



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20220922001.1A
Qualification of TI Mexico as Additional Assembly Site
for Select Devices
Change Notification / Sample Request

Date: December 16, 2022
To: MOUSER PCN

Revision A is to announce the addition of a new device that was not included on the original PCN notification.

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments 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 of the change. If samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team ([PCN ww admin team@list.ti.com](mailto:PCN_admin_team@list.ti.com)). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team
SC Business Services

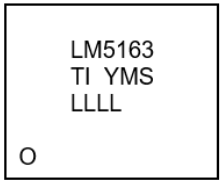
20220922001.1A
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
LM5164DDAT	null
LMR16030PDDAR	null
LMR16030SDDAR	null
LV14360PDDAR	null
LV14360SDDAR	null

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

PCN Number:	20220922001.1A		PCN Date:	December 16, 2022
Title:	Qualification of TI Mexico as Additional Assembly Site for Select Devices			
Customer Contact:	PCN Manager	Dept:	Quality Services	
Proposed 1st Ship Date:	Dec 23, 2022		Sample Requests accepted until:	Jan 16, 2023*
*Sample requests received after Jan 16, 2023 will not be supported for additional devices includes rev A only.				
Change Type:				
☒	Assembly Site	☐	Design	☐
☐	Assembly Process	☐	Data Sheet	☐
☒	Assembly Materials	☐	Part number change	☐
☐	Mechanical Specification	☐	Test Site	☐
☒	Packing/Shipping/Labeling	☐	Test Process	☐
		☐	Wafer Bump Site	
		☐	Wafer Bump Material	
		☐	Wafer Bump Process	
		☐	Wafer Fab Site	
		☐	Wafer Fab Materials	
		☐	Wafer Fab Process	
PCN Details				
Description of Change:				
Revision A is to announce the <u>addition</u> of new devices that was not included on the original PCN notification. The new devices are highlighted and bolded in the device list below. The expected first shipment date for the new devices will be 90 days from this notice (Mar 16, 2023) for the newly added devices only. The proposed 1st ship date of Dec 23, 2022 still applies for the original set of devices. Texas Instruments Incorporated is announcing the qualification TI Mexico as an Additional Assembly Site for select devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.				
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City	
ASESH	ASH	CHN	Shanghai	
TI Mexico	MEX	MEX	Aguascalientes	
Material Differences:				
	ASESH	TI Mexico		
Mount Compound	SID#EY1000063	4147858		
Mold Compound	SID#EN2000509, SID#EN20000519	4211880		
Package Marking Differences:				
	ASESH	TI Mexico		
Sample device (LM5163)	 LM5163 TI YMS PLLLG4 TI = TI LETTERS YM = YEAR MONTH DATE CODE LLL = ASSEMBLY LOT CODE P = SECONDARY CODE S = ASSEMBLY SITE CODE ■ = PIN 1 STRIPE	 LM5163 TI YMS LLLL O TI = TI LETTERS YM = YEAR MONTH DATE CODE LLLL = ASSEMBLY LOT CODE S = ASSEMBLY SITE CODE O = PIN 1 DOT		
	Pin 1 marking	Stripe	Dot	
Reason for Change:				
Continuity of Supply				

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
☒ No Change	☒ No Change	☒ No Change	☒ 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)			
Product Affected:			
LM5163DDAR	LMR16010PDDAR	LMR36520FADDAR	LV14360PDDAR
LM5164DDAR	LMR16020PDDA	LV14160PDDA	LV14360SDDA
LM5164DDAT	LMR16020PDDAR	LV14160PDDAR	LV14360SDDAR
LMR14020SDDA	LMR16030PDDA	LV14240DDA	LV14540DDA
LMR14020SDDAR	LMR16030PDDAR	LV14240DDAR	LV14540DDAR
LMR14030SDDA	LMR16030SDDA	LV14260PDDA	LV5164DDAR
LMR14030SDDAR	LMR16030SDDAR	LV14260PDDAR	TPS2378DDA
LMR14050SDDA	LMR36510ADDAR	LV14340DDA	TPS2378DDAR
LMR14050SDDAR	LMR36510FADDAR	LV14340DDAR	TPS2379DDA
LMR16010PDDA	LMR36520ADDAR	LV14360PDDA	TPS2379DDAR

Qualification Report

Approve Date 09-September-2022

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: <u>LMR16020PDDAR</u>	Qual Device: <u>LM5163DDAR</u>	QBS Reference: <u>LM5017MRX/NOPB</u>
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	3/231/0	3/231/0	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	170C	420 Hours	-	-	3/231/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	1/77/0
HTOL	B1	Life Test	150C	408 Hours	-	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	3/228/0	3/228/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	3/228/0	3/228/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	3/15/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0

Type	#	Test Name	Condition	Duration	QBS Reference: LP2998QMRX/NOPB	QBS Reference: DRV8251DDAR	QBS Reference: UCC27282QDRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	3/231/0	3/231/0	1/77/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	3/231/0	3/231/0	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	3/135/0	3/231/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-
HTOL	B1	Life Test	125C	1000 Hours		1/77/0	1/77/0
HTOL	B1	Life Test	150C	408 Hours	3/231/0	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/90/0	3/228/0	3/228/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/90/0	3/228/0	3/228/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	3/30/0	-	1/10/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	3/90/0	3/90/0	3/90/0

QBS: Qual By Similarity

Qual Device LMR16020PDDAR and LM5163DDAR are qualified at MSL2 260C

Qual Device 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

Qualification Report

Approve Date 11-August-2022

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMR36510ADDAR	QBS Reference: LM5017MRX/NOPB	QBS Reference: LM5017MRX/NOPB
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	1/77/0	2/154/0
AC	A3	Autoclave	121C/15psig	96 Hours	1/77/0	1/77/0	2/154/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	1/77/0	1/77/0	2/154/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	1/77/0	2/154/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	1/77/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	1/76/0	2/152/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	1/76/0	2/152/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	1/5/0	2/10/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	1/30/0

Type	#	Test Name	Condition	Duration	Qual Device: LMR36510ADDAR	QBS Reference: UCC27282QDRQ1	QBS Reference: UCC27284QDQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	1/77/0	-
AC	A3	Autoclave	121C/15psig	96 Hours	1/77/0	1/77/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	1/77/0	1/77/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	1/77/0	-	-
HTSL	A6	High Temperature	170C	420 Hours	-	-	-

		Storage Life					
HTOL	B1	Life Test	125C	1000 Hours	-	1/77/0	1/77/0
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	1/30/0	1/30/0
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	1/30/0	1/30/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	1/10/0	1/30/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	3/90/0

QBS: Qual By Similarity

Qual Device LMR36510ADDAR 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

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
WW Change Management Team	PCN_ww_admin_team@list.ti.com

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