12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20130306001
Qualification of copper wire as alternate bonding material for selected products in SOIC Package
Final Change Notification

Date: 3/20/2013
To: Newark PCN

Dear Customer:

This is a final announcement of change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

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.

The changes discussed within this PCN will not take effect any earlier than **30** 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. Any negotiated alternative change requirements will be provided via the customer's defined process. Customers with previously negotiated, special requirements will be handled separately. Any inquiries should be directed to your local Field Sales Representative.

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

20130306001
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
ADC08831IM/NOPB	null
CLC001AJE/NOPB	null
DS36C200M/NOPB	null
DS90C031BTM	DS90C031BTM
DS90C031BTM/NOPB	null
DS90C031TM/NOPB	DS90C031TM/NOPB
DS90C032BTM/NOPB	DS90C032BTM/NOPB
DS90C032TM/NOPB	DS90C032TM NOPB
DS90C401M/NOPB	DS90C401M NOPB
DS90C401M/NOPB	DS90C401M/NOPB
DS90C402M/NOPB	null
DS90LV001TM/NOPB	null
DS90LV017ATM/NOPB	DS90LV017ATM/NOPB
DS90LV019TM	DS90LV019TM
DS90LV019TM/NOPB	DS90LV019TM NOPB
DS90LV019TM/NOPB	DS90LV019TM/NOPB
DS90LV027ATM/NOPB	null
DS91C176TMA	DS91C176TMA
DS91C176TMA/NOPB	null
DS91D176TMA/NOPB	DS91D176TMA NOPB
DS91M047TMA/NOPB	DS91M047TMA NOPB
DS91M124TMA/NOPB	null
DS91M125TMA/NOPB	null
DS92001TMA/NOPB	null
DS92LV010ATM	Null
DS92LV010ATM/NOPB	DS92LV010ATM NOPB
DS92LV010ATM/NOPB	DS92LV010ATM/NOPB
LM4808M/NOPB	LM4808M NOPB
LM4808M/NOPB	LM4808M/NOPB
LM4861M	Null
LM4861M/NOPB	LM4861M NOPB
LM4861M/NOPB	LM4861M/NOPB
LM4861MX	Null
LM4861MX/NOPB	LM4861MX/NOPB
LM4862M	Null
LM4864M	Null
LM4871M/NOPB	LM4871M NOPB
LM4871M/NOPB	LM4871M/NOPB
LM4871MX/NOPB	LM4871MX NOPB
LM4876M/NOPB	LM4876M/NOPB
LM4880M/NOPB	LM4880M NOPB
LM4880M/NOPB	LM4880M/NOPB
LM4890M	Null
LM4890M/NOPB	LM4890M NOPB
LM4890M/NOPB	LM4890M/NOPB
LM74CIM-3/NOPB	null
LM75AIM/NOPB	LM75AIM NOPB
LM75AIM/NOPB	LM75AIM/NOPB
LM75BIM-3/NOPB	LM75BIM-3 NOPB
LM92CIM/NOPB	LM92CIM NOPB
LM92CIM/NOPB	LM92CIM/NOPB

LMH0002MA	null
LMH0002MA/NOPB	null
LMP2011MA	Null
LMP2011MA/NOPB	LMP2011MA/NOPB
LMP2012MA	Null
LMP2012MA/NOPB	null
LMP8358MA/NOPB	LMP8358MA/NOPB
LMV2011MA/NOPB	LMV2011MA/NOPB
LMV324M/NOPB	LMV324M/NOPB
LMV324MX/NOPB	LMV324MX/NOPB
LMV339M/NOPB	LMV339M/NOPB
LMV342MA/NOPB	LMV342MA NOPB
LMV358M/NOPB	null
LMV358MX/NOPB	LMV358MX NOPB
LMV761MA/NOPB	null
LMV762MA/NOPB	LMV762MA/NOPB
LMV822M/NOPB	LMV822M NOPB
LMV822MX/NOPB	null
LMV824M/NOPB	null
LMV932MA/NOPB	null
LMV934MA/NOPB	null
LP2995M	Null
LP2995M/NOPB	LP2995M/NOPB
LP2995MX	Null
LP2995MX/NOPB	null

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

PCN Number:	20130306001	PCN Date:	03/20/2013
Title:	Qualification of copper wire as alternate bonding material for selected products in SOIC Package		
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037
Dept:	Quality Services		
Proposed 1st Ship Date:	04/20/2013	Estimated Sample Availability:	03/20/2012

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:

To qualify Cu wire as alternative bond material for selected products in SOIC package. All the devices in this notification were included in Forecast PCN20123202 published on March 17, 2012 which was issued from the National Semiconductor PCN system.

