PCN Number: 2024			2024	240529005.1		PCN Date:		ate:	May 31, 2024					
Titl	Title: Qualification of RI			AB using qualified Process Technology, Die Change, and										
1161	additional Assembly site & BOM options													
Customer Contact:				Change Management team		Dept:			Quality Services					
Pro	Proposed 1 st Ship Date:		:			mple requests ccepted until:			June 30, 2024*					
*Sa	mple re	equests rece	eived a	aftei	r June 30, 202	4 will n	ot b	e s	supporte	ed.				
Cha	nge Ty	pe:												
X	Asseml	oly Site			Design				Wafer I	Bump Material				
X	Asseml	oly Process			Data Sheet				Wafer I	Bump Process				
\boxtimes	Asseml	oly Materials			Part number change			X	Wafer I	Fab Site				
	Mechanical Specification Test Site				X	Wafer I	Fab Materials							
	Packing	g/Shipping/		Test Process			X	Wafer I	Fab Process					
	Labelin	g												
	·		·											

PCN Details

Description of Change:

Texas Instruments is pleased to announce the addition of RFAB using the LBC9 qualified process technology and additional Assembly site & BOM options for the device listed below.

Current Fab Site			Additional Fab Site			
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	
SH-BIP1	HCMOS	150 mm	RFAB	LBC9	300 mm	

The die was also changed as a result of the process change.

Group 1 BOM Table (FAB/Process migration, die change plus BOM update):

	Current	New
Bond Wire	Cu, 0.96 or	Cu 0.8 mil
composition/diameter	1.0 mil	Cu, 0.8 mil

Group 2 BOM Table (RFAB/Process migration, die change plus MLA as new Assembly site & BOM update):

	FMX	FMX new	MLA
Bond Wire composition/diameter	Cu, 0.96	Cu, 0.8 mil	Cu, 0.8 mil

Group 3 BOM Table (RFAB/Process migration, die change plus CDAT as new Assembly site & BOM update (RGY):

	MLA	CDAT
Mount Compound	4205846	4207123
Mold Compound	4208625	4222198
Bond Wire composition/diamete r	Cu, 0.96 mil	Cu, 0.8 mil

Group 4 BOM Table (RFAB/Process migration, die change plus CDAT as new Assembly site & BOM update (DCK/DBV)):

	HFTF	HNA	ASEWH	CDAT
Lead Finish	Matte Sn	NiPdAu	NiPdAu	Matte Sn
Mount Compound	SID# A- 03	SID#400180	SID#1120999A2	4207123
Mold Compound	SID#R-27	SID#450179	SID#3010999A7	4222198

Bond Wire	Cu, 1.0	Au, 0.6 mil	Au or Cu, 0.8	Cu 0 9 mil
composition/diameter	mil		mil or 1.0 mil	Cu, 0.8 mil
Device Marking (DBV	NEBJ	NEBS	NEB3	3JRH
device)				
Device Marking (DCK	WAJ	WAS	WA3	1TR
device)				

Group 5 BOM Table (RFAB/Process migration, die change plus FMX as new Assembly site & BOM update):

	MLA	MLA new	FMX
Bond Wire composition/diameter	Cu, 0.96 mil	Cu, 0.8 mil	Cu, 0.8 mil

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-milimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and 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	
No Change	No Change	No Change	No Change	7

Changes to product identification resulting from this PCN:

Fab Site Information:

	Chip Site	Chip Site	
Chip Site	Origin Code	Country Code	Chip Site City
-	(20L)	(21L)	
SH-BIP-1	SHE	USA	Sherman
RFAB	RFB	USA	Richardson

Die Rev:

Current New

Die Rev [2P]	Die Rev [2P]
A,B,H , J,K,M,-	A

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
ASEWH	AWH	CHN	Weihai
HNA	HNT	THA	Ayutthaya
MLA	MLA	MYS	KUALA LUMPUR
TI Mexico	MEX	MEX	Aguascalientes
HFTF	HFT	CHN	Hefei
CDAT	CDA	CHN	Chengdu

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q: MSL 2 /260C/1 YEAR SEAL DT

MSL 1 /235C/UNLIM 03/29/04

OPT: ITEM:

