



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20131108000
Qualification of Cu as Additional Wire Base Metal Option for
Select BGA Package Devices
Change Notification / Sample Request

Date: 11/13/2013
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).

Sincerely,

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

20131108000
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.

DEVICE	CUSTOMER PART NUMBER
MSP430F5659IZQWT	null

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

PCN Number:		20131108000		PCN Date:		11/13/2013							
Title:		Qualification of Cu as Additional Wire Base Metal Option for Select BGA Package Devices											
Customer Contact:		PCN_ww_admin_team@list.ti.com		Phone:		+1(214)480-6037							
Dept:		Quality Services											
Proposed 1st Ship Date:			02/13/2014		Estimated Sample Availability:		Date provided at sample request.						
Change Type:													
<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						
<input type="checkbox"/>			<input type="checkbox"/>	Part number change		<input type="checkbox"/>							
PCN Details													
Description of Change:													
<p>Texas Instruments is pleased to announce the qualification of Cu as an additional bond wire option for select devices listed in "Product affected" section below. Devices will remain in current assembly facility. Following identifies the material differences for the Product Affected list:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Material Set</th> <th>Current Assembly Au wire</th> <th>Cu Bond wire option</th> </tr> </thead> <tbody> <tr> <td>Wire diam (Mils)</td> <td style="text-align: center;">0.96</td> <td style="text-align: center;">0.80</td> </tr> </tbody> </table>								Material Set	Current Assembly Au wire	Cu Bond wire option	Wire diam (Mils)	0.96	0.80
Material Set	Current Assembly Au wire	Cu Bond wire option											
Wire diam (Mils)	0.96	0.80											
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 Fit, Form, Function, Quality or Reliability (positive / negative):													
None.													
Changes to product identification resulting from this PCN:													
None.													
Product Affected: Group 1- Devices that will have no change on wire diameter													
MSP430F5358IZQWR	MSP430F5658IZQWR	MSP430F6458IZQWR	MSP430F6658IZQWR										
MSP430F5358IZQWT	MSP430F5658IZQWT	MSP430F6458IZQWT	MSP430F6658IZQWT										
MSP430F5359IZQWR	MSP430F5659IZQWR	MSP430F6459IZQWR	MSP430F6659IZQWR										
MSP430F5359IZQWT	MSP430F5659IZQWT	MSP430F6459IZQWT	MSP430F6659IZQWT										

Qualification Data : Approved 11/06/2013

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 : MSP430F6659IZQW (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TAI	Mold Compound:	4205867
# Pins-Designator, Family:	113-ZQW, BGA	Mount Compound:	4200047
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Cu
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results			
Reliability Test	Conditions	Sample Size/Fail	
** Autoclave	121C (96, 192hrs)	77/0	
**High Temp. Storage Bake	170C (420 hrs)	80/0	
**Temperature Cycle	-55C/+125C (700 Cyc)	80/0	
Notes **- Preconditioning sequence: Level 3-260C.			

Reference Qualification Data:

Qual Vehicle : MSP430F5528IZQE (MSL 3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205867	
# Pins-Designator, Family:	80-ZQE, BGA	Mount Compound:	4111062	
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420 hrs)	77/0	77/0	77/0
** Autoclave	121C (96hrs)	77/0	77/0	77/0
**Temperature Cycle	-55C/+125C (500 Cyc)	77/0	77/0	77/0
Manufacturability		Pass	Pass	Pass
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	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com