	From	To
Wire	Au, 0.9mil & 1.0mil	Cu, 0.96 mil or Au, 0.9mil & 1.0mil
Mold Compound	8096859	8096859
Mount Compound	8080598	8080598
Leadframe Finish	Matte Sn or SnPB	Matte Sn or SnPB

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:

ADC08831IM	DS91C180TMAX	LM63CIMA/NOPB	LMV324MX
ADC08831IM/NOPB	DS91C180TMAX/NOPB	LM63CIMAX	LMV324MX/E7001889
ADC08831IMX	DS91D176TMA/NOPB	LM63CIMAX/NOPB	LMV324MX/E7002869
ADC08831IMX/NOPB	DS91D176TMAX	LM63DIMA	LMV324MX/NOPB
ADC08832IM	DS91D176TMAX/NOPB	LM63DIMA/NOPB	LMV339M
ADC08832IM/NOPB	DS91D180TMA	LM63DIMAX	LMV339M/NOPB
ADC08832IMX	DS91D180TMA/NOPB	LM63DIMAX/NAK2	LMV339MX
ADC08832IMX/NOPB	DS91D180TMAX	LM63DIMAX/NOPB	LMV339MX/NOPB
ADCV08832CIMX	DS91D180TMAX/NOPB	LM74CIM-3	LMV342MA
ADCV08832CIMX/NOPB	DS91M047TMA/NOPB	LM74CIM-3/NOPB	LMV342MA/NOPB

