

PCN Number:	20240730002.1	PCN Date:	July 30, 2024																		
Title:	Qualification of RFAB as an additional Fab site option, Die Revision, additional Assembly Site (CDAT, FMX) and BOM options for select devices																				
Customer Contact:	Change Management team	Dept:	Quality Services																		
Proposed 1st Ship Date:	October 28, 2024	Sample requests accepted until:	August 29, 2024*																		
August 29, 2024 will not be supported.																					
Change Type:																					
<input checked="" type="checkbox"/> Assembly Site	<input checked="" type="checkbox"/> Design	<input type="checkbox"/>	Wafer Bump Material																		
<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Data Sheet	<input type="checkbox"/>	Wafer Bump Process																		
<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input checked="" type="checkbox"/>	Wafer Fab Site																		
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input checked="" type="checkbox"/>	Wafer Fab Materials																		
<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/>	Wafer Fab Process																		
PCN Details																					
Description of Change:																					
Texas Instruments is pleased to announce the addition of RFAB using the LBC7 qualified process technology, additional Assembly Site (CDAT, FMX) and BOM options for the devices listed below.																					
<table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">Additional Fab Site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>FFAB</td> <td>ASLNONC10</td> <td>200 mm</td> <td>RFAB</td> <td>LBC7</td> <td>300 mm</td> </tr> </tbody> </table>			Current Fab Site			Additional Fab Site			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	FFAB	ASLNONC10	200 mm	RFAB	LBC7	300 mm	
Current Fab Site			Additional Fab Site																		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																
FFAB	ASLNONC10	200 mm	RFAB	LBC7	300 mm																
The die was also changed as a result of the process change.																					
Construction differences are as follows:																					
Group 1 device:																					
	CRS	MLA	CDAT																		
Wire diam/type	1.0mil Cu	0.96mil Cu	0.8mil Cu																		
Mount compound	435143	4205846	4207123																		
Mold compound	435370, 441086	4208625	4222198																		
Group 2 device:																					
	MLA	MLA (new)	FMX																		
Wire diam/type	0.96mil Cu	0.8mil Cu	0.8mil Cu																		
Group 3 device:																					
	MLA	MLA (new)																			
Wire diam/type	0.96mil Cu	0.8mil Cu																			
Group 4 device:																					
	FMX	MLA	FMX/MLA (new)																		
Wire diam/type	0.96MIL Cu	0.96mil Cu	0.8mil Cu																		
Qual details are provided in the Qual Data Section.																					
Reason for Change:																					
Supply Continuity																					
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																					
None																					
Impact on Environmental Ratings:																					

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change

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
FR-BIP-1	TID	DEU	Freising
RFAB	RFB	USA	Richardson

Die Rev:

Current	New
Die Rev [2P]	Die Rev [2P]
K	A

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
Carsem	CRS	MYS	Jelapang, Ipoh
TI Malaysia	MLA	MYS	Kuala Lumpur
TI Mexico	MEX	MEX	Aguascalientes
TI Chengdu	CDA	CHN	Chengdu

Sample product shipping label (not actual product label)



Group 1 Product Affected: Wafer Fab, Assembly site

SN74LVC10ARGYR	SN74LVC126ARGYRG4	SN74LVC86ARGYRG4
SN74LVC126ARGYR	SN74LVC86ARGYR	

Group 2 Product Affected: Wafer Fab, BOM, Assembly site

SN74LVC10ADR	SN74LVC86ADR	SN74LVC86ADRG4
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Group 3 Product Affected: Wafer Fab, BOM

SN74LVC00ADBR	SN74LVC08ADBR	SN74LVC125ADBR	SN74LVC32ADBRG4
SN74LVC00ADBRG4	SN74LVC08ADBRE4	SN74LVC125ADBRG4	SN74LVC32ANSR
SN74LVC00ANSR	SN74LVC08ANSR	SN74LVC125ANSR	SN74LVC86ADBR
SN74LVC00ANSRG4	SN74LVC08ANSRE4	SN74LVC126ADBR	SN74LVC86ANSR
SN74LVC02ADBR	SN74LVC10ADBR	SN74LVC126ANSR	
SN74LVC02ANSR	SN74LVC10ANSR	SN74LVC32ADBR	

Group 4 Product Affected: Wafer Fab, BOM

SN74LVC00ADR	SN74LVC125ADR	SN74LVC126ADRG4
SN74LVC00ADRG4	SN74LVC126ADR	SN74LVC32ADR
SN74LVC08ADR	SN74LVC126ADRE4	SN74LVC32ADRE4

For alternate parts with similar or improved performance, please visit the product page on TI.com

Group 1 Qualification Report

Approve Date 29-APRIL -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ARGYR	Qual Device: SN74LVC02ARGYR	QBS Reference: SN32570PYR01	QBS Reference: TS3A50170RGYR01	QBS Reference: TXS0104FERGYR	QBS Reference: TXV0108QWRGYR01	QBS Reference: SN74LVC125AWBDAR01	QBS Reference: SN74LVC02ABQAR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	1/77/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	1/77/0	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	1/45/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	-	1/77/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	1/15/0	-	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	1/15/0	-	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	3/30/0	-	1/10/0	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	1/3/0	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	1/3/0	-	-	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	-	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	-	1/3/0	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/3	-	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/3/0	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	3/90/0	-	3/90/0	1/30/0	-

QBS: Qual By Similarity

Qual Device SN74LVC125ARGYR is qualified at MSL1 260C

Qual Device SN74LVC02ARGYR is qualified at MSL1 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/>

