



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20160923001
Add Cu as Alternative Wire Base Metal for Selected Device(s)
Change Notification / Sample Request

Date: 10/5/2016
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 proposed first ship date is indicated on page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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

20160923001
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
LM1117MPX-ADJ/NOPB	null
LM26480SQ-AA/NOPB	null
LM2694SD/NOPB	null
LM317AEMP/NOPB	null
LM3940IMP-3.3/NOPB	null
LM5112SD/NOPB	null
LMS8117AMP-3.3/NOPB	null
LP38690SD-ADJ/NOPB	null
LM1117IMPX-3.3/NOPB	null
LM1117MPX-5.0/NOPB	null
LM2937IMPX-5.0/NOPB	null
LM317EMP/NOPB	null
LM317EMPX/NOPB	null
LM48511SQ/NOPB	null
LM1117MPX-3.3/NOPB	null
LM20BIM7/NOPB	null
LM2700LD-ADJ/NOPB	null
LM317AEMPX/NOPB	null
LM337IMP/NOPB	null
LP38502ASD-ADJ/NOPB	null
LP38693SD-5.0/NOPB	null
LP38693SD-ADJ/NOPB	null
LP55231SQE/NOPB	null
DS90LV001TLD/NOPB	null
LM1117IMP-5.0/NOPB	null
LM1117MP-3.3/NOPB	null
LM2937IMP-12/NOPB	null
LM2937IMP-2.5/NOPB	null
LM2937IMPX-15/NOPB	null
LP38691SD-ADJ/NOPB	null
LM2937IMP-3.3/NOPB	null
LM20BIM7X/NOPB	null
LM27952SDX/NOPB	null
LP3981ILD-3.3/NOPB	null
LM1117IMPX-5.0/NOPB	null
LMS8117AMP-ADJ/NOPB	null
LM25007SD/NOPB	null
LM1117MP-ADJ/NOPB	null
LM1117MPX-1.8/NOPB	null
LM1117MP-2.5/NOPB	null
LM34910CSD/NOPB	null
LM20CIM7X/NOPB	null
LM20CIM7/NOPB	null

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

PCN Number:	20160923001		PCN Date:	Oct. 5, 2016																
Title:	Add Cu as Alternative Wire Base Metal for Selected Device(s)																			
Customer Contact:	PCN Manager	Dept:	Quality Services																	
Proposed 1st Ship Date:	Jan. 5, 2017		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 Cu as an additional bond wire option for selected devices listed in "Product affected" section below. Devices will remain in current assembly facilities and there will be no other piece part changes: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Pkg Family</th> <th>Current Wire</th> <th>Additional Wire</th> </tr> </thead> <tbody> <tr> <td>SOT</td> <td>Au 1.5 mils</td> <td>Cu, 1.5 mils</td> </tr> <tr> <td>QFN</td> <td>Au, 1.3 mils</td> <td>Cu, 1.3 mils</td> </tr> <tr> <td>SON</td> <td>Au, 1.3 mils</td> <td>Cu, 1.3 mils</td> </tr> <tr> <td>SOT_a</td> <td>Au, 0.9 mils</td> <td>Cu, 0.96 mils</td> </tr> </tbody> </table>						Pkg Family	Current Wire	Additional Wire	SOT	Au 1.5 mils	Cu, 1.5 mils	QFN	Au, 1.3 mils	Cu, 1.3 mils	SON	Au, 1.3 mils	Cu, 1.3 mils	SOT_a	Au, 0.9 mils	Cu, 0.96 mils
Pkg Family	Current Wire	Additional Wire																		
SOT	Au 1.5 mils	Cu, 1.5 mils																		
QFN	Au, 1.3 mils	Cu, 1.3 mils																		
SON	Au, 1.3 mils	Cu, 1.3 mils																		
SOT_a	Au, 0.9 mils	Cu, 0.96 mils																		
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 Form, Fit, Function, Quality or Reliability (positive / negative):																				
None																				
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 .																	
Changes to product identification resulting from this PCN:																				
None																				

