

<b>PCN Number:</b>	20160322000A		<b>PCN Date:</b>	Sept 06, 2016												
<b>Title:</b>	Qualify TI Chengdu (CDAT) as an additional Assembly & Test site for select devices															
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services													
<b>Change Type:</b>																
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>												
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>												
<input checked="" type="checkbox"/>	Test Site	<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>												
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>												
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>												
	<input type="checkbox"/>		Part number change													
<b>PCN Details</b>																
<b>Description of Change:</b>																
Revision A is to remove select devices in the Product Affected Section (with <del>strikethrough</del> ) and highlighted in yellow. These devices were inadvertently added and not affected by this change.																
Texas Instruments is pleased to announce the qualification of TI Chengdu (CDAT) as an additional Assembly & Test site for the list of devices shown below. Material differences 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 Clark</td> <td>QAB</td> <td>PHL</td> <td>Angeles City</td> </tr> <tr> <td><b>TI Chengdu</b></td> <td><b>CDA</b></td> <td><b>CHN</b></td> <td><b>Chengdu</b></td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	TI Clark	QAB	PHL	Angeles City	<b>TI Chengdu</b>	<b>CDA</b>	<b>CHN</b>	<b>Chengdu</b>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City													
TI Clark	QAB	PHL	Angeles City													
<b>TI Chengdu</b>	<b>CDA</b>	<b>CHN</b>	<b>Chengdu</b>													
<b>Material Differences:</b>																
<table border="1"> <thead> <tr> <th></th> <th>TI Clark</th> <th>TI Chengdu</th> </tr> </thead> <tbody> <tr> <td>Mount Compound</td> <td>4207768</td> <td><a href="#">4207123</a></td> </tr> <tr> <td>Mold Compound</td> <td>4208625</td> <td><a href="#">4222198</a></td> </tr> </tbody> </table>						TI Clark	TI Chengdu	Mount Compound	4207768	<a href="#">4207123</a>	Mold Compound	4208625	<a href="#">4222198</a>			
	TI Clark	TI Chengdu														
Mount Compound	4207768	<a href="#">4207123</a>														
Mold Compound	4208625	<a href="#">4222198</a>														
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.																
<b>Reason for Change:</b>																
Continuity of Supply																
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>																
None																
<b>Anticipated impact on Material Declaration</b>																
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the <a href="#">TI ECO website</a> .													
<b>Changes to product identification resulting from this PCN:</b>																
<table border="1"> <thead> <tr> <th colspan="3">Assembly Site</th> </tr> </thead> <tbody> <tr> <td>TI Clark Philippines</td> <td>Assembly Site Origin (22L)</td> <td>ASO: QAB</td> </tr> <tr> <td><a href="#">TI Chengdu</a></td> <td><a href="#">Assembly Site Origin (22L)</a></td> <td><a href="#">ASO: CDA</a></td> </tr> </tbody> </table>					Assembly Site			TI Clark Philippines	Assembly Site Origin (22L)	ASO: QAB	<a href="#">TI Chengdu</a>	<a href="#">Assembly Site Origin (22L)</a>	<a href="#">ASO: CDA</a>			
Assembly Site																
TI Clark Philippines	Assembly Site Origin (22L)	ASO: QAB														
<a href="#">TI Chengdu</a>	<a href="#">Assembly Site Origin (22L)</a>	<a href="#">ASO: CDA</a>														

Sample product shipping label (not actual product label)





MADE IN: Malaysia  
2DC: 2d:

MSL 2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT:  
ITEM: 39  
LBL: 5A (L)T0:1750

(1P) SN74LS07NSR  
(Q) 2000 (D) 0336  
(31T) LOT: 3959047MLA  
(4W) TKY (1T) 7523483SI2  
(P)  
(2P) REV: (V) 0033317  
(20L) CS0: SHE (21L) CC0: USA  
(22L) AS0: MLA (23L) ACO: MYS

**Topside Device marking:**

Assembly site code for QAB= I

**Assembly site code for CDA = 8**

**Product Affected**

TPS22966DPUR	TPS22966DPUT	TPS22968DPUR	TPS22968DPUT
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## Qualification Report

### TPS22966DPUR Qual at TI Chengdu

Approve Date 18-Mar-2016

#### Product Attributes

Attributes	Qual Device: TPS22966DPUR	QBS Package Reference: BQ294504DRVR	QBS Package Reference: MSP430F5528IRGC
Assembly Site	CDAT	CDAT	UTAC
Package Family	QFN	QFN	QFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	RFAB	TSMC F11
Wafer Fab Process	LBC7	LBC7	TSMC.018 EMB FLASH

- QBS: Qual By Similarity

- Qual Device TPS22966DPUR is qualified at LEVEL2-260C

#### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS22966DPUR	QBS Package Reference: BQ294504DRVR	QBS Package Reference: MSP430F5528IRGC
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	
FLAM	Flammability (UL 94V-0)	-	-	-	1/5/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	-	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	-

Type	Test Name / Condition	Duration	Qual Device: TPS22966DPUR	QBS Package Reference: BQ294504DRVR	QBS Package Reference: MSP430F5528IRGC
MSL	Thermal Path Integrity	Level 1-260C	-	3/36/0	-
MSL	Thermal Path Integrity	Level 2-260C	3/36/0	-	-
PD	Physical Dimensions	(per mechanical drawing)	3/15/0	-	-
TC	Temperature Cycle, - 65/150C	500 Cycles	3/231/0	3/231/0	-

- 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

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

Location	E-Mail
USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>