12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20121026002A
Qualification of Cu Wire as an Alternate Material Set for Assembly on Select Devices in the QFP and TSSOP Package Family
Change Notification / Sample Request

Date: 12/7/2012
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 30 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

20121026002A
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
TAS3103DBT	null
TAS3103DBTG4	null
TMS320C54V90PGE	null
TMS320F28020PTS	null
TMS320F28021DAS	null
TMS320VC5404PGE	null
TMS320VC5410APGE16	null
TVP5150PBS	null
TVP5154PNP	null

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

PCN Number:	20121026002A	PCN Date:	12/07/2012
Title:	Qualification of Cu Wire as an Alternate Material Set for Assembly on Select Devices in the QFP and TSSOP Package Family		
Customer Contact:	PCN_ww_admin_team@list.ti.com	Phone:	+1(214)480-6037
Dept:	Quality Services		
Proposed 1st Ship Date:	03/07/2013	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

PCN Details

Description of Change:

Qualification of Cu Wire as an Alternate Material Set for Assembly on Select Devices in the QFP and TSSOP Package Family. See table below:

Material set	Current Assembly Au wire	Cu Bond wire option
Wire dia. (Mils)	0.96	0.80

Qualification references are provided for further test data validation (See Qualification References Section).

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:

SF2801PZA	TAS5504APAGRG4	TMS320F280260PTS	TMS320R2812PGFS
SF2808PZA	TAS5518PAGR	TMS320F28026DATR	TMS320VC5404PGE
SLF2808PZA	TAS5518PAGRG4	TMS320F280270DAS	TMS320VC5410APGE16
SM28028PAG	TMS320C54V90APGE	TMS320F280270PTS	TMS32DSP5410APGE16
SM28028PAGT	TMS320C54V90PGE	TMS320F28035PAGTR	TMSDVC5410APGE16G4
SMDY28031PAGT	TMS320DA105PGE160	TMS320F28062PFPS	TNETV100PZ
SN0411146PFP	TMS320DA105PGE16G4	TMS320F28063PFPS	TNETV105PAP
SN0411146PFPG4	TMS320DA140PGE16D	TMS320F28064PFPS	TVP5146M1PFP
SN0411146PFPR	TMS320DSP105APGE16	TMS320F28065PFPS	TVP5146M1PFPG4
SN0411146PFPRG4	TMS320F280200DAS	TMS320F28066PFPS	TVP5146M2PFPR
SN606070PAGR	TMS320F28020PTS	TMS320F28067PFPS	TVP5147PFP
TAS3103DBT	TMS320F28021DAS	TMS320F28068PFPS	TVP5150APBS

TAS3103DBTG4	TMS320F280220DAS	TMS320F28069PFPS	TVP5150PBS
TAS3308PZT	TMS320F280220PTS	TMS320F28232PTPS	TVP5151IPBS
TAS5504APAG	TMS320F280230DAS	TMS320F28235PTPS	TVP5154PNP
TAS5504APAGG4	TMS320F280230PTS	TMS320F28332PTPS	TVP5154PNPR
TAS5504APAGR	TMS320F280260DAS	TMS320F28334PTPS	

Qualification Data: Approved 09/26/2012

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: TMS320F2803XAPN (MSL 3-260C)

Package Construction Details

Assembly Site:	PHI (TIPI)	Mold Compound:	4205442
# Pins-Designator, Family:	80-PN, LQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	150C (1000hrs)	77/0	77/0	77/0
**Biased Temp. Humidity	85C/85%RH (1000 Hrs)	80/0	80/0	80/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass

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

Qual Vehicle 2: TAS3108DCPR (MSL 3-260C)

Package Construction Details

Assembly Site:	TI Taiwan	Mold Compound:	4205443
# Pins-Designator, Family:	38-DCP, TSSOP	Mount Compound:	4208458
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Manufacturability	(per mfg. Site specification)	Pass

Qual Vehicle 3: TAS3308PZT (MSL 3-260C)

Package Construction Details

Assembly Site:	TI Taiwan	Mold Compound:	4205442
# Pins-Designator, Family:	100-PZT, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Electrical Characterization	-	Pass

Qual Vehicle 4: TAS5508BPAG (MSL 4-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4205442
# Pins-Designator, Family:	64-PAG, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Manufacturability	(per mfg. Site specification)	Pass

Qual Vehicle 5: THS8200PFP (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4205443
# Pins-Designator, Family:	80-PFP, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Electrical Characterization	-	Pass

Qual Vehicle 6: TMS320F28015PZA (MSL 2-260C)			
Package Construction Details			
Assembly Site:	TI Philippines	Mold Compound:	4205442
# Pins-Designator, Family:	80-PFP, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	90/0	90/0	90/0
**T/C -65C/150C	-65C/+150C (1000 Cyc)	90/0	90/0	90/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes **- Preconditioning sequence: Level 3-260C.				

Qual Vehicle 7: TMS320F2812PGFA (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Philippines	Mold Compound:	4205442
# Pins-Designator, Family:	176-PGF, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	90/0	90/0	90/0
**T/C -65C/150C	-65C/+150C (1000 Cyc)	90/0	90/0	90/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes **- Preconditioning sequence: Level 3-260C.				

Qual Vehicle 8: TVP5147M1PFPR (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4205443
# Pins-Designator, Family:	80-PFP, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (1000 Cyc)	77/0	77/0	77/0

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

Qual Vehicle 9: TVP5150AM1PBSR (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4205442
# Pins-Designator, Family:	32-PBS, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Manufacturability	(per mfg. Site specification)	Pass

Qual Vehicle 10: TVP5154APNPR (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4205443
# Pins-Designator, Family:	128-PNP, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Manufacturability	(per mfg. Site specification)	Pass

Qual Vehicle 11: TVP7000PZP (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4205443
# Pins-Designator, Family:	100-PZP, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.80 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail
Manufacturability	(per mfg. Site specification)	Pass

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