

#### PCN# 20151215003A Die Conversion for Selected LVC LL Devices in the DBV and DCK Packages Change Notification / Sample Request

Date: 1/26/2016 To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

## The purpose of this Rev A PCN is to add an additional device to the product affected section of this notification.

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 (<u>PCN ww admin team@list.ti.com</u>).

Sincerely,

PCN Team SC Business Services

#### 20151215003A 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** 

SN74LVC1G3157DCKR

null

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

backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet. <b>Reason for Change:</b> Continuity of Supply <b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative</b> Reliability & electrical characterization evaluation showed no adverse impacts. <b>Changes to product identification resulting from this PCN:</b> Die Rev designator will change as shown in the table and sample label below:	<b>PCN Number:</b> 20151215003A					PCN	Date:	1/26/2016	
Proposed 1 <sup>st</sup> Ship Date:       4/26/2016       Estimated Sample Availability:       Date provided up sample request         Change Type:	Title:	Die Conv	ersion f	or Selected LV	/C LL Devices in th	ne DI	3V and I	DCK Pac	kages
Proposed 1** Ship Date:       4/26/2016       Availability:       sample request         Change Type:	Customer	Contact:	<u>P</u>	CN Manager			pt:		
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 Bump Process         PCN Details       Description of Change:       PCN Details         The purpose of the Rev A PCN is to add an additional device to the product affected section of this notification.       This change notification is to announce a Die Conversion for select LVC LL Devices. The Die Revision will change from A/D/E to revision G. This is a continuation from PCN 2011090100 backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet.         Reason for Change:       Continuity of Supply         Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:	Proposed 3	1 <sup>st</sup> Ship Da	<b>ite:</b> 4	/26/2016		nple			•
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 <b>PCN Details</b> Description of Change:       Wafer Fab Site       Wafer Fab Materials       Wafer Fab Process <b>Description of Change:</b> The purpose of the Rev A PCN is to add an additional device to the product affected section of this notification.       This change notification is to announce a Die Conversion for select LVC LL Devices. The Die Revision will change from A/D/E to revision G. This is a continuation from PCN 2011090100 backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet. <b>Reason for Change:</b> Continuity of Supply         Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:		-		-		_	-		
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       Wafer Fab Process         Description of Change:       The purpose of the Rev A PCN is to add an additional device to the product affected section of this notification.         This change notification is to announce a Die Conversion for select LVC LL Devices. The Die Revision will change from A/D/E to revision G. This is a continuation from PCN 2011090100 backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet.         Reason for Change:       Continuity of Supply         Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:									
Wafer Bump Site       Wafer Bump Material       Wafer Bump Process         Wafer Fab Site       Wafer Fab Materials       Wafer Fab Process         PCN Details       PCN Details       PCN Details         Description of Change:       The purpose of the Rev A PCN is to add an additional device to the product affected section of this notification.         This change notification is to announce a Die Conversion for select LVC LL Devices. The Die Revision will change from A/D/E to revision G. This is a continuation from PCN 2011090100 backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet.         Reason for Change:       Continuity of Supply         Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:						ļЦ			ecification
Wafer Fab Site       Wafer Fab Materials       Wafer Fab Process         PCN Details       PCN Details         Description of Change:       The purpose of the Rev A PCN is to add an additional device to the product affected section of this notification.         This change notification is to announce a Die Conversion for select LVC LL Devices. The Die Revision will change from A/D/E to revision G. This is a continuation from PCN 2011090100 backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet.         Reason for Change:       Continuity of Supply         Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:						╎└┤			
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<ul> <li>The purpose of the Rev A PCN is to add an additional device to the product affected section of this notification.</li> <li>This change notification is to announce a Die Conversion for select LVC LL Devices. The Die Revision will change from A/D/E to revision G. This is a continuation from PCN 2011090100 backfill the missing devices in the previous PCN. Devices affected by this change are listed i the product affected section of this notification. There will be no change to the data sheet.</li> <li>Reason for Change:</li> <li>Continuity of Supply</li> <li>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative Reliability &amp; electrical characterization evaluation showed no adverse impacts.</li> <li>Changes to product identification resulting from this PCN:</li> <li>Die Rev designator will change as shown in the table and sample label below:</li> </ul>	Descriptio	n of Chang		PC	IN Details				
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Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative         Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:	Revision will change from A/D/E to revision G. This is a continuation from PCN 20110901001 to backfill the missing devices in the previous PCN. Devices affected by this change are listed in the product affected section of this notification. There will be no change to the data sheet.								
Reliability & electrical characterization evaluation showed no adverse impacts.         Changes to product identification resulting from this PCN:         Die Rev designator will change as shown in the table and sample label below:		,				12 - 1-		14 1	(
Changes to product identification resulting from this PCN: Die Rev designator will change as shown in the table and sample label below:		-		•				-	/ negative):
Die Rev designator will change as shown in the table and sample label below:	Reliability &	& electrical o	characte	erization evalu	ation showed no a	adve	rse impa	acts.	
	Changes to	o product i	identif	ication result	ting from this PC	CN:			
	Die Rev designator will change as shown in the table and sample label below: Current New								
Die Rev [2P]         Die Rev [2P]           A/D/E/-         G									
Sample product shipping label to indicate die rev location (not actual product label)									
INSTRUMENTS       G4         MADE IN: Malaysia       G4         20:       (1P) SN74LS07NSR         (Q) 2000       (D) 0336         (31T) LOT: 3959047MLA         (4W) TKY (1T) 7523483S12         OPT:       39         LBL: 5A (L)T0:1750       (L)T0:1750									

