



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20160321001
Qualification of SID# 101380756 Mold Compound
for Select SOIC Device(s)
Change Notification / Sample Request**

Date: 3/24/2016

To: TOKYO ELECTRON DEVICE (DSTR) 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

20160321001
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
DS90LV001TM/NOPB	null
DS90LV017ATM/NOPB	null
DS90LV017ATMX/NOPB	null
DS90LV027ATM/NOPB	null
DS92001TMA/NOPB	null
LF353M/NOPB	null
LF356M/NOPB	null
LM1881M/NOPB	null
LM2903MX/NOPB	null
LM2904MX/NOPB	null
LM336M-5.0/NOPB	null
LM358AM/NOPB	null
LM358AMX/NOPB	null
LM35DM/NOPB	null
LM385M-2.5/NOPB	null
LM386M-1/NOPB	null
LM386MX-1/NOPB	null
LM393MX/NOPB	null
LM5110-1MX/NOPB	null
LM833M/NOPB	null
LMC555CM/NOPB	null
LMC555CMX/NOPB	null
LMC6042IM/NOPB	null
LMC6082AIM/NOPB	null
LMC6462BIMX/NOPB	null
LMC662AIM/NOPB	null
LMC6772AIM/NOPB	null
LME49721MA/NOPB	null
LP2951ACM/NOPB	null
LP2951CMX-3.3/NOPB	null
LP2951CMX/J7000697	null
LM358MX/NOPB	null
LM385BMX-2.5/NOPB	null
LM56CIM/NOPB	null
LM6171AIMX/NOPB	null
LME49720MA/NOPB	null
CLC001AJE/NOPB	null
DS90LV028ATM/NOPB	null
LM285M-2.5/NOPB	null
LM2904M/NOPB	null
LM385BM-2.5/NOPB	null
LM393M/NOPB	null
LM56BIM/NOPB	null
LM75AIM/NOPB	null
LM75BIM-3/NOPB	null
LMC567CMX/NOPB	null
LMC6041IMX/NOPB	null
LMC6482IMX/NOPB	null
LMC662CMX/NOPB	null
DS1487M/NOPB	null
LF353MX/NOPB	null
DS90LV027ATMX/NOPB	null
LM360M/NOPB	null
LM360MX/NOPB	null

LM385MX/NOPB	null
LM6171AIM/NOPB	null
LM75BIMX-5/NOPB	null
LM833MX/NOPB	null
LP2986IM-5.0/NOPB	null
LM318MX/NOPB	null
LM385M-1.2/NOPB	null
LM385MX-1.2/NOPB	null
LM2907MX-8/NOPB	null
DS89C21TM/NOPB	null
LM358M/NOPB	null
LM5101CMA/NOPB	null
LMC6032IM/NOPB	null
LMC6042AIMX/NOPB	null
LP2951CM/NOPB	null
LP2951CMX/NOPB	null
DS89C21TMX/NOPB	null
DS90LV001TMX/NOPB	null
LMC6061AIMX/NOPB	null
DS3695AMX/NOPB	null
LM285BYMX-1.2/NOPB	null
LM2903M/NOPB	null
LM56BIMX/NOPB	null
LME49860MA/NOPB	null
LME49860MAX/NOPB	null
LM385MX-2.5/NOPB	null
LMC6042IMX/NOPB	null
LM7171AIM/NOPB	null
LM336MX-5.0/NOPB	null
LM7171BIM/NOPB	null
DS3695AM/NOPB	null
LM285MX-2.5/NOPB	null
LP2951ACM-3.3/NOPB	null
LM7171BIMX/NOPB	null
LM1881MX/NOPB	null
DS90LV028ATMX/NOPB	null
LM3578AM/NOPB	null
LM3578AMX/NOPB	null
LM336MX-2.5/NOPB	null
LM6171BIMX/NOPB	null

