

<b>PCN Number:</b>	20210928001.1		<b>PCN Date:</b>	September 29, 2021												
<b>Title:</b>	Qualification of TI Mexico as an additional Assembly site for select devices															
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services													
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Dec 30, 2021	<b>Estimated Sample Availability:</b>	Date Provided at Sample request													
<b>Change Type:</b>																
<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 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"/>	Wafer Fab Process											
<b>PCN Details</b>																
<b>Description of Change:</b>																
Texas Instruments is pleased to announce the qualification of TI Mexico as additional Assembly Site for Select Devices listed in the "Product Affected" Section. Material 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>TI Melaka</td> <td>CU6</td> <td>MYS</td> <td>Melaka</td> </tr> <tr> <td><a href="#">TI Mexico</a></td> <td><a href="#">MEX</a></td> <td><a href="#">MEX</a></td> <td><a href="#">Aguascalientes</a></td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	TI Melaka	CU6	MYS	Melaka	<a href="#">TI Mexico</a>	<a href="#">MEX</a>	<a href="#">MEX</a>	<a href="#">Aguascalientes</a>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City													
TI Melaka	CU6	MYS	Melaka													
<a href="#">TI Mexico</a>	<a href="#">MEX</a>	<a href="#">MEX</a>	<a href="#">Aguascalientes</a>													
<b>Material Differences:</b>																
	<b>TI Melaka</b>	<b>TI Mexico</b>														
Mount Compound	4213245	<a href="#">4147858</a>														
Mold compound	8095178	<a href="#">4211880</a>														
Lead finish	Matte Sn	<a href="#">NiPdAu</a>														
Upon expiry of this PCN TI will combine lead free solutions in a single <b><a href="#">standard part number</a></b> , for the devices in the Product affected section. For example; <b><a href="#">LM25017MR/NOPB</a></b> – can ship with both Matte Sn and NiPdAu.																
Example:																
<ul style="list-style-type: none"> <li>– Customer order for 7500 units of LM25017MR/NOPB with 2500 units SPQ (Standard Pack Quantity per Reel).</li> <li>– TI can satisfy the above order in one of the following ways. <ul style="list-style-type: none"> <li>I. 3 Reels of NiPdAu finish.</li> <li>II. 3 Reels of Matte Sn finish</li> <li>III. 2 Reels of Matte Sn and 1 reel of NiPdAu finish.</li> <li>IV. 2 Reels of NiPdAu and 1 reel of Matte Sn finish.</li> </ul> </li> </ul>																
<b>Reason for Change:</b>																
Continuity of supply.																
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																
None																
<b>Impact on Environmental Ratings</b>																
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.																
<b>RoHS</b>	<b>REACH</b>	<b>Green Status</b>	<b>IEC 62474</b>													
<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		
TI Melaka	Assembly Site Origin (22L)	ASO: CU6
TI Mexico	Assembly Site Origin (22L)	ASO: MEX

Sample product shipping label (not actual product label)

**G3 = Matte Sn**  
**G4 = NiPdAu**

(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:

LM25017MR/NOPB	LM25017MRX/NOPB	LM34927MRX/NOPB	LM5017MRE/NOPB
LM25017MRE/NOPB	LM34927MR/NOPB	LM5017MR/NOPB	LM5017MRX/NOPB

## Qualification Report

Approved 17-Sep-2021

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LM5017MRX/N OPB	QBS Process Reference: LM25117QPMHX/N OPB-QUAL	QBS Process Reference: UCC27282QD RQ1	QBS Process Reference: UCC27284Q DQ1	QBS Package Reference: TL494IDR	QBS Package Reference: : DRV8251D DAR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	1/77/0	-	3/231/0	-
ED	Electrical Characterization, side by side	Per datasheet	Pass	Pass	Pass	Pass	Pass	-
FLAM	Flammability (IEC 695-2-2)	--	-	-	-	-	3/15/0	-
FLAM	Flammability (UL 94V-0)	--	-	-	-	-	3/15/0	-
FLAM	Flammability (UL-1694)	--	-	-	-	-	3/15/0	-
HAST	Biased HAST, 130C/85%RH	192 Hours (for info)	3/231/0	-	-	-	3/229/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0	1/77/0	-	3/231/0	-

Type	Test Name / Condition	Duration	Qual Device: <u>LM5017MRX/N</u> <u>OPB</u>	QBS Process Reference: <u>LM25117QPMHX/N</u> <u>OPB-QUAL</u>	QBS Process Reference: <u>UCC27282QD</u> <u>RQ1</u>	QBS Process Reference: <u>UCC27284Q</u> <u>DQ1</u>	QBS Package Reference: <u>TL494IDR</u>	QBS Package Reference: <u>DRV8251D</u> <u>DAR</u>
HTOL	Life Test, 125C	1000 Hours	1/77/0	3/231/0	-	-	-	-
HTOL	Life Test, 150C	1000 Hours	-	-	1/80/0	1/80/0	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	-	3/231/0	-
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	-	-	-	3/231/0	-
HTSL	High Temp Storage Bake 175C	500 Hours	-	-	1/77/0	-	-	-
LI	Lead Fatigue	Leads	3/27/0	-	-	-	-	-
LI	Lead Pull	Leads	3/72/0	-	-	-	3/66/0	-
PKG	Lead Finish Adhesion	Leads	3/27/0	-	-	-	-	-
SD	Solderability	Pb free	Pass (1)	-	-	-	-	2/44/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	1/77/0	-	3/231/0	-
TS	Thermal Shock -65/150C	500 Cycles	-	-	-	-	3/231/0	-
WBP	Bond Pull	Wires	3/228/0	3/90/0	3/90/0	3/90/0	3/228/0	-
WBS	Ball Bond Shear	Wires	3/228/0	3/90/0	3/90/0	3/90/0	3/228/0	-

- QBS: Qual By Similarity

- Qual Device LM5017MRX/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

**Notes:**

- (1) Leadframe supplier data 1 strip

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