PCN Number:	20130422001			**PCN Date:**	04/25/2013
Title:	Add Cu Wire as Alternative Wire Base Metal for Select QFN Package Devices				
Customer Contact:	PCN Manager	**Phone:**	+1(214)480-6037	**Dept:**	Quality Services
Proposed 1st Ship Date:	07/25/2013	**Estimated Sample Availability:**	Date provided at sample request.		
Change Type:					
☐ Assembly Site		☐ Assembly Process		☒ Assembly Materials	

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 Material differences are shown in the following table:

Material Set	Current Assembly Au wire	Cu Bond wire option
Wire diam (Mils)	0.96	0.80

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:			
CC1101-LP-RGPR	CC2530F12CRHAR	CC2533F96RHAR	CC2570RHAR
CC1101RGP	CC2530F256RHAR	CC2533F96RHAT	CC2570RHAT
CC1101RGPR	CC2530F256RHAT	CC2534RHAR	CC2571RHAR
CC1101RGPT	CC2530F25CRHAR	CC2534RHAT	CC2571RHAT
CC110LRGPR	CC2530F32RHAR	CC2534RHAX	FRE006RHBR
CC110LRGPT	CC2530F32RHAT	CC2540F128RHAR	FRE006RHBT
CC1110F16RHHR	CC2530F64RHAR	CC2540F128RHAT	FRE008RHAR
CC1110F16RHHT	CC2530F64RHAT	CC2540F256RHAR	FRE009RHAR
CC1110F32RHHR	CC2531F128RHAR	CC2540F256RHAT	FRE010RHAR
CC1110F32RHHT	CC2531F128RHAT	CC2541F128RHAR	HPA00700F256RHAR
CC1110F8RHHR	CC2531F256RHAR	CC2541F128RHAT	HPA00702F128RHAR
CC1110F8RHHT	CC2531F256RHAT	CC2541F256RHAR	HPA00703F64RHAR
CC113LRGPR	CC2533ARHAR	CC2541F256RHAT	HPA01064RHAR
CC113LRGPT	CC2533F32RHAR	CC2541SRHAR	HPA01215RHAR
CC115LRGPR	CC2533F32RHAT	CC2541SRHAT	HPA01216RHAR
CC115LRGPT	CC2533F64RHAR	CC2544RHB	HPA02146RHAR
CC2530F128RHAR	CC2533F64RHAT	CC2544RHBR	TLMW301RGPR
CC2530F128RHAT	CC2533F96RHA	CC2544RHBT	CC2540F25ARHAR

Qualification Plan

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 : CC2533RHA (MSL 3-260C)

Package Construction Details

Qualification Schedule:	**Start:**	Mar 2013	**End:**	Jun 2013	
Assembly Site:	TI Clark		**Mold Compound:**	4208625	
# Pins-Designator, Family:	40-RHA, QFN		**Mount Compound:**	4207123	
Lead frame (Finish, Base):	NiPdAu, Cu		**Bond Wire:**	0.8 Mil Dia., Cu	

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

Reliability Test	Conditions	Sample Size/Acc.		
		Lot#1	Lot#2	Lot#3
ESD HBM	+/- 1000V	3/0	3/0	3/0
ESD CDM	+/- 250V	3/0	3/0	3/0
Electrical Characterization	-40/+125C	30/0	30/0	30/0
Latch-Up	+90C	6/0	6/0	6/0
**T/C -55C/125C	-55C/+125C (700 Cyc)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (700 Cyc)	26/0	26/0	25/0
**High Temp. Storage Bake	150C (600 Hrs)	77/0	77/0	77/0
**Biased Temp. & Humidity	85C/85%RH (600 Hrs)	26/0	26/0	25/0
**Unbiased HAST	110C/85%RH/33.3 psia (264 Hrs)	77/0	77/0	77/0
Operating Life Test	125C (1000 Hrs)	39/0	39/0	38/0
Manufacturability (Assembly)	(per mfg. Site specification)	1/0	1/0	1/0

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

Qual Vehicle 2 : CC1101RGP (MSL 3-260C)			
Package Construction Details			
Assembly Site:	TI Clark	**Mold Compound:**	4208625
# Pins-Designator, Family:	20-RGP, QFN	**Mount Compound:**	4207123
Lead frame (Finish, Base):	NiPdAu, Cu	**Bond Wire:**	0.8 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Acc.		
		Lot#1	Lot#2	Lot#3
ESD HBM	+/- 1000V	3/0	3/0	3/0
ESD CDM	+/- 250V	3/0	3/0	3/0
Electrical Characterization	-40/+85C	30/0	30/0	30/0
Latch-Up	+90C	6/0	6/0	6/0
**T/C -55C/125C	-55C/+125C (500 Cyc)	77/0	77/0	77/0
**High Temp. Storage Bake	150C (600 Hrs)	77/0	77/0	77/0
**Biased Temp. & Humidity	85C/85%RH (600 Hrs)	26/0	26/0	25/0
**Unbiased HAST	110C/85%RH/33.3 psia (264 Hrs)	77/0	77/0	77/0
Manufacturability (Assembly)	(per mfg. Site specification)	1/0	1/0	1/0

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	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com