

PCN Number:	20110614001B			PCN Date:	12/04/2013
Title:	Add Cu as Alternative Bond Wire Metal for Select Devices				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
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
PCN Details					
Description of Change:					
Revision B is to remove select devices in the Product Affected Section (with strikethrough) and highlighted in yellow. These devices were inadvertently added and not affected by this change.					
Qualification of Cu bond wire option for select devices in the QFN, TQFP, QFP, BGA, TSSOP, SSOP, and SOP packages. See table below.					
	Current Bond Wire (Au)		Additional Bond wire option (Cu)		
Wire diameter (mils)	.8, .96, 1.15, 1.3 Mil Dia.		.8, .96 Mil Dia.		
Reason for Change:					
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 Form, Fit, Function, Quality or Reliability (positive / negative):					
This change is not expected to have any negative impact on the form, fit, function or reliability of the package.					
Changes to product identification resulting from this PCN:					
None.					
Product Affected:					
ADS1299CPAG	BQ30423DBTR	PCM5141PWR	TPS51640RSLT		
ADS8555SPM	BQ30424DBTR	PCM5142PW	TPS53219RGTR		
ADS8555SPMR	BQ33200ZGVR	PCM5142PWR	TPS61187RTJR		
AMC7812SRGCR	BQ8050DBTR-D1	PSN0904005A3A1ZCBR	TPS65735RSNR		
BQ20695DBTR	BUF12840AIRGER	PTPS65735RSNR	TPS65735RSNT		
BQ20Z451DBTR-R3	BUF12840AIRGET	PTPS65735RSNT	TPS65736RSNR		
BQ20Z459DBTR	CD3240B0ZRPR	SN65LVPE502CPRGER	TPS658624AZQZT		
BQ20Z656DBTR	CDC736RHBR	SN74AVC4T234ZSUR	TPS658640ZGUR		
BQ24707ARGRR	FX002	SN8045DBTR	TPS7A8001DRBR		
BQ24707ARGRT	FX008	SN93045A4ZQZR	TUSB1310AZAY		
BQ24707RGRR	HPA00934RGTR	TL16PC564BLVIPZ	TUSB1310AZAYR		
BQ24707RGRT	MAX3243CPWR	TL16PC564BLVIPZG4	TUSB9260PVP		
BQ24725RGRR	MAX3243CPWRE4	TLV320AIC3006IZQER	TUSB9261PVPR		
BQ24725RGRT	MAX3243CPWRG4	TLV320AIC3012IRHBR	VSP6244BZRRCR		
BQ24726RGRR	PCM3070IRHBR	TLV320AIC37IZQER	VSP6244BZSPR		
BQ24726RGRT	PCM5100PW	TLV320DAC33BNIZQCR	VSP6826AZRRCR		
BQ24735RGRR	PCM5100PWR	TMDS351PAG	XIO2001IPNP		

BQ24735RGRT	PCM5101PW	TMDS351PAGG4	XIO2211ZAJ
BQ24740RHDR	PCM5101PWR	TPS51211DSCR	XIO2211ZAY
BQ24740RHDRG4	PCM5102PW	TPS51211DSCT	XIO2213AZAY
BQ24747RHDT	PCM5102PWR	TPS51212DSCR	XIO2213BZAJ
BQ24760RSBR	PCM5121PW	TPS51212DSCT	XIO2213BZAJ
BQ29441DRBR	PCM5121PWR	TPS51220ARTVR	XIO2213BZAY
BQ30420DBTR	PCM5122PW	TPS51220ARTVR/2801	XIO2213ZAY
BQ30421DBTR	PCM5122PWR	TPS51220ARTVT	XIO2221ZAY
BQ30422DBTR	PCM5141PW	TPS51640RSLR	

Qualification Data: Approved 03/16/2010

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: TMDS351PAG (MSL3-260C)

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:	0.96 Mil Dia., Cu

Qualification: Plan Test Results

Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**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
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
**Thermal Shock	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Moisture Sensitivity	(level 3 @ 260C +5/-0C)	12/0	12/0	12/0

