2023	1220003.1	PC	N Date: De	ecember 21, 2023					
Title: Qualification of RFAB as an additional Fab site option for select LBC9 devices									
Customer Contact: Change Management team Dept: Quality Services									
Proposed 1 <sup>st</sup> Ship Date: Mar 20, 2024  Mar 20, 2024  Sample requests accepted until:  Jan 20, 2024*									
*Sample requests received after January 20, 2024 will not be supported.  Change Type:									
!		L		ump Material					
				Bump Process					
		er change							
		ess		ab Process					
<u>g, _a</u>			1 - 1 - 1 - 1 - 1 - 1	<u></u>					
	PCN De	tails							
		Giantina of its	DEAD to builded.						
rrent Fab Sit	е	A	dditional Fab	Site					
Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter					
LBC9	300mm	RFAB	LBC9	300mm					
ovided in the	Qual Data Section.								
ly.									
ct on Form,	Fit, Function, Qua	lity or Relia	bility (positive	e / negative):					
uct identifica	ation resulting fro	m this PCN:							
tion:									
Chip Site O	rigin Code (20L)	Chip Site Cou	ntry Code (21L	) Chip Site City					
	DM6			Dallas					
	RFB	U	Richardson						
Sample product shipping label (not actual product label)  Texas INSTRUMENTS MADE IN: Malaysia 2DC: 20:  MSL '2 /260C/1 YEAR SEAL DT MSL 1 /235C/UNLIM 03/29/04  OPT: ITEM: LBL: 5A (L)T0:1750  Product Affected:  (1P) \$N74L\$07N\$R  (Q) 2000 (D) 0336  (31T)LOT: 3959047MLA (4W) TKY(1T) 7523483\$12  (P) (2P) REV: (2DL) CSO: SHE (21L) CCO: USA (22L) ASO: MLA (22L) ASO: MLA									
	cation of RFAI ct: Change I p Date: M is received a cess erials cecification cing/Labeling cipping/Labeling cation for the source for the sou	Mar 20, 2024  Is received after January 20, 20  Is received after January 20  Is received after January 20  Is received after January 20  Is r	cation of RFAB as an additional Fab site option  ct: Change Management team  Dept:  P Date: Mar 20, 2024  Sampl acce  Is received after January 20, 2024 will not  cess Data Sheet  erials Data Sheet  erials Part number change  Decification Test Site  Diange:  Is is pleased to announce the qualification of its ab source for the selected devices listed in the  Process Wafer Diameter Site  LBC9 300mm RFAB  Dovided in the Qual Data Section.  Ge:  Ny.  Cott on Form, Fit, Function, Quality or Relian  LBC9 Site Origin Code (20L) Chip Site County  DM6 Cual Data Section  Chip Site Origin Code (20L) Chip Site County  DM6 Cual Data Section  Chip Site Origin Code (20L) Chip Site County  DM6 Cual Data Section  Chip Site Origin Code (20L) Chip Site County  DM6 Cual Data Section  Chip Site Origin Code (20L) Chip Site County  DM6 Cual Data Section  Chip Site Origin Code (20L) Chip Site County  DM6 Cual Data Section  (1P) SN74  (2) 200  (31T) LOT  (4W) TKY  (20) 100  (31T) LOT  (4W) TKY  (20) 100  (31T) LOT  (31	cation of RFAB as an additional Fab site option for select LBC:    Change Management team   Dept:   Quality Service   Qu					

DRV8251ADDAR

DRV8251DDAR

# **Qualification Results**

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

Туре	#	Test Name	Condition	Duration	Qual Device: DRV8251DDAR	QBS Reference: TLV62569DBVR	QBS Reference: DRV8251DDAR	QBS Reference: DRV8251DDAR
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	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/231/0	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	1/77/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB Solder;	-	-	-	3/66/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	3/66/0	-
ESD	E2	ESD CDM	-	1500 Volts	-	3/9/0	1/3/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	3/9/0	-	-

Туре	#	Test Name	Condition	Duration	Qual Device: DRV8251DDAR	QBS Reference: TLV62569DBVR	QBS Reference: DRV8251DDAR	QBS Reference: <u>DRV8251DDAR</u>
ESD	E2	ESD HBM	-	4000 Volts	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	3/9/0	1/6/0	-
CHAR	E5	Electrical Characterization	Min, Typ, Max Temp	-	1/30/0	3/90/0	3/90/0	1/30/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	3/90/0	1/30/0

- QBS: Qual By Similarity
- Qual Device DRV8251DDAR 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/

TI Qualification ID: R-NPD-2202-081

# **Qualification Results**

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

Туре	#	Test Name	Condition	Duration	Qual Device: DRV8251ADDAR	QBS Reference: TLV62569DBVR	QBS Reference: DRV8251DDAR	QBS Reference: <u>DRV8251DDAR</u>
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	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/231/0	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	1/77/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB Solder;	-	-	-	3/66/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB- Free Solder;	-	-	-	3/66/0	-
ESD	E2	ESD CDM	-	1500 Volts	-	3/9/0	1/3/0	-

Туре	#	Test Name	Condition	Duration	Qual Device: DRV8251ADDAR	QBS Reference: TLV62569DBVR	QBS Reference: DRV8251DDAR	QBS Reference: <u>DRV8251DDAR</u>
ESD	E2	ESD HBM	-	2000 Volts	-	3/9/0	1/3/0	-
ESD	E2	ESD HBM	-	4000 Volts	-	3/9/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	3/9/0	1/6/0	-
CHAR	E5	Electrical Characterization	Min, Typ, Max Temp	-	1/30/0	3/90/0	3/90/0	1/30/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	3/90/0	1/30/0

- QBS: Qual By Similarity
- Qual Device DRV8251ADDAR 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/

TI Qualification ID: R-NPD-2203-033

For questions regarding this notice, e-mails can be sent to Change Management team or your local Field Sales Representative.

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