

PCN Number:	20210519004.1		PCN Date:	May 20, 2021
Title:	Wafer substrate material change for select devices			
Customer Contact:	PCN Manager		Dept:	Quality Services
Proposed 1st Ship Date:	Aug 20, 2021	Estimated Sample Availability:	Date provided at sample request.	
Change Type:				
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>
<input type="checkbox"/>	Wafer Fab Site	<input checked="" type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>
		<input type="checkbox"/>	Part number change	
Notification Details				
Description of Change:				
Texas Instruments is pleased to announce an additional Wafer substrate material for the selected devices listed in "Product Affected" section.				
Current		Additional		
Epi substrate (4207035-0012)		Non-Epi substrate (4207035-0005)		
Qual details are provided in the Qual Data Section.				
Reason for Change:				
Supply shortage.				
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):				
None.				
Changes to product identification resulting from this PCN:				
None				
Product Affected:				
971TC1	DS90UB929TRGCTQ1	DS90UH943ARTDTQ1	PDS90UB971ACRHBTQ1	
971TC2	DS90UB934TRGZRQ1	DS90UH947NTRGCRQ1	PDS90UB971BARHBTQ1	
972TC1	DS90UB934TRGZTQ1	DS90UH947NTRGCTQ1	PDS90UB971RHBTQ1	
972TC2	DS90UB935TRHBRQ1	DS90UH947TRGCRQ1	PDS90UB981AARTDTQ1	
ADAS4KBTC1	DS90UB935TRHBTQ1	DS90UH947TRGCTQ1	PDS90UB981BARTDTQ1	
ADAS4KBTC2	DS90UB936TRGZRQ1	DS90UH949ATRGCRQ1	PDS90UB983ABRTDTQ1	
ADASHUB	DS90UB936TRGZTQ1	DS90UH949ATRGCTQ1	PDS90UB983ACRTDTQ1	
ADC09DJ1300AAVQ1	DS90UB941ASRTDRQ1	DS90UH949TRGCRQ1	PDS90UB983BARTDTQ1	
ADC09DJ1300AAVTQ1	DS90UB941ASRTDTQ1	DS90UH949TRGCTQ1	PDS90UB984ABRURQ1	
ADC09DJ800AAVQ1	DS90UB943ARTDRQ1	DS90UH981RTDRQ1	PDS90UB984ACRURQ1	
ADC09DJ800AAVTQ1	DS90UB943ARTDTQ1	DS90UH981RTDTQ1	PDS90UB984ADRURQ1	
ADC09QJ1300AAVQ1	DS90UB947NTRGCRQ1	DS90UH983RTDRQ1	PDS90UB988ABRURQ1	
ADC09QJ1300AAVTQ1	DS90UB947NTRGCTQ1	DS90UH983RTDTQ1	PDS90UB988ACRURQ1	
ADC09QJ800AAVQ1	DS90UB947TRGCRQ1	PDP83TC811QWRNDQ1	PDS90UB988ADRURQ1	
ADC09QJ800AAVTQ1	DS90UB947TRGCTQ1	PDP83TC811QWRNDRQ1	PDS90UH941TC	
ADC09SJ1300AAVQ1	DS90UB949ATRGCRQ1	PDP83TC811QWRNDTQ1	PDS90UH943ACRTDTQ1	
ADC09SJ1300AAVTQ1	DS90UB949ATRGCTQ1	PDP83TC812RLBTQ1	PDS90UH943ARTDTQ1	
ADC09SJ800AAVQ1	DS90UB949TRGCRQ1	PDP83TC812RRHARQ1	PDS90UH981AARTDTQ1	

