



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20130926001
BCB Elimination for 0.4 & 0.5mm Pitch WCSP Bump <=25 Bump Count
Change Notification / Sample Request

Date: 2/12/2014
To: MOUSER 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
Phone: +1(214) 480-6037
Fax: +1(214) 480-6659

20130926001
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
LM4667ITL	null
LM3630ATME	null
LM358TP/NOPB	null
LM393TL/NOPB	LM393TL/NOPB
LM20SITL/NOPB	LM20SITL/NOPB
LM2755TM/NOPB	null
LM393TLX/NOPB	LM393TLX/NOPB
LM4954TL/NOPB	LM4954TL NOPB
LMV225TL/NOPB	LMV225TL NOPB
LMV226TL/NOPB	LMV226TL NOPB
LMV228TL/NOPB	null
LMV232TL/NOPB	null
LP5522TM/NOPB	null
LM2903ITL/NOPB	LM2903ITL/NOPB
LM2904ITP/NOPB	LM2904ITP/NOPB
LM317LITP/NOPB	null
LM3555TLE/NOPB	LM3555TLE/NOPB
LM3559TLE/NOPB	null
LM3559TLX/NOPB	null
LM3565TLE/NOPB	null
LM4670ITL/NOPB	null
LM4671ITL/NOPB	null
LM48556TL/NOPB	null
LM48557TL/NOPB	null
LM48580TL/NOPB	null
LM48823TL/NOPB	null
LM48824TM/NOPB	null
LM48860TL/NOPB	null
LM49120TL/NOPB	null
LM4921ITL/NOPB	LM4921ITL/NOPB
LMC8101TP/NOPB	LMC8101TP NOPB
LMH2100TM/NOPB	null
LMH2110TM/NOPB	LMH2110TM NOPB
LMH2180TM/NOPB	LMH2180TM/NOPB
LMV1090TL/NOPB	LMV1090TL NOPB
LMV7272TL/NOPB	LMV7272TL NOPB
LMV981TLX/NOPB	LMV981TLX NOPB
LP5562TME/NOPB	null
LM2903ITLX/NOPB	null
LM317LITPX/NOPB	null
LM48312TLE/NOPB	null
LM48580TLX/NOPB	null
LM78L05ITP/NOPB	null
LMC6035ITL/NOPB	LMC6035ITL NOPB
LMC8101TPX/NOPB	LMC8101TPX/NOPB
LMH2121TME/NOPB	null
LMH2191TME/NOPB	LMH2191TME NOPB
LMR70503TM/NOPB	null
LP3918TL-A/NOPB	null
LP5524TM-5/NOPB	LP5524TM-5 NOPB
LMC6035ITLX/NOPB	null

LP5524TMX-5/NOPB	null
LM94023BITME/NOPB	LM94023BITME NOPB
LMH2190TM-38/NOPB	null
LP5952TL-1.0/NOPB	null
LP5952TL-1.2/NOPB	LP5952TL-1.2 NOPB
LP5952TL-1.3/NOPB	null
LP5952TL-1.8/NOPB	LP5952TL-1.8 NOPB
LM3532TME-40A/NOPB	LM3532TME-40A/NOPB
LP3907TL-JJ11/NOPB	LP3907TL-JJ11 NOPB
LP3983ITL-2.5/NOPB	null
LP3985ITL-2.6/NOPB	null
LP3985ITL-2.8/NOPB	null
LP3985ITL-285/NOPB	null
LP3985ITL-3.0/NOPB	LP3985ITL-3.0/NOPB
LP3985ITL-3.1/NOPB	LP3985ITL-3.1 NOPB
LP3985ITL-3.3/NOPB	LP3985ITL-3.3 NOPB
LP3985ITL-4.8/NOPB	null
LP3985ITL-5.0/NOPB	LP3985ITL-5.0 NOPB
LP3987ITL-2.6/NOPB	null
LP3987ITL-2.8/NOPB	null
LP3987ITL-3.0/NOPB	null
LP3907TL-PLNTO/NOPB	null
LP3985ITLX-2.5/NOPB	null
LP3985ITLX-285/NOPB	null
LP3987ITL-2.85/NOPB	null
LP3987ITLX-2.5/NOPB	null
LM4941TM/NOPB	LM4941TM NOPB
LM4675TL/NOPB	LM4675TL/NOPB
LM48560TL/NOPB	LM48560TL/NOPB
LM4954TL/NOPB	LM4954TL/NOPB
LM94023BITME/NOPB	LM94023BITME/NOPB
LMC555CTP/NOPB	LMC555CTP/NOPB
LMC8101TP/NOPB	LMC8101TP/NOPB
LMH2110TM/NOPB	LMH2110TM/NOPB
LMV226TL/NOPB	LMV226TL/NOPB
LMV7272TL/NOPB	LMV7272TL/NOPB
LMV981TL/NOPB	LMV981TL/NOPB
LMV981TLX/NOPB	LMV981TLX/NOPB
LP3985ITL-5.0/NOPB	LP3985ITL-5.0/NOPB
LP3999ITL-1.8/NOPB	LP3999ITL-1.8/NOPB
LP5952TL-1.2/NOPB	LP5952TL-1.2/NOPB

