12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20240429005.1
Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet, and additional Assembly site/BOM options for select devices
Change Notification / Sample Request

Date: April 30, 2024
To: PREMIER FARNELL PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments (TI). The details of this change are on the following pages, and are in alignment with our standard product change notification (PCN) process.

TI requires acknowledgement of receipt of this notification within 30 days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 30 days of this notification, given that samples are not built ahead of the change.

The Proposed First Ship date in this PCN letter is the earliest possible date that customers could receive the changed material. It is our commitment that the changed device will not ship before that date. If samples are requested within the 30 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

This particular PCN is related to TI's multiyear transition plan for our two remaining factories with 150-millimeter production (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). DFAB will remain open, but will focus on 200-mm production, with a smaller set of technologies. SFAB will close no earlier than 2024 and no later than 2025. As referenced in the "reason for change" below, these changes are part of our multiyear plan to transition these products to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the Change Management team. For sample requests or sample related questions, contact your local Field Sales Representative. As always, we thank you for your continued business.

Change Management Team
SC Business Services

20240429005.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
SN75174N	NULL

Technical details of this Product Change follow on the next page(s).

PCN Number:	20240429005.1	PCN Date:	April 30, 2024
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet, and additional Assembly site/BOM options for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	July 29, 2024	Sample requests accepted until:	May 30, 2024*

***Sample requests received after May 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 Material
☒	Packing/Shipping/Labeling	☐	Test Process	☒	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to Assembly site/BOM options for the devices listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
SFAB	JI1	150 mm	RFAB	LBC7	300 mm
SFAB	OI	150 mm			
SFAB	IMPC60	150 mm			
DFAB	LBC2	150 mm			
DFAB	LBC3S	150mm / 200mm			

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

Construction differences are as follows:

Group 1 Device: No material change

Group 2 Device: No material differences between sites

	Current	Proposed
Assembly site	MLA	FMX

Group 3 Device: No material differences between sites

	Current	Proposed
Assembly site	MLA	CDAT

Group 4 Device: No material differences between sites

	Current	Proposed
Assembly site	TAI	MLA

Group 5 Device:

	TAI	MLA
Mount compound	4042500	4147858
Mold compound	4205694	4211880
Wire diam/type	0.96mil, 1.15 mil Au	0.96mil Cu

The datasheets will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history. The links to the revised datasheets are available in the table below.

Changes from Revision B (May 1995) to Revision C (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 5
- Changed Note A in Figure 6-2 and Figure 6-3 8

Changes from Revision B (May 1995) to Revision C (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 5
- Changed Note A in Figure 6-3 9

Changes from Revision D (April 1998) to Revision E (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 5
- Changed Note A in Figure 6-2 7

Changes from Revision F (January 2018) to Revision G (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 4
- Changed Note A in Figure 6-3 6

Changes from Revision E (April 2006) to Revision F (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 6
- Changed the $t_{t(OD)}$ MIN value from 10ns to 9ns in the *Switching Characteristics* 7

Changes from Revision E (April 2006) to Revision F (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 6

Changes from Revision F (October 2009) to Revision G (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table..... 5

TEXAS INSTRUMENTS

SN65LBC172A, SN75LBC172A
SLLS447D – OCTOBER 2000 – REVISED APRIL 2024

Changes from Revision C (August 2008) to Revision D (April 2024) **Page**

- Changed the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added the *Thermal Information* table 5

TEXAS INSTRUMENTS

AM26LV31E
SLLS848C – APRIL 2008 – REVISED APRIL 2024

Changes from Revision B (September 2016) to Revision C (April 2024) **Page**

- Changed the Device Information table to the *Package Information* table..... 1
- Changed the *Thermal Information* table..... 5
- Changed the note in Figure 6-3 7

TEXAS INSTRUMENTS

SN75ALS174
SLLSFU5A – JUNE 2023 – REVISED APRIL 2024

Changes from Revision * (June 2023) to Revision A (April 2024) **Page**

- Changed the *Thermal Information* table..... 4
- Changed Note A in Figure 6-4 6