Product Affected:				
Device	Package Family	Device	Package Family	
DS90CP04TLQ	WQFN	LM5008SDCX/NOPB	WSN	
DS90CP04TLQ/NOPB	WQFN	LM5008SDX/NOPB	WSN	
DS90LV001TLD	WSN	LM5009ASD/NOPB	WSN	
DS90LV001TLD/NOPB	WSN	LM5009ASDX/NOPB	WSN	
DS90LV001TLDX/NOPB	WSN	LM5009SDC/NOPB	WSN	
DS92LV040ATLQA	WQFN	LM5009SDCX/NOPB	WSN	
DS92LV040ATLQA/NOPB	WQFN	LM5010ASD	WSN	
DS92LV040ATLQAX/NOPB	WQFN	LM5010ASD/NOPB	WSN	
EMB1437MP/NOPB	SOT	LM5010ASDX/NOPB	WSN	
EMB1437MPE/NOPB	SOT	LM5010SD/NOPB	WSN	
LM1117IMP-3.3	SOT	LM5010SDX/NOPB	WSN	
LM1117IMP-3.3/NOPB	SOT	LM5020SD-1/NOPB	WSN	
LM1117IMP-5.0/NOPB	SOT	LM5020SD-2/NOPB	WSN	
LM1117IMP-ADJ/NOPB	SOT	LM5020SDX-1/NOPB	WSN	
LM1117IMPX-3.3/NOPB	SOT	LM5020SDX-2/NOPB	WSN	
LM1117IMPX-5.0/NOPB	SOT	LM5030SD/NOPB	WSN	
LM1117IMPX-ADJ/NOPB	SOT	LM5031SD/NOPB	WSN	
LM1117MP-1.8/NOPB	SOT	LM5033SD/NOPB	WSN	
LM1117MP-2.5/NOPB	SOT	LM5033SDX/NOPB	WSN	
LM1117MP-3.3/NOPB	SOT	LM5070SD-50/NOPB	WSN	
LM1117MP-5.0/NOPB	SOT	LM5106SD/NOPB	WSN	
LM1117MP-ADJ/NOPB	SOT	LM5106SDX/NOPB	WSN	
LM1117MPX-1.8/NOPB	SOT	LM5110-1SD	WSN	
LM1117MPX-2.5/NOPB	SOT	LM5110-1SD/NOPB	WSN	
LM1117MPX-3.3	SOT	LM5110-1SDX/NOPB	WSN	
LM1117MPX-3.3/NOPB	SOT	LM5110-2SD/NOPB	WSN	
LM1117MPX-5.0	SOT	LM5110-3SD	WSN	
LM1117MPX-5.0/NOPB	SOT	LM5110-3SD/NOPB	WSN	
LM1117MPX-ADJ/NOPB	SOT	LM5110-3SDX/NOPB	WSN	
LM20BIM7	SOT_a	LM5112SD	WSN	
LM20BIM7/NOPB	SOT_a	LM5112SD/NOPB	WSN	
LM20BIM7X	SOT_a	LM5112SDX	WSN	
LM20BIM7X/E7001066	SOT_a	LM5112SDX/NOPB	WSN	
LM20BIM7X/HALF	SOT_a	LMS4684LD/NOPB	WSN	
LM20BIM7X/NOPB	SOT_a	LMS8117AMP-1.8	SOT	
LM20BIM7X/S5000709	SOT_a	LMS8117AMP-1.8/NOPB	SOT	
LM20BIM7X/S7002189	SOT_a	LMS8117AMP-3.3/NOPB	SOT	
LM20CIM7	SOT_a	LMS8117AMP-ADJ/NOPB	SOT	
LM20CIM7/NOPB	SOT_a	LMS8117AMPX-1.8/NOPB	SOT	
LM20CIM7X	SOT_a	LP38500ASD-ADJ/NOPB	WSN	
LM20CIM7X/NOPB	SOT_a	LP38500ASDX-ADJ/NOPB	WSN	