Product Affected:			
74LVC1G10DBVRG4	SN74LVC1G11DBVT	SN74LVC1G27DCKR	SN74LVC2G06DCKJ
74LVC1G125DCKRE4	SN74LVC1G11DCKJ	SN74LVC1G27DCKRE4	SN74LVC2G06DCKR
74LVC1G125DCKRG4	SN74LVC1G11DCKR	SN74LVC1G27DCKRG4	SN74LVC2G06DCKRE4
74LVC1G125DCKTE4	SN74LVC1G11DCKRE4	SN74LVC1G3157DBV3	SN74LVC2G06DCKRG4
74LVC1G125DCKTG4	SN74LVC1G11DCKRG4	SN74LVC1G3157DBVR	SN74LVC2G07DBV3
74LVC1G126DBVRE4	SN74LVC1G11DCKR-P	SN74LVC1G3157DBVT	SN74LVC2G07DBVR
74LVC1G126DBVRG4	SN74LVC1G11DCKT	SN74LVC1G3157DCKR	SN74LVC2G07DBVRE4
74LVC1G126DBVTE4	SN74LVC1G125DCK3	SN74LVC1G332DBVR	SN74LVC2G07DBVRG4
74LVC1G126DBVTG4	SN74LVC1G125DCK3T	SN74LVC1G332DCKR	SN74LVC2G07DBVT
74LVC1G126DCKRE4	SN74LVC1G125DCK6	SN74LVC1G332DCKRG4	SN74LVC2G07DCK3
74LVC1G126DCKRG4	SN74LVC1G125DCKJ	SN74LVC1G386DBVR	SN74LVC2G07DCKJ
74LVC1G126DCKTG4	SN74LVC1G125DCKR	SN74LVC1G386DCKR	SN74LVC2G07DCKR
74LVC1G240DBVRE4	SN74LVC1G125DCKR-P	SN74LVC1G66DBVR	SN74LVC2G07DCKRE4
74LVC1G240DBVRG4	SN74LVC1G125DCKT	SN74LVC1G66DBVRE4	SN74LVC2G07DCKRG4
74LVC1G240DBVTG4	SN74LVC1G126DBVR	SN74LVC1G66DBVRG4	SN74LVC2G07DCKR-P
74LVC1G240DCKRE4	SN74LVC1G126DBVT	SN74LVC1G66DBVT	SN74LVC2G07DCKR-P3
74LVC1G240DCKRG4	SN74LVC1G126DCKJ	SN74LVC1G66DBVTG4	SN74LVC2G07DCKT
74LVC1G240DCKTG4	SN74LVC1G126DCKR	SN74LVC1G66DCK3	SN74LVC2G07DCKTG4
74LVC1G3157DBVRE4	SN74LVC1G126DCKR-P	SN74LVC1G66DCK3T	SN74LVC2G17DBV3
74LVC1G3157DBVRG4	SN74LVC1G126DCKT	SN74LVC1G66DCKJ	SN74LVC2G17DBVR
74LVC1G332DBVRG4	SN74LVC1G18DBV3	SN74LVC1G66DCKR	SN74LVC2G17DBVRE4
74LVC1G332DCKRE4	SN74LVC1G18DBVR	SN74LVC1G66DCKRE4	SN74LVC2G17DBVRG4
74LVC1G386DCKRG4	SN74LVC1G18DBVRG4	SN74LVC1G66DCKRG4	SN74LVC2G17DBVR-P
SN74LVC1G10DBVR	SN74LVC1G18DCKR	SN74LVC1G66DCKR-P	SN74LVC2G17DBVT
SN74LVC1G10DBVT	SN74LVC1G18DCKRE4	SN74LVC1G66DCKT	SN74LVC2G17DBVTG4
SN74LVC1G10DCKJ	SN74LVC1G18DCKRG4	SN74LVC1G66DCKTG4	SN74LVC2G17DCK3
SN74LVC1G10DCKR	SN74LVC1G240DBVR	SN74LVC1G97DCK3T	SN74LVC2G17DCKJ
SN74LVC1G10DCKRG4	SN74LVC1G240DBVT	SN74LVC1G97DCKJ	SN74LVC2G17DCKR
SN74LVC1G10DCKT	SN74LVC1G240DCK3T	SN74LVC1G97DCKR-NG	SN74LVC2G17DCKRE4
SN74LVC1G11DBVR	SN74LVC1G240DCKR	SN74LVC1G97DCKR-P	SN74LVC2G17DCKRG4
SN74LVC1G11DBVRE4	SN74LVC1G240DCKT	SN74LVC2G06DBV3	SN74LVC2G17DCKR-P
SN74LVC1G11DBVRG4	SN74LVC1G27DBVR	SN74LVC2G06DBVR	SN74LVC2G17DCKT
SN74LVC1G11DBVR-P	SN74LVC1G27DBVRE4	SN74LVC2G06DBVRE4	SN74LVC2G17DCKTE4
SN74LVC1G11DBVR-P3	SN74LVC1G27DBVRG4	SN74LVC2G06DBVRG4	SN74LVC2G17DCKTG4

