

PCN Number:	20130218003B			PCN Date:	07/23/2013															
Title:	Qualification of copper wire as alternate bonding material for selected products in TSSOP Package																			
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services															
Proposed 1st Ship Date:	04/04/2013	Estimated Sample Availability:	03/01/2013																	
Change Type:																				
<input type="checkbox"/>	Assembly Site	<input checked="" 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:																				
<p>Revision B is to announce the <u>retraction</u> of select devices. These will continue to be assembled using gold bond wire. Affected devices are identified with a strikethrough and are highlighted in yellow in the Product Affected Section.</p> <p>To qualify Cu wire as alternative bond material for selected products in TSSOP package. All the devices in this notification were included in Forecast PCN20125304A 20123101A published on July 31, 2012 March 18, 2012 which was issued from the National Semiconductor PCN system.</p> <p>Rev A is being issued to correct the referenced National Semiconductor forecast PCN and the few cases where the device name was listed incorrectly on Pg. 2, Attachment 1. Please continue to also reference 20130218003 as it may contain devices that were correctly listed and not included in Rev A.</p>																				
<table border="1"> <thead> <tr> <th></th> <th style="text-align: center;">From</th> <th style="text-align: center;">To</th> </tr> </thead> <tbody> <tr> <td>Wire</td> <td style="text-align: center;">Au, 1.0mil</td> <td style="text-align: center;">Cu, 0.96mil or Au, 1.0mil</td> </tr> <tr> <td>Mold Compound</td> <td style="text-align: center;">8095181</td> <td style="text-align: center;">8095181</td> </tr> <tr> <td>Mount Compound</td> <td style="text-align: center;">8080598</td> <td style="text-align: center;">8080598</td> </tr> <tr> <td>Leadframe Finish</td> <td style="text-align: center;">Matte Sn or SnPB</td> <td style="text-align: center;">Matte Sn or SnPB</td> </tr> </tbody> </table>							From	To	Wire	Au, 1.0mil	Cu, 0.96mil or Au, 1.0mil	Mold Compound	8095181	8095181	Mount Compound	8080598	8080598	Leadframe Finish	Matte Sn or SnPB	Matte Sn or SnPB
	From	To																		
Wire	Au, 1.0mil	Cu, 0.96mil or Au, 1.0mil																		
Mold Compound	8095181	8095181																		
Mount Compound	8080598	8080598																		
Leadframe Finish	Matte Sn or SnPB	Matte Sn or SnPB																		
Reason for Change:																				
<p>Continuity of supply.</p> <ol style="list-style-type: none"> 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:			
ADC08060CIMT	DS90C363BMTX/NOPB	LM2737MTCX/J5000383	LM93CIMT
