



<b>PCN Number:</b>	20231221001.1		<b>PCN Date:</b>	December 22, 2023	
<b>Title:</b>	Qualification of additional Assembly sites for select uxQFN devices				
<b>Customer Contact:</b>	Change Management Team		<b>Dept:</b>	Quality Services	
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Mar 20, 2024	<b>Sample requests accepted until:</b>	Jan 21, 2024*		
<b>*Sample requests received after Jan 21, 2024 will not be supported.</b>					
<b>Change Type:</b>					
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Material
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
Texas Instruments Incorporated is announcing the qualification of additional Assembly sites for devices listed below in the product affected section. Construction information and all assembly sites are as follows:					

uxQFN Build sites	
<b>Assembly Sites</b>	ASEN, CARZ, CDAT, UTL1, UTL3, JCET
<b>Mold Compound</b>	SID#1800026141 SID#1800900161 SID#1801512111 SID#443752 SID#CZ0138 SID#446645 SID#CZ0286 4222198
<b>Mount Compound</b>	SID#1500094113 SID#1500131111-1 SID#1500257101 SID#446422 4221460 4221461 4226215 4207123 SID#PZ0076 S#120402001600 4224819 S#120402002600 SID#435143 SID#1400230112
<b>LeadFrame Finish</b>	NiPdAu, Matte Sn
<b>Bond Wire (mil)</b>	Cu (0.7, 0.8), Au (0.6, 0.7,0.8,1.0)

Additionally, devices in the Group 2 and Group 3 Device lists will have a marking option update as follows:

**Group 2 (Qualification of additional Assembly sites and BOM options plus mark updates):**

What	Current	New
Pin one Mark	Binary Code Symbol (Smart Pin1 indicator) per TI Drawing 4205087 	Standard "dot" symbol 
Device ID	2 characters	1 character

**Group 3 (Qualification of additional Assembly sites and BOM options plus device pin one mark update):**

What	Current	New
Pin one Mark	Stripe	Dot

Upon expiration of this PCN, TI will combine lead free solutions in a single [standard part number](#), for example; [DRV5011ADDMMR](#) – can ship with both Matte Sn and NiPdAu. When available customers may specify NiPdAu finish by ordering the part with the G4 suffix, e.g. **DRV5011ADDMMR.G4**.

**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 Sites		
ASEN	Assembly Site Origin (22L)	ASO: ASN
CARZ	Assembly Site Origin (22L)	ASO: CSZ
CDAT	Assembly Site Origin (22L)	ASO: CDA
UTL1	Assembly Site Origin (22L)	ASO: NSE
UTL3	Assembly Site Origin (22L)	ASO: UT3
JCET	Assembly Site Origin (22L)	ASO: JCE

Sample product shipping label (not actual product label)



**TEXAS INSTRUMENTS**  
MADE IN: Malaysia  
2DC: 20:  
MSL 2 /260C/1 YEAR SEAL DT  
MSL 1 /235C/UNLIM 03/29/04  
OPT:  
ITEM: 39  
LBL: 5A (L)T0:1750



E4/G4: NiPdAu  
E3/G3: Matte Sn

(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:

#### Group 1 Device table (Qualification of additional Assembly sites and BOM options):

DRV5011ADDMRR	TUSB212IRWBR	TUSB214RWBT	TUSB320LIRWBR
DRV5012AEDMRR	TUSB212IRWBT	TUSB216IRWBT	TUSB320RWBR
DRV5032AJDMRR	TUSB212RWBT	TUSB216RWBR	TUSB321AIRWBR
DRV5032DUDMRR	TUSB214IRWBR	TUSB216RWBT	TUSB321RWBR
DRV5032FADMRR	TUSB214IRWBT	TUSB320HIRWBR	TUSB322IRWBR
DRV5032FDDMRR	TUSB214RWBR	TUSB320IRWBR	TUSB551RWBR
TUSB211HIRWBR			

#### Group 2 Device table (Qualification of additional Assembly sites and BOM options plus pin one mark (DPW) update):

TLV803EA17DPWR	TLV803EA29DPWR	TLV809EA26DPWR	TLV810EA29DPWR
TLV803EA18DPWR	TLV803ED17DPWR	TLV809EA29DPWR	TLV9061IDPWR
TLV803EA26DPWR	TLV803ED18DPWR	TLV809EA46DPWR	TPD4E110DPWR

#### Group 3 Device table (Qualification of additional Assembly sites and BOM options plus device id mark (DPY) update):

ESD761DPYR
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**TI Information**  
**Selective Disclosure**

## UxQFN Qualification Report

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

Stress Test	Duration	CDAT TPL0102-100RUC	CDAT TLV70728PDQN
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	Stress Test	Duration	CDAT TPL0102-100RUC	CDAT TLV70728PDQN
TC	Temperature Cycling - 65/150C Or Temperature Cycling - 55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST	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
UHAST/AC	Unbiased HAST, 130C/85% RH Or Autoclave 121C	96 hours	3/231/0	3/229/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	3/66/0	3/66/0
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	ASEN BQ298000RUG	ASEN SN74AXC2T45DTM
TC	Temperature Cycling - 65/150C Or Temperature Cycling - 55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST/THB	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
UHAST/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
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	CARZ TPS3700RUG	CARZ TPD4E101DPW
TC	Temperature Cycling - 65/150C Or Temperature Cycling - 55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAS T	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 (TLV9002SIRUG)	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	3/66/0
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	UTL1 TLV342IRUG	UTL1 TCA6507RUE
TC	Temperature Cycling - 65/150C Or Temperature Cycling - 55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST	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	3/225/0	3/231/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0	3/165/0
UHAS T/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 (TUSB211QRWB)	3/66/0
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	UTL3 DRV5032FADMR DRV5032DUDMR	UTL1 DRV5032FDDMR DRV5032FADMR
TC	Temperature Cycling - 65/150C Or Temperature Cycling - 55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST	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	2/154/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0	3/231/0
UHAS T/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
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	JCETIY TLV9064IRUC	JCETJY PCA9306DQE TPD4E6B06DPW
TC	Temperature Cycling - 65/150C Or Temperature Cycling - 55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST	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
UHAS T/AC	Unbiased HAST, 130C/85% RH Or Autoclave 121C	96 hours	3/231/0	3/231/0
SD	Solderability	8 Hour Steam	3/66/0	3/66/0

	Stress Test	Duration	JCEIJY TLV9064IRUC	JCEIJY PCA9306DQE TPD4E6 B06DPW
		age or 155C Dry Bake		
MQ	Manufacturability	-	Pass	Pass

SN74AXC2T45DTM, DRV5032DUDMR, DRV5032FADMR, TLV70728PDQN, TPD4E101DPW, TPL0102-100RUC, BQ298000RUG, TPS3700RUG, and TLV3421RUGR, PCA9306DQE, TPD4E6B06DPW, TCA6507RUE, DRV5032FDDMR are qualified at L1-260C MSL rating  
TLV9064IRUC qualified at L2-260C MSL rating

- 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

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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