CLC001AJE	DS91M047TMAX/NOPB	LM74CIM-5	LMV342MAX
CLC001AJE-TR13	DS91M124TMA/NOPB	LM74CIM-5/NOPB	LMV342MAX/E7002870
CLC001AJE-TR13/NOPB	DS91M124TMAX/NOPB	LM74CIMX-3	LMV342MAX/J7002023
CLC001AJE/NOPB	DS91M125TMA/NOPB	LM74CIMX-3/NOPB	LMV342MAX/NOPB
DS10CP152TMA/NOPB	DS91M125TMAX/NOPB	LM74CIMX-5	LMV342MAX/S7002483
DS10CP152TMAX/NOPB	DS92001TMA	LM74CIMX-5/E7000843	LMV344MA
DS36C200M	DS92001TMA/NOPB	LM74CIMX-5/NOPB	LMV344MA/NOPB
DS36C200M/NOPB	DS92001TMA/S5001568	LM74CIMX-5/S7001825	LMV344MAX
DS36C200MX	DS92001TMAX	LM75AIM/NOPB	LMV344MAX/NOPB
DS36C200MX/NOPB	DS92001TMAX/NOPB	LM75AIMX/NOPB	LMV344MAX/S5000800
DS90C031BTM	DS92LV010ATM	LM75BIM-3	LMV344MAX/S7002582
DS90C031BTM/NAK2	DS92LV010ATM/NOPB	LM75BIM-3/NOPB	LMV358M
DS90C031BTM/NOPB	DS92LV010ATMX	LM75BIM-5	LMV358M/NOPB
DS90C031BTMX	DS92LV010ATMX/NOPB	LM75BIM-5/NOPB	LMV358MX
DS90C031BTMX/NOPB	LM4808M	LM75BIMX-3	LMV358MX/DRSN
DS90C031TM	LM4808M/NOPB	LM75BIMX-3/NAK2	LMV358MX/E7002867
DS90C031TM/NOPB	LM4808MX	LM75BIMX-3/NOPB	LMV358MX/MESN
DS90C031TMX	LM4808MX/NOPB	LM75BIMX-5	LMV358MX/NOPB
DS90C031TMX/NOPB	LM4818MX	LM75BIMX-5/NOPB	LMV393M
DS90C032BTM	LM4818MX/NOPB	LM76CHM-5	LMV393M/NOPB
DS90C032BTM/NOPB	LM4819MX	LM76CHM-5/NOPB	LMV393MX
DS90C032BTMX	LM4819MX/NOPB	LM76CHMX-5	LMV393MX/NOPB
DS90C032BTMX/NOPB	LM4860M	LM76CHMX-5/NOPB	LMV393MX/S5000873
DS90C032TM	LM4860M/NOPB	LM77CIM-3	LMV722M
DS90C032TM/NAK2	LM4860MX	LM77CIM-3/NOPB	LMV722M/NOPB
DS90C032TM/NOPB	LM4860MX/NOPB	LM77CIM-5	LMV722MX
DS90C032TMX	LM4861M	LM77CIM-5/NOPB	LMV722MX/NOPB
DS90C032TMX/NOPB	LM4861M/NOPB	LM77CIMX-3	LMV761MA
DS90C401M	LM4861MX	LM77CIMX-3/NOPB	LMV761MA/NOPB
DS90C401M/NOPB	LM4861MX/NOPB	LM77CIMX-5	LMV761MAX
DS90C401MX	LM4862M	LM77CIMX-5/NOPB	LMV761MAX/NOPB
DS90C401MX/NOPB	LM4862M/NOPB	LM86CIM	LMV762MA
DS90C402M	LM4862MX	LM86CIM/NOPB	LMV762MA/NOPB
DS90C402M/NOPB	LM4862MX/NOPB	LM86CIMX	LMV762MAX
DS90C402MX	LM4864M	LM86CIMX/NAK2	LMV762MAX/NOPB
DS90C402MX/NOPB	LM4864M/NOPB	LM86CIMX/NOPB	LMV772MA
DS90CP22M-8	LM4864MX	LM89-1CIM	LMV772MA/NOPB
DS90CP22M-8/NOPB	LM4864MX/NAK2	LM89-1CIMX	LMV772MAX
DS90CP22MX-8	LM4864MX/NOPB	LM89CIMX	LMV772MAX/E5002752
DS90CP22MX-8/NOPB	LM4865M	LM89CIMX/NAK2	LMV772MAX/E7002744
DS90LV001TM	LM4865M/NOPB	LM89CIMX/NOPB	LMV772MAX/NOPB
DS90LV001TM/J7001651	LM4865MX	LM92CIM	LMV822M
DS90LV001TM/NOPB	LM4865MX/NOPB	LM92CIM/NOPB	LMV822M/NOPB
DS90LV001TMX	LM4871M	LM92CIMX	LMV822MX
DS90LV001TMX/J7001652	LM4871M/NOPB	LM92CIMX/NOPB	LMV822MX/NOPB
DS90LV001TMX/NAK2	LM4871MX	LM95245CIM	LMV822MX/S5002129
DS90LV001TMX/NOPB	LM4871MX/NOPB	LM95245CIM/NOPB	LMV824M
DS90LV017ATM	LM4875M	LM95245CIMX	LMV824M/NOPB
DS90LV017ATM/NOPB	LM4875M/NOPB	LM95245CIMX/NOPB	LMV824MX
DS90LV017ATMX	LM4875MX	LME49721MA/NOPB	LMV824MX/NOPB
DS90LV017ATMX/E7001864	LM4875MX/NOPB	LME49721MAX/NOPB	LMV824MX/S5000461