ADC08060CIMT/NOPB	DS90C365AMT	LM2737MTCX/J7001919	LM93CIMT/NOPB
ADC08060CIMTX	DS90C365AMT/J7000779	LM2737MTCX/NOPB	LM93CIMTX
ADC08060CIMTX/NOPB	DS90C365AMT/NOPB	LM3495MTC	LM93CIMTX/NOPB
ADC08100CIMTC	DS90C365AMTX	LM3495MTC/J7002169	LM94CIMT
ADC08100CIMTC/NOPB	DS90C365AMTX/J7000780	LM3495MTC/NOPB	LM94CIMT/NOPB
ADC08100CIMTCX	DS90C365AMTX/NOPB	LM3495MTCX	LM94CIMTX
ADC08100CIMTCX/NOPB	DS90C383BMT	LM3495MTCX/J7002170	LM94CIMTX/NOPB
ADC08200CIMT	DS90C383BMT/NOPB	LM3495MTCX/NOPB	LM96000CIMT
ADC08200CIMT/NOPB	DS90C383BMTX	LM3649MH-AA/NOPB	LM96000CIMT/NOPB
ADC08200CIMTX	DS90C383BMTX/NOPB	LM3649MHE-AA/NOPB	LM96000CIMTX
ADC08200CIMTX/NOPB	DS90C385AMT	LM3649MHX-AA/NOPB	LM96000CIMTX/NOPB
ADC08351CIMTCX	DS90C385AMT/J7000778	LM3657MH/NOPB	LM96080CIMT/NOPB
ADC08351CIMTCX/NOPB	DS90C385AMT/NOPB	LM3657MHE/NOPB	LM96080CIMTX/NOPB
ADC088S022CIMT	DS90C385AMTX	LM3657MHX/NOPB	LM98510CCMTX
ADC088S022CIMT/NOPB	DS90C385AMTX/J7000777	LM4917MT	LM98510CCMTX/NOPB
ADC088S022CIMTX	DS90C385AMTX/J7002297	LM4917MT/NOPB	LM98511CCMTD
ADC088S022CIMTX/NOPB	DS90C385AMTX/NOPB	LM4917MTX	LM98511CCMTD/NOPB
ADC088S052CIMT	DS90CF363BMT	LM4917MTX/NOPB	LM98511CCMTDX/NOPB
ADC088S052CIMT/NOPB	DS90CF363BMT/NOPB	LM4936MH	LM98512CCMTX
ADC088S052CIMTX	DS90CF363BMTX	LM4936MH/NOPB	LM98512CCMTX/NOPB
ADC088S052CIMTX/NOPB	DS90CF363BMTX/NOPB	LM4936MHX	LM98513BCMTX/NOPB
ADC088S102CIMT	DS90CF366MTD	LM4936MHX/NOPB	LM98513CCMTX
ADC088S102CIMT/NOPB	DS90CF366MTD/J7000899	LM4938MH	LM98513CCMTX/NOPB
ADC088S102CIMTX	DS90CF366MTD/NOPB	LM4938MH/NOPB	LMH0046MH
ADC088S102CIMTX/NOPB	DS90CF366MTDX	LM4938MHX	LMH0046MH/NOPB
ADC08L060CIMT	DS90CF366MTDX/J7000900	LM4938MHX/NOPB	LMH0046MHX
ADC08L060CIMT/NOPB	DS90CF366MTDX/NOPB	LM5032MTC	LMH0046MHX/NOPB
ADC08L060CIMTX	DS90CF383BMT	LM5032MTC/NOPB	LMH0346MH
ADC08L060CIMTX/NOPB	DS90CF383BMT/NOPB	LM5032MTCX	LMH0346MH/NOPB
ADC10040CIMT	DS90CF383BMTX	LM5032MTCX/NOPB	LMH0346MHX
ADC10040CIMT/J7001329	DS90CF383BMTX/NOPB	LM5034MTC	LMH0346MHX/NOPB
ADC10040CIMT/NOPB	DS90CF386MTD	LM5034MTC/NOPB	LMH1981MT
ADC10040CIMTX	DS90CF386MTD/NOPB	LM5034MTCX	LMH1981MT/NOPB
ADC10040CIMTX/J7001482	DS90CF386MTDX	LM5034MTCX/NOPB	LMH1981MTE/J7002757
ADC10040CIMTX/NOPB	DS90CF386MTDX/J5000145	LM5041AMTC	LMH1981MTE/NOPB
ADC10065CIMT	DS90CF386MTDX/NOPB	LM5041AMTC/NOPB	LMH1981MTX
ADC10065CIMT/NOPB	DS90CF564MTD	LM5041AMTCX	LMH1981MTX/NOPB
ADC10065CIMTX	DS90CF564MTD/NOPB	LM5041AMTCX/NOPB	LMP2014MT
ADC10065CIMTX/NOPB	DS90CF564MTDX	LM5045MH/NOPB	LMP2014MT/NOPB
ADC10080CIMT	DS90CF564MTDX/NOPB	LM5045MHX/NOPB	LMP2014MTX
ADC10080CIMT/NOPB	DS90CP22MT	LM5045MHX/S7003055	LMP2014MTX/NOPB
ADC10080CIMTX	DS90CP22MT/NOPB	LM5046MH/DRSN	LMP8358MT/NOPB
ADC10080CIMTX/NOPB	DS90CP22MTX	LM5046MH/NOPB	LMP8358MTX/NOPB
