

PCN Number:	20230501000.1		PCN Date:	May 03, 2023												
Title:	Qualify TI Mexico as an additional Assembly site for select devices															
Customer Contact:	PCN Manager	Dept:	Quality Services													
Proposed 1st Ship Date:	Aug 02, 2023	Sample requests accepted until:	June 02, 2023*													
*Sample requests received after June 02, 2023 will not be supported.																
Change Type:																
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material											
<input 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 type="checkbox"/>	Wafer Fab Site											
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Materials											
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process											
PCN Details																
Description of Change:																
Texas Instruments is pleased to announce the qualification of TI Mexico as an additional Assembly site for the list of devices shown below. Material differences between sites 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>ASESH</td> <td>ASH</td> <td>CHN</td> <td>Shanghai</td> </tr> <tr> <td>TI Mexico</td> <td>MEX</td> <td>MEX</td> <td>Aguascalientes</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	ASESH	ASH	CHN	Shanghai	TI Mexico	MEX	MEX	Aguascalientes
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City													
ASESH	ASH	CHN	Shanghai													
TI Mexico	MEX	MEX	Aguascalientes													
Material Differences:																
Group 1 device:																
	ASESH	TI Mexico														
Mount compound	EY1000063	4147858														
Mold Compound	EN2000509	4211880														
Group 2 device:																
	ASESH	TI Mexico														
Mount compound	EY1000102	4224264														
Mold Compound	EN2000509	4211880														
Marking Differences:																
	ASESH	TI Mexico														
Pin 1 ID	Stripe	Dot														
ECAT (G4)	With	Remove														
Example																

Reason for Change:

Continuity of Supply

Anticipated impact on Fit, Form, 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			

Changes to product identification resulting from this PCN:

Assembly Site		
ASESH	Assembly Site Origin (22L)	ASO: ASH
TI Mexico	Assembly Site Origin (22L)	ASO: MEX

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 ZDC: 20:
 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

Product Affected

Group 1 Device

TPS54340BDDA	TPS54360BDDA	TPS54540BDDA	TPS54560BDDA
TPS54340BDDAR	TPS54360BDDAR	TPS54540BDDAR	TPS54560DDA
TPS54340DDA	TPS54360DDA	TPS54540DDA	TPS54560DDAR
TPS54340DDAR	TPS54360DDAR	TPS54540DDAR	

Group 2 Device

LMR23610ADDA	LMR23625CDDAR	LMR23630ADDA	LMR23630AFDDAR
LMR23610ADDAR	LMR23625CFDDA	LMR23630ADDAR	
LMR23625CDDA	LMR23625CFDDAR	LMR23630AFDDA	

Group 1 Qualification Report

Approve Date 19-Apr-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS54540DDAR	QBS Reference: LMR16020PDDAR	QBS Reference: LM5163DDAR	QBS Reference: LM5169FQDDARQ1
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	3/231/0
AC	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	-
UHAST	A3	Unbiased HAST	110C/85%RH	264 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	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	3/135/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	3/228/0	3/228/0	3/90/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	3/228/0	3/228/0	3/90/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	3/66/0	1/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	3/15/0	3/15/0	3/15/0	3/30/0

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

QBS: Qual By Similarity

Qual Device TPS54540DDAR 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/>

Green/Pb-free Status: Qualified Pb-Free(SMT) and Green

Group 2 Qualification Report

Approve Date 19-Apr-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMR23630AFDDAR	QBS Reference: LMR16020PDDAR	QBS Reference: LM5163DDAR	QBS Reference: LM5169FQDDARQ1
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	3/231/0
AC	A3	Autoclave	121C/15psig	96 Hours	3/231/0	3/231/0	3/231/0	-
UHAST	A3	Unbiased HAST	110C/85%RH	264 Hours	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/231/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	3/135/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	3/228/0	3/228/0	3/90/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	3/228/0	3/228/0	3/90/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	3/66/0	1/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	3/15/0	3/15/0	3/15/0	3/30/0
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

QBS: Qual By Similarity

Qual Device LMR23630AFDDAR 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/>

Green/Pb-free Status: Qualified Pb-Free(SMT) and Green

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