved 12/17/2013

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.

#### Qual Vehicle: CAB4AZNRR

#### Package/Die Construction Details

Assembly Site:	Amkor K4	# Pins-Designator, Family:	253-ZNR, FCBGA
Fab Process:	C021	Die Revision:	CAB4A6 HVM

#### Qualification: Plan Test Results

Reliability Test	Conditions	Sample Size (PASS/FAIL)
ESD HBM	+/- 1500V, 2000V	3/0
ESD CDM	+/- 500V	3/0
Latch-up	(per JESD78)	3/0

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

Location	E-Mail
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>