LBL: 5A (L)TO:3750



(1P) SN74LS07NSR

(Q) 2000 (D) 0336 (31T)LOT: 3959047MLA (4W) TKY(1T) 7523483SI2

(2P) REV: (2P) REV: (20L) CSO: SHE (21L) CCO:USA (22L) ASO: MLA (23L) ACO: MYS

Product Affected:

Group 1 Device List (FAB/Process migration, die change plus BOM update):

CITCH TOTAL	i /tb/ i roccos imgracio	my and distantly brus by	orr apadeoy.
CD74ACT157PWR	SN74AC14N	SN74ACT00PWR	SN74ACT14PWR
CD74ACT257M96	SN74AC14NSR	SN74ACT04DR	SN74ACT32PWR
SN74AC00DR	SN74AC14NSRG4	SN74ACT04PWR	SN74ACT74PWR
SN74AC00PWR	SN74AC14PWR	SN74ACT08DR	SN74ACT86PWR
SN74AC04NSR	SN74AC32DR	SN74ACT08PWR	SN74AHC139PWR
SN74AC04PWR	SN74AC32PWR	SN74ACT08PWRG4	SN74AHC174PWR
SN74AC08PWR	SN74AC74DR	SN74ACT10PWR	SN74AHC367PWR
SN74AC10PWR	SN74AC74PWR	SN74ACT11PWR	SN74AHCT174PWR
SN74AC11PWR	SN74AC86PWR	SN74ACT14DR	SN74AHCT367PWR
SN74AC14DR			

Group 2 Device List (RFAB/Process migration, die change plus MLA as new Assembly site & BOM update):

CD74AC257M96	SN74AHC157DR	SN74AHCT138DR	SN74AHCT594DR
CD74ACT157M96	SN74AHC595DR	SN74AHCT367DR	SN74AHCT595DR
SN74AHC138DR			

Group 3 Device List (RFAB/Process migration, die change plus CDAT as new Assembly site & BOM update (RGY));

SN74AHC139RGYR SN74AHC157RGYR

Group 4 Device List (RFAB/Process migration, die change plus CDAT as new Assembly site & BOM update (DCK/DBV)):

SN74LV1T00DCKR SN74LV1T02DBVR

Group 5 Device List (RFAB/Process migration, die change plus FMX as new Assembly site & BOM update):

CD74AC00M96	CD74ACT00M96	CD74ACT74M96	SN74AC86DR
CD74AC04M96	CD74ACT04M96	SN74AC04DR	SN74ACT00DR
CD74AC08M96	CD74ACT08M96	SN74AC08DR	SN74ACT32DR
CD74AC14M96	CD74ACT14M96	SN74AC10DR	SN74ACT74DR
CD74AC32M96	CD74ACT32M96	SN74AC11DR	SN74ACT86DR
CD74AC74M96			

For alternate parts with similar or improved performance, please visit the product page on $\overline{\text{TI.com}}$

R-CHG-2311-044

TI Information Selective Disclosure

Qualification Report

GATORADE BD15.5 - 14NS_MLA Qual Driver SN74AC14NSR in MLA using 14-pin NS pkg Approve Date 15-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC14NSR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74LVC8T245NSR	QBS Reference: SN74LV244AQDGSRQ1	QBS Reference: PCM1794AQDBRQ1
HAST	A2	Biased HAST	130C/85%RH	192 Hours	-	3/231/0	-	1/77/0	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	-	1/77/0	3/231/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-	1/77/0	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	1/77/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/135/0	3/231/0	1/45/0	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	1/45/0
HTOL	В1	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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC14NSR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74LVC8T245NSR	QBS Reference: SN74LV244AQDGSRQ1	QBS Reference: PCM1794AQDBRQ1
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	-
SD	СЗ	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	-	1/10/0	3/30/0
ESD	E2	ESD CDM	12	250 Volts	1/3/0	-	-	2	2
ESD	E2	ESD CDM	121	500 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	-	1/3/0	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/6/0	-	1/6/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	5	-	3/90/0	-	1/30/0	3/90/0

- QBS: Qual By Similarity
- Qual Device SN74AC14NSR 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/

