


PCN Number:	20180717002		PCN Date:	Jul 18, 2018													
Title:	Qualification of TIPI as a new Assembly Site for Select SOT-5x3 Package Devices																
Customer Contact:	PCN Manager		Dept:	Quality Services													
Proposed 1st Ship Date:	Oct 18, 2018		Estimated Sample Availability:	Date provided at sample request													
Change Type:																	
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site												
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material												
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process												
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site												
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials												
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process												
PCN Details																	
Description of Change:																	
Texas Instruments is pleased to announce the qualification of TIPI as a new Assembly Site for Select SOT-5x3 Package Devices. Assembly differences are as follows:																	
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin</th> <th>Assembly Country Code</th> <th>Assembly City</th> </tr> </thead> <tbody> <tr> <td>JCETC8</td> <td>JC8</td> <td>CHN</td> <td>Suqian</td> </tr> <tr> <td>TI Philippines</td> <td>PHI</td> <td>PHL</td> <td>Baguio City</td> </tr> </tbody> </table>						Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	JCETC8	JC8	CHN	Suqian	TI Philippines	PHI	PHL	Baguio City
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City														
JCETC8	JC8	CHN	Suqian														
TI Philippines	PHI	PHL	Baguio City														
Material differences:																	
<table border="1"> <thead> <tr> <th></th> <th>JCETC8</th> <th>TI Philippines (TIPI)</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>131010100455</td> <td>4222198</td> </tr> </tbody> </table>							JCETC8	TI Philippines (TIPI)	Mold Compound	131010100455	4222198						
	JCETC8	TI Philippines (TIPI)															
Mold Compound	131010100455	4222198															
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.																	
Reason for Change:																	
Continuity of Supply																	
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																	
None																	
Anticipated impact on Material Declaration																	
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp														
Changes to product identification resulting from this PCN:																	

Sample Product Shipping Label (not actual product label)

Assembly Site		
JCETC8	Assembly Site Origin (22L)	ASO: JC8
TI Philippines (TIPI)	Assembly Site Origin (22L)	ASO: PHI



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


 G4



(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

Product Affected:

TLV62569DRLR	TLV62569PDRLT	TLV62568APDRLR	TLV62569ADRLT
TLV62569DRLT	TLV62568ADRLR	TLV62568APDRLT	TLV62569APDRLR
TLV62569PDRLR	TLV62568ADRLT	TLV62569ADRLR	TLV62569APDRLT

Qualification Report
TLV62569DRL and TLV62569PDRL in SOT-563 Package
(RFAB, JCAPFAB, TIPI)
 Approve Date 26-Jun-2018

Product Attributes

Attributes	Qual Device: <u>TLV62569DRLR</u>	Qual Device: <u>TLV62569PDRLR</u>	QBS Product Reference: <u>TLV62569DRL</u>	QBS Product Reference: <u>TLV62569PDRL</u>	QBS Process Reference: <u>TLV62568DBV</u>	QBS Package Reference: <u>TLV62568DRL</u>
Assembly Site	PHI (TIPI)	PHI (TIPI)	JCET C8	JCET C8	PHI (TIPI)	PHI
Package Family	SOT563 FCOL	SOT563 FCOL	R-PDSO-G SOT563	R-PDSO-G SOT563	R-PDSO-G SOT23	SOT563 FCOL
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	RFAB / DMOS6	RFAB
Wafer Process	LBC9LV	LBC9LV	LBC9LV	LBC9LV	LBC9LV	LBC9LV

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TLV62569DRLR</u>	Qual Device: <u>TLV62569PDRLR</u>	QBS Product Reference: <u>TLV62569DRL</u>
AC	Autoclave 121C	96 Hours	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-
HBM	ESD - HBM	2500 V	-	-	-
CDM	ESD - CDM	1500 V	-	-	-

HTOL	Life Test, 150C	300 Hours	-	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-
LU	Latch-up	(per JESD78)	-	-	-
SD	Surface Mount Solderability	Pb Free	-	-	-
SD	Surface Mount Solderability	Pb	-	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	-

Type	Test Name / Condition	Duration	QBS Product Reference: <u>TLV62569PDRL</u>	QBS Process Reference: <u>TLV62568DBV</u>	QBS Package Reference: <u>TLV62568DRL</u>
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/3000/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0
HBM	ESD - HBM	2500 V	1/3/0	-	-
CDM	ESD - CDM	1500 V	1/3/0	2/6/0	-
HTOL	Life Test, 150C	300 Hours	-	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	3/231/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	2/12/0	-
SD	Surface Mount Solderability	Pb Free	-	-	3/66/0
SD	Surface Mount Solderability	Pb	-	-	3/66/0
TC	Temperature Cycle, -55/125C	700 Cycles	1/77/0	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0

