

PCN Number:	20240328001.1	PCN Date:	March 28, 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:	June 26, 2024	Sample requests accepted until:	April 27, 2024*																								
*Sample requests received after April 27, 2024 will not be supported.																											
Change Type:																											
<input checked="" type="checkbox"/> Assembly Site	<input checked="" type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Material																									
<input checked="" type="checkbox"/> Assembly Process	<input checked="" type="checkbox"/> Data Sheet	<input type="checkbox"/> Wafer Bump Process																									
<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input checked="" type="checkbox"/> Wafer Fab Site																									
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input checked="" type="checkbox"/> Wafer Fab Material																									
<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/> Wafer Fab Process																									
PCN Details																											
Description of Change:																											
Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to Assembly site/BOM options for the devices listed below.																											
<table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">Additional Fab Site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>SFAB</td> <td>J11</td> <td>150 mm</td> <td rowspan="3">RFAB</td> <td rowspan="3">LBC7</td> <td rowspan="3">300 mm</td> </tr> <tr> <td>SFAB</td> <td>OI</td> <td>150 mm</td> </tr> <tr> <td>SFAB</td> <td>IMPC60-80</td> <td>150 mm</td> </tr> </tbody> </table>			Current Fab Site			Additional Fab Site			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	SFAB	J11	150 mm	RFAB	LBC7	300 mm	SFAB	OI	150 mm	SFAB	IMPC60-80	150 mm	
Current Fab Site			Additional Fab Site																								
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																						
SFAB	J11	150 mm	RFAB	LBC7	300 mm																						
SFAB	OI	150 mm																									
SFAB	IMPC60-80	150 mm																									
The die was also changed as a result of the process change.																											
Construction differences are as follows:																											
Group 1 Device																											
	From	To																									
Wire diam/type	0.96mil Cu	0.80mil Cu																									
Group 2 Device																											
	ASESH	MLA	FMX																								
Wire diam/type	0.80mil Au, 1.0mil Cu	0.96mil Cu	0.80mil Cu																								
Mount compound	EY1000063	4147858	4147858																								
Mold compound	EN2000506	4211880	4211880																								
Group 3 Device																											
	ASESH	MLA																									
Wire diam/type	1.0mil Cu	0.80mil Cu																									
Mount compound	EY1000063	4147858																									
Mold compound	EN2000508	4211471																									
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 O (June 2016) to Revision P (March 2024)	Page
• Changed the Device Information table to the <i>Package Information</i> table.....	1
• Changed <i>Thermal Information</i> table.....	5
• Changed Figure 5-1	7
• Changed Figure 6-1	8



AM26LS31, AM26LS31M

SLLS114M – JANUARY 1979 – REVISED MARCH 2024

Changes from Revision L (October 2018) to Revision M (March 2024)	Page
• Changed the Device Information table to the <i>Package Information</i> table.....	1
• Changed the <i>Thermal Information</i> table.....	5



MC3487

SLLS098D – MAY 1980 – REVISED MARCH 2024

Changes from Revision C (February 2004) to Revision D (March 2024)	Page
• Changed the numbering format for tables, figures, and cross-references throughout the document.....	1



SN75158

SLLS085C – JANUARY 1977 – REVISED MARCH 2024

Changes from Revision B (May 1995) to Revision C (March 2024)	Page
• Changed the numbering format for tables, figures, and cross-references throughout the document.....	1



SN75ALS192

SLLS007E – JULY 1985 – REVISED MARCH 2024

Changes from Revision D (April 1998) to Revision E (March 2024)	Page
• Changed the numbering format for tables, figures, and cross-references throughout the document.....	1



SN75ALS191

SLLS032C – DECEMBER 1987 – REVISED MARCH 2024

Changes from Revision B (May 1995) to Revision C (March 2024)	Page
• Changed the numbering format for tables, figures, and cross-references throughout the document.....	1



SN75ALS194

SLLS009E – OCTOBER 1985 – REVISED MARCH 2024

Changes from Revision D (May 1995) to Revision E (March 2024)	Page
• Changed the numbering format for tables, figures, and cross-references throughout the document.....	1