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

PCN Number:	20130926001			PCN Date:	02/12/2014
Title:	BCB Elimination for 0.4 & 0.5mm Pitch WCSP Bump <=25 Bump Count				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
Proposed 1st Ship Date:	05/12/2014	Estimated Sample Availability:			Date Provided at Sample Request
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			
☐	☐ Part number change				
PCN Details					
Description of Change:					
Texas Instruments Incorporated is announcing the qualification of BCB (benzocyclobutene) layer elimination on 0.4 and 0.5 mm pitch Thin Micro SMD for 25 bumps. Only non-trim devices are applicable. The affected devices are listed in the "Product Affected" section.					
Reason for Change:					
Continuity of Supply.					
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					
None.					
Changes to product identification resulting from this PCN:					
None.					
Product Affected:					
ARC9TLVOTL/NOPB	LM3655TLX	LM94023BITME/NOPB	LP3985ITLX-2.7/NOPB		
BP18TM/NOPB	LM3686TLE-AADW/NO	LM94023BITMX/NOPB	LP3985ITLX-2.8/E7001676		
BP18TMX/NOPB	LM3686TLE-AADW/NOPB	LMC555CTP/NOPB	LP3985ITLX-2.8/NO		
BP6TME/NOPB	LM3686TLE-AAED/NO	LMC555CTPX/NOPB	LP3985ITLX-2.8/NOPB		
BP6TMX/NOPB	LM3686TLE-AAED/NOPB	LMC6035ITL/NOPB	LP3985ITLX-2.8/S1		
BP8TLE/NOPB	LM3686TLE-AAEF/NO	LMC6035ITLX	LP3985ITLX-2.9/NO		
BP9TME/NOPB	LM3686TLE-AAEF/NOPB	LMC6035ITLX/NOPB	LP3985ITLX-2.9/NOPB		
BP9TMX/NOPB	LM3686TLX-AADW/NO	LMC8101TP/NOPB	LP3985ITLX-285/NO		
EU13LMH2110TM/NOPB	LM3686TLX-AADW/NOPB	LMC8101TPX/NOPB	LP3985ITLX-285/NOPB		
LM10502TLE/NOPB	LM3686TLX-AAED/NO	LMH2100TM/NOPB	LP3985ITLX-3.0/NO		
LM10502TLX/NOPB	LM3686TLX-AAED/NOPB	LMH2100TMX/NOPB	LP3985ITLX-3.0/NOPB		
LM20LVTME/NOPB	LM3686TLX-AAEF/NO	LMH2110TM/NOPB	LP3985ITLX-3.1/NO		
LM20LVTMX/NOPB	LM3686TLX-AAEF/NOPB	LMH2110TMX/NOPB	LP3985ITLX-3.1/NOPB		
LM20SITL/NOPB	LM3695YFQR	LMH2110TMX/S1	LP3985ITLX-3.2/NO		
LM20SITLX/NOPB	LM393TL	LMH2110TMX/S7002718	LP3985ITLX-3.2/NOPB		
LM2755TM/NOPB	LM393TL/NOPB	LMH2121TME/NOPB	LP3985ITLX-3.3/NO		
LM2755TMX/NOPB	LM393TLX	LMH2121TMX/NOPB	LP3985ITLX-3.3/NOPB		
LM2903ITL/NOPB	LM393TLX/NOPB	LMH2180TM/NOPB	LP3985ITLX-4.75/NO		
LM2903ITLX	LM4665ITL/NOPB	LMH2180TMX/NOPB	LP3985ITLX-4.75/NOPB		
LM2903ITLX/NOPB	LM4667ITL	LMH2190TM-38/NOPB	LP3985ITLX-4.8/NO		
LM2904ITP/NOPB	LM4667ITL/NOPB	LMH2190TMX-38/NOPB	LP3985ITLX-4.8/NOPB		