Qualification Data: DCK Devices (Approved 8/04/2011)						
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 Construction Details:						
Qualification Vehicle #1: SN74LVC1G00DCKR						
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792			
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000/T	Wafer Size Dia.	200mm			

	iN500					
Qualification:	Plan 🛛 Test Results		1			
Reliability Test	Conditions		San	nple Size(PASS/FAIL)		
Manufacturability-TQ	Assembly (per mfg. Site s	specification)		PASS		
X-Ray	Approved by A-T Site			PASS		
Notes: Qualifi	cation tests "pass" on zero fa	ils for each test				
	Qualification Vehicle #2: SN74LVC1G02DCKR					
Wafer Fab Site:	FFAB	Wafer Process:	50b1	10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200n	nm		
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions		Sai	mple Size(PASS/FAIL)		
Electrical Char -LV	Approved by Product Eng	ineer		PASS		
Manufacturability-TQ	Approved by A-T Site			PASS		
Notes: Qualifi	cation tests "pass" on zero fa	ils for each test				
	Qualification Vehicle #3:	SN74LVC1G04D	CKR			
Wafer Fab Site:	FFAB	Wafer Process:	50b1	10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200n	nm		
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions	0	Sampl	e Size (PASS/FAIL)		
Manufacturability-TQ	Approved by A-T Site			PASS		
Notes: Qualification tests "pass" on zero fails for each test						
Qualification Vehicle #4: SN74LVC1G06DCKR						
Wafer Fab Site:	FFAB	Wafer Process:	50b1	10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm			
Qualification:	Plan 🛛 Test Results					
Reliability Test	Conditions		Sample Size (PASS/FAIL)			
Electrical Char - LV	Approved by Product Eng	ineer	PASS			
Manufacturability-TQ	Approved by A-T Site			PASS		
	cation tests "pass" on zero fa	ils for each test				
	<b>Qualification Vehicle #5:</b>	SN74LVC1G07D	CKR			
Wafer Fab Site:	FFAB	Wafer Process:	50b1	10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	Wafer Size Dia. 200mm			
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions			Sample Size (PASS/FAIL)		
Electrical Char - LV			PASS			
Manufacturability-TQ	Approved by Product Eng Approved by A-T Site			PASS		
Notes: Qualification tests "pass" on zero fails for each test						
Qualification Vehicle #6: SN74LVC1G08DCKR						
Wafer Fab Site:	FFAB	Wafer Process:		10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000	Wafer Size Dia.	200n	nm		