ADC108S022CIMT	DS90CP22MTX/NOPB	LM5046MHX/NOPB	LMV324MT
ADC108S022CIMT/NOPB	DS90CR218AMTD	LM5070MTC-50	LMV324MT/NOPB
ADC108S022CIMTX	DS90CR218AMTD/NOPB	LM5070MTC-50/NOPB	LMV324MTX
ADC108S022CIMTX/NOPB	DS90CR218AMTDX	LM5070MTC-80	LMV324MTX/NOPB
ADC108S052CIMT	DS90CR218AMTDX/NOPB	LM5070MTC-80/NOPB	LMV324MTX/S4000043

ADC108S052CIMT/NOPB	DS90CR218AMTDX/S7003073	LM5070MTCX-50	LMV339MT
ADC108S052CIMTX	DS90CR288AMTD	LM5070MTCX-50/NOPB	LMV339MT/NOPB
ADC108S052CIMTX/NOPB	DS90CR288AMTD/NOPB	LM5070MTCX-80	LMV339MTX
ADC108S102CIMT	DS90CR288AMTDX	LM5070MTCX-80/NOPB	LMV339MTX/NOPB
ADC108S102CIMT/NOPB	DS90CR288AMTDX/NOPB	LM5115MTC	LMV344MT
ADC108S102CIMTX	DS90LV019TMTC	LM5115MTC/NOPB	LMV344MT/NOPB
ADC108S102CIMTX/NOPB	DS90LV019TMTC/NOPB	LM5115MTCX	LMV344MTX
ADC1173CIMTC	DS90LV019TMTCX	LM5115MTCX/NOPB	LMV344MTX/NOPB
ADC1173CIMTC/NOPB	DS90LV019TMTCX/NOPB	LM5117PMH/NOPB	LMV774MT
ADC1173CIMTCX	DS90LV049HMT	LM5117PMHE/NOPB	LMV774MT/NOPB
ADC1173CIMTCX/NOPB	DS90LV049HMT/NOPB	LM5117PMHX/NOPB	LMV774MTX
ADC1175-50CIMTX	DS90LV049HMTX	LM5642MH/NOPB	LMV774MTX/NOPB
ADC1175-50CIMTX/NOPB	DS90LV049HMTX/NOPB	LM5642MHX/NOPB	LMV824MT
ADC1175CIMTC	DS90LV049TMT	LM5642MTC	LMV824MT/NOPB
ADC1175CIMTC/NOPB	DS90LV049TMT/NOPB	LM5642MTC/NOPB	LMV824MTX
ADC1175CIMTCX	DS90LV049TMTX	LM5642MTCX	LMV824MTX/E7000973
ADC1175CIMTCX/NOPB	DS90LV049TMTX/NOPB	LM5642MTCX/J7001416	LMV824MTX/NOPB
ADC122S706CIMT	DS90LV110ATMT	LM5642MTCX/HALF	LMV824MTX/S7001910
ADC122S706CIMT/NOPB	DS90LV110ATMT/NOPB	LM5642MTCX/J7002465	LMV834MT/NOPB
ADC122S706CIMTX	DS90LV110ATMTX	LM5642MTCX/NOPB	LMV834MTX/NOPB
ADC122S706CIMTX/NOPB	DS90LV110ATMTX/NOPB	LM5642XMH	LMV854MT/NOPB
ADC122S709CIMT/NOPB	DS90LV110TMTC	LM5642XMH/NOPB	LMV854MTX/NOPB
ADC122S709CIMTX/NOPB	DS90LV110TMTC/NOPB	LM5642XMHX	LMV934MT
ADC128D818CIMT/NOPB	DS90LV110TMTCX	LM5642XMHX/NOPB	LMV934MT/NOPB
ADC128D818CIMTX/NOPB	DS90LV110TMTCX/NOPB	LM5642XMHX/S7002913	LMV934MTX
ADC128S022CIMT	DS92CK16TMTC	LM5642XMT	LMV934MTX/NOPB
ADC128S022CIMT/NOPB	DS92CK16TMTC/NOPB	LM5642XMT/NOPB	LMX2430TM
ADC128S022CIMTX	DS92CK16TMTCX	LM5642XMTX	LMX2430TM/NOPB
ADC128S022CIMTX/NOPB	DS92CK16TMTCX/NOPB	LM5642XMTX/J7001417	LMX2430TMX/NOPB
ADC128S052CIMT	LM25115MT	LM5642XMTX/J7002433	LMX2433TM
ADC128S052CIMT/NOPB	LM25115MT/NOPB	LM5642XMTX/J7002464	LMX2433TM/NOPB
ADC128S052CIMTX	LM25115MTX	LM5642XMTX/NOPB	LMX2433TMX
ADC128S052CIMTX/NOPB	LM25115MTX/NOPB	LM5642XMTX/S7002468	LMX2433TMX/NOPB
ADC128S102CIMT	LM25117PMH/NOPB	LM818IMT-3	LMX2434TM
ADC128S102CIMT/NOPB	LM25117PMHE/NOPB	LM818IMT-3/NOPB	LMX2434TM/NOPB
ADC128S102CIMTX	LM25117PMHX/NOPB	LM818IMTX-3	LMX2434TMX
ADC128S102CIMTX/NOPB	LM2642MTC	LM818IMTX-3/NOPB	LMX2434TMX/NOPB
ADC78H89CIMT	LM2642MTC/NOPB	LM818IMT-3	LP38869MH/NOPB