Notes: ** Tests require preconditioning sequence: MSL3-260C

Qual Vehicle 2: TSB43AB23PDT (MSL3-260C)

Package Construction Details

Assembly Site:	TI-Taiwan	Mold Compound:	4205442
Pin Count, Package Family:	128-PDT, TQFP	Mount Compound:	4042504
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.8 Mil Dia., Cu

Qualification: Plan Test Results:

Reliability Test	Conditions	Sample Size (PASS/FAIL)		
		Lot#1	Lot#2	Lot#3
*High Temp. Storage Bake	170C (420 Hours)	77/0	77/0	77/0
*Autoclave	121C, 2 atm, 96 Hours	77/0	77/0	77/0
T/C -65C/150C	-65C/+150°C (1000 Cycles)	77/0	77/0	77/0
T/C -55C/125C	-55C/+125C (1000, Cycles)	77/0	77/0	77/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
Thermal Shock	-65C/+150C (500, Cycles)	77/0	77/0	77/0

Note* Tests require preconditioning sequence: MSL3-260C

Qual Vehicle 3: TSB43DA42GHC (MSL3-220C)				
Package Construction Details				
Assembly Site:	TI-Taiwan	Mold Compound:	4203565	
Pin Count, Package Family:	196-GHC, UBGA	Mount Compound:	4073505	
Solder Ball Composition:	SnPb	Bond Wire:	0.8 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size (PASS/FAIL)		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	150C (1000 Hours)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH/33.3 psia (96 Hours)	77/0	77/0	77/0
**T/C	-55C/+125C (1000 Cycles)	77/0	77/0	77/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Tests require preconditioning sequence: MSL3-220C				

Qualification Data: Approved 01/03/2011

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: BUF16821BIPWP (MSL 2-260C)				
Package Construction Details				
Assembly Site:	TI Taiwan	Mold Compound:	4205443	
# Pins-Designator, Family:	28-PWP, TSSOP	Mount Compound:	4208458	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.95 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500, 1000* Cyc)	77/0	77/0	77/0
**T/C -55C/125C	-55C/+125C (1000, 2000* Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
**Thermal Shock	-65C/+150C (500, 1000* Cyc)	77/0	77/0	77/0
Thermal Path Integrity	(level 2 @ 260C +5/-0C)	12/0	12/0	12/0
Notes: **Tests require preconditioning sequence: MSL2-260C				

Qual Vehicle 2: TAS5086DBT (MSL 2-260C)			
Package Construction Details			
Assembly Site:	TI Taiwan	Mold Compound:	4206193
# Pins-Designator, Family:	38-DBT, TSSOP	Mount Compound:	4042500
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp Operating Life (Analog)	125C (1000 Hrs), Vddmax	77/0	77/0	77/0	
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0	
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0	
**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	
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
**Thermal Shock	-65C/+150C (500 Cyc)	77/0	77/0	77/0	
Moisture Sensitivity	(level 2 @ 260C +5/-0C)	12/0	12/0	12/0	
Notes: **Tests require preconditioning sequence: MSL2-260C					
Qual Vehicle 3: TLV320AIC3106IZQE (MSL 3-260C)					
Package Construction Details					
Assembly Site:	TI Taiwan	Mold Compound:	4205867		
# Pins-Designator, Family:	80-ZQE, BGA	Mount Compound:	4111062		
Solder Ball Composition:	SnAgCu	Bond Wire:	0.8 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	150C (1000 Hrs)	77/0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0	
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0	
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
Moisture Sensitivity	(level 3 @ 260C +5/-0C)	12/0	12/0	12/0	
Notes: **Tests require preconditioning sequence: MSL3-260C					
Qual Vehicle 4: TMDS351PAG (MSL 3-260C)					
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:	0.95 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	170C (1000 Hrs)	77/0	77/0	77/0	
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0	
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0	
**T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
Moisture Sensitivity	(level 3 @ 260C +5/-0C)	12/0	12/0	12/0	
Notes: **Tests require preconditioning sequence: MSL3-260C					