	/TiN500				
Qualification:	Plan 🛛 🛛	Test Results			
Reliability Test	Cond	Conditions			Sample Size (PASS/FAIL)
Electrical Char - LV		oved by Product Engi	neer		PASS
Manufacturability-TQ		oved by A-T Site			PASS
Notes: Qualifi		sts "pass" on zero fai cation Vehicle #7:			
Wafer Fab Site:	FFAB		Wafer Process:	50b	L0.13_BOPO2 / P9792
Protective Die Coating:	Ti300/Til /TiN500	N1700/AlCu0.5=6000	Wafer Size Dia.	200n	าฑ
Qualification:	Plan 🛛	Test Results			
Reliability Test	Cond	itions			Sample Size (PASS/FAIL)
Electrical Char - LV		oved by Product Engi	neer		PASS
Manufacturability-TQ		oved by A-T Site			PASS
Notes: Qualifi		sts "pass" on zero fai		CKD	
Mater Esh Oiter					
Wafer Fab Site:	FFAB		Wafer Process:	500.	L0.13_BOPO2 / P9792
Protective Die Coating: Ti300/TiN1700/AlCu0.5=6000 Wafer Size Dia. 200mm			าฑ		
Qualification:	Plan 🛛	Test Results			
Reliability Test	Cond	itions			Sample Size (PASS/FAIL)
Electrical Char - LV		oved by Product Engi	neer		PASS
Manufacturability-TQ		Approved by A-T Site tion tests "pass" on zero fails for each test			PASS
Notes: Qualifi		sts "pass" on zero fai cation Vehicle #9:		CKD	
Wafer Fab Site:	FFAB				L0.13_BOPO2 / P9792
Protective Die Coating:	Ti300/Til /TiN500	N1700/AlCu0.5=6000	Wafer Size Dia.	200n	าท
Qualification: 🗌 F	Plan 🛛	Test Results			
Reliability Test		itions			Sample Size (PASS/FAIL)
Electrical Char - LV		Approved by Product Engineer		PASS	
Manufacturability-TQ		oved by A-T Site	le for oach toet		PASS
Notes:       Qualification tests "pass" on zero fails for each test         Qualification Vehicle #10:       SN74LVC1G34DCKR					
Wafer Fab Site:	FFAB		Wafer Process:		L0.13 BOPO2 / P9792
	ITAD			500.	10.13_00102 / 13/32
Protective Die Coating: Ti300/TiN1700/AlCu0.5=6000 /TiN500 Wafer Size Dia. 200mm				าฑ	
Qualification:	Plan 🛛	Test Results			
Reliability Test	Cond	itions		Sample Size (PASS/FAIL)	
Electrical Char - LV		oved by Product Engi	neer		PASS
Manufacturability-TQ		oved by A-T Site			PASS
Notes: Qualification tests "pass" on zero fails for each test					

Qualification Vehicle #11: SN74LVC1G38DCKR					
Wafer Fab Site:	FFAB	FFAB Wafer Process: 50b1		b10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200n	nm	
Qualification: P	lan 🛛 Test Results				
Reliability Test	Conditions			Sample Size (PASS/FAIL)	
Electrical Char - LV	Approved by Product Engi	Approved by Product Engineer			
Manufacturability-TQ	Approved by A-T Site			PASS	
Notes: Qualification tests "pass" on zero fails for each test					
Qualification Vehicle #12: SN74LVC1GU04DCKR					
Wafer Fab Site:	FFAB Wafer Process: 50b		50b:	b10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm		
Qualification: 🗌 Plan 🛛 Test Results					
Reliability Test	Conditions	Conditions		Sample Size (PASS/FAIL)	
Electrical Char - LV	Approved by Product Engi	Approved by Product Engineer			
Manufacturability-TQ	Approved by A-T Site			PASS	
Notes: Qualification tests "pass" on zero fails for each test					