TI Qualification ID: R-CHG-2311-044

GATORADE BD15.5 - 14PW_MLA QBS Qual SN74AC04PWR in MLA using 14-pin PW pkg Approve Date 15-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC04PWR	Qual Device: SN74AC14PWR	Qual Device: SN74ACT04PWR	Qual Device: SN74ACT14PWR	QBS Reference: SN74HCS74QPWRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	-	-	-	3/231/0
TC	Α4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	3/135/0
HTOL	В1	Life Test	125C	1000 Hours	-	-	-	-	3/231/0
ELFR	В2	Early Life Failure Rate	125C	48 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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC04PWR	Qual Device: SN74AC14PWR	Qual Device: SN74ACT04PWR	Qual Device: SN74ACT14PWR	QBS Reference: SN74HCS74QPWRQ1
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	-	3/30/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	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	-	1/3/0	-	-	-	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 SN74AC04PWR is qualified at MSL1 260C
- Qual Device SN74AC14PWR is qualified at MSL1 260C
- Qual Device SN74ACT04PWR is qualified at MSL1 260C
- Qual Device SN74ACT14PWR 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/

TI Qualification ID: R-CHG-2311-046

GATORADE BD15.5 - 14D_MLA Qual Driver CD74AC04M96 in MLA using 14-pin D pkg Approve Date 15-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: CD74AC04M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74AC04PWR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	-
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	-
UHAST	А3	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	3/135/0	-
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	СЗ	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	3/45/0	-
SD	С3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	3/45/0	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	3/30/0	-

Туре	#	Test Name	Condition	Duration	Qual Device: CD74AC04M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74AC04PWR
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
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	1/6/0	1/3/0
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	3/90/0	-

- · QBS: Qual By Similarity
- Qual Device CD74AC04M96 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
- $\bullet \quad \text{The following are equivalent HTSL options based on an activation energy of 0.7eV: } 150\text{C/1k Hours, and } 170\text{C/420 Hours}$
- 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: $\underline{\text{http://www.ti.com/}}$

TI Qualification ID: R-CHG-2311-039

GATORADE BD15.5 - 14N_FMX Qual Driver SN74AC14N in FMX using 14-pin N pkg Approve Date 14-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC14N	QBS Reference: TLC339IN	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74AC14N
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-
UHAST	А3	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	-	-	3/135/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	3/231/0	-	-
HTOL	В1	Life Test	125C	1000 Hours	-	-	3/231/0	-
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)	-	-	-	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	8 Hours Steam Age	-	-	3/66/0	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	1/3/0

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC14N	QBS Reference: TLC339IN	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: <u>SN74AC14N</u>
ESD	E2	ESD CDM	-	500 Volts	-	-	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	1/3/0
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	-

- QBS: Qual By Similarity
- Qual Device SN74AC14N is qualified at NOT CLASSIFIED NOT CLASSIFIED
- 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: $\underline{\text{http://www.ti.com/}}$

TI Qualification ID: R-CHG-2311-043

GATORADE BD15.5 - 14N_MLA Qual Driver SN74AC14N in MLA using 14-pin N pkg Approve Date 14-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC14N	QBS Reference: SN74HC595N	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM2594HVN- ADJ/NOPB
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	3/231/0	-	3/231/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	-	3/228/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	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	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC14N	QBS Reference: SN74HC595N	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: <u>LM2594HVN-</u> <u>ADJ/NOPB</u>
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	3/66/0	-	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	-	3/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-
ESD	E2	ESD CDM	-	500 Volts	-	-	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	-	1/3/0	-	1/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	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 SN74AC14N is qualified at NOT CLASSIFIED NOT CLASSIFIED
- 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-CHG-2311-042

GATORADE BD15.5 - 14D_FMX Qual Driver CD74AC04M96 in FMX using 14-pin D pkg Approve Date 15-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: CD74AC04M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: CD74AC04M96	QBS Reference: SN74AC04PWR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	-	-
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-	-	-
UHAST	А3	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	-	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	3/231/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	3/231/0	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	3/2400/0	-	-
SD	С3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-	-

Туре	#	Test Name	Condition	Duration	Qual Device: CD74AC04M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: CD74AC04M96	QBS Reference: SN74AC04PWR
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	2/6/0	1/3/0	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	-	2/6/0	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	2/6/0	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	3/90/0	1/30/0	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0	-	-	-
FTY	E6	Final Test Yield	-	-	-	-	1/1/0	-	-