Qual Vehicle 5: VSP6822AZRC (MSL 3-260C)**Package Construction Details**

Assembly Site:	TI Taiwan	Mold Compound:	4205867
# Pins-Designator, Family:	98-ZRC, Jr BGA	Mount Compound:	4111062
Solder Ball Composition:	SnAgCu	Bond Wire:	0.8 Mil Dia., Cu

Qualification: Plan **Test Results**

Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (1000 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 3 @ 260C +5/-0C)	12/0	12/0	12/0

Notes: **Tests require preconditioning sequence: MSL3-260C

Qual Vehicle 6: VSP6825AZRC (MSL 3-260C)**Package Construction Details**

Assembly Site:	TI Taiwan	Mold Compound:	4205867
# Pins-Designator, Family:	103-ZRC, BGA	Mount Compound:	4111062
Solder Ball Composition:	SnAgCu	Bond Wire:	0.8 Mil Dia., Cu

Qualification: Plan **Test Results**

Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0

Notes: **Test requires preconditioning sequence: MSL3-260C

Qualification Data: Approved 07/07/2011

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: ADS1230IPW (MSL2-260C)**Package Construction Details**

Assembly Site:	TAI	Mold Compound:	4206193
Pin Count, Package Family:	16-PW, TSSOP	Mount Compound:	4042500
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size (PASS/FAIL)		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	150C (500, 1000 Hours)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hours)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass

Notes: **Tests require preconditioning sequence: MSL2-260C

Qual Vehicle 2: BQ24703RHD (MSL2-260C)				
Package Construction Details				
Assembly Site:	MLA	Mold Compound:	4208625	
# Pins-Designator, Family:	28-RHD, VQFN	Mount Compound:	4205846	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500, 1000* Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Tests require preconditioning sequence: MSL2-260C				
Qual Vehicle 3: BUF07704AIPWP (MSL2-260C)				
Package Construction Details				
Assembly Site:	MLA	Mold Compound:	4205443	
# Pins-Designator, Family:	20-PWP, HTSSOP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL2-260C				
Qual Vehicle 4: CDCVF2505PW (MSL1-260C)				
Package Construction Details				
Assembly Site:	MLA	Mold Compound:	4206193	
# Pins-Designator, Family:	8-PW, TSSOP	Mount Compound:	4042500	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (1000 Hrs)	77/0	77/0	77/0
**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: MSL3-260C				

Qual Vehicle 5: DRV590GQC (MSL2A-235C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205867	
# Pins-Designator, Family:	48-GQC, JRBGA	Mount Compound:	4111062	
Solder Ball Composition:	SnPb	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
*T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL2A-235C				

Qual Vehicle 6: F741900APFB (MSL3-250C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205442	
# Pins-Designator, Family:	48-PFB, TQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL3-250C				

Qual Vehicle 7: SN75DP139RGZ (MSL3-260C)				
Package Construction Details				
Assembly Site:	MLA	Mold Compound:	4208625	
# Pins-Designator, Family:	48-RGZ, VQFN	Mount Compound:	4205846	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL3-260C				

Qual Vehicle 8: SN75LVDS84ADGG (MSL2-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4209002	
# Pins-Designator, Family:	48-DGG, TSSOP	Mount Compound:	4042500	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL2-260C				
Qual Vehicle 9: THS7303PW (MSL2-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4206193	
# Pins-Designator, Family:	20-PW, TSSOP	Mount Compound:	4042500	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL2-260C				
Qual Vehicle 10: THS7327PHP (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205443	
# Pins-Designator, Family:	48-PHP, HTQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL2-260C				

Qual Vehicle 11: TL16C550DPTR (MSL1-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205442	
# Pins-Designator, Family:	48-PT, LQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Qual Vehicle 12: TL16C752BPT (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205442	
Pin Count, Package Family:	48-PT, LQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size (PASS/FAIL)		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	150C (500, 1000 Hours)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hours)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Tests require preconditioning sequence: MSL3-260C				
Notes: **Preconditioning sequence: MSL1-260C				
Qual Vehicle 13: TLC5930PWP (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205443	
# Pins-Designator, Family:	24-PWP, HTSSOP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500, 1000* Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Tests require preconditioning sequence: MSL3-260C				