Qualification Data: DBV Devices (Approved 8/22/2011)						
	peen specifically developed fo					
qualification data valid	lates that the proposed chang	e meets the applic	able i	released technical		
specifications.						
	Qualification Device Co					
	Qualification Vehicle #1:	SN74LVC1G00D	BVR			
Wafer Fab Site:	FFAB	Wafer Process:	50b1	L0.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6 000/TiN500	Wafer Size Dia.	200r	nm		
Qualification:	Plan 🛛 Test Results					
Reliability Test	Conditions			Sample Size (PASS/FAIL)		
Electrical Char	Approved by Product Eng	ineer		PASS		
Manufacturability-TQ	Assembly (per mfg. Site s			PASS		
ESD CDM	1500V			3/0		
X-Ray Approved by A-T Site; Bottom side Only				5/0		
Notes: Qualification tests "pass" on zero fails for each test						
Qualification Vehicle #2: SN74LVC1G02DBVR						
Wafer Fab Site:	FFAB	Wafer Process:	ess: 50b10.13_BOPO2 / P9792			
Protective Die Coating: Ti300/TiN1700/AlCu0.5=6 Wafer Size Dia. 200mm			nm			
Qualification:	Plan 🛛 Test Results					
Reliability Test	Conditions	Conditions				
Electrical Char	Approved by Product Eng	neer		(PASS/FAIL) PASS		
Manufacturability-TQ	Assembly (per mfg. Site s					
ESD CDM	1500V	· · · · ·		3/0		
Notes: Qualifi	cation tests "pass" on zero fai	ils for each test		-		
	Qualification Vehicle #3: SN74LVC1G04DBVR					
Wafer Fab Site:			10.13_BOPO2 / P9792			
Protective Die Ti300/TiN1700/AlCu0.5=6 Wafer Size Dia.			200mm			
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions	Conditions		Sample Size (PASS/FAIL)		
Electrical Char	Approved by Product Eng	Approved by Product Engineer				
Manufacturability-TQ	Assembly (per mfg. Site s			PASS PASS		
ESD CDM	1500V	. ,		3/0		
	cation tests "pass" on zero fai	ils for each test		· · ·		

Qualification Vehicle #4: SN74LVC1G06DBVR						
Wafer Fab Site:	FFAB	Wafer Process:		10 12 80002 / 00702		
water rad Site:	FFAD	water process:	500.	10.13_BOPO2 / P9792		
Protective Die	Ti300/TiN1700/AlCu0.5=6	Wafer Size Dia.	2001	mm		
Coating:	000/TiN500		2001	11111		
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions			Sample Size		
				(PASS/FAIL)		
Electrical Char -LV	Approved by Product Eng			PASS		
Manufacturability-TQ	Assembly (per mfg. Site	specification)		PASS		
ESD CDM	1500V	ile for orch test		3/0		
Notes: Qualifi	cation tests "pass" on zero fa Qualification Vehicle #5:		RVP			
Wafer Fab Site:	FFAB	Wafer Process:	50b	10.13_BOPO2 / P9792		
Protective Die	Ti300/TiN1700/AlCu0.5=6		200			
Coating:	000/TiN500	Wafer Size Dia.	2001	mm		
Qualification:	Plan 🛛 Test Results					
				Sample Size		
Reliability Test	Conditions			(PASS/FAIL)		
Electrical Char -LV				PASS		
Manufacturability-TQ Assembly (per mfg. Site specification)			PASS			
ESD CDM	3/0					
Notes: Qualification tests "pass" on zero fails for each test						
Qualification Vehicle #6: SN74LVC1G08DBVR						
Wafer Fab Site:	FFAB	Wafer Process:	50b:	10.13_BOPO2 / P9792		
Protective Die	Ti300/TiN1700/AlCu0.5=6					
Coating:	000/TiN500	Wafer Size Dia.	200	mm		
Qualification:	Plan 🛛 Test Results					
				Sample Size		
Reliability Test	Conditions			(PASS/FAIL)		
Electrical Char -LV	Approved by Product Eng	ineer		PASS		
Manufacturability-TQ	Assembly (per mfg. Site	specification)		PASS		
ESD CDM	1500V			3/0		
Notes: Qualifi	cation tests "pass" on zero fa	ils for each test				
Qualification Vehicle #7: SN74LVC1G14DBVR						
Wafer Fab Site:	FFAB	Wafer Process:	50b:	10.13_BOPO2 / P9792		
Protective Die	Ti300/TiN1700/AlCu0.5=6		200			
Coating: 000/TiN500 Wafer Size Dia. 200mm						
Qualification: Plan 🛛 Test Results						
Reliability Test			Sample Size (PASS/FAIL)			
Electrical Char -LV	Approved by Product Eng	ineer		PASS		
Manufacturability-TQ	Assembly (per mfg. Site	specification)		PASS		
ESD CDM	1500V					
ESD CDM1500V3/0Notes:Qualification tests "pass" on zero fails for each test3/0						