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

PCN Number:	20160321001			PCN Date:	03/24/2016
Title:	Qualification of SID# 101380756 Mold Compound for Select SOIC Device(s)				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	06/24/2016	Estimated Sample Availability:	Date Provided at Sample request		
Change Type:					
☐	Assembly Site	☐	Design	☐	Wafer Bump Site
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☒	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Site
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
		☐		☐	Wafer Fab Process
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the Qualification of SID# 101380756 Mold Compound for Select SOIC devices listed in "Product affected" section below. Devices will remain in current assembly facility and there will be no other piece part changes.					
Material Differences:					
		From	To		
	Mold compound	101323397	101380756		
Reason for Change:					
Continuity of Supply					
Anticipated impact on Material Declaration					
☐	No Impact to the Material Declaration	☒	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI ECO website .		
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					
None					
Changes to product identification resulting from this PCN:					
None					
Product Affected:					
ADC08831IM/NOPB	LM336BM-5.0/NOPB	LM5110-1M/NOPB	LMC6462BIM/NOPB		
ADC08831IMX/NOPB	LM336BMX-2.5/NOPB	LM5110-1MX/NOPB	LMC6462BIMX/NOPB		
CLC001AJE/NOPB	LM336BMX-5.0/NOPB	LM5110-2M/NOPB	LMC6482IMX/NOPB		
DS1487M/NOPB	LM336M-2.5/NOPB	LM5110-3M/NOPB	LMC6572AIM/NOPB		
DS1487MX/NOPB	LM336M-5.0/NOPB	LM5111-1M/NOPB	LMC6572BIM/NOPB		
DS3695AM/NOPB	LM336MX-2.5/NOPB	LM5111-1MX/NOPB	LMC662AIM/NOPB		
DS3695AMX/NOPB	LM336MX-5.0/NOPB	LM5111-2MX/NOPB	LMC662AIMX/NOPB		
DS36C278M/NOPB	LM34DM/NOPB	LM5111-3M/NOPB	LMC662CM/NOPB		
DS36C278MX/NOPB	LM34DMX/NOPB	LM5111-3MX/NOPB	LMC662CMX/NOPB		
DS36C278TM/NOPB	LM3578AM/NOPB	LM5111-4M/NOPB	LMC6762AIM/NOPB		
DS36C278TMX/NOPB	LM3578AMX/NOPB	LM555CM/NOPB	LMC6762BIM/NOPB		
DS36C279MX/NOPB	LM358AM/NOPB	LM555CMX/NOPB	LMC6762BIMX/NOPB		
DS36C280M/NOPB	LM358AMX/NOPB	LM567CM/NOPB	LMC6772AIM/NOPB		
DS36C280TM/NOPB	LM358M/NOPB	LM567CMX/NOPB	LMC6772AIMX/NOPB		
DS481TM/NOPB	LM358MX/NOPB	LM56BIM/NOPB	LMC6772BIM/NOPB		
DS481TMX/NOPB	LM35DM/NOPB	LM56BIMX/NOPB	LMC6772BIMX/NOPB		
DS485M/NOPB	LM35DMX/NOPB	LM56CIM/NOPB	LMC6953CM/NOPB		

