PCN Number:	20131218003	**PCN Date:**	12/27/2013
Title:	Add Cu as Alternative Wire Base Metal for Selected Device(s)		
Customer Contact:	PCN Manager	**Phone:**	+1(214)480-6037
Dept:	Quality Services		
Proposed 1st Ship Date:	03/27/2014	**Estimated Sample Availability:**	Date provided at sample request

Change Type:

☐	Assembly Site	☒	Assembly Process	☒	Assembly Materials
☐	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of Cu as an additional bond wire option for devices listed in "Product affected" section below. Devices will remain in current assembly facility and there will be no other piece part changes.

Reason for Change:

Continuity of supply.

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:

ADS5401IZAY	ADS5403IZAYR	ADS5409IZAY	ADS54T02IZAYR
ADS5401IZAYR	ADS5404IZAY	ADS5409IZAYR	ADS54T04IZAY
ADS5402IZAY	ADS5404IZAYR	ADS54T01IZAY	ADS54T04IZAYR
ADS5402IZAYR	ADS5407IZAY	ADS54T01IZAYR	
ADS5403IZAY	ADS5407IZAYR	ADS54T02IZAY	

Qualification Data

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

Qual Vehicle : ADS5402IZAY (MSL 3-260C)

Package Construction Details

Assembly Site:	PHI (TIPI)	Mold Compound:	4206745
# Pins-Designator, Family:	196-ZAY, BGA	Mount Compound:	4073505
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size/Fail	
		Lot#1	Lot#2
Electrical Characterization	-	30/0	-
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	-

Notes **- Preconditioning sequence: Level 3-260C.

Reference Qualification Data

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

Qual Vehicle 1 : XIO2211ZAY (MSL 3-260C)

Package Construction Details

Assembly Site:	PHI (TIPI)	Mold Compound:	4206745
# Pins-Designator, Family:	167-ZAY, BGA	Mount Compound:	4073505
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**Unbiased HAST	110C/85%RH (264 hrs)	77/0	77/0	77/0
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0
**High Temp Storage Bake	150C (1000 hrs)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass

Notes **- Preconditioning sequence: Level 3-260C.

Qual Vehicle 2 : TWL3033H4IZXX (MSL 3-260C)			
Package Construction Details			
Assembly Site:	PHI (TIPI)	Mold Compound:	4206745
# Pins-Designator, Family:	209-ZXX, BGA	Mount Compound:	4073505
Solder Ball composition	SnAgCu	Bond Wire:	0.80Mil Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Characterization	-	Pass	-	-
** Life test	125C (1000 hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 hrs)	77/0	77/0	77/0
**Unbiased HAST	110C/85%RH (264 hrs)	77/0	77/0	77/0
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0
**High Temp Storage Bake	150C (1000 hrs)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	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