Qual Vehicle 14: TPA5050RSA (MSL2-260C)					
Package Construction Details					
Assembly Site:	MLA	Mold Compound:	4208625		
# Pins-Designator, Family:	16-RSA, VQFN	Mount Compound:	4205846		
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0	
**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	
Bond Strength	76 ball bonds, min. 3 units	76/0	76/0	76/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
Notes: **Preconditioning sequence: MSL2-260C					

Qual Vehicle 15: TPS5130PTR (MSL1-260C)					
Package Construction Details					
Assembly Site:	TAI	Mold Compound:	4205442		
# Pins-Designator, Family:	48-PT, LQFP	Mount Compound:	4042504		
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	150C (1000 Hrs)	77/0	77/0	77/0	
**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: MSL1-260C					

Qual Vehicle 16: TPS51427ARHB (MSL2-260C)					
Package Construction Details					
Assembly Site:	MLA	Mold Compound:	4208625		
# Pins-Designator, Family:	32-RHB, VQFN	Mount Compound:	4205846		
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0	
*T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
Notes: **Preconditioning sequence: MSL2-260C					

Qual Vehicle 17: TPS51620RHAR (MSL2-260C)				
Package Construction Details				
Assembly Site:	MLA	Mold Compound:	4208625	
# Pins-Designator, Family:	40-RHA, VQFN	Mount Compound:	4205846	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, min. 3 units	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL2-260C				

Qual Vehicle 18: TPS77701PWP (MSL2-260C)				
Package Construction Details				
Assembly Site:	MLA	Mold Compound:	4205443	
# Pins-Designator, Family:	48-RGZ, VQFN	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL2-260C				

Qual Vehicle 19: TPS77801PWP (MSL2-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4209002	
# Pins-Designator, Family:	20-PWP, HTSSOP	Mount Compound:	4042500	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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: MSL2-260C				

Qual Vehicle 20: TSB12LV21BPGF (MSL3-260C)				
Package Construction Details				
Assembly Site:	PHI	Mold Compound:	4205442	
# Pins-Designator, Family:	176-PGF, LQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL3-260C				

Qual Vehicle 21: TSB41AB1PHP (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205443	
# Pins-Designator, Family:	48-PHP, HTQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
*T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL3-260C				

Qual Vehicle 22: TSB81BA3EPPF (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205443	
# Pins-Designator, Family:	80-PFP, TQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.8 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, min. 3 units	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL3-260C				

Qual Vehicle 23: TVAIC3106IZQER (MSL3-260C)				
Package Construction Details				
Assembly Site:	PHI	Mold Compound:	4205867	
# Pins-Designator, Family:	80-ZQE, BGA	Mount Compound:	4111062	
Solder Ball Composition:	SnAgCu	Bond Wire:	0.8 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, min. 3 units	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL3-260C				

Qual Vehicle 24: UCC5696PN (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205442	
# Pins-Designator, Family:	80-PN,LQFP	Mount Compound:	4042504	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
*T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL3-260C				

Qual Vehicle 25: VSP6825AZRCR (MSL3-260C)				
Package Construction Details				
Assembly Site:	TAI	Mold Compound:	4205867	
# Pins-Designator, Family:	103-ZRC, JrBGA	Mount Compound:	4111062	
Solder Ball Composition:	SnAgCu	Bond Wire:	0.8 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	77/0	77/0
**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
Bond Strength	76 ball bonds, min. 3 units	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Notes: **Preconditioning sequence: MSL3-260C				

Qualification Data: Approved 07/01/2011

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 : DRV401AIRGW (MSL 2-260C)				
Package Construction Details				
Assembly Site:	Clark AT	Mold Compound:	4208625	
# Pins-Designator, Family:	20-RGW,VQFN	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**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
Ball Bond Shear	76 balls 3 units min	76/0	76/0	76/0
Bond Pull	76 Wire 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
X-ray	(top side only)	5/0	5/0	5/0
Notes: **Preconditioning sequence: MSL2-260C				

