

PCN# 20201109000.1 Qualification of RFAB as an additional Fab site option using qualified Process Technology, Die Revision and New Assembly Material for select devices Change Notification / Sample Request

Date:November 10, 2020To: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.

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 (<u>PCN ww admin team@list.ti.com</u>). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team SC Business Services

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
TMP75AIDR
TMP75AIDGKR

TMP75AIDGKT

TMP75AIDRG4

CUSTOMER PART NUMBER null null null

null

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

	PCN Number: 202011				1109000.1			PCN Date: Nov 10, 2020		
Qualification of RFAB as an additional Fab site option using qualified Process										
Technology, Die Revision and New Assembly Material for select devices										
Customer Contact:			PCN N	<u>lanager</u>		ept:		-	ty Services	
Proposed 1 st Ship Date:			Feb 1	0, 2021	Estimate Availabil		mple	Date provided at sample request.		
Change Ty										
	bly Site			Assembly Proce					laterials	
Design				Electrical Specification			Mechanical Specification			
Test S				Packing/Shippi			Test Process			
=	Bump Site	е		Vafer Bump M Vafer Fab Mate			Wafer Bump ProcessWafer Fab Process			
	Fab Site			Part number ch			water	гар н	rocess	
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Descriptio	n of Char			PCNDE						
additional N	Wafer Fab fected" se	source a ection. D	and new evices w	ounce the qual Assembly Mat ill remain in cu	erial for the s	electe ly fac	ed devic cility:	es list		
		urrent S	Site			Ad	ditiona	I Site		
Current	Fab Site	Pro	ocess	Wafer Diameter	Additional Fab Site		Proce	SS	Wafer Diameter	
TSMC-WF	2 (Fab 2)				RFAB		LBCS	<u> </u>	300 mm	
Assembly Mater			rrent	Dr		٦				
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Die Rev:				
Current	New			
Die Rev [2P]	Die Rev [2	2P]		
В	Α			
	G4 G4 (EAR SEAL DT O3/29/04)T0:1750	t actual prod	(1P) SN74LS07 (a) 2000 (31T) LOT: 39	(D) 0336
Product Affected		DCKD		
TMP75AID	TMP75AI	DGKR	TMP75AIDGKT	TMP75AIDR
TMP75AIDG4	TMP75AI		TMP75AIDGKTG4	TMP75AIDRG4

Qualification Report

Approve Date 23-Jul-2020

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: <u>TMP75AIDGKR</u>	QBS Product Reference: <u>TMP1075DGKT</u>
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	3/244/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0
Power Cycle	Power on/off	10000 Cycles	-	3/231/0
HBM	ESD - HBM	4000 V	-	1/3/0
CDM	ESD - CDM	1500 V	-	1/3/0
LU	Latch-up	(per JESD78)	-	1/6/0
ED	Electrical Characterization	Per Datasheet Parameters	-	3/90/0
WBP	Bond Pull	Wires	-	3/240/0
WBS	Bond Shear	Wires	-	3/240/0

- QBS: Qual By Similarity

- Qual Device TMP75AIDGKR 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 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: <u>http://www.ti.com/</u>

Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green

Qualification Report

Approve Date 01-Sep-2020

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: <u>TMP75AIDR</u>	Qual Device: <u>TMP1075D</u>	QBS Product Reference: <u>TMP1075DGKT</u>
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	3/2400/0
HTOL	Life Test, 150C	300 Hours	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	3/231/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	3/231/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	-
Power Cycle	Power on/off	10000 Cycles	-	-	3/231/0
HBM	ESD - HBM	4000 V	-	-	1/3/0
CDM	ESD - CDM	1500 V	-	1/3/0	-
LU	Latch-up	(per JESD78)	-	-	1/6/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	3/90/0
WBP	Bond Pull	Wires	-	3/90/0	-
WBS	Bond Shear	Wires	-	3/90/0	-

- QBS: Qual By Similarity

- Qual Device TMP75D is qualified at LEVEL 1-260C

- 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 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.

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USA	PCNAmericasContact@list.ti.com
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Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN_ww_admin_team@list.ti.com

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