Qualification Vehicle #8: SN74LVC1G17DBVR						
Wafer Fab Site:	FFAB	Wafer Process:		10.13 BOPO2 / P9792		
			505.			
Protective Die	Ti300/TiN1700/AlCu0.5=6	Wafer Size Dia.	200	mm		
Coating:	000/TiN500					
Qualification:	Plan 🛛 Test Results					
Reliability Test	Conditions			Sample Size		
Electrical Char -LV	Approved by Product Eng	ineer		(PASS/FAIL) PASS		
Manufacturability-TQ	Assembly (per mfg. Site s			PASS		
ESD CDM	1500V	specification		3/0		
	cation tests "pass" on zero fai	ils for each test		5/0		
	Qualification Vehicle #9:		BVR			
Wafer Fab Site:	FFAB	Wafer Process:	50b	10.13_BOPO2 / P9792		
	T:200/T:NI1 700/ALC 0 5 (					
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6 000/TiN500	Wafer Size Dia.	200	nm		
	Plan X Test Results					
				Sample Size		
Reliability Test	Conditions			(PASS/FAIL)		
Electrical Char -LV	Approved by Product Engineer			PASS		
Manufacturability-TQ	Assembly (per mfg. Site s	Assembly (per mfg. Site specification)				
ESD CDM 1500V				3/0		
Notes: Qualification tests "pass" on zero fails for each test						
Qualification Vehicle #10: SN74LVC1G34DBVR						
Wafer Fab Site:	FFAB	Wafer Process:	50b:	10.13_BOPO2 / P9792		
Protective Die	Ti300/TiN1700/AlCu0.5=6					
Coating:	000/TiN500	Wafer Size Dia.	2001	nm		
Qualification:	Plan 🛛 Test Results					
Reliability Test	Conditions			Sample Size		
				(PASS/FAIL)		
Electrical Char -LV		Approved by Product Engineer		PASS		
Manufacturability-TQ	Assembly (per mfg. Site specification)			PASS		
ESD CDM	1500V			3/0		
Notes:       Qualification tests "pass" on zero fails for each test         Qualification Vehicle #11:       SN74LVC1G38DBVR						
Wafer Fab Site:	FFAB	Wafer Process:	50b	10.13_BOPO2 / P9792		
Protective Die	Ti300/TiN1700/AlCu0.5=6	Wafer Size Dia.	2001	nm		
Coating: 000/TIN500						
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions	Conditions		Sample Size (PASS/FAIL)		
Electrical Char -LV	Approved by Product Eng			PASS PASS		
Manufacturability-TQ		Assembly (per mfg. Site specification)				
ESD CDM		1500V				
ESD CDM     1500V     3/0       Notes:     Qualification tests "pass" on zero fails for each test						

Qualification Vehicle #12: SN74LVC1GU04DBVR					
Wafer Fab Site:	FFAB	Wafer Process:	50b:	10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6 000/TiN500	Wafer Size Dia.	200mm		
Qualification: 🗌 Plan 🛛 Test Results					
Reliability Test	Conditions	Conditions		Sample Size (PASS/FAIL)	
Electrical Char -LV	Approved by Product Engineer			PASS	
Manufacturability-TQ	Assembly (per mfg. Site specification)			PASS	
ESD CDM	1500V	1500V		3/0	
Notes: Qualific					

# Reference Qualification: LVC Little Logic Devices in 6 Pin DSF 1G00/1G02/1G08/1G32/1G38 - HNT

### Qualification Data: DSF Devices (Approved 3/30/2011)

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 Construction Details:						
Qualification Vehicle #1: SN74LVC1G00DSFR						
Wafer Fab Site:	FFAB	Wafer Process:	50b1	l0.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500			200mm		
Qualification:	Qualification: 🗌 Plan 🛛 Test Results					
Reliability Test	Conditions		Sample Size (PASS/FAIL)			
Electrical Char	Approved by Product Engi	Approved by Product Engineer				
Manufacturability-TQ	Assembly (per mfg. Site s	Assembly (per mfg. Site specification)				
ESD CDM	1500V	1500V				
X-Ray	Approved by A-T Site; Bo	Approved by A-T Site; Bottomside Only				
ESD MM	250V			3/0		
ESD HBM	3500V			3/0		
Latch Up	JESD 78, Class II			6/0		
Steady State Life Test	150C, 300 Hrs	150C, 300 Hrs		77/0		
Manufacturability (assy)				Pass		
Notes: Qualific	cation tests "pass" on zero fai	ls for each test				