- QBS: Qual By Similarity
- Qual Device CD74AC04M96 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
- $\bullet \quad \text{The following are equivalent HTSL options based on an activation energy of 0.7eV: } 150\text{C/1k Hours, and } 170\text{C/420 Hours}$
- 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-CHG-2311-041

Gatorade BD10P5 PCN - 16 PW Comm (2Q23) in MLA Approve Date 10-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AHCT367PWR	Qual Device: SN74AHCT174PWR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74LV8T594QPWRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	1/77/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-
UHAST	А3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	1/45/0
HTOL	В1	Life Test	125C	1000 Hours	-	-	3/231/0	1/77/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-
SD	С3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AHCT367PWR	Qual Device: SN74AHCT174PWR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74LV8T594QPWRQ1
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	1/10/0
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	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/3/0	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	3/90/0

- QBS: Qual By Similarity
- Qual Device SN74AHCT367PWR is qualified at MSL1 260C
- Qual Device SN74AHCT174PWR 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/

TI Qualification ID: R-CHG-2403-113

Gatorade BD10P5 PCN - 16 D Comm (2Q24) in MLA Approve Date 08-MAY -2024

Qualification Results

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

Туре	*	Test Name	Condition	Duration	Qual Device: SN74AHCT138DR	Qual Device: SN74AHCT367DR	Qual Device: SN74AHCT5950R	Qual Device: SN74AHC157DR	QBS Reference: SN74HCS74QPWRQL	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74LV8TS94QPWRQL	QBS Reference: SN74AHC138QPWRQ1	QBS Reference: SN74AHC157QPWRQ1	QBS Reference: SN74AHCT594DBR	QBS Reference: SN74AHCT367PWR
HAST	A2	Blased HAST	130C/85%RH	96 Hours					3/231/0	3/231/0	1/77/0				
UHAST	АЗ	Autoclave	121C/15psig	96 Hours					3/231/0	3/231/0					
UHAST	АЗ	Unbiased HAST	130C/85%RH	96 Hours						3/231/0	1/77/0				
TC	Д4	Temperature Cycle	-65C/150C	500 Cycles		-			3/231/0	3/231/0	1/77/0				
HTSL	AE	High Temperature Storage Life	150C	1000 Hours					3/135/0	3/135/0					
HTSL	AG	High Temperature Storage Life	175C	500 Hours							1/45/0				
HTOL	B1	Life Test	125C	1000 Hours					3/231/0	1/77/0	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)	-					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								1/22/0	
PD	C4	Physical Dimensions	Cpk>1.67						3/30/0	3/30/0	1/10/0				
ESD	E2	ESD CDM		250 Volts	1/3/0	1/3/0		1/3/0						1/3/0	1/3/0
ESD	E2	ESD CDM		500 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
ESD	E2	ESD HBM		2000 Volts					1/3/0	1/3/0	1/3/0	1/3/0	1/3/0		
LU	E4	Latch-Up	Per JESD78						16/0	1/6/0	1/6/0	1/3/0	1/3/0		1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters		1/30/0	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	3/90/0	1/30/0	1/30/0		

- Preconditioning was performed for Autoclave, Unbiased HAST, THBBlased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
 The following are equivalent HTCL options based on an activation energy of 0.76 v. 125C/LI Hours, 1,40C/480 Hours, 150C/300 Hours, and 155C/240 Hours
 The following are equivalent HTS uponto based on an automation energy of 0.76 v. 150C/LI Hours, 40T/CHC Hours
 The following are equivalent Time Cycle options based on an automation energy of 0.76 v. 150C/LI Hours, 40T/CHC Hours
 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

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 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/S00 Cycles

 The following are equivalent Time Cycle options por 3ESD47: 55C/125C/700 Cycles and 45C/LISOC/F00 Cycles and 45C/LISOC/F00 Cycles and 45C/LISOC/F00 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

