



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20211216002.1

**Qualification of TI Mexico as an alternate Assembly site for the Select Devices
Change Notification / Sample Request**

Date: December 20, 2021

To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

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 additional data is 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). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team
SC Business Services

20211216002.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, 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
LP2998MRE/NOPB	null
LP2996MR/NOPB	null
LP2996MRX/NOPB	null
LP2998MR/NOPB	null
LP2997MR/NOPB	null
LP2997MRX/NOPB	null
LP2998MRX/NOPB	null
LP2995MR/NOPB	null
LP2995MRX/NOPB	null
LP2996AMRE/NOPB	null

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

PCN Number:	20211216002.1			PCN Date:	December 20, 2021												
Title:	Qualification of TI Mexico as an alternate Assembly site for Select Devices																
Customer Contact:	PCN Manager	Dept:	Quality Services														
Proposed 1st Ship Date:	March 20, 2022		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 checked="" 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 type="checkbox"/> Test Site	<input type="checkbox"/> Wafer Fab Site															
<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input type="checkbox"/> Wafer Fab Materials															
	<input type="checkbox"/> Wafer Fab Process																
PCN Details																	
Description of Change:																	
<p>Texas Instruments Incorporated is announcing the qualification of TI Mexico as an additional Assembly site for the list of devices shown below. Construction differences between the 2 sites are as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>TI Melaka</th> <th>TI Mexico</th> </tr> </thead> <tbody> <tr> <td>Lead Finish</td> <td>Matte Sn</td> <td>NiPdAu</td> </tr> <tr> <td>Mount Compound</td> <td>8075531</td> <td>4224423</td> </tr> <tr> <td>Mold Compound</td> <td>8095179</td> <td>4211649</td> </tr> </tbody> </table> <p>Upon expiration of this PCN, TI will combine lead free solutions in a single standard part number, for example; LP2998QMR/NOPB – can ship with both Matte Sn and NiPdAu.</p>							TI Melaka	TI Mexico	Lead Finish	Matte Sn	NiPdAu	Mount Compound	8075531	4224423	Mold Compound	8095179	4211649
	TI Melaka	TI Mexico															
Lead Finish	Matte Sn	NiPdAu															
Mount Compound	8075531	4224423															
Mold Compound	8095179	4211649															
Reason for Change:																	
Supply continuity																	
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																	
None																	
Impact on Environmental Ratings																	
<p>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.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>IEC 62474</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> </tr> </tbody> </table>						RoHS	REACH	Green Status	IEC 62474	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change				
RoHS	REACH	Green Status	IEC 62474														
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change														
Changes to product identification resulting from this PCN:																	

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TIEM	CU6	MYS	Melaka
FMX	MEX	MEX	Aguascalientes

Sample product shipping label (not actual product label)

G3 = Matte Sn
G4 = NiPdAu



Product Affected:

LP2995MR/NOPB	LP2996AMRE/NOPB	LP2996MRX/NOPB	LP2998MR/NOPB
LP2995MRX/NOPB	LP2996AMRX/NOPB	LP2997MR/NOPB	LP2998MRE/NOPB
LP2996AMR/NOPB	LP2996MR/NOPB	LP2997MRX/NOPB	LP2998MRX/NOPB



TI Information
Selective Disclosure

Qualification Report

Approve Date 10-Dec-2021

Qualification Results

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



Type	Test Name / Condition	Duration	Qual Device: LP2998QMRX/NOPB	QBS Process Reference: LM4128AQ1MF-4.1
AC	Autoclave 121C	96 Hours	3/231/0	-
ED	Electrical Distributions	Cpk>1.67 Room, hot, and cold test	3/90/0	-
ELFR	Early Life Failure Rate, 150C	24 Hours	-	3/2400/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-
HTOL	Life Test, 150C	408 Hours	3/231/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	3/135/0	-
LI	Lead Fatigue	Leads	3/36/0	-
LI	Lead Pull	Leads	3/60/0	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	-
PD	Physical Dimensions	Cpk>1.67	3/30/0	-
PKG	Lead Finish Adhesion	Leads	3/54/0	-
SD	Solderability	Pb Free	3/45/0	-
SD	Solderability	Pb Free	3/45/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-
WBP	Wire Bond Pull (Cpk>1.67)	Wires	3/90/0	-
WBS	Wire Bond Shear (Cpk>1.67)	Wires	3/90/0	-

- QBS: Qual By Similarity

- Qual Device LP2998QMRX/NOPB is qualified at LEVEL3-260CG

- 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

TI Qualification ID: 20200702-134870

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

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN_ww_admin_team@list.ti.com

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI’s products are provided subject to TI’s Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI’s provision of these resources does not expand or otherwise alter TI’s applicable warranties or warranty disclaimers for TI products.