PCN Number:	20130903001	**PCN Date:**	09/06/2013

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:	12/06/2013	**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 assembly differences are as follows:

Group 1 Device:

	Current Assembly	Bond wire option
Wire type	Au wire	Cu wire

Group 2 Device:

	Current Assembly	Alternate Assembly
Wire type	Au	Cu
Leadframe thickness	8mils	6mils
Mold compound	4205694	4211880

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: Group 1
TPS65149RSHR
Product Affected: Group 2

TMP75AID	TMP75AIDG4	TMP75AIDR	TMP75AIDRG4

Qualification Data : Group 1

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: TPS65149RSH (MSL 3-260C)

Package Construction Details

Assembly Site:	CRS	Mold Compound:	435370
# Pins-Designator, Family:	56-RSH, QFN	Mount Compound:	435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.3Mil Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
Electrical Characterization	-	Pass	-	-
**Autoclave	121C, 2atm (168hrs)	82/0	82/0	82/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	82/0	81/0	82/0
**High Temp. Storage Bake	150C (1000 hrs)	82/0	82/0	82/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes	**- Preconditioning sequence: Level 3-260C.			

Qualification Data : Group 2

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: OPA-2364ID (MSL 2-260C)

Package Construction Details

Assembly Site:	MLA	Mold Compound:	4211880
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	4042500
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96Mil Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**Autoclave	121C, 2atm (96hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420 hrs)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass

Notes **- Preconditioning sequence: Level 2-260C.

Qual Vehicle 2: SN0910049DR (MSL 2-260C)

Package Construction Details

Assembly Site:	MLA	Mold Compound:	4211880
# Pins-Designator, Family:	16-D, SOIC	Mount Compound:	4042500
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96Mil Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**Autoclave	121C, 2atm (96hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420 hrs)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass

Notes **- Preconditioning sequence: Level 2-260C.

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