

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20200901001.1 Qualification of additional Fab site (RFAB) and Assembly site (CARZ) options for select LBC7 devices Change Notification / Sample Request

Date: September 18, 2020 **To:** FLEXTRONICS 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.

Texas Instruments requires acknowledgement of 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 samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date 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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN www admin team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team SC Business Services

20200901001.1 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

TPS70933DRVR TPS70950DRVT TPS70950DRVT **CUSTOMER PART NUMBER**

DYGH-255248-01/02 TEKH-167351600 TSTH-167351600

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

PCN Number:	CN Number: 20200901001.1			PCN Date:		: Ser	o 18, 2020		
Title: Qualification of additional Fab site (RFAB) and Assembly site (CARZ) options for select LBC7 devices									
Customer Con	tact:	PCN Manager			Dept:		Qua	Quality Services	
Proposed 1 st Ship Date:		Dec 18, 202	0	Estima Availab	ted Sample			Date provided at sample request.	
Change Type:				•			•	•	
Assembly S	Site	Assemb	ly Proce	ess		\boxtimes	Assemb	oly Materials	
Design		Electric	al Speci	ification			Mechar	echanical Specification	
Test Site		Packing	/Shippi	ng/Labeling			Test Pr	ocess	
Wafer Bum	p Site	Wafer E	Bump M	aterial		Wafer Bump Process			
	Site		ab Mate	erials			Wafer I	Fab Process	
		Part nu	mber ch	nange					
		P	CN De	etails					
Description of									
Texas Instrume	nts is pleased t	o announce t	he qual	ification of a	an add	itiona	al fab (R	FAB) and	
assembly (CAR2	z) site for select	ted devices a	s listed	below in the	e prod	uct a	ffected	section.	
	Current Site			A	dditio	nal	Site		
Current Fab Site	Process	Wafer Diamete		dditional Fab Site	Pr	oces	_	Wafer iameter	
FFAB	LBC7	200 mm		RFAB	L	BC7	3	300 mm	
For the devices	in the group 2	device list be	low, co	nstruction di	ifferen	ces a	are as fo	llows:	
		TI	TI Clark - Current		Carsem - New		w		
Mount compoun		d	4207768		SID#435143		}		
	Qual details are provided in the Qual Data Section.								
Reason for Ch	ange:								
Continuity of Su									
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					/ negative):				
None									
Anticipated im	pact on Mate	rial Declara	tion						
☐ No Impact to ☐ Material Declar								are driven from	
the Mate	_	production data and will be available following the production							
Declarati			release. Upon production release the revised reports can be						
				TI ECO webs					
Changes to product identification resulting from this PCN:									
Fab Site Inform	mation:								
Chip Site Chip Site Origin Code (20		20L)	L) Chip Site Country Code (21L) Chip Site			Chip Site City			
		TID			,	Freising			
RFAB		RFB		USA				Richardson	
Assembly Site Information: Assembly Site Assembly Site Origin (22L) Assembly Country Code (21L) Assembly City									
Assembly Site	· · · · · · · · · · · · · · · · · · ·		Assem		Lode	(21L	-	ssembly City	
TI Clark	QA			PHL		/	Angeles City		
Carsem	CS	SZ .	Z CHN Jiangsu		Jiangsu				

Sample product shipping label (not actual product label)

TEXAS
INSTRUMENTS
MADE IN: Malaysia

(Pb) G4

(1P) \$N74L\$07N\$R (Q) 2000 (D) 0336 (31T)LOT: 3959047MLA (4W) TKY(1T) 7523483812

(2P) REV: (20L) CSO: SHE

(21L) CCO:USA (23L) ACO:HYS

MSL 2 /260C/1 YEAR SEAL DT MSL 1 /235C/UNLIM 03/29/04

ያየቷል: LBL: 5A (L)T0:1750

Product Affected:

Group	1	Device	List	(Adding	RFAB))
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Group I bevice List (Adding Ri Ab)						
TCA1116PWR	TCA9555DBT	TPS70918DRVR	TPS70933DRVR			
TCA6416APWR	TCA9555PWR	TPS70918DRVT	TPS70933DRVT			
TCA9539PWR	TCA9555RGER	TPS70930DRVR	TPS70950DRVR			
TCA9539RGER	TPS22946YZPR	TPS70930DRVT	TPS70950DRVT			
TCA9555DBR						

Group 2 Device List (Adding RFAB and CARZ AT)

TLV62084ADSGR	TLV62084ADSGT
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Qualification Report

Approve Date 6-October-2010

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: TP\$51217D\$C
ED	Electrical Characterization	Per Datasheet Parameters	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
AC	Autoclave, 121C	96 Hours	3/231/0
HBM	ESD - HBM	2000 V	3/9/0
CDM	ESD - CDM	500 V	3/9/0
HTOL	Life Test, 135C	635 Hours	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0
LU	Latch-up	(per JESD78)	3/18/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/18/0

⁻ Qual Device TPS51217DSC is qualified at LEVEL2-260C

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- $The following are equivalent \ HTOL\ options\ based\ on\ activation\ energy\ of\ 0.7eV:\ 125C/1k\ Hours,\ 140C/480\ Hours,\ 150C/300\ Hours,\ and\ 155C/240\ Hours,\ 150C/300\ Hours,\ 150C/$
- The following are equivalent HTSL options based on activation energy of 0.7 eV: 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 Tl's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green



Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: TLV62084DSGR	QBS Process Reference: TPS2543QRTE	QBS Package Reference: TPS61021DSG	QBS Package Reference: TPS62170DSG
AC	Autoclave, 2 atm, 121C	96 Hours	-	3/231/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-	
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0
HAST	Biased HAST, 110C/85%RH	264 Hours	-	3/231/0	3/231/0	-
HBM	ESD - HBM	2000 V	1/3/0	1/3/0	-	-
CDM	ESD - CDM	500 V	1/3/0	1/3/0	-	-
HTOL	Life Test, 150C	300 Hours	-	3/231/0	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	2/90/0	2/90/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device TLV62084DSGR is qualified at LEVEL2-260C
- -This also qualifies TLV62084ADSGR
- 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

Qualification Report

Approve Date 25-June-2019

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: TP\$70633DRVR	QBS Process Reference: TPS2543QRTE	QBS Package Reference: PGA900ARHHR
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0
HBM	ESD - HBM	1000 V	1/3/0	1/3/0	-
CDM	ESD - CDM	500 V	1/3/0	1/3/0	-
HTOL	Life Test, 150C	300 Hours	-	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	3/135/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0

QBS: Qual By Similarity

- 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 you can contact your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN www admin_team@list.ti.com

⁻ Qual Device TPS70633DRVR is qualified at LEVEL1-260C

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