DS485MX/NOPB	LM360M/NOPB	LM56CIMX/NOPB	LMC6953CMX/NOPB
DS485TMX/NOPB	LM360MX/NOPB	LM6171AIM/NOPB	LMC7211AIM/NOPB
DS89C21TM/NOPB	LM3622MX-8.2/NOPB	LM6171AIMX/NOPB	LMC7211AIMX/NOPB
DS89C21TMX/NOPB	LM385BM-1.2/NOPB	LM6171BIM/NOPB	LMC7211BIM/NOPB
DS90LV001TM/NOPB	LM385BM-2.5/NOPB	LM6171BIMX/NOPB	LMC7211BIMX/NOPB
DS90LV001TMX/NOPB	LM385BM/NOPB	LM63CIMA/NOPB	LMC7215IM/NOPB
DS90LV017ATM/NOPB	LM385BMX-1.2/NOPB	LM63CIMAX/NOPB	LMC7215IMX/NOPB
DS90LV017ATMX/NOPB	LM385BMX-2.5/NOPB	LM63DIMA/NOPB	LMC7221AIM/NOPB
DS90LV027ATM/NOPB	LM385BMX/NOPB	LM63DIMAX/NOPB	LMC7221AIMX/NOPB
DS90LV027ATMX/NOPB	LM385BXM-1.2/NOPB	LM7171AIM/NOPB	LMC7221BIM/NOPB
DS90LV028ATM/NOPB	LM385BYMX-1.2/NOPB	LM7171AIMX/NOPB	LMC7221BIMX/NOPB
DS90LV028ATMX/NOPB	LM385M-1.2/NOPB	LM7171BIM/NOPB	LMC7660IM/NOPB
DS92001TMA/NOPB	LM385M-2.5/NOPB	LM7171BIMX/NOPB	LMC7660IMX/NOPB
DS92001TMAX/NOPB	LM385M/NOPB	LM75AIM/NOPB	LME49720MA/NOPB
DS9637ACM/NOPB	LM385MX-1.2/NOPB	LM75BIM-3/NOPB	LME49720MAX/NOPB
LF353M/NOPB	LM385MX-2.5/NOPB	LM75BIM-5/NOPB	LME49721MA/NOPB
LF353MX/NOPB	LM385MX/NOPB	LM75BIMX-3/NOPB	LME49723MA/NOPB
LF356M/NOPB	LM386M-1/NOPB	LM75BIMX-5/NOPB	LME49723MAX/NOPB
LF356MX/NOPB	LM386MX-1/NOPB	LM833AM/NOPB	LME49725MA/NOPB
LHV720MA/NOPB	LM392M/NOPB	LM833M/NOPB	LME49860MA/NOPB
LM1851M/NOPB	LM392MX/E7001992	LM833MX/NOPB	LME49860MAX/NOPB
LM1881M/NOPB	LM392MX/NOPB	LM86CIM/NOPB	LP2951ACM-3.3/NOPB
LM1881MX/NOPB	LM393M/NOPB	LM86CIMX/NOPB	LP2951ACM/NOPB
LM25101AM/NOPB	LM393MX/NOPB	LM89CIMX/NOPB	LP2951ACMX-3.3/NOPB
LM25101AMX/NOPB	LM4250CM/NOPB	LMC555CM/NOPB	LP2951ACMX/NOPB
LM25101BMA/NOPB	LM4250CMX/NOPB	LMC555CMX/NOPB	LP2951CM-3.3/NOPB
LM25101BMAX/NOPB	LM4250CMX/S7001408	LMC567CM/NOPB	LP2951CM/NOPB
LM2578AM/NOPB	LM432MA/NOPB	LMC567CMX/NOPB	LP2951CMX-3.3/NOPB
LM2578AMX/NOPB	LM432MAX/NOPB	LMC568CM/NOPB	LP2951CMX/J7000697
LM285BXM-1.2/NOPB	LM4562MA/NOPB	LMC6022IM/NOPB	LP2951CMX/NOPB
LM285BXM-2.5/NOPB	LM4562MAX/NOPB	LMC6022IMX/NOPB	LP2954AIM/NOPB
LM285BYMX-1.2/NOPB	LM4808M/NOPB	LMC6032IM/NOPB	LP2986AIM-3.0/NOPB
LM285BYMX/NOPB	LM4808MX/NOPB	LMC6032IMX/NOPB	LP2986AIM-3.3/NOPB
LM285M-1.2/NOPB	LM4991MA/NOPB	LMC6035IM/NOPB	LP2986AIMX-3.3/NOPB
LM285M-2.5/NOPB	LM5100AM/NOPB	LMC6035IMX/NOPB	LP2986IM-5.0/NOPB
LM285M/NOPB	LM5100AMX/NOPB	LMC6041IMX/NOPB	LP2987AIMX-5.0/NOPB
LM285MX-1.2/NOPB	LM5100BMA/NOPB	LMC6042AIM/NOPB	LP2987IM-3.0/NOPB
LM285MX-2.5/NOPB	LM5100BMAX/NOPB	LMC6042AIMX/NOPB	LP2987IM-5.0/NOPB
LM285MX/NOPB	LM5100CMA/NOPB	LMC6042IM/NOPB	LP2987IMX-3.0/NOPB
LM2903M/NOPB	LM5100MX/NOPB	LMC6042IMX/NOPB	LP2988AIM-5.0/NOPB
LM2903MX/NOPB	LM5101AM/NOPB	LMC6061AIMX/NOPB	LP2988IM-5.0/NOPB
LM2904M/NOPB	LM5101AMX/NOPB	LMC6061IMX/NOPB	LP2989AIM-1.8/NOPB
LM2904MX/NOPB	LM5101AMX/S7003027	LMC6062AIM/NOPB	LP2989AIM-3.3/NOPB
LM2907M-8/NOPB	LM5101BMA/NOPB	LMC6062IMX/NOPB	LP2989AIM-5.0/NOPB
LM2907MX-8/NOPB	LM5101BMAX/NOPB	LMC6081AIMX/NOPB	LP2989AIMX-2.5/NOPB
LM318M/NOPB	LM5101CMA/NOPB	LMC6081IM/NOPB	LP2989IM-1.8/NOPB
LM318MX/NOPB	LM5101M/NOPB	LMC6082AIM/NOPB	LP2989IM-3.0/NOPB
LM334SM/NOPB	LM5101MX/NOPB	LMC6082AIMX/NOPB	LP2989IM-3.3/NOPB
LM334SMX/NOPB	LM5109AMA/NOPB	LMC6082IM/NOPB	LP2989IM-5.0/NOPB
LM335AM/NOPB	LM5109AMAX/NOPB	LMC6082IMX/NOPB	LPC661IM/NOPB
LM335AMX/NOPB	LM5109BMA/NOPB	LMC6442AIM/NOPB	LPC662AIMX/NOPB
LM335M/NOPB	LM5109BMAX/NOPB	LMC6442AIMX/NOPB	TL082CM/NOPB
LM335MX/NOPB	LM5109MA/NOPB	LMC6442IM/NOPB	