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
SN75172	SLLS038B	**SLLS038C**	http://www.ti.com/product/SN75172
SN75174	SLLS039B	**SLLS039C**	http://www.ti.com/product/SN75174
SN75ALS172A	SLLS121D	**SLLS121E**	http://www.ti.com/product/SN75ALS172A
SN75ALS174A	SLLS122F	**SLLS122G**	http://www.ti.com/product/SN75ALS174A
SN65LBC174, SN75LBC174	SLLS162E	**SLLS162F**	http://www.ti.com/product/SN65LBC174
SN65LBC172, SN75LBC172	SLLS163E	**SLLS163F**	http://www.ti.com/product/SN65LBC172
SNx5LBC174A	SLLS446F	**SLLS446G**	http://www.ti.com/product/SN65LBC174A
SN65LBC172A, SN75LBC172A	SLLS447C	**SLLS447D**	http://www.ti.com/product/SN65LBC172A
AM26LV31E	SLLS848B	**SLLS848C**	http://www.ti.com/product/AM26LV31E
SN75ALS174	SLLSFU5	**SLLSFU5A**	http://www.ti.com/product/SN75ALS174

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-millimeter 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
DL-LIN	DLN	USA	Dallas
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

Current	New
Die Rev [2P]	**Die Rev [2P]**
A, B, C,-	**-**

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TAI	TAI	TWN	Chung Ho, New Taipei City
CDAT	**CDA**	**CHN**	**Chengdu**
MLA	**MLA**	**MYS**	**Kuala Lumpur**
FMX	**MEX**	**MEX**	**Aguascalientes**

Sample product shipping label (not actual product label):

Product Affected:

Group 1 Device: Wafer fab, Design, Data sheet

AM26LV31EINSR	AM26LV31INSR	SN65LBC174A16DWR	SN75174N

AM26LV31EIPWR	SN65LBC172A16DWR	SN65LBC174A16DWRG4	SN75174NE4
AM26LV31EIPWRG4	SN65LBC172AN	SN65LBC174AN	SN65LBC172ADWR
AM26LV31IDR	SN65LBC172ANE4	SN75172N	

Group 2 Device: Wafer fab, Design, Data sheet, Assembly site

AM26LV31EIDR	AM26LV31EIDRG4

Group 3 Device: Wafer fab, Design, Data sheet, Assembly site

AM26LV31EIRGYR	AM26LV31EIRGYRG4

Group 4 Device: Wafer fab, Design, Data sheet, Assembly site

SN75ALS174ADWR	SN75174DWR	SN75174DWRE4	SN75172DWR

Group 5 Device: Wafer fab, Design, Data sheet, Assembly site, BOM

SN65LBC174ADWR	SN75LBC172DWR	SN75ALS172ADWR
SN65LBC174DWR	SN75ALS174DWR	

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

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN65LBC172ADWR	Qual Device: SN65LBC174ADWR	Qual Device: SN65LBC174DWR	Qual Device: SN75172DWR	Qual Device: SN75174DWR	Qual Device: SN75ALS172ADWR	Qual Device: SN75ALS174ADWR	Qual Device: SN75ALS174DWR	Qual Device: SN75LBC172DWR	QBS Reference (Package): ULN2803CDWR	QBS Reference (Package): SN74HCS244QPWRQ1	QBS Reference (Product): AM26LV31EIDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	-	-	-	1/77/0	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	-	-	-	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	-	-	-	-	-	1/77/0	1/77/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	-	-	-	-	-	1/45/0	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	-	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	1/76/0	-	-	-
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	1/3/0	-	-	-	-	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM (Bus Pins)	-	12000 Volts	1/3/0	1/3/0	-	-	-	-	-	-	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	-	-	-	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	4000 Volts	-	-	1/3/0	-	-	1/3/0	1/3/0	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM	-	5000 Volts	1/3/0	1/3/0	-	-	-	-	-	-	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/6/0	1/6/0	1/6/0	-	-	1/6/0	1/6/0	1/6/0	1/6/0	-	1/6/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0	1/30/0	1/30/0	1/30/0	1/30/0	1/30/0	1/30/0	1/30/0	-	1/30/0

- QBS: Qual By Similarity
- Qual Device SN65LBC172ADWR is qualified at MSL1 260C
- Qual Device SN65LBC174ADWR is qualified at MSL1 260C
- Qual Device SN65LBC174DWR is qualified at MSL1 260C
- Qual Device SN75172DWR is qualified at MSL1 260C
- Qual Device SN75174DWR is qualified at MSL1 260C
- Qual Device SN75ALS172ADWR is qualified at MSL1 260C
- Qual Device SN75ALS174ADWR is qualified at MSL1 260C
- Qual Device SN75ALS174DWR is qualified at MSL1 260C
- Qual Device SN75LBC172DWR 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-2206-018

