

PCN Number:	20230327005.1	PCN Date:	March 30, 2023
Title:	Qualify additional Assembly site for select SOT-23-THIN Package devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	June 28, 2023	Sample requests accepted until:	Apr 28, 2023
*Sample requests received after (Apr. 28, 2023) will not be supported.			
Change Type:			
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Materials
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process
PCN Details			
Description of Change:			
Texas Instruments Incorporated is announcing the qualification of additional Assembly sites for devices listed below in the product affected section. Construction differences and current assembly sites are as follows:			
Group 1 Device:			
SOT-23-THIN			
Assembly Sites	PHI, HNA, JCETC8, JCETJY, UTL2, TIEMA, CDAT		
Lead Finish	NiPdAu, Matte Sn		
Mount Compound	400180 400194 4207123 1120999A2 4223872 4226215		
Mold Compound	450207 450423 4222198 120800005407 8097131		
Bond wire type	Au, Cu		
Bond wire diameter	20.3 UM (0.8 MIL) 25.4 UM (1.0 MIL) 33 UM (1.3 MIL)		
Group 2 Device:			
SOT-23-THIN -FC			
Assembly Sites	PHI, HNA, JCETC8, JCETJY, UTL2, TIEMA, CDAT		
Lead Finish	NiPdAu, Matte Sn		
Mold Compound	450207 450423 4222198 120800005407 8097131		
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	<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		
UTAC	Assembly Site Origin (22L)	ASO: NS2
Hana	Assembly Site Origin (22L)	ASO: HNT
TI Philippines	Assembly Site Origin (22L)	ASO: PHI
JCETJY	Assembly Site Origin (22L)	ASO: JCE
JCETJ8	Assembly Site Origin (22L)	ASO: JC8
TI Chengdu	Assembly Site Origin (22L)	ASO: CDA
TI Melaka	Assembly Site Origin (22L)	ASO: CU6

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2Q:
 MSL 2 / 260C / 1 YEAR SEAL DT
 MSL 1 / 235C / UNLIM 03 / 29 / 04
 OPT: 39
 ITEM: 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

Group 1 Product Affected:

TLV70012DDCR	TLV70032DDCT	TPS79915DDCR	TPS79933DDCT
TLV70012DDCT	TLV70033DDCR	TPS79915DDCT	TPS79942DDCR
TLV70013DDCR	TLV70033DDCT	TPS799185DDCR	TPS79942DDCT
TLV70013DDCT	TLV70036DDCR	TPS799185DDCT	REG71050DDCR
TLV70015DDCR	TLV70036DDCT	TPS79918DDCR	REG71050DDCT
TLV70015DDCT	TPS62240DDCR	TPS79918DDCT	REG71055DDCR
TLV70018DDCR	TPS62260DDCR	TPS79925DDCR	REG71055DDCT
TLV70018DDCT	TPS62260DDCT	TPS79925DDCT	TLV6703DDCR
TLV70019DDCR	TPS62561DDCR	TPS79927DDCR	TPS3700DDCR
TLV70019DDCT	TPS73401DDCR	TPS79927DDCT	TPS3700DDCR2
TLV70022DDCR	TPS73401DDCT	TPS799285DDCR	TPS3700DDCT
TLV70022DDCT	TPS73433DDCR	TPS799285DDCT	TPS3701DDCR
TLV70025DDCR	TPS73433DDCT	TPS79928DDCR	TPS3701DDCT
TLV70025DDCT	TPS79901DDCR	TPS79928DDCT	TPS3702CX33DDCR
TLV70028DDCR	TPS79901DDCT	TPS79930DDCR	TPS3710DDCR
TLV70028DDCT	TPS79912DDCR	TPS79930DDCT	TLV9062IDDFR
TLV70030DDCR	TPS79912DDCT	TPS799315DDCR	TLV9352IDDFR
TLV70030DDCT	TPS79913DDCR	TPS799315DDCT	
TLV70032DDCR	TPS79913DDCT	TPS79933DDCR	

Group 2 Product Affected:

SN1804026DDFR	TPS562219ADDFR	TPS563210DDFR	TPS565201DDCR
THVD8000DDFR	TPS562219ADDFT	TPS563219ADDFR	TPS565201DDCT
THVD8010DDFR	TPS562219DDFR	TPS563219DDFR	TPS565208DDCR
TPS562210ADDFR	TPS563210ADDFR	SN1706035DDCR	TPS565208DDCT
TPS562210DDFR	TPS563210ADDFT	SN1706035DDCT	

Qualification Report (SOT-23-THN)

Qualification Results

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

	Stress Test	Duration	PHI TPS563249DDC	CDAT TPS563249DDC
TC	Temperature Cycling -65/150C Or Temperature Cycling -55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST/T HB	Biased HAST 130C/85%RH Or Biased HAST 110C/85%RH Or Temperature Humidity Bias, 85C/85%RH	96 hours Or 264 hours Or 1000 hours	3/231/0	3/231/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0	3/231/0
UHA ST/ AC	Unbiased HAST, 130C/85%RH Or Autoclave 121C	96 hours	3/231/0	3/231/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	3/66/0 (TPS563201DDC)	3/66/0
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	JCETC8 TPS563208DDC	JCETJY TLV62569PDDC
TC	Temperature Cycling -65/150C Or Temperature Cycling -55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST/T HB	Biased HAST 130C/85%RH Or Biased HAST 110C/85%RH Or Temperature Humidity Bias, 85C/85%RH	96 hours Or 264 hours Or 1000 hours	3/231/0	3/231/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0	3/231/0

	Stress Test	Duration	JCETC8 TPS563208DDC	JCETJY TLV62569PDDC
UHA ST/ AC	Unbiased HAST, 130C/85%RH Or Autoclave 121C	96 hours	3/231/0	3/231/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	3/66/0	3/66/0 (TPS27081ADDC)
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	UTL LM73CxQDDCRQ1	TIEM TPL5010QDDCRQ1	HNA LV2862XLV DDC
TC	Temperature Cycling -65/150C Or Temperature Cycling -55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0	3/231/0
HAST/T HB	Biased HAST 130C/85%RH Or Biased HAST 110C/85%RH Or Temperature Humidity Bias, 85C/85%RH	96 hours Or 264 hours Or 1000 hours	3/231/0	3/231/0	3/231/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0 (a)	3/231/0	3/135/0 (b)
UHA ST /AC	Unbiased HAST, 130C/85%RH Or Autoclave 121C	96 hours	3/231/0	3/231/0	3/231/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	2/44/0 (TPS62242QDDC)	2/44/0 (LM2734XQMK)	3/66/0 (b)
MQ	Manufacturability	-	Pass	Pass	Pass

All qualification devices in the tables are qualified at L1-260C MSL rating.

Note a – Data collected on TPS3702E X33QDDCRQ1 and LM73CxQDDCRQ1

Note b – Data collected on LMP8640QMKX-T/NOPB

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, and HTSL, as applicable

- The following are equivalent HTSL options based on activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours

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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