ADC09SJ800AAVTQ1	DS90UB949TRGCTQ1	PDP83TC812RRHATQ1	PDS90UH981BARTDTQ1
ADC12DJ1600AAVQ1	DS90UB951TRHBRQ1	PDP83TC812SLBTQ1	PDS90UH981RTDTQ1
ADC12DJ1600AAVTQ1	DS90UB951TRHBTQ1	PDP83TC812SRHARQ1	PDS90UH983ABRTDTQ1
ADC12DJ800AAVQ1	DS90UB953ATRHBRQ1	PDP83TC812SRHATQ1	PDS90UH983ACRTDTQ1
ADC12DJ800AAVTQ1	DS90UB953ATRHBTQ1	PDP83TC812TCA	PDS90UH983ADRDTDTQ1
ADC12QJ1600AAVQ1	DS90UB953TRHBRQ1	PDP83TC813RRHFTQ1	PDS90UH983AERTDTQ1
ADC12QJ1600AAVTQ1	DS90UB953TRHBTQ1	PDP83TC813SRHFTQ1	PDS90UH983ARTDTQ1
ADC12QJ800AAVQ1	DS90UB954TRGZRQ1	PDP83TC814RRHATQ1	PDS90UH983BARTDTQ1
ADC12QJ800AAVTQ1	DS90UB954TRGZTQ1	PDP83TC814SRHATQ1	PDS90UH983CARTDTQ1
ADC12SJ1600AAVQ1	DS90UB958TRGZRQ1	PDP83TC815RRHFTQ1	PDS90UH984ABRURQTQ1
ADC12SJ1600AAVTQ1	DS90UB958TRGZTQ1	PDP83TC815SRHFTQ1	PDS90UH984ACRURQTQ1
ADC12SJ800AAVQ1	DS90UB960WRTDRQ1	PDP83TG720LBTQ1	PDS90UH984ADRURQTQ1
ADC12SJ800AAVTQ1	DS90UB960WRTDTQ1	PDP83TG720S2WSTQ1	PDS90UH984AERURQTQ1
DP83TC811RWRNDRQ1	DS90UB962WRTDRQ1	PDP83TG720SLBTQ1	PDS90UH988ABRURQTQ1
DP83TC811RWRNDTQ1	DS90UB962WRTDTQ1	PDP83TG720SWCSTQ1	PDS90UH988ACRURQTQ1
DP83TC811SWRNDRQ1	DS90UB964TRGCRQ1	PDP83TG720SWRHATQ1	PDS90UH988ADRURQTQ1
DP83TC811SWRNDTQ1	DS90UB964TRGCTQ1	PDP83TG720SWSTQ1	PDS90UH988AERURQTQ1
DP83TC812RRHARQ1	DS90UB971RHBRQ1	PDP83TG72JUMP	SN65DSI83TPAPRQ1
DP83TC812RRHATQ1	DS90UB971RHBTQ1	PDS80PT201A0RWEQ1	SN65DSI84TPAPRQ1
DP83TC812SRHARQ1	DS90UB981RTDRQ1	PDS80PT201RWEQ1	SN65DSI85TPAPRQ1
DP83TC812SRHATQ1	DS90UB981RTDTQ1	PDS90B3700ADRURQTQ1	SN65DSI86IPAPQ1
DP83TC814RRHARQ1	DS90UB983RTDRQ1	PDS90B3702BARURQTQ1	SN65DSI86IPAPRQ1
DP83TC814RRHATQ1	DS90UB983RTDTQ1	PDS90B9702ADRURQTQ1	TUSB4020BIPHPQ1
DP83TC814SRHARQ1	DS90UH929ETRGCRQ1	PDS90B9702BARURQTQ1	TUSB4020BIPHPRQ1
DP83TC814SRHATQ1	DS90UH929ETRGCTQ1	PDS90B9724BARURQTQ1	TUSB4041IPAPQ1
DP83TG720QWRNDTQ1	DS90UH929TRGCRQ1	PDS90UB662WRTDTQ1	TUSB4041IPAPRQ1
DP83TG720RWRHARQ1	DS90UH929TRGCTQ1	PDS90UB936RGZTQ1	TUSB8020BIPHPQ1
DP83TG720RWRHATQ1	DS90UH941ARTDRQ1	PDS90UB941TC	TUSB8020BIPHPRQ1
DP83TG720SWRHARQ1	DS90UH941ARTDTQ1	PDS90UB943ARTDTQ1	TUSB8041IPAPQ1
DP83TG720SWRHATQ1	DS90UH941ASRTDRQ1	PDS90UB964WRTDTQ1	TUSB8041IPAPRQ1
DS90UB662WRTDRQ1	DS90UH941ASRTDTQ1	PDS90UB9702TC	TUSB9261IPAPQ1
DS90UB662WRTDTQ1	DS90UH943ARTDRQ1	PDS90UB9702TRURQTQ1	TUSB9261IPAPRQ1
DS90UB929TRGCRQ1			

Qualification Report

Approve Date 04-February-2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: ADC12DJ3200AAV	Qual Device: ADC12DJ5200RFAAV	Qual Device: DP83825IRMQT	Qual Device: DP83826ERHBR	Qual Device: ADC32RF46	Qual Device: ADS54J68
AC	Autoclave 121C	96 Hours	3/231/0	-	-	-	-	-
BHAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	Pass	Pass
HBM	ESD - HBM	1500 V	-	-	2/6/0	-	-	-
HBM	ESD - HBM	2000 V	-	1/3/0	-	-	-	1/3/0
HBM	ESD - HBM	2500 V	3/9/0	-	-	-	1/3/0	-
HBM	ESD - HBM	4000 V	-	-	-	1/3/0	-	-
CDM	ESD - CDM	750 V	-	1/3/0	-	-	-	-
CDM	ESD - CDM	1000 V	3/9/0	-	-	-	1/3/0	-
CDM	ESD - CDM	1500 V	-	-	2/6/0	1/3/0	-	1/3/0
HTOL	Life Test, 125C	1000 Hours	-	-	2/154/0	1/77/0	-	1/77/0
HTOL	Life Test, 125C	1250 Hours	-	1/77/0	-	-	1/77/0	-
HTOL	Life Test, 125C	4000 Hours	3/231/0	-	-	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	1/77/0	-	-	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0	-	-	-
LU	Latch-up 25C	(per JESD78)	3/18/0	1/6/0	2/12/0	-	-	-
LU	Latch-up 85C	(per JESD78)	-	-	2/12/0	-	-	-
LU	Latch-up 105C	(per JESD78)	-	-	-	1/6/0	-	-
LU	Latch-up 125C	(per JESD78)	-	1/6/0	-	-	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	-	-	-	-	-
TC	Temperature Cycle, -55/125C	1000 Cycles	-	1/77/0	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	-	1/77/0	1/77/0
TC	Temperature Cycle, -65/150C	750 Cycles	-	-	-	1/77/0	-	-
TC	Temperature Cycle, -65/150C	1000 Cycles	-	-	3/231/0	-	-	-
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	1/77/0	-	-	-	-
UHAST	Unbiased HAST, 110C/85%RH	528 Hours	-	1/77/0	-	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	-	-	-

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL2-280C: DP83825IRMQT, DP83826ERHBR

- Qual Devices qualified at LEVEL3-280C: ADC12DJ3200AAV, ADC12DJ5200RFAAV, ADC32RF46, ADS54J68

- 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

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