


<b>PCN Number:</b>	20180807001		<b>PCN Date:</b>	Aug 30, 2018													
<b>Title:</b>	Qualification of TIPI as a new Assembly and Test Site for Select LQFP Package Devices																
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>		<b>Dept:</b>	Quality Services													
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Nov 30, 2018		<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 checked="" 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"/>		<input type="checkbox"/>	Wafer Fab Process												
<b>PCN Details</b>																	
<b>Description of Change:</b>																	
Texas Instruments is pleased to announce the qualification of TIPI as a new Assembly and Test Site for Select LQFP Package Devices. Assembly 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 Taiwan</td> <td>TAI</td> <td>TWN</td> <td>Chung Ho</td> </tr> <tr> <td><b>TI Philippines</b></td> <td><b>PHI</b></td> <td><b>PHL</b></td> <td><b>Baguio City</b></td> </tr> </tbody> </table>						Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	TI Taiwan	TAI	TWN	Chung Ho	<b>TI Philippines</b>	<b>PHI</b>	<b>PHL</b>	<b>Baguio City</b>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City														
TI Taiwan	TAI	TWN	Chung Ho														
<b>TI Philippines</b>	<b>PHI</b>	<b>PHL</b>	<b>Baguio City</b>														
<b>Material differences:</b>																	
<table border="1"> <thead> <tr> <th></th> <th>TI Taiwan</th> <th>TI Philippines (TIPI)</th> </tr> </thead> <tbody> <tr> <td>Mount Compound</td> <td>4042504</td> <td>4211470</td> </tr> <tr> <td>Mold Compound</td> <td>4205442</td> <td>4222198</td> </tr> </tbody> </table>							TI Taiwan	TI Philippines (TIPI)	Mount Compound	4042504	4211470	Mold Compound	4205442	4222198			
	TI Taiwan	TI Philippines (TIPI)															
Mount Compound	4042504	4211470															
Mold Compound	4205442	4222198															
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 Form, Fit, 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-Info website</a> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.														
<b>Changes to product identification resulting from this PCN:</b>																	

**Sample Product Shipping Label** (not actual product label)

Assembly Site		
TI Taiwan	Assembly Site Origin (22L)	ASO: TAI
TI Philippines (TIPI)	Assembly Site Origin (22L)	ASO: PHI


**TEXAS INSTRUMENTS**  
 MADE IN: Malaysia  
 2DC: 2Q:

  
 G4



(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

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

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

**Product Affected:**

MSP430F1610IPM	MSP430F2416TPMR	MSP430F2616TPM	MSP430F2619TPMR
MSP430F1610IPMR	MSP430F2417TPM	MSP430F2616TPMR	MSP430F4132IPM
MSP430F1611IPM	MSP430F2417TPMR	MSP430F2617TPM	MSP430F4132IPMR
MSP430F1611IPMR	MSP430F2418TPM	MSP430F2617TPMR	MSP430F4152IPM
MSP430F1612IPM	MSP430F2418TPMR	MSP430F2618TPM	MSP430F4152IPMR
MSP430F1612IPMR	MSP430F2419TPM	MSP430F2618TPMR	
MSP430F2416TPM	MSP430F2419TPMR	MSP430F2619TPM	

**Qualification Report**  
**Qualification of TI-Philippines (TIPI) as Second Assembly Site for**  
**MSP430F161x, F26xx, and F41xx**  
 Approval Date 01-Aug-2018

**Product Attributes**

Attributes	Qual Device: <u>MSP430F2618TPM</u>	QBS Package Reference: <u>MSP430F149IPM</u>	QBS Package Reference: <u>MSP430F249TPM</u>	QBS Package Reference: <u>PCI2250PGF</u>	QBS Package Reference: <u>TL16CP554APM</u>	QBS Package Reference: <u>TMS320F2803XAPN</u>
Assembly Site	TIPI	TIPI	TIPI	TIPI	TIPI	TIPI
Package Family	LQFP	LQFP	LQFP	LQFP	LQFP	LQFP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	TSMC-WF3	TSMC-WFT	TSMC-WFT	TSMC-TA1	DL-LIN	DMOS5
Wafer Fab Process	0.35UM-TSMC	0.35UM-TSMC	0.35UM-TSMC	0.35UM-TSMC	50C21	18F05

- QBS: Qual By Similarity
- Qual Device MSP430F2618TPM is qualified at LEVEL3-260C

## Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>MSP430F2618TPM</u>	QBS Package Reference: <u>MSP430F149IPM</u>	QBS Package Reference: <u>MSP430F249TPM</u>
AC	Autoclave 121C	96 Hours	1/77/0	-	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	1/77/0	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	-

Type	Test Name / Condition	Duration	QBS Package Reference: <u>PCI2250PGF</u>	QBS Package Reference: <u>TL16CP554APM</u>	QBS Package Reference: <u>TMS320F2803XAPN</u>
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	3/231/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	-
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	3/231/0

Preconditioning was performed for Autoclave, THB/Biased HAST, Temperature Cycle, and HTSL.

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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