LM25007SD/NOPB	WSN	LP38500SD-ADJ/NOPB	WSN
LM25007SDX/NOPB	WSN	LP38500SDE-ADJ/NOPB	WSN
LM25010SD/NOPB	WSN	LP38500SDX-ADJ/NOPB	WSN
LM25010SDX/NOPB	WSN	LP38502ASD-ADJ/NOPB	WSN
LM2623ALD/NOPB	WSN	LP38502ASDX-ADJ/NOPB	WSN
LM2623LD/NOPB	WSN	LP38502SD-ADJ/NOPB	WSN
LM2623LDX/NOPB	WSN	LP38502SDE-ADJ/NOPB	WSN
LM26480SQ-AA/NOPB	WQFN	LP38502SDX-ADJ/NOPB	WSN
LM26480SQX-AA/NOPB	WQFN	LP38690SD-1.8	WSN
LM2687LDX/NOPB	WSN	LP38690SD-1.8/NOPB	WSN
LM2694SD/NOPB	WSN	LP38690SD-2.5/NOPB	WSN
LM2695SDX/NOPB	WSN	LP38690SD-3.3/NOPB	WSN
LM2700LD-ADJ/NOPB	WSN	LP38690SD-5.0/NOPB	WSN
LM2700LDX-ADJ/NOPB	WSN	LP38690SD-ADJ	WSN
LM27213SQ/NOPB	WQFN	LP38690SD-ADJ/NOPB	WSN
LM27213SQX/NOPB	WQFN	LP38690SDX-2.5/NOPB	WSN
LM27222SD/NOPB	WSN	LP38690SDX-3.3/NOPB	WSN
LM2751SD-B/NOPB	WSN	LP38690SDX-5.0/NOPB	WSN
LM2753SD/NOPB	WSN	LP38690SDX-ADJ/NOPB	WSN
LM2753SDX/NOPB	WSN	LP38691SD-1.8	WSN
LM2754SQ/NOPB	WQFN	LP38691SD-1.8/NOPB	WSN
LM2759SD/NOPB	WSN	LP38691SD-2.5/NOPB	WSN
LM2759SDX/NOPB	WSN	LP38691SD-3.3/NOPB	WSN
LM2770SD-1215/NOPB	WSN	LP38691SD-5.0/NOPB	WSN
LM2771SD/NOPB	WSN	LP38691SD-ADJ	WSN
LM2771SDX/NOPB	WSN	LP38691SD-ADJ/NOPB	WSN
LM2772SD/NOPB	WSN	LP38691SDX-1.8/NOPB	WSN
LM2772SDX/NOPB	WSN	LP38691SDX-2.5/NOPB	WSN
LM27951SD	WSN	LP38691SDX-3.3/NOPB	WSN
LM27951SD/NOPB	WSN	LP38691SDX-5.0/NOPB	WSN
LM27951SDX/NOPB	WSN	LP38691SDX-ADJ/NOPB	WSN
LM27952SD/NOPB	WSN	LP38692SD-1.8/NOPB	WSN
LM27952SDX/NOPB	WSN	LP38692SD-2.5/NOPB	WSN
LM27964SQ-A/NOPB	WQFN	LP38692SD-3.3/NOPB	WSN
LM27964SQ-C/NOPB	WQFN	LP38692SD-5.0/NOPB	WSN
LM27965SQ/NOPB	WQFN	LP38692SD-ADJ/NOPB	WSN
LM27965SQ-M/NOPB	WQFN	LP38692SDX-3.3/NOPB	WSN
LM27965SQX/NOPB	WQFN	LP38692SDX-5.0/NOPB	WSN
LM27966SQ/NOPB	WQFN	LP38692SDX-ADJ/NOPB	WSN
LM27966SQX/NOPB	WQFN	LP38693SD-1.8	WSN
LM2937-80DCYR	SOT	LP38693SD-1.8/NOPB	WSN
LM2937IMP-10	SOT	LP38693SD-2.5/NOPB	WSN
LM2937IMP-10/NOPB	SOT	LP38693SD-3.3	WSN
LM2937IMP-12	SOT	LP38693SD-3.3/NOPB	WSN

