

PCN Number:	20240221006.1	PCN Date:	February 21, 2024																											
Title:	Qualification of RFAB using qualified Process Technology, Die Revision and additional Assembly site/BOM options for select devices																													
Customer Contact:	Change Management Team	Dept:	Quality Services																											
Proposed 1st Ship Date:	May 21, 2024	Sample requests accepted until:	March 22, 2024*																											
*Sample requests received after March 22, 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 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 a BOM option 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>JI1</td> <td>150 mm</td> <td rowspan="4">RFAB</td> <td rowspan="4">LBC7</td> <td rowspan="4">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> <tr> <td>DL-LIN</td> <td>LBC3S</td> <td>200 mm</td> </tr> </tbody> </table>			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	IMPC60-80	150 mm	DL-LIN	LBC3S	200 mm	
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	IMPC60-80	150 mm																												
DL-LIN	LBC3S	200 mm																												
The die was also changed as a result of the process change.																														
Construction differences are as follows:																														
Group 1 BOM Table (RFAB/Process migration/BOM Option plus CDAT as additional Assembly site):																														
	TI Malaysia	CDAT																												
Mount Compound	4205846 or 4147858	4207123																												
Mold Compound	4208625 or 4211880	4222198																												
Group 2 BOM Table (RFAB/Process migration/BOM Option plus TI Mexico as additional Assembly site):																														
	TI Malaysia	TI Mexico																												
Bond wire composition, diameter	Cu or Au, 0.96 mil	Cu, 0.96 mil																												
Mount Compound	4042500 or 4147858	4147858																												
Mold Compound	4042503 or 4211880	4211880																												
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 and 200-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

☒ No Change

REACH

☒ No Change

Green Status

☒ No Change

IEC 62474

☒ 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]
L, N,-	-

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
MLA	MLA	MYS	Kuala Lumpur
CDAT	CDA	CHN	Chengdu
FMX	MEX	MEX	Aguascalientes

Sample product shipping label (not actual product label):



(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CS0: SHE (21L) CC0: USA
(22L) AS0: MLA (23L) AC0: MYS

Product Affected:

Group 1 Device list (RFAB/Process migration/BOM Option plus CDAT as additional Assembly site)

SN65C1167ERGYR	SN65C1168ERGYR
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Group 2 Device list (RFAB/Process migration/BOM Option plus TI Mexico as additional Assembly site)

SN75ALS1177N	SN75ALS1178N
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Group 3 Device list (RFAB/Process migration only)

SN65C1167ENSR	SN65C1168EPWRG4	SN751178N	SN75C1167DBR
SN65C1167EPWR	SN751177N	SN751178NSR	SN75C1168DBR
SN65C1168ENSR	SN751177NSR	SN75ALS1177NSR	
SN65C1168EPWR	SN751177NSRE4	SN75ALS1178NSR	

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: SN751177N	Qual Device: SN751178N	QBS Reference (Package): TLC339IN	QBS Reference (Process): TPS51217DSCR	QBS Reference (Product): SN751178NSR	QBS Reference (Product): SN751177NSR	QBS Reference (Product): SN65C1167ENSR
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	135C	635 Hours	-	-	-	3/231/0	-	-	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	3/66/0	-	-	-	-
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	1/3/0	-	1/3/0
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	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	-	-	-	-	-	-	1/3/0

Type	#	Test Name	Condition	Duration	Qual Device: SN751177N	Qual Device: SN751178N	QBS Reference (Package): TLC339IN	QBS Reference (Process): TPS51217DSCR	QBS Reference (Product): SN751178NSR	QBS Reference (Product): SN751177NSR	QBS Reference (Product): SN65C1167ENSR
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	-	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	-

- QBS: Qual By Similarity
- Qual Device SN751177N is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN751178N 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-2206-028