	Qualification Vehicle #2:	SN74LVC1G02D9	SFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b1	.0.13_BOPO2 / P9792			
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200n	nm			
Qualification: P	Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions			Sample Size (PASS/FAIL)			
Electrical Char	Approved by Product Engi	neer		PASS			
Manufacturability-TQ	Assembly (per mfg. Site s	pecification)		PASS			
ESD CDM	1500V	· · · ·		3/0			
Latch-Up	JESD 78, Class II			6/0			
ESD MM	200V			3/0			
ESD HBM	4000V			3/0			
Notes: Qualifie	cation tests "pass" on zero fail	ls for each test					
	Qualification Vehicle #3:	SN74LVC1G08D	SFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b1	.0.13_BOPO2 / P9792			
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500			200mm			
Qualification: 🗌 Plan 🛛 Test Results							
Reliability Test	Conditions			Sample Size (PASS/FAIL)			
Electrical Char	Approved by Product Engi	neer		PASS			
Manufacturability-TQ		Assembly (per mfg. Site specification)					
ESD CDM	1500V			3/0			
ESD MM	200V			3/0			
Latch Up	JESD 78, Class II			6/0			
ESD HBM	4000V			3/0			
Notes: Qualific	cation tests "pass" on zero fail	ls for each test					
	Qualification Vehicle #4:	SN74LVC1G32D	SFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b:	10.13_BOPO2 / P9792			
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm				
Qualification: 🗌 P	lan 🛛 Test Results						
Reliability Test	Conditions						
Electrical Char	Approved by Product Engi	Approved by Product Engineer					
Manufacturability-TQ		Assembly (per mfg. Site specification)					
ESD CDM	1500V						
ESD MM	250V						
ESD HBM	3500V			3/0 3/0			
Latch Up	JESD 78, Class II						
	cation tests "pass" on zero fail	ls for each test		6/0			

Qualification Vehicle #5: SN74LVC1G38DSFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm	
Qualification: 🗌 Plan 🛛 Test Results				
Reliability Test Conditions		Sample Size (PASS/FAIL)		
Electrical Char	ectrical Char Approved by Product Engineer			PASS
Manufacturability-TQ Assembly (per mfg. Site specific		pecification)		PASS
ESD CDM 1500V				3/0
Latch-Up JESD 78, Class II				6/0
ESD MM 200V				3/0
ESD HBM 4000V				3/0
Notes: Qualification tests "pass" on zero fails for each test				

### Reference Qualification: LVC Little Logic Devices in 6 Pin DSF 1G04/1G06/1G07/1G14/1G17/1G34/1GU04 - HNT

Qualification Data: DSF Devices (Approved 6/27/2011) 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 Construction Details:				
Qualification Vehicle #1: SN74LVC1G04DSFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm	
Qualification: 🗌 Plan 🛛 Test Results				
Reliability Test	Reliability Test Conditions		Sample Size (PASS/FAIL)	
Electrical Char	Approved by Product Engineer		PASS	
Manufacturability-TQ Assembly (per mfg. Site sp		pecification)		PASS
ESD CDM 1500V				3/0
X-Ray Approved by A-T Site; Bottomside Only			5/0	
ESD MM	250V			3/0
ESD HBM	5000V			3/0
Latch Up JESD 78, Class II				6/0
Steady State Life Test	150C, 300 Hrs	Hrs		77/0
Notes: Qualification tests "pass" on zero fails for each test				

Qualification Vehicle #2: SN74LVC1G06DSFR					
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm		
Qualification: 🗌 P	lan 🛛 Test Results		1		
Reliability Test	Conditions		Sample Size (PASS/FAIL)		
Electrical Char	Approved by Product Engi	neer	PASS		
Manufacturability-TQ	Assembly (per mfg. Site s			PASS	
ESD CDM	1500V	<u> </u>		3/0	
Latch-Up	JESD 78, Class II			6/0	
ESD MM	200V			3/0	
ESD HBM	3500V			3/0	
Notes: Qualifie	cation tests "pass" on zero fail	ls for each test			
	Qualification Vehicle #3:	SN74LVC1G07DS	SFR		
Wafer Fab Site:	FFAB	Wafer Process:	50b1	.0.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm		
Qualification: P	lan 🛛 Test Results				
Reliability Test	Conditions		Sample Size (PASS/FAIL)		
Electrical Char	Approved by Product Engi	Product Engineer		PASS	
Manufacturability-TQ Assembly (per mfg. Site specification		pecification)		PASS	
ESD CDM	1500V		3/0		
ESD MM	250V			3/0	
Latch Up	JESD 78, Class II			6/0	
ESD HBM				3/0	
Notes: Qualification tests "pass" on zero fails for each test					
Qualification Vehicle #4: SN74LVC1G14DSFR					
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792		
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm		
Qualification:  Plan  Test Results					
Reliability Test Conditions				Sample Size (PASS/FAIL)	
Electrical Char	Approved by Product Engi	proved by Product Engineer		PASS	
Manufacturability-TQ Assembly (per mfg. Site specification)				PASS	
ESD CDM 1500V			3/0		
ESD MM 250V				3/0	
ESD HBM	4000V	4000V		3/0	
Latch Up	JESD 78, Class II			6/0	
Notes: Qualification tests "pass" on zero fails for each test					