Ti Qualification ID: R-CHG-2403-115

Gatorade BD10P5 PCN - 16D Comm (2Q24) FMX Approve Date 08-MAY -2024

Oualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AHCT595DR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74LV8T594QPWRQ1	QBS Reference: SN74AHCT594DBR	QBS Reference: SN74AHCT138DR	QBS Reference: SN74AHCT367DR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	1/77/0	-	-	-
UHAST	АЗ	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	-	-	-	-
UHAST	АЗ	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	-	-	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	1/45/0	-	-	-
HTOL	В1	Life Test	125C	1000 Hours	-	3/231/0	1/77/0	1/77/0	-	-	-
ELFR	В2	Early Life Failure Rate	125C	48 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	-	-	-	-

Туре	*	Test Name	Condition	Duration	Qual Device: SN74AHCT595DR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74LV8T594QPWRQ1	QBS Reference: SN74AHCT594DBR	QBS Reference: SN74AHCT138DR	QBS Reference: SN74AHCT367DR
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB- Free Solder;	-	-	-	-	-	1/22/0	-	1/22/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	3/30/0	1/10/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	1/3/0	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	-	-	-
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	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	-	-	-

- QBS: Qual By Similarity
 Qual Device SN74AHCT595DR 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 HTDL 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-CHG-2403-116

BD10p5 Redbull Q224- (RFAB) in CDAT using 16-pin RGY Approve Date 13-MAY -2024

Qualification Results

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Туре	•	Test Name	Condition	Duration	Qual Device: SN74AHC139RGYR	Qual Device: SN74AHC157RGYR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS595QBQBRQ1	QBS Reference: TXV0168QWRGYRQ1	QBS Reference: CLV8T594QWBQBRQ1	QBS Reference: SN74AHC139QPWRQ1	QBS Reference: SN74AHC157QPWRQ1	QBS Reference: SN74AHC139QWBQBRQ1	QBS Reference: SN74AHC157QWBQBRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours			3/231/0	3/231/0	1/77/0	1/77/0				
UHAST	EA	Autoclave	121C/15psig	96 Hours			3/231/0	3/231/0		1/77/0				
UHAST	EA	Unbiased HAST	130C/85%RH	96 Hours					1/77/0					
тс	A4	Temperature Cycle	-65C/150C	500 Cycles			3/231/0	3/231/0	1/77/0	1/77/0				
HTSL	A6	High Temperature Storage Life	150C	1000 Hours			3/135/0	3/135/0	1/45/0					
HTSL	A6	High Temperature Storage Life	175C	500 Hours						1/45/0				
HTDL	B1	Life Test	125C	1000 Hours			3/231/0	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)				1/15/0							
SD	C3	PB Solderability	8 Hours Steam Age					1/22/0						
SD	C3	PS-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)				1/15/0		1/15/0					
SD	C3	PB-Free Solderability	8 Hours Steam Age					1/22/0						
PD	C4	Physical Dimensions	Cpk=1.67				3/30/0	3/30/0	1/10/0	1/10/0				
ESD	E2.	ESD CDM		2000 Volta				1/3/0						
ESD	E2	ESD CDM		500 Volta			1/3/0		1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	1/1/0
ESD	E2	ESD HBM		2000 Volts			1/3/0		1/3/0	1/3/0	1/3/0	1/3/0		
ESD	E2	ESD HBM		7000 Volts				1/3/0						
LU	E4	Letch-Up	Per JESD78				1/6/0	1/6/0	1/6/0	1/6/0	1/3/0	1/3/0		
CHAR	ES	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	-		-	-	-	-	-
CHAR	ES	Electrical Distributions	Cpk+1.67 Room, hot, and cold				3/90/0	3/90/0	3/90/0	3900	1/30/0	1/30/0	1/30/0	1/20/0

- Quality before Sn (ASP) (

TI Qualification ID: R-CHG-2403-117

Commercial: AC00/AC08/AC32/AC86/ACT00/ACT08/ACT32/ACT86 (RFAB/LBC9) for April MLA TSSOP (MLA) - PCN GATORADE BD14 Approve Date 13-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74ACT08PWR	QBS Reference: SN74HCS74QPWRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/135/0
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0
SD	С3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0
SD	С3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0

Туре	#	Test Name	Condition	Duration	Qual Device: SN74ACT08PWR	QBS Reference: SN74HCS74QPWRQ1
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0

- QBS: Qual By Similarity
- Qual Device SN74ACT08PWR 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: $\underline{\text{http://www.ti.com/}}$