LM2937IMP-12/NOPB	SOT	LP38693SD-5.0	WSON
LM2937IMP-2.5/NOPB	SOT	LP38693SD-5.0/NOPB	WSON
LM2937IMP-3.3	SOT	LP38693SD-ADJ/NOPB	WSON
LM2937IMP-3.3/NOPB	SOT	LP38693SDX-3.3/NOPB	WSON
LM2937IMP-5.0	SOT	LP38693SDX-5.0/NOPB	WSON
LM2937IMP-5.0/NOPB	SOT	LP38693SDX-ADJ/NOPB	WSON
LM2937IMP-8.0/NOPB	SOT	LP3905SD-A3/NOPB	WSON
LM2937IMPX-10/NOPB	SOT	LP3906SQ-DJXI/NOPB	WQFN
LM2937IMPX-12/NOPB	SOT	LP3906SQ-FXPI/NOPB	WQFN
LM2937IMPX-15/NOPB	SOT	LP3906SQ-JXXI/NOPB	WQFN
LM2937IMPX-2.5/NOPB	SOT	LP3906SQ-PPXP/NOPB	WQFN
LM2937IMPX-3.3	SOT	LP3906SQ-VPFP/NOPB	WQFN
LM2937IMPX-3.3/NOPB	SOT	LP3907SQ-BJX6X/NOPB	WQFN
LM2937IMPX-5.0/NOPB	SOT	LP3907SQ-BJXQX/NOPB	WQFN
LM2937IMPX-8.0	SOT	LP3907SQ-DHXIT	WQFN
LM2937IMPX-8.0/NOPB	SOT	LP3907SQ-JXQX/NOPB	WQFN
LM2940IMP-10/NOPB	SOT	LP3907SQ-PFX6W/NOPB	WQFN
LM2940IMP-12	SOT	LP3907SQ-PJXIX/NOPB	WQFN
LM2940IMP-12/NOPB	SOT	LP3907SQ-TJXIP/NOPB	WQFN
LM2940IMP-15	SOT	LP3907SQ-VRZX/NOPB	WQFN
LM2940IMP-15/NOPB	SOT	LP3907SQX-VRZX/NOPB	WQFN
LM2940IMP-5.0	SOT	LP3921SQ/NOPB	WQFN
LM2940IMP-5.0/NOPB	SOT	LP3921SQE/NOPB	WQFN
LM2940IMP-9.0/NOPB	SOT	LP3921SQX/NOPB	WQFN
LM2940IMPX-10/NOPB	SOT	LP3947ISD-09/NOPB	WSON
LM2940IMPX-12/NOPB	SOT	LP3947ISD-51/NOPB	WSON
LM2940IMPX-5.0/NOPB	SOT	LP3981ILD-2.5/NOPB	WSON
LM2940IMPX-8.0/NOPB	SOT	LP3981ILD-3.0/NOPB	WSON
LM317AEMP	SOT	LP3981ILD-3.3/NOPB	WSON
LM317AEMP/NOPB	SOT	LP3981ILDX-2.5/NOPB	WSON
LM317AEMPX	SOT	LP3981ILDX-2.7/NOPB	WSON
LM317AEMPX/NOPB	SOT	LP3981ILDX-2.8/NOPB	WSON
LM317EMP	SOT	LP3981ILDX-2.83/NOPB	WSON
LM317EMP/NOPB	SOT	LP3981ILDX-3.03/NOPB	WSON
LM317EMPX/NOPB	SOT	LP3982ILD-1.8/NOPB	WSON
LM3205SD-2/NOPB	WSON	LP3982ILD-2.5/NOPB	WSON
LM3310SQ/NOPB	WQFN	LP3982ILD-3.0/NOPB	WSON
LM3370SD-3013/NOPB	WSON	LP3982ILD-3.3/NOPB	WSON
LM3370SD-3021/NOPB	WSON	LP3982ILD-ADJ/NOPB	WSON
LM3370SD-3416/NOPB	WSON	LP3982ILDX-1.8/NOPB	WSON
LM3370SD-4221/NOPB	WSON	LP3982ILDX-3.3/NOPB	WSON
LM3370SDX-3013/NOPB	WSON	LP3982ILDX-ADJ/NOPB	WSON
LM3370SDX-3021/NOPB	WSON	LP3990SD-1.2/NOPB	WSON
LM3370SDX-4221/NOPB	WSON	LP3990SD-1.5/NOPB	WSON