- 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

Qualification Report
TLV62568ADRL/TLV62568APDRL/TLV62569ADRL/TLV62569APDRL
in SOT-563 Package
(RFAB, JCAPFAB, TIPI)
 Approve Date 27-Jun-2018

Product Attributes

Attributes	Qual Device: <u>TLV62568ADRL</u>	Qual Device: <u>TLV62568APDRL</u>	Qual Device: <u>TLV62569ADRL</u>	Qual Device: <u>TLV62569APDRL</u>	QBS Product Reference: <u>TLV62568ADRL</u>	QBS Product Reference: <u>TLV62568APDRL</u>
Assembly Site	PHI	PHI	PHI	PHI (TIPI)	JCET C8	JCET C8
Package Family	FCOL SOT563	FCOL SOT563	FCOL SOT563	SOT563 FCOL	FCOL SOT563	FCOL SOT563
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0

Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	RFAB	RFAB
Wafer Process	LBC9LV	LBC9LV	LBC9LV	LBC9LV	LBC9LV	LBC9LV

Attributes	QBS Product Reference: <u>TLV62568DBV</u>	QBS Product Reference: <u>TLV62569ADRL</u>	QBS Product Reference: <u>TLV62569APDRL</u>	QBS Package Reference: <u>TLV62568DRL</u>	QBS Package Reference: <u>TLV62569DRLR</u>	QBS Package Reference: <u>TLV62569PDRL</u>
Assembly Site	PHI (TIPI)	JCET C8	JCET C8	PHI	PHI (TIPI)	JCET C8
Package Family	R-PDSO-G SOT23	FCOL SOT563	FCOL SOT563	SOT563 FCOL	SOT563 FCOL	R-PDSO-G SOT563
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB / DMOS6	RFAB	RFAB	RFAB	RFAB	RFAB
Wafer Process	LBC9LV	lbc9lv	LBC9LV	LBC9LV	LBC9LV	LBC9LV

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260C: TLV62568APDRL, TLV62569APDRL, TLV62569ADRL, TLV62568ADRL

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TLV62568A</u> <u>DRL</u>	Qual Device: <u>TLV62568A</u> <u>PDRL</u>	Qual Device: <u>TLV62569A</u> <u>DRL</u>	Qual Device: <u>TLV62569A</u> <u>PDRL</u>	QBS Product Reference: <u>TLV62568A</u> <u>DRL</u>	QBS Product Reference: <u>TLV62568A</u> <u>PDRL</u>
AC	Autoclave 121C	96 Hours	-	-	-	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-	-
HBM	ESD - HBM	2500 V	-	-	-	-	1/3/0	1/3/0
CDM	ESD - CDM	1500 V	-	-	-	-	1/3/0	1/3/0
HTOL	Life Test, 150C	300 Hours	-	-	-	-	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	-	-	-
LU	Latch-up	(per JESD78)	-	-	-	-	1/6/0	1/6/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass		
SD	Surface Mount Solderability	Pb Free	-	-	-	-	-	-
SD	Surface Mount Solderability	Pb	-	-	-	-	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	-	-	-

Type	Test Name / Condition	Duration	QBS Product Reference: <u>TLV62568D</u> <u>BV</u>	QBS Product Reference: <u>TLV62569A</u> <u>DRL</u>	QBS Product Reference: <u>TLV62569A</u> <u>PDRL</u>	QBS Package Reference: <u>TLV62568D</u> <u>RL</u>	QBS Package Reference: <u>TLV62569D</u> <u>RRLR</u>	QBS Package Reference: <u>TLV62569P</u> <u>DRL</u>
AC	Autoclave 121C	96 Hours	3/231/0	-	-	3/231/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	-	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	3/3000/0	-	-	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-	-	3/231/0	-	-
HBM	ESD - HBM	2500 V	-	-	-	-	-	1/3/0
CDM	ESD - CDM	1500 V	2/6/0	-	-	-	-	1/3/0
HTOL	Life Test, 150C	300 Hours	3/231/0	-	1/77/0	3/231/0	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	-	-	3/231/0	-	-
LU	Latch-up	(per JESD78)	2/12/0	-	-	-	-	1/6/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass			Pass	Pass	Pass
SD	Surface Mount Solderability	Pb Free	-	-	-	3/66/0	-	-
SD	Surface Mount Solderability	Pb	-	-	-	3/66/0	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	3/231/0	-	1/77/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-	-	3/231/0	1/77/0	-

- 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

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Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

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