

<b>PCN Number:</b>	20180925002.1A		<b>PCN Date:</b>	Oct 16, 2018												
<b>Title:</b>	Qualification of TI Malaysia as an additional Assembly Site 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>	Jan 05, 2019	<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 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"/>	Wafer Fab Process											
<b>PCN Details</b>																
<b>Description of Change:</b>																
Texas Instruments Incorporated is announcing the qualification TI Malaysia as Additional Assembly Site for select devices listed in the "Product Affected" Section. Current assembly sites and Material 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 Site City</th> </tr> </thead> <tbody> <tr> <td>Microchip Technology</td> <td>ALP</td> <td>THA</td> <td>Chachoengsao</td> </tr> <tr> <td><a href="#">TI Malaysia</a></td> <td><a href="#">MLA</a></td> <td><a href="#">MYS</a></td> <td><a href="#">Kuala Lumpur</a></td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City	Microchip Technology	ALP	THA	Chachoengsao	<a href="#">TI Malaysia</a>	<a href="#">MLA</a>	<a href="#">MYS</a>	<a href="#">Kuala Lumpur</a>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City													
Microchip Technology	ALP	THA	Chachoengsao													
<a href="#">TI Malaysia</a>	<a href="#">MLA</a>	<a href="#">MYS</a>	<a href="#">Kuala Lumpur</a>													
<b>Material Differences:</b>																
<b>Group 1 Device:</b>																
	<b>Microchip Technology</b>	<b>TI Malaysia</b>														
Mount Compound	142010008	4147858														
Mold compound	141002081	4211880														
Lead finish	Matte Sn	NiPdAu														
<b>Group 2 Device:</b>																
	<b>Microchip Technology</b>	<b>TI Malaysia</b>														
Mount Compound	142010008	4147858														
Mold compound	141002081	4211880														
<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>																

Assembly Site		
Microchip Technology	Assembly Site Origin (22L)	ASO: ALP
TI Malaysia	Assembly Site Origin (22L)	ASO: MLA

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:  
 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) CCO: USA  
 (22L) ASO: MLA (23L) ACO: MYS

**Group 1 Product Affected:**

UC2875N	UC3875N	UC3876N
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**Group 2 Product Affected:**

UC2638N	UC3638N	UC3879N	UCC38502N
UC2855BN	UC3638NG4	UCC28500N	UCC38502NG4
UC2875NG4	UC3855BN	UCC2895N	UCC3895N
UC2879N	UC3855BNG4	UCC38500N	UCC3895NG4
UC2879NG4	UC3875NG4	UCC38501N	

## Qualification Report

### MMT Offload Qualification for PDIP 20N devices

Approve Date 25-May-2018

### Product Attributes

Attributes	Qual Device: <u>UC3875N</u>	Qual Device: <u>UCC38501N</u>	QBS Package Reference: <u>SN74HCT540N</u>	QBS Package Reference: <u>TPA3122D2N</u>
Assembly Site	MLA	MLA	MLA	MLA
Package Family	PDIP	PDIP	PDIP	PDIP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SFAB	SFAB	SFAB	UMC FAB8AB
Wafer Fab Process	J1_PWR2	IMP-PWR2	74HC-NONEPI	LBC5X

- QBS: Qual By Similarity
- Qual Devices UC3875N and UCC38501N are qualified at Not Classified

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>UC3875N</u>	Qual Device: <u>UCC38501N</u>	QBS Package Reference: <u>SN74HCT540N</u>	QBS Package Reference: <u>TPA3122D2N</u>
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0	3/231/0
FLAM	Flammability (UL 94V-0)	-	-	-	3/15/0	-

Type	Test Name / Condition	Duration	Qual Device: <u>UC3875N</u>	Qual Device: <u>UCC38501N</u>	QBS Package Reference: <u>SN74HCT540N</u>	QBS Package Reference: <u>TPA3122D2N</u>
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	3/231/0	3/231/0
LI	Lead Fatigue	Leads	-	-	3/45/0	3/45/0
LI	Lead Pull to Destruction	Leads	-	-	3/180/0	3/180/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass
PKG	Lead Finish Adhesion	Leads	-	-	2/30/0	3/45/0
SD	Solderability	8 Hours Steam Age	3/30/0	3/30/0	3/66/0	3/66/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	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

THIS INFORMATION RELATING TO QUALITY AND RELIABILITY IS PROVIDED "AS IS." Product information detailed in this report may not accurately reflect TI's current product materials, processes and testing used in the construction of the TI products. Customers are solely responsible to conduct sufficient engineering and additional qualification testing to determine whether a device is suitable for use in their applications. Using TI products outside limits stated in TI's datasheet may void TI's warranty. See TI's Terms of Sale at "<http://www.ti.com/lscds/ti/legal/termsofsale.page>"

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