LM337IMP	SOT	LP3990SD-1.8/NOPB	WSON
LM337IMP/NOPB	SOT	LP3995ILD-1.5/NOPB	WSON
LM337IMPX	SOT	LP3995ILD-1.8/NOPB	WSON
LM337IMPX/NOPB	SOT	LP3995ILD-2.8/NOPB	WSON
LM340MP-5.0	SOT	LP3995ILD-3.0/NOPB	WSON
LM340MP-5.0/NOPB	SOT	LP3995ILDX-2.8/NOPB	WSON
LM340MPX-5.0/NOPB	SOT	LP3996SD-0833/NOPB	WSON
LM3433SQ/NOPB	WQFN	LP3996SD-1018/NOPB	WSON
LM3433SQX/NOPB	WQFN	LP3996SD-1525/NOPB	WSON
LM3434SQ/NOPB	WQFN	LP3996SD-1833/NOPB	WSON
LM3434SQX/NOPB	WQFN	LP3996SD-2533/NOPB	WSON
LM34910CSD/NOPB	WSON	LP3996SD-3030/NOPB	WSON
LM34910CSDE/NOPB	WSON	LP3996SD-3033/NOPB	WSON
LM34910CSDX/NOPB	WSON	LP3996SD-3333/NOPB	WSON
LM34910SD/NOPB	WSON	LP3996SDX-2533/NOPB	WSON
LM34910SDX/NOPB	WSON	LP5521YQ/NOPB	WQFN
LM34914SD/NOPB	WSON	LP5521YQX/NOPB	WQFN
LM3509SD/NOPB	WSON	LP55231SQE/NOPB	WQFN
LM3509SDE/NOPB	WSON	LP55231SQX/NOPB	WQFN
LM3509SDX/NOPB	WSON	LP5996SD-1018/NOPB	WSON
LM3529SQ/NOPB	WQFN	LP5996SD-1525/NOPB	WSON
LM3529SQE/NOPB	WQFN	LP5996SD-1833/NOPB	WSON
LM3529SQX/NOPB	WQFN	LP5996SD-2533/NOPB	WSON
LM3549SQ/NOPB	WQFN	LP5996SD-2828/NOPB	WSON
LM3549SQE/NOPB	WQFN	LP5996SD-3033/NOPB	WSON
LM3549SQX/NOPB	WQFN	LP5996SD-3333/NOPB	WSON
LM3676SD-1.8/NOPB	WSON	LP8340ILDX-ADJ/NOPB	WSON
LM3676SD-3.3/NOPB	WSON	LP8543SQ/NOPB	WQFN
LM3676SD-ADJ/NOPB	WSON	LP8543SQE/NOPB	WQFN
LM3678SD-1.2/NOPB	WSON	LP8543SQX/NOPB	WQFN
LM3678SDE-1.2/NOPB	WSON	LP8545SQ/NOPB	WQFN
LM3940IMP-3.3	SOT	LP8545SQE/NOPB	WQFN
LM3940IMP-3.3/NOPB	SOT	LP8545SQE-E00/NOPB	WQFN
LM3940IMPX-3.3	SOT	LP8545SQE-EXTF/NOPB	WQFN
LM3940IMPX-3.3/NOPB	SOT	LP8545SQE-EXTG/NOPB	WQFN
LM4510SD/NOPB	WSON	LP8545SQE-EXTJ/NOPB	WQFN
LM4510SDX/NOPB	WSON	LP8545SQ-EXTF/NOPB	WQFN
LM4802BLQ/NOPB	WQFN	LP8545SQ-EXTG/NOPB	WQFN
LM48511SQ/NOPB	WQFN	LP8545SQ-EXTJ/NOPB	WQFN
LM48511SQX/NOPB	WQFN	LP8545SQX/NOPB	WQFN
LM4946SQ/NOPB	WQFN	LP8545SQX-E00/NOPB	WQFN
LM4951ASD/NOPB	WSON	LP8545SQX-EXTF/NOPB	WQFN
LM4951ASDX/NOPB	WSON	LP8545SQX-EXTG/NOPB	WQFN
LM4951SD/NOPB	WSON	LP8545SQX-EXTJ/NOPB	WQFN

