

<b>PCN Number:</b>	20220314005.1		<b>PCN Date:</b>	March 17, 2022									
<b>Title:</b>	Qualification of a new Lead finish 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>	June 17 2022	<b>Estimated Sample Availability:</b>	Date provided at sample request										
<b>Change Type:</b>													
<input 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 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								
<b>PCN Details</b>													
<b>Description of Change:</b>													
<p>This PCN is to inform of an alternate lead finish qualification for the devices in the product affected section as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">What</th> <th style="width: 33%;">Current</th> <th style="width: 33%;">New</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>Lead finish</b></td> <td style="text-align: center;"><b>NiPdAu</b></td> <td style="text-align: center;"><b>Matte Sn</b></td> </tr> </tbody> </table> <p>Upon expiry of this PCN, there will be a transition period where TI will combine lead free solutions in a single <a href="#">standard part number</a>. For example; <a href="#">TPS22998RYZR</a> – can ship with both Matte Sn and NiPdAu.  Example:</p> <ul style="list-style-type: none"> <li>– Customer order for 7500 units of TPS22998RYZR with 2500 units SPQ (Standard Pack Quantity per Reel).</li> <li>– TI can satisfy the above order in one of the following ways. <ol 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> </ol> </li> </ul>						What	Current	New	<b>Lead finish</b>	<b>NiPdAu</b>	<b>Matte Sn</b>		
What	Current	New											
<b>Lead finish</b>	<b>NiPdAu</b>	<b>Matte Sn</b>											
<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>													
<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%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">RoHS</th> <th style="width: 25%;">REACH</th> <th style="width: 25%;">Green Status</th> <th style="width: 25%;">IEC 62474</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/> No Change</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No Change</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No Change</td> <td style="text-align: center;"><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										
<b>Changes to product identification resulting from this PCN:</b>													

None

**Product Affected:**

PQ25620RYKR	PTPS25972ARPWR	TPS25970LRPWR	XSD93501RPRT
PQ25620RYKT	PTPS25974LRPWR	TPS25972ARPWR	XSD93501RXHT
PQ25628RYKT	PTPS259810ARPWR	TPS25972LRPWR	XSN2008029RWZR
PQ25629RYKT	PTPS25985Z2RQPT	TPS25974ARPWR	XSN2008030RWZR
PQ25672RQMR	PTPS51384RJNR	TPS25974LRPWR	XTPS53830RWZT
PQ25792HRLRQMR	PTPS51386RJNR	TPS53830RWZT	XTPS53832RWZT
PQ25792HRLRQMT	PTPS5436DCRPYR	TPS53832RWZT	XTPS55289RYQR
PQ25792HRRQMR	PTPS5436TCRPYR	TPS62824DMQR	XTPS61376RYHR
PQ25792HRRQMT	PTPS55288RPMT	XPS61376SRYHR	SN2001075RWZR
PQ25792RQMR	SN548A28RWWR	XPS628660ARQYR	SN2001075RWZT
PQ25796RQMR	TAS2763RPPT	XPS62867RQYR	SN2001076RWZR
PQ25796RQMT	TPS22998RYZR	XPS628691CRQYR	SN2001076RWZT
PQ25798RQMR	TPS259461ARPWR	XSD93501ERPRT	TPS53830RWZR
PTPS22998RYZR	TPS25970ARPWR	XSD93501PRRR	TPS53832RWZR



TI Information  
Selective Disclosure

**Qualification Results**

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

Type	Test Name / Condition	Duration	Qual Device: TPS53831RWZR	Qual Device: TPS543620RPYR	Qual Device: TPS62903RPJR	QBS Package Reference: SN62825DMQR	QBS Package Reference: TPS62085RLTR
AC	Autoclave 121C	96 Hours	3/231/0	-	3/231/0	-	3/231/0
CDM	ESD - CDM	1500V	-	-	-	2/6/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	2/154/0	-	-	3/231/0	3/231/0
HBM	ESD - HBM	3000V	-	-	-	1/3/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	-	3/2310
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	3/231/0	3/231/0	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass
MSL	Thermal Integrity Sequence	Level 2-260C	3/36/0	3/36/0	3/36/0	-	3/36/0
PD	Physical Dimensions	(per mechanical drawing)	3/15/0	3/15/0	3/15/0	-	3/15/0
SD	Solderability	Pb Free	3/66/0	3/66/0	3/66/0	2/44/0	3/66/0
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	3/231/0	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	3/231/0	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	3/231/0	-	3/231/0	-
VM	Visual Quality Reliability Inspection	Post Temp Cycle	3/6/0	3/6/0	3/6/0	-	3/6/0

- QBS: Qual By Similarity
- Qual Device TPS53831RWZR, TPS543620RPYR, TPS62903RPJR are qualified at LEVEL2-260C
- 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

TI Qualification ID: 20210118-137850

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

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Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
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