ADC78H89CIMT/NOPB	LM2642MTCX	LM818IMT-3/NOPB	LP38869MHE/NOPB
ADC78H89CIMTX	LM2642MTCX/J7001415	LM818IMTX-3	LP38869MHX/NOPB
ADC78H89CIMTX/NOPB	LM2642MTCX/J7001915	LM818IMTX-3/NOPB	LPV324MT
ADC78H90CIMT	LM2642MTCX/NOPB	LM8207MT	LPV324MT/NOPB
ADC78H90CIMT/NOPB	LM2642MTCX/S7001694	LM8207MT/NOPB	LPV324MTX
ADC78H90CIMTX	LM2727MTC	LM8207MTX	LPV324MTX/NOPB
ADC78H90CIMTX/NOPB	LM2727MTC/NOPB	LM8207MTX/NOPB	LPV324MTX/S5000955
DS90C363BMT	LM2727MTCX	LM87CIMT	SCANSTA111MT
DS90C363BMT/J7001629	LM2727MTCX/NOPB	LM87CIMT/NOPB	SCANSTA111MT/NOPB
DS90C363BMT/NOPB	LM2737MTC	LM87CIMTX	SCANSTA111MTX
DS90C363BMTX	LM2737MTC/NOPB	LM87CIMTX/NOPB	SCANSTA111MTX/NOPB
DS90C363BMTX/J7001630	LM2737MTCX		

Qualification Data: Approved 2/01/2013				
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.				
Qualification Device: LM93C1MT (MSL 2-260c)				
Package Construction Details				
Assembly Site:	TIEM	Mold Compound:	8095181	
# Pins-Designator, Family:	56-DGG, TSSOP	Mount Compound:	8080598	
Leadframe (Finish, Base):	Matte Sn, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**Biased HAST 130°C, 85%RH, 2ATM)	JESD22-A110 (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	JESD22-A104 (500 Cyc)	77/0	77/0	77/0
**ACLV 121C/100%RH, 2ATM	JESD22-A102 (96 Hrs)	77/0	77/0	77/0
HTSL 150C	JESD22-A103 (1000 Hrs)	77/0	-	-
Wire Bond Pull Cpk > 1.67	MIL-STD-883C	Pass	Pass	Pass
Notes: **Tests received preconditioning sequence: MSL2-260C				

Qualification Data: Approved 2/01/2013				
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.				
Qualification Device: LM5642MHX (MSL 1-260c)				
Package Construction Details				
Assembly Site:	TIEM	Mold Compound:	8095181	
# Pins-Designator, Family:	28-PWP, TSSOP	Mount Compound:	8080598	
Leadframe (Finish, Base):	Matte Sn, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**T/C -65C/150C	JESD22-A104 (500 Cyc)	77/0	77/0	77/0
HTOL 150C	JESD22-A108 (500 Hrs)	77/0	-	-
ESDC 750V	JESD22-C101	3/0	-	-
ESDH 2000V	JESD22-A114	3/0	-	-
ESDM 150V	JESD22-A115	3/0	-	-
LUPS 25C, 125C	JESD78	6/0	-	-
Notes: **Tests received preconditioning sequence: MSL1-260C				

Qualification Data: Approved 2/01/2013				
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.				
Qualification Device: LMH0346MH (MSL 3-260c)				
Package Construction Details				
Assembly Site:	TIEM	Mold Compound:	8095181	
# Pins-Designator, Family:	20-PWP, TSSOP	Mount Compound:	8080598	
Leadframe (Finish, Base):	Matte Sn, Cu	Bond Wire:	0.96 Mil Dia., Cu	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**T/C -65C/150C	JESD22-A104 (500 Cyc)	77/0	77/0	77/0
Notes: **Tests received preconditioning sequence: MSL2-260C				

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
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