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31IDR	QBS Reference (Package): TCA9546ADR	QBS Reference (Package): TL494IDR	QBS Reference (Process): AM26LV31EIDR
HAST	A2	Biased HAST	130C/85%RH	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	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/231/0	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	-	1/76/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	-	1/76/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	3/66/0	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-

- QBS: Qual By Similarity
- Qual Device AM26LV31IDR 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-2212-024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN65LBC172AN	Qual Device: SN65LBC174AN	Qual Device: SN75172N	Qual Device: SN75174N	QBS Reference (Package): MSP430F2013IN	QBS Reference (Process, Product): SN74HCS74QPWRQ1
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	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
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	1/76/0	1/76/0	1/76/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	1/76/0	1/76/0	1/76/0	-	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	-	-	3/66/0	-
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	1/3/0	-	-	-

Type	#	Test Name	Condition	Duration	Qual Device: SN65LBC172AN	Qual Device: SN65LBC174AN	Qual Device: SN75172N	Qual Device: SN75174N	QBS Reference (Package): MSP430F2013IN	QBS Reference (Process, Product): SN74HCS74QPWRQ1
ESD	E2	ESD HBM (Bus Pins)	-	12000 Volts	1/3/0	1/3/0	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/0	-	1/3/0
ESD	E2	ESD HBM	-	5000 Volts	1/3/0	1/3/0	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/6/0	1/6/0	1/6/0	1/6/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0	1/30/0	-	-

- QBS: Qual By Similarity
- Qual Device SN65LBC172AN is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN65LBC174AN is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN75172N is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN75174N 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-2205-045

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31EINSR	Qual Device: AM26LV31INSR	QBS Reference (Package): SN74LVC8T245NSR	QBS Reference (Product): AM26LV31EIDR
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/231/0	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	1/76/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	1/76/0	-	-
ESD	E2	ESD CDM	-	250 Volts	-	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	1/3/0
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	1/3/0	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	1/30/0

- QBS: Qual By Similarity
- Qual Device AM26LV31EINSR is qualified at MSL1 260C
- Qual Device AM26LV31INSR 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-2206-017

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31EIRGYR	QBS Reference (Package): TS3A5017QRGYRQ1	QBS Reference (Process): TPS59632QRHBRQ1	QBS Reference (Product): AM26LV31EIDR
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	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	-	-	1/76/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	-	-	1/76/0
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31EIRGYR	QBS Reference (Package): TS3A5017QRGYRQ1	QBS Reference (Process): TPS59632QRHBRQ1	QBS Reference (Product): AM26LV31EIDR
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device AM26LV31EIRGYR is qualified at MSL2 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-2205-046

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31EIPWR	QBS Reference (Product): AM26LV31EINSR	QBS Reference (Package, Process): TCA6416PW
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	-	-	3/231/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	-	-
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	1/3/0	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31EIPWR	QBS Reference (Product): AM26LV31EINSR	QBS Reference (Package, Process): TCA6416PW
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0

- QBS: Qual By Similarity
- Qual Device AM26LV31EIPWR 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-2205-044

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN65LBC172A16DWR	QBS Reference (Package): TSS721AD	QBS Reference (Product, Package): SN65LBC175DWR	QBS Reference (Product): SN65LBC172ADWR
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	-	1/76/0	1/76/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	-	1/76/0	1/76/0
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	-	1/3/0
ESD	E2	ESD HBM (Bus Pins)	-	12000 Volts	-	-	-	1/3/0
ESD	E2	ESD HBM	-	5000 Volts	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device SN65LBC172A16DWR 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-2205-048

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LV31EIDR	QBS Reference: TLV9062ID	QBS Reference: TCA9546ADR	QBS Reference: TL494IDR
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	96 Hours	-	3/231/0	-	-
TC	A4	Temperature Cycle	-65/150C	500 Cycles	-	3/231/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	170C	420 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	-	3/2400/1[1]	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	-	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	-	-	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	3/66/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	3/66/0	-	-
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	3/9/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	3/9/0	-	-
ESD	E2	ESD HBM	-	15000 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	3/18/0	-	-
CHAR	E5	Electrical Characterization	Min, Typ, Max Temp	-	1/30/0	3/90/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	-	-

- QBS: Qual By Similarity
- Qual Device AM26LV31EIDR 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/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

TI Qualification ID: R-CHG-2205-047

[1]-Die EOS
1 unit – discounted

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