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN65C1168EPWR	Qual Device: SN65C1167ENSR	Qual Device: SN75C1167DBR	Qual Device: SN65C1167EPWR	Qual Device: SN75C1167DBR	QBS Reference (Process): TPS51217DSCR	QBS Reference (Package): TPS2074DB	QBS Reference (Package): SN74LVCH245NSR	QBS Reference (Package): TCA6418PW	QBS Reference (Product): SN65C1167ENSR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	-	3/231/0	-
UHA	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	-	-	-	-	3/231/0	-
UHA	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	-	-	-	-	-	-	3/231/0	3/231/0	3/231/0	-
HTOL	B1	Life Test	135C	635 Hours	-	-	-	-	-	3/231/0	-	-	-	-
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	-	-	-	-	-	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	-	-	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-	-	-	-	-	-	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	1/3/0	-	-	1/3/0	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	4000 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

- QBS: Qual By Similarity
- Qual Device [SN65C1168EPWR](#) is qualified at MSL1 260C
- Qual Device [SN65C1168ENSR](#) is qualified at MSL1 260C
- Qual Device [SN75C1167DBR](#) is qualified at MSL1 260C
- Qual Device [SN65C1167EPWR](#) is qualified at MSL1 260C
- Qual Device [SN75C1168DBR](#) is qualified at MSL1 260C
- Qual Device [SN65C1167ENSR](#) 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-2206-031

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN75ALS1177N	Qual Device: SN75ALS1178N	QBS Reference (Package): TLC339IN	QBS Reference (Process): TPS51217DSCR	QBS Reference (Product): SN65C1167ENSR
UHA	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	135C	635 Hours	-	-	-	3/231/0	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	3/66/0	-	-
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	-	-	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	1/3/0	-	-	1/3/0

Type	#	Test Name	Condition	Duration	Qual Device: SN75ALS1177N	Qual Device: SN75ALS1178N	QBS Reference (Package): TLC339IN	QBS Reference (Process): TPS51217DSCR	QBS Reference (Product): SN65C1167ENSR
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device SN75ALS1177N is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device SN75ALS1178N 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-2206-032

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN751177NSR	QBS Reference (Process): TPS51217DSCR	QBS Reference (Package): SN74LVC8T245NSR	QBS Reference (Product): SN65C1167ENSR
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	135C	635 Hours	-	3/231/0	-	-
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	-	-	-	1/3/0
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device SN751177NSR 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-2206-029

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN75ALS1177NSR	Qual Device: SN75ALS1178NSR	QBS Reference (Package): SN75ALS1177NS	QBS Reference (Process): TPS51217DSCR	QBS Reference (Product): SN65C1167ENSR
UHASt	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	-	-
HTOL	B1	Life Test	135C	635 Hours	-	-	-	3/231/0	-
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	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
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device SN75ALS1177NSR is qualified at MSL1 260C
- Qual Device SN75ALS1178NSR 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-2206-033

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN751178NSR	QBS Reference (Process): TPS51217DSCR	QBS Reference (Package): SN74LVC8T245NSR	QBS Reference (Product): SN65C1167ENSR
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	135C	635 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 HBM (Bus Pins)	-	15000 Volts	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	1/30/0

- QBS: Qual By Similarity
- Qual Device SN751178NSR 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-2306-021

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN65C1167ERGYR	Qual Device: SN65C1168ERGYR	QBS Reference (Process): TPS51217DSCR	QBS Reference (Package): TS3A5017QRGYRQ1	QBS Reference (Product): SN65C1167ENSR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-
UHA	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	135C	635 Hours	-	-	3/231/0	-	-
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: SN65C1167ERGYR	Qual Device: SN65C1168ERGYR	QBS Reference (Process): TPS51217DSCR	QBS Reference (Package): TS3A5017QRGYRQ1	QBS Reference (Product): SN65C1167ENSR
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	3/30/0	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	-	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

- QBS: Qual By Similarity
- Qual Device SN65C1167ERGYR is qualified at MSL2 260C
- Qual Device SN65C1168ERGYR 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-2206-030

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN65C1167ENSR	QBS Reference (Package): TL092CPS	QBS Reference (Package): SN75ALS117NS	QBS Reference (Process): TPS51217DSCR
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	3/230/0	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	135C	635 Hours	-	-	-	3/231/0
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM (Bus Pins)	-	15000 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM	-	4000 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 SN65C1167ENSR 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-2308-042

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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