LM336BM-2.5/NOPB	LM5109MAX/NOPB	LMC6462AIM/NOPB		
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Qualification Report

SOIC 8L- D package with SID# 101380756 Mold Compound at subcon AP1
Approve Date 16-Mar-2016

Product Attributes

Attributes	Qual Device: LM4808MX/NOPB	Qual Device: LMC7660IMXNOPB	QBS Package Reference: LM324ADR	QBS Package Reference: LM358DR	QBS Package Reference: LM393DR
Assembly Site	AMKOR P1	AMKOR P1	AMKOR P1	AMKOR AP1	AMKOR AP1
Package Family	SOIC	SOIC	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MAINEFAB	GFAB 6	SFAB	SFAB	SFAB
Wafer Process	CS065SP	CMMGATE.8.1	J11	J11	J11

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260C: LMC7660IMXNOPB, LM4808MX/NOPB

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: LM4808MX/NOPB	Qual Device: LMC7660IMXNOPB
AC	Autoclave 121C	96 Hours	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	3/231/0
DS	Die Shear	--	1/10/0	3/30/0
FLAM	Flammability (IEC 695-2-2)	--	-	-
FLAM	Flammability (UL 94V-0)	--	-	-
FLAM	Flammability (UL-1694)	--	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-
HTOL	Life Test, 150C	300 Hours	-	-
LI	Lead Fatigue	Leads	1/22/0	-
LI	Lead Pull to Destruction	Leads	1/22/0	-
LI	Lead Finish Adhesion	Leads	-	-
MISC	Salt Atmosphere	Salt Atmosphere	-	-
PD	Physical Dimensions	--	-	3/15/0
SD	Solderability	8 Hours Steam Age	-	3/66/0
TC	Temperature Cycle, -65C/150C	500 Cycles	1/77/0	3/231/0
WBP	Bond Pull	Wires	1/30/0	3/90/0
WBS	Ball Bond Shear	Wires	1/30/0	3/90/0

Type	Test Name / Condition	Duration	QBS Package Reference: LM324ADR	QBS Package Reference: LM358DR	QBS Package Reference: LM393DR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/229/0	3/229/0	3/231/0
DS	Die Shear	--	3/30/0	3/30/0	3/30/0
FLAM	Flammability (IEC 695-2-2)	--	3/15/0	3/15/0	3/15/0
FLAM	Flammability (UL 94V-0)	--	3/15/0	3/15/0	3/15/0
FLAM	Flammability (UL-1694)	--	3/15/0	3/15/0	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0	3/231/0
HTOL	Life Test, 150C	300 Hours	3/231/0	3/231/0	-
LI	Lead Fatigue	Leads	3/66/0	3/66/0	3/66/0
LI	Lead Pull to Destruction	Leads	3/66/0	3/66/0	3/66/0
LI	Lead Finish Adhesion	Leads	3/45/0	3/45/0	3/45/0
MISC	Salt Atmosphere	Salt Atmosphere	3/65/0	3/66/0	-
PD	Physical Dimensions	--	3/60/0	3/60/0	3/60/0
SD	Solderability	8 Hours Steam Age	3/66/0	3/66/0	3/66/0
TC	Temperature Cycle, - 65C/150C	500 Cycles	3/231/0	3/230/0	3/231/0
WBP	Bond Pull	Wires	3/228/0	3/228/0	3/228/0
WBS	Ball Bond Shear	Wires	3/228/0	3/228/0	3/228/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours

- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours

- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

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