



**PCN# 20121217001**  
**Qualification of Cu Wire for Assembly on DM365**  
**Product Family**  
**Change Notification / Sample Request**

**Date:** 1/10/2013  
**To:** MOUSER 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.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 90 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

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, contact your local Field Sales Representative or the PCN Manager ([PCN\\_ww\\_admin\\_team@list.ti.com](mailto:PCN_ww_admin_team@list.ti.com)).

Sincerely,

PCN Team  
SC Business Services  
Phone: +1(214) 480-6037  
Fax: +1(214) 480-6659

**20121217001**

**Attachment: 1**

**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
TMS320DM365ZCE30	null
TMS320DM368ZCE	null

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

<b>PCN Number:</b>	20121217001			<b>PCN Date:</b>	01/10/2013						
<b>Title:</b>	Qualification of Cu Wire for Assembly on DM365 Product Family										
<b>Customer Contact:</b>	PCN_ww_admin_team@list.ti.com	<b>Phone:</b>	+1(214)480-6037		<b>Dept:</b>						
<b>Proposed 1<sup>st</sup> Ship Date:</b>		04/10/2013	<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 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						
<b>PCN Details</b>											
<b>Description of Change:</b>											
<p>This is to Qualify Cu Wire for Assembly on DM365 Product Family with bond pads &gt;45x45um opening on NfBGA package. Other bond pads &lt;45x45um will continue to use Au wire. See table below:</p>											
<table border="1"> <tr> <td>Material Set</td> <td>Current Assembly Au wire</td> <td>Cu Bond wire option</td> </tr> <tr> <td>Wire diam (Mils)</td> <td>0.80</td> <td>0.80</td> </tr> </table>		Material Set	Current Assembly Au wire	Cu Bond wire option	Wire diam (Mils)	0.80	0.80				
Material Set	Current Assembly Au wire	Cu Bond wire option									
Wire diam (Mils)	0.80	0.80									
<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>			
DM365216ENT	DMVA2ZCE	TMS320DM365ZCEZ	VCBU68WMCE30
DM365F-LI	DMVA2ZCED	TMS320DM367ZCE	VCBUAV65Z
DM365SEMC	LI368BZCEF	TMS320DM367ZCE30	VS3673DUNION
DM365ZCEC	TMS320DM361ZCE	TMS320DM367ZCED	VS3673HYUNDAI
DM365ZCEDZ	TMS320DM365ZCE	TMS320DM367ZCED30	VS3673PITTA
DM365ZCES	TMS320DM365ZCE21	TMS320DM367ZCEF	VS3673UNION
DM365ZCEW	TMS320DM365ZCE27	TMS320DM368ZCE	VS3674DUNION
DM365ZCEZ	TMS320DM365ZCE30	TMS320DM368ZCE48	VS3674HYUNDAI
DM368F-LI	TMS320DM365ZCED30	TMS320DM368ZCED	VS3674PITTA
DM368ZCEC	TMS320DM365ZCED30F	TMS320DM368ZCED48F	VS3674UNION
DM368ZCEDZ	TMS320DM365ZCEF	TMS320DM368ZCEDF	VVCIS3633
DM368ZCEZ	TMS320DM365ZCEFLI	TMS320DM368ZCEF	VVLOG365ZCE
DMVA1ZCE	TMS320DM365ZCES	TNETV3654ZCE	
DMVA25ZCE	TMS320DM365ZCEW	VCBU65WMCE30	

### **Qualification Plan**

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.

<b>Qualification Schedule:</b>	<b>Start:</b>	Nov 2012	<b>End:</b>	Mar 2013
<b>Qual Vehicle 1: DM365 (MSL 3-260C)</b>				
<b>Package Construction Details</b>				
Assembly Site:	TI-PHI	Mold Compound:	4208515	
# Pins-Designator, Family:	338-ZCE, BGA	Mount Compound:	4205412	
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Au/Cu	
<b>Qualification:</b>	<input checked="" type="checkbox"/> <b>Plan</b>	<input type="checkbox"/> <b>Test Results</b>		
Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**Unbiased HAST	110C/85%RH/17.7 psia (96 hrs)	77/0	77/0	77/0
**T/C -65C/150C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0
ESD CDM	+/- 500V	3/0	-	-
Manufacturability	(per mfg. Site specification)	1/0	1/0	1/0
Notes	**- Preconditioning sequence: Level 3-260C.			

## Reference Qualification:

**Qualification Approve: 08/07/2009**

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 1: 320DM365 (MSL 3-260C)**

### Package Construction Details

Assembly Site:	TI-PHI	Mold Compound:	4208515
# Pins-Designator, Family:	338-ZCE, BGA	Mount Compound:	4205412
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Au

**Qualification:**  Plan  Test Results

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Char	-	Pass	-	-
**High Temp. Storage Bake	150C (168 hrs)	77/0	77/0	77/0
**Biased Temp. Humidity	85C/85%RH (168, 300, 600 Hrs)	77/0	77/0	77/0
**Unbiased HAST	110C/85%RH/17.7 psis (264 Hrs)	77/0	77/0	77/0
**T/C -55C/125C	-55C/+125C (500 Cyc)	77/0	77/0	77/0
Ball Bond Shear	5 units, 76 balls min	76/0	-	-
Bond Strength	5 units, 76 wires min	76/0	-	-
Manufacturability (MQ)	(per mfg. Site specification)	Pass	-	-
X-ray	(top side only)	5/0	-	-
Moisture Sensitivity	(level 3 @ 260C peak +5/-0C)	12/0	12/0	12/0
Notes	**- Preconditioning sequence: Level 3-260C.			

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or 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>