DS90LV017ATMX/NAK2	LM4876M	LMH0002MA	LMV824MX/S7002283
DS90LV017ATMX/NOPB	LM4876M/NOPB	LMH0002MA/NOPB	LMV824MX/S7002463
DS90LV019TM	LM4876MX	LMH0002MAX	LMV932MA
DS90LV019TM/NOPB	LM4876MX/NOPB	LMH0002MAX/NOPB	LMV932MA/NOPB
DS90LV019TMX	LM4880M	LMH0002TMA	LMV932MAX
DS90LV019TMX/NOPB	LM4880M/NOPB	LMH0002TMA/NOPB	LMV932MAX/J7002026
DS90LV027AHM	LM4880MX	LMH0002TMAX	LMV932MAX/NOPB
DS90LV027AHM/NOPB	LM4880MX/NOPB	LMH0002TMAX/NOPB	LMV934MA
DS90LV027AHMX	LM4881M	LMP2011MA	LMV934MA/NOPB
DS90LV027AHMX/NOPB	LM4881M/NOPB	LMP2011MA/NOPB	LMV934MAX
DS90LV027ATM	LM4881MX	LMP2011MAX	LMV934MAX/J7002007
DS90LV027ATM/NOPB	LM4881MX/NOPB	LMP2011MAX/NOPB	LMV934MAX/NOPB
DS90LV027ATMX	LM4889MA	LMP2012MA	LP2995M
DS90LV027ATMX/NAK2	LM4889MA/NOPB	LMP2012MA/NOPB	LP2995M/J7001142
DS90LV027ATMX/NOPB	LM4889MAX	LMP2012MAX	LP2995M/NOPB
DS90LV027M	LM4889MAX/NOPB	LMP2012MAX/NOPB	LP2995MX
DS90LV027M/NOPB	LM4890M	LMP8358MA/NOPB	LP2995MX/J5000192
DS90LV027MX	LM4890M/NOPB	LMP8358MAX/NOPB	LP2995MX/J7001045
DS90LV027MX/NOPB	LM4890MX	LMV2011MA	LP2995MX/NOPB
DS91C176TMA	LM4890MX/NOPB	LMV2011MA/NOPB	LPV324MX
DS91C176TMA/NOPB	LM4991MA	LMV2011MAX	LPV324MX/NOPB
DS91C176TMAX	LM4991MA/NOPB	LMV2011MAX/NOPB	LPV358M
DS91C176TMAX/NOPB	LM4991MAX	LMV324M	LPV358M/NOPB
DS91C180TMA	LM4991MAX/NOPB	LMV324M/NAK2	LPV358MX
DS91C180TMA/NOPB	LM63CIMA	LMV324M/NOPB	LPV358MX/NOPB

Qualification Data: Approved 12/30/2012

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.

Qualification Device: DS90CP22MX-8 (MSL 1-260c)

Package Construction Details

Assembly Site:	TIEM	Mold Compound:	8096859
# Pins-Designator, Family:	16-D, SOIC	Mount Compound:	8075531
Leadframe (Finish, Base):	Matte Sn, Cu	Bond Wire:	0.96 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**T/C -65C/150C	JESD22-A104 (500 Cyc)	80/0	80/0	80/0
**ACLV 121C/100%RH, 2ATM	JESD22-A102 (96 Hrs)	80/0	80/0	79/0

Notes: **Tests received preconditioning sequence: MSL1-260C

Qualification Data: Approved 2/06/2013

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: LP2995MX/NOPB (MSL 1-260c)

Package Construction Details

Assembly Site:	TIEM	Mold Compound:	8095179
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	8080598
Leadframe (Finish, Base):	Matte Sn, Cu	Bond Wire:	0.96 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**Autoclave 121C	121C, 2 ATM (96 hrs)	79/0	80/0	80/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	80/0	80/0	80/0
Destructive Physical Analysis	Post Temp Cycle	pass	pass	pass
Manufacturability (Assembly)	(per mfg. Site specification)	pass	pass	pass
CSAM/TSAM	Post Temp Cycle	pass	pass	pass

Notes: **Tests received preconditioning sequence: MSL1-260C

Reference Qualification Data: Approved 9/09/2012

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.

Qualification Device: LM93CIMT/NOPB (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: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
High Temp. Storage Bake	150C (500, 1000 Hrs)	77/0	--	--
**Biased HAST	130C/85%RH/33.3 psia (96 hrs)	80/0	80/0	80/0

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
Japan	PCNJapanContact@list.ti.com