Group 2 Qualification Report

Approve Date 12-JULY -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ADR	Qual Device: SN74LVC10ADR	QBS Reference: SN3257QDYYR01	QBS Reference: SN74HCS74QDR01	QBS Reference: SN74LVC125AWR01AR01	QBS Reference: SN74LVC11APWR01	QBS Reference: SN74LVC11ADR	QBS Reference: SN74LVC11ADR	QBS Reference: SN74LVC125ADR
HAST	A2	Biased HAST	130C/85%RH	192 Hours	-	-	3/210/0	3/231/0	-	-	-	-	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-	1/77/0	-	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	-	1/77/0	-	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	3/135/0	-	1/45/0	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	1/77/0	-	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-	-
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	3/30/0	-	1/10/0	-	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	-	-	1/3/0	1/3/0	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	1/6/0	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	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	3/90/0	1/30/0	1/30/0	-	-	-

QBS: Qual By Similarity

Qual Device SN74LVC125ADR is qualified at MSL1 260C

Qual Device SN74LVC10ADR is qualified at MSL1 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/>

Group 2 Qualification Report

Approve Date 12-JULY -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ADR	Qual Device: SN74LVC10ADR	QBS Reference: SN3257QDYRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74LVC125AWBOARQ1	QBS Reference: SN74LVC11APWRQ1	QBS Reference: SN74LVC11ADR	QBS Reference: SN74LVC132ADR
HAST	A2	Biased HAST	130C/85%RH	192 Hours	-	-	3/210/0	3/231/0	-	-	-	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-	1/77/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	-	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	3/135/0	-	1/45/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	1/77/0	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-
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	3/30/0	-	1/10/0	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	-	-	1/3/0	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	1/3/0	1/3/0	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	1/6/0	-	-
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	3/90/0	1/30/0	1/30/0	-	-

QBS: Qual By Similarity

Qual Device SN74LVC125ADR is qualified at MSL1 260C

Qual Device SN74LVC10ADR is qualified at MSL1 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/>

Group 3 Qualification Report

Approve Date 14-JUNE -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ANSR	Qual Device: SN74LVC02ANSR	QBS Reference: SN3257QDYRQ1	QBS Reference: SN74LV14ANSR	QBS Reference: SN74LVC8T245NSR	QBS Reference: SN74LVC125ABQAR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	1/77/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	1/77/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	-	3/231/0	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	-	1/76/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	1/76/0	-	-
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	-	1500 Volts	-	-	1/3/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	1/3/0	-	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	-	-	1/6/0
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 SN74LVC125ANSR is qualified at MSL1 260C

Qual Device SN74LVC02ANSR is qualified at MSL1 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/>

Group 3 Qualification Report

Approve Date 14-JUNE -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ADBR	Qual Device: SN74LVC02ADBR	QBS Reference: SN3257QDYRQ1	QBS Reference: TL494IDR	QBS Reference: TLC320AD77CDBR	QBS Reference: SN74LVC125AWBQARQ1	QBS Reference: SN74LVC02AWBQARQ1
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	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	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	-	-	3/135/0	-	3/231/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-
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	-	1500 Volts	-	-	1/3/0	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	-	-	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	-	1/3/0	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	-	-	1/3/0	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	-	-	1/6/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	-	-	-	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/90/0	-	-	1/30/0	1/30/0

QBS: Qual By Similarity

Qual Device SN74LVC125ADBR is qualified at MSL1 260C

Qual Device SN74LVC02ADBR is qualified at MSL1 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/>

Group 4 Qualification Report

Approve Date 14-JUNE -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ADR	Qual Device: SN74LVC10ADR	QBS Reference: SN3257QDYR01	QBS Reference: SN74HCS74QDR01	QBS Reference: SN74LVC125AWR04R01	QBS Reference: SN74LVC11APWR01	QBS Reference: SN74LVC11ADR	QBS Reference: SN74LVC11ADR	QBS Reference: SN74LVC125ADR
HAST	A2	Biased HAST	130C/85%RH	192 Hours	-	-	3/210/0	3/231/0	-	-	-	-	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-	1/77/0	-	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	-	1/77/0	-	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	3/135/0	-	1/45/0	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	1/77/0	-	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-	-
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	3/30/0	-	1/10/0	-	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	-	-	1/3/0	1/3/0	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	1/6/0	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	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	3/90/0	1/30/0	1/30/0	-	-	-

QBS: Qual By Similarity

Qual Device SN74LVC125ADR is qualified at MSL1 260C

Qual Device SN74LVC10ADR is qualified at MSL1 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/>

Group 4 Qualification Report

Approve Date 12-JULY -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ADR	Qual Device: SN74LVC10ADR	QBS Reference: SN3257QDYRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74LVC125AWBOARQ1	QBS Reference: SN74LVC11APWRQ1	QBS Reference: SN74LVC11ADR	QBS Reference: SN74LVC132ADR
HAST	A2	Biased HAST	130C/85%RH	192 Hours	-	-	3/210/0	3/231/0	-	-	-	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-	1/77/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	-	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	3/135/0	-	1/45/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	1/77/0	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	3/45/0	-	-	-	-
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	3/30/0	-	1/10/0	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	-	-	1/3/0	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	1/3/0	1/3/0	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	1/6/0	-	-
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	3/90/0	1/30/0	1/30/0	-	-

QBS: Qual By Similarity

Qual Device SN74LVC125ADR is qualified at MSL1 260C

Qual Device SN74LVC10ADR is qualified at MSL1 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

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