LM2904ITPX/NOPB	LM4670ITL/NOPB	LMH2191TME/NOPB	LP3985ITLX-5.0/NO
LM317LITP/NOPB	LM4670ITLX/NOPB	LMH2191TMX/NOPB	LP3985ITLX-5.0/NOPB
LM317LITPX/NOPB	LM4671ITL/NOPB	LMR70503TM/NOPB	LP3987ITL-2.5/NOPB
LM3291TME/NOPB	LM4671ITLX/NOPB	LMR70503TMX/NOPB	LP3987ITL-2.6/NOPB
LM3291TMX/NOPB	LM4673TM/NOPB	LMS4684ITL	LP3987ITL-2.8/NOPB
LM34904ITM/NOPB	LM4673TMX/NOPB	LMS4684ITL/NOPB	LP3987ITL-2.85/NO
LM34904ITMX/NOPB	LM4674ATL/NOPB	LMS4684ITLX	LP3987ITL-2.85/NOPB
LM34908TM-3.5/NOPB	LM4674ATLX/NOPB	LMS4684ITLX/NOPB	LP3987ITL-3.0/NOPB
LM34908TM-5.7/NOPB	LM4674TLX/NOPB	LMV1090TL/NOPB	LP3987ITLX-2.5/NO
LM34908TM-ADJ/NOPB	LM4675TL/NOPB	LMV1090TLX/NOPB	LP3987ITLX-2.5/NOPB
LM34908TM-ADJA/NO	LM4675TLX/NOPB	LMV225TL/NOPB	LP3987ITLX-2.6/NO
LM34908TM-ADJA/NOPB	LM48311TL/NOPB	LMV225TLX/NOPB	LP3987ITLX-2.6/NOPB
LM34908TM-ADJA2/NO	LM48311TLX/NOPB	LMV226TL/NOPB	LP3987ITLX-2.8/NO
LM34908TM-ADJA2/NOPB	LM48312TLE/NOPB	LMV226TLX/NOPB	LP3987ITLX-2.8/NOPB
LM34908TM-ADJB/NO	LM48312TLX/NOPB	LMV228TL/NOPB	LP3987ITLX-2.85/E7001675
LM34908TM-ADJB/NOPB	LM48340TM/NOPB	LMV228TLX/NOPB	LP3987ITLX-2.85/NO
LM34908TMX-3.5/NO	LM48411TL/NOPB	LMV232TL/NOPB	LP3987ITLX-2.85/NOPB
LM34908TMX-3.5/NOPB	LM48411TL/S7002599	LMV232TLX/NOPB	LP3987ITLX-2.85/S1
LM34908TMX-5.7/NO	LM48411TLX/NOPB	LMV7272TL/J7002014	LP3987ITLX-3.0/NO
LM34908TMX-5.7/NOPB	LM48411TLX/S1	LMV7272TL/NOPB	LP3987ITLX-3.0/NOPB
LM34908TMX-ADJ/NO	LM48411TLX/S7002606	LMV7272TLX/J7002015	LP3999ITL-1.8/NOPB
LM34908TMX-ADJ/NOPB	LM48413TL/NOPB	LMV7272TLX/NOPB	LP3999ITLX-1.8/E7000583
LM34908TMX-ADJA/NO	LM48413TLX/NOPB	LMV7272TLX/S1	LP3999ITLX-1.8/NO
LM34908TMX-ADJA/NOPB	LM48512TL/NOPB	LMV981TL/NOPB	LP3999ITLX-1.8/NOPB
LM34908TMX-ADJB/NO	LM48512TLX/NOPB	LMV981TLX/J7002010	LP3999ITLX-1.8/S1
LM34908TMX-ADJB/NOPB	LM48513TL/NOPB	LMV981TLX/NOPB	LP5522TM/NOPB
LM34908UM-3.5/NOPB	LM48513TLX/NOPB	LP3907TL-JJ11/NOPB	LP5522TMX/NOPB
LM34908UMX-3.5/NO	LM48555TL/NOPB	LP3907TL-JJCP/NOPB	LP5524TM-5/NOPB
LM34908UMX-3.5/NOPB	LM48555TLX/NOPB	LP3907TL-JSXS/NOPB	LP5524TMX-5/NOPB
LM34940TM-ADJ/NOPB	LM48556TL/NOPB	LP3907TL-PLNTO/NO	LP5562TME/NOPB
LM34940TMX-ADJ/NO	LM48556TLX/NOPB	LP3907TL-PLNTO/NOPB	LP5562TMX/NOPB
LM34940TMX-ADJ/NOPB	LM48557TL/NOPB	LP3907TL-SMP1/NOPB	LP5952TL-0.7/NOPB
LM3532TME-40/NOPB	LM48557TLX/NOPB	LP3907TLX-0B/NOPB	LP5952TL-1.0/NOPB
LM3532TME-40A/NOPB	LM48557TLX/S1	LP3907TLX-JJ11/NO	LP5952TL-1.2/NOPB
LM3532TMX-40/NOPB	LM48557TLX/S7002424	LP3907TLX-JJ11/NOPB	LP5952TL-1.3/NOPB
LM3532TMX-40A/NOPB	LM48560TL/NOPB	LP3907TLX-JJCP/NO	LP5952TL-1.4/NOPB
LM3532TMX-40A/S1	LM48560TLX/NOPB	LP3907TLX-JJCP/NOPB	LP5952TL-1.5/NOPB
LM3532TMX-40A/S7003106	LM48580TL/NOPB	LP3907TLX-JSXS/NO	LP5952TL-1.6/NOPB
LM3533TME-40/NOPB	LM48580TLX/NOPB	LP3907TLX-JSXS/NOPB	LP5952TL-1.8/NOPB
LM3533TMX-40/NOPB	LM4879ITL/NOPB	LP3907TLX-PLNTO/NO	LP5952TL-2.0/NOPB
LM3534TME-A1/NOPB	LM48821TL/NOPB	LP3907TLX-PLNTO/NOPB	LP5952TLX-0.7/NOPB
LM3534TME/NOPB	LM48821TLX/NOPB	LP3918TL-A/NOPB	LP5952TLX-1.0/NOPB
LM3534TMX/NOPB	LM48822TL/NOPB	LP3918TL-L/NOPB	LP5952TLX-1.2/NOPB

