



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**PCN# 20240221006.1**

**Qualification of RFAB using qualified Process Technology, Die Revision and  
additional Assembly site/BOM options for select devices**

**Change Notification / Sample Request**

**Date:** February 21, 2024

**To:** Mouser 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

**20240221006.1**  
**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
SN65C1167ENSR	NULL
SN65C1167EPWR	NULL
SN65C1167ERGYR	NULL
SN65C1168ENSR	NULL
SN65C1168EPWR	NULL
SN65C1168EPWRG4	NULL
SN65C1168ERGYR	NULL
SN751177N	NULL
SN751177NSR	NULL
SN751178N	NULL
SN751178NSR	NULL
SN75ALS1177N	NULL
SN75ALS1177NSR	NULL
SN75ALS1178N	NULL
SN75ALS1178NSR	NULL
SN75C1167DBR	NULL
SN75C1168DBR	NULL

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

<b>PCN Number:</b>	20240221006.1	<b>PCN Date:</b>	February 21, 2024
<b>Title:</b>	Qualification of RFAB using qualified Process Technology, Die Revision and additional Assembly site/BOM options for select devices		
<b>Customer Contact:</b>	Change Management Team	<b>Dept:</b>	Quality Services
<b>Proposed 1<sup>st</sup> Ship Date:</b>	May 21, 2024	<b>Sample requests accepted until:</b>	March 22, 2024*
<b>*Sample requests received after March 22, 2024 will not be supported.</b>			
<b>Change Type:</b>			
<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.

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 Compund	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 Compund	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
<b>RFAB</b>	<b>RFB</b>	<b>USA</b>	<b>Richardson</b>

#### Die Rev:

#### Current

#### New

Die Rev [2P]	<b>Die Rev [2P]</b>
L, N,-	-

#### Assembly Site Information:

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

Sample product shipping label (not actual product label):



#### 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](http://www.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: SN65C1168ENSR	Qual Device: SN75C1167DBR	Qual Device: SN65C1167EPWR	Qual Device: SN75C1168DBR	QBS Reference (Process): TPS51217DSCR	QBS Reference (Package): TPS20740B	QBS Reference (Package): SN74LVC81T245NSR	QBS Reference (Package): TCA4416PWR	QBS Reference (Product): SN65C1167ENSR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	-	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	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: SN75ALS117N	Qual Device: SN75ALS117N	QBS Reference (Process): TLC339IN	QBS Reference (Package): 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	-	-
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: <a href="#">SN75ALS1177N</a>	Qual Device: <a href="#">SN75ALS1178N</a>	QBS Reference (Package): <a href="#">TLC339IN</a>	QBS Reference (Process): <a href="#">TPS51217DSCR</a>	QBS Reference (Product): <a href="#">SN65C1167ENSR</a>
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: <a href="#">SN751177NSR</a>	QBS Reference (Process): <a href="#">TPS51217DSCR</a>	QBS Reference (Package): <a href="#">SN74LVC8T245NSR</a>	QBS Reference (Product): <a href="#">SN65C1167ENSR</a>
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: <a href="#">SN65C1167ERGYR</a>	Qual Device: <a href="#">SN65C1168ERGYR</a>	QBS Reference (Process): <a href="#">TPS51217DSCR</a>	QBS Reference (Package): <a href="#">TS3A5017QRGYRQ1</a>	QBS Reference (Product): <a href="#">SN65C1167ENSR</a>
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	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: <a href="#">SN65C1167ERGYR</a>	Qual Device: <a href="#">SN65C1168ERGYR</a>	QBS Reference (Process): <a href="#">TPS51217DSCR</a>	QBS Reference (Package): <a href="#">TS3A5017QRGYRQ1</a>	QBS Reference (Product): <a href="#">SN65C1167ENSR</a>
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: <a href="#">SN65C1167ENSR</a>	QBS Reference (Package): <a href="#">TL092CPS</a>	QBS Reference (Package): <a href="#">SN75ALS1177NS</a>	QBS Reference (Process): <a href="#">TPS51217DSCR</a>
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	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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