TI Qualification ID: R-CHG-2403-039

Commercial: AC00/AC08/AC32/AC86/ACT00/ACT08/ACT32/ACT86/AC257 (RFAB/LBC9) for April MLA SOIC (D) - PCN GATORADE BD14 Approve Date 13-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74ACT08DR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74ACT08PWR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	-
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	-
UHAST	А3	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	3/135/0	-
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)	-	-	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	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74ACT08DR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74ACT08PWR
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	3/30/0	-
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
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	1/6/0	1/3/0
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	3/90/0	-

- · QBS: Qual By Similarity
- Qual Device SN74ACT08DR 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
- $\bullet \quad \text{The following are equivalent HTSL options based on an activation energy of 0.7eV: } 150\text{C/1k Hours, and } 170\text{C/420 Hours} \\$
- 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: $\underline{\text{http://www.ti.com/}}$

TI Qualification ID: R-CHG-2402-042

Commercial: AC10/AC11/AC74/ACT74 / ACT157/ACT257/AC257 (RFAB/LBC9) for MAY MLA SOIC (D) - PCN GATORADE BD14 Approve Date 16-MAY -2024

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC10DR	Qual Device: SN74AC74DR	Qual Device: CD74AC257M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74AC10DR	QBS Reference: <u>SN74AC74DR</u>	QBS Reference: CD74AC257M96
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	-	-	-
UHAST	А3	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	3/135/0	-	-	-
HTOL	В1	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)	-	-	-	-	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	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	3/30/0	3/30/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	-	1/3/0	1/3/0	1/3/0

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC10DR	Qual Device: SN74AC74DR	Qual Device: CD74AC257M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74AC10DR	QBS Reference: SN74AC74DR	QBS Reference: CD74AC257M96
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	-	-	1/3/0	1/3/0	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	1/3/0	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/6/0	1/6/0	1/3/0	1/3/0	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	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	-	-	-

- QBS: Qual By Similarity
 Qual Device SN74AC10DR is qualified at MSL1 260C
 Qual Device SN74AC74DR is qualified at MSL1 260C
 Qual Device CD74AC257M96 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/Ik Hours, 140C/490 Hours, 150C/300 Hours, and 155C/240 Hours
 The following are equivalent HTSL options based on an activation energy of 0.7eV: 150C/Ik Hours, and 170C/420 Hours
 The following are equivalent Temp Cycle options per JESD47:-55C/I25C/700 Cycles and -65C/I50C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

TI Qualification ID: R-CHG-2404-063

Commercial: AC10/AC11/AC74/ACT10/ACT11/ACT157/ACT74 (RFAB/LBC9) for May MLA TSSOP (PW) - PCN GATORADE BD14 Approve Date 14-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC74PWR	Qual Device: SN74AC10PWR	Qual Device: CD74ACT157PWR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74ACT08PWR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/135/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	-
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)	-	-	-	-	1/15/0	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC74PWR	Qual Device: SN74AC10PWR	Qual Device: CD74ACT157PWR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74ACT08PWR
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	1/15/0	-
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
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	1/3/0	1/3/0	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/3/0	1/3/0	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 SN74AC74PWR is qualified at MSL1 260C
- Qual Device SN74AC10PWR is qualified at MSL1 260C
- Qual Device CD74ACT157PWR 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/

TI Qualification ID: R-CHG-2402-082

Commercial: AC10/AC11/AC257/AC74/ACT74/ACT157/ACT257/ (RFAB/LBC9) for May FMX SOIC (D) - PCN GATORADE BD14 Approve Date 16-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC10DR	Qual Device: SN74AC74DR	Qual Device: CD74AC257M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: <u>TL494IDR</u>
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	3/231/0	3/231/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-	3/231/0
UHAST	А3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/135/0	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	-	3/231/0
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	3/231/0	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74AC10DR	Qual Device: SN74AC74DR	Qual Device: CD74AC257M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: TL494IDR
HTOL	В1	Life Test	150C	300 Hours	-	-	-	-	-	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/2400/0	3/2400/0	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	-	-	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	-	-
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	-	2/6/0	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	1/3/0	1/3/0	-	2/6/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/3/0	1/3/0	1/6/0	2/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0	-	3/90/0	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	-	3/90/0	-	-
FTY	E6	Final Test Yield	-	-	-	-	-	-	1/1/0	-