Qual Vehicle 2 : SN75DP122ARTQ (MSL3-260C)					
Package Construction Details					
Assembly Site:	Clark-AT	Mold Compound:	4208625		
# Pins-Designator, Family:	56-RTQ, VQFN	Mount Compound:	4207768		
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0	
**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	
Ball Bond Shear	76 balls 3 units min	76/0	76/0	76/0	
Bond Pull	76 Wire 3 units min	76/0	76/0	76/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
X-ray	(top side only)	5/0	5/0	5/0	
Notes: **Preconditioning sequence: MSL3-260C					
Qual Vehicle 3: TLVDAC32IRHBR (MSL2-260C)					
Package Construction Details					
Assembly Site:	Clark-AT	Mold Compound:	4208625		
# Pins-Designator, Family:	32-RHB, VQFN	Mount Compound:	4207768		
Solder Ball Composition:	NiPdAu, Cu	Bond Wire:	0.8 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	170C (1000 Hrs)	77/0	77/0	77/0	
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0	77/0	
**T/C -55C/125C	-55C/+125C (1000 Cyc)	77/0	77/0	77/0	
*T/C -65C/150C	-65C/+150°C (500 Cycles)	77/0	77/0	77/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
Moisture Sensitivity	(level 3 @ 260C +5/-0C)	12/0	12/0	12/0	
Notes: **Preconditioning sequence: MSL2-260C					
Qual Vehicle 4 : TPA2005D1DRB (MSL 2-260C)					
Package Construction Details					
Assembly Site:	Clark-AT	Mold Compound:	4208625		
# Pins-Designator, Family:	8-DRB, VSON	Mount Compound:	4207768		
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu		
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Pass / Fail			
		Lot 1	Lot2	Lot 3	
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0	
**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	
Ball Bond Shear	76 balls 3 units min	76/0	76/0	76/0	
Bond Pull	76 Wire 3 units min	76/0	76/0	76/0	
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass	
X-ray	(top side only)	5/0	5/0	5/0	
Notes: **Preconditioning sequence: Level 3-260C					

Qual Vehicle 5 : TPS51217DSCR_RFAB (MSL2-260C)**Package Construction Details**

Assembly Site:	Clark-AT	Mold Compound:	4208625
# Pins-Designator, Family:	10-DSC, WSON	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

Qualification: Plan Test Results

Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
High Temp Operating Life (Analog)	125C (1000 Hrs), Vddmax	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**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
Ball Bond Shear	76 balls 3 units min	76/0	76/0	76/0
Bond Pull	76 Wire 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
X-ray	(top side only)	5/0	5/0	5/0

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

Qual Vehicle 6 : TPS51217DSC_UMC (MSL2-260C)**Package Construction Details**

Assembly Site:	Clark-AT	Mold Compound:	4208625
# Pins-Designator, Family:	10-DSC, WSON	Mount Compound:	4207768
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

Qualification: Plan Test Results

Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**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
Ball Bond Shear	76 balls 3 units min	76/0	76/0	76/0
Bond Pull	76 Wire 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
X-ray	(top side only)	5/0	5/0	5/0

Notes: **Preconditioning sequence: MSL2-260C

Qual Vehicle 7 : TPS51621RHA (MSL3-260C)				
Package Construction Details				
Assembly Site:	Clark-AT	Mold Compound:	4208625	
# Pins-Designator, Family:	40-RHA, VQFN	Mount Compound:	4207768	
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Pass / Fail		
		Lot 1	Lot2	Lot 3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**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
Ball Bond Shear	76 balls 3 units min	76/0	76/0	76/0
Bond Pull	76 Wire 3 units min	76/0	76/0	76/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
X-ray	(top side only)	5/0	5/0	5/0
Notes: **Preconditioning sequence: MSL3-260C				

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