PCN Number:	20240529005.1	**PCN Date:**	May 31, 2024
Title:	Qualification of RFAB using qualified Process Technology, Die Change, and additional Assembly site & BOM options		
Customer Contact:	Change Management team	**Dept:**	Quality Services
Proposed 1st Ship Date:	August 29, 2024	**Sample requests accepted until:**	June 30, 2024*

***Sample requests received after June 30, 2024 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 Materials
☒	Packing/Shipping/ Labeling	☐	Test Process	☒	Wafer Fab Process

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 composition/diameter	Cu, 0.96 or 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/diameter	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 composition/diameter	Cu, 1.0 mil	Au, 0.6 mil	Au or Cu, 0.8 mil or 1.0 mil	**Cu, 0.8 mil**
Device Marking (DBV device)	NEBJ	NEBS	NEB3	**3JRH**
Device Marking (DCK device)	WAJ	WAS	WA3	**1TR**

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

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
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)

Product Affected:

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

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 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

Type	#	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	A3	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	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

Type	#	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	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	-	1/10/0	3/30/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-	-
ESD	E2	ESD CDM	-	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	-	-	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

R-CHG-2311-046

Qualification Report

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

Type	#	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	A3	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
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	1/15/0

Type	#	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

R-CHG-2311-039

Qualification Report

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

Type	#	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	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	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	3/135/0	-
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	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	3/30/0	-

Type	#	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
- 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-2311-039

R-CHG-2311-043

Qualification Report

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

Type	#	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	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	-	-	3/135/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	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	-
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

Type	#	Test Name	Condition	Duration	Qual Device: SN74AC14N	QBS Reference: TLC339IN	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: SN74AC14N
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: http://www.ti.com/

TI Qualification ID: R-CHG-2311-043

R-CHG-2311-042

Qualification Report

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

Type	#	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	A3	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	-

Type	#	Test Name	Condition	Duration	Qual Device: SN74AC14N	QBS Reference: SN74HC595N	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM2594HVN-ADJ/NOPB
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

R-CHG-2311-041

Qualification Report

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

Type	#	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	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	-	-	-
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	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-	-

Type	#	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
- 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-2311-041

R-CHG-2403-113

Qualification Report

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

Type	#	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	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-
UHAST	A3	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	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	-

Type	#	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

R-CHG-2403-115

Qualification Report

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74AHCT138DR	Qual Device: SN74AHCT367DR	Qual Device: SN74AHCT595DR	Qual Device: SN74AHC157DR	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74HCS74QDRQ1	QBS Reference: SN74LVC1G86QDBVRQ1	QBS Reference: SN74AHC1G86QDBVRQ1	QBS Reference: SN74AHC157QDRQ1	QBS Reference: SN74AHC595QDRQ1	QBS Reference: SN74AHC157QDRQ1
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	-	-	-	-	-
HTSL	A6	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	-	-	-	-	-	1/6/0	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	-	-

- QBS: Qual By Similarity
- Qual Device SN74AHCT138DR is qualified at MSL1 260C
- Qual Device SN74AHCT367DR is qualified at MSL1 260C
- Qual Device SN74AHCT595DR is qualified at MSL1 260C
- Qual Device SN74AHC157DR 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-2403-115

R-CHG-2403-116

Qualification Report

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

Qualification Results

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

Type	#	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	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	-	-	-	-
HTSL	A6	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	-	-	-	-

Type	#	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 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-2403-116

R-CHG-2403-117

Qualification Report

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

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74AHC138RGYR	Qual Device: SN74AHC157RGYR	QBS Reference: SN74HC574QPWRQ1	QBS Reference: SN74HC595QRQ1RQ1	QBS Reference: TXVU160QWRGYRQ1	QBS Reference: CDV37B80QWRQ1RQ1	QBS Reference: SN74AHC138QPWRQ1	QBS Reference: SN74AHC157QPWRQ1	QBS Reference: SN74AHC138QWRQ1RQ1	QBS Reference: SN74AHC157QWRQ1RQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	1/77/0	1/77/0	-	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	1/77/0	-	-	-	-	-
TC	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	-	-	-	-
HTOL	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	PB-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 Volts	-	-	-	1/3/0	-	-	-	-	-	-
ESD	E2	ESD CDM	-	500 Volts	-	-	1/3/0	-	1/3/0	1/3/0	1/3/0	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	1/3/0	-	-
ESD	E2	ESD HBM	-	7000 Volts	-	-	-	1/3/0	-	-	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	1/6/0	1/3/0	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	3/90/0	3/90/0	1/30/0	1/30/0	1/30/0	1/30/0

- Qual Device SN74AHC157RGYR is qualified at MSL1 260C
- Preconditioning was performed for Autoclave, Unbiased HAST, TH5/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-2403-117

R-CHG-2403-039

Qualification Report

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74ACT08PWR	QBS Reference: SN74HCS74QPWRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0
UHAST	A3	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
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	-
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

Type	#	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: http://www.ti.com/

TI Qualification ID: R-CHG-2403-039

R-CHG-2402-042

Qualification Report

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

Type	#	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	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	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	3/135/0	-
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	-

Type	#	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
- 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-2402-042

R-CHG-2404-063

Qualification Report

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

Qualification Results

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

Type	#	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
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	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	3/135/0	-	-	-
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	-	-	-
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

Type	#	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/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-2404-063

R-CHG-2402-082

Qualification Report

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

Type	#	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	A3	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	-

Type	#	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

R-CHG-2312-023

Qualification Report

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74AC10DR	Qual Device: SN74AC74DR	Qual Device: CD74AC257M96	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	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-	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	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	-

Type	#	Test Name	Condition	Duration	Qual Device: SN74AC10DR	Qual Device: SN74AC74DR	Qual Device: CD74AC257M96	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: LM393BIDR	QBS Reference: TL494IDR
HTOL	B1	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	-

R-CHG-2402-043

Qualification Report

Commercial: AC00/AC08/AC32/AC86/ACT08/ACT00/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

Type	#	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	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-	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	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	B1	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	-	-

Type	#	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 Qualification ID: R-CHG-2402-043

R-CHG-2403-087

Qualification Report

BD13 DCK PCN CDAT
Approve Date 03-MAY -2024

Qualification Results

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

Type	#	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	B1	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	-	-	-	-

Type	#	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 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-2403-087

R-CHG-2403-088

Qualification Report

BD13 DBV PCN CDAT
Approve Date 03-MAY -2024

Qualification Results

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

Type	#	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	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	-	-	-
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	-	-	-

Type	#	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

Type	#	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

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