UA9638

SLLS112D – APRIL 1994 – REVISED MARCH 2024

Changes from Revision C (April 1994) to Revision D (March 2024)	Page
• Changed the numbering format for tables, figures, and cross-references throughout the document.....	1

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
AM26C31	SLLS103O	SLLS103P	http://www.ti.com/product/AM26C31
AM26LS31	SLLS114L	SLLS114M	http://www.ti.com/product/AM26LS31
MC3487	SLLS098C	SLLS098D	http://www.ti.com/product/MC3486
SN75158	SLLS085B	SLLS085C	http://www.ti.com/product/SN75158
SN75ALS192	SLLS007D	SLLS007E	http://www.ti.com/product/SN75ALS192

SN75ALS191	SLLS032B	SLLS032C	http://www.ti.com/product/SN75ALS191
SN75ALS194	SLLS009D	SLLS009D	http://www.ti.com/product/SN75ALS194
uA9638C	SLLS112C	SLLS112D	http://www.ti.com/product/uA9638C

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
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change

Changes to product identification resulting from this PCN:

Fab Site Information:

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

Die Rev:

Current

New

Die Rev [2P]	Die Rev [2P]
A, B, E,-	-

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
ASESH	ASH	CHN	Shanghai
MLA	MLA	MYS	Kuala Lumpur
FMX	MEX	MEX	Aguascalientes

Sample product shipping label (not actual product label)





MADE IN: Malaysia
2DC: 2Q:

MSL 2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L)T0:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO: SHE (21L) CCO:USA
(22L) ASO: MLA (23L) ACO: MYS

Group 1 Product Affected:

AM26C31CNSR	AM26LS31CN	SN75ALS191DR	SN75ALS194NSR
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AM26C31IDBR	AM26LS31CN-E	SN75ALS191P	UA9638CDR
AM26C31IDBRE4	AM26LS31CNSR	SN75ALS191PE4	UA9638CDRG4
AM26C31IDR	MC3487DR	SN75ALS191PSR	UA9638CP
AM26C31IN	SN75158DR	SN75ALS192DR	UA9638CPE4
AM26C31INE4	SN75158P	SN75ALS192NSR	
AM26C31INSR	SN75158PSR	SN75ALS194DR	
Group 2 Product Affected:			
AM26LS31CDR			
Group 3 Product Affected:			
AM26C31IPWR			

For alternate parts with similar or improved performance, please visit the product page on [TI.com](https://www.ti.com)

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LS31CDR	QBS Reference: TPS2543QRTETQ1	QBS Reference: TL494IDR	QBS Reference: MC33063ADR	QBS Reference: AM26LV31EIDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	3/231/0	-
UHAST	A3	Autoclave	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	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	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	-	2/1600/0	-
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)	-	-	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
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	1/3/0	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	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
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 AM26LS31CDR 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-2301-005

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN7SALS194DR	Qual Device: SN7SALS192DR	Qual Device: MC3487DR	Qual Device: AM26C31DR	Qual Device: UA9638CDR	Qual Device: SN7SALS191DR	Qual Device: SN7S158DR	QBS Reference (Process, Product): SN3257Q0YYRQ1	QBS Reference (Package): TPS7B4256Q0RQ1	QBS Reference (Product): AM26LS31CDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	-	3/240/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	-	3/240/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	-	-	-	-	3/240/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	-	-	-	3/150/0	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	-	-	-	3/231/0	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	-	-	-	-	-	3/2400/0	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	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	-	-	-
SD	C3	PB Solderability	Precondition w/155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	-	-	-	-	1/30/0	-
SD	C3	PB-Free Solderability	Precondition w/155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	-	-	-	-	1/30/0	-
ESD	E2	ESD CDM	-	1000 Volts	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
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/3/0	1/3/0	-	-	-	1/3/0	-	-	1/3/0

Type	#	Test Name	Condition	Duration	Qual Device: SN7SALS194DR	Qual Device: SN7SALS192DR	Qual Device: MC3487DR	Qual Device: AM26C31DR	Qual Device: UA9638CDR	Qual Device: SN7SALS191DR	Qual Device: SN7S158DR	QBS Reference (Process, Product): SN3257Q0YYRQ1	QBS Reference (Package): TPS7B4256Q0RQ1	QBS Reference (Product): AM26LS31CDR
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