LM3555TLE/NOPB	LM48822TLX/NOPB	LP3918TL/NOPB	LP5952TLX-1.3/NOPB
LM3555TLX/NOPB	LM48823TL/NOPB	LP3918TLX-A/NOPB	LP5952TLX-1.4/NOPB
LM3556TME/NOPB	LM48823TLX/NOPB	LP3918TLX-L/NOPB	LP5952TLX-1.5/NOPB
LM3556TMX/NOPB	LM48824TM/NOPB	LP3918TLX/NOPB	LP5952TLX-1.6/NOPB
LM3559TLE/NOPB	LM48824TMX/NOPB	LP3928TLX-1828/NO	LP5952TLX-1.8/NOPB
LM3559TLE/S7002732	LM48860TL/NOPB	LP3928TLX-1828/NOPB	LP5952TLX-2.0/NOPB
LM3559TLX/NOPB	LM48860TLX/NOPB	LP3983ITL-2.5/NOPB	LP8557AYFQR
LM3559TLX/S7002731	LM48861TM/NOPB	LP3983ITLX-1.6/NO	LP8557AYFQT
LM3560TLE-20/NOPB	LM48861TMX/NOPB	LP3983ITLX-1.6/NOPB	LP8557E00AYFQR
LM3560TLE/NOPB	LM48861TMX/S1	LP3985ITL-2.5/NOPB	LP8557E00AYFQT
LM3560TLX-20/NOPB	LM48861TMX/S7002583	LP3985ITL-2.6/NOPB	LP8711TLE/NOPB
LM3560TLX/NOPB	LM49120TL/NOPB	LP3985ITL-2.7/NOPB	LP8711TLX/NOPB
LM3561TME/NOPB	LM49120TLX/NOPB	LP3985ITL-2.8/NOPB	LP8720TLE-B/NOPB
LM3561TMX/NOPB	LM4921ITL/NOPB	LP3985ITL-2.9/NOPB	LP8720TLE-SMP1/NO
LM3563A3TME/NOPB	LM4921ITLX/NOPB	LP3985ITL-285/NOPB	LP8720TLE-SMP1/NOPB
LM3563TME/NOPB	LM4941TM/NOPB	LP3985ITL-3.0/NOPB	LP8720TLE/NOPB
LM3565TLE/NOPB	LM4941TMX/NOPB	LP3985ITL-3.1/NOPB	LP8720TLX-B/NOPB
LM3565TLX/NOPB	LM4954TL/NOPB	LP3985ITL-3.2/NOPB	LP8720TLX/NOPB
LM358TP/NOPB	LM4990ITL/NOPB	LP3985ITL-3.3/NOPB	LP8727TME-B/NOPB
LM358TPX/NOPB	LM4990ITLX/NOPB	LP3985ITL-4.75/NO	LP8727TME-SMP1/NO
LM3630ATME	LM78L05ITP/NOPB	LP3985ITL-4.75/NOPB	LP8727TME-SMP1/NOPB
LM3630ATMX	LM78L05ITPX/NOPB	LP3985ITL-4.8/NOPB	LP8727TME/NOPB
LM3630TME/NOPB	LM78L09ITPX/NOPB	LP3985ITL-5.0/NOPB	LP8727TMX-B/NOPB
LM3630TMX/NOPB	LM79L05ACTL/NOPB	LP3985ITLX-2.5/NO	LP8727TMX/NOPB
LM3642TLE-LT/NOPB	LM79L05ACTLX	LP3985ITLX-2.5/NOPB	NE139LMH2191TM/NO
LM3642TLE/NOPB	LM79L05ACTLX/NOPB	LP3985ITLX-2.6/NO	NE139LMH2191TM/NOPB
LM3642TLX-LT/NOPB	LM8335TLE/NOPB	LP3985ITLX-2.6/NOPB	PLM3534TMXA1/J
LM3642TLX/NOPB	LM8335TLX/NOPB	LP3985ITLX-2.7/NO	