Qualification Vehicle #5: SN74LVC1G17DSFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm	
Qualification: P	lan 🛛 Test Results			
Reliability Test	Conditions		Sample Size (PASS/FAIL)	
Electrical Char	Approved by Product Engi	neer	PASS	
Manufacturability-TQ	Assembly (per mfg. Site s	pecification)		PASS
ESD CDM	1500V	· · · · ·		3/0
Latch-Up	JESD 78, Class II			6/0
ESD MM	250V			3/0
ESD HBM	2000V			3/0
Notes: Qualific	cation tests "pass" on zero fail	ls for each test		
<b>_</b>	Qualification Vehicle #6:		SFR	
Wafer Fab Site:	FFAB	Wafer Process:	50b1	.0.13_BOPO2 / P9792
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm	
Qualification:	lan 🛛 Test Results			
Reliability Test			Sample Size (PASS/FAIL)	
Electrical Char Approved by Product Engineer			PASS	
Manufacturability-TQ Assembly (per mfg. Site specification)			PASS	
ESD CDM				3/0
ESD MM	250V			3/0
ESD HBM	4000V			3/0
Latch Up	JESD 78, Class II		6/0	
Notes:     Qualification tests "pass" on zero fails for each test		, ,		
Qualification Vehicle #7: SN74LVC1GU04DSFR				
Wafer Fab Site:	FFAB	Wafer Process:	50b10.13_BOPO2 / P9792	
Protective Die Coating:	Ti300/TiN1700/AlCu0.5=6000 /TiN500	Wafer Size Dia.	200mm	
Qualification: Plan I Test Results				
Reliability Test Conditions			Sample Size (PASS/FAIL)	
Electrical Char	Approved by Product Engineer			PASS
Manufacturability-TQ Assembly (per mfg. Sit				PASS
ESD CDM 1500V		· · · · · · · · · · · · · · · · · · ·		3/0
Latch-Up JESD 78, Class II				6/0
ESD MM	250V			3/0
ESD HBM		2000V		3/0
	cation tests "pass" on zero fail	ls for each test		, -

## Reference Qualification: FFAB BOPO2 flows 25b10, 33b10 and 50b10

Qualification Data: Approved 12/11/2008 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.

valuates that the proposed change meets the applicable released technical specifications.				
Qual Device 1: SN74AUC1G08DCK (MSL 1-260C)				
Wafer Fab Sit	e: FFAB	Wafer Proce	ss:	25B10/_BOPO2 / D9672
Protective Die Coatin	Protective Die Coating: 10KCN Wafer Size		Dia.	200mm
Qualification:  Plan	Test Results			
Reliability Test	Conditions/Duration	on	1	Sample Size / Fail
**Steady State Life Test (HTOL)	150C, 300 Hrs			116/0
**Biased HAST	130C/85%RH/96 Hrs		77/0	
**T/C -65C/150C	-65C/+150C (1000 Cy	c)	77/0	
**Autoclave 121C	121C, 15 PSI (96 Hrs)		77/0	
Manufacturability	(per mfg. Site specifica	ition)		Pass
Electrical Char				Pass
ESD HBM	2500V			3/0
ESD MM	250V			3/0
ESD CDM	1500V 3/0			3/0
Latch-Up JESD 78, Class II 6/0			6/0	
** Preconditioning sequence: leve	l 1-260C			
Qual Dev	vice 2: SN74AVC8T2	45PW (MSL 1-2	600	2)
Wafer Fab Sit	e: FFAB	Wafer Proce	ss:	33B10 /_BOPO2 / D9722
Protective Die Coatin	g: 10KCN	Wafer Size D	Dia.	200mm
	Test Results			
Reliability Test	Conditions/Duration	on	Sample Size / Fail	
**Steady State Life Test (HTOL)	150C, 300 Hrs			116/0
**Biased HAST	130C/85%RH/96 Hrs		77/0	
**T/C -65C/150C	-65C/+150C (1000 Cyc) 76/0		76/0	
**Autoclave 121C	121C, 15 PSI (96 Hrs) 77/0		77/0	
Manufacturability	(per mfg. Site specification)		Pass	
Electrical Char			Pass	
ESD HBM 8000V				3/0
ESD MM 250V			3/0	
ESD CDM	2000V		3/0	
Latch-Up	JESD 78, Class II			6/0
** Preconditioning sequence: leve	l 1-260C			

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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