LM4951SDX/NOPB	WSN	LP8547SQE-FS/NOPB	WQFN
LM5000SD-3/NOPB	WSN	LP8547SQ-FS/NOPB	WQFN
LM5000SD-6/NOPB	WSN	LP8547SQX-FS/NOPB	WQFN
LM5000SDX-3/NOPB	WSN	LP8548B1SQX05	WQFN
LM5000SDX-6/NOPB	WSN	LP8561B0SQE-F/NOPB	WQFN
LM5007SD	WSN	LP8561B0SQ-F/NOPB	WQFN
LM5007SD/NOPB	WSN	MM9654-SQA8/NOPB	WQFN
LM5007SDX/NOPB	WSN	MM9671-SQ731/NOPB	WQFN
LM5008ASD/NOPB	WSN	SM72485SD/NOPB	WSN
LM5008ASDX/NOPB	WSN	SM72485SDE/NOPB	WSN
LM5008SD	WSN	SM72485SDX/NOPB	WSN
LM5008SD/NOPB	WSN	SN5008ANGU	WSN
LM5008SDC/NOPB	WSN		



TI Information
Selective Disclosure

Qualification Report

**Cu wire as alternative bonding material in SOT223 4DCY (with ground bond) for GFAB SLM / LB300 ,
assembled at TIEM**

Approved 08/18/2016

Product Attributes

Attributes	Qual Device: LM1117IMPX33NO	Qual Device: LM317EMP/NOPB
Assembly Site	TIEM-AT	TIEM-AT
Package Family	SOT223	SOT223
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Site	GK	GK
Wafer Fab Process	LB300	SLM

- QBS: Qual By Similarity
- Qual Device LM1117IMPX33NO is qualified at LEVEL1-260CG
- Qual Device LM317EMP/NOPB is qualified at LEVEL1-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LM1117IMPX33NO	Qual Device: LM317EMP/NOPB
AC	Autoclave 121C	96HRS	2/154/0	1/80/0
TC	Temperature Cycle, -65/150C	500CYC	2/154/0	2/160/0
HTSL	High Temp Storage Bake 150C	1000HRS	2/154/0	2/160/0
HTSL	High Temp Storage Bake 170C	420HRS	2/154/0	2/160/0
WBP	Bond Pull	Post 500 Temp CYC	1/30/0	1/30/0
WBP	Bond Pull	Wires	3/231/0	3/231/0
WBS	Ball Bond Shear	Wires	3/231/0	3/231/0
SD	Pb Free Surface Mount Solderability	Pb Free	1/22/0	1/22/0
SAM	SAM	TMCL 500CYC	1/22/0	1/22/0
SAM	SAM	BEFORE and After PRECOND	2/44/0	2/44/0
VM	Visual Quality Reliability	Post HTSL 420HRS	1/2/0	1/2/0
VM	Visual Quality Reliability	Post TMCL 500CYC	1/2/0	1/2/0
MQ	Manufacturability (Assembly)	(per mfg site specification)	Pass	Pass

