PCN Number:	20230829003.1	**PCN Date:**	August 29, 2023
Title:	Qualification of RFAB as an additional Fab site option for select LBC9 devices		
Customer Contact:	Change Management team	**Dept:**	Quality Services
Proposed 1st Ship Date:	Nov 29, 2023	**Sample requests accepted until:**	Sep 29, 2023*

***Sample requests received after September 29, 2023 will not be supported.**

Change Type:

☐	Assembly Site	☐	Design	☐	Wafer Bump Material
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Process
☐	Assembly Materials	☐	Part number change	☒	Wafer Fab Site
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Material
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab source for the selected devices listed in the "Product Affected" section.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**New Fab Site**	**Process**	**Wafer Diameter**
DMOS6	LBC9	300mm	RFAB	LBC9	300mm

Qual details are provided in the Qual Data Section.

Reason for Change:

Continuity of supply.

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
DMOS6	DM6	USA	Dallas
RFAB	**RFB**	**USA**	**Richardson**

Sample product shipping label (not actual product label)

Product Affected:

THVD1439DR	THVD1439VDR	THVD1449DR	THVD1449VDR

Qualification Report
Approve Date 01-May-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: THVD1449VDR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: THVD1449VDR	QBS Reference: THVD1439VDR	QBS Reference: THVD1429D
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	-	-	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-	4/308/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	-	2/154/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/135/0	-	6/460/0	3/231/0
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	1/77/0	-	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	-	3/2400/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	1/76/0	3/228/0	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	1/76/0	3/228/0	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	-	-	1/22/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0
ESD	E2	ESD HBM (Bus Pins)	-	16000 Volts	-	-	1/3/0	1/3/0	-
ESD	E2	ESD HBM (Bus Pins)	-	5000 Volts	1/3/0	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/6/0	1/6/0	1/6/0	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	1/30/0	1/30/0	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0	-	-	-

- QBS: Qual By Similarity
- Qual Device THVD1449VDR is qualified at MSL3 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 Change Management team or your local Field Sales Representative.

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