Commercial: AC00/AC08/AC32/AC86/ACT08/ACT08/ACT08/ ACT32/ACT86 (RFAB/LBC9) for April FMX SOIC (D) - PCN GATORADE BD14 Approve Date 15-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: CD74ACT08M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: TL494IDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	3/231/0
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-	3/231/0
UHAST	А3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/135/0	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	3/231/0	-
HTOL	В1	Life Test	150C	300 Hours	-	-	-	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	3/2400/0	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	3/228/0
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-

Туре	#	Test Name	Condition	Duration	Qual Device: CD74ACT08M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: TL494IDR
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	-	2/6/0	-
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	2/6/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/6/0	2/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	3/90/0	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0	-	-
FTY	E6	Final Test Yield	-	-	-	-	1/1/0	-

- QBS: Qual By Similarity
- Qual Device CD74ACT08M96 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/

TI Oualification ID: R-CHG-2402-043

BD13 DCK PCN CDAT Approve Date 03-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74LV1T00DCKR	QBS Reference: SN74LV1T34QDCKRQ1	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TLV9061IDBVR	QBS Reference: SN74LV1T125QDCKRQ1	QBS Reference: SN74AHCT1G125DCKR	QBS Reference: SN74AHCT1G00DCKR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	1/77/0	3/231/0	3/231/0	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	1/77/0	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	1/77/0	3/231/0	3/231/0	-	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	1/45/0	3/135/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	-	-	-
HTOL	В1	Life Test	125C	1000 Hours	-	-	3/231/0	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	1/77/0	-	3/231/0	-	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-	-	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	-	3/228/0	-	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	3/228/0	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	1/15/0	-	-	-	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74LV1T00DCKR	QBS Reference: SN74LV1T34QDCKRQ1	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TLV9061IDBVR	QBS Reference: SN74LV1T125QDCKRQ1	QBS Reference: SN74AHCT1G125DCKR	QBS Reference: SN74AHCT1G00DCKR
SD	C3	PB-Free 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); PB- Free Solder;	-	-	-	-	3/66/0	-	1/22/0	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	-	3/15/0	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	1/10/0	3/30/0	-	1/10/0	-	-
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	-	-
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	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0	3/90/0	-	1/30/0	-	-
FTY	E6	Final Test Yield	-	-	-	1/1/0	-	3/3/0	-	-	-

- QBS: Qual By Similarity
 Qual Device SN74LV1T00DCKR 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 HTCL 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 -55C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

TI Qualification ID: R-CHG-2403-087

BD13 DBV PCN CDAT Approve Date 03-MAY -2024

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: SN74LV1T02DBVR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TLV9061IDBVR	QBS Reference: SN74LV1T125QDCKRQ1	QBS Reference: SN74AHCT1G125DBVR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0		-
UHAST	А3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-		
UHAST	А3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/231/0		
TC	Α4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0		
HTSL	A6	High Temperature Storage Life	150C	1000 Hours		3/135/0	-	-	
HTSL	A6	High Temperature Storage Life	170C	420 Hours		-	3/231/0	-	
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	-		
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0		-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	-	-

Туре	#	Test Name	Condition	Duration	Qual Device: SN74LV1T02DBVR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TLV9061IDBVR	QBS Reference: SN74LV1T125QDCKRQ1	QBS Reference: SN74AHCT1G125DBVR
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	3/228/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	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;	-	-	-	3/66/0	-	-
PD	C4	Physical Dimensions	(per mechanical drawing)		-	-	3/15/0	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	-	1/10/0	-
ESD	E2	ESD CDM	-	250 Volts	-		-		1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0	-	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	-		-		1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	-	1/6/0	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	1/30/0

Туре	#	Test Name	Condition	Duration	Qual Device: SN74LV1T02DBVR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TLV9061IDBVR	QBS Reference: SN74LV1T125QDCKRQ1	QBS Reference: SN74AHCT1G125DBVR
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-		3/90/0		1/30/0	-
FTY	E6	Final Test Yield	-		-	-	3/3/0	-	-

- · QBS: Qual By Similarity
- . Qual Device SN74LV1T02DBVR 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/

TI Qualification ID: R-CHG-2403-088

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