- 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 JEDEC47 : -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

Qualification Report

Qualification of 1.3 mils Cu wire for CMOS7, CMOS8 and ABCD150 in QFN at TIEMA
Approved Sept 6, 2016

Product Attributes

Attributes	Qual Device: LM48511SQX/NOPB	Qual Device: LM5000SD3NOPB	Qual Device: LP8561B0SQX-F/NOPB
Assembly Site	TIEMA	TIEM	TIEMA
Package Family	QFN	QFN	QFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Site	MFAB	GFAB	MFAB
Wafer Fab Process	CMOS8	ABCD150	CMOS7

- QBS: Qual By Similarity
- Qual Device LM48511SQX/NOPB is qualified at LEVEL1-260C
- Qual Device LM5000SD3NOPB is qualified at LEVEL1-260C
- Qual Device LP8561B0SQX-F/NOPB is qualified at LEVEL1-260C

Qualification Results

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

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

Type	Test Name / Condition	Duration	Qual Device: LM48511SQX/NOPB	Qual Device: LM5000SD3NOPB	Qual Device: LP8561B0SQX-F/NOPB
AC	Autoclave 121C	96HRS	1/77/0	1/77/0	1/77/0
TC	Temperature Cycle, -65/150C	500CYC	1/77/0	1/77/0	1/77/0
HTSL	High Temp Storage Bake 150C	1000 HRS	1/77/0	1/77/0	1/77/0
WBP	Bond Pull- Post 500 Temp Cycle	wires	1/30/0	1/30/0	1/30/0
BPC	Bond pad cratering	Post 500 Temp CYC	1/5/0	1/5/0	1/5/0
SAM	SAM and TSAM	Post 500 Temp CYC	1/22/0	1/22/0	1/22/0
SAM	SAM and TSAM	Before and after Pre Con	1/22/0	1/22/0	1/22/0
VM	Visual Quality Reliability	Post 500 Temp CYC	1/2/0	1/2/0	1/2/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass

- 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

Qualification Report

Qualification of 0.96 mils Cu wires on SC70 (DCK 5 and 6 Pin) Package at TIEMA

Attributes	Qual Device: LMV7275MG/NOPB	Supporting QBS: LM4041AIM3-1.2 (TL)	Supporting QBS: LM4041AIM3-1.2 (TL)	Supporting QBS: LM3420AM5-8.4 (TL)
Assembly Site	TIEM-MALACCA	TIEM-MALACCA	TIEM-MALACCA	TIEM-MALACCA
Package Family	SC70	SOT23	SOT23	SOT23
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Site	MFAB	GFAB	GFAB	GFAB
Wafer Fab Process	CMOS7	LFAST	LFAST	LFAST

- QBS: Qual By Similarity

- Qual Device LMV7275MG/NOPB is qualified at LEVEL1-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LMV7275MG/NOPB	Supporting QBS: LM4041AIM3-1.2 (TL)	Supporting QBS: LM4041AIM3- 1.2 (TL)
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/120/0	3/119/0
HAST	Biased HAST, 130C/85%RH	192 Hours	-	3/120/0	
AC	Autoclave 121C	96 Hours	-	3/240/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/80/0	-	-
TC	Temperature Cycle, -65/150C	1000 Cycles	-	3/240/0	-
HTSL	High Temp Storage Bake 150C	500 Hours	1/80/0	2/160/0	1/79/0
HTSL	High Temp Storage Bake 150C	1000 Hours		2/160/0	1/79/0
MQ	Manufacturability (Assembly)		1/pass	1/pass	1/pass

- 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.

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