Qualification Data: Approved 1/23/2014

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: LP3907TLX-PLNTO/NOPB(CL)**Package Construction Details**

Assembly & Bump Site:	TIEM – MALACCA / TIEM-BP	Bump Composition:	SnAgCu
# Pins-Designator, Family:	25-WCSP, WCSP	Bump Diameter:	300um

Qualification: ☐ Plan ☒ Test Results

Reliability Test	Conditions	Sample Size / Fail		
		Lot#1	Lot#2	Lot#3
**Biased HAST	130C/85%RH (96 Hours)	77/0	--	--
**Life Test	150C (500 Hours)	77/0	--	--
Temperature Cycle	-40/125C (500 Cycles)	77/0	--	--

Notes: **Preconditioning: MSL 1@260C peak +5/0C

Qual Vehicle 2: LP3907TLXPK4J3(TL)**Package Construction Details**

Assembly & Bump Site:	TIEM – MALACCA / TIEM-BP	Bump Composition:	SnAgCu
# Pins-Designator, Family:	25-WCSP, WCSP	Bump Diameter:	300um

Qualification: ☐ Plan ☒ Test Results

Reliability Test	Conditions	Sample Size / Fail		
		Lot#1	Lot#2	Lot#3
**Biased HAST	130C/85%RH (96 Hours)	77/0	77/0	77/0
**Life Test	150C (500 Hours)	77/0	--	--
Temperature Cycle	-40/125C (500 Cycles)	77/0	77/0	77/0

Notes: **Preconditioning: MSL 1@260C peak +5/0C

Qualification Data: Approved 12/20/2013

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: LP8727TMXBNOPB(CL)**Package Construction Details**

Assembly & Bump Site:	TIEM – MALACCA / TIEM-BP	Bump Composition:	SnAgCu
# Pins-Designator, Family:	25-WCSP, WCSP	Bump Diameter:	250um

Qualification: ☐ Plan ☒ Test Results				
Reliability Test	Conditions	Sample Size /Fail		
		Lot#1	Lot#2	Lot#3
**Biased HAST	130C/85%RH (96 Hours)	77/0	--	--
**Life Test	125C (500 Hours)	77/0	--	--
Temperature Cycle	-40/125C (500 Cycles)	77/0	--	--
Notes: **Preconditioning: MSL 1@260C peak +5/0C				
Qual Vehicle 2: LP8727TMXBNOPB(TL)				
Package Construction Details				
Assembly & Bump Site:	TIEM – MALACCA / TIEM-BP	Bump Composition:	SnAgCu	
# Pins-Designator, Family:	25-WCSP, WCSP	Bump Diameter:	250um	
Qualification: ☐ Plan ☒ Test Results				
Reliability Test	Conditions	Sample Size /Fail		
		Lot#1	Lot#2	Lot#3
**Biased HAST	130C/85%RH (96 Hours)	77/0	77/0	77/0
**Life Test	125C (500 Hours)	77/0	--	--
Temperature Cycle	-40/125C (500 Cycles)	77/0	77/0	77/0
Notes: **Preconditioning: MSL 1@260C peak +5/0C				

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or to 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