- QBS: Qual By Similarity
- Qual Device SN7SALS194DR is qualified at MSL1 260C
- Qual Device SN7SALS192DR is qualified at MSL1 260C
- Qual Device MC3487DR is qualified at MSL1 260C
- Qual Device AM26C31DR is qualified at MSL1 260C
- Qual Device UA9638CDR is qualified at MSL2 260C
- Qual Device SN7SALS191DR is qualified at MSL1 260C
- Qual Device SN7S158DR 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-2205-051

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26C31IPWR	QBS Reference (Process, Package): SN3257QPWRQ1	QBS Reference (Process): TPS2543QRTETQ1	QBS Reference (Product): AM26LS31CDR
HAST	A2	Biased HAST	130C	96 Hours	-	3/231/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	1/77/0	3/231/0	-	-
TC	A4	Temperature Cycle	-40C/85C	1000 Cycles	1/77/0	-	-	-
TC	A4	Temperature Cycle	-55/150C	1000 Cycles	-	3/231/0	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	3/135/0	-	-
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	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	-	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	1/76/0	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: AM26C31IPWR	QBS Reference (Process, Package): SN3257QPWRQ1	QBS Reference (Process): TPS2543QRTETQ1	QBS Reference (Product): AM26LS31CDR
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	-	-
ESD	E2	ESD CDM	-	1000 Volts	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	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device AM26C31IPWR 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-2205-049

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26C31CNSR	Qual Device: SN75ALS194NSR	Qual Device: SN75ALS192NSR	Qual Device: AM26C31INSR	Qual Device: AM26C31IDBR	Qual Device: SN75ALS191PSR	Qual Device: SN75158PSR	Qual Device: AM26LS31CNSR	QBS Reference (Process, Product): SN3257QDYYRQ1	QBS Reference (Package): TL092CPB	QBS Reference (Package): SN75ALS1177NS	QBS Reference (Product): AM26LS31CDB
UHAFT	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	170C	420 Hours	-	-	-	-	-	-	-	-	-	3/231/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	-	-	-	-	3/231/0	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	-	-	-	-	-	-	3/2400/0	-	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	1/76/0	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	-	-	-	-
ESD	E2	ESD CDM	-	1000 Volts	-	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
LU	E4	Latch-Up	Per JESD78	-	-	-	-	-	-	-	-	-	-	-	-	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	1/30/0	-	-	-	1/30/0
FTY	E6	Final Test Yield	-	-	-	-	-	-	-	-	-	-	-	-	-	1/1/0

- QBS: Qual By Similarity
- Qual Device AM26C31CNSR is qualified at MSL1 260C
- Qual Device SN75ALS194NSR is qualified at MSL1 260C
- Qual Device SN75ALS192NSR is qualified at MSL1 260C
- Qual Device AM26C31INSR is qualified at MSL1 260C
- Qual Device AM26C31IDBR is qualified at MSL1 260C
- Qual Device SN75ALS191PSR is qualified at MSL1 260C
- Qual Device SN75158PSR is qualified at MSL1 260C
- Qual Device AM26LS31CNSR 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-2206-026

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: AM26LS31CN	Qual Device: UA9638CP	Qual Device: SN75ALS191P	Qual Device: SN75158P	Qual Device: AM26C31IN	Qual Device: AM26LS31CN-E	QBS Reference (Process, Product): SN3257QDYYRQ1	QBS Reference (Package): SN74HC595N	QBS Reference (Package): TLC339IN	QBS Reference (Product): AM26LS31CDB
UHAFT	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	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	150C	24 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	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	-	-	-	-	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	-	-	-	-	-	3/66/0	3/66/0	-
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	1/3/0	-	1/1/0	-	-	-	-	-
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	-	-	1/3/0	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

- QBS: Qual By Similarity
- Qual Device AM26LS31CN is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device UA9638CP is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN75ALS191P is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN75158P is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device AM26C31IN is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device AM26LS31CN-E 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-2205-050

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

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